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MID- AND FAR-INFRARED SPECTROSCOPY OF ICES: OPTICAL CONSTANTS AND INTEGRATED ABSORBANCES

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ABSTRACT

Laboratory spectra through the mid-infrared (4000 to 500 cm^{-1} [2.5–20 μm]) have been used to calculate the optical constants (n and k) and integrated absorption coefficients (A) for a variety of pure and mixed molecular ices of relevance to astrophysics. The ices studied were H_2O, CH_3OH, CO_2, OCS, CH_4, $CO_2 + CH_4$, CO_2 + OCS, CO + CH_4, CO + OCS, $O_2 + CH_4$, O_2 + OCS, $N_2 + CH_4$, N_2 + OCS, $H_2O + CH_4$, H_2O + OCS, and H_2O + CH_3OH + CO + NH_3. In addition, the measurements have been extended through the far-infrared (500 to 50 cm^{-1} [20–200 μm]) for the H_2O, CH_3OH, and H_2O + CH_3OH + CO + NH_3 ices.

Subject headings: line: identification — molecular data

1. INTRODUCTION

Accurate optical constants are extremely useful in any field of scientific research where radiative transfer through solid materials is of importance. Much of our understanding of the universe is determined by the interaction of light with solid matter. Apart from the fundamental insight these constants provide into the interaction of light with matter on a microscopic scale, the real (n) and imaginary (k) indices of refraction of materials, as well as individual band strengths, can be of great practical importance. While the optical constants of gases, liquids, and room temperature solids have been the subject of many studies, those of ices have not, because of the difficulties inherent in making these measurements. Yet the optical properties of ices can be very important for astrophysical applications. For example, ices play a large role in determining global weather patterns by controlling the amount of radiant energy striking the Earth's surface versus that dissipated among the icy particles in the atmosphere. Similar important roles are played by the interaction of light with icy aerosols and surfaces on other objects in the solar system (Klinger et al. 1985; Cruikshank & Brown 1993). For example: (i) the Martian polar caps are thought to be H_2O- and CO_2-rich ices (Pollack & Toon 1982); (ii) most of the satellites of Jupiter and Saturn contain H_2O-rich ices, except for Io, which is dominated by frozen SO_2 (Burns & Matthews 1986); (iii) Neptune's satellite Triton shows evidence for N_2-, CO-, CH_4-, and perhaps CO_2-containing ices (Burns & Matthews 1986); (iv) the ices in the Pluto/Chiron system appear to contain H_2O and CH_4 (Cruikshank & Brown 1993); and (v) comets are known to be mixtures of molecular ices and minerals (Wilkening 1982). Farther from home, small (<0.3 μm) icy interstellar grains regulate radiative energy transfer within interstellar clouds and hence determine their energy balance and spectra. In this way, these grains influence such fundamental processes as star formation and cloud evolution (Hollenbach & Thronson 1987). Among the molecules identified in such icy grain mantles are H_2O, CH_3OH, CO (Tielens 1989), CH_4 (Lacy et al. 1991), and possibly OCS (Geballe et al. 1985). Our solar system is thought to have formed from such a dense cloud, and it is generally believed that interstellar icy grains are the building blocks of comets (Burns & Matthews 1986).

The interpretation of the data from all of these very different environments and understanding of their significance to processes as wide-ranging as determining the Earth's climate, the history of the solar system, or the chemistry of the interstellar medium require that one know how these ices interact with light. Airborne, as well as Earth-based and orbiting, observatories take data which require this information for analysis. For example, the infrared spectra of many of these objects are produced by a superposition of effects due to absorptions and reflections from ices and their surfaces. Interpretation of the spectra require the application of fully developed models such as those associated with Hapke theory (Hapke 1981) and Mie theory (van de Hulst 1981; Bohren & Huffman 1983), which, in turn, requires a knowledge of the n and k values appropriate for the ices being studied.

The infrared spectra of atmospheric aerosols as well as microscopic grains of interstellar dust in dense molecular clouds are dominated by ice absorption features. A quantitative interpretation of these data requires detailed comparison with laboratory data. Unfortunately, the direct comparison of spectra is hampered by the fact that the experimental studies are necessarily done on thin films, while the measurements are associated with small particles (<0.3 μm in the case of interstellar dust grains). The interaction of light with small particles can be quite different from that with bulk films, resulting in differences between the profiles of absorption features between the laboratory spectra and the interstellar spectra. Several major effects are often seen (Hapke 1981; van de Hulst 1981). First, when the particle size, a, is comparable to the wavelength, λ (i.e., $a \approx \lambda/2\pi$), scattering effects become important. In general, this can lead to the presence of a scattering wing on the long-wavelength side of a band which could mistakenly be at-

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tributed to additional absorption. Second, in the neighborhood of a strong transition, surface modes can completely dominate the spectral profile. These surface modes can lead to appreciable frequency shifts and intensity enhancements of an absorption feature. Moreover, they may lead to the presence of multiple peaks in a small-particle spectrum where the bulk film shows only a single feature. An example of these effects in interstellar CO-containing ices can be found in Tielens et al. (1991).

Theoretical calculations of these small-particle effects require knowledge of the real and imaginary parts of the index of refraction. A few laboratory studies of astrophysically relevant ice mixtures have been reported in the literature (Hagen, Tielens, & Greenberg 1981, 1983; Leger et al. 1983; d'Hendecourt & Allamandola 1986; Sandford et al. 1988; Tielens et al. 1991; Sandford & Allamandola 1991). Generally, these studies present only the integrated strength of absorption features. In a few cases, the index of refraction was determined, often only at a single temperature or over a limited spectral range.

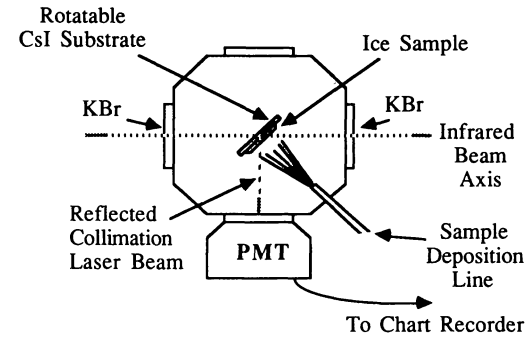
Here we report the complete index of refraction (n and k) of a large number of ices over a wide range of temperatures. These ices include pure materials as well as mixtures that are relevant to interstellar, planetary, and terrestrial environments. The ice samples and their concentrations were chosen to reflect those species and their relative abundances that are known or expected to be found in the solar system and/or the interstellar medium. The pure icy materials studied were H_2O, CH_3OH, CH_4, CO_2, and OCS. The binary mixtures studied were H_2O:CH_4 = 20:1, CO:CH_4 = 20:1, CO_2:CH_4 = 20:1, N_2:CH_4 = 20:1, O_2:CH_4 = 20:1, H_2O:OCS = 2:1, H_2O:OCS = 20:1, CO:OCS = 20:1, CO_2:OCS = 20:1, N_2:OCS = 20:1, and O_2:OCS = 20:1. Finally, the ices H_2O:CH_3OH:CO:NH_3 = 100:50:1:1 and H_2O:CH_3OH:CO:NH_3 = 100:10:1:1 (hereafter referred to as the strong and weak interstellar mixes, respectively) were chosen to reproduce the ices in interstellar clouds and to bracket the solid state methanol abundances reported for the interstellar medium (Tielens & Allamandola 1987; Grim et al. 1991; Allamandola et al. 1992).

This paper is organized as follows. The experimental procedures are presented in some detail in § 2. In § 3 the method used to calculate the values of n and k is described. The technique used to deduce the integrated absorbance values (A) of observed absorption features is described in § 4. In § 5 particulars about each individual ice are given. Last, the tables of A values and the calculated n and k values are presented.

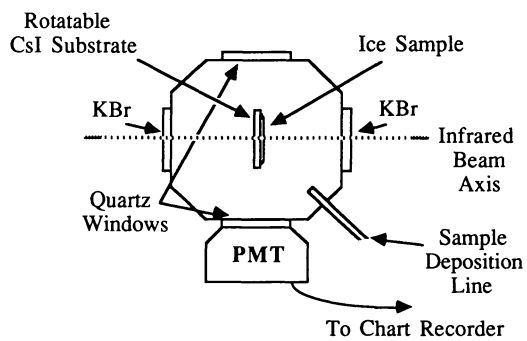
2. EXPERIMENTAL PROCEDURES

2.1. *General Description*

The apparatus used to prepare and study the ice samples in these experiments was slightly modified from that previously used for interstellar and cometary ice analogs (Allamandola, Sandford, & Valero 1988). A schematic of the sample chamber is shown in Figure 1. An infrared transmitting substrate is suspended on an infrared window inside a high-vacuum chamber and cooled by a closed-cycle helium refrigerator. The vacuum chamber is equipped with multiple inlet ports, and the cooler is mounted in such a way that the infrared window can be rotated to face any of these ports without breaking the vacuum. In a typical experiment, the window is



a. Sample Deposition Configuration



b. Spectrum Collection Configuration

FIG. 1.—Schematic of the vacuum chamber and sample holder used in these studies. The two pictures show the system in the configurations used (a) during sample deposition and (b) during infrared spectral measurement.

cooled to 10 K and rotated to face the beam of an infrared spectrometer. A "background" spectrum is then taken of the blank window, after which the cold window is rotated to face the sample inlet port. Ice samples are made by depositing a suitable gas mixture through this port and onto the cold substrate. The ice sample is again rotated to face the beam axis of an infrared spectrometer, and a transmission spectrum is recorded. The sample is subsequently warmed in a stepwise fashion to the sublimation temperature of the ices' main constituent. At each step, the ice is allowed to thermally equilibrate at least 10 minutes before an additional infrared spectrum is recorded. Specific aspects of this generalized procedure are considered in more detail in subsequent sections.

2.2. *Gas Sample Preparation*

All the individual sample components used for these experiments either were gaseous or possess a significant vapor pressure at room temperature. Gas mixtures were prepared by combining the constituent compounds in their desired molar ratio in a volume-calibrated, greaseless, glass vacuum manifold and glass sample bulb. The system is evacuated through an oil diffusion pump (Edwards Diffstack Series 63M) backed by a rotary mechanical pump (Edwards E2M2). Backstreaming of pump oil into the sample system is prevented by a liquid nitrogen cold trap located between the manifold and the

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pumps. The pressure in the system can be monitored over a wide range by an ion gauge, a thermocouple gauge, two diaphragm manometers (0–1 bar and 0–0.1 bar), and a silicone oil manometer. The manifold is wrapped with heating tape to facilitate bakeouts (under vacuum) to clean the system between samples. The sample preparation system routinely operated in the 10^{-5} mbar range. Since the partial pressures of mixture components typically fell in the 1–100 mbar range, sample contamination from the vacuum system was limited to one part in 10^5–10^7. The compounds used and their purities were as follows: CH_3OH (liquid), Fisher Photrex grade, 99.98% purity; CH_4 (gas), Matheson U.H.P., 99.97% purity; CO (gas), Matheson C.P., 99.5% purity; CO_2 (gas), Matheson Bone Dry, 99.8% purity; H_2O (liquid), triply distilled; NH_3 (gas), Matheson Anhydrous, 99.99% purity; N_2 (gas), Airco Dry, 99.9% purity; OCS (gas), Matheson, 97.5% purity; O_2 (gas), Matheson Extra Dry, 99.6% purity.

2.3. *The Sample Chamber*

The ice samples were prepared and their spectra measured in a stainless-steel vacuum system. This system consists of a large manifold with Viton O-ring seals evacuated by an oil diffusion pump (Edwards Diffstack Series 100M) backed by a mechanical pump (Edwards E2M5). A liquid nitrogen trap between the mechanical and diffusion pumps prevents the mechanical pump oil from contaminating the system. Ion and thermocouple gauges attached to the manifold allow continuous monitoring of the internal pressure. At room temperature, the system typically operated at a pressure of 1×10^{-7} mbar. With the sample finger and its protective cold shield cooled to 10 K, the system pressure was near 2×10^{-8} mbar above the diffusion pump. The pressure at the sample was considerably lower.

The sample finger resides at the end of a manifold in a vacuum head which contains four major ports, situated at 90° with respect to one another, that can be utilized for a variety of applications. The substrate, an infrared transmitting window, is suspended from a cold finger in the center of the vacuum head and can be rotated through a full 360° to face any of the ports without breaking vacuum. Vacuum windows, mounted over opposing ports, allow the infrared spectrum of the sample to be measured. The substrate and vacuum windows used for these experiments depended on the application. A CsI substrate and KBr vacuum windows were used in the mid-infrared, while polyethylene was employed throughout for the far-infrared region. The temperature of the substrate is controlled by a water-cooled, closed-cycle helium refrigerator (Air Products Displex CSW 202). The minimum substrate temperature attainable with this system was 9–10 K for CsI windows and 16–18 K for polyethylene windows. A small resistive heater, mounted on the cold finger just above the substrate and operated by a programmable controller, allows the substrate temperature to be maintained or changed in a controlled fashion from the low-temperature limit to room temperature. The temperature of the substrate is monitored with an absolute accuracy of ±1 K using an Fe-Au/chromel thermocouple pressed into the indium gasket between the window and its holder. The temperature of the coldest part of the cryostat is also monitored using an identical thermocouple. This is calibrated against the vapor pressure of hydrogen in a closed capillary tube which is also mounted on the cryostat.

2.4. *Ice Sample Preparation*

Once the gas sample bottle was mounted on the vacuum manifold and the substrate was cooled to 10 K, the cold window was rotated to face the sample inlet port (Fig. 1). A modified microflowmeter tube (Gilmont, tube F3000) was used to regulate the rate at which the sample gas was deposited on the cold substrate. Samples for these experiments were typically deposited at a rate of a few hundredths of a millimole per hour, corresponding to several microns per hour in thickness. Since the diameter of the infrared beam at the substrate is small ($\approx$4 mm) compared with the sample size ($\approx$1.5 cm), the ice layer can be treated as planar. Typical sample thicknesses in the mid-infrared were 0.5–1.0 μm, while in the far-infrared (where the absorption features are weaker) thicknesses ranged from 5 to 10 μm. The thicknesses of the ice samples were measured by monitoring the temporal variation in the intensity of a HeNe laser beam reflected from the surface of the substrate during deposition. This was accomplished by mounting a photomultiplier tube (Hamamatsu model R955) on the vacuum head such that, with the cold window in its deposition configuration, the intensity of the reflected beam of the spectrometer's internal collimation laser could be monitored (see Fig. 1). The output of the photomultiplier tube was directed to a strip chart recorder (Kipp & Zonen model BD41), so that the interference fringes could be monitored and recorded. The number of interference peaks in the intensity pattern, m, is directly related to the ice's thickness by the equation

$$d = (m\lambda_0)/(2n_{\rm ice} \cos \theta_{\rm ice}) , \qquad (1)$$

where d is the ice thickness (μm), λ_0 is the wavelength of the HeNe laser beam (0.6328 μm), $n_{\rm ice}$ is the visible index of refraction of the ice, and $\theta_{\rm ice}$ is the angle of reflection within the ice sample.

2.5. *Measurement of Infrared Spectra*

The entire sample head of the vacuum system sits in the sample compartment of a Nicolet 740 Fourier transform infrared spectrometer and is positioned so that the infrared beam axis passes unobstructed through the centers of the cold window and two opposing vacuum windows. Once an ice sample was prepared, it was rotated to face the windows through which the infrared beam of the spectrometer passes. The infrared absorption spectra presented here were recorded using two separate optical setups for the mid- and far-infrared. Mid-infrared spectra were obtained by summing 500 scans (interferograms) using a liquid nitrogen–cooled, mercury-cadmium-telluride detector (Nicolet MCT-B) and a KBr beam splitter. The spectral resolution, as defined by the width of an unresolved line, was 0.9 cm^{-1} over the 4000 to 400 cm^{-1} (2.5–25 μm) region. Far-infrared spectra from 675 to 50 cm^{-1} (14.8–200 μm) were recorded using a DTGS detector and Nicolet far-infrared beam splitter. Due to lower detector efficiency and lower energy throughput in the far-infrared, the spectra in this region represent the sum of 1000–2000 scans and were taken at a lower spectral resolution (1.8 cm^{-1}). Spectra in the far-infrared are presented only for those samples which showed appreciable absorption features in this region. The overlap between the mid- and far-infrared spectra (675 to 400 cm^{-1})

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allowed corresponding spectra to be reliably knitted together into a single spectrum.

We adhered to a uniform protocol for the collection of spectral data throughout our experiments. First, the substrate was cooled to 10 K (16 K in the far-infrared) and allowed to equilibrate for at least 10 minutes. Since the infrared spectrometer used for these experiments was a single-beam instrument, it was necessary to record a blank background spectrum of 1000 scans (2000 scans in the far-infrared) prior to ice deposition. The number of scans of which the background spectrum was comprised was always chosen to equal or exceed the number of scans in the ice spectrum. Thus, the noise level in the final ratioed spectrum was controlled by the noise in the ice single-beam spectrum. After rotating the head to the deposition position and laying down an ice as outlined in § 2.4, the head was returned to the scan position and the ice spectrum was recorded. The sample spectrum was then ratioed to the background spectrum to yield the single-beam transmission spectrum. The substrate was then warmed at a rate of 2 K minute^{-1} to the next temperature (the specific temperatures chosen for each ice are given in §§ 5.1–5.18). After achieving the desired temperature, the substrate was allowed to equilibrate for at least 10 minutes before another spectrum was recorded. Because the blank background spectra did not depend on substrate temperature, all the sample spectra were ratioed to the 10 K (16 K) background spectrum recorded at the beginning of each experiment. The procedure of alternate warm-up and spectral measurement was repeated until the temperature at which the primary ice constituent began to sublime was reached. After the experiment, the individual spectra were reviewed, and optical constants were calculated for each temperature at which the spectra showed an appreciable change from the previous temperature step.

3. OPTICAL CONSTANTS

3.1. *Calculating the n and k Values*

The optical constants were determined using a Kramers-Kronig analysis (Bergmen et al. 1978) of the transmission spectra. Consider a plane-parallel absorbing film of thickness h and complex index of refraction $\boldsymbol{n} = n + ik$, where n and k are the real and imaginary parts of the index of refraction. The film is situated between two media of refractive index n_0 (vacuum) and n_2 (CsI or polyethylene). For light of normal incidence, the ratio of the transmitted intensity when the film is present to that when the film is absent is given by

$$\frac{I}{I_0} = \left|\frac{e^{i\boldsymbol{x}}\boldsymbol{t}_{01}\boldsymbol{t}_{12}/\boldsymbol{t}_{02}}{1 + \boldsymbol{r}_{01}\boldsymbol{r}_{12}e^{2i\boldsymbol{x}}}\right|^2 = e^{-\alpha h}\left|\frac{\boldsymbol{t}_{01}\boldsymbol{t}_{12}/\boldsymbol{t}_{02}}{1 + \boldsymbol{r}_{01}\boldsymbol{r}_{12}e^{2i\boldsymbol{x}}}\right|^2 , \quad (2)$$

where $\boldsymbol{x} = (2\pi/\lambda)h\boldsymbol{n}$, λ is the wavelength in microns, and the Lambert absorption coefficient α is given by

$$\alpha = (4\pi/\lambda)k , \quad (3)$$

The complex reflection and transmission coefficients $\boldsymbol{r}_{pq}$ and $\boldsymbol{t}_{pq}$ of the pq boundary are given by the formulae

$$\boldsymbol{r}_{pq} = (\boldsymbol{n}_p - \boldsymbol{n}_q)/(\boldsymbol{n}_p + \boldsymbol{n}_q), \quad \boldsymbol{t}_{pq} = 2\boldsymbol{n}_p/(\boldsymbol{n}_p + \boldsymbol{n}_q) . \quad (4)$$

Rearranging equation (2), we find for the absorption coefficient

$$\alpha = \frac{1}{h} - \ln\left(\frac{I}{I_0}\right) + \ln\left|\frac{\boldsymbol{t}_{01}\boldsymbol{t}_{12}/\boldsymbol{t}_{02}}{1 + \boldsymbol{r}_{01}\boldsymbol{r}_{12}e^{2i\boldsymbol{x}}}\right|^2 . \quad (5)$$

Given the absorption coefficient, we can calculate n from the Kramers-Kronig dispersion relation

$$n(\nu) = 1 + \frac{1}{2\pi^2}\int_0^\infty \frac{\alpha(\nu')}{\nu'^2 - \nu^2}\, d\nu' . \quad (6)$$

The calculation of n involves, in principle, knowledge of the absorption coefficient over the entire electromagnetic spectrum. However, since electronic and vibrational transitions are well separated in frequency, the former produces only a constant contribution throughout the infrared. Equation (6) can then be written as

$$n(\nu) = n_0 + \frac{1}{2\pi^2}\int \frac{\alpha(\nu')}{\nu'^2 - \nu^2}\, d\nu' , \quad (7)$$

where n_0 is the value of n at the high-frequency end of the infrared, and the integration is now only over the infrared region of the spectrum. For the n_0 values of our samples we have used reported values for the visible refractive index of the sample ice at the D lines of atomic Na (λ = 589 nm). For ices dominated by CO_2, N_2, O_2, and CH_4 we have used values of n_0 = 1.22, 1.22, 1.25, and 1.33, respectively (Hallam & Scrimshaw 1973). A value of n_0 = 1.33 was used for our CH_3OH ices. This value was estimated from the value of n_0 for liquid CH_3OH (n_0 = 1.326; Weast 1972). A value of n_0 = 1.24 was used for ices dominated by OCS. This value was estimated from the value of liquid OCS at −87°C (n_0 = 1.24; Grasselli & Ritchey 1975). The value to be used for ices dominated by H_2O is somewhat problematic. Since H_2O ice has many amorphous and crystalline forms, it is not surprising that reported values of n_0 vary (from about 1.26 to 1.35). We have used a value of n_0 = 1.32 for H_2O-rich ices. We used n_0 = 1.30 for ices dominated by CO, a value consistent with that measured at 1000 cm^{-1} by Jiang, Person, & Brown (1975).

The computational procedure used to determine the complex refractive index was as follows. Assuming a starting value for $\boldsymbol{n}$ ($=n_0 = n_{(\mathrm{NaD})}$) at all frequencies, we calculated the absorption coefficient from equation (5) and the imaginary part of the refractive index from equation (3). Using equation (7) we then computed the real part of the refractive index. We then used the resultant n and k values to compute a synthetic spectrum which was, in turn, compared with the real spectrum. This iterative process was repeated, using the new $\boldsymbol{n}$ values generated in the previous step, until the calculated transmissivity (eq. [2]) differed nowhere from the measured value by more than 0.1%. The number of iterations required to fulfill this requirement depended on the number, strength, and width of the absorption features within the spectrum. It ranged from about 10–20 iterations for the H_2O-dominated ices, which are characterized by broad absorptions, to more than 100 iterations for the CO_2:OCS ice mixture, which had much sharper bands. The correct operation of the program was ini-

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tially checked by comparing our results against values already reported in the literature. Since it was necessary to compare against ices having the same composition, temperature, and thermal history, we were restricted to comparisons with values for H_2O (Bertie, Labbe, & Whalley 1969; Hagen et al. 1981; Leger et al. 1983), CO_2 (Wood & Roux 1982; Warren 1986), CO (Roux et al. 1980), and CH_4 (Roux et al. 1980; Pearl et al. 1991). In all cases, good agreement was obtained between the calculated values and those found in the previously published literature.

The absolute accuracy of the calculated optical constants is limited mainly by the accuracy of the measured sample thickness h and of the assumed value of the visible refractive index n_0 of the amorphous ice sample. The measured values of h for our mid-infrared samples are accurate to within 5%. Uncertainty in the adopted values for n_0 is due to the effect of the residual dispersion of the ultraviolet contributions to n_0 between the visible and 4000 cm^{-1} and the dependence of n_0 on the temperature and crystal structure of the sample. The effect of the above errors would be to impose a global vertical shift on the resultant optical constants. For a given choice of n_0, however, it is possible to run the iteration process until the synthetic and measured spectra match to within an arbitrarily small amount (0.1% in the case of our studies). Hence, we estimate the maximum *absolute* uncertainty in the calculated optical constants in the mid-infrared to be about 5% (due mainly to the uncertainty in h). Since the far-infrared spectra are scaled to the mid-infrared spectra (see § 5), the absolute error in the far-infrared is expected to be worse. However, the *relative* error between adjacent n and k pairs in both the mid- and far-infrared for a specific data set is closer to 0.1%.

3.2. *The Spectral Baseline*

Reflections generated at each of the optical interfaces in the system interfere constructively and destructively within the infrared beam as it passes through the vacuum head. Most of these effects cancel out when the sample spectrum is ratioed with the background spectrum, since most of the interfaces in the optical path are present in both spectra. Two interfaces whose effects do not cancel, however, are those between the sample and the sample window and between the sample surface and the vacuum. Interference due to multiple reflections within the sample is manifested as a broad oscillation in the spectral baseline. Depending on sample thickness and index of refraction, this oscillation will pass through anywhere from a fraction of a period to several periods across the spectrum. When the spectrum is used to calculate optical constants, it is necessary to account for this effect in one of two ways.

Since the effect depends on the index of refraction of the sample, it should be possible, in principle, to let the program attempt to fit the entire raw spectrum from first principles. Indeed, these oscillations are implicitly present in equation (2). However, there are several problems with this approach. First, the thickness of the ice layer is known only to within about 5%. This approach also does not account for wavelength-dependent scattering losses from the ice layer during transmission, internal reflections within the cold window, or small errors in positioning the ice layer perpendicular to the infrared beam after deposition. Although all of these effects are subtle, the resultant period and amplitude of the baseline oscillation in the actual experimental data may differ slightly from that inferred by the program. Hence, the program will interpret these deviations as broad "emission" or "absorption" features in the spectrum. As a result, the program will derive small, nonzero values for k across much of the spectrum to account for these artificial features. Since the computed value for n depends on an integral of k values around the wavelength of interest, such errors will result in a quasi-systematic error in the computed n values. Hence, it is generally not practical to use the program to compensate for all the factors associated with the baseline deviation.

A second, more practical technique, involves baseline correction of the raw spectra before they are used to derive optical constants. Using the tilt and bend functions provided by the operating system of our spectrometer, baselines for all the spectra were flattened and set to 100% transmittance. The n and k calculation program was then modified to calculate the oscillation expected for the given sample thickness, and this was added to the flattened spectrum prior to calculating the optical constants. Obviously, the major problem with this approach is that the choice of the baseline is somewhat subjective. In practice, however, this was not generally a problem. Many of the experimental spectra were composed of only sharp features (the spectra of $CO:CH_4$ or CO_2:OCS, for example), which were easily distinguishable from the baseline oscillation. The most challenging ice spectra for this type of treatment were those containing large amounts of H_2O and/or CH_3OH, both of which exhibit broad features of various strengths throughout much of the infrared. In these cases, the point of maximum transmittance between each of the absorption bands was tied to the baseline. The validity of this approach is established (1) by the good agreement between the optical constants we calculate for CH_4, CO, CO_2, and H_2O, and those arrived at by other workers, as noted previously, and (2) by the match between the optical constants derived using this technique and those derived (in a few test cases) using the first technique.

4. INTEGRATED ABSORBANCE VALUES

Integrated absorbance values (A) for many bands in the spectra shown in Figures 2–19 are given in Table 1. These can be used to estimate column densities of ice constituents from the absorption spectra of the ice. Detailed discussions of the quantitative analysis of infrared absorption bands can be found elsewhere (Gribov & Smirnov 1962; Wexler 1967; Pugh & Rao 1970; Person 1981). Since the various definitions of infrared band intensities are considered in detail in these papers, they are not discussed here. Similarly, a detailed discussion of the specific application of the integrated absorbance A to the interpretation of astronomical infrared absorption spectra and the determination of column densities is not presented here, as the topic has been presented elsewhere (cf. d'Hendecourt & Allamandola 1986). The technique used to determine these A values from the absorbance spectra shown in Figures 2–19 will, however, be briefly summarized here.

The A values listed in Table 1 were calculated from

$$A = N^{-1} \int \tau \, d\nu \, , \tag{8}$$

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where N is the column density of absorbing molecules (the number of absorbers per unit area) in the beam, $\tau \equiv \ln (I_0/I)$, and the individual integrated band peak areas were determined using a program provided by Nicolet. These values, given in base 10 by the spectrometer, were multiplied by 2.303 to convert them to base e. The largest uncertainty in the derived A values is associated with the uncertainty in the number of absorbers in the sample beam because the densities of most of the ices studied, and the effects of structural changes on these densities as the ices undergo thermal cycling, are not known. We have assumed that the densities of all the ices are 1 g cm^{-3} and that the ices are uniformly thick across the approximately 4 mm diameter focal point of the spectrometer's infrared beam on the sample. We estimate that, for most samples, these assumptions may result in uncertainties no larger than 30%. The column density of the sample is obtained by multiplying the density by the thickness h and the number of molecules per gram of ice. The latter is simply Avogadro's number divided by the molecular weight of the ice. In the case of a component in a mixed molecular ice, the weighted average molecular weight was used, corrected by the concentration of that component. The thicknesses h of each sample are given in §§ 5.1–5.18.

5. SPECIFIC EXPERIMENTS

Far-infrared spectra and calculated optical constants are presented here only for those ices from which we measured significant absorption features in the 675 to 50 cm^{-1} spectral region. These ices include the pure H_2O, pure CH_3OH, H_2O:CH_3OH:CO:NH_3 = 100:50:1:1 (strong interstellar mix), and H_2O:CH_3OH:CO:NH_3 = 100:10:1:1 (weak interstellar mix) samples. To knit the mid- and far-infrared spectra together, the absorption intensities of the features in the far-infrared were scaled by the ratio of the mid-infrared sample thickness to the far-infrared sample thickness deduced from the flow rate (it was not possible to use the laser interference technique with the polyethylene windows). The far-infrared spectrum was then shifted in transmittance to give the best agreement between the two spectra through the overlap region (675 to 400 cm^{-1}). The data through the overlap region were then averaged, and the average values were used to piece the two spectra together. Then, as was the case for the mid-infrared region, the baseline in the far-infrared region of the composite spectrum was flattened by shifting the point of minimum absorbance between the mid- and far-infrared features to zero. Specific details pertinent to the analysis of each ice mixture, beginning with those for which far-infrared data are included, are presented in the following sections.

Because of space considerations, we will not present complete tabular listings of all the optical constants we have derived. Instead, we present optical constants for our ices only for those temperatures at which the spectral properties of the ice change substantially relative to lower temperatures. In addition, we do not list all the points we calculated for each ice spectrum, but instead we have "thinned" the tables to include fewer points in regions where the values of n and k are not changing rapidly. It is hoped that a listing of all the points for all the ices will be made available on electronic media as a part of the Astrophysical Journal Supplement Series in the near future.

5.1. H_2O:CH_3OH:CO:NH_3 = 100:10:1:1 *(Weak Interstellar Mix; Fig. 2, Tables 2A–2F)*

Spectra spanning the 4000 to 400 cm^{-1} region of the weak interstellar mix were collected at temperatures of 10, 40, 80, 100, 120, and 140 K. Far-infrared spectra covering the 675 to 50 cm^{-1} region were recorded for the 10, 100, and 140 K ices. The ice sample for the mid-infrared spectra was deposited at a rate of 4.2 μm hr^{-1} to a thickness of 0.56 μm. The far-infrared sample was deposited at a rate of 6.3 μm hr^{-1} to an estimated thickness of 1.1 μm. Optical constants were calculated at a resolution of 2 cm^{-1} (one point every 1 cm^{-1}) over all the spectra. This was sufficient to resolve all of the spectral features.

In the spectra, the appearance of a shoulder ($\sim$1035 cm^{-1}) on the 1020 cm^{-1} methanol band was observed at 80 K. This was indicative of a change in the ice structure resulting in the appearance of a second distinct site in which the CH_3OH molecules could reside. Continued warm-up resulted in further conversion of the ice to the new structure. By 120 K, the peak was split with the 1035 and 1020 cm^{-1} features now of comparable intensity. By 140 K, the 1035 cm^{-1} feature was dominant, indicating nearly complete conversion of the ice to its new structure. A structural change between 120 and 140 K was also indicated by the appearance of structure in the O—H stretching region ($\sim$3300 cm^{-1}) and the sharp onset of splitting in the far-infrared feature near 220 cm^{-1}. These changes probably reflect the transformation from an amorphous ice to a type II clathrate structure containing CH_3OH and encapsulations of pure methanol excluded from the clathrate during formation (Blake et al. 1991).

5.2. H_2O:CH_3OH:CO:NH_3 = 100:50:1:1 *(Strong Interstellar Mix; Fig. 3, Tables 3A–3F)*

Spectra spanning the 4000 to 400 cm^{-1} region of the strong interstellar mix were collected at temperatures of 10, 40, 80, 100, 120, and 140 K. Far-infrared spectra covering the 675 to 50 cm^{-1} region were recorded for the 10, 100, and 140 K ices. The ice sample for the mid-infrared spectra was deposited at a rate of 4.2 μm hr^{-1} to a thickness of 0.56 μm. The far-infrared sample was deposited at a rate of 8.4 μm hr^{-1} to a thickness of 1.1 μm. The resolution of the optical constants calculated for all the spectra was 2 cm^{-1} (one point every 1 cm^{-1}).

Once again, in the spectra of this ice, a shift from the original residence site of the methanol molecules to a second distinct site is observed between 80 and 140 K as reflected in the 1020 cm^{-1} feature. This is also consistent with the formation of a type II H_2O:CH_3OH clathrate structure, as Blake et al. (1991) observed this clathrate to form whenever CH_3OH was present at concentrations of 7% or greater relative to H_2O. In addition, a gradual blending of the features in the 2800–3600 cm^{-1} region (O—H stretch) is observed over the course of the warm-ups. The onset of crystallization was indicated by the sharpening and appearance of structure in several of the spectral features at 140 K.

5.3. CH_3OH *(Fig. 4, Tables 4A–4E)*

Spectra spanning the 4000 to 400 cm^{-1} region of pure CH_3OH ice were collected at temperatures of 10, 50, 75, 100, and 120 K. Far-infrared spectra covering the 675 to 50 cm^{-1}

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region were recorded for the 10, 100, and 120 K ices. The ice sample for the mid-infrared spectra was deposited at a rate of 6.7 μm hr^{-1} to a thickness of 0.56 μm. The far-infrared sample was deposited at the same rate to a estimated thickness of 1.1 μm. Optical constants were calculated with a resolution of 2 cm^{-1} (one point every 1 cm^{-1}) over the entire spectrum from 4000 to 50 cm^{-1} (the 50 and 75 K spectra were measured only to 400 cm^{-1}). The transformation from amorphous to crystalline methanol between 100 and 120 K was clearly reflected by the dramatic sharpening of bands throughout the spectrum and in the splitting of the O—H stretching feature around 3200 cm^{-1}.

5.4. H_2O *(Fig. 5, Tables 5A–5F)*

Spectra spanning the 4000 to 400 cm^{-1} region of pure H_2O ice were collected at temperatures of 10, 40, 80, 100, 120, and 140 K. Far-infrared spectra covering the 675 to 50 cm^{-1} region were recorded for 10, 100, and 140 K ices. The ice sample for the mid-infrared spectra was deposited at a rate of 2.6 μm hr^{-1} to a thickness of 0.41 μm. The far-infrared sample was deposited at the same rate to a estimated thickness of 1.1 μm. Optical constants were calculated with a resolution of 4 cm^{-1} (one point every 2 cm^{-1}) between 500 and 50 cm^{-1}. The resolution of the n and k values between 4000 and 500 cm^{-1} is 8 cm^{-1} (one point every 4 cm^{-1}). The gradual change in the spectrum that occurs between 100 and 140 K (a gradual sharpening of the features and the appearance of structure in the "3300" cm^{-1} O—H stretching band) can be attributed to the transition from amorphous to cubic crystalline ice.

5.5. CH_4 *(Fig. 6, Tables 6A–6C)*

Spectra spanning the 4000 to 400 cm^{-1} region of pure CH_4 ice were collected for temperatures of 10, 20, and 30 K. The ice sample was deposited at a rate of 5.4 μm hr^{-1} to a thickness of 0.03 μm. Optical constants were calculated over the 3700 to 1000 cm^{-1} range with a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) across the CH_4 features (3009 and 1301 cm^{-1}) and 2 cm^{-1} across the rest of the spectrum. This was accomplished by first calculating n and k values across the entire spectrum at a resolution of 2 cm^{-1}. Then, the procedure was repeated at a resolution of 1 cm^{-1} over limited regions surrounding the spectral features (3700 to 2650 cm^{-1} and 1850 to 1100 cm^{-1}). Afterward, the baselines of these 1 cm^{-1} subsets were shifted to match that of the original 2 cm^{-1} data. Finally, these subsets were spliced into the original data to give the final data set. Such a procedure saved a great deal of time in the calculation process.

The 3009 and 1301 cm^{-1} features were split into multiple components at 10 K. At 20 K the substructure coalesced, leaving uniform profiles which broadened with further warm-up.

5.6. CO_2 *(Fig. 7, Tables 7A–7D)*

Spectra spanning the 4000 to 400 cm^{-1} region of pure CO_2 ice are presented for temperatures of 10, 30, 50, and 70 K. The ice sample was deposited at a rate of 5.4 μm hr^{-1} to a thickness of 0.03 μm. Optical constants were calculated with a resolution of 2 cm^{-1} (one point every 1 cm^{-1}) across the spectrum.

In the spectrum, both the disappearance of structure in the 2340 cm^{-1} feature and a sharp increase in the splitting of the 660 cm^{-1} feature were observed between 10 and 30 K. The splitting of the 660 cm^{-1} band is due to degeneracy breakdown in the vibrational mode and does not reflect the trapping of CO_2 molecules in two different sites. Between 30 and 70 K only a gradual sharpening of the spectral features was noted.

5.7. OCS *(Fig. 8, Tables 8A–8C)*

Spectra spanning the 4000 to 400 cm^{-1} region of pure OCS ice are presented for temperatures of 10, 50, and 60 K. The ice sample was deposited at a rate of 8.4 μm hr^{-1} to a thickness of 0.14 μm. Optical constants over the 3200 to 700 cm^{-1} region were calculated with a resolution of 2 cm^{-1} (one point every 1 cm^{-1}) across the spectrum.

In the spectrum, an abrupt sharpening of the weak features near 860 cm^{-1} (symmetric stretch) and 520 cm^{-1} (O—C—S bend), and a change in the profile of the main 2045 cm^{-1} asymmetric stretching band, reflected a structural change in the ice sample between 50 and 60 K.

5.8. CO:CH_4 = 20:1 *(Fig. 9, Tables 9A–9D)*

Spectra spanning the 4000 to 400 cm^{-1} region of a CO:CH_4 = 20:1 ice mixture were measured at temperatures of 10, 15, 20, and 25 K. The ice sample was deposited at a rate of 5.6 μm hr^{-1} to a thickness of 0.14 μm. Optical constants were calculated over the 3500 to 1000 cm^{-1} region at a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) across the methane features in the spectrum (1500 to 1150 cm^{-1} and 3300 to 2750 cm^{-1}) and 2 cm^{-1} (one point every 1 cm^{-1}) elsewhere. This was accomplished by a procedure identical to that used for the analysis of the pure CH_4 ice data. Only a gradual broadening of the spectral features was observed upon warm-up.

5.9. CO:OCS = 20:1 *(Fig. 10, Tables 10A–10D)*

Spectra spanning the 4000 to 400 cm^{-1} region of a CO:OCS = 20:1 ice mixture were collected at temperatures of 10, 20, 25, and 30 K. The ice sample was deposited at a rate of 4.2 μm hr^{-1} to a thickness of 0.14 μm. Optical constants were calculated over the 2500 to 1600 cm^{-1} region with a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) across the spectrum.

In the measured spectra, the OCS asymmetric stretching band at 2048 cm^{-1} split between 20 and 25 K, giving rise to a secondary component at 2043 cm^{-1}. By 30 K the 2043 cm^{-1} component was dominant and the profile indicated further underlying structure. In addition, the FWHM of the peak nearly doubled (from 14 to 26 cm^{-1}) between 20 and 30 K.

5.10. CO_2:CH_4 = 20:1 *(Fig. 11, Tables 11A–11E)*

Due to the great disparity between the absorption intensities of the CH_4 bands and that of the CO_2 bands, two sets of spectra spanning the 4000 to 400 cm^{-1} region of this ice mixture were collected at temperatures of 10, 20, 30, 50, and 70 K. First, spectra of a "thick" sample were measured to obtain a reasonable signal-to-noise level through the relatively weak CH_4 features. This sample was deposited at a rate of 4.2 μm hr^{-1} to a thickness of 0.87 μm. The CO_2 features in this spectrum were saturated. To facilitate accurate measurements of the CO_2 bands, a second, thinner ice sample was prepared and mea-

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sured. This thin sample was deposited at a rate of 4.4 μm hr^{-1} to a depth of 0.14 μm. Optical constants were calculated between 3800 and 500 cm^{-1} with a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) across the CH_4 features (3009 and 1309 cm^{-1}), and 2 cm^{-1} (one point every 1 cm^{-1}) across the rest of the spectrum. This was accomplished in a similar fashion to the pure CH_4 calculations. First, optical constants were calculated across the entire spectrum of the thin ice at a resolution of 2 cm^{-1}. Then optical constants were calculated at a resolution of 1 cm^{-1} over the CH_4 bands (3300 to 2900 cm^{-1} and 1500 to 1150 cm^{-1}) for the thick ice spectra. These results were then tilted and shifted to match the baseline imposed by the dominant CO_2 features in the thin sample data set, and spliced into those data.

The CH_4 absorption features in the spectra were split, indicating that the methane molecules were in two distinct sites within the ice. This structure remained throughout the warm-ups. The CO_2 features behaved as did those for the pure CO_2 ice.

5.11. CO_2:OCS = 20:1 *(Fig. 12, Tables 12A–12C)*

Spectra spanning the 4000 to 400 cm^{-1} region of a CO_2:OCS = 20:1 ice mixture are presented for temperatures of 10, 30, and 70 K. The ice sample was deposited at a rate of 6.3 μm hr^{-1} to a thickness of 0.07 μm. Optical constants were calculated at a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) across the main features in the spectrum (2600 to 1900 cm^{-1} and 800 to 550 cm^{-1}) and 2 cm^{-1} (one point every 1 cm^{-1}) elsewhere. This was accomplished by a procedure identical to that used for the analysis of the pure CH_4 ice data.

In the spectrum, a shift of 8 cm^{-1} (from 2047 to 2055 cm^{-1}) and the appearance of a shoulder (2042 cm^{-1}) was noted in the OCS asymmetric stretching band between 10 and 30 K. The intensity of this shoulder decreased between 30 and 70 K.

5.12. H_2O:CH_4 = 20:1 *(Fig. 13, Tables 13A–13F)*

Spectra spanning the 4000 to 400 cm^{-1} region of an H_2O:CH_4 = 20:1 ice mixture were measured at temperatures of 10, 40, 80, 100, 120, and 140 K. The ice sample was deposited at a rate of 2.8 μm hr^{-1} to a thickness of 0.56 μm. Optical constants were calculated with a resolution of 3 cm^{-1} (one point every 1.5 cm^{-1}) across the spectrum. The structure observed in the band profiles of pure CH_4 at 10 K was not present in this mixture. The H_2O features and their behavior upon warm-up were essentially unchanged from that of pure H_2O ice.

5.13. H_2O:OCS = 20:1 *(Fig. 14, Tables 14A–14E)*

Spectra spanning the 4000 to 400 cm^{-1} region of an H_2O:OCS = 2:1 ice mixture are presented for temperatures of 10, 40, 100, 120, and 140 K. The ice sample was deposited at a rate of 4.8 μm hr^{-1} to a thickness of 0.28 μm. Optical constants were calculated with a resolution of 3 cm^{-1} (one point every 1.5 cm^{-1}) across the spectrum. Again, the water bands in the spectrum are essentially unaffected by the presence of the OCS. The 2045 cm^{-1} feature of OCS was observed to gradually sharpen over the course of warm-up.

5.14. H_2O:OCS = 2:1 *(Fig. 15, Tables 15A–15F)*

Spectra spanning the 4000 to 400 cm^{-1} region of an H_2O:OCS = 2:1 ice mixture were measured at temperatures of 10, 40, 80, 100, 120, and 140 K. The ice sample was deposited at a rate of 4.2 μm hr^{-1} to a thickness of 0.28 μm. Optical constants were calculated with a resolution of 2 cm^{-1} (one point every 1 cm^{-1}) across the spectrum. The high concentration of OCS in the ice mixture is sufficient to break up the hydrogen-bonded H_2O lattice, resulting in a relatively strong absorption feature from free O—H bonds at 3645 cm^{-1}. A rearrangement in the structure of the ice mixture between 80 and 100 K is indicated by a sharp reduction in the intensity of this band with respect to the hydrogen-bonded O—H stretching band near 3300 cm^{-1}, and the abrupt sharpening observed in the 2050 cm^{-1} OCS band.

5.15. N_2:CH_4 = 20:1 *(Fig. 16, Tables 16A and 16B)*

Spectra spanning the 4000 to 400 cm^{-1} region of an N_2:CH_4 = 20:1 ice mixture were measured at temperatures of 10 and 20 K. The ice sample was deposited at a rate of 5.7 μm hr^{-1} to a thickness of 1.96 μm. Optical constants were calculated over the 3400 to 1000 cm^{-1} region at a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) across the methane features in the spectrum (3400 to 2700 cm^{-1} and 1600 to 1100 cm^{-1}) and 2 cm^{-1} (one point every 1 cm^{-1}) elsewhere. As was the case with the other mixtures involving CH_4, this was accomplished by a procedure identical to that used for the analysis of the pure CH_4 ice data. No structure was evident in the spectral bands at either temperature, and only a modest broadening of these features was observed with warm-up. The N_2 stretching fundamental was perturbed into activity in this ice. It falls at 2328 cm^{-1} (FWHM = $\sim$2 cm^{-1}, $A = 7 \times 10^{-22}$ cm molecule^{-1}) with an intensity 1/750 times that of the 1306 cm^{-1} methane band.

5.16. N_2:OCS = 20:1 *(Fig. 17, Tables 17A–17D)*

Spectra spanning the 4000 to 400 cm^{-1} region of an N_2:OCS = 20:1 ice mixture were measured at temperatures of 10, 15, 20, and 25 K. The ice sample was deposited at a rate of 4.2 μm hr^{-1} to a thickness of 0.28 μm. Optical constants were calculated over the 3000 to 700 cm^{-1} region with a resolution of 2 cm^{-1} (one point every 1 cm^{-1}) across the spectrum.

A general broadening in the OCS asymmetric stretching feature near 2050 cm^{-1} was observed between 10 and 20 K. A marked broadening and change in shape was observed in the profile of this band between 20 and 25 K. The N_2 stretching fundamental could not be observed in this experiment.

5.17. O_2:CH_4 = 20:1 *(Fig. 18, Tables 18A–18C)*

Spectra spanning the 4000 to 400 cm^{-1} region of an O_2:CH_4 = 20:1 ice mixture were measured at temperatures of 10, 20, and 30 K. The ice sample was deposited at a rate of 4.5 μm hr^{-1} to a thickness of 2.98 μm. Optical constants were calculated over the 3400 to 1000 cm^{-1} region at a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) across the methane features in the spectrum (3300 to 2700 cm^{-1} and 1600 to 1100 cm^{-1}) and 2 cm^{-1} (one point every 1 cm^{-1}) elsewhere. This was ac-

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complished by a procedure identical to that used for the analysis of the pure CH_4 ice data.

In the spectrum, the C—H stretching feature at 10 K was observed at 3030 cm^{-1} with a shoulder near 3014 cm^{-1}. Between 20 and 30 K much of the intensity in this region shifted to the 3014 cm^{-1} position. The C—H bending feature near 1306 cm^{-1} was observed to shift slightly ($\sim$2 cm^{-1}) to lower frequency and broaden in this temperature increment. In addition, the O_2 stretching fundamental was perturbed into activity in this ice mixture. It was observed at 1548 cm^{-1} (FWHM $\approx$ 6 cm^{-1}, $A \approx 5 \times 10^{-21}$ cm molecule^{-1}) with an intensity $\sim$1/70 times that of the 1306 cm^{-1} methane band.

5.18. O_2:OCS = 20:1 *(Fig. 19, Tables 19A and 19B)*

Spectra spanning the 4000 to 400 cm^{-1} region of an O_2:OCS = 20:1 ice mixture were measured at temperatures of 10 and 20 K. The ice sample was deposited at a rate of 4.9 μm hr^{-1} to a thickness of 0.45 μm. Optical constants were calculated over the 3000 to 700 cm^{-1} region with a resolution of 2 cm^{-1} (one point every 1 cm^{-1}) across the spectrum. Only a slight broadening of the spectral features was observed in the warm-up. Once again, the O_2 stretching fundamental was observed to be weakly active lying at 1548 cm^{-1} (FWHM = $\sim$6 cm^{-1}, $A \approx 3 \times 10^{-20}$ cm molecule^{-1}) with an intensity about one-fifth that of the 860 cm^{-1} OCS feature.

5.19. *Pure* CO *(Fig. 20, Table 20)*

We have previously obtained infrared spectra of pure CO (Sandford et al. 1988) from which optical constants were derived and used to interpret astronomical spectra (Tielens et al. 1991). Since these optical constants do not appear in tabular form in either of the two previous references, they are presented here for completeness. Spectra spanning the 4000 to 400 cm^{-1} region of pure CO ice were collected at a temperature of 10 K. The ice sample was deposited at a rate of 2.6 μm hr^{-1} to a thickness of 0.025 μm. Optical constants were calculated with a resolution of 1 cm^{-1} (one point every 0.5 cm^{-1}) between 2100 and 2185 cm^{-1}.

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TABLE 1

INTEGRATED ABSORBANCE VALUES

Sample	ν_{max} (cm^{-1})	A (cm/molecule)	Sample	ν_{max} (cm^{-1})	A (cm/molecule)
Weak IS Mix[g]	3288,2832[a,e]	2.4×10^{-16}	CO/CH_4=20/1	3017[b]	1.9×10^{-17}
	2832[a]	7.5×10^{-18}		1304[b]	1.3×10^{-17}
	2604,2544[a]	2.0×10^{-18}		2138[c]	1.2×10^{-17}
	"1450"[a]	8.1×10^{-18}			
	1125[a]	2.3×10^{-18}	CO/OCS=20/1	2049[f]	2.1×10^{-16}
	1017[a]	1.5×10^{-17}		857[f]	1.7×10^{-18}
	2136[c]	5.6×10^{-18}		2136[c]	1.4×10^{-17}
	1670[e]	1.3×10^{-17}			
	211[a,e]	3.9×10^{-18}	CO_2/CH_4=20/1	3009[b]	1.3×10^{-17}
				1309[b]	1.1×10^{-17}
Strong IS Mix[h]	3277,"2961",2829[a,e]	2.1×10^{-16}		3708[d]	2.3×10^{-18}
	"2961"[a]	6.8×10^{-18}		3600[d]	8.5×10^{-19}
	2829[a]	9.1×10^{-18}		2343[d]	1.3×10^{-16}
	2599,2539[a]	3.2×10^{-18}		660[d]	1.9×10^{-17}
	"1450"[a]	1.1×10^{-17}			
	1124[a]	3.2×10^{-18}	CO_2/OCS=20/1	2047[f]	2.2×10^{-16}
	1025[a]	2.3×10^{-17}		3704[d]	2.8×10^{-18}
	2136[c]	9.7×10^{-18}		3596[d]	1.2×10^{-18}
	1675[e]	4.0×10^{-18}		2329[d]	1.5×10^{-16}
	203[a,e]	2.5×10^{-18}		655[d]	2.3×10^{-17}
CH_3OH	3251,2951,2827	1.6×10^{-16}	H_2O/CH_4=20/1	3009[b]	3.6×10^{-18}
	2951,2827	2.6×10^{-17}		1303[b]	4.7×10^{-18}
	3251	1.3×10^{-16}			
	2951	2.1×10^{-17}	H_2O/OCS=20/1	2045[f]	1.7×10^{-16}
	2827	5.3×10^{-18}			
	2526	2.8×10^{-18}	H_2O/OCS=2/1	2036[f]	1.9×10^{-16}
	"1460"	1.2×10^{-17}		857[f]	9.4×10^{-19}
	1130	1.8×10^{-18}		551[f]	2.7×10^{-18}
	1026	1.8×10^{-17}		3646,3332,2889[e]	2.4×10^{-16}
	694	1.4×10^{-17}		3646[e]	5.1×10^{-18}
	320,139	2.4×10^{-18}		3332[e]	2.4×10^{-16}
				2889[e]	9.2×10^{-19}
H_2O	3298	1.7×10^{-16}		1638[e]	2.0×10^{-17}
	2202	3.3×10^{-18}		731[e]	5.5×10^{-17}
	1657	1.0×10^{-17}			
	760	2.8×10^{-17}	N_2/CH_4=20/1	3026[b]	1.4×10^{-17}
	211	4.2×10^{-18}		1306[b]	1.0×10^{-17}
CH_4	3009	5.7×10^{-18}	N_2/OCS=20/1	2052[f]	2.5×10^{-16}
	1301	3.8×10^{-18}		859[f]	2.0×10^{-18}
CO_2	3708	2.6×10^{-18}	O_2/CH_4=20/1	3033[b]	6.3×10^{-18}
	3600	7.9×10^{-19}		1307[b]	6.4×10^{-18}
	2342	1.4×10^{-16}			
	660,655	2.0×10^{-17}	O_2/OCS=20/1	2050[f]	2.6×10^{-16}
				860[f]	2.3×10^{-18}
OCS	2025	1.5×10^{-16}		520[f]	1.4×10^{-18}
	857	1.3×10^{-18}			
	514	1.8×10^{-18}			

[a] Absorbing species: CH_3OH.
[b] Absorbing species: CH_4.
[c] Absorbing species: CO.
[d] Absorbing species: CO_2.
[e] Absorbing species: H_2O.
[f] Absorbing species: OCS.
[g] $H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1.
[h] $H_2O:CH_3OH:CO:NH_3$ = 100:50:1:1.

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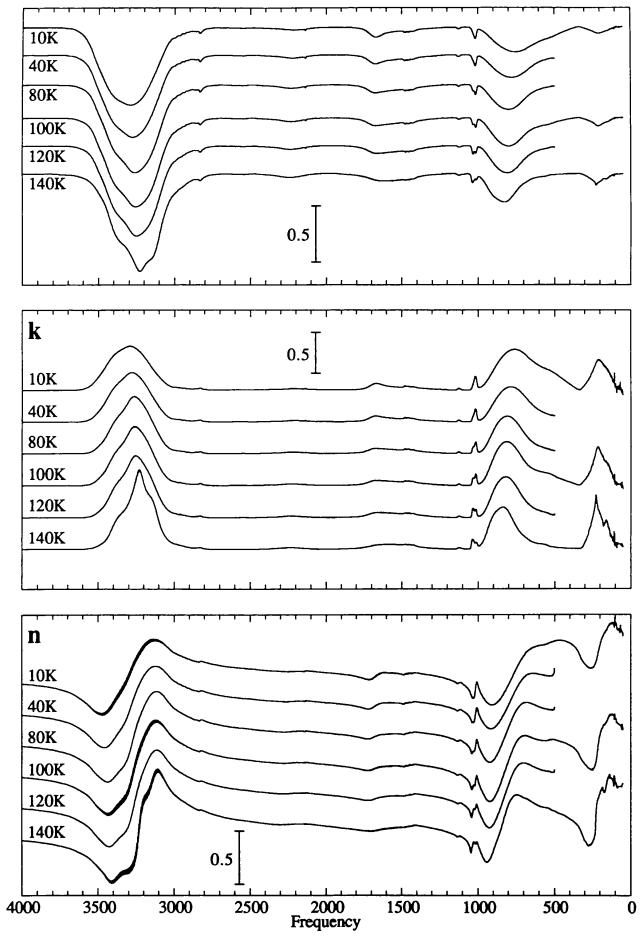

FIG. 2.—The 4000 to 50 cm^{-1} transmission spectra and optical constants (n and k) of an $H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1 ice mixture at temperatures of 10, 40, 80, 100, 120, and 140 K. The original ice was deposited at 10 K. In these and subsequent transmission spectra, the spectra are plotted in absorbance.

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TABLE 2A

$H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.719	0.000	164.9	1.734	0.284	278.7	1.391	0.116	392.5	1.620	0.061	723.4	1.452	0.488	955.8	1.079	0.075	1069.6	1.194	0.000	1183.4	1.273	0.000
53.0	1.725	0.000	166.9	1.728	0.283	280.7	1.394	0.114	394.5	1.621	0.065	729.2	1.437	0.494	957.7	1.083	0.071	1071.5	1.197	0.000	1185.3	1.273	0.000
55.0	1.715	0.000	168.8	1.722	0.297	282.6	1.395	0.107	396.4	1.624	0.067	734.9	1.417	0.500	959.7	1.087	0.067	1073.5	1.200	0.000	1187.3	1.274	0.000
56.9	1.743	0.000	170.7	1.720	0.292	284.5	1.399	0.104	398.3	1.626	0.070	740.7	1.405	0.501	961.6	1.091	0.064	1075.4	1.202	0.000	1189.2	1.275	0.000
58.8	1.740	0.000	172.6	1.718	0.309	286.5	1.401	0.098	405.1	1.630	0.078	746.5	1.388	0.507	963.5	1.095	0.060	1077.3	1.205	0.000	1191.1	1.276	0.000
60.8	1.747	0.006	174.6	1.710	0.312	288.4	1.404	0.091	410.9	1.634	0.087	752.3	1.367	0.509	965.4	1.099	0.056	1079.3	1.208	0.000	1193.1	1.277	0.000
62.7	1.757	0.007	176.5	1.709	0.319	290.3	1.406	0.086	416.7	1.637	0.094	758.1	1.353	0.508	967.4	1.104	0.054	1081.2	1.210	0.000	1195.0	1.278	0.000
64.6	1.761	0.028	178.4	1.697	0.323	292.2	1.410	0.080	422.4	1.640	0.101	763.9	1.336	0.508	969.3	1.109	0.050	1083.1	1.213	0.000	1196.9	1.280	0.000
66.5	1.770	0.000	180.4	1.697	0.317	294.2	1.413	0.076	428.2	1.644	0.109	769.7	1.315	0.509	971.2	1.114	0.046	1085.0	1.215	0.000	1198.8	1.281	0.000
68.5	1.786	0.095	182.3	1.692	0.329	296.1	1.414	0.070	434.0	1.646	0.117	775.4	1.299	0.505	973.2	1.119	0.044	1087.0	1.217	0.000	1205.6	1.283	0.000
70.4	1.722	0.018	184.2	1.683	0.330	298.0	1.418	0.065	439.8	1.647	0.124	781.2	1.284	0.502	975.1	1.124	0.040	1088.9	1.220	0.000	1211.4	1.286	0.000
72.3	1.762	0.006	186.1	1.676	0.334	300.0	1.420	0.061	445.6	1.650	0.132	787.0	1.261	0.498	977.0	1.130	0.038	1090.8	1.222	0.000	1217.2	1.289	0.002
74.3	1.745	0.035	188.1	1.666	0.339	301.9	1.423	0.054	451.4	1.652	0.140	792.8	1.245	0.494	978.9	1.134	0.036	1092.8	1.224	0.000	1223.0	1.290	0.002
76.2	1.749	0.011	190.0	1.660	0.342	303.8	1.428	0.052	457.2	1.651	0.148	798.6	1.231	0.488	980.9	1.140	0.034	1094.7	1.226	0.000	1228.7	1.293	0.002
78.1	1.744	0.017	191.9	1.648	0.352	305.7	1.431	0.047	463.0	1.654	0.156	804.4	1.211	0.483	982.8	1.146	0.032	1096.6	1.228	0.000	1234.5	1.295	0.003
80.1	1.765	0.008	193.9	1.643	0.350	307.7	1.435	0.045	468.7	1.654	0.164	810.2	1.194	0.475	984.7	1.152	0.030	1098.5	1.231	0.000	1240.3	1.297	0.004
82.0	1.751	0.027	195.8	1.635	0.362	309.6	1.438	0.039	474.5	1.652	0.174	816.0	1.181	0.465	986.7	1.158	0.029	1100.5	1.233	0.000	1246.1	1.299	0.005
83.9	1.752	0.024	197.7	1.623	0.361	311.5	1.443	0.037	480.3	1.652	0.182	821.7	1.162	0.455	988.6	1.166	0.027	1102.4	1.235	0.000	1251.9	1.301	0.005
85.8	1.757	0.031	199.7	1.615	0.371	313.5	1.446	0.033	486.1	1.652	0.190	827.5	1.146	0.446	990.5	1.173	0.027	1104.3	1.238	0.000	1257.7	1.303	0.006
87.8	1.765	0.027	201.6	1.602	0.371	315.4	1.451	0.028	491.9	1.648	0.198	833.3	1.136	0.433	992.5	1.180	0.027	1106.3	1.241	0.000	1263.5	1.304	0.006
89.7	1.755	0.028	203.5	1.592	0.376	317.3	1.455	0.025	497.7	1.645	0.206	839.1	1.121	0.419	994.4	1.189	0.027	1108.2	1.243	0.002	1269.3	1.307	0.008
91.6	1.801	0.015	205.4	1.578	0.378	319.2	1.460	0.019	503.5	1.645	0.213	844.9	1.105	0.407	996.3	1.199	0.027	1110.1	1.245	0.003	1275.0	1.308	0.008
93.6	1.788	0.043	207.4	1.570	0.377	321.2	1.465	0.016	509.2	1.640	0.220	850.7	1.095	0.392	998.2	1.210	0.032	1112.0	1.246	0.005	1280.8	1.309	0.009
95.5	1.805	0.017	209.3	1.555	0.381	323.1	1.470	0.012	515.0	1.637	0.226	856.5	1.083	0.374	1000.2	1.222	0.037	1114.0	1.248	0.008	1286.6	1.311	0.010
97.4	1.817	0.041	211.2	1.545	0.375	325.0	1.476	0.008	520.8	1.636	0.231	862.2	1.070	0.360	1002.1	1.232	0.046	1115.9	1.248	0.010	1292.4	1.312	0.010
99.3	1.827	0.044	213.2	1.534	0.374	327.0	1.481	0.005	526.6	1.632	0.238	868.0	1.063	0.342	1004.0	1.239	0.059	1117.8	1.247	0.013	1298.2	1.314	0.011
101.3	1.816	0.055	215.1	1.520	0.371	328.9	1.489	0.001	532.4	1.628	0.246	873.8	1.055	0.327	1006.0	1.252	0.077	1119.8	1.248	0.014	1304.0	1.316	0.011
103.2	1.839	0.035	217.0	1.509	0.366	330.8	1.495	0.000	538.2	1.624	0.250	879.6	1.044	0.309	1007.9	1.255	0.096	1121.7	1.246	0.017	1309.8	1.317	0.012
105.1	1.875	0.102	218.9	1.495	0.363	332.7	1.502	0.000	544.0	1.619	0.256	885.4	1.038	0.291	1009.8	1.247	0.119	1123.6	1.244	0.018	1315.5	1.318	0.012
107.1	1.776	0.125	220.9	1.483	0.355	334.7	1.509	0.000	549.8	1.617	0.259	891.2	1.036	0.271	1011.7	1.231	0.139	1125.5	1.242	0.018	1321.3	1.319	0.013
109.0	1.805	0.074	222.8	1.469	0.354	336.6	1.515	0.000	555.5	1.617	0.263	897.0	1.030	0.251	1013.7	1.226	0.155	1127.5	1.241	0.018	1327.1	1.321	0.014
110.9	1.809	0.127	224.7	1.457	0.343	338.5	1.522	0.001	561.3	1.615	0.267	901.8	1.030	0.236	1015.6	1.199	0.168	1129.4	1.239	0.017	1332.9	1.322	0.014
112.8	1.796	0.099	226.7	1.449	0.339	340.5	1.527	0.002	567.1	1.610	0.272	903.7	1.029	0.231	1017.5	1.170	0.170	1131.3	1.236	0.015	1338.7	1.323	0.015
114.8	1.812	0.113	228.6	1.439	0.329	342.4	1.533	0.002	572.9	1.609	0.276	905.6	1.028	0.223	1019.5	1.161	0.168	1133.3	1.236	0.012	1344.5	1.325	0.015
116.7	1.812	0.119	230.5	1.433	0.323	344.3	1.538	0.004	578.7	1.610	0.280	907.6	1.028	0.217	1021.4	1.140	0.159	1135.2	1.236	0.008	1350.3	1.327	0.016
118.6	1.822	0.136	232.4	1.424	0.314	346.3	1.544	0.005	584.5	1.606	0.287	909.5	1.028	0.211	1023.3	1.118	0.144	1137.1	1.237	0.005	1356.1	1.328	0.017
120.6	1.814	0.144	234.4	1.422	0.302	348.2	1.549	0.006	590.3	1.606	0.293	911.4	1.027	0.203	1025.2	1.103	0.129	1139.0	1.239	0.003	1361.8	1.328	0.018
122.5	1.824	0.137	236.3	1.415	0.297	350.1	1.553	0.007	596.1	1.605	0.297	913.4	1.029	0.198	1027.2	1.105	0.113	1141.0	1.242	0.000	1367.6	1.330	0.018
124.4	1.820	0.160	238.2	1.408	0.284	352.0	1.558	0.009	601.8	1.601	0.306	915.3	1.030	0.192	1029.1	1.097	0.098	1142.9	1.244	0.000	1373.4	1.331	0.019
126.4	1.819	0.151	240.2	1.402	0.275	354.0	1.562	0.010	607.6	1.599	0.313	917.2	1.032	0.186	1031.0	1.093	0.085	1144.8	1.246	0.000	1379.2	1.334	0.021
128.3	1.816	0.168	242.1	1.396	0.265	355.9	1.567	0.012	613.4	1.600	0.318	919.2	1.032	0.179	1033.0	1.099	0.072	1146.8	1.249	0.000	1385.0	1.335	0.022
130.2	1.813	0.156	244.0	1.393	0.253	357.8	1.571	0.015	619.2	1.594	0.328	921.1	1.033	0.173	1034.9	1.100	0.061	1148.7	1.251	0.000	1390.8	1.338	0.025
132.1	1.812	0.171	245.9	1.391	0.246	359.8	1.575	0.016	625.0	1.592	0.336	923.0	1.034	0.168	1036.8	1.100	0.048	1150.6	1.253	0.000	1396.6	1.339	0.027
134.1	1.812	0.176	247.9	1.387	0.233	361.7	1.579	0.020	630.8	1.592	0.343	924.9	1.034	0.160	1038.7	1.102	0.037	1152.6	1.254	0.000	1402.3	1.338	0.029
136.0	1.808	0.194	249.8	1.391	0.227	363.6	1.582	0.022	636.6	1.585	0.353	926.9	1.036	0.155	1040.7	1.111	0.025	1154.5	1.256	0.000	1408.1	1.339	0.032
137.9	1.802	0.190	251.7	1.389	0.219	365.5	1.586	0.026	642.3	1.581	0.362	928.8	1.038	0.149	1042.6	1.116	0.017	1156.4	1.257	0.000	1413.9	1.338	0.035
139.9	1.809	0.205	253.7	1.388	0.216	367.5	1.588	0.028	648.1	1.579	0.369	930.7	1.040	0.144	1044.5	1.124	0.011	1158.3	1.259	0.000	1419.7	1.338	0.038
141.8	1.804	0.226	255.6	1.384	0.207	369.4	1.592	0.031	653.9	1.574	0.378	932.7	1.043	0.137	1046.5	1.132	0.004	1160.3	1.260	0.000	1425.5	1.336	0.040
143.7	1.795	0.230	257.5	1.384	0.199	371.3	1.595	0.034	659.7	1.565	0.389	934.6	1.045	0.132	1048.4	1.139	0.000	1162.2	1.260	0.000	1431.3	1.334	0.040
145.6	1.793	0.245	259.4	1.381	0.193	373.3	1.597	0.036	665.5	1.561	0.397	936.5	1.047	0.127	1050.3	1.147	0.000	1164.1	1.261	0.000	1437.1	1.334	0.039
147.6	1.784	0.247	261.4	1.380	0.183	375.2	1.600	0.038	671.3	1.557	0.406	938.4	1.049	0.120	1052.2	1.154	0.000	1166.1	1.262	0.000	1442.9	1.337	0.037
149.5	1.782	0.258	263.3	1.378	0.173	377.1	1.602	0.040	677.1	1.547	0.416	940.4	1.052	0.115	1054.2	1.160	0.000	1168.0	1.263	0.000	1448.6	1.334	0.045
151.4	1.769	0.263	265.2	1.384	0.164	379.0	1.606	0.043	682.9	1.542	0.429	942.3	1.055	0.110	1056.1	1.166	0.000	1169.9	1.265	0.000	1454.4	1.329	0.042
153.4	1.765	0.261	267.2	1.385	0.160	381.0	1.608	0.045	688.6	1.532	0.440	944.2	1.057	0.105	1058.0	1.171	0.000	1171.8	1.266	0.000	1460.2	1.332	0.044
155.3	1.760	0.266	269.1	1.385	0.152	382.9	1.611	0.047	694.4	1.516	0.449	946.2	1.060	0.100	1060.0	1.175	0.000	1173.8	1.267	0.000	1466.0	1.328	0.045
157.2	1.754	0.259	271.0	1.386	0.144	384.8	1.612	0.050	700.2	1.505	0.460	948.1	1.062	0.095	1061.9	1.180	0.000	1175.7	1.268	0.000	1471.8	1.332	0.041
159.1	1.757	0.265	273.0	1.386	0.138	386.8	1.615	0.052	706.0	1.495	0.465	950.0	1.067	0.089	1063.8	1.184	0.000	1177.6	1.270	0.000	1477.6	1.331	0.051
161.1	1.748	0.272	274.9	1.388	0.129	388.7	1.616	0.056	711.8	1.478	0.475	951.9	1.071	0.084	1065.7	1.188	0.000	1179.6	1.271	0.000	1483.4	1.320	0.045
163.0	1.744	0.276	276.8	1.389	0.127	390.6	1.618	0.058	717.6	1.464	0.484	953.9	1.075	0.080	1067.7	1.191	0.000	1181.5	1.272	0.000	1489.2	1.321	0.037

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TABLE 2A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.322	0.034	1836.4	1.315	0.002	2126.7	1.361	0.010	2327.3	1.358	0.007	2668.7	1.406	0.000	3004.3	1.539	0.037	3340.0	1.214	0.517	3675.6	1.146	0.000
1500.7	1.325	0.033	1842.2	1.317	0.001	2128.6	1.361	0.011	2333.1	1.359	0.007	2674.5	1.407	0.000	3010.1	1.546	0.038	3345.8	1.197	0.511	3681.4	1.150	0.000
1506.5	1.328	0.033	1847.9	1.318	0.001	2130.5	1.361	0.012	2338.9	1.360	0.006	2680.3	1.408	0.000	3015.9	1.554	0.041	3351.6	1.183	0.505	3687.2	1.154	0.000
1512.3	1.330	0.034	1853.7	1.319	0.001	2132.5	1.363	0.014	2344.6	1.359	0.006	2686.1	1.410	0.000	3021.7	1.563	0.043	3357.3	1.129	0.500	3693.0	1.157	0.000
1518.1	1.332	0.035	1859.5	1.320	0.002	2134.4	1.361	0.017	2350.4	1.360	0.006	2691.9	1.411	0.000	3027.5	1.570	0.048	3363.1	1.115	0.493	3698.8	1.160	0.000
1523.9	1.334	0.035	1865.3	1.322	0.000	2136.3	1.359	0.019	2356.2	1.361	0.005	2697.6	1.412	0.000	3033.3	1.580	0.052	3368.9	1.101	0.486	3704.6	1.163	0.000
1529.7	1.335	0.036	1871.1	1.323	0.000	2138.2	1.356	0.019	2362.0	1.362	0.005	2703.4	1.414	0.000	3039.1	1.589	0.058	3374.7	1.106	0.477	3710.3	1.166	0.000
1535.4	1.334	0.037	1876.9	1.324	0.000	2140.2	1.355	0.017	2367.8	1.362	0.004	2709.2	1.415	0.000	3044.9	1.596	0.065	3380.5	1.092	0.469	3716.1	1.168	0.000
1541.2	1.333	0.037	1882.7	1.325	0.000	2142.1	1.354	0.015	2373.6	1.363	0.004	2715.0	1.417	0.000	3050.6	1.598	0.072	3386.3	1.097	0.458	3721.9	1.171	0.000
1547.0	1.334	0.038	1888.4	1.326	0.000	2144.0	1.354	0.013	2379.4	1.364	0.004	2720.8	1.418	0.000	3056.4	1.605	0.080	3392.1	1.083	0.448	3727.7	1.173	0.000
1552.8	1.337	0.039	1894.2	1.327	0.001	2146.0	1.356	0.013	2385.2	1.365	0.004	2726.6	1.420	0.000	3062.2	1.612	0.089	3397.9	1.069	0.439	3733.5	1.177	0.000
1558.6	1.337	0.041	1900.0	1.328	0.001	2147.9	1.356	0.013	2390.9	1.365	0.004	2732.4	1.422	0.000	3068.0	1.622	0.097	3403.6	1.022	0.429	3739.3	1.179	0.000
1564.4	1.339	0.042	1905.8	1.329	0.001	2149.8	1.356	0.014	2396.7	1.366	0.003	2738.2	1.424	0.000	3073.8	1.629	0.107	3409.4	1.010	0.415	3745.1	1.182	0.000
1570.2	1.339	0.043	1911.6	1.330	0.000	2151.8	1.357	0.014	2402.5	1.367	0.003	2743.9	1.425	0.000	3079.6	1.640	0.118	3415.2	1.014	0.403	3750.9	1.184	0.000
1576.0	1.340	0.044	1917.4	1.331	0.001	2153.7	1.357	0.015	2408.3	1.367	0.003	2749.7	1.427	0.000	3085.4	1.646	0.129	3421.0	1.002	0.389	3756.6	1.187	0.000
1581.7	1.337	0.045	1923.2	1.332	0.000	2155.6	1.356	0.015	2414.1	1.368	0.003	2755.5	1.429	0.001	3091.1	1.640	0.142	3426.8	0.991	0.374	3762.4	1.188	0.000
1587.5	1.337	0.046	1929.0	1.333	0.001	2157.5	1.355	0.015	2419.9	1.369	0.003	2761.3	1.431	0.001	3096.9	1.644	0.155	3432.6	0.995	0.359	3768.2	1.191	0.000
1593.3	1.338	0.048	1934.7	1.333	0.001	2159.5	1.357	0.014	2425.7	1.370	0.003	2767.1	1.433	0.002	3102.7	1.647	0.168	3438.4	0.986	0.343	3774.0	1.192	0.000
1599.1	1.341	0.049	1940.5	1.334	0.001	2161.4	1.356	0.014	2431.4	1.370	0.003	2772.9	1.435	0.002	3108.5	1.656	0.181	3444.1	0.952	0.325	3779.8	1.195	0.000
1604.9	1.341	0.051	1946.3	1.335	0.000	2163.3	1.356	0.014	2437.2	1.371	0.002	2778.7	1.438	0.003	3114.3	1.658	0.195	3449.9	0.946	0.308	3785.6	1.196	0.000
1610.7	1.344	0.053	1952.1	1.336	0.001	2165.3	1.357	0.015	2443.0	1.371	0.002	2784.4	1.440	0.003	3120.1	1.668	0.209	3455.7	0.941	0.289	3791.4	1.198	0.000
1616.5	1.344	0.056	1957.9	1.337	0.000	2167.2	1.357	0.015	2448.8	1.372	0.002	2790.2	1.442	0.004	3125.9	1.669	0.223	3461.5	0.949	0.272	3797.1	1.200	0.000
1622.3	1.344	0.060	1963.7	1.338	0.001	2169.1	1.356	0.015	2454.6	1.373	0.002	2796.0	1.445	0.006	3131.7	1.670	0.237	3467.3	0.947	0.254	3802.9	1.201	0.000
1628.0	1.338	0.064	1969.5	1.339	0.001	2171.0	1.356	0.015	2460.4	1.374	0.001	2801.8	1.448	0.007	3137.4	1.650	0.254	3473.1	0.955	0.237	3808.7	1.203	0.000
1633.8	1.336	0.067	1975.3	1.339	0.001	2173.0	1.357	0.015	2466.2	1.375	0.001	2807.6	1.450	0.009	3143.2	1.648	0.269	3478.9	0.954	0.220	3814.5	1.205	0.000
1639.6	1.335	0.071	1981.0	1.340	0.001	2174.9	1.357	0.015	2472.0	1.376	0.001	2813.4	1.453	0.011	3149.0	1.644	0.285	3484.7	0.955	0.203	3820.3	1.206	0.000
1645.4	1.332	0.074	1986.8	1.341	0.001	2176.8	1.356	0.015	2477.7	1.377	0.001	2819.2	1.455	0.014	3154.8	1.652	0.300	3490.4	0.942	0.185	3826.1	1.207	0.000
1651.2	1.327	0.076	1992.6	1.342	0.001	2178.8	1.357	0.015	2483.5	1.378	0.000	2825.0	1.456	0.019	3160.6	1.648	0.315	3496.2	0.946	0.170	3831.9	1.209	0.000
1657.0	1.326	0.079	1998.4	1.343	0.001	2180.7	1.357	0.015	2489.3	1.378	0.001	2830.7	1.452	0.024	3166.4	1.657	0.329	3502.0	0.950	0.156	3837.7	1.210	0.000
1662.8	1.320	0.080	2004.2	1.344	0.002	2182.6	1.356	0.015	2495.1	1.379	0.001	2836.5	1.446	0.023	3172.2	1.651	0.344	3507.8	0.962	0.143	3843.4	1.212	0.000
1668.5	1.309	0.081	2010.0	1.344	0.002	2184.5	1.356	0.015	2500.9	1.380	0.001	2842.3	1.446	0.017	3178.0	1.644	0.360	3513.6	0.966	0.130	3849.2	1.213	0.000
1674.3	1.302	0.080	2015.8	1.345	0.002	2186.5	1.357	0.016	2506.7	1.381	0.001	2848.1	1.451	0.015	3183.7	1.608	0.378	3519.4	0.976	0.118	3855.0	1.214	0.000
1680.1	1.295	0.078	2021.5	1.346	0.002	2188.4	1.356	0.016	2512.5	1.382	0.001	2853.9	1.453	0.016	3189.5	1.599	0.393	3525.2	0.981	0.106	3860.8	1.215	0.000
1685.9	1.292	0.075	2027.3	1.346	0.002	2190.3	1.355	0.016	2518.2	1.383	0.002	2859.7	1.455	0.016	3195.3	1.588	0.408	3531.0	0.987	0.094	3866.6	1.216	0.000
1691.7	1.287	0.071	2033.1	1.347	0.002	2192.3	1.356	0.016	2524.0	1.384	0.002	2865.5	1.456	0.015	3201.1	1.594	0.421	3536.7	0.987	0.082	3872.4	1.218	0.000
1697.5	1.285	0.066	2038.9	1.348	0.003	2194.2	1.356	0.016	2529.8	1.385	0.002	2871.2	1.457	0.014	3206.9	1.582	0.435	3542.5	0.995	0.072	3878.2	1.219	0.000
1703.3	1.280	0.060	2044.7	1.349	0.003	2196.1	1.355	0.016	2535.6	1.385	0.003	2877.0	1.460	0.013	3212.7	1.588	0.446	3548.3	1.006	0.063	3884.0	1.220	0.000
1709.1	1.278	0.054	2050.5	1.350	0.003	2198.0	1.355	0.016	2541.4	1.386	0.003	2882.8	1.463	0.013	3218.5	1.576	0.459	3554.1	1.014	0.055	3889.7	1.221	0.000
1714.8	1.272	0.047	2056.3	1.351	0.004	2205.8	1.356	0.016	2547.2	1.386	0.003	2888.6	1.468	0.013	3224.2	1.525	0.475	3559.9	1.022	0.048	3895.5	1.222	0.000
1720.6	1.272	0.040	2062.1	1.351	0.004	2211.5	1.355	0.015	2553.0	1.387	0.003	2894.4	1.471	0.013	3230.0	1.510	0.486	3565.7	1.032	0.041	3901.3	1.223	0.000
1726.4	1.275	0.035	2067.8	1.352	0.004	2217.3	1.355	0.015	2558.8	1.387	0.003	2900.2	1.475	0.014	3235.8	1.494	0.496	3571.5	1.040	0.035	3907.1	1.224	0.000
1732.2	1.276	0.030	2073.6	1.353	0.004	2223.1	1.354	0.015	2564.5	1.388	0.002	2906.0	1.479	0.016	3241.6	1.497	0.505	3577.2	1.045	0.029	3912.9	1.225	0.000
1738.0	1.279	0.024	2079.4	1.354	0.005	2228.9	1.355	0.015	2570.3	1.389	0.002	2911.8	1.481	0.017	3247.4	1.480	0.515	3583.0	1.053	0.025	3918.7	1.226	0.000
1743.8	1.282	0.021	2085.2	1.355	0.006	2234.7	1.354	0.015	2576.1	1.389	0.002	2917.5	1.482	0.017	3253.2	1.485	0.521	3588.8	1.060	0.021	3924.5	1.227	0.000
1749.6	1.285	0.018	2091.0	1.355	0.006	2240.5	1.355	0.015	2581.9	1.390	0.002	2923.3	1.486	0.017	3259.0	1.466	0.529	3594.6	1.068	0.017	3930.2	1.228	0.000
1755.3	1.286	0.014	2096.8	1.356	0.006	2246.3	1.354	0.015	2587.7	1.391	0.002	2929.1	1.491	0.020	3264.8	1.448	0.536	3600.4	1.076	0.014	3936.0	1.229	0.000
1761.1	1.289	0.013	2101.6	1.357	0.007	2252.1	1.354	0.014	2593.5	1.393	0.002	2934.9	1.494	0.023	3270.5	1.387	0.543	3606.2	1.083	0.011	3941.8	1.230	0.000
1766.9	1.292	0.010	2103.5	1.357	0.008	2257.8	1.353	0.013	2599.3	1.393	0.002	2940.7	1.494	0.023	3276.3	1.368	0.548	3612.0	1.089	0.009	3947.6	1.231	0.000
1772.7	1.295	0.009	2105.5	1.357	0.008	2263.6	1.353	0.013	2605.1	1.394	0.002	2946.5	1.499	0.021	3282.1	1.346	0.551	3617.8	1.096	0.007	3953.4	1.231	0.000
1778.5	1.298	0.008	2107.4	1.358	0.008	2269.4	1.353	0.012	2610.8	1.395	0.002	2952.3	1.505	0.022	3287.9	1.349	0.551	3623.5	1.101	0.005	3959.2	1.232	0.000
1784.3	1.300	0.007	2109.3	1.358	0.008	2275.2	1.354	0.011	2616.6	1.395	0.002	2958.1	1.510	0.026	3293.7	1.329	0.552	3629.3	1.107	0.003	3965.0	1.233	0.000
1790.1	1.302	0.006	2111.2	1.357	0.008	2281.0	1.354	0.011	2622.4	1.396	0.001	2963.8	1.510	0.029	3299.5	1.333	0.549	3635.1	1.112	0.002	3970.8	1.234	0.000
1795.9	1.304	0.005	2113.2	1.358	0.008	2286.8	1.355	0.010	2628.2	1.397	0.000	2969.6	1.512	0.029	3305.3	1.314	0.546	3640.9	1.118	0.000	3976.5	1.235	0.000
1801.6	1.305	0.004	2115.1	1.358	0.009	2292.6	1.355	0.009	2634.0	1.398	0.000	2975.4	1.517	0.030	3311.1	1.295	0.543	3646.7	1.123	0.000	3982.3	1.235	0.000
1807.4	1.307	0.004	2117.0	1.358	0.009	2298.4	1.356	0.009	2639.8	1.399	0.000	2981.2	1.522	0.030	3316.8	1.236	0.543	3652.5	1.128	0.000	3988.1	1.236	0.000
1813.2	1.309	0.003	2119.0	1.359	0.009	2304.1	1.356	0.009	2645.6	1.401	0.000	2987.0	1.528	0.032	3322.6	1.219	0.538	3658.3	1.132	0.000	3993.9	1.237	0.000
1819.0	1.311	0.003	2120.9	1.359	0.010	2309.9	1.356	0.008	2651.3	1.402	0.000	2992.8	1.534	0.035	3328.4	1.222	0.531	3664.1	1.137	0.000	3999.7	1.238	0.000
1824.8	1.312	0.003	2122.8	1.359	0.010	2315.7	1.357	0.008	2657.1	1.404	0.000	2998.6	1.537	0.037	3334.2	1.206	0.525	3669.8	1.142	0.000			
1830.6	1.314	0.002	2124.7	1.359	0.010	2321.5	1.358	0.007	2662.9	1.405	0.000												

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TABLE 2B

$H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1 AT 40 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.631	0.075	846.3	1.195	0.374	995.8	1.248	0.017	1109.6	1.283	0.004	1274.6	1.335	0.010	1616.0	1.350	0.055	1957.4	1.348	0.000	2166.7	1.369	0.015
510.7	1.617	0.073	852.1	1.182	0.361	997.8	1.259	0.019	1111.6	1.284	0.005	1280.3	1.336	0.011	1621.8	1.349	0.057	1963.2	1.349	0.000	2168.6	1.369	0.015
516.5	1.609	0.083	857.9	1.168	0.350	999.7	1.269	0.024	1113.5	1.286	0.008	1286.1	1.338	0.011	1627.6	1.348	0.060	1969.0	1.349	0.002	2170.6	1.369	0.015
522.3	1.607	0.079	863.7	1.155	0.335	1001.6	1.280	0.030	1115.4	1.287	0.011	1291.9	1.338	0.012	1633.3	1.347	0.062	1974.8	1.350	0.002	2172.5	1.369	0.015
528.1	1.608	0.083	869.5	1.144	0.320	1003.5	1.291	0.043	1117.3	1.287	0.013	1297.7	1.340	0.013	1639.1	1.345	0.065	1980.6	1.351	0.002	2174.4	1.369	0.016
533.8	1.607	0.082	875.3	1.133	0.305	1005.5	1.300	0.058	1119.3	1.287	0.016	1303.5	1.341	0.013	1644.9	1.343	0.067	1986.3	1.352	0.002	2176.3	1.368	0.016
539.6	1.607	0.086	881.1	1.124	0.288	1007.4	1.304	0.077	1121.2	1.285	0.019	1309.3	1.342	0.014	1650.7	1.340	0.069	1992.1	1.352	0.002	2178.3	1.368	0.016
545.4	1.609	0.092	886.8	1.116	0.271	1009.3	1.303	0.099	1123.1	1.284	0.020	1315.1	1.343	0.014	1656.5	1.336	0.071	1997.9	1.353	0.002	2180.2	1.368	0.016
551.2	1.609	0.096	892.6	1.109	0.254	1011.3	1.296	0.122	1125.1	1.281	0.021	1320.9	1.345	0.015	1662.3	1.332	0.073	2003.7	1.354	0.002	2182.1	1.369	0.016
557.0	1.610	0.102	898.4	1.103	0.234	1013.2	1.281	0.140	1127.0	1.278	0.021	1326.6	1.345	0.016	1668.1	1.328	0.074	2009.5	1.355	0.002	2184.1	1.368	0.016
562.8	1.611	0.105	901.3	1.102	0.227	1015.1	1.261	0.155	1128.9	1.275	0.020	1332.4	1.346	0.017	1673.9	1.322	0.074	2015.3	1.356	0.002	2186.0	1.368	0.016
568.6	1.615	0.109	903.2	1.101	0.220	1017.0	1.238	0.161	1130.8	1.274	0.017	1338.2	1.348	0.018	1679.6	1.316	0.074	2021.1	1.356	0.002	2187.9	1.368	0.016
574.4	1.616	0.117	905.2	1.100	0.215	1019.0	1.214	0.160	1132.8	1.272	0.014	1344.0	1.349	0.017	1685.4	1.311	0.072	2026.8	1.357	0.002	2189.8	1.368	0.017
580.1	1.618	0.122	907.1	1.099	0.207	1020.9	1.193	0.150	1134.7	1.273	0.011	1349.8	1.350	0.019	1691.2	1.306	0.068	2032.6	1.358	0.002	2191.8	1.368	0.016
585.9	1.619	0.127	909.0	1.098	0.203	1022.8	1.178	0.136	1136.6	1.273	0.009	1355.6	1.351	0.020	1697.0	1.301	0.064	2038.4	1.358	0.002	2193.7	1.368	0.017
591.7	1.621	0.133	911.0	1.098	0.196	1024.8	1.168	0.120	1138.6	1.275	0.005	1361.4	1.352	0.021	1702.8	1.297	0.059	2044.2	1.359	0.002	2195.6	1.368	0.017
597.5	1.623	0.140	912.9	1.097	0.189	1026.7	1.163	0.106	1140.5	1.276	0.003	1367.1	1.354	0.022	1708.6	1.295	0.054	2050.0	1.360	0.003	2197.6	1.367	0.017
603.3	1.625	0.147	914.8	1.098	0.184	1028.6	1.160	0.093	1142.4	1.279	0.000	1372.9	1.354	0.023	1714.4	1.293	0.049	2055.8	1.361	0.003	2199.5	1.368	0.017
609.1	1.628	0.155	916.7	1.097	0.177	1030.5	1.158	0.083	1144.4	1.281	0.000	1378.7	1.356	0.024	1720.1	1.292	0.043	2061.6	1.362	0.003	2206.2	1.367	0.018
614.9	1.629	0.162	918.7	1.097	0.172	1032.5	1.157	0.072	1146.3	1.283	0.000	1384.5	1.357	0.025	1725.9	1.292	0.037	2067.4	1.363	0.003	2213.0	1.366	0.018
620.6	1.632	0.169	920.6	1.097	0.165	1034.4	1.157	0.064	1148.2	1.285	0.000	1390.3	1.359	0.026	1731.7	1.293	0.032	2073.1	1.364	0.004	2219.7	1.366	0.017
626.4	1.632	0.178	922.5	1.098	0.159	1036.3	1.157	0.052	1150.1	1.287	0.000	1396.1	1.360	0.029	1737.5	1.294	0.028	2078.9	1.364	0.004	2226.5	1.366	0.017
632.2	1.634	0.187	924.5	1.099	0.152	1038.3	1.159	0.040	1152.1	1.288	0.000	1401.9	1.361	0.031	1743.3	1.296	0.023	2084.7	1.365	0.004	2233.2	1.365	0.017
638.0	1.634	0.201	926.4	1.100	0.147	1040.2	1.162	0.030	1154.0	1.290	0.000	1407.7	1.362	0.034	1749.1	1.299	0.021	2090.5	1.366	0.006	2240.0	1.364	0.017
643.8	1.634	0.210	928.3	1.101	0.141	1042.1	1.168	0.019	1155.9	1.291	0.000	1413.4	1.362	0.037	1754.9	1.301	0.017	2096.3	1.367	0.006	2246.8	1.364	0.017
649.6	1.633	0.222	930.2	1.102	0.134	1044.0	1.175	0.012	1157.9	1.292	0.000	1419.2	1.361	0.041	1760.7	1.304	0.015	2101.1	1.367	0.006	2253.5	1.364	0.016
655.4	1.631	0.233	932.2	1.104	0.130	1046.0	1.183	0.006	1159.8	1.294	0.001	1425.0	1.359	0.043	1766.4	1.306	0.013	2103.0	1.368	0.006	2260.3	1.363	0.015
661.2	1.629	0.245	934.1	1.106	0.123	1047.9	1.190	0.002	1161.7	1.294	0.002	1430.8	1.356	0.045	1772.2	1.308	0.012	2105.0	1.368	0.007	2267.0	1.363	0.014
666.9	1.624	0.257	936.0	1.107	0.119	1049.8	1.198	0.000	1163.6	1.294	0.002	1436.6	1.353	0.044	1778.0	1.310	0.010	2106.9	1.368	0.007	2273.8	1.364	0.013
672.7	1.624	0.270	938.0	1.109	0.112	1051.8	1.204	0.000	1165.6	1.295	0.000	1442.4	1.356	0.041	1783.8	1.312	0.009	2108.8	1.369	0.007	2280.5	1.364	0.013
678.5	1.619	0.283	939.9	1.112	0.106	1053.7	1.210	0.000	1167.5	1.296	0.000	1448.2	1.356	0.049	1789.6	1.314	0.008	2110.8	1.369	0.008	2287.3	1.364	0.012
684.3	1.614	0.295	941.8	1.114	0.100	1055.6	1.214	0.000	1169.4	1.297	0.000	1453.9	1.349	0.047	1795.4	1.316	0.007	2112.7	1.369	0.008	2294.0	1.364	0.011
690.1	1.606	0.310	943.7	1.117	0.096	1057.5	1.219	0.000	1171.4	1.298	0.000	1459.7	1.352	0.048	1801.2	1.318	0.006	2114.6	1.369	0.008	2300.8	1.365	0.010
695.9	1.598	0.320	945.7	1.119	0.090	1059.5	1.222	0.000	1173.3	1.299	0.000	1465.5	1.346	0.049	1806.9	1.320	0.006	2116.5	1.370	0.008	2307.5	1.365	0.009
701.7	1.590	0.335	947.6	1.123	0.086	1061.4	1.226	0.000	1175.2	1.301	0.000	1471.3	1.350	0.045	1812.7	1.321	0.005	2118.5	1.370	0.008	2314.3	1.366	0.009
707.4	1.581	0.346	949.5	1.125	0.082	1063.3	1.230	0.000	1177.1	1.302	0.000	1477.1	1.347	0.055	1818.5	1.322	0.004	2120.4	1.370	0.009	2321.0	1.366	0.008
713.2	1.570	0.357	951.5	1.129	0.076	1065.3	1.233	0.000	1179.1	1.303	0.000	1482.9	1.337	0.050	1824.3	1.324	0.004	2122.3	1.371	0.009	2327.8	1.367	0.008
719.0	1.558	0.369	953.4	1.131	0.072	1067.2	1.236	0.000	1181.0	1.304	0.000	1488.7	1.337	0.042	1830.1	1.326	0.003	2124.3	1.371	0.009	2334.5	1.368	0.007
724.8	1.546	0.381	955.3	1.136	0.066	1069.1	1.239	0.000	1182.9	1.304	0.000	1494.5	1.340	0.039	1835.9	1.327	0.003	2126.2	1.372	0.010	2341.3	1.369	0.007
730.6	1.532	0.391	957.2	1.139	0.063	1071.1	1.241	0.000	1184.9	1.305	0.000	1500.2	1.343	0.038	1841.7	1.328	0.003	2128.1	1.373	0.010	2348.0	1.369	0.006
736.4	1.518	0.400	959.2	1.143	0.059	1073.0	1.243	0.000	1186.8	1.306	0.000	1506.0	1.345	0.038	1847.5	1.329	0.003	2130.0	1.374	0.011	2354.8	1.370	0.006
742.2	1.503	0.408	961.1	1.146	0.055	1074.9	1.246	0.000	1188.7	1.307	0.000	1511.8	1.346	0.038	1853.2	1.330	0.003	2132.0	1.375	0.014	2361.5	1.371	0.006
748.0	1.487	0.416	963.0	1.151	0.052	1076.8	1.249	0.000	1190.6	1.308	0.000	1517.6	1.348	0.039	1859.0	1.332	0.002	2133.9	1.374	0.018	2368.3	1.372	0.005
753.7	1.471	0.422	965.0	1.156	0.046	1078.8	1.251	0.000	1192.6	1.309	0.000	1523.4	1.348	0.040	1864.8	1.333	0.002	2135.8	1.371	0.020	2375.0	1.372	0.005
759.5	1.453	0.428	966.9	1.159	0.044	1080.7	1.253	0.000	1194.5	1.310	0.000	1529.2	1.349	0.040	1870.6	1.334	0.002	2137.8	1.367	0.020	2381.8	1.373	0.004
765.3	1.437	0.429	968.8	1.164	0.039	1082.6	1.255	0.000	1196.4	1.310	0.000	1535.0	1.349	0.042	1876.4	1.335	0.001	2139.7	1.365	0.016	2388.5	1.374	0.004
771.1	1.418	0.433	970.8	1.168	0.038	1084.6	1.258	0.000	1198.4	1.311	0.002	1540.8	1.350	0.042	1882.2	1.336	0.001	2141.6	1.365	0.013	2395.3	1.375	0.004
776.9	1.401	0.435	972.7	1.173	0.034	1086.5	1.259	0.000	1205.1	1.314	0.002	1546.5	1.350	0.043	1888.0	1.337	0.001	2143.6	1.367	0.013	2402.0	1.375	0.004
782.7	1.384	0.436	974.6	1.178	0.031	1088.4	1.261	0.000	1210.9	1.316	0.002	1552.3	1.351	0.043	1893.8	1.338	0.001	2145.5	1.367	0.013	2408.8	1.377	0.003
788.5	1.365	0.437	976.5	1.183	0.029	1090.3	1.263	0.000	1216.7	1.318	0.004	1558.1	1.351	0.046	1899.5	1.339	0.001	2147.4	1.368	0.013	2415.5	1.377	0.003
794.3	1.347	0.434	978.5	1.188	0.026	1092.3	1.265	0.000	1222.5	1.320	0.004	1563.9	1.350	0.046	1905.3	1.340	0.001	2149.3	1.368	0.013	2422.3	1.378	0.003
800.0	1.330	0.432	980.4	1.193	0.025	1094.2	1.266	0.000	1228.3	1.323	0.005	1569.7	1.350	0.046	1911.1	1.341	0.001	2151.3	1.368	0.013	2429.0	1.379	0.003
805.8	1.310	0.429	982.3	1.199	0.023	1096.1	1.268	0.000	1234.0	1.324	0.002	1575.5	1.350	0.047	1916.9	1.342	0.001	2153.2	1.369	0.013	2435.8	1.380	0.003
811.6	1.294	0.425	984.3	1.205	0.020	1098.1	1.270	0.000	1239.8	1.326	0.006	1581.3	1.350	0.048	1922.7	1.343	0.001	2155.1	1.368	0.014	2442.5	1.381	0.002
817.4	1.277	0.416	986.2	1.211	0.019	1100.0	1.272	0.000	1245.6	1.327	0.006	1587.0	1.350	0.049	1928.5	1.344	0.001	2157.1	1.368	0.014	2449.3	1.382	0.002
823.2	1.259	0.413	988.1	1.217	0.017	1101.9	1.274	0.000	1251.4	1.329	0.007	1592.8	1.350	0.051	1934.3	1.344	0.000	2159.0	1.369	0.014	2456.0	1.383	0.001
829.0	1.242	0.404	990.0	1.224	0.018	1103.8	1.277	0.000	1257.2	1.330	0.008	1598.6	1.350	0.051	1940.0	1.346	0.000	2160.9	1.369	0.015	2462.8	1.384	0.001
834.8	1.227	0.394	992.0	1.231	0.018	1105.8	1.279	0.000	1263.0	1.332	0.008	1604.4	1.350	0.052	1945.8	1.346	0.000	2162.8	1.369	0.015	2469.5	1.385	0.001
840.5	1.211	0.385	993.9	1.239	0.017	1107.7	1.281	0.002	1268.8	1.334	0.010	1610.2	1.350	0.054	1951.6	1.347	0.000	2164.8	1.369	0.015	2476.3	1.386	0.001

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TABLE 2B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2483.0	1.387	0.000	2867.9	1.472	0.016	3252.7	1.447	0.601	3637.5	1.119	0.000
2489.8	1.388	0.001	2874.6	1.475	0.014	3259.5	1.420	0.609	3644.3	1.125	0.000
2496.6	1.390	0.001	2881.4	1.479	0.013	3266.2	1.392	0.616	3651.0	1.130	0.000
2503.3	1.390	0.001	2888.1	1.483	0.013	3273.0	1.364	0.620	3657.8	1.135	0.000
2510.1	1.392	0.001	2894.9	1.488	0.014	3279.7	1.336	0.621	3664.5	1.140	0.000
2516.8	1.393	0.002	2901.6	1.492	0.015	3286.5	1.308	0.621	3671.3	1.145	0.000
2523.6	1.394	0.002	2908.4	1.496	0.017	3293.2	1.279	0.617	3678.0	1.149	0.000
2530.3	1.395	0.002	2915.1	1.498	0.017	3300.0	1.252	0.611	3684.8	1.154	0.000
2537.1	1.395	0.003	2921.9	1.503	0.017	3306.7	1.227	0.601	3691.5	1.158	0.000
2543.8	1.396	0.003	2928.6	1.510	0.019	3313.5	1.204	0.593	3698.3	1.161	0.000
2550.6	1.397	0.003	2935.4	1.512	0.023	3320.2	1.180	0.581	3705.0	1.164	0.000
2557.3	1.397	0.003	2942.1	1.514	0.023	3327.0	1.159	0.570	3711.8	1.168	0.000
2564.1	1.398	0.003	2948.9	1.520	0.021	3333.7	1.140	0.557	3718.5	1.171	0.000
2570.8	1.399	0.002	2955.6	1.527	0.024	3340.5	1.122	0.544	3725.3	1.174	0.000
2577.6	1.400	0.002	2962.4	1.532	0.027	3347.2	1.105	0.531	3732.0	1.177	0.000
2584.3	1.401	0.002	2969.1	1.535	0.029	3354.0	1.089	0.519	3738.8	1.180	0.000
2591.1	1.402	0.002	2975.9	1.540	0.029	3360.7	1.074	0.506	3745.5	1.183	0.000
2597.8	1.404	0.002	2982.6	1.547	0.030	3367.5	1.058	0.493	3752.3	1.185	0.000
2604.6	1.404	0.002	2989.4	1.555	0.034	3374.2	1.043	0.481	3759.1	1.187	0.000
2611.3	1.405	0.002	2996.1	1.560	0.037	3381.0	1.029	0.468	3765.8	1.190	0.000
2618.1	1.406	0.002	3002.9	1.566	0.037	3387.7	1.015	0.453	3772.6	1.192	0.000
2624.8	1.407	0.001	3009.7	1.574	0.039	3394.5	1.001	0.438	3779.3	1.194	0.000
2631.6	1.409	0.000	3016.4	1.585	0.041	3401.2	0.986	0.421	3786.1	1.196	0.000
2638.3	1.410	0.000	3023.2	1.595	0.046	3408.0	0.974	0.405	3792.8	1.198	0.000
2645.1	1.411	0.000	3029.9	1.605	0.052	3414.7	0.962	0.387	3799.6	1.200	0.000
2651.8	1.413	0.000	3036.7	1.616	0.059	3421.5	0.950	0.366	3806.3	1.202	0.000
2658.6	1.415	0.000	3043.4	1.627	0.067	3428.2	0.940	0.346	3813.1	1.204	0.000
2665.3	1.416	0.000	3050.2	1.637	0.076	3435.0	0.932	0.324	3819.8	1.205	0.000
2672.1	1.418	0.000	3056.9	1.648	0.087	3441.7	0.926	0.302	3826.6	1.207	0.000
2678.8	1.419	0.000	3063.7	1.657	0.098	3448.5	0.921	0.279	3833.3	1.209	0.000
2685.6	1.421	0.000	3070.4	1.667	0.112	3455.2	0.919	0.256	3840.1	1.210	0.000
2692.3	1.423	0.000	3077.2	1.677	0.126	3462.0	0.919	0.234	3846.8	1.212	0.000
2699.1	1.424	0.000	3083.9	1.684	0.142	3468.7	0.921	0.212	3853.6	1.213	0.000
2705.8	1.426	0.000	3090.7	1.691	0.160	3475.5	0.924	0.192	3860.3	1.215	0.000
2712.6	1.428	0.000	3097.4	1.698	0.178	3482.2	0.929	0.173	3867.1	1.216	0.000
2719.3	1.430	0.000	3104.2	1.702	0.197	3489.0	0.936	0.155	3873.8	1.217	0.000
2726.1	1.432	0.000	3110.9	1.705	0.217	3495.7	0.943	0.139	3880.6	1.219	0.000
2732.8	1.434	0.000	3117.7	1.707	0.237	3502.5	0.950	0.123	3887.3	1.220	0.000
2739.6	1.437	0.000	3124.4	1.707	0.258	3509.3	0.957	0.109	3894.1	1.221	0.000
2746.4	1.439	0.000	3131.2	1.705	0.279	3516.0	0.965	0.095	3900.8	1.222	0.000
2753.1	1.441	0.000	3137.9	1.703	0.300	3522.8	0.974	0.082	3907.6	1.223	0.000
2759.9	1.444	0.000	3144.7	1.699	0.321	3529.5	0.983	0.070	3914.3	1.225	0.000
2766.6	1.446	0.001	3151.4	1.694	0.342	3536.3	0.993	0.059	3921.1	1.226	0.000
2773.4	1.449	0.002	3158.2	1.687	0.363	3543.0	1.003	0.049	3927.8	1.227	0.000
2780.1	1.452	0.002	3164.9	1.679	0.384	3549.8	1.013	0.041	3934.6	1.228	0.000
2786.9	1.455	0.003	3171.7	1.669	0.405	3556.5	1.024	0.033	3941.3	1.229	0.000
2793.6	1.458	0.004	3178.4	1.658	0.426	3563.3	1.034	0.027	3948.1	1.230	0.000
2800.4	1.462	0.006	3185.2	1.645	0.446	3570.0	1.043	0.022	3954.8	1.231	0.000
2807.1	1.465	0.009	3191.9	1.632	0.465	3576.8	1.053	0.017	3961.6	1.232	0.000
2813.9	1.468	0.012	3198.7	1.617	0.484	3583.5	1.062	0.013	3968.3	1.233	0.000
2820.6	1.471	0.017	3205.4	1.600	0.502	3590.3	1.071	0.010	3975.1	1.234	0.000
2827.4	1.470	0.023	3212.2	1.582	0.520	3597.0	1.079	0.007	3981.8	1.235	0.000
2834.1	1.463	0.027	3218.9	1.562	0.536	3603.8	1.087	0.005	3988.6	1.235	0.000
2840.9	1.460	0.018	3225.7	1.542	0.551	3610.5	1.094	0.003	3995.3	1.236	0.000
2847.6	1.466	0.016	3232.4	1.521	0.567	3617.3	1.101	0.002			
2854.4	1.469	0.017	3239.2	1.497	0.580	3624.0	1.107	0.000			
2861.1	1.470	0.017	3245.9	1.473	0.591	3630.8	1.114	0.000			

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TABLE 2C

$H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1 AT 80 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.586	0.036	846.3	1.237	0.436	995.8	1.234	0.015	1109.6	1.285	0.004	1274.6	1.341	0.011	1616.0	1.346	0.057	1957.4	1.352	0.000	2166.7	1.377	0.015
510.7	1.579	0.033	852.1	1.217	0.425	997.8	1.245	0.017	1111.6	1.287	0.007	1280.3	1.343	0.012	1621.8	1.344	0.058	1963.2	1.353	0.000	2168.6	1.377	0.015
516.5	1.580	0.045	857.9	1.197	0.415	999.7	1.256	0.020	1113.5	1.288	0.008	1286.1	1.343	0.012	1627.6	1.343	0.059	1969.0	1.354	0.002	2170.6	1.377	0.015
522.3	1.581	0.042	863.7	1.178	0.401	1001.6	1.268	0.025	1115.4	1.289	0.011	1291.9	1.345	0.013	1633.3	1.342	0.060	1974.8	1.354	0.002	2172.5	1.377	0.015
528.1	1.583	0.051	869.5	1.159	0.385	1003.5	1.280	0.036	1117.3	1.289	0.013	1297.7	1.346	0.014	1639.1	1.340	0.060	1980.6	1.355	0.002	2174.4	1.377	0.016
533.8	1.584	0.048	875.3	1.143	0.369	1005.5	1.289	0.052	1119.3	1.288	0.016	1303.5	1.347	0.014	1644.9	1.340	0.061	1986.3	1.356	0.001	2176.3	1.377	0.017
539.6	1.585	0.052	881.1	1.128	0.352	1007.4	1.295	0.072	1121.2	1.288	0.017	1309.3	1.348	0.015	1650.7	1.338	0.063	1992.1	1.357	0.002	2178.3	1.377	0.017
545.4	1.585	0.054	886.8	1.115	0.333	1009.3	1.293	0.096	1123.1	1.286	0.020	1315.1	1.349	0.016	1656.5	1.334	0.063	1997.9	1.358	0.002	2180.2	1.376	0.017
551.2	1.588	0.060	892.6	1.103	0.311	1011.3	1.283	0.117	1125.1	1.284	0.020	1320.9	1.351	0.017	1662.3	1.332	0.065	2003.7	1.359	0.002	2182.1	1.377	0.016
557.0	1.590	0.062	898.4	1.092	0.291	1013.2	1.266	0.134	1127.0	1.281	0.021	1326.6	1.352	0.018	1668.1	1.329	0.065	2009.5	1.359	0.002	2184.1	1.376	0.017
562.8	1.592	0.068	901.3	1.088	0.279	1015.1	1.244	0.145	1128.9	1.278	0.020	1332.4	1.353	0.019	1673.9	1.326	0.065	2015.3	1.360	0.002	2186.0	1.376	0.017
568.6	1.595	0.069	903.2	1.086	0.272	1017.0	1.222	0.144	1130.8	1.277	0.017	1338.2	1.354	0.020	1679.6	1.321	0.065	2021.1	1.361	0.002	2187.9	1.376	0.017
574.4	1.597	0.075	905.2	1.085	0.264	1019.0	1.202	0.136	1132.8	1.276	0.014	1344.0	1.355	0.019	1685.4	1.317	0.067	2026.8	1.362	0.002	2189.8	1.376	0.018
580.1	1.599	0.076	907.1	1.081	0.257	1020.9	1.189	0.122	1134.7	1.275	0.011	1349.8	1.357	0.021	1691.2	1.313	0.061	2032.6	1.363	0.002	2191.8	1.376	0.018
585.9	1.602	0.082	909.0	1.080	0.250	1022.8	1.183	0.106	1136.6	1.276	0.007	1355.6	1.358	0.022	1697.0	1.309	0.059	2038.4	1.364	0.002	2193.7	1.376	0.018
591.7	1.605	0.085	911.0	1.078	0.240	1024.8	1.183	0.094	1138.6	1.278	0.005	1361.4	1.358	0.024	1702.8	1.306	0.055	2044.2	1.364	0.003	2195.6	1.376	0.018
597.5	1.607	0.091	912.9	1.077	0.235	1026.7	1.184	0.088	1140.5	1.280	0.004	1367.1	1.359	0.024	1708.6	1.304	0.051	2050.0	1.365	0.003	2197.6	1.376	0.018
603.3	1.612	0.094	914.8	1.076	0.225	1028.6	1.185	0.085	1142.4	1.282	0.001	1372.9	1.361	0.025	1714.4	1.303	0.047	2055.8	1.366	0.003	2199.5	1.376	0.018
609.1	1.616	0.099	916.7	1.075	0.218	1030.5	1.181	0.085	1144.4	1.285	0.001	1378.7	1.362	0.027	1720.1	1.301	0.042	2061.6	1.367	0.003	2206.2	1.375	0.019
614.9	1.619	0.106	918.7	1.073	0.211	1032.5	1.175	0.083	1146.3	1.286	0.000	1384.5	1.363	0.027	1725.9	1.301	0.038	2067.4	1.368	0.003	2213.0	1.375	0.019
620.6	1.623	0.111	920.6	1.074	0.202	1034.4	1.168	0.076	1148.2	1.289	0.000	1390.3	1.365	0.029	1731.7	1.302	0.033	2073.1	1.369	0.003	2219.7	1.374	0.020
626.4	1.627	0.116	922.5	1.074	0.194	1036.3	1.163	0.067	1150.1	1.290	0.000	1396.1	1.365	0.032	1737.5	1.302	0.030	2078.9	1.370	0.004	2226.5	1.373	0.020
632.2	1.631	0.125	924.5	1.073	0.187	1038.3	1.159	0.053	1152.1	1.292	0.000	1401.9	1.367	0.034	1743.3	1.304	0.026	2084.7	1.371	0.005	2233.2	1.372	0.020
638.0	1.635	0.134	926.4	1.074	0.180	1040.2	1.159	0.038	1154.0	1.293	0.000	1407.7	1.368	0.037	1749.1	1.305	0.023	2090.5	1.372	0.005	2240.0	1.372	0.020
643.8	1.638	0.143	928.3	1.075	0.171	1042.1	1.163	0.025	1155.9	1.294	0.000	1413.4	1.368	0.041	1754.9	1.307	0.020	2096.3	1.372	0.005	2246.8	1.371	0.019
649.6	1.641	0.151	930.2	1.076	0.164	1044.0	1.170	0.013	1157.9	1.296	0.000	1419.2	1.367	0.045	1760.7	1.309	0.018	2101.1	1.373	0.006	2253.5	1.370	0.019
655.4	1.644	0.162	932.2	1.077	0.157	1046.0	1.180	0.006	1159.8	1.297	0.000	1425.0	1.364	0.047	1766.4	1.311	0.015	2103.0	1.373	0.006	2260.3	1.370	0.018
661.2	1.647	0.171	934.1	1.079	0.151	1047.9	1.188	0.002	1161.7	1.298	0.002	1430.8	1.361	0.049	1772.2	1.313	0.014	2105.0	1.374	0.006	2267.0	1.369	0.017
666.9	1.648	0.183	936.0	1.080	0.144	1049.8	1.197	0.000	1163.6	1.298	0.000	1436.6	1.359	0.049	1778.0	1.315	0.012	2106.9	1.374	0.006	2273.8	1.369	0.016
672.7	1.651	0.196	938.0	1.081	0.135	1051.8	1.204	0.000	1165.6	1.300	0.000	1442.4	1.361	0.045	1783.8	1.317	0.011	2108.8	1.374	0.006	2280.5	1.369	0.015
678.5	1.653	0.209	939.9	1.084	0.129	1053.7	1.210	0.000	1167.5	1.301	0.000	1448.2	1.361	0.055	1789.6	1.319	0.010	2110.8	1.375	0.006	2287.3	1.369	0.014
684.3	1.654	0.221	941.8	1.087	0.120	1055.6	1.215	0.000	1169.4	1.302	0.000	1453.9	1.354	0.052	1795.4	1.320	0.009	2112.7	1.375	0.007	2294.0	1.370	0.013
690.1	1.651	0.237	943.7	1.090	0.114	1057.5	1.220	0.000	1171.4	1.302	0.000	1459.7	1.355	0.052	1801.2	1.322	0.008	2114.6	1.375	0.007	2300.8	1.370	0.012
695.9	1.650	0.252	945.7	1.093	0.109	1059.5	1.224	0.000	1173.3	1.303	0.000	1465.5	1.350	0.053	1806.9	1.323	0.007	2116.5	1.376	0.008	2307.5	1.370	0.012
701.7	1.647	0.265	947.6	1.096	0.101	1061.4	1.228	0.000	1175.2	1.305	0.000	1471.3	1.355	0.051	1812.7	1.325	0.006	2118.5	1.376	0.008	2314.3	1.371	0.011
707.4	1.644	0.281	949.5	1.099	0.095	1063.3	1.231	0.000	1177.1	1.306	0.000	1477.1	1.349	0.059	1818.5	1.327	0.006	2120.4	1.376	0.008	2321.0	1.372	0.010
713.2	1.639	0.297	951.5	1.103	0.091	1065.3	1.234	0.000	1179.1	1.307	0.000	1482.9	1.342	0.052	1824.3	1.328	0.005	2122.3	1.377	0.008	2327.8	1.372	0.009
719.0	1.633	0.313	953.4	1.106	0.085	1067.2	1.238	0.000	1181.0	1.307	0.000	1488.7	1.342	0.046	1830.1	1.329	0.005	2124.3	1.377	0.008	2334.5	1.373	0.009
724.8	1.624	0.331	955.3	1.110	0.079	1069.1	1.241	0.000	1182.9	1.308	0.000	1494.5	1.346	0.044	1835.9	1.331	0.004	2126.2	1.378	0.009	2341.3	1.374	0.008
730.6	1.614	0.346	957.2	1.114	0.071	1071.1	1.244	0.000	1184.9	1.310	0.000	1500.2	1.347	0.043	1841.7	1.332	0.004	2128.1	1.379	0.010	2348.0	1.375	0.007
736.4	1.603	0.361	959.2	1.119	0.067	1073.0	1.246	0.000	1186.8	1.310	0.000	1506.0	1.350	0.046	1847.5	1.333	0.004	2130.0	1.380	0.010	2354.8	1.375	0.007
742.2	1.590	0.375	961.1	1.123	0.062	1074.9	1.249	0.000	1188.7	1.311	0.000	1511.8	1.349	0.044	1853.2	1.334	0.004	2132.0	1.381	0.013	2361.5	1.376	0.006
748.0	1.578	0.389	963.0	1.128	0.058	1076.8	1.251	0.000	1190.6	1.312	0.000	1517.6	1.350	0.045	1859.0	1.336	0.003	2133.9	1.380	0.017	2368.3	1.377	0.006
753.7	1.563	0.404	965.0	1.133	0.052	1078.8	1.253	0.000	1192.6	1.313	0.000	1523.4	1.349	0.046	1864.8	1.337	0.003	2135.8	1.376	0.018	2375.0	1.378	0.006
759.5	1.546	0.416	966.9	1.137	0.049	1080.7	1.255	0.000	1194.5	1.314	0.001	1529.2	1.351	0.046	1870.6	1.338	0.002	2137.8	1.373	0.018	2381.8	1.379	0.005
765.3	1.529	0.427	968.8	1.143	0.044	1082.6	1.257	0.000	1196.4	1.315	0.001	1535.0	1.351	0.047	1876.4	1.339	0.002	2139.7	1.372	0.014	2388.5	1.380	0.005
771.1	1.511	0.436	970.8	1.148	0.040	1084.6	1.259	0.000	1198.4	1.316	0.002	1540.8	1.351	0.050	1882.2	1.340	0.002	2141.6	1.373	0.012	2395.3	1.381	0.004
776.9	1.492	0.445	972.7	1.154	0.037	1086.5	1.261	0.000	1205.1	1.318	0.002	1546.5	1.350	0.048	1888.0	1.341	0.002	2143.6	1.374	0.012	2402.0	1.382	0.004
782.7	1.471	0.454	974.6	1.159	0.033	1088.4	1.263	0.000	1210.9	1.320	0.002	1552.3	1.351	0.049	1893.8	1.342	0.001	2145.5	1.375	0.012	2408.8	1.383	0.004
788.5	1.451	0.459	976.5	1.165	0.030	1090.3	1.265	0.000	1216.7	1.323	0.004	1558.1	1.351	0.052	1899.5	1.343	0.002	2147.4	1.375	0.012	2415.5	1.384	0.004
794.3	1.430	0.463	978.5	1.171	0.027	1092.3	1.267	0.000	1222.5	1.325	0.004	1563.9	1.349	0.051	1905.3	1.344	0.002	2149.3	1.376	0.012	2422.3	1.384	0.003
800.0	1.409	0.466	980.4	1.176	0.025	1094.2	1.269	0.000	1228.3	1.327	0.005	1569.7	1.350	0.052	1911.1	1.345	0.002	2151.3	1.376	0.013	2429.0	1.386	0.003
805.8	1.388	0.468	982.3	1.182	0.022	1096.1	1.271	0.000	1234.0	1.328	0.001	1575.5	1.350	0.052	1916.9	1.346	0.002	2153.2	1.376	0.013	2435.8	1.386	0.003
811.6	1.366	0.468	984.3	1.189	0.021	1098.1	1.272	0.000	1239.8	1.331	0.006	1581.3	1.349	0.053	1922.7	1.347	0.002	2155.1	1.376	0.013	2442.5	1.387	0.002
817.4	1.343	0.466	986.2	1.195	0.018	1100.0	1.274	0.000	1245.6	1.333	0.006	1587.0	1.348	0.054	1928.5	1.348	0.002	2157.1	1.376	0.013	2449.3	1.388	0.002
823.2	1.322	0.464	988.1	1.202	0.017	1101.9	1.277	0.000	1251.4	1.334	0.007	1592.8	1.347	0.054	1934.3	1.348	0.002	2159.0	1.377	0.014	2456.0	1.389	0.002
829.0	1.300	0.459	990.0	1.209	0.015	1103.8	1.278	0.000	1257.2	1.336	0.009	1598.6	1.347	0.054	1940.0	1.349	0.002	2160.9	1.376	0.014	2462.8	1.390	0.002
834.8	1.279	0.454	992.0	1.217	0.016	1105.8	1.281	0.001	1263.0	1.337	0.009	1604.4	1.347	0.055	1945.8	1.350	0.000	2162.8	1.377	0.014	2469.5	1.392	0.001
840.5	1.258	0.446	993.9	1.225	0.014	1107.7	1.283	0.003	1268.8	1.339	0.010	1610.2	1.346	0.056	1951.6	1.351	0.000	2164.8	1.377	0.015	2476.3	1.393	0.001

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TABLE 2C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2483.0	1.394	0.000	2867.9	1.491	0.016	3252.7	1.390	0.713	3637.5	1.121	0.000
2489.8	1.396	0.001	2874.6	1.495	0.015	3259.5	1.353	0.718	3644.3	1.127	0.000
2496.6	1.397	0.001	2881.4	1.500	0.014	3266.2	1.315	0.719	3651.0	1.131	0.000
2503.3	1.398	0.001	2888.1	1.505	0.015	3273.0	1.276	0.715	3657.8	1.136	0.000
2510.1	1.399	0.001	2894.9	1.510	0.016	3279.7	1.239	0.709	3664.5	1.141	0.000
2516.8	1.401	0.002	2901.6	1.514	0.017	3286.5	1.204	0.697	3671.3	1.145	0.000
2523.6	1.402	0.002	2908.4	1.518	0.019	3293.2	1.170	0.682	3678.0	1.149	0.000
2530.3	1.403	0.002	2915.1	1.522	0.019	3300.0	1.140	0.663	3684.8	1.153	0.000
2537.1	1.404	0.003	2921.9	1.528	0.019	3306.7	1.114	0.643	3691.5	1.156	0.000
2543.8	1.404	0.003	2928.6	1.535	0.022	3313.5	1.091	0.622	3698.3	1.160	0.000
2550.6	1.405	0.003	2935.4	1.538	0.025	3320.2	1.071	0.603	3705.0	1.163	0.000
2557.3	1.405	0.002	2942.1	1.541	0.025	3327.0	1.053	0.582	3711.8	1.166	0.000
2564.1	1.407	0.002	2948.9	1.549	0.025	3333.7	1.038	0.563	3718.5	1.169	0.000
2570.8	1.408	0.002	2955.6	1.555	0.029	3340.5	1.024	0.544	3725.3	1.172	0.000
2577.6	1.409	0.002	2962.4	1.561	0.032	3347.2	1.010	0.526	3732.0	1.175	0.000
2584.3	1.410	0.002	2969.1	1.566	0.033	3354.0	0.998	0.508	3738.8	1.177	0.000
2591.1	1.411	0.002	2975.9	1.572	0.034	3360.7	0.987	0.493	3745.5	1.180	0.000
2597.8	1.413	0.002	2982.6	1.581	0.036	3367.5	0.975	0.476	3752.3	1.182	0.000
2604.6	1.414	0.002	2989.4	1.589	0.040	3374.2	0.962	0.459	3759.1	1.184	0.000
2611.3	1.415	0.002	2996.1	1.595	0.043	3381.0	0.951	0.443	3765.8	1.187	0.000
2618.1	1.416	0.001	3002.9	1.603	0.045	3387.7	0.940	0.426	3772.6	1.189	0.000
2624.8	1.417	0.000	3009.7	1.614	0.048	3394.5	0.928	0.407	3779.3	1.191	0.000
2631.6	1.419	0.000	3016.4	1.625	0.052	3401.2	0.917	0.387	3786.1	1.193	0.000
2638.3	1.420	0.000	3023.2	1.636	0.058	3408.0	0.908	0.366	3792.8	1.195	0.000
2645.1	1.422	0.000	3029.9	1.648	0.065	3414.7	0.900	0.343	3799.6	1.197	0.000
2651.8	1.424	0.000	3036.7	1.660	0.074	3421.5	0.893	0.320	3806.3	1.199	0.000
2658.6	1.425	0.000	3043.4	1.672	0.083	3428.2	0.888	0.297	3813.1	1.200	0.000
2665.3	1.427	0.000	3050.2	1.684	0.095	3435.0	0.885	0.273	3819.8	1.202	0.000
2672.1	1.429	0.000	3056.9	1.696	0.107	3441.7	0.885	0.248	3826.6	1.204	0.000
2678.8	1.430	0.000	3063.7	1.709	0.122	3448.5	0.887	0.225	3833.3	1.205	0.000
2685.6	1.432	0.000	3070.4	1.721	0.138	3455.2	0.891	0.202	3840.1	1.207	0.000
2692.3	1.434	0.000	3077.2	1.732	0.156	3462.0	0.898	0.181	3846.8	1.208	0.000
2699.1	1.436	0.000	3083.9	1.741	0.176	3468.7	0.905	0.162	3853.6	1.210	0.000
2705.8	1.438	0.000	3090.7	1.750	0.197	3475.5	0.914	0.144	3860.3	1.211	0.000
2712.6	1.440	0.000	3097.4	1.757	0.221	3482.2	0.922	0.128	3867.1	1.212	0.000
2719.3	1.443	0.000	3104.2	1.761	0.246	3489.0	0.931	0.113	3873.8	1.214	0.000
2726.1	1.445	0.000	3110.9	1.764	0.272	3495.7	0.940	0.100	3880.6	1.215	0.000
2732.8	1.447	0.000	3117.7	1.764	0.297	3502.5	0.949	0.087	3887.3	1.217	0.000
2739.6	1.450	0.000	3124.4	1.762	0.324	3509.3	0.959	0.075	3894.1	1.218	0.000
2746.4	1.452	0.000	3131.2	1.759	0.350	3516.0	0.969	0.063	3900.8	1.219	0.000
2753.1	1.455	0.000	3137.9	1.753	0.378	3522.8	0.979	0.052	3907.6	1.220	0.000
2759.9	1.458	0.000	3144.7	1.745	0.404	3529.5	0.990	0.042	3914.3	1.221	0.000
2766.6	1.461	0.001	3151.4	1.734	0.430	3536.3	1.002	0.035	3921.1	1.222	0.000
2773.4	1.464	0.001	3158.2	1.723	0.456	3543.0	1.013	0.028	3927.8	1.224	0.000
2780.1	1.467	0.002	3164.9	1.709	0.480	3549.8	1.023	0.022	3934.6	1.225	0.000
2786.9	1.471	0.003	3171.7	1.694	0.505	3556.5	1.034	0.017	3941.3	1.226	0.000
2793.6	1.474	0.005	3178.4	1.677	0.528	3563.3	1.043	0.013	3948.1	1.227	0.000
2800.4	1.478	0.007	3185.2	1.658	0.549	3570.0	1.053	0.010	3954.8	1.228	0.000
2807.1	1.482	0.009	3191.9	1.638	0.571	3576.8	1.062	0.007	3961.6	1.228	0.000
2813.9	1.485	0.013	3198.7	1.617	0.591	3583.5	1.070	0.005	3968.3	1.230	0.000
2820.6	1.488	0.018	3205.4	1.595	0.610	3590.3	1.078	0.004	3975.1	1.231	0.000
2827.4	1.487	0.025	3212.2	1.571	0.628	3597.0	1.085	0.002	3981.8	1.232	0.000
2834.1	1.479	0.027	3218.9	1.545	0.647	3603.8	1.092	0.000	3988.6	1.232	0.000
2840.9	1.478	0.018	3225.7	1.519	0.662	3610.5	1.099	0.000	3995.3	1.233	0.000
2847.6	1.484	0.017	3232.4	1.490	0.678	3617.3	1.105	0.000			
2854.4	1.487	0.018	3239.2	1.458	0.693	3624.0	1.111	0.000			
2861.1	1.489	0.018	3245.9	1.425	0.704	3630.8	1.116	0.000			

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TABLE 2D

$H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1 AT 100 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.704	0.000	164.9	1.744	0.296	278.7	1.319	0.123	392.5	1.531	0.032	723.4	1.616	0.379	955.8	1.043	0.088	1069.6	1.207	0.000	1183.4	1.286	0.000
53.0	1.710	0.000	166.9	1.740	0.297	280.7	1.322	0.122	394.5	1.533	0.034	729.2	1.608	0.396	957.7	1.049	0.082	1071.5	1.210	0.000	1185.3	1.287	0.000
55.0	1.722	0.000	168.8	1.734	0.309	282.6	1.326	0.112	396.4	1.534	0.035	734.9	1.595	0.413	959.7	1.054	0.075	1073.5	1.212	0.000	1187.3	1.288	0.000
56.9	1.731	0.035	170.7	1.735	0.304	284.5	1.330	0.110	398.3	1.537	0.036	740.7	1.588	0.430	961.6	1.058	0.071	1075.4	1.215	0.000	1189.2	1.289	0.000
58.8	1.692	0.002	172.6	1.735	0.321	286.5	1.332	0.104	405.1	1.542	0.041	746.5	1.573	0.446	963.5	1.064	0.065	1077.3	1.218	0.000	1191.1	1.290	0.000
60.8	1.715	0.001	174.6	1.731	0.326	288.4	1.337	0.097	410.9	1.546	0.045	752.3	1.556	0.463	965.4	1.070	0.059	1079.3	1.220	0.000	1193.1	1.292	0.000
62.7	1.725	0.003	176.5	1.733	0.333	290.3	1.340	0.092	416.7	1.549	0.048	758.1	1.542	0.477	967.4	1.076	0.055	1081.2	1.222	0.000	1195.0	1.293	0.001
64.6	1.734	0.024	178.4	1.734	0.341	292.2	1.343	0.085	422.4	1.554	0.051	763.9	1.525	0.490	969.3	1.083	0.051	1083.1	1.225	0.000	1196.9	1.293	0.001
66.5	1.730	0.006	180.4	1.715	0.365	294.2	1.347	0.082	428.2	1.558	0.054	769.7	1.502	0.502	971.2	1.089	0.047	1085.0	1.227	0.000	1198.8	1.294	0.001
68.5	1.731	0.008	182.3	1.708	0.352	296.1	1.348	0.076	434.0	1.561	0.060	775.4	1.485	0.515	973.2	1.094	0.043	1087.0	1.230	0.000	1205.6	1.297	0.002
70.4	1.733	0.009	184.2	1.706	0.356	298.0	1.352	0.070	439.8	1.563	0.065	781.2	1.466	0.523	975.1	1.100	0.039	1088.9	1.232	0.000	1211.4	1.300	0.002
72.3	1.734	0.010	186.1	1.701	0.362	300.0	1.354	0.067	445.6	1.567	0.069	787.0	1.439	0.532	977.0	1.106	0.036	1090.8	1.234	0.000	1217.2	1.303	0.003
74.3	1.736	0.012	188.1	1.694	0.371	301.9	1.357	0.060	451.4	1.570	0.072	792.8	1.416	0.539	978.9	1.113	0.032	1092.8	1.235	0.000	1223.0	1.305	0.003
76.2	1.738	0.013	190.0	1.690	0.378	303.8	1.363	0.056	457.2	1.571	0.076	798.6	1.396	0.543	980.9	1.120	0.028	1094.7	1.237	0.000	1228.7	1.307	0.004
78.1	1.740	0.014	191.9	1.677	0.395	305.7	1.366	0.052	463.0	1.574	0.080	804.4	1.367	0.549	982.8	1.126	0.027	1096.6	1.240	0.000	1234.5	1.310	0.000
80.1	1.743	0.015	193.9	1.670	0.394	307.7	1.370	0.051	468.7	1.576	0.084	810.2	1.343	0.549	984.7	1.134	0.023	1098.5	1.242	0.000	1240.3	1.311	0.006
82.0	1.746	0.016	195.8	1.667	0.408	309.6	1.373	0.045	474.5	1.578	0.088	816.0	1.322	0.546	986.7	1.141	0.022	1100.5	1.244	0.000	1246.1	1.314	0.007
83.9	1.747	0.017	197.7	1.656	0.416	311.5	1.377	0.043	480.3	1.582	0.091	821.7	1.292	0.547	988.6	1.148	0.020	1102.4	1.246	0.000	1251.9	1.316	0.007
85.8	1.748	0.024	199.7	1.646	0.433	313.5	1.380	0.038	486.1	1.586	0.097	827.5	1.266	0.542	990.5	1.156	0.019	1104.3	1.249	0.000	1257.7	1.318	0.008
87.8	1.756	0.025	201.6	1.632	0.440	315.4	1.384	0.034	491.9	1.588	0.102	833.3	1.246	0.536	992.5	1.164	0.019	1106.3	1.251	0.000	1263.5	1.320	0.009
89.7	1.755	0.028	203.5	1.618	0.452	317.3	1.388	0.031	497.7	1.590	0.108	839.1	1.221	0.528	994.4	1.173	0.017	1108.2	1.253	0.002	1269.3	1.322	0.009
91.6	1.768	0.034	205.4	1.600	0.461	319.2	1.392	0.026	503.5	1.592	0.115	844.9	1.192	0.519	996.3	1.183	0.018	1110.1	1.256	0.004	1275.0	1.323	0.010
93.6	1.756	0.035	207.4	1.586	0.466	321.2	1.396	0.022	509.2	1.592	0.121	850.7	1.172	0.507	998.2	1.193	0.020	1112.0	1.257	0.005	1280.8	1.325	0.011
95.5	1.777	0.000	209.3	1.566	0.475	323.1	1.400	0.017	515.0	1.592	0.127	856.5	1.150	0.492	1000.2	1.206	0.022	1114.0	1.258	0.008	1286.6	1.327	0.013
97.4	1.793	0.027	211.2	1.549	0.476	325.0	1.406	0.013	520.8	1.592	0.133	862.2	1.123	0.479	1002.1	1.217	0.028	1115.9	1.259	0.010	1292.4	1.328	0.013
99.3	1.801	0.026	213.2	1.530	0.477	327.0	1.410	0.010	526.6	1.590	0.138	868.0	1.105	0.461	1004.0	1.228	0.040	1117.8	1.259	0.012	1298.2	1.329	0.014
101.3	1.793	0.030	215.1	1.508	0.477	328.9	1.417	0.006	532.4	1.588	0.145	873.8	1.085	0.444	1006.0	1.242	0.056	1119.8	1.260	0.015	1304.0	1.332	0.015
103.2	1.816	0.011	217.0	1.488	0.473	330.8	1.421	0.006	538.2	1.586	0.148	879.6	1.064	0.421	1007.9	1.248	0.077	1121.7	1.258	0.016	1309.8	1.333	0.016
105.1	1.841	0.061	218.9	1.465	0.472	332.7	1.427	0.002	544.0	1.583	0.150	885.4	1.048	0.400	1009.8	1.241	0.099	1123.6	1.256	0.017	1315.5	1.333	0.016
107.1	1.785	0.069	220.9	1.443	0.464	334.7	1.433	0.001	549.8	1.582	0.152	891.2	1.034	0.375	1011.7	1.225	0.121	1125.5	1.253	0.019	1321.3	1.334	0.018
109.0	1.812	0.040	222.8	1.417	0.461	336.6	1.439	0.000	555.5	1.583	0.156	897.0	1.018	0.351	1013.7	1.217	0.135	1127.5	1.253	0.017	1327.1	1.336	0.018
110.9	1.824	0.083	224.7	1.397	0.443	338.5	1.446	0.001	561.3	1.582	0.157	901.8	1.013	0.329	1015.6	1.189	0.140	1129.4	1.250	0.016	1332.9	1.338	0.019
112.8	1.820	0.079	226.7	1.382	0.433	340.5	1.450	0.001	567.1	1.581	0.160	903.7	1.010	0.321	1017.5	1.163	0.135	1131.3	1.248	0.013	1338.7	1.339	0.020
114.8	1.829	0.097	228.6	1.368	0.415	342.4	1.456	0.002	572.9	1.583	0.160	905.6	1.004	0.310	1019.5	1.157	0.122	1133.3	1.249	0.010	1344.5	1.341	0.020
116.7	1.827	0.107	230.5	1.358	0.405	344.3	1.461	0.002	578.7	1.584	0.164	907.6	1.002	0.302	1021.4	1.151	0.106	1135.2	1.249	0.007	1350.3	1.342	0.022
118.6	1.839	0.116	232.4	1.345	0.390	346.3	1.466	0.002	584.5	1.583	0.166	909.5	1.000	0.294	1023.3	1.148	0.093	1137.1	1.250	0.005	1356.1	1.344	0.023
120.6	1.833	0.133	234.4	1.340	0.371	348.2	1.470	0.003	590.3	1.586	0.170	911.4	0.997	0.283	1025.2	1.149	0.087	1139.0	1.253	0.002	1361.8	1.343	0.024
122.5	1.842	0.128	236.3	1.334	0.358	350.1	1.474	0.003	596.1	1.589	0.171	913.4	0.996	0.272	1027.2	1.159	0.088	1141.0	1.255	0.000	1367.6	1.344	0.025
124.4	1.839	0.152	238.2	1.326	0.344	352.0	1.479	0.004	601.8	1.588	0.175	915.3	0.996	0.264	1029.1	1.153	0.091	1142.9	1.257	0.000	1373.4	1.345	0.026
126.4	1.838	0.146	240.2	1.318	0.330	354.0	1.482	0.005	607.6	1.590	0.179	917.2	0.997	0.255	1031.0	1.144	0.094	1144.8	1.260	0.000	1379.2	1.348	0.027
128.3	1.837	0.164	242.1	1.313	0.316	355.9	1.486	0.005	613.4	1.594	0.181	919.2	0.996	0.247	1033.0	1.141	0.094	1146.8	1.262	0.000	1385.0	1.349	0.029
130.2	1.831	0.158	244.0	1.309	0.303	357.8	1.489	0.008	619.2	1.595	0.186	921.1	0.995	0.236	1034.9	1.130	0.088	1148.7	1.264	0.000	1390.8	1.352	0.030
132.1	1.829	0.169	245.9	1.303	0.292	359.8	1.493	0.010	625.0	1.597	0.191	923.0	0.996	0.226	1036.8	1.117	0.075	1150.6	1.265	0.000	1396.6	1.353	0.033
134.1	1.836	0.177	247.9	1.294	0.269	361.7	1.495	0.011	630.8	1.603	0.195	924.9	0.994	0.218	1038.7	1.109	0.058	1152.6	1.268	0.000	1402.3	1.352	0.035
136.0	1.827	0.201	249.8	1.311	0.260	363.6	1.498	0.012	636.6	1.604	0.201	926.9	0.995	0.207	1040.7	1.112	0.041	1154.5	1.269	0.000	1408.1	1.353	0.039
137.9	1.824	0.190	251.7	1.305	0.255	365.5	1.502	0.014	642.3	1.607	0.206	928.8	0.996	0.199	1042.6	1.117	0.024	1156.4	1.270	0.000	1413.9	1.353	0.042
139.9	1.831	0.217	253.7	1.302	0.246	367.5	1.504	0.016	648.1	1.612	0.213	930.7	0.998	0.189	1044.5	1.125	0.011	1158.3	1.271	0.000	1419.7	1.353	0.046
141.8	1.824	0.238	255.6	1.299	0.234	369.4	1.507	0.017	653.9	1.615	0.220	932.7	1.000	0.181	1046.5	1.137	0.002	1160.3	1.273	0.000	1425.5	1.350	0.049
143.7	1.813	0.246	257.5	1.300	0.223	371.3	1.509	0.019	659.7	1.616	0.228	934.6	1.003	0.173	1048.4	1.147	0.000	1162.2	1.274	0.000	1431.3	1.347	0.050
145.6	1.808	0.261	259.4	1.297	0.213	373.3	1.511	0.019	665.5	1.621	0.238	936.5	1.004	0.164	1050.3	1.157	0.000	1164.1	1.275	0.000	1437.1	1.347	0.048
147.6	1.796	0.264	261.4	1.299	0.200	375.2	1.514	0.021	671.3	1.625	0.246	938.4	1.008	0.154	1052.2	1.165	0.000	1166.1	1.276	0.000	1442.9	1.350	0.046
149.5	1.793	0.272	263.3	1.300	0.189	377.1	1.516	0.022	677.1	1.627	0.257	940.4	1.011	0.146	1054.2	1.171	0.000	1168.0	1.277	0.000	1448.6	1.344	0.056
151.4	1.782	0.277	265.2	1.307	0.179	379.0	1.519	0.023	682.9	1.631	0.270	942.3	1.013	0.139	1056.1	1.178	0.000	1169.9	1.278	0.000	1454.4	1.339	0.052
153.4	1.777	0.277	267.2	1.309	0.173	381.0	1.520	0.024	688.6	1.633	0.284	944.2	1.016	0.129	1058.0	1.183	0.000	1171.8	1.279	0.000	1460.2	1.340	0.053
155.3	1.771	0.282	269.1	1.311	0.164	382.9	1.522	0.024	694.4	1.631	0.299	946.2	1.020	0.122	1060.0	1.187	0.000	1173.8	1.281	0.000	1466.0	1.338	0.052
157.2	1.765	0.275	271.0	1.312	0.156	384.8	1.524	0.027	700.2	1.630	0.314	948.1	1.024	0.115	1061.9	1.192	0.000	1175.7	1.282	0.000	1471.8	1.342	0.052
159.1	1.765	0.284	273.0	1.313	0.149	386.8	1.526	0.027	706.0	1.630	0.330	950.0	1.028	0.108	1063.8	1.196	0.000	1177.6	1.283	0.000	1477.6	1.338	0.058
161.1	1.756	0.286	274.9	1.315	0.140	388.7	1.528	0.029	711.8	1.624	0.346	951.9	1.034	0.101	1065.7	1.200	0.000	1179.6	1.284	0.000	1483.4	1.331	0.051
163.0	1.752	0.290	276.8	1.316	0.136	390.6	1.529	0.030	717.6	1.619	0.364	953.9	1.038	0.095	1067.7	1.202	0.000	1181.5	1.285	0.000	1489.2	1.333	0.046

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TABLE 2D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.332	0.045	1836.4	1.324	0.004	2126.7	1.374	0.009	2327.3	1.369	0.010	2668.7	1.427	0.000	3004.3	1.609	0.050	3340.0	1.026	0.536	3675.6	1.146	0.000
1500.7	1.334	0.045	1842.2	1.326	0.004	2128.6	1.375	0.010	2333.1	1.370	0.009	2674.5	1.428	0.000	3010.1	1.618	0.053	3345.8	1.014	0.520	3681.4	1.149	0.000
1506.5	1.337	0.044	1847.9	1.327	0.003	2130.5	1.375	0.010	2338.9	1.371	0.009	2680.3	1.430	0.000	3015.9	1.627	0.057	3351.6	1.004	0.505	3687.2	1.152	0.000
1512.3	1.338	0.045	1853.7	1.328	0.003	2132.5	1.377	0.013	2344.6	1.370	0.008	2686.1	1.432	0.000	3021.7	1.639	0.062	3357.3	0.956	0.494	3693.0	1.155	0.000
1518.1	1.339	0.046	1859.5	1.329	0.003	2134.4	1.374	0.017	2350.4	1.371	0.008	2691.9	1.433	0.000	3027.5	1.649	0.068	3363.1	0.947	0.480	3698.8	1.158	0.000
1523.9	1.341	0.046	1865.3	1.331	0.003	2136.3	1.371	0.017	2356.2	1.372	0.007	2697.6	1.435	0.000	3033.3	1.663	0.075	3368.9	0.937	0.464	3704.6	1.161	0.000
1529.7	1.341	0.047	1871.1	1.331	0.002	2138.2	1.369	0.016	2362.0	1.373	0.007	2703.4	1.437	0.000	3039.1	1.673	0.082	3374.7	0.945	0.449	3710.3	1.164	0.000
1535.4	1.338	0.048	1876.9	1.333	0.002	2140.2	1.370	0.013	2367.8	1.374	0.006	2709.2	1.439	0.000	3044.9	1.684	0.091	3380.5	0.936	0.436	3716.1	1.167	0.000
1541.2	1.338	0.048	1882.7	1.334	0.002	2142.1	1.370	0.012	2373.6	1.375	0.006	2715.0	1.441	0.000	3050.6	1.687	0.102	3386.3	0.945	0.420	3721.9	1.169	0.000
1547.0	1.338	0.049	1888.4	1.335	0.001	2144.0	1.370	0.012	2379.4	1.376	0.006	2720.8	1.443	0.000	3056.4	1.697	0.113	3392.1	0.933	0.403	3727.7	1.172	0.000
1552.8	1.339	0.050	1894.2	1.336	0.001	2146.0	1.372	0.012	2385.2	1.376	0.005	2726.6	1.445	0.000	3062.2	1.707	0.125	3397.9	0.923	0.387	3733.5	1.174	0.000
1558.6	1.339	0.052	1900.0	1.337	0.001	2147.9	1.372	0.012	2390.9	1.377	0.005	2732.4	1.447	0.000	3068.0	1.722	0.138	3403.6	0.885	0.369	3739.3	1.176	0.000
1564.4	1.340	0.051	1905.8	1.339	0.001	2149.8	1.372	0.012	2396.7	1.378	0.005	2738.2	1.449	0.000	3073.8	1.732	0.152	3409.4	0.878	0.350	3745.1	1.178	0.000
1570.2	1.340	0.052	1911.6	1.340	0.001	2151.8	1.373	0.013	2402.5	1.379	0.004	2743.9	1.451	0.000	3079.6	1.749	0.168	3415.2	0.887	0.330	3750.9	1.180	0.000
1576.0	1.340	0.053	1917.4	1.341	0.001	2153.7	1.373	0.013	2408.3	1.380	0.004	2749.7	1.453	0.000	3085.4	1.759	0.185	3421.0	0.882	0.310	3756.6	1.182	0.000
1581.7	1.336	0.054	1923.2	1.341	0.001	2155.6	1.373	0.013	2414.1	1.380	0.004	2755.5	1.456	0.000	3091.1	1.751	0.207	3426.8	0.878	0.291	3762.4	1.184	0.000
1587.5	1.335	0.055	1929.0	1.342	0.001	2157.5	1.373	0.013	2419.9	1.382	0.004	2761.3	1.458	0.000	3096.9	1.757	0.227	3432.6	0.887	0.269	3768.2	1.186	0.000
1593.3	1.334	0.054	1934.7	1.343	0.000	2159.5	1.374	0.014	2425.7	1.382	0.003	2767.1	1.461	0.000	3102.7	1.761	0.249	3438.4	0.886	0.250	3774.0	1.188	0.000
1599.1	1.336	0.055	1940.5	1.344	0.000	2161.4	1.373	0.014	2431.4	1.383	0.003	2772.9	1.464	0.002	3108.5	1.773	0.272	3444.1	0.868	0.227	3779.8	1.190	0.000
1604.9	1.335	0.056	1946.3	1.345	0.000	2163.3	1.373	0.015	2437.2	1.384	0.003	2778.7	1.467	0.002	3114.3	1.775	0.295	3449.9	0.872	0.207	3785.6	1.191	0.000
1610.7	1.336	0.057	1952.1	1.347	0.002	2165.3	1.374	0.015	2443.0	1.384	0.003	2784.4	1.469	0.003	3120.1	1.789	0.318	3455.7	0.878	0.187	3791.4	1.193	0.000
1616.5	1.335	0.057	1957.9	1.347	0.002	2167.2	1.374	0.015	2448.8	1.386	0.002	2790.2	1.472	0.004	3125.9	1.787	0.343	3461.5	0.893	0.171	3797.1	1.195	0.000
1622.3	1.335	0.058	1963.7	1.348	0.002	2169.1	1.373	0.015	2454.6	1.386	0.002	2796.0	1.476	0.005	3131.7	1.784	0.368	3467.3	0.900	0.155	3802.9	1.196	0.000
1628.0	1.329	0.059	1969.5	1.349	0.002	2171.0	1.373	0.015	2460.4	1.387	0.002	2801.8	1.479	0.008	3137.4	1.750	0.394	3473.1	0.913	0.141	3808.7	1.198	0.000
1633.8	1.328	0.059	1975.3	1.349	0.002	2173.0	1.374	0.016	2466.2	1.388	0.001	2807.6	1.482	0.010	3143.2	1.741	0.419	3478.9	0.920	0.127	3814.5	1.199	0.000
1639.6	1.329	0.059	1981.0	1.350	0.002	2174.9	1.373	0.016	2472.0	1.389	0.001	2813.4	1.486	0.013	3149.0	1.730	0.444	3484.7	0.927	0.114	3820.3	1.200	0.000
1645.4	1.328	0.061	1986.8	1.351	0.000	2176.8	1.373	0.017	2477.7	1.390	0.000	2819.2	1.488	0.016	3154.8	1.737	0.466	3490.4	0.927	0.100	3826.1	1.202	0.000
1651.2	1.326	0.062	1992.6	1.352	0.002	2178.8	1.374	0.017	2483.5	1.392	0.000	2825.0	1.489	0.022	3160.6	1.724	0.489	3496.2	0.935	0.089	3831.9	1.203	0.000
1657.0	1.327	0.062	1998.4	1.353	0.002	2180.7	1.374	0.017	2489.3	1.393	0.001	2830.7	1.483	0.026	3166.4	1.732	0.509	3502.0	0.944	0.078	3837.7	1.205	0.000
1662.8	1.324	0.063	2004.2	1.354	0.002	2182.6	1.373	0.017	2495.1	1.394	0.000	2836.5	1.478	0.023	3172.2	1.717	0.531	3507.8	0.956	0.069	3843.4	1.206	0.000
1668.5	1.317	0.064	2010.0	1.354	0.002	2184.5	1.372	0.017	2500.9	1.395	0.000	2842.3	1.481	0.017	3178.0	1.701	0.551	3513.6	0.965	0.059	3849.2	1.207	0.000
1674.3	1.313	0.063	2015.8	1.355	0.002	2186.5	1.374	0.018	2506.7	1.396	0.001	2848.1	1.486	0.017	3183.7	1.640	0.576	3519.4	0.976	0.050	3855.0	1.208	0.000
1680.1	1.309	0.062	2021.5	1.356	0.002	2188.4	1.373	0.018	2512.5	1.398	0.001	2853.9	1.488	0.018	3189.5	1.621	0.594	3525.2	0.985	0.042	3860.8	1.210	0.000
1685.9	1.309	0.061	2027.3	1.357	0.002	2190.3	1.372	0.018	2518.2	1.399	0.002	2859.7	1.490	0.017	3195.3	1.598	0.612	3531.0	0.995	0.034	3866.6	1.211	0.000
1691.7	1.305	0.059	2033.1	1.358	0.002	2192.3	1.374	0.018	2524.0	1.400	0.002	2865.5	1.493	0.016	3201.1	1.602	0.627	3536.7	1.002	0.029	3872.4	1.212	0.000
1697.5	1.304	0.056	2038.9	1.359	0.002	2194.2	1.373	0.018	2529.8	1.401	0.002	2871.2	1.495	0.015	3206.9	1.581	0.643	3542.5	1.012	0.023	3878.2	1.213	0.000
1703.3	1.302	0.053	2044.7	1.360	0.002	2196.1	1.372	0.018	2535.6	1.401	0.003	2877.0	1.499	0.015	3212.7	1.586	0.655	3548.3	1.022	0.019	3884.0	1.214	0.000
1709.1	1.299	0.049	2050.5	1.361	0.002	2198.0	1.372	0.019	2541.4	1.402	0.003	2882.8	1.503	0.015	3218.5	1.563	0.671	3554.1	1.031	0.015	3889.7	1.215	0.000
1714.8	1.294	0.045	2056.3	1.362	0.002	2205.8	1.373	0.020	2547.2	1.403	0.003	2888.6	1.508	0.015	3224.2	1.486	0.691	3559.9	1.040	0.012	3895.5	1.216	0.000
1720.6	1.293	0.040	2062.1	1.362	0.002	2211.5	1.371	0.020	2553.0	1.403	0.003	2894.4	1.513	0.016	3230.0	1.458	0.704	3565.7	1.048	0.010	3901.3	1.217	0.000
1726.4	1.295	0.037	2067.8	1.363	0.003	2217.3	1.370	0.021	2558.8	1.404	0.002	2900.2	1.518	0.017	3235.8	1.430	0.717	3571.5	1.055	0.007	3907.1	1.218	0.000
1732.2	1.295	0.032	2073.6	1.364	0.003	2223.1	1.369	0.021	2564.5	1.405	0.002	2906.0	1.522	0.018	3241.6	1.427	0.725	3577.2	1.062	0.005	3912.9	1.219	0.000
1738.0	1.296	0.029	2079.4	1.365	0.004	2228.9	1.370	0.021	2570.3	1.406	0.002	2911.8	1.525	0.020	3247.4	1.395	0.732	3583.0	1.069	0.003	3918.7	1.220	0.000
1743.8	1.298	0.025	2085.2	1.367	0.004	2234.7	1.369	0.021	2576.1	1.407	0.002	2917.5	1.527	0.020	3253.2	1.394	0.736	3588.8	1.076	0.002	3924.5	1.221	0.000
1749.6	1.300	0.023	2091.0	1.367	0.004	2240.5	1.369	0.020	2581.9	1.408	0.002	2923.3	1.533	0.021	3259.0	1.359	0.738	3594.6	1.082	0.000	3930.2	1.222	0.000
1755.3	1.300	0.019	2096.8	1.368	0.005	2246.3	1.369	0.020	2587.7	1.409	0.002	2929.1	1.538	0.024	3264.8	1.322	0.737	3600.4	1.088	0.000	3936.0	1.223	0.000
1761.1	1.302	0.017	2101.6	1.369	0.006	2252.1	1.368	0.020	2593.5	1.410	0.002	2934.9	1.542	0.027	3270.5	1.230	0.740	3606.2	1.094	0.000	3941.8	1.224	0.000
1766.9	1.304	0.016	2103.5	1.369	0.006	2257.8	1.366	0.019	2599.3	1.411	0.002	2940.7	1.545	0.027	3276.3	1.198	0.733	3612.0	1.099	0.000	3947.6	1.225	0.000
1772.7	1.306	0.014	2105.5	1.370	0.006	2263.6	1.365	0.018	2605.1	1.412	0.002	2946.5	1.552	0.027	3282.1	1.162	0.721	3617.8	1.104	0.000	3953.4	1.226	0.000
1778.5	1.308	0.012	2107.4	1.370	0.006	2269.4	1.365	0.018	2610.8	1.413	0.002	2952.3	1.558	0.030	3287.9	1.161	0.704	3623.5	1.109	0.000	3959.2	1.227	0.000
1784.3	1.311	0.011	2109.3	1.370	0.006	2275.2	1.366	0.016	2616.6	1.414	0.002	2958.1	1.562	0.032	3293.7	1.133	0.686	3629.3	1.114	0.000	3965.0	1.227	0.000
1790.1	1.312	0.010	2111.2	1.370	0.006	2281.0	1.366	0.016	2622.4	1.415	0.000	2963.8	1.564	0.035	3299.5	1.136	0.664	3635.1	1.119	0.000	3970.8	1.228	0.000
1795.9	1.314	0.009	2113.2	1.371	0.007	2286.8	1.367	0.015	2628.2	1.417	0.000	2969.6	1.569	0.036	3305.3	1.112	0.645	3640.9	1.123	0.000	3976.5	1.229	0.000
1801.6	1.315	0.008	2115.1	1.371	0.007	2292.6	1.367	0.014	2634.0	1.418	0.000	2975.4	1.577	0.037	3311.1	1.093	0.627	3646.7	1.127	0.000	3982.3	1.230	0.000
1807.4	1.316	0.007	2117.0	1.371	0.008	2298.4	1.367	0.013	2639.8	1.420	0.000	2981.2	1.584	0.038	3316.8	1.028	0.612	3652.5	1.131	0.000	3988.1	1.230	0.000
1813.2	1.318	0.006	2119.0	1.372	0.008	2304.1	1.367	0.012	2645.6	1.421	0.000	2987.0	1.591	0.042	3322.6	1.014	0.592	3658.3	1.135	0.000	3993.9	1.231	0.000
1819.0	1.320	0.005	2120.9	1.372	0.008	2309.9	1.367	0.012	2651.3	1.422	0.000	2992.8	1.599	0.046	3328.4	1.023	0.572	3664.1	1.139	0.000	3999.7	1.232	0.000
1824.8	1.321	0.006	2122.8	1.372	0.008	2315.7	1.368	0.011	2657.1	1.424	0.000	2998.6	1.605	0.048	3334.2	1.012	0.553	3669.8	1.143	0.000			
1830.6	1.323	0.005	2124.7	1.373	0.008	2321.5	1.369	0.011	2662.9	1.425	0.000												

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TABLE 2E

$H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1 AT 120 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.576	0.031	846.3	1.256	0.483	995.8	1.211	0.012	1109.6	1.281	0.006	1274.6	1.342	0.010	1616.0	1.342	0.059	1957.4	1.354	0.001	2166.7	1.380	0.015
510.7	1.573	0.026	852.1	1.231	0.474	997.8	1.220	0.012	1111.6	1.282	0.008	1280.3	1.344	0.012	1621.8	1.340	0.060	1963.2	1.354	0.001	2168.6	1.379	0.015
516.5	1.576	0.033	857.9	1.208	0.462	999.7	1.230	0.015	1113.5	1.283	0.011	1286.1	1.345	0.012	1627.6	1.339	0.060	1969.0	1.355	0.002	2170.6	1.380	0.015
522.3	1.582	0.035	863.7	1.185	0.449	1001.6	1.240	0.017	1115.4	1.284	0.012	1291.9	1.346	0.013	1633.3	1.338	0.061	1974.8	1.356	0.001	2172.5	1.379	0.016
528.1	1.582	0.039	869.5	1.164	0.434	1003.5	1.251	0.023	1117.3	1.283	0.015	1297.7	1.347	0.014	1639.1	1.336	0.060	1980.6	1.357	0.002	2174.4	1.379	0.016
533.8	1.583	0.043	875.3	1.144	0.416	1005.5	1.260	0.033	1119.3	1.283	0.016	1303.5	1.349	0.015	1644.9	1.335	0.061	1986.3	1.358	0.001	2176.3	1.380	0.016
539.6	1.584	0.047	881.1	1.125	0.397	1007.4	1.268	0.047	1121.2	1.281	0.017	1309.3	1.350	0.016	1650.7	1.333	0.061	1992.1	1.359	0.002	2178.3	1.379	0.017
545.4	1.585	0.049	886.8	1.106	0.376	1009.3	1.270	0.063	1123.1	1.279	0.017	1315.1	1.352	0.016	1656.5	1.330	0.061	1997.9	1.360	0.002	2180.2	1.380	0.017
551.2	1.588	0.055	892.6	1.090	0.354	1011.3	1.267	0.082	1125.1	1.278	0.017	1320.9	1.353	0.017	1662.3	1.328	0.061	2003.7	1.360	0.002	2182.1	1.379	0.017
557.0	1.588	0.057	898.4	1.077	0.330	1013.2	1.257	0.095	1127.0	1.276	0.016	1326.6	1.354	0.018	1668.1	1.326	0.061	2009.5	1.361	0.002	2184.1	1.379	0.017
562.8	1.591	0.063	901.3	1.071	0.317	1015.1	1.243	0.103	1128.9	1.275	0.014	1332.4	1.355	0.019	1673.9	1.323	0.061	2015.3	1.362	0.002	2186.0	1.379	0.018
568.6	1.593	0.062	903.2	1.067	0.310	1017.0	1.229	0.101	1130.8	1.274	0.011	1338.2	1.356	0.020	1679.6	1.320	0.060	2021.1	1.363	0.002	2187.9	1.379	0.018
574.4	1.593	0.068	905.2	1.064	0.300	1019.0	1.220	0.094	1132.8	1.275	0.009	1344.0	1.357	0.020	1685.4	1.317	0.060	2026.8	1.364	0.002	2189.8	1.379	0.018
580.1	1.596	0.072	907.1	1.061	0.293	1020.9	1.217	0.084	1134.7	1.275	0.007	1349.8	1.359	0.023	1691.2	1.314	0.056	2032.6	1.365	0.002	2191.8	1.379	0.018
585.9	1.598	0.073	909.0	1.058	0.285	1022.8	1.220	0.079	1136.6	1.276	0.003	1355.6	1.360	0.024	1697.0	1.311	0.054	2038.4	1.366	0.003	2193.7	1.379	0.018
591.7	1.602	0.077	911.0	1.055	0.275	1024.8	1.226	0.081	1138.6	1.279	0.002	1361.4	1.361	0.025	1702.8	1.309	0.050	2044.2	1.366	0.003	2195.6	1.379	0.018
597.5	1.605	0.082	912.9	1.053	0.265	1026.7	1.229	0.087	1140.5	1.281	0.000	1367.1	1.361	0.026	1708.6	1.308	0.046	2050.0	1.367	0.003	2197.6	1.379	0.019
603.3	1.609	0.085	914.8	1.052	0.258	1028.6	1.226	0.100	1142.4	1.283	0.000	1372.9	1.363	0.027	1714.4	1.307	0.044	2055.8	1.368	0.003	2199.5	1.379	0.019
609.1	1.611	0.088	916.7	1.050	0.248	1030.5	1.216	0.110	1144.4	1.285	0.000	1378.7	1.364	0.028	1720.1	1.305	0.040	2061.6	1.369	0.003	2206.2	1.378	0.020
614.9	1.615	0.094	918.7	1.049	0.238	1032.5	1.200	0.117	1146.3	1.287	0.000	1384.5	1.365	0.030	1725.9	1.305	0.036	2067.4	1.369	0.003	2213.0	1.378	0.020
620.6	1.619	0.099	920.6	1.048	0.231	1034.4	1.182	0.113	1148.2	1.288	0.000	1390.3	1.367	0.032	1731.7	1.306	0.033	2073.1	1.371	0.003	2219.7	1.377	0.021
626.4	1.622	0.104	922.5	1.047	0.221	1036.3	1.164	0.103	1150.1	1.290	0.000	1396.1	1.368	0.034	1737.5	1.306	0.029	2078.9	1.371	0.004	2226.5	1.377	0.021
632.2	1.628	0.110	924.5	1.047	0.212	1038.3	1.150	0.087	1152.1	1.292	0.000	1401.9	1.369	0.037	1743.3	1.308	0.026	2084.7	1.373	0.005	2233.2	1.375	0.021
638.0	1.631	0.117	926.4	1.047	0.204	1040.2	1.143	0.064	1154.0	1.293	0.000	1407.7	1.369	0.040	1749.1	1.309	0.024	2090.5	1.374	0.005	2240.0	1.374	0.021
643.8	1.636	0.124	928.3	1.047	0.193	1042.1	1.144	0.041	1155.9	1.294	0.000	1413.4	1.368	0.044	1754.9	1.310	0.021	2096.3	1.374	0.005	2246.8	1.373	0.020
649.6	1.640	0.133	930.2	1.048	0.185	1044.0	1.152	0.023	1157.9	1.295	0.000	1419.2	1.367	0.048	1760.7	1.312	0.019	2101.1	1.375	0.006	2253.5	1.373	0.020
655.4	1.645	0.139	932.2	1.049	0.176	1046.0	1.163	0.009	1159.8	1.296	0.000	1425.0	1.363	0.050	1766.4	1.314	0.017	2103.0	1.375	0.006	2260.3	1.372	0.019
661.2	1.649	0.148	934.1	1.051	0.167	1047.9	1.175	0.002	1161.7	1.297	0.000	1430.8	1.361	0.050	1772.2	1.316	0.015	2105.0	1.376	0.006	2267.0	1.372	0.018
666.9	1.655	0.157	936.0	1.053	0.160	1049.8	1.186	0.000	1163.6	1.298	0.000	1436.6	1.359	0.050	1778.0	1.317	0.014	2106.9	1.376	0.006	2273.8	1.372	0.018
672.7	1.654	0.166	938.0	1.055	0.151	1051.8	1.195	0.000	1165.6	1.299	0.000	1442.4	1.363	0.048	1783.8	1.319	0.012	2108.8	1.376	0.006	2280.5	1.372	0.016
678.5	1.660	0.178	939.9	1.057	0.144	1053.7	1.202	0.000	1167.5	1.300	0.000	1448.2	1.361	0.058	1789.6	1.320	0.011	2110.8	1.377	0.007	2287.3	1.372	0.016
684.3	1.663	0.193	941.8	1.059	0.133	1055.6	1.209	0.000	1169.4	1.301	0.000	1453.9	1.355	0.052	1795.4	1.322	0.010	2112.7	1.377	0.007	2294.0	1.372	0.014
690.1	1.665	0.205	943.7	1.063	0.126	1057.5	1.214	0.000	1171.4	1.302	0.000	1459.7	1.356	0.054	1801.2	1.323	0.010	2114.6	1.377	0.007	2300.8	1.372	0.014
695.9	1.666	0.220	945.7	1.066	0.119	1059.5	1.219	0.000	1173.3	1.303	0.000	1465.5	1.353	0.054	1806.9	1.325	0.008	2116.5	1.378	0.008	2307.5	1.373	0.012
701.7	1.666	0.234	947.6	1.070	0.111	1061.4	1.223	0.000	1175.2	1.305	0.000	1471.3	1.356	0.054	1812.7	1.326	0.007	2118.5	1.378	0.008	2314.3	1.373	0.012
707.4	1.667	0.251	949.5	1.073	0.105	1063.3	1.227	0.000	1177.1	1.306	0.000	1477.1	1.349	0.059	1818.5	1.327	0.007	2120.4	1.378	0.008	2321.0	1.374	0.011
713.2	1.666	0.266	951.5	1.077	0.098	1065.3	1.230	0.000	1179.1	1.306	0.000	1482.9	1.345	0.052	1824.3	1.329	0.007	2122.3	1.378	0.008	2327.8	1.374	0.010
719.0	1.663	0.285	953.4	1.081	0.090	1067.2	1.234	0.000	1181.0	1.307	0.000	1488.7	1.346	0.048	1830.1	1.330	0.006	2124.3	1.379	0.009	2334.5	1.375	0.009
724.8	1.658	0.301	955.3	1.086	0.084	1069.1	1.237	0.000	1182.9	1.308	0.000	1494.5	1.349	0.047	1835.9	1.332	0.005	2126.2	1.379	0.009	2341.3	1.376	0.009
730.6	1.653	0.321	957.2	1.090	0.078	1071.1	1.240	0.000	1184.9	1.309	0.000	1500.2	1.349	0.048	1841.7	1.333	0.004	2128.1	1.380	0.010	2348.0	1.377	0.008
736.4	1.645	0.338	959.2	1.095	0.072	1073.0	1.242	0.000	1186.8	1.310	0.000	1506.0	1.351	0.050	1847.5	1.334	0.004	2130.0	1.381	0.010	2354.8	1.378	0.007
742.2	1.635	0.357	961.1	1.100	0.066	1074.9	1.245	0.000	1188.7	1.311	0.000	1511.8	1.351	0.048	1853.2	1.335	0.004	2132.0	1.382	0.012	2361.5	1.378	0.007
748.0	1.626	0.375	963.0	1.106	0.061	1076.8	1.247	0.000	1190.6	1.312	0.000	1517.6	1.351	0.049	1859.0	1.337	0.004	2133.9	1.381	0.015	2368.3	1.379	0.006
753.7	1.613	0.393	965.0	1.111	0.055	1078.8	1.250	0.000	1192.6	1.313	0.002	1523.4	1.351	0.049	1864.8	1.337	0.003	2135.8	1.378	0.015	2375.0	1.380	0.006
759.5	1.599	0.410	966.9	1.117	0.052	1080.7	1.252	0.000	1194.5	1.314	0.000	1529.2	1.351	0.050	1870.6	1.339	0.003	2137.8	1.377	0.015	2381.8	1.381	0.006
765.3	1.582	0.425	968.8	1.122	0.046	1082.6	1.254	0.000	1196.4	1.314	0.001	1535.0	1.351	0.051	1876.4	1.339	0.002	2139.7	1.376	0.013	2388.5	1.382	0.005
771.1	1.564	0.438	970.8	1.128	0.043	1084.6	1.257	0.000	1198.4	1.315	0.001	1540.8	1.350	0.053	1882.2	1.341	0.002	2141.6	1.377	0.012	2395.3	1.383	0.004
776.9	1.545	0.454	972.7	1.133	0.039	1086.5	1.259	0.000	1205.1	1.318	0.002	1546.5	1.350	0.052	1888.0	1.342	0.002	2143.6	1.377	0.012	2402.0	1.384	0.004
782.7	1.524	0.466	974.6	1.139	0.036	1088.4	1.261	0.000	1210.9	1.320	0.002	1552.3	1.350	0.053	1893.8	1.343	0.002	2145.5	1.378	0.012	2408.8	1.385	0.004
788.5	1.503	0.476	976.5	1.145	0.031	1090.3	1.263	0.000	1216.7	1.323	0.002	1558.1	1.350	0.055	1899.5	1.344	0.002	2147.4	1.378	0.012	2415.5	1.386	0.004
794.3	1.480	0.486	978.5	1.150	0.028	1092.3	1.264	0.000	1222.5	1.325	0.004	1563.9	1.349	0.054	1905.3	1.345	0.002	2149.3	1.378	0.012	2422.3	1.387	0.003
800.0	1.457	0.494	980.4	1.157	0.026	1094.2	1.266	0.000	1228.3	1.327	0.005	1569.7	1.349	0.055	1911.1	1.346	0.002	2151.3	1.379	0.013	2429.0	1.388	0.003
805.8	1.431	0.498	982.3	1.163	0.023	1096.1	1.268	0.002	1234.0	1.329	0.000	1575.5	1.349	0.055	1916.9	1.347	0.002	2153.2	1.379	0.013	2435.8	1.389	0.003
811.6	1.408	0.504	984.3	1.170	0.020	1098.1	1.270	0.000	1239.8	1.331	0.006	1581.3	1.347	0.056	1922.7	1.348	0.002	2155.1	1.379	0.013	2442.5	1.390	0.002
817.4	1.382	0.503	986.2	1.176	0.018	1100.0	1.272	0.002	1245.6	1.333	0.006	1587.0	1.346	0.057	1928.5	1.349	0.002	2157.1	1.379	0.013	2449.3	1.391	0.002
823.2	1.357	0.504	988.1	1.183	0.017	1101.9	1.274	0.002	1251.4	1.335	0.007	1592.8	1.346	0.057	1934.3	1.350	0.002	2159.0	1.379	0.014	2456.0	1.392	0.002
829.0	1.331	0.500	990.0	1.189	0.016	1103.8	1.276	0.004	1257.2	1.337	0.009	1598.6	1.345	0.058	1940.0	1.351	0.002	2160.9	1.379	0.014	2462.8	1.393	0.002
834.8	1.306	0.499	992.0	1.196	0.015	1105.8	1.278	0.004	1263.0	1.338	0.009	1604.4	1.344	0.059	1945.8	1.352	0.000	2162.8	1.380	0.015	2469.5	1.395	0.001
840.5	1.281	0.493	993.9	1.204	0.013	1107.7	1.279	0.005	1268.8	1.340	0.010	1610.2	1.343	0.059	1951.6	1.353	0.000	2164.8	1.379	0.015	2476.3	1.396	0.000

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TABLE 2E—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2483.0	1.397	0.000	2867.9	1.505	0.014	3252.7	1.328	0.773	3637.5	1.124	0.000
2489.8	1.399	0.001	2874.6	1.510	0.014	3259.5	1.283	0.772	3644.3	1.129	0.000
2496.6	1.400	0.001	2881.4	1.515	0.014	3266.2	1.238	0.764	3651.0	1.133	0.000
2503.3	1.401	0.001	2888.1	1.520	0.015	3273.0	1.196	0.751	3657.8	1.138	0.000
2510.1	1.402	0.001	2894.9	1.525	0.016	3279.7	1.157	0.733	3664.5	1.142	0.000
2516.8	1.404	0.002	2901.6	1.530	0.018	3286.5	1.122	0.711	3671.3	1.146	0.000
2523.6	1.405	0.002	2908.4	1.535	0.020	3293.2	1.091	0.685	3678.0	1.150	0.000
2530.3	1.406	0.002	2915.1	1.539	0.022	3300.0	1.066	0.660	3684.8	1.154	0.000
2537.1	1.407	0.002	2921.9	1.546	0.023	3306.7	1.044	0.633	3691.5	1.157	0.000
2543.8	1.407	0.002	2928.6	1.551	0.027	3313.5	1.027	0.609	3698.3	1.160	0.000
2550.6	1.408	0.002	2935.4	1.555	0.029	3320.2	1.013	0.585	3705.0	1.164	0.000
2557.3	1.409	0.002	2942.1	1.561	0.030	3327.0	1.000	0.562	3711.8	1.167	0.000
2564.1	1.410	0.002	2948.9	1.567	0.033	3333.7	0.988	0.540	3718.5	1.170	0.000
2570.8	1.412	0.001	2955.6	1.572	0.036	3340.5	0.978	0.522	3725.3	1.173	0.000
2577.6	1.413	0.001	2962.4	1.577	0.038	3347.2	0.969	0.504	3732.0	1.175	0.000
2584.3	1.414	0.001	2969.1	1.583	0.039	3354.0	0.959	0.487	3738.8	1.178	0.000
2591.1	1.416	0.001	2975.9	1.591	0.040	3360.7	0.949	0.470	3745.5	1.180	0.000
2597.8	1.417	0.002	2982.6	1.600	0.044	3367.5	0.939	0.453	3752.3	1.182	0.000
2604.6	1.418	0.000	2989.4	1.608	0.049	3374.2	0.927	0.436	3759.1	1.185	0.000
2611.3	1.419	0.000	2996.1	1.615	0.052	3381.0	0.917	0.419	3765.8	1.187	0.000
2618.1	1.421	0.000	3002.9	1.624	0.055	3387.7	0.907	0.400	3772.6	1.189	0.000
2624.8	1.422	0.000	3009.7	1.634	0.059	3394.5	0.897	0.379	3779.3	1.191	0.000
2631.6	1.424	0.000	3016.4	1.645	0.064	3401.2	0.887	0.357	3786.1	1.193	0.000
2638.3	1.425	0.000	3023.2	1.657	0.071	3408.0	0.880	0.334	3792.8	1.195	0.000
2645.1	1.427	0.000	3029.9	1.669	0.078	3414.7	0.875	0.311	3799.6	1.197	0.000
2651.8	1.429	0.000	3036.7	1.682	0.087	3421.5	0.872	0.287	3806.3	1.198	0.000
2658.6	1.430	0.000	3043.4	1.694	0.098	3428.2	0.869	0.262	3813.1	1.200	0.000
2665.3	1.432	0.000	3050.2	1.707	0.109	3435.0	0.871	0.237	3819.8	1.202	0.000
2672.1	1.434	0.000	3056.9	1.720	0.123	3441.7	0.874	0.213	3826.6	1.203	0.000
2678.8	1.436	0.000	3063.7	1.733	0.138	3448.5	0.879	0.190	3833.3	1.205	0.000
2685.6	1.438	0.000	3070.4	1.746	0.155	3455.2	0.887	0.167	3840.1	1.206	0.000
2692.3	1.440	0.000	3077.2	1.758	0.174	3462.0	0.896	0.148	3846.8	1.208	0.000
2699.1	1.442	0.000	3083.9	1.770	0.196	3468.7	0.906	0.131	3853.6	1.209	0.000
2705.8	1.444	0.000	3090.7	1.779	0.220	3475.5	0.916	0.116	3860.3	1.211	0.000
2712.6	1.446	0.000	3097.4	1.787	0.247	3482.2	0.927	0.101	3867.1	1.212	0.000
2719.3	1.449	0.000	3104.2	1.793	0.276	3489.0	0.937	0.088	3873.8	1.213	0.000
2726.1	1.451	0.000	3110.9	1.795	0.306	3495.7	0.948	0.076	3880.6	1.215	0.000
2732.8	1.453	0.000	3117.7	1.795	0.336	3502.5	0.958	0.065	3887.3	1.216	0.000
2739.6	1.456	0.000	3124.4	1.792	0.367	3509.3	0.969	0.055	3894.1	1.217	0.000
2746.4	1.459	0.000	3131.2	1.786	0.399	3516.0	0.980	0.045	3900.8	1.218	0.000
2753.1	1.462	0.000	3137.9	1.776	0.429	3522.8	0.991	0.037	3907.6	1.219	0.000
2759.9	1.464	0.000	3144.7	1.765	0.460	3529.5	1.002	0.030	3914.3	1.220	0.000
2766.6	1.468	0.001	3151.4	1.751	0.488	3536.3	1.013	0.025	3921.1	1.221	0.000
2773.4	1.471	0.001	3158.2	1.734	0.517	3543.0	1.023	0.020	3927.8	1.223	0.000
2780.1	1.474	0.003	3164.9	1.716	0.542	3549.8	1.033	0.015	3934.6	1.224	0.000
2786.9	1.478	0.003	3171.7	1.696	0.568	3556.5	1.043	0.012	3941.3	1.225	0.000
2793.6	1.481	0.005	3178.4	1.675	0.591	3563.3	1.052	0.009	3948.1	1.226	0.000
2800.4	1.485	0.007	3185.2	1.652	0.614	3570.0	1.060	0.006	3954.8	1.227	0.000
2807.1	1.488	0.009	3191.9	1.629	0.634	3576.8	1.068	0.005	3961.6	1.228	0.000
2813.9	1.492	0.012	3198.7	1.605	0.654	3583.5	1.076	0.003	3968.3	1.229	0.000
2820.6	1.494	0.016	3205.4	1.579	0.674	3590.3	1.083	0.000	3975.1	1.230	0.000
2827.4	1.494	0.021	3212.2	1.551	0.695	3597.0	1.090	0.000	3981.8	1.230	0.000
2834.1	1.489	0.023	3218.9	1.522	0.715	3603.8	1.096	0.000	3988.6	1.231	0.000
2840.9	1.490	0.017	3225.7	1.488	0.731	3610.5	1.102	0.000	3995.3	1.232	0.000
2847.6	1.494	0.015	3232.4	1.453	0.748	3617.3	1.108	0.000	2605.1	1.412	0.002
2854.4	1.498	0.015	3239.2	1.414	0.761	3624.0	1.114	0.000	2610.8	1.413	0.002
2861.1	1.501	0.015	3245.9	1.372	0.769	3630.8	1.119	0.000	2616.6	1.414	0.002

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TABLE 2F

$H_2O:CH_3OH:CO:NH_3$ = 100:10:1:1 AT 140 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.768	0.021	164.9	1.700	0.343	278.7	1.175	0.185	392.5	1.423	0.005	723.4	1.649	0.205	955.8	1.036	0.145	1069.6	1.214	0.000	1183.4	1.299	0.000
53.0	1.759	0.025	166.9	1.690	0.337	280.7	1.179	0.177	394.5	1.424	0.005	729.2	1.654	0.219	957.7	1.039	0.136	1071.5	1.218	0.000	1185.3	1.299	0.000
55.0	1.755	0.043	168.8	1.679	0.338	282.6	1.184	0.160	396.4	1.426	0.005	734.9	1.656	0.234	959.7	1.044	0.126	1073.5	1.222	0.000	1187.3	1.300	0.000
56.9	1.750	0.066	170.7	1.679	0.318	284.5	1.190	0.153	398.3	1.428	0.004	740.7	1.660	0.253	961.6	1.049	0.117	1075.4	1.226	0.000	1189.2	1.301	0.000
58.8	1.733	0.051	172.6	1.681	0.323	286.5	1.195	0.143	405.1	1.434	0.004	746.5	1.661	0.272	963.5	1.054	0.109	1077.3	1.229	0.000	1191.1	1.302	0.000
60.8	1.742	0.065	174.6	1.681	0.314	288.4	1.201	0.133	410.9	1.439	0.004	752.3	1.657	0.293	965.4	1.059	0.101	1079.3	1.232	0.000	1193.1	1.303	0.000
62.7	1.742	0.059	176.5	1.694	0.309	290.3	1.206	0.125	416.7	1.446	0.005	758.1	1.656	0.312	967.4	1.066	0.094	1081.2	1.235	0.000	1195.0	1.304	0.000
64.6	1.740	0.053	178.4	1.696	0.310	292.2	1.210	0.116	422.4	1.451	0.005	763.9	1.649	0.334	969.3	1.073	0.088	1083.1	1.237	0.000	1196.9	1.305	0.000
66.5	1.739	0.056	180.4	1.720	0.296	294.2	1.214	0.109	428.2	1.457	0.003	769.7	1.639	0.354	971.2	1.079	0.080	1085.0	1.239	0.000	1198.8	1.306	0.000
68.5	1.738	0.056	182.3	1.731	0.326	296.1	1.215	0.100	434.0	1.462	0.009	775.4	1.631	0.374	973.2	1.086	0.075	1087.0	1.242	0.000	1205.6	1.309	0.000
70.4	1.739	0.059	184.2	1.730	0.342	298.0	1.220	0.091	439.8	1.465	0.011	781.2	1.621	0.395	975.1	1.092	0.070	1088.9	1.244	0.002	1211.4	1.313	0.002
72.3	1.739	0.061	186.1	1.724	0.356	300.0	1.222	0.084	445.6	1.469	0.012	787.0	1.605	0.415	977.0	1.098	0.064	1090.8	1.246	0.004	1217.2	1.314	0.002
74.3	1.738	0.063	188.1	1.717	0.370	301.9	1.225	0.072	451.4	1.472	0.013	792.8	1.590	0.438	978.9	1.105	0.059	1092.8	1.248	0.002	1223.0	1.317	0.002
76.2	1.737	0.065	190.0	1.709	0.380	303.8	1.233	0.064	457.2	1.474	0.014	798.6	1.573	0.456	980.9	1.112	0.056	1094.7	1.250	0.004	1228.7	1.319	0.004
78.1	1.737	0.065	191.9	1.703	0.391	305.7	1.239	0.058	463.0	1.478	0.016	804.4	1.547	0.478	982.8	1.119	0.051	1096.6	1.251	0.004	1234.5	1.323	0.000
80.1	1.737	0.067	193.9	1.700	0.398	307.7	1.243	0.053	468.7	1.480	0.016	810.2	1.522	0.495	984.7	1.126	0.048	1098.5	1.253	0.004	1240.3	1.324	0.005
82.0	1.735	0.069	195.8	1.696	0.416	309.6	1.249	0.043	474.5	1.484	0.016	816.0	1.499	0.504	986.7	1.134	0.045	1100.5	1.255	0.004	1246.1	1.326	0.005
83.9	1.732	0.071	197.7	1.687	0.424	311.5	1.257	0.039	480.3	1.488	0.015	821.7	1.466	0.517	988.6	1.141	0.044	1102.4	1.257	0.004	1251.9	1.329	0.006
85.8	1.722	0.077	199.7	1.680	0.441	313.5	1.263	0.031	486.1	1.493	0.017	827.5	1.437	0.523	990.5	1.149	0.041	1104.3	1.259	0.006	1257.7	1.330	0.006
87.8	1.731	0.051	201.6	1.668	0.448	315.4	1.272	0.026	491.9	1.497	0.018	833.3	1.412	0.526	992.5	1.157	0.038	1106.3	1.261	0.006	1263.5	1.332	0.007
89.7	1.728	0.072	203.5	1.660	0.459	317.3	1.279	0.022	497.7	1.502	0.021	839.1	1.383	0.528	994.4	1.166	0.037	1108.2	1.263	0.007	1269.3	1.334	0.007
91.6	1.759	0.052	205.4	1.647	0.469	319.2	1.287	0.017	503.5	1.506	0.023	844.9	1.349	0.526	996.3	1.175	0.036	1110.1	1.265	0.007	1275.0	1.336	0.008
93.6	1.746	0.076	207.4	1.642	0.473	321.2	1.294	0.014	509.2	1.508	0.025	850.7	1.326	0.520	998.2	1.184	0.038	1112.0	1.266	0.010	1280.8	1.338	0.010
95.5	1.760	0.038	209.3	1.632	0.484	323.1	1.300	0.010	515.0	1.512	0.025	856.5	1.301	0.515	1000.2	1.195	0.042	1114.0	1.268	0.011	1286.6	1.340	0.010
97.4	1.774	0.062	211.2	1.626	0.488	325.0	1.308	0.007	520.8	1.516	0.026	862.2	1.271	0.507	1002.1	1.201	0.048	1115.9	1.268	0.013	1292.4	1.341	0.011
99.3	1.780	0.058	213.2	1.620	0.496	327.0	1.313	0.005	526.6	1.522	0.028	868.0	1.248	0.499	1004.0	1.205	0.056	1117.8	1.268	0.015	1298.2	1.343	0.012
101.3	1.774	0.064	215.1	1.614	0.507	328.9	1.320	0.003	532.4	1.527	0.031	873.8	1.227	0.490	1006.0	1.214	0.065	1119.8	1.269	0.017	1304.0	1.345	0.012
103.2	1.797	0.038	217.0	1.607	0.521	330.8	1.326	0.004	538.2	1.532	0.037	879.6	1.200	0.478	1007.9	1.215	0.075	1121.7	1.267	0.018	1309.8	1.347	0.013
105.1	1.836	0.094	218.9	1.597	0.546	332.7	1.331	0.001	544.0	1.534	0.042	885.4	1.177	0.467	1009.8	1.208	0.082	1123.6	1.265	0.019	1315.5	1.347	0.014
107.1	1.757	0.103	220.9	1.579	0.567	334.7	1.337	0.003	549.8	1.536	0.046	891.2	1.156	0.451	1011.7	1.200	0.087	1125.5	1.263	0.019	1321.3	1.349	0.015
109.0	1.815	0.054	222.8	1.565	0.597	336.6	1.342	0.002	555.5	1.537	0.051	897.0	1.129	0.436	1013.7	1.201	0.087	1127.5	1.264	0.018	1327.1	1.351	0.016
110.9	1.798	0.222	224.7	1.527	0.642	338.5	1.348	0.003	561.3	1.539	0.054	901.8	1.114	0.421	1015.6	1.193	0.084	1129.4	1.261	0.016	1332.9	1.353	0.017
112.8	1.745	0.093	226.7	1.471	0.674	340.5	1.352	0.003	567.1	1.538	0.056	903.7	1.106	0.414	1017.5	1.190	0.077	1131.3	1.260	0.015	1338.7	1.355	0.017
114.8	1.781	0.106	228.6	1.403	0.674	342.4	1.357	0.003	572.9	1.541	0.058	905.6	1.096	0.406	1019.5	1.201	0.072	1133.3	1.261	0.012	1344.5	1.357	0.017
116.7	1.788	0.114	230.5	1.343	0.651	344.3	1.361	0.003	578.7	1.543	0.059	907.6	1.088	0.400	1021.4	1.208	0.074	1135.2	1.261	0.008	1350.3	1.359	0.020
118.6	1.800	0.123	232.4	1.302	0.608	346.3	1.364	0.002	584.5	1.544	0.061	909.5	1.081	0.391	1023.3	1.210	0.079	1137.1	1.262	0.007	1356.1	1.360	0.021
120.6	1.802	0.132	234.4	1.282	0.567	348.2	1.368	0.003	590.3	1.547	0.064	911.4	1.075	0.384	1025.2	1.209	0.088	1139.0	1.264	0.004	1361.8	1.360	0.023
122.5	1.815	0.129	236.3	1.268	0.536	350.1	1.371	0.002	596.1	1.550	0.063	913.4	1.068	0.376	1027.2	1.215	0.094	1141.0	1.266	0.003	1367.6	1.361	0.024
124.4	1.814	0.148	238.2	1.254	0.509	352.0	1.375	0.001	601.8	1.553	0.066	915.3	1.063	0.366	1029.1	1.208	0.103	1142.9	1.268	0.000	1373.4	1.363	0.026
126.4	1.816	0.142	240.2	1.242	0.485	354.0	1.378	0.002	607.6	1.557	0.068	917.2	1.059	0.357	1031.0	1.198	0.112	1144.8	1.271	0.000	1379.2	1.365	0.027
128.3	1.820	0.155	242.1	1.234	0.464	355.9	1.381	0.002	613.4	1.561	0.069	919.2	1.053	0.348	1033.0	1.197	0.119	1146.8	1.272	0.000	1385.0	1.367	0.028
130.2	1.822	0.150	244.0	1.229	0.444	357.8	1.383	0.003	619.2	1.565	0.072	921.1	1.048	0.338	1034.9	1.185	0.124	1148.7	1.275	0.000	1390.8	1.370	0.031
132.1	1.820	0.168	245.9	1.221	0.429	359.8	1.386	0.002	625.0	1.570	0.076	923.0	1.042	0.327	1036.8	1.164	0.126	1150.6	1.277	0.000	1396.6	1.372	0.034
134.1	1.827	0.171	247.9	1.216	0.416	361.7	1.389	0.004	630.8	1.576	0.078	924.9	1.037	0.318	1038.7	1.143	0.121	1152.6	1.278	0.000	1402.3	1.370	0.037
136.0	1.818	0.194	249.8	1.211	0.402	363.6	1.391	0.004	636.6	1.580	0.082	926.9	1.032	0.308	1040.7	1.131	0.109	1154.5	1.281	0.000	1408.1	1.370	0.041
137.9	1.833	0.156	251.7	1.203	0.380	365.5	1.394	0.006	642.3	1.585	0.086	928.8	1.029	0.296	1042.6	1.113	0.087	1156.4	1.282	0.000	1413.9	1.370	0.046
139.9	1.857	0.214	253.7	1.200	0.368	367.5	1.396	0.006	648.1	1.592	0.090	930.7	1.027	0.287	1044.5	1.106	0.059	1158.3	1.283	0.000	1419.7	1.369	0.052
141.8	1.849	0.247	255.6	1.194	0.352	369.4	1.398	0.005	653.9	1.598	0.097	932.7	1.026	0.275	1046.5	1.117	0.033	1160.3	1.285	0.000	1425.5	1.365	0.052
143.7	1.837	0.262	257.5	1.192	0.338	371.3	1.400	0.006	659.7	1.601	0.100	934.6	1.023	0.263	1048.4	1.130	0.016	1162.2	1.286	0.000	1431.3	1.363	0.052
145.6	1.832	0.281	259.4	1.185	0.324	373.3	1.403	0.005	665.5	1.610	0.110	936.5	1.022	0.254	1050.3	1.143	0.006	1164.1	1.287	0.000	1437.1	1.364	0.054
147.6	1.821	0.291	261.4	1.186	0.307	375.2	1.405	0.005	671.3	1.614	0.118	938.4	1.020	0.242	1052.2	1.155	0.000	1166.1	1.288	0.000	1442.9	1.366	0.055
149.5	1.817	0.305	263.3	1.183	0.294	377.1	1.407	0.004	677.1	1.618	0.126	940.4	1.020	0.230	1054.2	1.166	0.000	1168.0	1.289	0.000	1448.6	1.357	0.058
151.4	1.805	0.317	265.2	1.187	0.280	379.0	1.409	0.004	682.9	1.621	0.137	942.3	1.018	0.219	1056.1	1.175	0.000	1169.9	1.290	0.000	1454.4	1.356	0.054
153.4	1.797	0.324	267.2	1.186	0.271	381.0	1.410	0.004	688.6	1.625	0.144	944.2	1.019	0.207	1058.0	1.182	0.000	1171.8	1.291	0.000	1460.2	1.354	0.056
155.3	1.783	0.344	269.1	1.183	0.258	382.9	1.414	0.001	694.4	1.628	0.154	946.2	1.020	0.198	1060.0	1.189	0.000	1173.8	1.293	0.000	1466.0	1.355	0.056
157.2	1.766	0.341	271.0	1.181	0.246	384.8	1.415	0.004	700.2	1.631	0.161	948.1	1.022	0.187	1061.9	1.195	0.000	1175.7	1.294	0.000	1471.8	1.356	0.058
159.1	1.753	0.351	273.0	1.177	0.233	386.8	1.417	0.003	706.0	1.636	0.172	950.0	1.025	0.175	1063.8	1.200	0.000	1177.6	1.295	0.000	1477.6	1.354	0.059
161.1	1.730	0.353	274.9	1.176	0.217	388.7	1.419	0.004	711.8	1.638	0.181	951.9	1.028	0.164	1065.7	1.205	0.000	1179.6	1.296	0.000	1483.4	1.352	0.056
163.0	1.714	0.348	276.8	1.173	0.206	390.6	1.421	0.004	717.6	1.643	0.192	953.9	1.031	0.155	1067.7	1.210	0.000	1181.5	1.297	0.000	1489.2	1.352	0.055

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TABLE 2F—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.348	0.054	1836.4	1.335	0.008	2126.7	1.384	0.009	2327.3	1.380	0.012	2668.7	1.446	0.000	3004.3	1.670	0.074	3340.0	0.935	0.470	3675.6	1.145	0.000
1500.7	1.348	0.054	1842.2	1.337	0.007	2128.6	1.384	0.010	2333.1	1.381	0.011	2674.5	1.448	0.000	3010.1	1.680	0.078	3345.8	0.928	0.459	3681.4	1.148	0.000
1506.5	1.351	0.057	1847.9	1.337	0.007	2130.5	1.384	0.010	2338.9	1.382	0.010	2680.3	1.450	0.000	3015.9	1.691	0.083	3351.6	0.921	0.447	3687.2	1.151	0.000
1512.3	1.350	0.055	1853.7	1.338	0.007	2132.5	1.385	0.011	2344.6	1.381	0.010	2686.1	1.452	0.000	3021.7	1.706	0.090	3357.3	0.880	0.436	3693.0	1.154	0.000
1518.1	1.350	0.056	1859.5	1.339	0.006	2134.4	1.384	0.012	2350.4	1.382	0.009	2691.9	1.454	0.000	3027.5	1.718	0.097	3363.1	0.871	0.424	3698.8	1.156	0.000
1523.9	1.351	0.056	1865.3	1.340	0.006	2136.3	1.384	0.012	2356.2	1.383	0.009	2697.6	1.456	0.000	3033.3	1.735	0.105	3368.9	0.861	0.410	3704.6	1.159	0.000
1529.7	1.351	0.057	1871.1	1.341	0.005	2138.2	1.383	0.012	2362.0	1.384	0.008	2703.4	1.458	0.000	3039.1	1.748	0.114	3374.7	0.867	0.393	3710.3	1.161	0.000
1535.4	1.346	0.057	1876.9	1.342	0.005	2140.2	1.384	0.012	2367.8	1.385	0.007	2709.2	1.461	0.000	3044.9	1.762	0.125	3380.5	0.858	0.375	3716.1	1.164	0.000
1541.2	1.345	0.058	1882.7	1.343	0.005	2142.1	1.384	0.012	2373.6	1.386	0.007	2715.0	1.463	0.000	3050.6	1.766	0.138	3386.3	0.865	0.357	3721.9	1.166	0.000
1547.0	1.343	0.058	1888.4	1.344	0.005	2144.0	1.383	0.012	2379.4	1.387	0.006	2720.8	1.465	0.000	3056.4	1.779	0.151	3392.1	0.855	0.336	3727.7	1.168	0.000
1552.8	1.346	0.058	1894.2	1.345	0.004	2146.0	1.384	0.012	2385.2	1.388	0.005	2726.6	1.468	0.000	3062.2	1.793	0.167	3397.9	0.847	0.313	3733.5	1.170	0.000
1558.6	1.344	0.063	1900.0	1.345	0.003	2147.9	1.384	0.012	2390.9	1.388	0.005	2732.4	1.470	0.000	3068.0	1.815	0.184	3403.6	0.821	0.288	3739.3	1.172	0.000
1564.4	1.345	0.058	1905.8	1.347	0.003	2149.8	1.384	0.013	2396.7	1.389	0.005	2738.2	1.473	0.000	3073.8	1.830	0.203	3409.4	0.820	0.265	3745.1	1.174	0.000
1570.2	1.344	0.061	1911.6	1.348	0.002	2151.8	1.385	0.013	2402.5	1.390	0.004	2743.9	1.475	0.000	3079.6	1.856	0.225	3415.2	0.833	0.241	3750.9	1.176	0.000
1576.0	1.344	0.060	1917.4	1.349	0.002	2153.7	1.386	0.013	2408.3	1.392	0.004	2749.7	1.478	0.000	3085.4	1.872	0.251	3421.0	0.836	0.218	3756.6	1.178	0.000
1581.7	1.338	0.059	1923.2	1.350	0.002	2155.6	1.385	0.013	2414.1	1.392	0.004	2755.5	1.481	0.000	3091.1	1.865	0.284	3426.8	0.841	0.196	3762.4	1.180	0.000
1587.5	1.338	0.059	1929.0	1.351	0.002	2157.5	1.384	0.014	2419.9	1.393	0.004	2761.3	1.484	0.000	3096.9	1.875	0.319	3432.6	0.855	0.175	3768.2	1.182	0.000
1593.3	1.336	0.059	1934.7	1.352	0.002	2159.5	1.386	0.014	2425.7	1.394	0.004	2767.1	1.487	0.001	3102.7	1.881	0.358	3438.4	0.864	0.154	3774.0	1.183	0.000
1599.1	1.337	0.059	1940.5	1.353	0.002	2161.4	1.385	0.015	2431.4	1.395	0.003	2772.9	1.490	0.002	3108.5	1.895	0.399	3444.1	0.863	0.134	3779.8	1.185	0.000
1604.9	1.336	0.059	1946.3	1.354	0.002	2163.3	1.385	0.015	2437.2	1.396	0.003	2778.7	1.493	0.003	3114.3	1.890	0.442	3449.9	0.876	0.118	3785.6	1.187	0.000
1610.7	1.338	0.059	1952.1	1.355	0.002	2165.3	1.386	0.015	2443.0	1.397	0.002	2784.4	1.496	0.004	3120.1	1.900	0.483	3455.7	0.889	0.104	3791.4	1.189	0.000
1616.5	1.337	0.060	1957.9	1.356	0.002	2167.2	1.386	0.015	2448.8	1.398	0.002	2790.2	1.500	0.005	3125.9	1.883	0.523	3461.5	0.906	0.094	3797.1	1.190	0.000
1622.3	1.335	0.058	1963.7	1.357	0.001	2169.1	1.385	0.016	2454.6	1.399	0.002	2796.0	1.503	0.007	3131.7	1.863	0.560	3467.3	0.918	0.084	3802.9	1.192	0.000
1628.0	1.329	0.059	1969.5	1.358	0.001	2171.0	1.384	0.016	2460.4	1.400	0.001	2801.8	1.507	0.009	3137.4	1.792	0.596	3473.1	0.932	0.076	3808.7	1.193	0.000
1633.8	1.329	0.058	1975.3	1.359	0.001	2173.0	1.386	0.016	2466.2	1.402	0.001	2807.6	1.510	0.011	3143.2	1.762	0.622	3478.9	0.942	0.068	3814.5	1.195	0.000
1639.6	1.329	0.056	1981.0	1.360	0.001	2174.9	1.385	0.017	2472.0	1.403	0.001	2813.4	1.514	0.013	3149.0	1.733	0.641	3484.7	0.952	0.060	3820.3	1.196	0.000
1645.4	1.329	0.056	1986.8	1.361	0.002	2176.8	1.385	0.017	2477.7	1.404	0.001	2819.2	1.516	0.016	3154.8	1.732	0.656	3490.4	0.957	0.053	3826.1	1.198	0.000
1651.2	1.327	0.056	1992.6	1.362	0.002	2178.8	1.386	0.017	2483.5	1.405	0.001	2825.0	1.518	0.020	3160.6	1.709	0.670	3496.2	0.967	0.046	3831.9	1.199	0.000
1657.0	1.325	0.055	1998.4	1.363	0.002	2180.7	1.386	0.017	2489.3	1.407	0.000	2830.7	1.515	0.024	3166.4	1.718	0.678	3502.0	0.976	0.041	3837.7	1.200	0.000
1662.8	1.325	0.055	2004.2	1.363	0.002	2182.6	1.385	0.018	2495.1	1.408	0.000	2836.5	1.512	0.023	3172.2	1.701	0.692	3507.8	0.987	0.036	3843.4	1.202	0.000
1668.5	1.319	0.053	2010.0	1.365	0.001	2184.5	1.384	0.018	2500.9	1.409	0.000	2842.3	1.514	0.019	3178.0	1.688	0.707	3513.6	0.996	0.032	3849.2	1.203	0.000
1674.3	1.318	0.051	2015.8	1.365	0.002	2186.5	1.386	0.018	2506.7	1.410	0.000	2848.1	1.519	0.017	3183.7	1.619	0.733	3519.4	1.005	0.028	3855.0	1.204	0.000
1680.1	1.316	0.049	2021.5	1.367	0.002	2188.4	1.385	0.018	2512.5	1.412	0.001	2853.9	1.523	0.017	3189.5	1.605	0.757	3525.2	1.013	0.024	3860.8	1.206	0.000
1685.9	1.315	0.048	2027.3	1.367	0.002	2190.3	1.384	0.018	2518.2	1.413	0.001	2859.7	1.527	0.017	3195.3	1.586	0.786	3531.0	1.022	0.020	3866.6	1.207	0.000
1691.7	1.315	0.044	2033.1	1.368	0.002	2192.3	1.386	0.019	2524.0	1.414	0.002	2865.5	1.532	0.016	3201.1	1.597	0.816	3536.7	1.028	0.017	3872.4	1.208	0.000
1697.5	1.315	0.042	2038.9	1.370	0.003	2194.2	1.385	0.019	2529.8	1.415	0.002	2871.2	1.535	0.017	3206.9	1.570	0.856	3542.5	1.035	0.015	3878.2	1.209	0.000
1703.3	1.315	0.040	2044.7	1.370	0.003	2196.1	1.384	0.019	2535.6	1.416	0.002	2877.0	1.540	0.017	3212.7	1.571	0.893	3548.3	1.043	0.012	3884.0	1.210	0.000
1709.1	1.315	0.037	2050.5	1.371	0.003	2198.0	1.384	0.020	2541.4	1.416	0.002	2882.8	1.545	0.018	3218.5	1.520	0.933	3554.1	1.050	0.010	3889.7	1.211	0.000
1714.8	1.313	0.035	2056.3	1.372	0.003	2205.8	1.385	0.020	2547.2	1.417	0.002	2888.6	1.551	0.020	3224.2	1.377	0.982	3559.9	1.057	0.009	3895.5	1.212	0.000
1720.6	1.312	0.032	2062.1	1.373	0.003	2211.5	1.383	0.021	2553.0	1.418	0.002	2894.4	1.556	0.021	3230.0	1.296	0.998	3565.7	1.063	0.007	3901.3	1.213	0.000
1726.4	1.315	0.030	2067.8	1.374	0.003	2217.3	1.383	0.021	2558.8	1.419	0.002	2900.2	1.562	0.023	3235.8	1.212	0.991	3571.5	1.069	0.006	3907.1	1.215	0.000
1732.2	1.316	0.028	2073.6	1.375	0.003	2223.1	1.382	0.021	2564.5	1.420	0.002	2906.0	1.567	0.025	3241.6	1.172	0.956	3577.2	1.074	0.005	3912.9	1.216	0.000
1738.0	1.316	0.026	2079.4	1.376	0.004	2228.9	1.382	0.022	2570.3	1.421	0.000	2911.8	1.572	0.027	3247.4	1.111	0.918	3583.0	1.080	0.003	3918.7	1.217	0.000
1743.8	1.318	0.025	2085.2	1.377	0.004	2234.7	1.382	0.022	2576.1	1.423	0.000	2917.5	1.574	0.029	3253.2	1.101	0.865	3588.8	1.085	0.003	3924.5	1.218	0.000
1749.6	1.319	0.023	2091.0	1.378	0.005	2240.5	1.382	0.022	2581.9	1.424	0.000	2923.3	1.580	0.031	3259.0	1.063	0.821	3594.6	1.090	0.001	3930.2	1.218	0.000
1755.3	1.318	0.021	2096.8	1.379	0.005	2246.3	1.382	0.022	2587.7	1.425	0.000	2929.1	1.585	0.034	3264.8	1.034	0.777	3600.4	1.095	0.000	3936.0	1.219	0.000
1761.1	1.320	0.020	2101.6	1.380	0.006	2252.1	1.381	0.022	2593.5	1.427	0.000	2934.9	1.592	0.037	3270.5	0.957	0.747	3606.2	1.100	0.000	3941.8	1.220	0.000
1766.9	1.321	0.018	2103.5	1.380	0.006	2257.8	1.378	0.021	2599.3	1.428	0.000	2940.7	1.597	0.040	3276.3	0.943	0.713	3612.0	1.105	0.000	3947.6	1.221	0.000
1772.7	1.323	0.019	2105.5	1.381	0.006	2263.6	1.378	0.021	2605.1	1.429	0.000	2946.5	1.604	0.043	3282.1	0.930	0.680	3617.8	1.109	0.000	3953.4	1.222	0.000
1778.5	1.324	0.016	2107.4	1.381	0.006	2269.4	1.377	0.020	2610.8	1.431	0.000	2952.3	1.609	0.046	3287.9	0.949	0.647	3623.5	1.113	0.000	3959.2	1.223	0.000
1784.3	1.326	0.015	2109.3	1.381	0.007	2275.2	1.378	0.019	2616.6	1.432	0.000	2958.1	1.614	0.048	3293.7	0.942	0.619	3629.3	1.118	0.000	3965.0	1.224	0.000
1790.1	1.327	0.014	2111.2	1.381	0.007	2281.0	1.378	0.019	2622.4	1.433	0.000	2963.8	1.616	0.050	3299.5	0.961	0.592	3635.1	1.121	0.000	3970.8	1.224	0.000
1795.9	1.328	0.013	2113.2	1.382	0.007	2286.8	1.378	0.018	2628.2	1.435	0.000	2969.6	1.623	0.052	3305.3	0.955	0.568	3640.9	1.125	0.000	3976.5	1.225	0.000
1801.6	1.328	0.012	2115.1	1.382	0.008	2292.6	1.379	0.017	2634.0	1.436	0.000	2975.4	1.633	0.055	3311.1	0.951	0.548	3646.7	1.129	0.000	3982.3	1.226	0.000
1807.4	1.329	0.011	2117.0	1.382	0.008	2298.4	1.379	0.016	2639.8	1.438	0.000	2981.2	1.641	0.059	3316.8	0.906	0.533	3652.5	1.132	0.000	3988.1	1.227	0.000
1813.2	1.330	0.011	2119.0	1.383	0.008	2304.1	1.377	0.016	2645.6	1.440	0.000	2987.0	1.648	0.063	3322.6	0.904	0.514	3658.3	1.135	0.000	3993.9	1.227	0.000
1819.0	1.332	0.010	2120.9	1.383	0.008	2309.9	1.378	0.014	2651.3	1.441	0.000	2992.8	1.658	0.066	3328.4	0.921	0.497	3664.1	1.139	0.000	3999.7	1.228	0.000
1824.8	1.333	0.010	2122.8	1.383	0.008	2315.7	1.379	0.014	2657.1	1.443	0.000	2998.6	1.666	0.069	3334.2	0.918	0.482	3669.8	1.142	0.000			
1830.6	1.334	0.010	2124.7	1.383	0.009	2321.5	1.379	0.013	2662.9	1.445	0.000												

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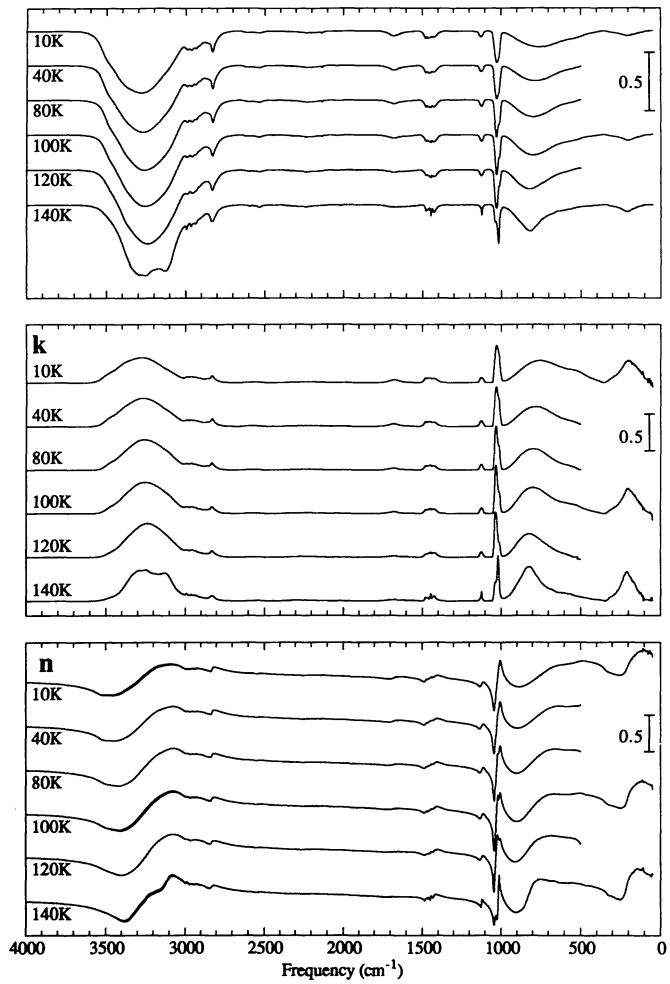

FIG. 3.—The 4000 to 50 cm^{-1} transmission spectra and optical constants (n and k) of a H_2O:CH_3OH:CO:NH_3 = 100:50:1:1 ice mixture at temperatures of 10, 40, 80, 100, 120, and 140 K. The original ice was deposited at 10 K.

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TABLE 3A

$H_2O:CH_3OH:CO:NH_3$ = 100:50:1:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.623	0.000	164.9	1.613	0.243	278.7	1.360	0.098	392.5	1.504	0.028
53.0	1.639	0.000	166.9	1.608	0.245	280.7	1.363	0.098	394.5	1.506	0.030
55.0	1.636	0.000	168.8	1.600	0.257	282.6	1.363	0.093	396.4	1.508	0.031
56.9	1.654	0.000	170.7	1.597	0.250	284.5	1.366	0.092	398.3	1.509	0.034
58.8	1.664	0.007	172.6	1.594	0.266	286.5	1.367	0.089	405.1	1.514	0.038
60.8	1.651	0.035	174.6	1.587	0.263	288.4	1.369	0.085	410.9	1.518	0.044
62.7	1.644	0.006	176.5	1.587	0.271	290.3	1.371	0.089	416.7	1.522	0.049
64.6	1.665	0.011	178.4	1.571	0.278	292.2	1.366	0.080	422.4	1.525	0.053
66.5	1.679	0.009	180.4	1.581	0.256	294.2	1.370	0.076	428.2	1.529	0.058
68.5	1.688	0.055	182.3	1.574	0.280	296.1	1.370	0.072	434.0	1.532	0.064
70.4	1.662	0.027	184.2	1.564	0.279	298.0	1.373	0.069	439.8	1.534	0.069
72.3	1.666	0.031	186.1	1.558	0.279	300.0	1.373	0.067	445.6	1.537	0.075
74.3	1.666	0.024	188.1	1.548	0.286	301.9	1.375	0.062	451.4	1.540	0.080
76.2	1.667	0.033	190.0	1.540	0.286	303.8	1.377	0.061	457.2	1.541	0.086
78.1	1.642	0.032	191.9	1.530	0.293	305.7	1.379	0.057	463.0	1.544	0.092
80.1	1.678	0.000	193.9	1.522	0.289	307.7	1.380	0.058	468.7	1.547	0.098
82.0	1.679	0.033	195.8	1.517	0.295	309.6	1.381	0.054	474.5	1.546	0.106
83.9	1.678	0.041	197.7	1.507	0.295	311.5	1.383	0.053	480.3	1.547	0.112
85.8	1.678	0.044	199.7	1.501	0.303	313.5	1.384	0.050	486.1	1.547	0.120
87.8	1.679	0.046	201.6	1.488	0.302	315.4	1.386	0.047	491.9	1.545	0.128
89.7	1.680	0.049	203.5	1.478	0.303	317.3	1.387	0.046	497.7	1.543	0.135
91.6	1.681	0.052	205.4	1.466	0.300	319.2	1.388	0.041	503.5	1.542	0.141
93.6	1.683	0.052	207.4	1.460	0.296	321.2	1.390	0.038	509.2	1.538	0.148
95.5	1.687	0.054	209.3	1.449	0.295	323.1	1.392	0.034	515.0	1.534	0.153
97.4	1.692	0.056	211.2	1.441	0.288	325.0	1.395	0.031	520.8	1.532	0.158
99.3	1.701	0.058	213.2	1.434	0.284	327.0	1.396	0.028	526.6	1.527	0.162
101.3	1.704	0.070	215.1	1.425	0.278	328.9	1.399	0.025	532.4	1.523	0.166
103.2	1.710	0.066	217.0	1.418	0.272	330.8	1.401	0.024	538.2	1.521	0.169
105.1	1.717	0.090	218.9	1.410	0.269	332.7	1.404	0.020	544.0	1.516	0.171
107.1	1.697	0.095	220.9	1.404	0.261	334.7	1.407	0.019	549.8	1.513	0.174
109.0	1.712	0.094	222.8	1.394	0.261	336.6	1.409	0.015	555.5	1.512	0.177
110.9	1.697	0.158	224.7	1.387	0.250	338.5	1.413	0.013	561.3	1.509	0.179
112.8	1.676	0.112	226.7	1.384	0.247	340.5	1.416	0.011	567.1	1.506	0.182
114.8	1.689	0.126	228.6	1.378	0.239	342.4	1.421	0.008	572.9	1.505	0.183
116.7	1.685	0.134	230.5	1.376	0.235	344.3	1.425	0.007	578.7	1.503	0.186
118.6	1.690	0.140	232.4	1.371	0.229	346.3	1.429	0.004	584.5	1.501	0.189
120.6	1.685	0.146	234.4	1.370	0.220	348.2	1.434	0.003	590.3	1.501	0.192
122.5	1.689	0.146	236.3	1.366	0.214	350.1	1.438	0.001	596.1	1.500	0.196
124.4	1.684	0.155	238.2	1.363	0.206	352.0	1.443	0.000	601.8	1.497	0.199
126.4	1.685	0.147	240.2	1.359	0.199	354.0	1.447	0.000	607.6	1.496	0.203
128.3	1.681	0.162	242.1	1.358	0.192	355.9	1.452	0.000	613.4	1.496	0.207
130.2	1.675	0.152	244.0	1.355	0.186	357.8	1.456	0.002	619.2	1.492	0.211
132.1	1.674	0.160	245.9	1.353	0.180	359.8	1.460	0.000	625.0	1.490	0.216
134.1	1.675	0.159	247.9	1.353	0.175	361.7	1.464	0.004	630.8	1.489	0.219
136.0	1.672	0.174	249.8	1.353	0.169	363.6	1.467	0.005	636.6	1.485	0.224
137.9	1.668	0.177	251.7	1.353	0.162	365.5	1.471	0.007	642.3	1.483	0.228
139.9	1.670	0.183	253.7	1.354	0.159	367.5	1.474	0.008	648.1	1.482	0.234
141.8	1.665	0.200	255.6	1.353	0.155	369.4	1.477	0.009	653.9	1.478	0.239
143.7	1.659	0.199	257.5	1.352	0.151	371.3	1.480	0.011	659.7	1.473	0.246
145.6	1.661	0.209	259.4	1.350	0.145	373.3	1.483	0.012	665.5	1.470	0.250
147.6	1.656	0.214	261.4	1.351	0.138	375.2	1.485	0.015	671.3	1.466	0.255
149.5	1.652	0.228	263.3	1.351	0.132	377.1	1.487	0.015	677.1	1.458	0.262
151.4	1.640	0.224	265.2	1.356	0.126	379.0	1.490	0.016	682.9	1.453	0.266
153.4	1.637	0.228	267.2	1.356	0.125	381.0	1.491	0.018	688.6	1.448	0.273
155.3	1.632	0.227	269.1	1.356	0.119	382.9	1.495	0.017	694.4	1.439	0.276
157.2	1.629	0.219	271.0	1.357	0.114	384.8	1.497	0.021	700.2	1.431	0.281
159.1	1.632	0.226	273.0	1.357	0.110	386.8	1.499	0.021	706.0	1.426	0.283
161.1	1.625	0.231	274.9	1.359	0.105	388.7	1.501	0.025	711.8	1.416	0.289
163.0	1.621	0.235	276.8	1.360	0.104	390.6	1.502	0.026	717.6	1.408	0.292

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
723.4	1.403	0.294	955.8	1.268	0.041	1069.6	1.143	0.000	1183.4	1.257	0.000
729.2	1.393	0.298	957.7	1.273	0.039	1071.5	1.151	0.000	1185.3	1.258	0.000
734.9	1.382	0.299	959.7	1.278	0.037	1073.5	1.159	0.000	1187.3	1.260	0.000
740.7	1.375	0.299	961.6	1.283	0.034	1075.4	1.166	0.000	1189.2	1.261	0.000
746.5	1.365	0.300	963.5	1.288	0.033	1077.3	1.174	0.000	1191.1	1.262	0.000
752.3	1.352	0.301	965.4	1.293	0.032	1079.3	1.180	0.000	1193.1	1.263	0.000
758.1	1.345	0.299	967.4	1.299	0.030	1081.2	1.186	0.000	1195.0	1.264	0.000
763.9	1.334	0.298	969.3	1.306	0.028	1083.1	1.191	0.000	1196.9	1.265	0.000
769.7	1.324	0.299	971.2	1.312	0.026	1085.0	1.198	0.000	1198.8	1.266	0.000
775.4	1.315	0.295	973.2	1.320	0.025	1087.0	1.203	0.000	1205.6	1.270	0.000
781.2	1.307	0.291	975.1	1.328	0.025	1088.9	1.209	0.000	1211.4	1.273	0.000
787.0	1.295	0.289	977.0	1.336	0.023	1090.8	1.214	0.000	1217.2	1.275	0.000
792.8	1.286	0.283	978.9	1.345	0.023	1092.8	1.219	0.000	1223.0	1.278	0.000
798.6	1.279	0.279	980.9	1.354	0.023	1094.7	1.224	0.000	1228.7	1.280	0.000
804.4	1.269	0.275	982.8	1.365	0.022	1096.6	1.229	0.000	1234.5	1.282	0.000
810.2	1.260	0.269	984.7	1.377	0.022	1098.5	1.235	0.001	1240.3	1.284	0.000
816.0	1.254	0.263	986.7	1.390	0.023	1100.5	1.241	0.005	1246.1	1.286	0.000
821.7	1.244	0.257	988.6	1.405	0.026	1102.4	1.246	0.008	1251.9	1.288	0.000
827.5	1.237	0.250	990.5	1.422	0.030	1104.3	1.251	0.012	1257.7	1.290	0.000
833.3	1.232	0.241	992.5	1.442	0.036	1106.3	1.257	0.018	1263.5	1.293	0.000
839.1	1.226	0.235	994.4	1.463	0.046	1108.2	1.261	0.025	1269.3	1.295	0.000
844.9	1.217	0.225	996.3	1.486	0.062	1110.1	1.262	0.032	1275.0	1.297	0.000
850.7	1.213	0.216	998.2	1.508	0.084	1112.0	1.260	0.040	1280.8	1.298	0.000
856.5	1.209	0.208	1000.2	1.534	0.114	1114.0	1.262	0.047	1286.6	1.300	0.000
862.2	1.205	0.197	1002.1	1.542	0.151	1115.9	1.257	0.054	1292.4	1.302	0.000
868.0	1.201	0.187	1004.0	1.544	0.195	1117.8	1.250	0.060	1298.2	1.303	0.000
873.8	1.199	0.176	1006.0	1.559	0.237	1119.8	1.249	0.066	1304.0	1.305	0.000
879.6	1.196	0.166	1007.9	1.550	0.280	1121.7	1.240	0.068	1309.8	1.307	0.000
885.4	1.197	0.156	1009.8	1.518	0.322	1123.6	1.229	0.069	1315.5	1.309	0.000
891.2	1.198	0.146	1011.7	1.481	0.358	1125.5	1.223	0.068	1321.3	1.311	0.000
897.0	1.197	0.134	1013.7	1.481	0.380	1127.5	1.220	0.066	1327.1	1.313	0.000
901.8	1.200	0.125	1015.6	1.436	0.406	1129.4	1.211	0.061	1332.9	1.315	0.000
903.7	1.200	0.122	1017.5	1.394	0.429	1131.3	1.204	0.057	1338.7	1.317	0.000
905.6	1.200	0.118	1019.5	1.398	0.441	1133.3	1.203	0.049	1344.5	1.320	0.001
907.6	1.202	0.115	1021.4	1.369	0.460	1135.2	1.199	0.041	1350.3	1.323	0.002
909.5	1.203	0.111	1023.3	1.312	0.484	1137.1	1.196	0.032	1356.1	1.325	0.002
911.4	1.204	0.108	1025.2	1.254	0.504	1139.0	1.198	0.025	1361.8	1.328	0.003
913.4	1.205	0.104	1027.2	1.245	0.503	1141.0	1.202	0.018	1367.6	1.331	0.005
915.3	1.208	0.102	1029.1	1.173	0.512	1142.9	1.205	0.012	1373.4	1.335	0.006
917.2	1.209	0.097	1031.0	1.105	0.508	1144.8	1.210	0.006	1379.2	1.339	0.008
919.2	1.211	0.095	1033.0	1.088	0.483	1146.8	1.216	0.004	1385.0	1.343	0.012
921.1	1.213	0.091	1034.9	1.036	0.457	1148.7	1.220	0.001	1390.8	1.348	0.017
923.0	1.215	0.089	1036.8	0.969	0.423	1150.6	1.225	0.000	1396.6	1.351	0.024
924.9	1.216	0.084	1038.7	0.915	0.379	1152.6	1.230	0.000	1402.3	1.350	0.032
926.9	1.218	0.082	1040.7	0.910	0.315	1154.5	1.233	0.000	1408.1	1.349	0.040
928.8	1.220	0.078	1042.6	0.882	0.253	1156.4	1.236	0.002	1413.9	1.344	0.049
930.7	1.223	0.076	1044.5	0.872	0.189	1158.3	1.237	0.004	1419.7	1.339	0.056
932.7	1.226	0.072	1046.5	0.899	0.127	1160.3	1.239	0.004	1425.5	1.330	0.058
934.6	1.229	0.070	1048.4	0.921	0.078	1162.2	1.239	0.004	1431.3	1.323	0.055
936.5	1.232	0.066	1050.3	0.950	0.044	1164.1	1.240	0.003	1437.1	1.324	0.052
938.4	1.234	0.064	1052.2	0.982	0.020	1166.1	1.242	0.001	1442.9	1.328	0.055
940.4	1.238	0.060	1054.2	1.015	0.006	1168.0	1.243	0.001	1448.6	1.315	0.064
942.3	1.240	0.058	1056.1	1.041	0.000	1169.9	1.244	0.000	1454.4	1.307	0.061
944.2	1.244	0.054	1058.0	1.063	0.000	1171.8	1.246	0.000	1460.2	1.303	0.064
946.2	1.248	0.052	1060.0	1.082	0.000	1173.8	1.248	0.000	1466.0	1.294	0.061
948.1	1.251	0.050	1061.9	1.098	0.000	1175.7	1.251	0.000	1471.8	1.296	0.054
950.0	1.255	0.046	1063.8	1.111	0.000	1177.6	1.252	0.000	1477.6	1.288	0.065
951.9	1.260	0.045	1065.7	1.123	0.000	1179.6	1.254	0.000	1483.4	1.269	0.053
953.9	1.264	0.043	1067.7	1.133	0.000	1181.5	1.255	0.000	1489.2	1.264	0.033

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TABLE 3A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.266	0.017	1836.4	1.327	0.001	2126.7	1.355	0.005	2327.3	1.357	0.004	2668.7	1.397	0.000	3004.3	1.442	0.069	3340.0	1.216	0.315	3675.6	1.206	0.000
1500.7	1.274	0.009	1842.2	1.328	0.001	2128.6	1.355	0.006	2333.1	1.357	0.004	2674.5	1.399	0.000	3010.1	1.449	0.066	3345.8	1.206	0.311	3681.4	1.209	0.000
1506.5	1.283	0.005	1847.9	1.329	0.001	2130.5	1.356	0.007	2338.9	1.357	0.003	2680.3	1.400	0.000	3015.9	1.458	0.066	3351.6	1.198	0.306	3687.2	1.211	0.000
1512.3	1.289	0.001	1853.7	1.329	0.001	2132.5	1.356	0.009	2344.6	1.357	0.003	2686.1	1.403	0.000	3021.7	1.468	0.069	3357.3	1.166	0.301	3693.0	1.213	0.000
1518.1	1.294	0.000	1859.5	1.330	0.001	2134.4	1.354	0.011	2350.4	1.358	0.003	2691.9	1.404	0.001	3027.5	1.475	0.073	3363.1	1.158	0.296	3698.8	1.215	0.000
1523.9	1.300	0.000	1865.3	1.330	0.001	2136.3	1.352	0.011	2356.2	1.359	0.003	2697.6	1.406	0.000	3033.3	1.485	0.079	3368.9	1.149	0.290	3704.6	1.217	0.000
1529.7	1.304	0.000	1871.1	1.331	0.001	2138.2	1.350	0.011	2362.0	1.359	0.003	2703.4	1.408	0.001	3039.1	1.490	0.085	3374.7	1.153	0.284	3710.3	1.219	0.000
1535.4	1.307	0.000	1876.9	1.331	0.001	2140.2	1.350	0.009	2367.8	1.359	0.003	2709.2	1.410	0.002	3044.9	1.495	0.091	3380.5	1.145	0.278	3716.1	1.220	0.000
1541.2	1.309	0.001	1882.7	1.332	0.001	2142.1	1.349	0.007	2373.6	1.360	0.002	2715.0	1.413	0.002	3050.6	1.491	0.099	3386.3	1.148	0.271	3721.9	1.222	0.000
1547.0	1.312	0.002	1888.4	1.332	0.001	2144.0	1.350	0.007	2379.4	1.361	0.001	2720.8	1.415	0.003	3056.4	1.494	0.106	3392.1	1.140	0.263	3727.7	1.224	0.000
1552.8	1.314	0.003	1894.2	1.333	0.001	2146.0	1.351	0.006	2385.2	1.362	0.001	2726.6	1.417	0.003	3062.2	1.496	0.114	3397.9	1.133	0.255	3733.5	1.225	0.000
1558.6	1.316	0.004	1900.0	1.333	0.001	2147.9	1.351	0.006	2390.9	1.362	0.000	2732.4	1.420	0.003	3068.0	1.502	0.121	3403.6	1.107	0.245	3739.3	1.226	0.000
1564.4	1.318	0.004	1905.8	1.334	0.001	2149.8	1.352	0.006	2396.7	1.363	0.000	2738.2	1.423	0.004	3073.8	1.504	0.129	3409.4	1.102	0.236	3745.1	1.228	0.000
1570.2	1.320	0.005	1911.6	1.334	0.001	2151.8	1.352	0.007	2402.5	1.364	0.001	2743.9	1.425	0.005	3079.6	1.510	0.136	3415.2	1.107	0.227	3750.9	1.229	0.000
1576.0	1.321	0.006	1917.4	1.335	0.001	2153.7	1.352	0.007	2408.3	1.365	0.001	2749.7	1.428	0.006	3085.4	1.511	0.144	3421.0	1.102	0.218	3756.6	1.231	0.000
1581.7	1.322	0.006	1923.2	1.335	0.001	2155.6	1.352	0.007	2414.1	1.366	0.001	2755.5	1.431	0.007	3091.1	1.499	0.152	3426.8	1.098	0.209	3762.4	1.232	0.000
1587.5	1.324	0.006	1929.0	1.336	0.001	2157.5	1.352	0.007	2419.9	1.366	0.001	2761.3	1.435	0.009	3096.9	1.498	0.160	3432.6	1.103	0.199	3768.2	1.233	0.000
1593.3	1.326	0.007	1934.7	1.336	0.001	2159.5	1.353	0.007	2425.7	1.367	0.001	2767.1	1.439	0.011	3102.7	1.497	0.168	3438.4	1.100	0.190	3774.0	1.234	0.000
1599.1	1.327	0.007	1940.5	1.337	0.001	2161.4	1.353	0.007	2431.4	1.367	0.001	2772.9	1.443	0.013	3108.5	1.502	0.175	3444.1	1.084	0.180	3779.8	1.235	0.000
1604.9	1.329	0.008	1946.3	1.337	0.001	2163.3	1.352	0.007	2437.2	1.368	0.001	2778.7	1.447	0.016	3114.3	1.501	0.182	3449.9	1.084	0.171	3785.6	1.236	0.000
1610.7	1.331	0.010	1952.1	1.337	0.001	2165.3	1.353	0.007	2443.0	1.369	0.001	2784.4	1.449	0.020	3120.1	1.507	0.189	3455.7	1.083	0.163	3791.4	1.238	0.000
1616.5	1.334	0.012	1957.9	1.338	0.001	2167.2	1.353	0.007	2448.8	1.370	0.001	2790.2	1.453	0.024	3125.9	1.505	0.196	3461.5	1.089	0.155	3797.1	1.239	0.000
1622.3	1.335	0.014	1963.7	1.339	0.001	2169.1	1.353	0.007	2454.6	1.370	0.001	2796.0	1.457	0.030	3131.7	1.503	0.203	3467.3	1.089	0.147	3802.9	1.239	0.000
1628.0	1.335	0.016	1969.5	1.339	0.001	2171.0	1.353	0.008	2460.4	1.371	0.001	2801.8	1.461	0.036	3137.4	1.484	0.212	3473.1	1.094	0.140	3808.7	1.240	0.000
1633.8	1.336	0.020	1975.3	1.340	0.001	2173.0	1.353	0.008	2466.2	1.372	0.001	2807.6	1.464	0.044	3143.2	1.481	0.220	3478.9	1.093	0.133	3814.5	1.242	0.000
1639.6	1.336	0.023	1981.0	1.340	0.001	2174.9	1.353	0.008	2472.0	1.373	0.001	2813.4	1.469	0.053	3149.0	1.477	0.227	3484.7	1.092	0.125	3820.3	1.243	0.000
1645.4	1.336	0.026	1986.8	1.340	0.001	2176.8	1.352	0.008	2477.7	1.374	0.001	2819.2	1.469	0.067	3154.8	1.483	0.235	3490.4	1.082	0.118	3826.1	1.243	0.000
1651.2	1.334	0.029	1992.6	1.341	0.001	2178.8	1.353	0.008	2483.5	1.375	0.001	2825.0	1.462	0.087	3160.6	1.479	0.242	3496.2	1.082	0.109	3831.9	1.244	0.000
1657.0	1.333	0.033	1998.4	1.342	0.001	2180.7	1.353	0.008	2489.3	1.376	0.002	2830.7	1.429	0.098	3166.4	1.485	0.249	3502.0	1.081	0.101	3837.7	1.245	0.000
1662.8	1.330	0.036	2004.2	1.342	0.002	2182.6	1.353	0.008	2495.1	1.378	0.002	2836.5	1.408	0.082	3172.2	1.480	0.256	3507.8	1.086	0.092	3843.4	1.246	0.000
1668.5	1.323	0.038	2010.0	1.342	0.002	2184.5	1.352	0.008	2500.9	1.379	0.003	2842.3	1.408	0.064	3178.0	1.476	0.264	3513.6	1.086	0.083	3849.2	1.247	0.000
1674.3	1.319	0.040	2015.8	1.343	0.002	2186.5	1.353	0.008	2506.7	1.380	0.005	2848.1	1.415	0.057	3183.7	1.449	0.273	3519.4	1.091	0.073	3855.0	1.248	0.000
1680.1	1.313	0.039	2021.5	1.343	0.002	2188.4	1.353	0.009	2512.5	1.381	0.006	2853.9	1.419	0.054	3189.5	1.443	0.280	3525.2	1.094	0.063	3860.8	1.248	0.000
1685.9	1.309	0.037	2027.3	1.343	0.002	2190.3	1.352	0.009	2518.2	1.380	0.007	2859.7	1.423	0.053	3195.3	1.435	0.288	3531.0	1.098	0.054	3866.6	1.249	0.000
1691.7	1.305	0.033	2033.1	1.344	0.002	2192.3	1.353	0.009	2524.0	1.380	0.008	2865.5	1.425	0.051	3201.1	1.439	0.294	3536.7	1.099	0.045	3872.4	1.250	0.000
1697.5	1.304	0.029	2038.9	1.344	0.003	2194.2	1.352	0.008	2529.8	1.380	0.009	2871.2	1.424	0.050	3206.9	1.432	0.300	3542.5	1.105	0.038	3878.2	1.250	0.000
1703.3	1.303	0.025	2044.7	1.344	0.003	2196.1	1.352	0.008	2535.6	1.380	0.009	2877.0	1.427	0.048	3212.7	1.436	0.306	3548.3	1.113	0.032	3884.0	1.251	0.000
1709.1	1.302	0.021	2050.5	1.344	0.002	2198.0	1.352	0.008	2541.4	1.379	0.009	2882.8	1.431	0.049	3218.5	1.428	0.312	3554.1	1.119	0.026	3889.7	1.252	0.000
1714.8	1.301	0.017	2056.3	1.345	0.002	2205.8	1.353	0.008	2547.2	1.379	0.009	2888.6	1.437	0.050	3224.2	1.394	0.319	3559.9	1.125	0.022	3895.5	1.253	0.000
1720.6	1.301	0.014	2062.1	1.345	0.001	2211.5	1.352	0.008	2553.0	1.379	0.009	2894.4	1.441	0.052	3230.0	1.384	0.324	3565.7	1.132	0.018	3901.3	1.253	0.000
1726.4	1.304	0.011	2067.8	1.346	0.001	2217.3	1.353	0.009	2558.8	1.379	0.008	2900.2	1.446	0.056	3235.8	1.375	0.329	3571.5	1.138	0.014	3907.1	1.254	0.000
1732.2	1.306	0.009	2073.6	1.347	0.001	2223.1	1.352	0.009	2564.5	1.379	0.008	2906.0	1.447	0.060	3241.6	1.377	0.333	3577.2	1.142	0.012	3912.9	1.255	0.000
1738.0	1.307	0.007	2079.4	1.347	0.001	2228.9	1.353	0.010	2570.3	1.380	0.007	2911.8	1.447	0.063	3247.4	1.367	0.337	3583.0	1.148	0.009	3918.7	1.255	0.000
1743.8	1.309	0.005	2085.2	1.348	0.001	2234.7	1.352	0.010	2576.1	1.381	0.006	2917.5	1.443	0.066	3253.2	1.371	0.339	3588.8	1.153	0.007	3924.5	1.256	0.000
1749.6	1.311	0.004	2091.0	1.349	0.002	2240.5	1.352	0.010	2581.9	1.382	0.006	2923.3	1.444	0.068	3259.0	1.359	0.341	3594.6	1.158	0.006	3930.2	1.257	0.000
1755.3	1.312	0.003	2096.8	1.350	0.002	2246.3	1.352	0.009	2587.7	1.383	0.007	2929.1	1.444	0.074	3264.8	1.348	0.343	3600.4	1.163	0.004	3936.0	1.257	0.000
1761.1	1.314	0.002	2101.6	1.350	0.002	2252.1	1.351	0.008	2593.5	1.384	0.007	2934.9	1.443	0.077	3270.5	1.310	0.346	3606.2	1.167	0.003	3941.8	1.258	0.000
1766.9	1.316	0.001	2103.5	1.350	0.002	2257.8	1.351	0.008	2599.3	1.384	0.007	2940.7	1.440	0.075	3276.3	1.298	0.346	3612.0	1.172	0.002	3947.6	1.258	0.000
1772.7	1.317	0.001	2105.5	1.351	0.002	2263.6	1.351	0.007	2605.1	1.384	0.007	2946.5	1.445	0.073	3282.1	1.286	0.345	3617.8	1.175	0.001	3953.4	1.259	0.000
1778.5	1.318	0.000	2107.4	1.351	0.002	2269.4	1.351	0.006	2610.8	1.384	0.007	2952.3	1.448	0.076	3287.9	1.290	0.343	3623.5	1.179	0.000	3959.2	1.259	0.000
1784.3	1.320	0.000	2109.3	1.352	0.002	2275.2	1.352	0.006	2616.6	1.384	0.006	2958.1	1.447	0.081	3293.7	1.279	0.342	3629.3	1.183	0.000	3965.0	1.260	0.000
1790.1	1.321	0.000	2111.2	1.352	0.003	2281.0	1.352	0.005	2622.4	1.385	0.005	2963.8	1.437	0.082	3299.5	1.282	0.339	3635.1	1.186	0.000	3970.8	1.260	0.000
1795.9	1.322	0.000	2113.2	1.352	0.003	2286.8	1.353	0.005	2628.2	1.385	0.004	2969.6	1.435	0.080	3305.3	1.271	0.337	3640.9	1.189	0.000	3976.5	1.261	0.000
1801.6	1.323	0.000	2115.1	1.352	0.003	2292.6	1.353	0.004	2634.0	1.386	0.003	2975.4	1.440	0.077	3311.1	1.261	0.335	3646.7	1.193	0.000	3982.3	1.261	0.000
1807.4	1.323	0.000	2117.0	1.353	0.004	2298.4	1.354	0.004	2639.8	1.388	0.003	2981.2	1.442	0.079	3316.8	1.226	0.332	3652.5	1.195	0.000	3988.1	1.262	0.000
1813.2	1.324	0.000	2119.0	1.353	0.004	2304.1	1.354	0.004	2645.6	1.390	0.001	2987.0	1.441	0.080	3322.6	1.216	0.329	3658.3	1.198	0.000	3993.9	1.262	0.000
1819.0	1.325	0.000	2120.9	1.353	0.004	2309.9	1.355	0.004	2651.3	1.391	0.000	2992.8	1.442	0.078	3328.4	1.220	0.324	3664.1	1.201	0.000	3999.7	1.262	0.000
1824.8	1.326	0.000	2122.8	1.354	0.004	2315.7	1.356	0.004	2657.1	1.393	0.000	2998.6	1.443	0.073	3334.2	1.211	0.320	3669.8	1.204	0.000			
1830.6	1.327	0.001	2124.7	1.354	0.004	2321.5	1.356	0.004	2662.9	1.395	0.000												

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TABLE 3B

$H_2O:CH_3OH:CO:NH_3$ = 100:50:1:1 AT 40 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.536	0.035	846.3	1.269	0.223	995.8	1.506	0.040	1109.6	1.286	0.027	1274.6	1.312	0.000	1616.0	1.340	0.010	1957.4	1.347	0.000	2166.7	1.363	0.008
510.7	1.534	0.040	852.1	1.262	0.215	997.8	1.531	0.058	1111.6	1.288	0.037	1280.3	1.313	0.000	1621.8	1.341	0.012	1963.2	1.348	0.000	2168.6	1.362	0.008
516.5	1.535	0.047	857.9	1.255	0.206	999.7	1.555	0.084	1113.5	1.287	0.045	1286.1	1.315	0.000	1627.6	1.342	0.014	1969.0	1.348	0.002	2170.6	1.363	0.008
522.3	1.534	0.049	863.7	1.249	0.197	1001.6	1.577	0.118	1115.4	1.285	0.053	1291.9	1.316	0.000	1633.3	1.343	0.016	1974.8	1.349	0.000	2172.5	1.363	0.009
528.1	1.533	0.051	869.5	1.243	0.188	1003.5	1.590	0.162	1117.3	1.280	0.062	1297.7	1.318	0.000	1639.1	1.343	0.018	1980.6	1.349	0.002	2174.4	1.362	0.009
533.8	1.534	0.056	875.3	1.239	0.177	1005.5	1.594	0.211	1119.3	1.274	0.067	1303.5	1.320	0.001	1644.9	1.344	0.021	1986.3	1.350	0.002	2176.3	1.362	0.009
539.6	1.532	0.065	881.1	1.235	0.166	1007.4	1.586	0.259	1121.2	1.266	0.072	1309.3	1.322	0.001	1650.7	1.344	0.024	1992.1	1.350	0.002	2178.3	1.362	0.009
545.4	1.531	0.067	886.8	1.234	0.155	1009.3	1.568	0.302	1123.1	1.258	0.074	1315.1	1.323	0.000	1656.5	1.342	0.028	1997.9	1.351	0.002	2180.2	1.363	0.009
551.2	1.531	0.071	892.6	1.232	0.144	1011.3	1.543	0.339	1125.1	1.250	0.074	1320.9	1.324	0.001	1662.3	1.340	0.030	2003.7	1.351	0.002	2182.1	1.362	0.009
557.0	1.529	0.075	898.4	1.232	0.131	1013.2	1.515	0.366	1127.0	1.241	0.072	1326.6	1.327	0.001	1668.1	1.337	0.033	2009.5	1.351	0.002	2184.1	1.362	0.009
562.8	1.527	0.079	901.3	1.232	0.127	1015.1	1.488	0.388	1128.9	1.234	0.069	1332.4	1.329	0.000	1673.9	1.333	0.035	2015.3	1.352	0.002	2186.0	1.362	0.009
568.6	1.528	0.083	903.2	1.232	0.123	1017.0	1.464	0.406	1130.8	1.227	0.063	1338.2	1.331	0.001	1679.6	1.328	0.035	2021.1	1.352	0.002	2187.9	1.362	0.009
574.4	1.529	0.087	905.2	1.233	0.119	1019.0	1.441	0.427	1132.8	1.221	0.055	1344.0	1.333	0.000	1685.4	1.323	0.036	2026.8	1.353	0.002	2189.8	1.362	0.009
580.1	1.528	0.089	907.1	1.234	0.115	1020.9	1.416	0.452	1134.7	1.218	0.048	1349.8	1.335	0.002	1691.2	1.319	0.031	2032.6	1.353	0.003	2191.8	1.362	0.009
585.9	1.529	0.095	909.0	1.234	0.113	1022.8	1.385	0.480	1136.6	1.216	0.039	1355.6	1.338	0.002	1697.0	1.316	0.027	2038.4	1.353	0.003	2193.7	1.362	0.010
591.7	1.529	0.098	911.0	1.235	0.109	1024.8	1.346	0.507	1138.6	1.216	0.029	1361.4	1.341	0.003	1702.8	1.315	0.024	2044.2	1.353	0.003	2195.6	1.362	0.009
597.5	1.529	0.100	912.9	1.236	0.103	1026.7	1.296	0.529	1140.5	1.219	0.022	1367.1	1.344	0.004	1708.6	1.314	0.020	2050.0	1.353	0.003	2197.6	1.362	0.010
603.3	1.528	0.103	914.8	1.237	0.101	1028.6	1.239	0.541	1142.4	1.222	0.015	1372.9	1.348	0.005	1714.4	1.315	0.017	2055.8	1.353	0.002	2199.5	1.362	0.010
609.1	1.530	0.109	916.7	1.238	0.097	1030.5	1.177	0.539	1144.4	1.227	0.010	1378.7	1.352	0.006	1720.1	1.315	0.014	2061.6	1.354	0.002	2206.2	1.362	0.010
614.9	1.531	0.112	918.7	1.240	0.093	1032.5	1.115	0.528	1146.3	1.232	0.005	1384.5	1.356	0.009	1725.9	1.316	0.012	2067.4	1.355	0.002	2213.0	1.362	0.010
620.6	1.531	0.118	920.6	1.242	0.089	1034.4	1.055	0.502	1148.2	1.238	0.003	1390.3	1.360	0.014	1731.7	1.317	0.009	2073.1	1.355	0.002	2219.7	1.362	0.010
626.4	1.533	0.124	922.5	1.244	0.087	1036.3	0.999	0.465	1150.1	1.243	0.001	1396.1	1.364	0.021	1737.5	1.318	0.007	2078.9	1.356	0.000	2226.5	1.362	0.010
632.2	1.533	0.129	924.5	1.245	0.083	1038.3	0.948	0.415	1152.1	1.247	0.002	1401.9	1.367	0.028	1743.3	1.320	0.006	2084.7	1.357	0.002	2233.2	1.361	0.011
638.0	1.533	0.137	926.4	1.247	0.079	1040.2	0.909	0.351	1154.0	1.251	0.002	1407.7	1.367	0.038	1749.1	1.321	0.005	2090.5	1.358	0.002	2240.0	1.361	0.011
643.8	1.533	0.142	928.3	1.249	0.076	1042.1	0.886	0.278	1155.9	1.254	0.003	1413.4	1.363	0.047	1754.9	1.323	0.003	2096.3	1.358	0.002	2246.8	1.360	0.010
649.6	1.532	0.150	930.2	1.252	0.072	1044.0	0.883	0.202	1157.9	1.255	0.003	1419.2	1.356	0.056	1760.7	1.324	0.003	2101.1	1.359	0.002	2253.5	1.360	0.010
655.4	1.531	0.157	932.2	1.253	0.068	1046.0	0.900	0.133	1159.8	1.257	0.005	1425.0	1.347	0.060	1766.4	1.326	0.003	2103.0	1.360	0.002	2260.3	1.360	0.009
661.2	1.528	0.165	934.1	1.257	0.066	1047.9	0.930	0.077	1161.7	1.257	0.005	1430.8	1.339	0.059	1772.2	1.327	0.002	2105.0	1.360	0.002	2267.0	1.360	0.008
666.9	1.529	0.170	936.0	1.259	0.063	1049.8	0.967	0.041	1163.6	1.259	0.004	1436.6	1.336	0.055	1778.0	1.328	0.002	2106.9	1.360	0.002	2273.8	1.360	0.007
672.7	1.523	0.178	938.0	1.261	0.059	1051.8	1.003	0.018	1165.6	1.259	0.002	1442.4	1.340	0.058	1783.8	1.329	0.001	2108.8	1.360	0.002	2280.5	1.361	0.006
678.5	1.520	0.188	939.9	1.265	0.056	1053.7	1.036	0.006	1167.5	1.261	0.001	1448.2	1.331	0.069	1789.6	1.331	0.001	2110.8	1.361	0.002	2287.3	1.361	0.006
684.3	1.515	0.193	941.8	1.268	0.054	1055.6	1.063	0.000	1169.4	1.263	0.000	1453.9	1.321	0.064	1795.4	1.332	0.001	2112.7	1.361	0.003	2294.0	1.362	0.006
690.1	1.511	0.201	943.7	1.271	0.051	1057.5	1.085	0.000	1171.4	1.265	0.000	1459.7	1.316	0.067	1801.2	1.332	0.001	2114.6	1.361	0.003	2300.8	1.363	0.005
695.9	1.506	0.209	945.7	1.275	0.047	1059.5	1.104	0.000	1173.3	1.266	0.000	1465.5	1.304	0.063	1806.9	1.333	0.001	2116.5	1.361	0.003	2307.5	1.363	0.005
701.7	1.501	0.217	947.6	1.278	0.045	1061.4	1.120	0.000	1175.2	1.268	0.000	1471.3	1.306	0.055	1812.7	1.334	0.001	2118.5	1.362	0.003	2314.3	1.364	0.005
707.4	1.494	0.223	949.5	1.282	0.042	1063.3	1.133	0.000	1177.1	1.270	0.000	1477.1	1.297	0.065	1818.5	1.335	0.001	2120.4	1.362	0.004	2321.0	1.365	0.005
713.2	1.487	0.228	951.5	1.286	0.039	1065.3	1.144	0.000	1179.1	1.272	0.000	1482.9	1.279	0.054	1824.3	1.335	0.001	2122.3	1.363	0.004	2327.8	1.365	0.005
719.0	1.481	0.234	953.4	1.290	0.037	1067.2	1.155	0.000	1181.0	1.274	0.000	1488.7	1.274	0.034	1830.1	1.336	0.001	2124.3	1.363	0.004	2334.5	1.365	0.006
724.8	1.473	0.242	955.3	1.295	0.035	1069.1	1.165	0.000	1182.9	1.275	0.000	1494.5	1.279	0.019	1835.9	1.337	0.001	2126.2	1.364	0.004	2341.3	1.365	0.004
730.6	1.464	0.248	957.2	1.299	0.032	1071.1	1.173	0.000	1184.9	1.276	0.000	1500.2	1.286	0.010	1841.7	1.337	0.001	2128.1	1.365	0.005	2348.0	1.366	0.003
736.4	1.455	0.252	959.2	1.304	0.031	1073.0	1.181	0.000	1186.8	1.278	0.000	1506.0	1.293	0.007	1847.5	1.338	0.000	2130.0	1.366	0.007	2354.8	1.368	0.004
742.2	1.447	0.256	961.1	1.309	0.028	1074.9	1.189	0.000	1188.7	1.279	0.000	1511.8	1.299	0.002	1853.2	1.338	0.000	2132.0	1.365	0.009	2361.5	1.367	0.004
748.0	1.436	0.260	963.0	1.314	0.026	1076.8	1.195	0.000	1190.6	1.280	0.000	1517.6	1.305	0.000	1859.0	1.339	0.000	2133.9	1.364	0.011	2368.3	1.367	0.004
753.7	1.427	0.264	965.0	1.320	0.024	1078.8	1.201	0.000	1192.6	1.280	0.000	1523.4	1.310	0.000	1864.8	1.340	0.000	2135.8	1.361	0.012	2375.0	1.368	0.002
759.5	1.417	0.266	966.9	1.326	0.023	1080.7	1.208	0.000	1194.5	1.282	0.000	1529.2	1.314	0.000	1870.6	1.340	0.000	2137.8	1.359	0.011	2381.8	1.369	0.001
765.3	1.406	0.268	968.8	1.332	0.020	1082.6	1.213	0.000	1196.4	1.283	0.000	1535.0	1.317	0.000	1876.4	1.341	0.000	2139.7	1.358	0.008	2388.5	1.371	0.001
771.1	1.396	0.267	970.8	1.339	0.020	1084.6	1.219	0.000	1198.4	1.284	0.000	1540.8	1.320	0.003	1882.2	1.342	0.001	2141.6	1.359	0.007	2395.3	1.372	0.000
776.9	1.385	0.269	972.7	1.346	0.019	1086.5	1.224	0.000	1205.1	1.287	0.000	1546.5	1.322	0.003	1888.0	1.342	0.000	2143.6	1.359	0.006	2402.0	1.373	0.000
782.7	1.375	0.269	974.6	1.353	0.017	1088.4	1.229	0.000	1210.9	1.290	0.000	1552.3	1.324	0.003	1893.8	1.343	0.000	2145.5	1.360	0.006	2408.8	1.374	0.001
788.5	1.365	0.269	976.5	1.361	0.016	1090.3	1.234	0.000	1216.7	1.292	0.000	1558.1	1.327	0.005	1899.5	1.343	0.001	2147.4	1.361	0.006	2415.5	1.375	0.001
794.3	1.354	0.268	978.5	1.370	0.014	1092.3	1.240	0.000	1222.5	1.294	0.000	1563.9	1.327	0.005	1905.3	1.343	0.002	2149.3	1.361	0.006	2422.3	1.375	0.001
800.0	1.345	0.266	980.4	1.380	0.014	1094.2	1.244	0.000	1228.3	1.297	0.000	1569.7	1.329	0.006	1911.1	1.344	0.002	2151.3	1.361	0.006	2429.0	1.376	0.001
805.8	1.334	0.263	982.3	1.390	0.014	1096.1	1.249	0.000	1234.0	1.299	0.000	1575.5	1.330	0.006	1916.9	1.344	0.002	2153.2	1.362	0.006	2435.8	1.377	0.001
811.6	1.324	0.258	984.3	1.400	0.014	1098.1	1.255	0.001	1239.8	1.300	0.000	1581.3	1.332	0.007	1922.7	1.344	0.002	2155.1	1.362	0.007	2442.5	1.378	0.002
817.4	1.314	0.253	986.2	1.413	0.014	1100.0	1.261	0.003	1245.6	1.302	0.000	1587.0	1.332	0.007	1928.5	1.345	0.002	2157.1	1.362	0.007	2449.3	1.379	0.001
823.2	1.304	0.249	988.1	1.427	0.015	1101.9	1.266	0.005	1251.4	1.304	0.000	1592.8	1.334	0.008	1934.3	1.345	0.002	2159.0	1.362	0.007	2456.0	1.380	0.001
829.0	1.295	0.244	990.0	1.443	0.018	1103.8	1.272	0.009	1257.2	1.306	0.000	1598.6	1.335	0.008	1940.0	1.345	0.000	2160.9	1.362	0.007	2462.8	1.381	0.001
834.8	1.286	0.239	992.0	1.462	0.022	1105.8	1.277	0.013	1263.0	1.307	0.000	1604.4	1.336	0.009	1945.8	1.346	0.000	2162.8	1.362	0.007	2469.5	1.382	0.001
840.5	1.278	0.232	993.9	1.483	0.029	1107.7	1.283	0.020	1268.8	1.310	0.000	1610.2	1.338	0.009	1951.6	1.347	0.000	2164.8	1.362	0.007	2476.3	1.383	0.001

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TABLE 3B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2483.0	1.385	0.001	2867.9	1.439	0.057	3252.7	1.335	0.385	3637.5	1.187	0.000
2489.8	1.386	0.002	2874.6	1.443	0.055	3259.5	1.320	0.387	3644.3	1.191	0.000
2496.6	1.388	0.002	2881.4	1.448	0.054	3266.2	1.304	0.388	3651.0	1.194	0.000
2503.3	1.389	0.003	2888.1	1.453	0.055	3273.0	1.289	0.388	3657.8	1.197	0.000
2510.1	1.390	0.005	2894.9	1.458	0.058	3279.7	1.274	0.386	3664.5	1.200	0.000
2516.8	1.391	0.007	2901.6	1.461	0.062	3286.5	1.259	0.384	3671.3	1.203	0.000
2523.6	1.391	0.008	2908.4	1.462	0.067	3293.2	1.244	0.381	3678.0	1.205	0.000
2530.3	1.391	0.009	2915.1	1.463	0.069	3300.0	1.230	0.376	3684.8	1.208	0.000
2537.1	1.390	0.010	2921.9	1.466	0.072	3306.7	1.216	0.371	3691.5	1.210	0.000
2543.8	1.390	0.010	2928.6	1.467	0.079	3313.5	1.202	0.365	3698.3	1.213	0.000
2550.6	1.389	0.009	2935.4	1.463	0.083	3320.2	1.189	0.358	3705.0	1.215	0.000
2557.3	1.389	0.009	2942.1	1.461	0.080	3327.0	1.177	0.350	3711.8	1.217	0.000
2564.1	1.390	0.008	2948.9	1.466	0.081	3333.7	1.166	0.342	3718.5	1.219	0.000
2570.8	1.391	0.007	2955.6	1.467	0.087	3340.5	1.155	0.334	3725.3	1.221	0.000
2577.6	1.392	0.007	2962.4	1.463	0.091	3347.2	1.145	0.325	3732.0	1.222	0.000
2584.3	1.393	0.007	2969.1	1.460	0.088	3354.0	1.135	0.316	3738.8	1.224	0.000
2591.1	1.394	0.007	2975.9	1.464	0.084	3360.7	1.126	0.307	3745.5	1.225	0.000
2597.8	1.394	0.008	2982.6	1.468	0.087	3367.5	1.117	0.297	3752.3	1.227	0.000
2604.6	1.394	0.007	2989.4	1.467	0.090	3374.2	1.108	0.287	3759.1	1.228	0.000
2611.3	1.395	0.007	2996.1	1.466	0.086	3381.0	1.100	0.276	3765.8	1.230	0.000
2618.1	1.395	0.006	3002.9	1.470	0.080	3387.7	1.093	0.265	3772.6	1.231	0.000
2624.8	1.396	0.005	3009.7	1.480	0.078	3394.5	1.086	0.253	3779.3	1.233	0.000
2631.6	1.397	0.003	3016.4	1.491	0.080	3401.2	1.081	0.241	3786.1	1.234	0.000
2638.3	1.399	0.002	3023.2	1.501	0.086	3408.0	1.076	0.229	3792.8	1.235	0.000
2645.1	1.401	0.001	3029.9	1.509	0.094	3414.7	1.073	0.216	3799.6	1.236	0.000
2651.8	1.403	0.000	3036.7	1.516	0.102	3421.5	1.070	0.204	3806.3	1.238	0.000
2658.6	1.406	0.000	3043.4	1.522	0.112	3428.2	1.068	0.192	3813.1	1.239	0.000
2665.3	1.408	0.000	3050.2	1.527	0.122	3435.0	1.068	0.182	3819.8	1.240	0.000
2672.1	1.410	0.000	3056.9	1.530	0.133	3441.7	1.067	0.170	3826.6	1.241	0.000
2678.8	1.413	0.000	3063.7	1.532	0.144	3448.5	1.067	0.160	3833.3	1.242	0.000
2685.6	1.415	0.000	3070.4	1.534	0.155	3455.2	1.067	0.150	3840.1	1.243	0.000
2692.3	1.418	0.001	3077.2	1.534	0.166	3462.0	1.068	0.141	3846.8	1.244	0.000
2699.1	1.421	0.002	3083.9	1.534	0.178	3468.7	1.068	0.132	3853.6	1.245	0.000
2705.8	1.423	0.002	3090.7	1.532	0.189	3475.5	1.067	0.123	3860.3	1.246	0.000
2712.6	1.426	0.002	3097.4	1.530	0.200	3482.2	1.068	0.113	3867.1	1.247	0.000
2719.3	1.429	0.003	3104.2	1.527	0.211	3489.0	1.067	0.103	3873.8	1.247	0.000
2726.1	1.432	0.003	3110.9	1.523	0.221	3495.7	1.068	0.093	3880.6	1.248	0.000
2732.8	1.435	0.004	3117.7	1.519	0.231	3502.5	1.069	0.081	3887.3	1.249	0.000
2739.6	1.438	0.005	3124.4	1.515	0.241	3509.3	1.072	0.069	3894.1	1.250	0.000
2746.4	1.442	0.006	3131.2	1.510	0.250	3516.0	1.076	0.057	3900.8	1.251	0.000
2753.1	1.446	0.007	3137.9	1.505	0.260	3522.8	1.083	0.046	3907.6	1.252	0.000
2759.9	1.450	0.009	3144.7	1.500	0.269	3529.5	1.090	0.036	3914.3	1.253	0.000
2766.6	1.455	0.011	3151.4	1.494	0.279	3536.3	1.099	0.028	3921.1	1.253	0.000
2773.4	1.460	0.015	3158.2	1.488	0.288	3543.0	1.107	0.021	3927.8	1.254	0.000
2780.1	1.465	0.018	3164.9	1.481	0.297	3549.8	1.116	0.016	3934.6	1.255	0.000
2786.9	1.470	0.024	3171.7	1.473	0.307	3556.5	1.124	0.012	3941.3	1.255	0.000
2793.6	1.475	0.030	3178.4	1.465	0.315	3563.3	1.131	0.009	3948.1	1.256	0.000
2800.4	1.480	0.038	3185.2	1.457	0.324	3570.0	1.138	0.006	3954.8	1.257	0.000
2807.1	1.484	0.048	3191.9	1.447	0.332	3576.8	1.145	0.004	3961.6	1.258	0.000
2813.9	1.486	0.061	3198.7	1.437	0.340	3583.5	1.151	0.003	3968.3	1.258	0.000
2820.6	1.485	0.080	3205.4	1.426	0.348	3590.3	1.157	0.002	3975.1	1.258	0.000
2827.4	1.466	0.105	3212.2	1.415	0.356	3597.0	1.162	0.001	3981.8	1.259	0.000
2834.1	1.431	0.098	3218.9	1.403	0.363	3603.8	1.167	0.000	3988.6	1.259	0.000
2840.9	1.425	0.072	3225.7	1.390	0.369	3610.5	1.172	0.000	3995.3	1.260	0.000
2847.6	1.432	0.063	3232.4	1.377	0.374	3617.3	1.176	0.000			
2854.4	1.436	0.061	3239.2	1.364	0.379	3624.0	1.180	0.000			
2861.1	1.437	0.059	3245.9	1.349	0.383	3630.8	1.184	0.000			

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TABLE 3C

$H_2O:CH_3OH:CO:NH_3$ = 100:50:1:1 AT 80 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.512	0.008	846.3	1.273	0.261	995.8	1.493	0.030	1109.6	1.286	0.023	1274.6	1.312	0.000	1616.0	1.337	0.009	1957.4	1.350	0.002	2166.7	1.366	0.007
510.7	1.519	0.010	852.1	1.262	0.250	997.8	1.519	0.045	1111.6	1.289	0.033	1280.3	1.313	0.000	1621.8	1.338	0.010	1963.2	1.350	0.002	2168.6	1.366	0.008
516.5	1.524	0.022	857.9	1.252	0.241	999.7	1.546	0.068	1113.5	1.289	0.044	1286.1	1.315	0.000	1627.6	1.339	0.011	1969.0	1.351	0.002	2170.6	1.366	0.008
522.3	1.525	0.027	863.7	1.244	0.231	1001.6	1.570	0.103	1115.4	1.287	0.053	1291.9	1.316	0.000	1633.3	1.341	0.012	1974.8	1.351	0.000	2172.5	1.366	0.008
528.1	1.528	0.029	869.5	1.235	0.218	1003.5	1.585	0.148	1117.3	1.282	0.062	1297.7	1.317	0.001	1639.1	1.342	0.015	1980.6	1.352	0.002	2174.4	1.366	0.009
533.8	1.528	0.034	875.3	1.228	0.207	1005.5	1.588	0.199	1119.3	1.275	0.070	1303.5	1.320	0.001	1644.9	1.342	0.016	1986.3	1.352	0.002	2176.3	1.366	0.009
539.6	1.529	0.043	881.1	1.222	0.193	1007.4	1.578	0.248	1121.2	1.266	0.074	1309.3	1.321	0.000	1650.7	1.343	0.019	1992.1	1.353	0.002	2178.3	1.366	0.009
545.4	1.528	0.045	886.8	1.217	0.180	1009.3	1.555	0.289	1123.1	1.256	0.077	1315.1	1.323	0.000	1656.5	1.342	0.022	1997.9	1.354	0.002	2180.2	1.366	0.009
551.2	1.528	0.049	892.6	1.214	0.165	1011.3	1.528	0.316	1125.1	1.246	0.075	1320.9	1.325	0.001	1662.3	1.340	0.024	2003.7	1.354	0.002	2182.1	1.366	0.009
557.0	1.528	0.056	898.4	1.213	0.152	1013.2	1.502	0.332	1127.0	1.237	0.072	1326.6	1.327	0.001	1668.1	1.338	0.027	2009.5	1.354	0.002	2184.1	1.366	0.009
562.8	1.529	0.058	901.3	1.213	0.143	1015.1	1.486	0.338	1128.9	1.229	0.068	1332.4	1.329	0.001	1673.9	1.335	0.028	2015.3	1.354	0.002	2186.0	1.366	0.009
568.6	1.530	0.062	903.2	1.213	0.139	1017.0	1.481	0.347	1130.8	1.223	0.060	1338.2	1.330	0.001	1679.6	1.331	0.029	2021.1	1.355	0.002	2187.9	1.366	0.010
574.4	1.530	0.066	905.2	1.213	0.135	1019.0	1.483	0.373	1132.8	1.218	0.053	1344.0	1.332	0.000	1685.4	1.327	0.028	2026.8	1.355	0.002	2189.8	1.365	0.010
580.1	1.530	0.070	907.1	1.213	0.131	1020.9	1.479	0.415	1134.7	1.216	0.044	1349.8	1.335	0.002	1691.2	1.324	0.025	2032.6	1.356	0.003	2191.8	1.366	0.010
585.9	1.530	0.071	909.0	1.214	0.125	1022.8	1.458	0.472	1136.6	1.215	0.035	1355.6	1.337	0.002	1697.0	1.322	0.022	2038.4	1.356	0.004	2193.7	1.366	0.010
591.7	1.531	0.077	911.0	1.215	0.121	1024.8	1.415	0.527	1138.6	1.217	0.025	1361.4	1.340	0.003	1702.8	1.321	0.020	2044.2	1.355	0.004	2195.6	1.365	0.010
597.5	1.531	0.079	912.9	1.216	0.116	1026.7	1.353	0.569	1140.5	1.220	0.018	1367.1	1.343	0.003	1708.6	1.321	0.017	2050.0	1.355	0.003	2197.6	1.366	0.010
603.3	1.533	0.083	914.8	1.217	0.110	1028.6	1.280	0.595	1142.4	1.224	0.013	1372.9	1.346	0.004	1714.4	1.321	0.015	2055.8	1.356	0.002	2199.5	1.366	0.010
609.1	1.535	0.086	916.7	1.219	0.106	1030.5	1.201	0.602	1144.4	1.229	0.007	1378.7	1.351	0.005	1720.1	1.321	0.013	2061.6	1.356	0.002	2206.2	1.365	0.011
614.9	1.536	0.090	918.7	1.220	0.102	1032.5	1.121	0.592	1146.3	1.234	0.005	1384.5	1.355	0.007	1725.9	1.322	0.011	2067.4	1.357	0.002	2213.0	1.365	0.010
620.6	1.538	0.093	920.6	1.221	0.098	1034.4	1.044	0.564	1148.2	1.239	0.003	1390.3	1.360	0.012	1731.7	1.323	0.009	2073.1	1.357	0.002	2219.7	1.366	0.011
626.4	1.540	0.099	922.5	1.224	0.093	1036.3	0.971	0.519	1150.1	1.243	0.002	1396.1	1.365	0.018	1737.5	1.324	0.008	2078.9	1.359	0.001	2226.5	1.365	0.011
632.2	1.542	0.106	924.5	1.226	0.089	1038.3	0.908	0.456	1152.1	1.247	0.002	1401.9	1.368	0.026	1743.3	1.325	0.006	2084.7	1.359	0.002	2233.2	1.365	0.012
638.0	1.543	0.112	926.4	1.228	0.085	1040.2	0.860	0.376	1154.0	1.250	0.002	1407.7	1.368	0.037	1749.1	1.326	0.005	2090.5	1.360	0.002	2240.0	1.364	0.012
643.8	1.544	0.119	928.3	1.231	0.081	1042.1	0.834	0.280	1155.9	1.253	0.002	1413.4	1.365	0.048	1754.9	1.327	0.004	2096.3	1.361	0.002	2246.8	1.363	0.012
649.6	1.546	0.124	930.2	1.233	0.077	1044.0	0.841	0.183	1157.9	1.256	0.003	1419.2	1.358	0.057	1760.7	1.328	0.003	2101.1	1.362	0.002	2253.5	1.363	0.010
655.4	1.545	0.132	932.2	1.235	0.072	1046.0	0.874	0.104	1159.8	1.257	0.004	1425.0	1.347	0.062	1766.4	1.330	0.003	2103.0	1.362	0.002	2260.3	1.362	0.010
661.2	1.546	0.139	934.1	1.238	0.068	1047.9	0.921	0.051	1161.7	1.257	0.004	1430.8	1.337	0.061	1772.2	1.331	0.002	2105.0	1.362	0.002	2267.0	1.362	0.009
666.9	1.548	0.148	936.0	1.242	0.064	1049.8	0.967	0.022	1163.6	1.259	0.002	1436.6	1.333	0.054	1778.0	1.332	0.002	2106.9	1.362	0.002	2273.8	1.363	0.008
672.7	1.544	0.156	938.0	1.245	0.061	1051.8	1.007	0.008	1165.6	1.260	0.001	1442.4	1.339	0.057	1783.8	1.333	0.002	2108.8	1.363	0.002	2280.5	1.363	0.007
678.5	1.543	0.163	939.9	1.248	0.057	1053.7	1.039	0.000	1167.5	1.262	0.000	1448.2	1.327	0.070	1789.6	1.334	0.001	2110.8	1.363	0.002	2287.3	1.364	0.007
684.3	1.540	0.173	941.8	1.252	0.054	1055.6	1.064	0.000	1169.4	1.263	0.000	1453.9	1.316	0.061	1795.4	1.335	0.001	2112.7	1.363	0.003	2294.0	1.365	0.006
690.1	1.538	0.180	943.7	1.255	0.050	1057.5	1.086	0.000	1171.4	1.265	0.000	1459.7	1.314	0.062	1801.2	1.336	0.001	2114.6	1.363	0.003	2300.8	1.365	0.006
695.9	1.535	0.190	945.7	1.259	0.047	1059.5	1.103	0.000	1173.3	1.267	0.000	1465.5	1.304	0.058	1806.9	1.337	0.001	2116.5	1.364	0.003	2307.5	1.366	0.006
701.7	1.531	0.199	947.6	1.264	0.044	1061.4	1.118	0.000	1175.2	1.269	0.000	1471.3	1.305	0.051	1812.7	1.337	0.001	2118.5	1.364	0.003	2314.3	1.366	0.005
707.4	1.527	0.209	949.5	1.268	0.040	1063.3	1.131	0.000	1177.1	1.271	0.000	1477.1	1.296	0.060	1818.5	1.338	0.001	2120.4	1.364	0.003	2321.0	1.367	0.005
713.2	1.521	0.215	951.5	1.273	0.039	1065.3	1.143	0.000	1179.1	1.272	0.000	1482.9	1.280	0.047	1824.3	1.339	0.001	2122.3	1.365	0.003	2327.8	1.368	0.005
719.0	1.517	0.224	953.4	1.277	0.035	1067.2	1.153	0.000	1181.0	1.274	0.000	1488.7	1.278	0.029	1830.1	1.339	0.001	2124.3	1.365	0.004	2334.5	1.368	0.005
724.8	1.509	0.232	955.3	1.282	0.032	1069.1	1.162	0.000	1182.9	1.275	0.000	1494.5	1.283	0.016	1835.9	1.340	0.001	2126.2	1.366	0.004	2341.3	1.368	0.004
730.6	1.502	0.242	957.2	1.287	0.030	1071.1	1.171	0.000	1184.9	1.276	0.000	1500.2	1.290	0.008	1841.7	1.340	0.001	2128.1	1.367	0.004	2348.0	1.369	0.003
736.4	1.494	0.250	959.2	1.292	0.027	1073.0	1.179	0.000	1186.8	1.278	0.000	1506.0	1.297	0.005	1847.5	1.341	0.001	2130.0	1.368	0.006	2354.8	1.370	0.004
742.2	1.485	0.256	961.1	1.297	0.026	1074.9	1.186	0.000	1188.7	1.279	0.000	1511.8	1.302	0.001	1853.2	1.341	0.001	2132.0	1.368	0.008	2361.5	1.370	0.003
748.0	1.476	0.262	963.0	1.303	0.023	1076.8	1.193	0.000	1190.6	1.280	0.000	1517.6	1.308	0.000	1859.0	1.342	0.001	2133.9	1.366	0.010	2368.3	1.371	0.003
753.7	1.466	0.269	965.0	1.309	0.021	1078.8	1.200	0.000	1192.6	1.281	0.000	1523.4	1.313	0.000	1864.8	1.342	0.002	2135.8	1.364	0.010	2375.0	1.371	0.002
759.5	1.456	0.275	966.9	1.316	0.020	1080.7	1.205	0.000	1194.5	1.281	0.000	1529.2	1.316	0.000	1870.6	1.343	0.000	2137.8	1.362	0.009	2381.8	1.372	0.002
765.3	1.445	0.279	968.8	1.322	0.017	1082.6	1.211	0.000	1196.4	1.283	0.000	1535.0	1.320	0.002	1876.4	1.343	0.002	2139.7	1.362	0.007	2388.5	1.374	0.001
771.1	1.434	0.283	970.8	1.329	0.015	1084.6	1.217	0.000	1198.4	1.284	0.000	1540.8	1.322	0.003	1882.2	1.344	0.000	2141.6	1.362	0.006	2395.3	1.375	0.001
776.9	1.421	0.288	972.7	1.336	0.015	1086.5	1.222	0.000	1205.1	1.287	0.000	1546.5	1.324	0.003	1888.0	1.344	0.002	2143.6	1.363	0.006	2402.0	1.376	0.001
782.7	1.408	0.290	974.6	1.344	0.014	1088.4	1.227	0.000	1210.9	1.289	0.000	1552.3	1.325	0.004	1893.8	1.345	0.000	2145.5	1.364	0.006	2408.8	1.377	0.001
788.5	1.397	0.290	976.5	1.352	0.013	1090.3	1.232	0.000	1216.7	1.292	0.000	1558.1	1.327	0.005	1899.5	1.346	0.002	2147.4	1.364	0.006	2415.5	1.378	0.001
794.3	1.384	0.292	978.5	1.361	0.011	1092.3	1.237	0.000	1222.5	1.295	0.000	1563.9	1.328	0.005	1905.3	1.346	0.002	2149.3	1.364	0.006	2422.3	1.379	0.001
800.0	1.372	0.292	980.4	1.371	0.011	1094.2	1.242	0.000	1228.3	1.297	0.000	1569.7	1.329	0.006	1911.1	1.346	0.002	2151.3	1.365	0.006	2429.0	1.379	0.001
805.8	1.359	0.290	982.3	1.380	0.011	1096.1	1.247	0.000	1234.0	1.299	0.000	1575.5	1.331	0.006	1916.9	1.347	0.002	2153.2	1.365	0.006	2435.8	1.380	0.002
811.6	1.347	0.290	984.3	1.391	0.011	1098.1	1.252	0.000	1239.8	1.301	0.000	1581.3	1.331	0.007	1922.7	1.347	0.002	2155.1	1.365	0.006	2442.5	1.381	0.002
817.4	1.333	0.288	986.2	1.403	0.011	1100.0	1.257	0.001	1245.6	1.303	0.000	1587.0	1.333	0.008	1928.5	1.348	0.002	2157.1	1.366	0.007	2449.3	1.382	0.002
823.2	1.321	0.283	988.1	1.416	0.013	1101.9	1.263	0.003	1251.4	1.305	0.000	1592.8	1.333	0.008	1934.3	1.348	0.002	2159.0	1.365	0.007	2456.0	1.383	0.001
829.0	1.310	0.279	990.0	1.432	0.014	1103.8	1.269	0.006	1257.2	1.306	0.000	1598.6	1.334	0.009	1940.0	1.348	0.000	2160.9	1.366	0.007	2462.8	1.384	0.001
834.8	1.297	0.274	992.0	1.449	0.016	1105.8	1.276	0.010	1263.0	1.308	0.000	1604.4	1.335	0.009	1945.8	1.349	0.002	2162.8	1.366	0.007	2469.5	1.385	0.001
840.5	1.285	0.268	993.9	1.469	0.021	1107.7	1.281	0.016	1268.8	1.310	0.000	1610.2	1.336	0.009	1951.6	1.350	0.002	2164.8	1.366	0.007	2476.3	1.387	0.001

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TABLE 3C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2483.0	1.388	0.001	2867.9	1.449	0.054	3252.7	1.309	0.419	3637.5	1.189	0.000
2489.8	1.390	0.002	2874.6	1.454	0.052	3259.5	1.292	0.420	3644.3	1.192	0.000
2496.6	1.391	0.002	2881.4	1.459	0.052	3266.2	1.274	0.419	3651.0	1.195	0.000
2503.3	1.393	0.003	2888.1	1.465	0.054	3273.0	1.258	0.418	3657.8	1.198	0.000
2510.1	1.394	0.005	2894.9	1.470	0.057	3279.7	1.241	0.415	3664.5	1.201	0.000
2516.8	1.395	0.007	2901.6	1.473	0.061	3286.5	1.224	0.410	3671.3	1.203	0.000
2523.6	1.395	0.008	2908.4	1.475	0.065	3293.2	1.207	0.405	3678.0	1.206	0.000
2530.3	1.394	0.010	2915.1	1.477	0.067	3300.0	1.191	0.399	3684.8	1.208	0.000
2537.1	1.393	0.010	2921.9	1.481	0.071	3306.7	1.176	0.392	3691.5	1.210	0.000
2543.8	1.392	0.010	2928.6	1.483	0.078	3313.5	1.160	0.382	3698.3	1.212	0.000
2550.6	1.392	0.009	2935.4	1.480	0.084	3320.2	1.147	0.373	3705.0	1.214	0.000
2557.3	1.393	0.008	2942.1	1.478	0.083	3327.0	1.134	0.362	3711.8	1.216	0.000
2564.1	1.393	0.007	2948.9	1.482	0.085	3333.7	1.121	0.351	3718.5	1.218	0.000
2570.8	1.394	0.007	2955.6	1.482	0.091	3340.5	1.111	0.339	3725.3	1.220	0.000
2577.6	1.395	0.006	2962.4	1.478	0.093	3347.2	1.101	0.327	3732.0	1.222	0.000
2584.3	1.396	0.006	2969.1	1.475	0.089	3354.0	1.092	0.314	3738.8	1.223	0.000
2591.1	1.398	0.007	2975.9	1.481	0.085	3360.7	1.084	0.302	3745.5	1.225	0.000
2597.8	1.398	0.007	2982.6	1.487	0.089	3367.5	1.076	0.289	3752.3	1.226	0.000
2604.6	1.398	0.007	2989.4	1.488	0.094	3374.2	1.068	0.276	3759.1	1.228	0.000
2611.3	1.399	0.006	2996.1	1.487	0.091	3381.0	1.063	0.263	3765.8	1.229	0.000
2618.1	1.399	0.005	3002.9	1.492	0.086	3387.7	1.058	0.250	3772.6	1.230	0.000
2624.8	1.400	0.004	3009.7	1.503	0.084	3394.5	1.053	0.235	3779.3	1.232	0.000
2631.6	1.402	0.002	3016.4	1.515	0.088	3401.2	1.049	0.221	3786.1	1.233	0.000
2638.3	1.404	0.002	3023.2	1.525	0.095	3408.0	1.048	0.207	3792.8	1.234	0.000
2645.1	1.406	0.000	3029.9	1.534	0.104	3414.7	1.047	0.193	3799.6	1.235	0.000
2651.8	1.409	0.000	3036.7	1.541	0.114	3421.5	1.048	0.181	3806.3	1.237	0.000
2658.6	1.411	0.000	3043.4	1.548	0.126	3428.2	1.049	0.169	3813.1	1.238	0.000
2665.3	1.413	0.000	3050.2	1.553	0.137	3435.0	1.050	0.157	3819.8	1.239	0.000
2672.1	1.416	0.000	3056.9	1.557	0.150	3441.7	1.051	0.147	3826.6	1.240	0.000
2678.8	1.418	0.000	3063.7	1.559	0.163	3448.5	1.053	0.137	3833.3	1.241	0.000
2685.6	1.421	0.000	3070.4	1.561	0.177	3455.2	1.055	0.127	3840.1	1.242	0.000
2692.3	1.423	0.001	3077.2	1.560	0.191	3462.0	1.057	0.118	3846.8	1.243	0.000
2699.1	1.426	0.001	3083.9	1.559	0.205	3468.7	1.058	0.110	3853.6	1.244	0.000
2705.8	1.428	0.002	3090.7	1.556	0.219	3475.5	1.059	0.100	3860.3	1.245	0.000
2712.6	1.431	0.002	3097.4	1.552	0.232	3482.2	1.061	0.090	3867.1	1.245	0.000
2719.3	1.434	0.003	3104.2	1.548	0.245	3489.0	1.062	0.080	3873.8	1.246	0.000
2726.1	1.437	0.003	3110.9	1.542	0.257	3495.7	1.065	0.069	3880.6	1.247	0.000
2732.8	1.440	0.004	3117.7	1.536	0.268	3502.5	1.070	0.058	3887.3	1.248	0.000
2739.6	1.444	0.005	3124.4	1.529	0.280	3509.3	1.075	0.047	3894.1	1.249	0.000
2746.4	1.448	0.006	3131.2	1.522	0.290	3516.0	1.082	0.037	3900.8	1.250	0.000
2753.1	1.452	0.008	3137.9	1.515	0.301	3522.8	1.091	0.028	3907.6	1.251	0.000
2759.9	1.456	0.009	3144.7	1.507	0.311	3529.5	1.099	0.021	3914.3	1.251	0.000
2766.6	1.461	0.012	3151.4	1.498	0.321	3536.3	1.108	0.016	3921.1	1.252	0.000
2773.4	1.466	0.014	3158.2	1.490	0.330	3543.0	1.116	0.012	3927.8	1.253	0.000
2780.1	1.471	0.019	3164.9	1.480	0.339	3549.8	1.124	0.009	3934.6	1.254	0.000
2786.9	1.477	0.024	3171.7	1.471	0.348	3556.5	1.132	0.006	3941.3	1.254	0.000
2793.6	1.481	0.031	3178.4	1.461	0.358	3563.3	1.139	0.005	3948.1	1.255	0.000
2800.4	1.485	0.039	3185.2	1.450	0.366	3570.0	1.145	0.003	3954.8	1.256	0.000
2807.1	1.488	0.049	3191.9	1.438	0.373	3576.8	1.151	0.002	3961.6	1.256	0.000
2813.9	1.490	0.061	3198.7	1.426	0.381	3583.5	1.156	0.000	3968.3	1.257	0.000
2820.6	1.488	0.076	3205.4	1.414	0.389	3590.3	1.161	0.000	3975.1	1.257	0.000
2827.4	1.473	0.097	3212.2	1.400	0.396	3597.0	1.166	0.000	3981.8	1.258	0.000
2834.1	1.443	0.095	3218.9	1.386	0.401	3603.8	1.170	0.000	3988.6	1.258	0.000
2840.9	1.434	0.073	3225.7	1.372	0.407	3610.5	1.174	0.000	3995.3	1.259	0.000
2847.6	1.439	0.062	3232.4	1.357	0.412	3617.3	1.178	0.000			
2854.4	1.443	0.059	3239.2	1.341	0.415	3624.0	1.182	0.000			
2861.1	1.446	0.056	3245.9	1.325	0.418	3630.8	1.185	0.000			

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TABLE 3D

$H_2O:CH_3OH:CO:NH_3$ = 100:50:1:1 AT 100 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.625	0.000	164.9	1.640	0.251	278.7	1.349	0.096	392.5	1.480	0.021	723.4	1.499	0.284	955.8	1.234	0.042	1069.6	1.129	0.000	1183.4	1.255	0.000
53.0	1.645	0.000	166.9	1.634	0.253	280.7	1.350	0.096	394.5	1.480	0.022	729.2	1.492	0.294	957.7	1.239	0.039	1071.5	1.138	0.000	1185.3	1.256	0.000
55.0	1.639	0.000	168.8	1.627	0.264	282.6	1.352	0.091	396.4	1.482	0.023	734.9	1.482	0.304	959.7	1.246	0.037	1073.5	1.145	0.000	1187.3	1.257	0.000
56.9	1.648	0.000	170.7	1.625	0.261	284.5	1.355	0.091	398.3	1.483	0.022	740.7	1.476	0.311	961.6	1.251	0.034	1075.4	1.154	0.000	1189.2	1.259	0.000
58.8	1.652	0.008	172.6	1.621	0.279	286.5	1.356	0.089	405.1	1.489	0.025	746.5	1.466	0.318	963.5	1.257	0.032	1077.3	1.161	0.000	1191.1	1.260	0.000
60.8	1.648	0.016	174.6	1.615	0.278	288.4	1.358	0.085	410.9	1.494	0.028	752.3	1.453	0.326	965.4	1.264	0.030	1079.3	1.167	0.000	1193.1	1.261	0.000
62.7	1.648	0.011	176.5	1.614	0.285	290.3	1.359	0.085	416.7	1.498	0.033	758.1	1.444	0.334	967.4	1.270	0.027	1081.2	1.174	0.000	1195.0	1.262	0.000
64.6	1.662	0.025	178.4	1.608	0.292	292.2	1.357	0.079	422.4	1.501	0.036	763.9	1.432	0.338	969.3	1.277	0.025	1083.1	1.180	0.000	1196.9	1.263	0.000
66.5	1.654	0.009	180.4	1.599	0.300	294.2	1.360	0.076	428.2	1.505	0.038	769.7	1.417	0.344	971.2	1.286	0.023	1085.0	1.187	0.000	1198.8	1.264	0.000
68.5	1.655	0.010	182.3	1.590	0.299	296.1	1.360	0.072	434.0	1.508	0.043	775.4	1.406	0.350	973.2	1.293	0.022	1087.0	1.192	0.000	1205.6	1.268	0.000
70.4	1.657	0.015	184.2	1.583	0.299	298.0	1.362	0.069	439.8	1.509	0.047	781.2	1.393	0.354	975.1	1.301	0.020	1088.9	1.197	0.000	1211.4	1.271	0.000
72.3	1.659	0.016	186.1	1.577	0.302	300.0	1.361	0.068	445.6	1.513	0.050	787.0	1.377	0.356	977.0	1.310	0.020	1090.8	1.203	0.000	1217.2	1.273	0.000
74.3	1.661	0.017	188.1	1.568	0.311	301.9	1.362	0.062	451.4	1.515	0.053	792.8	1.362	0.358	978.9	1.319	0.018	1092.8	1.208	0.000	1223.0	1.276	0.000
76.2	1.663	0.021	190.0	1.560	0.312	303.8	1.365	0.061	457.2	1.516	0.055	798.6	1.350	0.357	980.9	1.329	0.018	1094.7	1.214	0.000	1228.7	1.278	0.000
78.1	1.665	0.022	191.9	1.551	0.320	305.7	1.367	0.058	463.0	1.520	0.059	804.4	1.333	0.359	982.8	1.339	0.017	1096.6	1.219	0.000	1234.5	1.281	0.000
80.1	1.667	0.025	193.9	1.544	0.321	307.7	1.368	0.058	468.7	1.522	0.062	810.2	1.317	0.356	984.7	1.351	0.018	1098.5	1.224	0.000	1240.3	1.283	0.000
82.0	1.668	0.026	195.8	1.534	0.333	309.6	1.369	0.055	474.5	1.524	0.065	816.0	1.304	0.353	986.7	1.363	0.018	1100.5	1.230	0.000	1246.1	1.285	0.000
83.9	1.671	0.029	197.7	1.522	0.333	311.5	1.371	0.053	480.3	1.528	0.068	821.7	1.287	0.351	988.6	1.377	0.019	1102.4	1.236	0.001	1251.9	1.287	0.000
85.8	1.674	0.032	199.7	1.514	0.341	313.5	1.371	0.050	486.1	1.532	0.073	827.5	1.271	0.345	990.5	1.392	0.021	1104.3	1.243	0.006	1257.7	1.289	0.000
87.8	1.676	0.035	201.6	1.499	0.344	315.4	1.373	0.048	491.9	1.534	0.079	833.3	1.260	0.337	992.5	1.410	0.023	1106.3	1.249	0.009	1263.5	1.291	0.000
89.7	1.679	0.038	203.5	1.485	0.350	317.3	1.374	0.046	497.7	1.537	0.086	839.1	1.245	0.332	994.4	1.431	0.028	1108.2	1.256	0.016	1269.3	1.293	0.000
91.6	1.680	0.043	205.4	1.468	0.350	319.2	1.374	0.041	503.5	1.538	0.092	844.9	1.228	0.322	996.3	1.455	0.037	1110.1	1.260	0.024	1275.0	1.295	0.000
93.6	1.683	0.045	207.4	1.455	0.347	321.2	1.376	0.038	509.2	1.538	0.099	850.7	1.217	0.312	998.2	1.481	0.054	1112.0	1.261	0.033	1280.8	1.297	0.000
95.5	1.685	0.049	209.3	1.438	0.345	323.1	1.378	0.034	515.0	1.537	0.106	856.5	1.204	0.302	1000.2	1.512	0.077	1114.0	1.265	0.045	1286.6	1.299	0.000
97.4	1.688	0.051	211.2	1.425	0.336	325.0	1.380	0.030	520.8	1.536	0.111	862.2	1.191	0.287	1002.1	1.530	0.115	1115.9	1.260	0.056	1292.4	1.300	0.000
99.3	1.693	0.055	213.2	1.412	0.327	327.0	1.381	0.027	526.6	1.533	0.116	868.0	1.181	0.274	1004.0	1.537	0.160	1117.8	1.252	0.064	1298.2	1.302	0.000
101.3	1.696	0.059	215.1	1.400	0.316	328.9	1.384	0.022	532.4	1.530	0.119	873.8	1.173	0.259	1006.0	1.550	0.208	1119.8	1.249	0.071	1304.0	1.303	0.000
103.2	1.699	0.063	217.0	1.392	0.307	330.8	1.387	0.021	538.2	1.530	0.122	879.6	1.162	0.244	1007.9	1.537	0.252	1121.7	1.236	0.077	1309.8	1.305	0.000
105.1	1.692	0.074	218.9	1.380	0.301	332.7	1.389	0.017	544.0	1.527	0.125	885.4	1.158	0.226	1009.8	1.501	0.285	1123.6	1.222	0.077	1315.5	1.308	0.000
107.1	1.687	0.063	220.9	1.371	0.287	334.7	1.392	0.016	549.8	1.526	0.131	891.2	1.155	0.209	1011.7	1.466	0.303	1125.5	1.213	0.075	1321.3	1.310	0.000
109.0	1.690	0.070	222.8	1.365	0.280	336.6	1.396	0.012	555.5	1.524	0.132	897.0	1.150	0.192	1013.7	1.472	0.302	1127.5	1.209	0.070	1327.1	1.312	0.000
110.9	1.707	0.056	224.7	1.357	0.270	338.5	1.400	0.011	561.3	1.524	0.136	901.8	1.151	0.175	1015.6	1.458	0.304	1129.4	1.199	0.062	1332.9	1.313	0.000
112.8	1.717	0.095	226.7	1.354	0.263	340.5	1.403	0.009	567.1	1.521	0.139	903.7	1.152	0.170	1017.5	1.462	0.317	1131.3	1.192	0.055	1338.7	1.315	0.000
114.8	1.715	0.113	228.6	1.350	0.252	342.4	1.408	0.006	572.9	1.522	0.140	905.6	1.150	0.163	1019.5	1.509	0.351	1133.3	1.193	0.046	1344.5	1.318	0.000
116.7	1.707	0.126	230.5	1.349	0.248	344.3	1.411	0.005	578.7	1.521	0.141	907.6	1.152	0.158	1021.4	1.516	0.417	1135.2	1.190	0.037	1350.3	1.321	0.001
118.6	1.704	0.135	232.4	1.344	0.241	346.3	1.416	0.003	584.5	1.520	0.145	909.5	1.152	0.153	1023.3	1.471	0.498	1137.1	1.190	0.028	1356.1	1.323	0.001
120.6	1.698	0.136	234.4	1.342	0.228	348.2	1.420	0.001	590.3	1.520	0.147	911.4	1.153	0.147	1025.2	1.401	0.576	1139.0	1.193	0.019	1361.8	1.326	0.001
122.5	1.702	0.135	236.3	1.342	0.220	350.1	1.424	0.000	596.1	1.521	0.149	913.4	1.154	0.142	1027.2	1.372	0.614	1141.0	1.199	0.013	1367.6	1.329	0.002
124.4	1.696	0.148	238.2	1.340	0.213	352.0	1.429	0.000	601.8	1.519	0.152	915.3	1.157	0.135	1029.1	1.257	0.655	1142.9	1.203	0.009	1373.4	1.333	0.003
126.4	1.696	0.133	240.2	1.337	0.206	354.0	1.433	0.000	607.6	1.519	0.155	917.2	1.159	0.128	1031.0	1.144	0.671	1144.8	1.208	0.005	1379.2	1.337	0.005
128.3	1.695	0.150	242.1	1.334	0.198	355.9	1.437	0.000	613.4	1.521	0.158	919.2	1.161	0.124	1033.0	1.098	0.642	1146.8	1.213	0.002	1385.0	1.343	0.007
130.2	1.693	0.139	244.0	1.332	0.191	357.8	1.440	0.001	619.2	1.521	0.160	921.1	1.163	0.119	1034.9	1.009	0.608	1148.7	1.218	0.001	1390.8	1.348	0.011
132.1	1.693	0.155	245.9	1.331	0.185	359.8	1.443	0.000	625.0	1.522	0.165	923.0	1.165	0.113	1036.8	0.899	0.565	1150.6	1.222	0.000	1396.6	1.353	0.017
134.1	1.686	0.155	247.9	1.326	0.174	361.7	1.447	0.003	630.8	1.524	0.168	924.9	1.167	0.108	1038.7	0.809	0.495	1152.6	1.226	0.000	1402.3	1.355	0.027
136.0	1.682	0.164	249.8	1.334	0.169	363.6	1.450	0.003	636.6	1.524	0.173	926.9	1.170	0.102	1040.7	0.786	0.385	1154.5	1.229	0.000	1408.1	1.355	0.038
137.9	1.683	0.158	251.7	1.330	0.164	365.5	1.453	0.005	642.3	1.525	0.177	928.8	1.173	0.098	1042.6	0.751	0.270	1156.4	1.231	0.000	1413.9	1.351	0.050
139.9	1.688	0.173	253.7	1.332	0.159	367.5	1.455	0.007	648.1	1.527	0.182	930.7	1.176	0.093	1044.5	0.764	0.156	1158.3	1.233	0.002	1419.7	1.344	0.059
141.8	1.684	0.187	255.6	1.331	0.153	369.4	1.458	0.008	653.9	1.528	0.188	932.7	1.180	0.087	1046.5	0.828	0.075	1160.3	1.235	0.000	1425.5	1.332	0.063
143.7	1.680	0.189	257.5	1.331	0.147	371.3	1.460	0.009	659.7	1.527	0.194	934.6	1.184	0.083	1048.4	0.883	0.031	1162.2	1.236	0.000	1431.3	1.321	0.060
145.6	1.682	0.199	259.4	1.331	0.140	373.3	1.463	0.010	665.5	1.529	0.201	936.5	1.187	0.079	1050.3	0.932	0.010	1164.1	1.238	0.000	1437.1	1.320	0.052
147.6	1.679	0.205	261.4	1.335	0.131	375.2	1.465	0.012	671.3	1.528	0.209	938.4	1.190	0.075	1052.2	0.971	0.003	1166.1	1.240	0.000	1442.9	1.328	0.057
149.5	1.677	0.219	263.3	1.337	0.127	377.1	1.466	0.012	677.1	1.526	0.216	940.4	1.195	0.069	1054.2	1.003	0.000	1168.0	1.241	0.000	1448.6	1.308	0.069
151.4	1.666	0.222	265.2	1.341	0.122	379.0	1.469	0.013	682.9	1.524	0.225	942.3	1.199	0.065	1056.1	1.029	0.000	1169.9	1.243	0.000	1454.4	1.298	0.056
153.4	1.663	0.220	267.2	1.344	0.119	381.0	1.470	0.014	688.6	1.524	0.233	944.2	1.205	0.061	1058.0	1.049	0.000	1171.8	1.245	0.000	1460.2	1.297	0.057
155.3	1.660	0.225	269.1	1.345	0.116	382.9	1.473	0.013	694.4	1.519	0.240	946.2	1.209	0.059	1060.0	1.067	0.000	1173.8	1.247	0.000	1466.0	1.291	0.051
157.2	1.658	0.220	271.0	1.345	0.112	384.8	1.474	0.016	700.2	1.516	0.251	948.1	1.213	0.055	1061.9	1.082	0.000	1175.7	1.248	0.000	1471.8	1.294	0.048
159.1	1.660	0.230	273.0	1.344	0.110	386.8	1.475	0.016	706.0	1.514	0.257	950.0	1.218	0.052	1063.8	1.097	0.000	1177.6	1.250	0.000	1477.6	1.285	0.053
161.1	1.652	0.236	274.9	1.345	0.101	388.7	1.477	0.018	711.8	1.507	0.269	951.9	1.223	0.048	1065.7	1.108	0.000	1179.6	1.252	0.000	1483.4	1.272	0.040
163.0	1.648	0.241	276.8	1.348	0.102	390.6	1.478	0.019	717.6	1.502	0.276	953.9	1.229	0.044	1067.7	1.118	0.000	1181.5	1.254	0.000	1489.2	1.271	0.023

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TABLE 3D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.276	0.012	1836.4	1.335	0.001	2126.7	1.362	0.004	2327.3	1.364	0.005	2668.7	1.413	0.000	3004.3	1.496	0.086	3340.0	1.109	0.341	3675.6	1.204	0.000
1500.7	1.283	0.005	1842.2	1.335	0.001	2128.6	1.363	0.004	2333.1	1.365	0.005	2674.5	1.415	0.000	3010.1	1.506	0.086	3345.8	1.099	0.330	3681.4	1.206	0.000
1506.5	1.290	0.002	1847.9	1.335	0.001	2130.5	1.363	0.006	2338.9	1.365	0.004	2680.3	1.418	0.000	3015.9	1.516	0.090	3351.6	1.091	0.319	3687.2	1.208	0.000
1512.3	1.296	0.000	1853.7	1.336	0.000	2132.5	1.363	0.008	2344.6	1.365	0.004	2686.1	1.419	0.000	3021.7	1.528	0.095	3357.3	1.059	0.307	3693.0	1.210	0.000
1518.1	1.301	0.000	1859.5	1.337	0.000	2134.4	1.361	0.010	2350.4	1.367	0.003	2691.9	1.422	0.001	3027.5	1.536	0.102	3363.1	1.052	0.297	3698.8	1.212	0.000
1523.9	1.306	0.000	1865.3	1.337	0.000	2136.3	1.359	0.009	2356.2	1.367	0.004	2697.6	1.424	0.001	3033.3	1.548	0.110	3368.9	1.046	0.284	3704.6	1.213	0.000
1529.7	1.309	0.000	1871.1	1.338	0.000	2138.2	1.358	0.008	2362.0	1.367	0.004	2703.4	1.426	0.002	3039.1	1.555	0.120	3374.7	1.052	0.273	3710.3	1.215	0.000
1535.4	1.311	0.002	1876.9	1.339	0.001	2140.2	1.359	0.006	2367.8	1.368	0.003	2709.2	1.428	0.002	3044.9	1.560	0.130	3380.5	1.047	0.261	3716.1	1.217	0.000
1541.2	1.313	0.003	1882.7	1.339	0.001	2142.1	1.359	0.006	2373.6	1.368	0.002	2715.0	1.431	0.003	3050.6	1.554	0.142	3386.3	1.053	0.249	3721.9	1.218	0.000
1547.0	1.316	0.004	1888.4	1.339	0.000	2144.0	1.359	0.006	2379.4	1.369	0.001	2720.8	1.433	0.003	3056.4	1.558	0.153	3392.1	1.047	0.235	3727.7	1.219	0.000
1552.8	1.317	0.004	1894.2	1.339	0.000	2146.0	1.360	0.006	2385.2	1.370	0.001	2726.6	1.436	0.003	3062.2	1.559	0.165	3397.9	1.044	0.222	3733.5	1.221	0.000
1558.6	1.318	0.005	1900.0	1.340	0.000	2147.9	1.360	0.006	2390.9	1.371	0.001	2732.4	1.439	0.004	3068.0	1.568	0.177	3403.6	1.026	0.207	3739.3	1.222	0.000
1564.4	1.320	0.006	1905.8	1.341	0.000	2149.8	1.360	0.006	2396.7	1.372	0.000	2738.2	1.442	0.005	3073.8	1.568	0.189	3409.4	1.026	0.195	3745.1	1.223	0.000
1570.2	1.321	0.006	1911.6	1.341	0.000	2151.8	1.361	0.006	2402.5	1.373	0.000	2743.9	1.444	0.006	3079.6	1.577	0.201	3415.2	1.035	0.183	3750.9	1.225	0.000
1576.0	1.322	0.006	1917.4	1.342	0.000	2153.7	1.362	0.006	2408.3	1.374	0.000	2749.7	1.448	0.007	3085.4	1.575	0.214	3421.0	1.036	0.172	3756.6	1.226	0.000
1581.7	1.322	0.006	1923.2	1.343	0.000	2155.6	1.361	0.006	2414.1	1.375	0.001	2755.5	1.452	0.008	3091.1	1.556	0.228	3426.8	1.038	0.161	3762.4	1.227	0.000
1587.5	1.324	0.007	1929.0	1.343	0.000	2157.5	1.361	0.006	2419.9	1.376	0.001	2761.3	1.455	0.010	3096.9	1.552	0.240	3432.6	1.045	0.151	3768.2	1.228	0.000
1593.3	1.324	0.007	1934.7	1.344	0.000	2159.5	1.362	0.007	2425.7	1.376	0.001	2767.1	1.459	0.012	3102.7	1.547	0.252	3438.4	1.048	0.142	3774.0	1.229	0.000
1599.1	1.326	0.008	1940.5	1.345	0.000	2161.4	1.362	0.007	2431.4	1.377	0.001	2772.9	1.464	0.014	3108.5	1.552	0.263	3444.1	1.039	0.132	3779.8	1.230	0.000
1604.9	1.326	0.008	1946.3	1.345	0.002	2163.3	1.362	0.007	2437.2	1.378	0.002	2778.7	1.469	0.018	3114.3	1.546	0.275	3449.9	1.042	0.124	3785.6	1.231	0.000
1610.7	1.328	0.008	1952.1	1.345	0.002	2165.3	1.363	0.007	2443.0	1.378	0.002	2784.4	1.471	0.022	3120.1	1.552	0.284	3455.7	1.045	0.115	3791.4	1.233	0.000
1616.5	1.328	0.009	1957.9	1.345	0.002	2167.2	1.363	0.007	2448.8	1.379	0.002	2790.2	1.475	0.027	3125.9	1.546	0.294	3461.5	1.051	0.109	3797.1	1.234	0.000
1622.3	1.330	0.009	1963.7	1.346	0.002	2169.1	1.363	0.008	2454.6	1.380	0.001	2796.0	1.479	0.033	3131.7	1.539	0.304	3467.3	1.053	0.100	3802.9	1.235	0.000
1628.0	1.330	0.011	1969.5	1.346	0.002	2171.0	1.362	0.008	2460.4	1.381	0.001	2801.8	1.483	0.040	3137.4	1.508	0.316	3473.1	1.059	0.093	3808.7	1.236	0.000
1633.8	1.331	0.012	1975.3	1.347	0.000	2173.0	1.363	0.008	2466.2	1.382	0.000	2807.6	1.485	0.048	3143.2	1.500	0.324	3478.9	1.061	0.085	3814.5	1.237	0.000
1639.6	1.332	0.013	1981.0	1.347	0.002	2174.9	1.363	0.008	2472.0	1.383	0.000	2813.4	1.488	0.057	3149.0	1.490	0.333	3484.7	1.062	0.076	3820.3	1.238	0.000
1645.4	1.333	0.015	1986.8	1.348	0.002	2176.8	1.362	0.009	2477.7	1.384	0.000	2819.2	1.487	0.068	3154.8	1.496	0.341	3490.4	1.060	0.067	3826.1	1.238	0.000
1651.2	1.333	0.017	1992.6	1.348	0.002	2178.8	1.363	0.009	2483.5	1.386	0.001	2825.0	1.482	0.083	3160.6	1.487	0.350	3496.2	1.064	0.057	3831.9	1.239	0.000
1657.0	1.334	0.020	1998.4	1.349	0.002	2180.7	1.363	0.009	2489.3	1.387	0.001	2830.7	1.456	0.095	3166.4	1.493	0.357	3502.0	1.069	0.049	3837.7	1.240	0.000
1662.8	1.333	0.022	2004.2	1.349	0.002	2182.6	1.362	0.009	2495.1	1.389	0.002	2836.5	1.436	0.085	3172.2	1.483	0.364	3507.8	1.077	0.041	3843.4	1.241	0.000
1668.5	1.329	0.024	2010.0	1.349	0.002	2184.5	1.362	0.009	2500.9	1.390	0.003	2842.3	1.432	0.069	3178.0	1.474	0.372	3513.6	1.083	0.033	3849.2	1.242	0.000
1674.3	1.325	0.025	2015.8	1.350	0.002	2186.5	1.362	0.009	2506.7	1.391	0.004	2848.1	1.439	0.059	3183.7	1.435	0.381	3519.4	1.091	0.027	3855.0	1.243	0.000
1680.1	1.323	0.025	2021.5	1.351	0.002	2188.4	1.362	0.009	2512.5	1.392	0.006	2853.9	1.443	0.056	3189.5	1.424	0.388	3525.2	1.098	0.021	3860.8	1.243	0.000
1685.9	1.320	0.024	2027.3	1.352	0.003	2190.3	1.362	0.009	2518.2	1.392	0.007	2859.7	1.448	0.053	3195.3	1.412	0.395	3531.0	1.105	0.016	3866.6	1.244	0.000
1691.7	1.318	0.022	2033.1	1.352	0.004	2192.3	1.363	0.009	2524.0	1.392	0.008	2865.5	1.452	0.051	3201.1	1.416	0.401	3536.7	1.111	0.013	3872.4	1.245	0.000
1697.5	1.318	0.020	2038.9	1.352	0.004	2194.2	1.362	0.010	2529.8	1.392	0.009	2871.2	1.452	0.050	3206.9	1.404	0.405	3542.5	1.118	0.010	3878.2	1.246	0.000
1703.3	1.317	0.018	2044.7	1.351	0.004	2196.1	1.362	0.010	2535.6	1.391	0.010	2877.0	1.456	0.050	3212.7	1.409	0.410	3548.3	1.125	0.008	3884.0	1.246	0.000
1709.1	1.317	0.015	2050.5	1.351	0.004	2198.0	1.362	0.010	2541.4	1.390	0.010	2882.8	1.461	0.050	3218.5	1.396	0.415	3554.1	1.131	0.005	3889.7	1.247	0.000
1714.8	1.316	0.013	2056.3	1.351	0.002	2205.8	1.363	0.010	2547.2	1.390	0.009	2888.6	1.467	0.052	3224.2	1.350	0.422	3559.9	1.137	0.004	3895.5	1.248	0.000
1720.6	1.316	0.012	2062.1	1.352	0.002	2211.5	1.362	0.010	2553.0	1.390	0.008	2894.4	1.471	0.054	3230.0	1.337	0.425	3565.7	1.142	0.003	3901.3	1.249	0.000
1726.4	1.317	0.010	2067.8	1.353	0.002	2217.3	1.362	0.010	2558.8	1.391	0.008	2900.2	1.477	0.058	3235.8	1.323	0.428	3571.5	1.147	0.002	3907.1	1.249	0.000
1732.2	1.317	0.008	2073.6	1.353	0.000	2223.1	1.362	0.011	2564.5	1.391	0.007	2906.0	1.480	0.061	3241.6	1.325	0.429	3577.2	1.152	0.000	3912.9	1.250	0.000
1738.0	1.318	0.007	2079.4	1.355	0.000	2228.9	1.362	0.011	2570.3	1.391	0.006	2911.8	1.482	0.064	3247.4	1.310	0.431	3583.0	1.156	0.000	3918.7	1.251	0.000
1743.8	1.320	0.006	2085.2	1.356	0.002	2234.7	1.361	0.012	2576.1	1.393	0.006	2917.5	1.479	0.067	3253.2	1.314	0.431	3588.8	1.160	0.000	3924.5	1.251	0.000
1749.6	1.320	0.005	2091.0	1.356	0.002	2240.5	1.361	0.012	2581.9	1.394	0.005	2923.3	1.483	0.071	3259.0	1.298	0.431	3594.6	1.164	0.000	3930.2	1.252	0.000
1755.3	1.321	0.004	2096.8	1.357	0.002	2246.3	1.360	0.011	2587.7	1.395	0.006	2929.1	1.484	0.078	3264.8	1.282	0.430	3600.4	1.168	0.000	3936.0	1.253	0.000
1761.1	1.322	0.003	2101.6	1.358	0.002	2252.1	1.360	0.011	2593.5	1.396	0.006	2934.9	1.485	0.083	3270.5	1.234	0.430	3606.2	1.172	0.000	3941.8	1.253	0.000
1766.9	1.324	0.003	2103.5	1.358	0.002	2257.8	1.359	0.010	2599.3	1.396	0.006	2940.7	1.483	0.084	3276.3	1.219	0.428	3612.0	1.175	0.000	3947.6	1.254	0.000
1772.7	1.325	0.002	2105.5	1.358	0.002	2263.6	1.359	0.009	2605.1	1.397	0.006	2946.5	1.488	0.084	3282.1	1.203	0.424	3617.8	1.178	0.000	3953.4	1.254	0.000
1778.5	1.326	0.002	2107.4	1.358	0.002	2269.4	1.359	0.008	2610.8	1.397	0.005	2952.3	1.490	0.089	3287.9	1.206	0.419	3623.5	1.181	0.000	3959.2	1.255	0.000
1784.3	1.327	0.001	2109.3	1.359	0.002	2275.2	1.360	0.008	2616.6	1.398	0.005	2958.1	1.487	0.094	3293.7	1.191	0.413	3629.3	1.184	0.000	3965.0	1.255	0.000
1790.1	1.328	0.001	2111.2	1.359	0.002	2281.0	1.360	0.007	2622.4	1.399	0.003	2963.8	1.475	0.094	3299.5	1.193	0.406	3635.1	1.187	0.000	3970.8	1.256	0.000
1795.9	1.329	0.001	2113.2	1.360	0.003	2286.8	1.361	0.007	2628.2	1.400	0.002	2969.6	1.475	0.088	3305.3	1.179	0.399	3640.9	1.190	0.000	3976.5	1.256	0.000
1801.6	1.330	0.001	2115.1	1.360	0.003	2292.6	1.362	0.006	2634.0	1.402	0.002	2975.4	1.484	0.084	3311.1	1.166	0.391	3646.7	1.192	0.000	3982.3	1.257	0.000
1807.4	1.330	0.001	2117.0	1.360	0.003	2298.4	1.362	0.006	2639.8	1.403	0.000	2981.2	1.491	0.087	3316.8	1.123	0.384	3652.5	1.195	0.000	3988.1	1.257	0.000
1813.2	1.331	0.000	2119.0	1.360	0.003	2304.1	1.362	0.006	2645.6	1.405	0.000	2987.0	1.493	0.093	3322.6	1.111	0.374	3658.3	1.197	0.000	3993.9	1.257	0.000
1819.0	1.332	0.000	2120.9	1.361	0.003	2309.9	1.362	0.005	2651.3	1.407	0.000	2992.8	1.495	0.093	3328.4	1.114	0.363	3664.1	1.199	0.000	3999.7	1.258	0.000
1824.8	1.333	0.000	2122.8	1.361	0.004	2315.7	1.363	0.005	2657.1	1.409	0.000	2998.6	1.497	0.090	3334.2	1.104	0.352	3669.8	1.202	0.000			
1830.6	1.334	0.001	2124.7	1.361	0.004	2321.5	1.364	0.005	2662.9	1.411	0.000												

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TABLE 3E

$H_2O:CH_3OH:CO:NH_3$ = 100:50:1:1 AT 120 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.458	0.000	846.3	1.306	0.306	995.8	1.442	0.025	1109.6	1.279	0.021	1274.6	1.312	0.000	1616.0	1.335	0.009	1957.4	1.353	0.002	2166.7	1.369	0.008
510.7	1.476	0.000	852.1	1.289	0.300	997.8	1.462	0.035	1111.6	1.282	0.028	1280.3	1.313	0.000	1621.8	1.336	0.009	1963.2	1.353	0.002	2168.6	1.369	0.007
516.5	1.488	0.000	857.9	1.275	0.292	999.7	1.482	0.051	1113.5	1.283	0.038	1286.1	1.315	0.000	1627.6	1.336	0.010	1969.0	1.354	0.002	2170.6	1.369	0.007
522.3	1.498	0.000	863.7	1.260	0.281	1001.6	1.500	0.074	1115.4	1.282	0.046	1291.9	1.316	0.000	1633.3	1.337	0.010	1974.8	1.354	0.001	2172.5	1.369	0.008
528.1	1.505	0.000	869.5	1.247	0.270	1003.5	1.513	0.101	1117.3	1.278	0.055	1297.7	1.318	0.001	1639.1	1.338	0.011	1980.6	1.355	0.002	2174.4	1.369	0.008
533.8	1.509	0.000	875.3	1.236	0.257	1005.5	1.519	0.133	1119.3	1.273	0.062	1303.5	1.319	0.001	1644.9	1.339	0.012	1986.3	1.355	0.002	2176.3	1.369	0.008
539.6	1.514	0.000	881.1	1.224	0.241	1007.4	1.516	0.162	1121.2	1.266	0.067	1309.3	1.322	0.000	1650.7	1.339	0.014	1992.1	1.356	0.002	2178.3	1.369	0.009
545.4	1.517	0.000	886.8	1.215	0.228	1009.3	1.509	0.186	1123.1	1.256	0.070	1315.1	1.323	0.001	1656.5	1.338	0.015	1997.9	1.356	0.002	2180.2	1.369	0.009
551.2	1.521	0.007	892.6	1.208	0.213	1011.3	1.500	0.199	1125.1	1.247	0.070	1320.9	1.325	0.001	1662.3	1.338	0.016	2003.7	1.356	0.002	2182.1	1.369	0.009
557.0	1.523	0.012	898.4	1.202	0.195	1013.2	1.498	0.206	1127.0	1.238	0.068	1326.6	1.327	0.001	1668.1	1.337	0.018	2009.5	1.357	0.002	2184.1	1.369	0.009
562.8	1.526	0.021	901.3	1.200	0.186	1015.1	1.507	0.209	1128.9	1.231	0.063	1332.4	1.328	0.001	1673.9	1.335	0.019	2015.3	1.357	0.002	2186.0	1.369	0.009
568.6	1.528	0.023	903.2	1.198	0.180	1017.0	1.529	0.225	1130.8	1.224	0.056	1338.2	1.330	0.001	1679.6	1.333	0.018	2021.1	1.358	0.002	2187.9	1.369	0.009
574.4	1.529	0.029	905.2	1.198	0.173	1019.0	1.553	0.263	1132.8	1.221	0.047	1344.0	1.332	0.000	1685.4	1.331	0.018	2026.8	1.359	0.002	2189.8	1.369	0.009
580.1	1.530	0.033	907.1	1.197	0.169	1020.9	1.565	0.325	1134.7	1.219	0.039	1349.8	1.335	0.002	1691.2	1.329	0.016	2032.6	1.359	0.003	2191.8	1.369	0.009
585.9	1.532	0.037	909.0	1.197	0.163	1022.8	1.555	0.399	1136.6	1.219	0.031	1355.6	1.337	0.002	1697.0	1.329	0.015	2038.4	1.359	0.004	2193.7	1.369	0.009
591.7	1.534	0.044	911.0	1.196	0.156	1024.8	1.520	0.470	1138.6	1.221	0.022	1361.4	1.340	0.002	1702.8	1.329	0.013	2044.2	1.359	0.004	2195.6	1.369	0.009
597.5	1.533	0.043	912.9	1.196	0.150	1026.7	1.467	0.527	1140.5	1.224	0.017	1367.1	1.343	0.003	1708.6	1.328	0.011	2050.0	1.358	0.004	2197.6	1.369	0.009
603.3	1.536	0.049	914.8	1.197	0.144	1028.6	1.403	0.574	1142.4	1.228	0.012	1372.9	1.347	0.004	1714.4	1.329	0.010	2055.8	1.358	0.003	2199.5	1.369	0.010
609.1	1.537	0.053	916.7	1.197	0.140	1030.5	1.330	0.602	1144.4	1.232	0.008	1378.7	1.351	0.006	1720.1	1.329	0.009	2061.6	1.359	0.002	2206.2	1.369	0.010
614.9	1.539	0.057	918.7	1.198	0.133	1032.5	1.253	0.618	1146.3	1.237	0.005	1384.5	1.356	0.008	1725.9	1.329	0.008	2067.4	1.360	0.002	2213.0	1.369	0.010
620.6	1.541	0.060	920.6	1.200	0.127	1034.4	1.172	0.622	1148.2	1.241	0.004	1390.3	1.360	0.013	1731.7	1.330	0.007	2073.1	1.360	0.002	2219.7	1.369	0.010
626.4	1.543	0.066	922.5	1.200	0.121	1036.3	1.086	0.610	1150.1	1.245	0.003	1396.1	1.364	0.020	1737.5	1.330	0.006	2078.9	1.361	0.001	2226.5	1.368	0.011
632.2	1.545	0.072	924.5	1.202	0.115	1038.3	0.997	0.582	1152.1	1.248	0.002	1401.9	1.367	0.029	1743.3	1.331	0.004	2084.7	1.363	0.002	2233.2	1.368	0.012
638.0	1.546	0.077	926.4	1.204	0.111	1040.2	0.908	0.524	1154.0	1.251	0.002	1407.7	1.366	0.039	1749.1	1.332	0.004	2090.5	1.363	0.002	2240.0	1.367	0.012
643.8	1.549	0.082	928.3	1.206	0.105	1042.1	0.831	0.435	1155.9	1.254	0.002	1413.4	1.362	0.050	1754.9	1.333	0.004	2096.3	1.364	0.002	2246.8	1.367	0.012
649.6	1.552	0.088	930.2	1.208	0.099	1044.0	0.788	0.309	1157.9	1.256	0.002	1419.2	1.353	0.058	1760.7	1.334	0.003	2101.1	1.364	0.002	2253.5	1.366	0.011
655.4	1.553	0.095	932.2	1.210	0.094	1046.0	0.801	0.176	1159.8	1.257	0.002	1425.0	1.342	0.062	1766.4	1.335	0.002	2103.0	1.364	0.002	2260.3	1.366	0.010
661.2	1.555	0.102	934.1	1.213	0.090	1047.9	0.855	0.085	1161.7	1.259	0.001	1430.8	1.332	0.059	1772.2	1.336	0.002	2105.0	1.365	0.002	2267.0	1.366	0.009
666.9	1.559	0.107	936.0	1.216	0.084	1049.8	0.916	0.038	1163.6	1.261	0.001	1436.6	1.329	0.051	1778.0	1.337	0.001	2106.9	1.365	0.002	2273.8	1.366	0.008
672.7	1.555	0.117	938.0	1.219	0.078	1051.8	0.966	0.016	1165.6	1.262	0.001	1442.4	1.337	0.057	1783.8	1.338	0.001	2108.8	1.366	0.002	2280.5	1.367	0.008
678.5	1.557	0.124	939.9	1.223	0.075	1053.7	1.007	0.006	1167.5	1.264	0.000	1448.2	1.317	0.068	1789.6	1.338	0.001	2110.8	1.366	0.003	2287.3	1.367	0.007
684.3	1.556	0.131	941.8	1.227	0.071	1055.6	1.038	0.000	1169.4	1.266	0.000	1453.9	1.308	0.053	1795.4	1.339	0.001	2112.7	1.366	0.003	2294.0	1.367	0.006
690.1	1.556	0.140	943.7	1.230	0.066	1057.5	1.063	0.000	1171.4	1.267	0.000	1459.7	1.309	0.052	1801.2	1.340	0.001	2114.6	1.366	0.003	2300.8	1.368	0.006
695.9	1.554	0.148	945.7	1.235	0.062	1059.5	1.084	0.000	1173.3	1.269	0.000	1465.5	1.302	0.047	1806.9	1.340	0.000	2116.5	1.366	0.003	2307.5	1.369	0.006
701.7	1.554	0.157	947.6	1.238	0.057	1061.4	1.102	0.000	1175.2	1.271	0.000	1471.3	1.303	0.043	1812.7	1.341	0.000	2118.5	1.367	0.004	2314.3	1.369	0.005
707.4	1.552	0.166	949.5	1.243	0.053	1063.3	1.117	0.000	1177.1	1.272	0.000	1477.1	1.295	0.045	1818.5	1.342	0.000	2120.4	1.367	0.004	2321.0	1.370	0.005
713.2	1.549	0.175	951.5	1.247	0.050	1065.3	1.130	0.000	1179.1	1.273	0.000	1482.9	1.286	0.034	1824.3	1.343	0.000	2122.3	1.367	0.004	2327.8	1.370	0.005
719.0	1.546	0.182	953.4	1.252	0.046	1067.2	1.142	0.000	1181.0	1.275	0.000	1488.7	1.287	0.020	1830.1	1.343	0.002	2124.3	1.367	0.004	2334.5	1.371	0.006
724.8	1.544	0.191	955.3	1.257	0.043	1069.1	1.153	0.000	1182.9	1.276	0.000	1494.5	1.292	0.011	1835.9	1.344	0.000	2126.2	1.368	0.004	2341.3	1.371	0.005
730.6	1.539	0.201	957.2	1.262	0.040	1071.1	1.162	0.000	1184.9	1.277	0.000	1500.2	1.298	0.006	1841.7	1.344	0.002	2128.1	1.368	0.004	2348.0	1.371	0.003
736.4	1.536	0.210	959.2	1.267	0.036	1073.0	1.171	0.000	1186.8	1.279	0.000	1506.0	1.303	0.003	1847.5	1.344	0.000	2130.0	1.368	0.005	2354.8	1.373	0.004
742.2	1.531	0.219	961.1	1.273	0.033	1074.9	1.179	0.000	1188.7	1.280	0.000	1511.8	1.308	0.000	1853.2	1.345	0.000	2132.0	1.368	0.006	2361.5	1.373	0.004
748.0	1.525	0.229	963.0	1.278	0.032	1076.8	1.187	0.000	1190.6	1.281	0.000	1517.6	1.314	0.000	1859.0	1.345	0.000	2133.9	1.368	0.006	2368.3	1.373	0.004
753.7	1.520	0.238	965.0	1.283	0.029	1078.8	1.193	0.000	1192.6	1.282	0.000	1523.4	1.318	0.000	1864.8	1.346	0.000	2135.8	1.367	0.006	2375.0	1.374	0.002
759.5	1.513	0.248	966.9	1.290	0.025	1080.7	1.199	0.000	1194.5	1.283	0.000	1529.2	1.320	0.000	1870.6	1.347	0.000	2137.8	1.367	0.007	2381.8	1.375	0.001
765.3	1.506	0.256	968.8	1.296	0.024	1082.6	1.206	0.000	1196.4	1.284	0.000	1535.0	1.323	0.002	1876.4	1.347	0.000	2139.7	1.367	0.006	2388.5	1.377	0.001
771.1	1.498	0.266	970.8	1.303	0.022	1084.6	1.212	0.000	1198.4	1.285	0.000	1540.8	1.324	0.003	1882.2	1.347	0.002	2141.6	1.367	0.006	2395.3	1.378	0.001
776.9	1.488	0.274	972.7	1.310	0.019	1086.5	1.218	0.000	1205.1	1.288	0.000	1546.5	1.327	0.003	1888.0	1.348	0.002	2143.6	1.367	0.006	2402.0	1.379	0.000
782.7	1.477	0.284	974.6	1.317	0.018	1088.4	1.223	0.000	1210.9	1.290	0.000	1552.3	1.328	0.004	1893.8	1.348	0.002	2145.5	1.367	0.006	2408.8	1.380	0.001
788.5	1.466	0.293	976.5	1.324	0.017	1090.3	1.228	0.000	1216.7	1.292	0.000	1558.1	1.329	0.005	1899.5	1.349	0.002	2147.4	1.368	0.006	2415.5	1.381	0.000
794.3	1.454	0.301	978.5	1.332	0.015	1092.3	1.233	0.000	1222.5	1.295	0.000	1563.9	1.330	0.006	1905.3	1.349	0.002	2149.3	1.368	0.006	2422.3	1.382	0.001
800.0	1.439	0.308	980.4	1.341	0.015	1094.2	1.238	0.000	1228.3	1.298	0.000	1569.7	1.331	0.007	1911.1	1.349	0.002	2151.3	1.368	0.006	2429.0	1.383	0.001
805.8	1.422	0.314	982.3	1.350	0.014	1096.1	1.243	0.000	1234.0	1.299	0.000	1575.5	1.332	0.007	1916.9	1.350	0.000	2153.2	1.368	0.006	2435.8	1.384	0.001
811.6	1.407	0.317	984.3	1.360	0.014	1098.1	1.248	0.000	1239.8	1.301	0.000	1581.3	1.332	0.008	1922.7	1.350	0.002	2155.1	1.368	0.007	2442.5	1.384	0.002
817.4	1.390	0.320	986.2	1.370	0.014	1100.0	1.253	0.001	1245.6	1.303	0.000	1587.0	1.333	0.008	1928.5	1.351	0.000	2157.1	1.368	0.007	2449.3	1.385	0.002
823.2	1.373	0.321	988.1	1.381	0.014	1101.9	1.259	0.003	1251.4	1.305	0.000	1592.8	1.333	0.009	1934.3	1.351	0.000	2159.0	1.368	0.007	2456.0	1.386	0.001
829.0	1.356	0.319	990.0	1.393	0.016	1103.8	1.265	0.006	1257.2	1.307	0.000	1598.6	1.333	0.009	1940.0	1.352	0.000	2160.9	1.368	0.007	2462.8	1.387	0.001
834.8	1.339	0.318	992.0	1.407	0.017	1105.8	1.269	0.010	1263.0	1.308	0.000	1604.4	1.334	0.009	1945.8	1.352	0.000	2162.8	1.369	0.008	2469.5	1.388	0.001
840.5	1.323	0.312	993.9	1.423	0.020	1107.7	1.275	0.014	1268.8	1.311	0.000	1610.2	1.335	0.009	1951.6	1.353	0.000	2164.8	1.369	0.008	2476.3	1.390	0.001

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TABLE 3E—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2483.0	1.391	0.001	2867.9	1.465	0.047	3252.7	1.260	0.461	3637.5	1.192	0.000
2489.8	1.393	0.002	2874.6	1.471	0.048	3259.5	1.240	0.457	3644.3	1.195	0.000
2496.6	1.394	0.002	2881.4	1.477	0.049	3266.2	1.221	0.451	3651.0	1.198	0.000
2503.3	1.396	0.003	2888.1	1.482	0.052	3273.0	1.202	0.444	3657.8	1.201	0.000
2510.1	1.397	0.005	2894.9	1.487	0.055	3279.7	1.185	0.436	3664.5	1.203	0.000
2516.8	1.397	0.007	2901.6	1.492	0.060	3286.5	1.167	0.427	3671.3	1.206	0.000
2523.6	1.397	0.008	2908.4	1.495	0.065	3293.2	1.151	0.417	3678.0	1.208	0.000
2530.3	1.397	0.009	2915.1	1.497	0.069	3300.0	1.136	0.406	3684.8	1.210	0.000
2537.1	1.396	0.009	2921.9	1.501	0.074	3306.7	1.122	0.395	3691.5	1.212	0.000
2543.8	1.395	0.009	2928.6	1.503	0.082	3313.5	1.108	0.382	3698.3	1.214	0.000
2550.6	1.395	0.008	2935.4	1.501	0.088	3320.2	1.096	0.369	3705.0	1.216	0.000
2557.3	1.396	0.007	2942.1	1.501	0.091	3327.0	1.084	0.356	3711.8	1.218	0.000
2564.1	1.397	0.006	2948.9	1.500	0.097	3333.7	1.073	0.341	3718.5	1.219	0.000
2570.8	1.398	0.005	2955.6	1.496	0.100	3340.5	1.065	0.328	3725.3	1.221	0.000
2577.6	1.399	0.005	2962.4	1.492	0.098	3347.2	1.056	0.314	3732.0	1.222	0.000
2584.3	1.401	0.005	2969.1	1.494	0.093	3354.0	1.048	0.300	3738.8	1.224	0.000
2591.1	1.402	0.005	2975.9	1.502	0.091	3360.7	1.041	0.285	3745.5	1.225	0.000
2597.8	1.403	0.006	2982.6	1.508	0.098	3367.5	1.035	0.271	3752.3	1.227	0.000
2604.6	1.403	0.005	2989.4	1.508	0.102	3374.2	1.029	0.255	3759.1	1.228	0.000
2611.3	1.404	0.004	2996.1	1.508	0.100	3381.0	1.024	0.239	3765.8	1.230	0.000
2618.1	1.405	0.003	3002.9	1.515	0.098	3387.7	1.021	0.224	3772.6	1.231	0.000
2624.8	1.406	0.003	3009.7	1.525	0.099	3394.5	1.019	0.207	3779.3	1.232	0.000
2631.6	1.408	0.002	3016.4	1.536	0.104	3401.2	1.018	0.190	3786.1	1.233	0.000
2638.3	1.410	0.000	3023.2	1.546	0.112	3408.0	1.019	0.175	3792.8	1.235	0.000
2645.1	1.412	0.000	3029.9	1.554	0.121	3414.7	1.022	0.159	3799.6	1.235	0.000
2651.8	1.414	0.000	3036.7	1.561	0.132	3421.5	1.026	0.145	3806.3	1.237	0.000
2658.6	1.417	0.000	3043.4	1.567	0.144	3428.2	1.030	0.132	3813.1	1.238	0.000
2665.3	1.419	0.000	3050.2	1.571	0.157	3435.0	1.034	0.121	3819.8	1.239	0.000
2672.1	1.421	0.000	3056.9	1.575	0.170	3441.7	1.039	0.110	3826.6	1.240	0.000
2678.8	1.424	0.000	3063.7	1.578	0.184	3448.5	1.044	0.100	3833.3	1.241	0.000
2685.6	1.426	0.000	3070.4	1.579	0.198	3455.2	1.049	0.091	3840.1	1.242	0.000
2692.3	1.429	0.000	3077.2	1.579	0.213	3462.0	1.054	0.082	3846.8	1.243	0.000
2699.1	1.431	0.001	3083.9	1.578	0.228	3468.7	1.059	0.074	3853.6	1.244	0.000
2705.8	1.434	0.002	3090.7	1.576	0.243	3475.5	1.063	0.065	3860.3	1.245	0.000
2712.6	1.437	0.002	3097.4	1.572	0.258	3482.2	1.068	0.057	3867.1	1.246	0.000
2719.3	1.440	0.003	3104.2	1.567	0.272	3489.0	1.074	0.049	3873.8	1.246	0.000
2726.1	1.443	0.004	3110.9	1.562	0.287	3495.7	1.080	0.041	3880.6	1.247	0.000
2732.8	1.446	0.004	3117.7	1.555	0.301	3502.5	1.086	0.034	3887.3	1.248	0.000
2739.6	1.450	0.005	3124.4	1.547	0.315	3509.3	1.093	0.027	3894.1	1.249	0.000
2746.4	1.453	0.007	3131.2	1.539	0.329	3516.0	1.100	0.022	3900.8	1.250	0.000
2753.1	1.457	0.008	3137.9	1.530	0.342	3522.8	1.108	0.017	3907.6	1.250	0.000
2759.9	1.462	0.010	3144.7	1.519	0.354	3529.5	1.115	0.012	3914.3	1.251	0.000
2766.6	1.467	0.012	3151.4	1.509	0.366	3536.3	1.123	0.009	3921.1	1.252	0.000
2773.4	1.471	0.016	3158.2	1.497	0.377	3543.0	1.129	0.007	3927.8	1.253	0.000
2780.1	1.476	0.019	3164.9	1.485	0.388	3549.8	1.136	0.005	3934.6	1.253	0.000
2786.9	1.480	0.025	3171.7	1.472	0.398	3556.5	1.142	0.003	3941.3	1.254	0.000
2793.6	1.484	0.031	3178.4	1.459	0.408	3563.3	1.148	0.002	3948.1	1.255	0.000
2800.4	1.488	0.038	3185.2	1.445	0.417	3570.0	1.153	0.000	3954.8	1.255	0.000
2807.1	1.490	0.046	3191.9	1.431	0.427	3576.8	1.158	0.000	3961.6	1.256	0.000
2813.9	1.491	0.055	3198.7	1.415	0.434	3583.5	1.163	0.000	3968.3	1.257	0.000
2820.6	1.491	0.067	3205.4	1.398	0.442	3590.3	1.167	0.000	3975.1	1.257	0.000
2827.4	1.481	0.085	3212.2	1.380	0.450	3597.0	1.171	0.000	3981.8	1.258	0.000
2834.1	1.457	0.088	3218.9	1.362	0.455	3603.8	1.175	0.000	3988.6	1.258	0.000
2840.9	1.443	0.071	3225.7	1.342	0.460	3610.5	1.179	0.000	3995.3	1.258	0.000
2847.6	1.447	0.056	3232.4	1.322	0.463	3617.3	1.182	0.000			
2854.4	1.454	0.051	3239.2	1.302	0.464	3624.0	1.186	0.000			
2861.1	1.460	0.048	3245.9	1.281	0.463	3630.8	1.189	0.000			

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TABLE 3F

$H_2O:CH_3OH:CO:NH_3$ = 100:50:1:1 AT 140 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.629	0.000	164.9	1.672	0.241	278.7	1.296	0.108	392.5	1.442	0.017	723.4	1.554	0.202	955.8	1.189	0.062	1069.6	1.152	0.000	1183.4	1.260	0.000
53.0	1.637	0.027	166.9	1.665	0.244	280.7	1.300	0.106	394.5	1.443	0.017	729.2	1.556	0.211	957.7	1.194	0.059	1071.5	1.160	0.000	1185.3	1.261	0.000
55.0	1.615	0.022	168.8	1.658	0.255	282.6	1.303	0.099	396.4	1.445	0.018	734.9	1.557	0.223	959.7	1.199	0.055	1073.5	1.166	0.000	1187.3	1.263	0.000
56.9	1.617	0.051	170.7	1.658	0.252	284.5	1.308	0.098	398.3	1.446	0.018	740.7	1.560	0.235	961.6	1.205	0.052	1075.4	1.172	0.000	1189.2	1.264	0.000
58.8	1.589	0.043	172.6	1.654	0.269	286.5	1.310	0.094	405.1	1.450	0.020	746.5	1.561	0.247	963.5	1.211	0.050	1077.3	1.178	0.000	1191.1	1.265	0.000
60.8	1.590	0.024	174.6	1.650	0.269	288.4	1.315	0.089	410.9	1.454	0.021	752.3	1.560	0.262	965.4	1.217	0.048	1079.3	1.183	0.000	1193.1	1.265	0.000
62.7	1.605	0.006	176.5	1.649	0.281	290.3	1.318	0.094	416.7	1.457	0.023	758.1	1.562	0.280	967.4	1.222	0.045	1081.2	1.187	0.000	1195.0	1.266	0.000
64.6	1.610	0.008	178.4	1.636	0.286	292.2	1.311	0.083	422.4	1.461	0.024	763.9	1.558	0.300	969.3	1.229	0.043	1083.1	1.193	0.000	1196.9	1.268	0.000
66.5	1.613	0.009	180.4	1.645	0.275	294.2	1.316	0.077	428.2	1.465	0.024	769.7	1.548	0.320	971.2	1.236	0.040	1085.0	1.198	0.000	1198.8	1.268	0.000
68.5	1.616	0.008	182.3	1.638	0.297	296.1	1.317	0.073	434.0	1.469	0.029	775.4	1.540	0.337	973.2	1.243	0.038	1087.0	1.202	0.000	1205.6	1.271	0.000
70.4	1.619	0.010	184.2	1.628	0.301	298.0	1.321	0.069	439.8	1.470	0.033	781.2	1.533	0.353	975.1	1.250	0.036	1088.9	1.206	0.000	1211.4	1.274	0.000
72.3	1.620	0.012	186.1	1.622	0.303	300.0	1.322	0.066	445.6	1.473	0.035	787.0	1.520	0.371	977.0	1.258	0.035	1090.8	1.210	0.000	1217.2	1.276	0.000
74.3	1.622	0.013	188.1	1.613	0.314	301.9	1.325	0.061	451.4	1.475	0.036	792.8	1.509	0.395	978.9	1.266	0.033	1092.8	1.214	0.000	1223.0	1.279	0.000
76.2	1.624	0.015	190.0	1.606	0.317	303.8	1.329	0.061	457.2	1.476	0.038	798.6	1.491	0.419	980.9	1.274	0.033	1094.7	1.218	0.000	1228.7	1.281	0.000
78.1	1.626	0.016	191.9	1.599	0.327	305.7	1.331	0.058	463.0	1.478	0.040	804.4	1.462	0.442	982.8	1.283	0.032	1096.6	1.222	0.000	1234.5	1.283	0.000
80.1	1.627	0.017	193.9	1.592	0.332	307.7	1.333	0.059	468.7	1.479	0.041	810.2	1.429	0.457	984.7	1.293	0.032	1098.5	1.226	0.000	1240.3	1.284	0.000
82.0	1.629	0.016	195.8	1.589	0.342	309.6	1.333	0.056	474.5	1.480	0.042	816.0	1.399	0.466	986.7	1.303	0.032	1100.5	1.230	0.000	1246.1	1.286	0.000
83.9	1.631	0.017	197.7	1.579	0.352	311.5	1.336	0.056	480.3	1.484	0.043	821.7	1.359	0.468	988.6	1.314	0.032	1102.4	1.234	0.000	1251.9	1.289	0.000
85.8	1.632	0.019	199.7	1.571	0.366	313.5	1.336	0.053	486.1	1.487	0.044	827.5	1.326	0.466	990.5	1.327	0.033	1104.3	1.239	0.000	1257.7	1.290	0.000
87.8	1.635	0.020	201.6	1.558	0.376	315.4	1.337	0.051	491.9	1.489	0.047	833.3	1.299	0.460	992.5	1.340	0.036	1106.3	1.244	0.002	1263.5	1.291	0.000
89.7	1.637	0.021	203.5	1.541	0.389	317.3	1.337	0.047	497.7	1.493	0.049	839.1	1.267	0.452	994.4	1.353	0.039	1108.2	1.249	0.004	1269.3	1.294	0.000
91.6	1.639	0.022	205.4	1.523	0.393	319.2	1.337	0.043	503.5	1.495	0.052	844.9	1.232	0.440	996.3	1.371	0.042	1110.1	1.254	0.005	1275.0	1.296	0.000
93.6	1.641	0.021	207.4	1.508	0.396	321.2	1.338	0.038	509.2	1.497	0.055	850.7	1.206	0.418	998.2	1.390	0.052	1112.0	1.260	0.010	1280.8	1.297	0.000
95.5	1.644	0.022	209.3	1.488	0.400	323.1	1.339	0.032	515.0	1.499	0.058	856.5	1.184	0.395	1000.2	1.407	0.066	1114.0	1.267	0.015	1286.6	1.299	0.000
97.4	1.644	0.023	211.2	1.472	0.397	325.0	1.341	0.026	520.8	1.501	0.060	862.2	1.164	0.371	1002.1	1.420	0.066	1115.9	1.272	0.021	1292.4	1.300	0.000
99.3	1.654	0.011	213.2	1.456	0.394	327.0	1.343	0.022	526.6	1.504	0.063	868.0	1.153	0.346	1004.0	1.447	0.075	1117.8	1.278	0.032	1298.2	1.302	0.000
101.3	1.661	0.018	215.1	1.439	0.389	328.9	1.347	0.015	532.4	1.506	0.069	873.8	1.144	0.326	1006.0	1.491	0.094	1119.8	1.287	0.049	1304.0	1.304	0.000
103.2	1.666	0.015	217.0	1.423	0.384	330.8	1.352	0.012	538.2	1.507	0.069	879.6	1.133	0.306	1007.9	1.533	0.126	1121.7	1.282	0.076	1309.8	1.305	0.000
105.1	1.660	0.014	218.9	1.404	0.381	332.7	1.356	0.008	544.0	1.509	0.072	885.4	1.126	0.286	1009.8	1.572	0.180	1123.6	1.257	0.111	1315.5	1.307	0.000
107.1	1.691	0.000	220.9	1.386	0.370	334.7	1.362	0.007	549.8	1.512	0.077	891.2	1.122	0.263	1011.7	1.606	0.285	1125.5	1.208	0.121	1321.3	1.309	0.000
109.0	1.707	0.026	222.8	1.375	0.361	336.6	1.367	0.004	555.5	1.516	0.084	897.0	1.115	0.241	1013.7	1.605	0.450	1127.5	1.182	0.077	1327.1	1.311	0.000
110.9	1.702	0.080	224.7	1.360	0.356	338.5	1.373	0.004	561.3	1.514	0.094	901.8	1.116	0.224	1015.6	1.476	0.561	1129.4	1.183	0.045	1332.9	1.313	0.000
112.8	1.687	0.060	226.7	1.349	0.349	340.5	1.377	0.003	567.1	1.505	0.095	903.7	1.115	0.219	1017.5	1.337	0.614	1131.3	1.188	0.031	1338.7	1.315	0.000
114.8	1.695	0.073	228.6	1.337	0.337	342.4	1.383	0.002	572.9	1.507	0.090	905.6	1.113	0.210	1019.5	1.245	0.601	1133.3	1.197	0.023	1344.5	1.317	0.000
116.7	1.698	0.081	230.5	1.329	0.327	344.3	1.386	0.002	578.7	1.510	0.092	907.6	1.113	0.205	1021.4	1.141	0.537	1135.2	1.202	0.017	1350.3	1.320	0.001
118.6	1.700	0.093	232.4	1.320	0.317	346.3	1.391	0.000	584.5	1.511	0.097	909.5	1.113	0.198	1023.3	1.060	0.464	1137.1	1.206	0.013	1356.1	1.322	0.001
120.6	1.700	0.103	234.4	1.314	0.301	348.2	1.395	0.000	590.3	1.512	0.099	911.4	1.113	0.190	1025.2	1.018	0.393	1139.0	1.211	0.009	1361.8	1.324	0.002
122.5	1.691	0.119	236.3	1.309	0.289	350.1	1.399	0.000	596.1	1.512	0.103	913.4	1.114	0.183	1027.2	1.039	0.324	1141.0	1.215	0.008	1367.6	1.327	0.002
124.4	1.682	0.107	238.2	1.306	0.277	352.0	1.402	0.000	601.8	1.511	0.106	915.3	1.116	0.176	1029.1	1.038	0.280	1142.9	1.218	0.005	1373.4	1.329	0.005
126.4	1.685	0.096	240.2	1.299	0.268	354.0	1.405	0.001	607.6	1.511	0.108	917.2	1.118	0.169	1031.0	1.047	0.259	1144.8	1.221	0.003	1379.2	1.333	0.006
128.3	1.685	0.106	242.1	1.294	0.257	355.9	1.408	0.002	613.4	1.511	0.110	919.2	1.119	0.162	1033.0	1.076	0.259	1146.8	1.225	0.002	1385.0	1.336	0.008
130.2	1.687	0.095	244.0	1.289	0.247	357.8	1.411	0.004	619.2	1.512	0.111	921.1	1.121	0.156	1034.9	1.068	0.259	1148.7	1.228	0.000	1390.8	1.339	0.010
132.1	1.691	0.107	245.9	1.285	0.238	359.8	1.413	0.004	625.0	1.513	0.113	923.0	1.123	0.149	1036.8	1.044	0.257	1150.6	1.231	0.000	1396.6	1.344	0.013
134.1	1.689	0.104	247.9	1.280	0.222	361.7	1.416	0.007	630.8	1.515	0.114	924.9	1.124	0.142	1038.7	1.014	0.255	1152.6	1.234	0.000	1402.3	1.347	0.018
136.0	1.694	0.115	249.8	1.285	0.214	363.6	1.418	0.007	636.6	1.516	0.114	926.9	1.126	0.136	1040.7	1.001	0.238	1154.5	1.237	0.000	1408.1	1.351	0.027
137.9	1.695	0.121	251.7	1.282	0.207	365.5	1.420	0.009	642.3	1.521	0.114	928.8	1.129	0.129	1042.6	0.963	0.204	1156.4	1.240	0.000	1413.9	1.352	0.038
139.9	1.701	0.128	253.7	1.282	0.198	367.5	1.422	0.010	648.1	1.526	0.118	930.7	1.132	0.125	1044.5	0.941	0.148	1158.3	1.242	0.000	1419.7	1.349	0.051
141.8	1.702	0.145	255.6	1.280	0.188	369.4	1.424	0.010	653.9	1.532	0.123	932.7	1.136	0.118	1046.5	0.959	0.090	1160.3	1.245	0.000	1425.5	1.333	0.068
143.7	1.703	0.150	257.5	1.282	0.178	371.3	1.426	0.011	659.7	1.534	0.127	934.6	1.139	0.112	1048.4	0.981	0.050	1162.2	1.246	0.002	1431.3	1.310	0.061
145.6	1.706	0.161	259.4	1.283	0.168	373.3	1.428	0.011	665.5	1.540	0.138	936.5	1.143	0.106	1050.3	1.007	0.026	1164.1	1.246	0.003	1437.1	1.310	0.036
147.6	1.706	0.170	261.4	1.289	0.159	375.2	1.430	0.012	671.3	1.540	0.145	938.4	1.147	0.102	1052.2	1.033	0.012	1166.1	1.245	0.000	1442.9	1.336	0.043
149.5	1.706	0.183	263.3	1.292	0.154	377.1	1.431	0.012	677.1	1.539	0.154	940.4	1.151	0.095	1054.2	1.056	0.004	1168.0	1.247	0.000	1448.6	1.278	0.071
151.4	1.699	0.188	265.2	1.296	0.148	379.0	1.433	0.012	682.9	1.537	0.159	942.3	1.154	0.091	1056.1	1.075	0.000	1169.9	1.249	0.000	1454.4	1.292	0.029
153.4	1.700	0.191	267.2	1.299	0.147	381.0	1.434	0.012	688.6	1.538	0.161	944.2	1.159	0.085	1058.0	1.091	0.000	1171.8	1.251	0.000	1460.2	1.309	0.033
155.3	1.697	0.202	269.1	1.298	0.143	382.9	1.436	0.012	694.4	1.540	0.166	946.2	1.164	0.081	1060.0	1.104	0.000	1173.8	1.252	0.000	1466.0	1.301	0.042
157.2	1.695	0.200	271.0	1.295	0.138	384.8	1.437	0.014	700.2	1.543	0.172	948.1	1.168	0.078	1061.9	1.116	0.000	1175.7	1.254	0.000	1471.8	1.303	0.039
159.1	1.694	0.215	273.0	1.293	0.131	386.8	1.438	0.013	706.0	1.545	0.178	950.0	1.174	0.072	1063.8	1.127	0.000	1177.6	1.256	0.000	1477.6	1.291	0.051
161.1	1.686	0.222	274.9	1.294	0.121	388.7	1.440	0.015	711.8	1.547	0.187	951.9	1.180	0.070	1065.7	1.136	0.000	1179.6	1.258	0.000	1483.4	1.269	0.034
163.0	1.681	0.229	276.8	1.295	0.118	390.6	1.441	0.016	717.6	1.550	0.193	953.9	1.184	0.066	1067.7	1.144	0.000	1181.5	1.259	0.000	1489.2	1.276	0.007

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TABLE 3F—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.289	0.000	1836.4	1.335	0.001	2126.7	1.360	0.004	2327.3	1.364	0.007	2668.7	1.411	0.000	3004.3	1.517	0.085	3340.0	1.067	0.345	3675.6	1.213	0.000
1500.7	1.298	0.000	1842.2	1.336	0.001	2128.6	1.360	0.004	2333.1	1.364	0.007	2674.5	1.413	0.000	3010.1	1.528	0.088	3345.8	1.051	0.331	3681.4	1.215	0.000
1506.5	1.303	0.000	1847.9	1.336	0.001	2130.5	1.360	0.004	2338.9	1.364	0.006	2680.3	1.415	0.000	3015.9	1.538	0.093	3351.6	1.037	0.311	3687.2	1.216	0.000
1512.3	1.308	0.001	1853.7	1.336	0.001	2132.5	1.360	0.005	2344.6	1.364	0.006	2686.1	1.417	0.000	3021.7	1.550	0.100	3357.3	1.005	0.293	3693.0	1.218	0.000
1518.1	1.311	0.002	1859.5	1.337	0.000	2134.4	1.360	0.005	2350.4	1.365	0.004	2691.9	1.419	0.001	3027.5	1.558	0.107	3363.1	0.997	0.272	3698.8	1.219	0.000
1523.9	1.314	0.003	1865.3	1.337	0.000	2136.3	1.360	0.006	2356.2	1.365	0.006	2697.6	1.420	0.002	3033.3	1.572	0.115	3368.9	0.993	0.253	3704.6	1.221	0.000
1529.7	1.316	0.005	1871.1	1.338	0.000	2138.2	1.359	0.006	2362.0	1.366	0.006	2703.4	1.423	0.002	3039.1	1.580	0.125	3374.7	1.000	0.233	3710.3	1.222	0.000
1535.4	1.317	0.006	1876.9	1.339	0.000	2140.2	1.360	0.005	2367.8	1.365	0.004	2709.2	1.424	0.002	3044.9	1.588	0.136	3380.5	0.999	0.215	3716.1	1.224	0.000
1541.2	1.319	0.006	1882.7	1.339	0.000	2142.1	1.360	0.005	2373.6	1.366	0.003	2715.0	1.427	0.002	3050.6	1.584	0.149	3386.3	1.008	0.198	3721.9	1.225	0.000
1547.0	1.319	0.007	1888.4	1.340	0.000	2144.0	1.360	0.005	2379.4	1.367	0.002	2720.8	1.429	0.003	3056.4	1.591	0.163	3392.1	1.009	0.180	3727.7	1.226	0.000
1552.8	1.320	0.007	1894.2	1.341	0.000	2146.0	1.360	0.005	2385.2	1.368	0.001	2726.6	1.431	0.003	3062.2	1.596	0.179	3397.9	1.011	0.163	3733.5	1.227	0.000
1558.6	1.321	0.006	1900.0	1.341	0.000	2147.9	1.360	0.005	2390.9	1.369	0.001	2732.4	1.434	0.003	3068.0	1.608	0.196	3403.6	1.004	0.146	3739.3	1.229	0.000
1564.4	1.322	0.008	1905.8	1.342	0.001	2149.8	1.360	0.005	2396.7	1.370	0.001	2738.2	1.436	0.004	3073.8	1.612	0.215	3409.4	1.009	0.133	3745.1	1.229	0.000
1570.2	1.323	0.008	1911.6	1.342	0.001	2151.8	1.361	0.005	2402.5	1.371	0.001	2743.9	1.439	0.005	3079.6	1.624	0.237	3415.2	1.022	0.121	3750.9	1.231	0.000
1576.0	1.323	0.008	1917.4	1.342	0.001	2153.7	1.361	0.005	2408.3	1.372	0.000	2749.7	1.441	0.006	3085.4	1.622	0.260	3421.0	1.029	0.109	3756.6	1.232	0.000
1581.7	1.323	0.010	1923.2	1.343	0.000	2155.6	1.361	0.005	2414.1	1.373	0.000	2755.5	1.445	0.007	3091.1	1.595	0.287	3426.8	1.036	0.099	3762.4	1.233	0.000
1587.5	1.324	0.010	1929.0	1.343	0.000	2157.5	1.361	0.006	2419.9	1.374	0.001	2761.3	1.448	0.008	3096.9	1.584	0.310	3432.6	1.046	0.090	3768.2	1.234	0.000
1593.3	1.324	0.011	1934.7	1.344	0.000	2159.5	1.361	0.006	2425.7	1.375	0.001	2767.1	1.451	0.009	3102.7	1.568	0.333	3438.4	1.052	0.083	3774.0	1.235	0.000
1599.1	1.324	0.011	1940.5	1.344	0.000	2161.4	1.361	0.006	2431.4	1.376	0.002	2772.9	1.455	0.011	3108.5	1.562	0.352	3444.1	1.053	0.075	3779.8	1.236	0.000
1604.9	1.325	0.012	1946.3	1.345	0.000	2163.3	1.361	0.006	2437.2	1.376	0.003	2778.7	1.459	0.013	3114.3	1.541	0.367	3449.9	1.059	0.068	3785.6	1.237	0.000
1610.7	1.326	0.011	1952.1	1.345	0.000	2165.3	1.362	0.006	2443.0	1.376	0.002	2784.4	1.462	0.015	3120.1	1.534	0.377	3455.7	1.065	0.062	3791.4	1.238	0.000
1616.5	1.325	0.012	1957.9	1.346	0.000	2167.2	1.362	0.006	2448.8	1.377	0.002	2790.2	1.466	0.019	3125.9	1.510	0.382	3461.5	1.074	0.057	3797.1	1.239	0.000
1622.3	1.326	0.012	1963.7	1.346	0.000	2169.1	1.361	0.006	2454.6	1.378	0.001	2796.0	1.470	0.023	3131.7	1.489	0.383	3467.3	1.079	0.052	3802.9	1.240	0.000
1628.0	1.325	0.013	1969.5	1.347	0.002	2171.0	1.361	0.006	2460.4	1.379	0.001	2801.8	1.475	0.029	3137.4	1.441	0.383	3473.1	1.086	0.047	3808.7	1.241	0.000
1633.8	1.325	0.013	1975.3	1.347	0.002	2173.0	1.362	0.007	2466.2	1.380	0.000	2807.6	1.479	0.036	3143.2	1.425	0.379	3478.9	1.092	0.043	3814.5	1.242	0.000
1639.6	1.327	0.013	1981.0	1.347	0.002	2174.9	1.362	0.007	2472.0	1.381	0.000	2813.4	1.483	0.045	3149.0	1.412	0.374	3484.7	1.097	0.038	3820.3	1.242	0.000
1645.4	1.326	0.013	1986.8	1.347	0.002	2176.8	1.361	0.007	2477.7	1.382	0.001	2819.2	1.481	0.057	3154.8	1.419	0.368	3490.4	1.099	0.033	3826.1	1.243	0.000
1651.2	1.326	0.014	1992.6	1.348	0.000	2178.8	1.362	0.007	2483.5	1.383	0.001	2825.0	1.474	0.068	3160.6	1.412	0.365	3496.2	1.104	0.030	3831.9	1.244	0.000
1657.0	1.328	0.015	1998.4	1.349	0.000	2180.7	1.362	0.007	2489.3	1.385	0.002	2830.7	1.457	0.073	3166.4	1.423	0.363	3502.0	1.109	0.026	3837.7	1.245	0.000
1662.8	1.327	0.015	2004.2	1.350	0.002	2182.6	1.362	0.007	2495.1	1.386	0.002	2836.5	1.445	0.071	3172.2	1.416	0.363	3507.8	1.115	0.023	3843.4	1.246	0.000
1668.5	1.324	0.015	2010.0	1.351	0.002	2184.5	1.362	0.007	2500.9	1.387	0.002	2842.3	1.434	0.061	3178.0	1.411	0.365	3513.6	1.120	0.020	3849.2	1.246	0.000
1674.3	1.324	0.016	2015.8	1.353	0.004	2186.5	1.362	0.007	2506.7	1.388	0.003	2848.1	1.438	0.049	3183.7	1.376	0.370	3519.4	1.125	0.017	3855.0	1.247	0.000
1680.1	1.323	0.015	2021.5	1.347	0.006	2188.4	1.362	0.007	2512.5	1.390	0.004	2853.9	1.443	0.042	3189.5	1.369	0.371	3525.2	1.130	0.014	3860.8	1.248	0.000
1685.9	1.325	0.014	2027.3	1.348	0.002	2190.3	1.362	0.007	2518.2	1.390	0.006	2859.7	1.450	0.037	3195.3	1.362	0.373	3531.0	1.135	0.011	3866.6	1.249	0.000
1691.7	1.323	0.015	2033.1	1.350	0.002	2192.3	1.363	0.007	2524.0	1.391	0.008	2865.5	1.457	0.035	3201.1	1.371	0.374	3536.7	1.139	0.009	3872.4	1.249	0.000
1697.5	1.324	0.014	2038.9	1.350	0.002	2194.2	1.362	0.007	2529.8	1.391	0.010	2871.2	1.460	0.036	3206.9	1.366	0.376	3542.5	1.144	0.007	3878.2	1.250	0.000
1703.3	1.323	0.014	2044.7	1.351	0.002	2196.1	1.362	0.007	2535.6	1.389	0.012	2877.0	1.466	0.037	3212.7	1.377	0.379	3548.3	1.149	0.006	3884.0	1.251	0.000
1709.1	1.323	0.013	2050.5	1.352	0.002	2198.0	1.362	0.007	2541.4	1.386	0.010	2882.8	1.471	0.040	3218.5	1.371	0.384	3554.1	1.153	0.004	3889.7	1.251	0.000
1714.8	1.321	0.012	2056.3	1.352	0.002	2205.8	1.363	0.008	2547.2	1.386	0.008	2888.6	1.477	0.043	3224.2	1.335	0.393	3559.9	1.157	0.003	3895.5	1.252	0.000
1720.6	1.321	0.011	2062.1	1.353	0.002	2211.5	1.363	0.008	2553.0	1.387	0.006	2894.4	1.481	0.047	3230.0	1.326	0.402	3565.7	1.161	0.002	3901.3	1.252	0.000
1726.4	1.321	0.010	2067.8	1.353	0.002	2217.3	1.363	0.009	2558.8	1.389	0.006	2900.2	1.486	0.049	3235.8	1.315	0.411	3571.5	1.165	0.002	3907.1	1.253	0.000
1732.2	1.321	0.008	2073.6	1.353	0.000	2223.1	1.364	0.009	2564.5	1.388	0.005	2906.0	1.489	0.054	3241.6	1.316	0.419	3577.2	1.169	0.000	3912.9	1.254	0.000
1738.0	1.321	0.007	2079.4	1.354	0.000	2228.9	1.364	0.010	2570.3	1.389	0.004	2911.8	1.491	0.058	3247.4	1.299	0.425	3583.0	1.172	0.000	3918.7	1.255	0.000
1743.8	1.323	0.006	2085.2	1.355	0.000	2234.7	1.364	0.011	2576.1	1.390	0.004	2917.5	1.488	0.060	3253.2	1.299	0.425	3588.8	1.176	0.000	3924.5	1.255	0.000
1749.6	1.323	0.004	2091.0	1.356	0.002	2240.5	1.363	0.012	2581.9	1.392	0.003	2923.3	1.493	0.063	3259.0	1.281	0.424	3594.6	1.179	0.000	3930.2	1.255	0.000
1755.3	1.324	0.003	2096.8	1.357	0.002	2246.3	1.362	0.011	2587.7	1.394	0.004	2929.1	1.496	0.073	3264.8	1.266	0.422	3600.4	1.182	0.000	3936.0	1.256	0.000
1761.1	1.325	0.003	2101.6	1.357	0.002	2252.1	1.362	0.010	2593.5	1.395	0.006	2934.9	1.493	0.079	3270.5	1.220	0.420	3606.2	1.185	0.000	3941.8	1.257	0.000
1766.9	1.326	0.003	2103.5	1.357	0.002	2257.8	1.361	0.010	2599.3	1.394	0.006	2940.7	1.490	0.076	3276.3	1.209	0.418	3612.0	1.188	0.000	3947.6	1.257	0.000
1772.7	1.327	0.001	2105.5	1.357	0.002	2263.6	1.361	0.010	2605.1	1.394	0.004	2946.5	1.496	0.076	3282.1	1.195	0.419	3617.8	1.191	0.000	3953.4	1.258	0.000
1778.5	1.328	0.002	2107.4	1.358	0.002	2269.4	1.361	0.010	2610.8	1.395	0.002	2952.3	1.498	0.078	3287.9	1.197	0.419	3623.5	1.193	0.000	3959.2	1.258	0.000
1784.3	1.329	0.001	2109.3	1.358	0.002	2275.2	1.362	0.009	2616.6	1.397	0.002	2958.1	1.502	0.080	3293.7	1.180	0.418	3629.3	1.196	0.000	3965.0	1.259	0.000
1790.1	1.330	0.001	2111.2	1.358	0.002	2281.0	1.362	0.009	2622.4	1.398	0.001	2963.8	1.496	0.090	3299.5	1.178	0.414	3635.1	1.199	0.000	3970.8	1.259	0.000
1795.9	1.331	0.001	2113.2	1.359	0.003	2286.8	1.362	0.009	2628.2	1.399	0.000	2969.6	1.486	0.083	3305.3	1.159	0.406	3640.9	1.201	0.000	3976.5	1.259	0.000
1801.6	1.331	0.001	2115.1	1.358	0.003	2292.6	1.363	0.008	2634.0	1.401	0.000	2975.4	1.500	0.074	3311.1	1.142	0.399	3646.7	1.203	0.000	3982.3	1.260	0.000
1807.4	1.332	0.001	2117.0	1.358	0.003	2298.4	1.363	0.008	2639.8	1.403	0.000	2981.2	1.512	0.078	3316.8	1.095	0.390	3652.5	1.205	0.000	3988.1	1.260	0.000
1813.2	1.332	0.000	2119.0	1.359	0.003	2304.1	1.362	0.008	2645.6	1.405	0.000	2987.0	1.520	0.087	3322.6	1.081	0.379	3658.3	1.207	0.000	3993.9	1.260	0.000
1819.0	1.334	0.001	2120.9	1.359	0.003	2309.9	1.363	0.008	2651.3	1.406	0.000	2992.8	1.520	0.104	3328.4	1.083	0.368	3664.1	1.209	0.000	3999.7	1.261	0.000
1824.8	1.334	0.001	2122.8	1.359	0.004	2315.7	1.363	0.008	2657.1	1.408	0.000	2998.6	1.511	0.089	3334.2	1.068	0.357	3669.8	1.211	0.000			
1830.6	1.335	0.000	2124.7	1.359	0.004	2321.5	1.363	0.007	2662.9	1.409	0.000												

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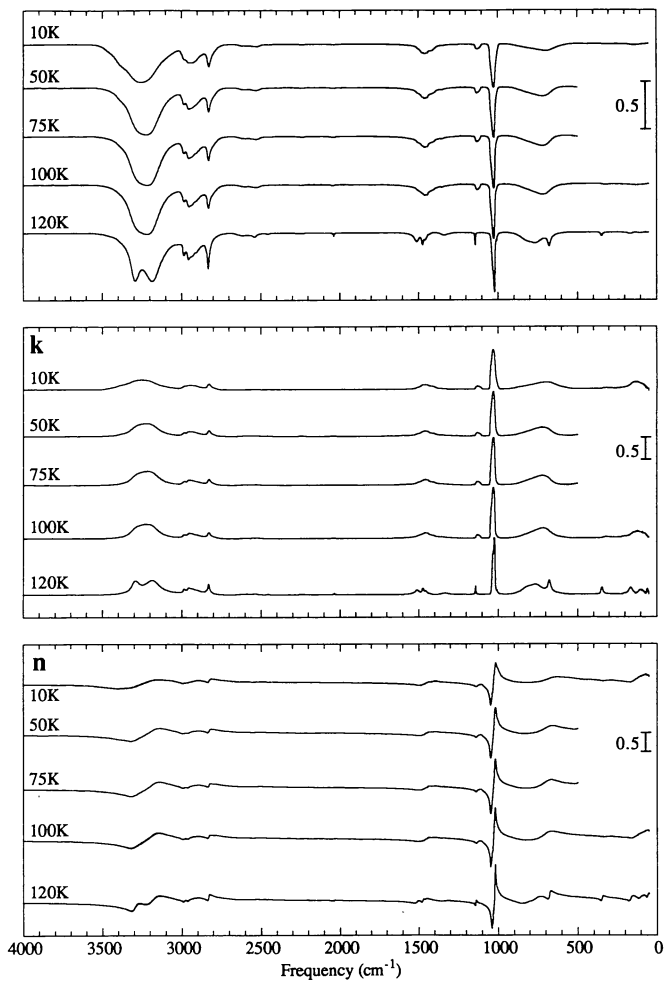

FIG. 4.—The 4000 to 50 cm^{-1} transmission spectra and optical constants (n and k) of a pure CH_3OH ice at temperatures of 10, 50, 75, 100, and 120 K. The original ice was deposited at 10 K.

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TABLE 4A

CH_3OH AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.507	0.000	164.9	1.338	0.102	278.7	1.388	0.017	392.5	1.399	0.001	723.4	1.376	0.147	955.8	1.432	0.004	1069.6	1.117	0.000	1183.4	1.283	0.000
53.0	1.522	0.000	166.9	1.337	0.096	280.7	1.388	0.021	394.5	1.399	0.002	729.2	1.370	0.144	957.7	1.437	0.003	1071.5	1.132	0.000	1185.3	1.284	0.000
55.0	1.532	0.000	168.8	1.334	0.096	282.6	1.388	0.020	396.4	1.400	0.001	734.9	1.364	0.139	959.7	1.442	0.002	1073.5	1.145	0.000	1187.3	1.285	0.000
56.9	1.532	0.006	170.7	1.336	0.083	284.5	1.389	0.022	398.3	1.400	0.002	740.7	1.359	0.136	961.6	1.446	0.002	1075.4	1.156	0.000	1189.2	1.287	0.000
58.8	1.532	0.014	172.6	1.338	0.086	286.5	1.389	0.022	405.1	1.402	0.001	746.5	1.354	0.131	963.5	1.451	0.002	1077.3	1.167	0.000	1191.1	1.289	0.000
60.8	1.535	0.024	174.6	1.336	0.081	288.4	1.389	0.022	410.9	1.404	0.002	752.3	1.349	0.129	965.4	1.456	0.002	1079.3	1.177	0.000	1193.1	1.291	0.000
62.7	1.544	0.033	176.5	1.338	0.077	290.3	1.389	0.019	416.7	1.405	0.002	758.1	1.346	0.124	967.4	1.461	0.002	1081.2	1.186	0.000	1195.0	1.291	0.000
64.6	1.541	0.031	178.4	1.338	0.070	292.2	1.391	0.020	422.4	1.406	0.001	763.9	1.343	0.119	969.3	1.468	0.000	1083.1	1.195	0.000	1196.9	1.293	0.000
66.5	1.543	0.055	180.4	1.339	0.066	294.2	1.391	0.021	428.2	1.408	0.001	769.7	1.340	0.114	971.2	1.475	0.000	1085.0	1.203	0.000	1198.8	1.294	0.000
68.5	1.535	0.023	182.3	1.339	0.063	296.1	1.390	0.021	434.0	1.409	0.002	775.4	1.338	0.109	973.2	1.481	0.002	1087.0	1.212	0.000	1205.6	1.298	0.000
70.4	1.563	0.042	184.2	1.341	0.057	298.0	1.390	0.021	439.8	1.410	0.002	781.2	1.336	0.104	975.1	1.488	0.002	1088.9	1.219	0.000	1211.4	1.301	0.000
72.3	1.553	0.063	186.1	1.341	0.055	300.0	1.389	0.023	445.6	1.412	0.002	787.0	1.334	0.102	977.0	1.496	0.001	1090.8	1.227	0.000	1217.2	1.304	0.000
74.3	1.546	0.062	188.1	1.341	0.051	301.9	1.389	0.021	451.4	1.413	0.001	792.8	1.333	0.097	978.9	1.504	0.001	1092.8	1.235	0.000	1223.0	1.308	0.002
76.2	1.544	0.062	190.0	1.342	0.047	303.8	1.391	0.023	457.2	1.414	0.001	798.6	1.333	0.092	980.9	1.514	0.000	1094.7	1.243	0.000	1228.7	1.310	0.002
78.1	1.538	0.069	191.9	1.345	0.045	305.7	1.390	0.023	463.0	1.416	0.000	804.4	1.332	0.088	982.8	1.525	0.002	1096.6	1.251	0.000	1234.5	1.312	0.002
80.1	1.545	0.074	193.9	1.346	0.043	307.7	1.390	0.026	468.7	1.418	0.000	810.2	1.331	0.085	984.7	1.537	0.001	1098.5	1.259	0.005	1240.3	1.315	0.003
82.0	1.534	0.083	195.8	1.349	0.044	309.6	1.389	0.025	474.5	1.420	0.000	816.0	1.332	0.081	986.7	1.551	0.003	1100.5	1.267	0.010	1246.1	1.317	0.003
83.9	1.532	0.093	197.7	1.350	0.040	311.5	1.389	0.027	480.3	1.422	0.000	821.7	1.331	0.077	988.6	1.566	0.005	1102.4	1.272	0.015	1251.9	1.319	0.004
85.8	1.528	0.102	199.7	1.353	0.042	313.5	1.388	0.027	486.1	1.424	0.000	827.5	1.331	0.074	990.5	1.583	0.008	1104.3	1.276	0.024	1257.7	1.321	0.004
87.8	1.520	0.112	201.6	1.352	0.040	315.4	1.388	0.027	491.9	1.427	0.000	833.3	1.332	0.070	992.5	1.602	0.014	1106.3	1.281	0.031	1263.5	1.323	0.004
89.7	1.519	0.095	203.5	1.354	0.040	317.3	1.386	0.028	497.7	1.429	0.000	839.1	1.332	0.066	994.4	1.623	0.022	1108.2	1.282	0.039	1269.3	1.326	0.006
91.6	1.521	0.121	205.4	1.353	0.035	319.2	1.386	0.027	503.5	1.432	0.000	844.9	1.333	0.062	996.3	1.645	0.035	1110.1	1.279	0.046	1275.0	1.327	0.006
93.6	1.513	0.119	207.4	1.358	0.032	321.2	1.385	0.027	509.2	1.436	0.000	850.7	1.334	0.058	998.2	1.668	0.051	1112.0	1.275	0.050	1280.8	1.329	0.007
95.5	1.509	0.121	209.3	1.358	0.032	323.1	1.383	0.026	515.0	1.439	0.003	856.5	1.336	0.054	1000.2	1.693	0.071	1114.0	1.278	0.053	1286.6	1.331	0.007
97.4	1.503	0.121	211.2	1.360	0.029	325.0	1.383	0.025	520.8	1.443	0.006	862.2	1.336	0.050	1002.1	1.709	0.095	1115.9	1.274	0.057	1292.4	1.332	0.008
99.3	1.499	0.114	213.2	1.360	0.028	327.0	1.381	0.025	526.6	1.444	0.007	868.0	1.338	0.046	1004.0	1.722	0.123	1117.8	1.269	0.060	1298.2	1.334	0.008
101.3	1.501	0.113	215.1	1.362	0.026	328.9	1.381	0.024	532.4	1.447	0.008	873.8	1.342	0.042	1006.0	1.751	0.148	1119.8	1.272	0.063	1304.0	1.337	0.008
103.2	1.498	0.126	217.0	1.363	0.026	330.8	1.379	0.024	538.2	1.452	0.009	879.6	1.344	0.039	1007.9	1.772	0.175	1121.7	1.267	0.065	1309.8	1.338	0.009
105.1	1.494	0.128	218.9	1.364	0.026	332.7	1.378	0.023	544.0	1.454	0.011	885.4	1.347	0.035	1009.8	1.785	0.209	1123.6	1.261	0.068	1315.5	1.340	0.010
107.1	1.490	0.130	220.9	1.365	0.026	334.7	1.376	0.022	549.8	1.458	0.014	891.2	1.351	0.030	1011.7	1.804	0.252	1125.5	1.257	0.069	1321.3	1.342	0.011
109.0	1.488	0.132	222.8	1.366	0.027	336.6	1.376	0.020	555.5	1.461	0.018	897.0	1.355	0.026	1013.7	1.854	0.304	1127.5	1.259	0.071	1327.1	1.344	0.012
110.9	1.482	0.136	224.7	1.366	0.025	338.5	1.375	0.019	561.3	1.465	0.021	901.8	1.359	0.025	1015.6	1.857	0.388	1129.4	1.251	0.073	1332.9	1.347	0.013
112.8	1.477	0.140	226.7	1.369	0.025	340.5	1.375	0.017	567.1	1.467	0.025	903.7	1.361	0.023	1017.5	1.842	0.489	1131.3	1.241	0.073	1338.7	1.349	0.016
114.8	1.474	0.148	228.6	1.369	0.026	342.4	1.375	0.015	572.9	1.471	0.028	905.6	1.363	0.023	1019.5	1.853	0.580	1133.3	1.239	0.072	1344.5	1.351	0.017
116.7	1.467	0.150	230.5	1.371	0.026	344.3	1.376	0.013	578.7	1.472	0.033	907.6	1.364	0.021	1021.4	1.803	0.672	1135.2	1.230	0.067	1350.3	1.353	0.018
118.6	1.464	0.155	232.4	1.370	0.025	346.3	1.376	0.010	584.5	1.475	0.037	909.5	1.365	0.020	1023.3	1.692	0.763	1137.1	1.220	0.061	1356.1	1.354	0.020
120.6	1.457	0.154	234.4	1.373	0.022	348.2	1.377	0.009	590.3	1.477	0.042	911.4	1.367	0.020	1025.2	1.577	0.829	1139.0	1.216	0.052	1361.8	1.354	0.020
122.5	1.456	0.160	236.3	1.373	0.023	350.1	1.378	0.006	596.1	1.479	0.048	913.4	1.370	0.018	1027.2	1.541	0.842	1141.0	1.216	0.042	1367.6	1.359	0.020
124.4	1.443	0.160	238.2	1.373	0.020	352.0	1.379	0.005	601.8	1.481	0.052	915.3	1.371	0.018	1029.1	1.401	0.875	1142.9	1.216	0.029	1373.4	1.363	0.022
126.4	1.439	0.147	240.2	1.374	0.020	354.0	1.380	0.003	607.6	1.482	0.058	917.2	1.374	0.016	1031.0	1.278	0.887	1144.8	1.219	0.019	1379.2	1.369	0.027
128.3	1.437	0.155	242.1	1.374	0.018	355.9	1.382	0.002	613.4	1.484	0.065	919.2	1.376	0.015	1033.0	1.246	0.845	1146.8	1.227	0.011	1385.0	1.373	0.032
130.2	1.431	0.148	244.0	1.375	0.019	357.8	1.383	0.002	619.2	1.485	0.071	921.1	1.378	0.015	1034.9	1.155	0.819	1148.7	1.234	0.006	1390.8	1.379	0.039
132.1	1.424	0.157	245.9	1.374	0.019	359.8	1.384	0.001	625.0	1.486	0.079	923.0	1.380	0.013	1036.8	1.033	0.796	1150.6	1.240	0.004	1396.6	1.380	0.050
134.1	1.417	0.149	247.9	1.375	0.017	361.7	1.386	0.002	630.8	1.487	0.086	924.9	1.383	0.013	1038.7	0.934	0.755	1152.6	1.247	0.003	1402.3	1.374	0.059
136.0	1.413	0.153	249.8	1.379	0.019	363.6	1.387	0.001	636.6	1.485	0.095	926.9	1.385	0.012	1040.7	0.912	0.672	1154.5	1.251	0.004	1408.1	1.368	0.068
137.9	1.404	0.155	251.7	1.378	0.019	365.5	1.388	0.002	642.3	1.483	0.104	928.8	1.387	0.012	1042.6	0.818	0.613	1156.4	1.254	0.004	1413.9	1.361	0.073
139.9	1.402	0.150	253.7	1.380	0.020	367.5	1.389	0.002	648.1	1.480	0.113	930.7	1.390	0.010	1044.5	0.745	0.536	1158.3	1.256	0.005	1419.7	1.359	0.075
141.8	1.396	0.156	255.6	1.380	0.021	369.4	1.390	0.002	653.9	1.476	0.121	932.7	1.393	0.010	1046.5	0.737	0.419	1160.3	1.259	0.005	1425.5	1.355	0.077
143.7	1.389	0.153	257.5	1.381	0.021	371.3	1.391	0.002	659.7	1.469	0.130	934.6	1.396	0.010	1048.4	0.709	0.303	1162.2	1.260	0.005	1431.3	1.354	0.079
145.6	1.384	0.154	259.4	1.380	0.020	373.3	1.392	0.001	665.5	1.463	0.138	936.5	1.398	0.009	1050.3	0.723	0.186	1164.1	1.262	0.003	1437.1	1.359	0.086
147.6	1.374	0.151	261.4	1.382	0.018	375.2	1.393	0.001	671.3	1.454	0.144	938.4	1.401	0.009	1052.2	0.780	0.095	1166.1	1.264	0.002	1442.9	1.351	0.100
149.5	1.371	0.144	263.3	1.382	0.018	377.1	1.393	0.000	677.1	1.445	0.151	940.4	1.404	0.007	1054.2	0.852	0.038	1168.0	1.266	0.001	1448.6	1.329	0.103
151.4	1.361	0.143	265.2	1.384	0.016	379.0	1.394	0.001	682.9	1.435	0.155	942.3	1.407	0.007	1056.1	0.913	0.008	1169.9	1.269	0.000	1454.4	1.321	0.105
153.4	1.361	0.128	267.2	1.385	0.017	381.0	1.395	0.000	688.6	1.425	0.156	944.2	1.410	0.006	1058.0	0.964	0.000	1171.8	1.271	0.000	1460.2	1.308	0.109
155.3	1.357	0.133	269.1	1.385	0.016	382.9	1.396	0.000	694.4	1.415	0.158	946.2	1.414	0.006	1060.0	1.005	0.000	1173.8	1.273	0.000	1466.0	1.298	0.104
157.2	1.352	0.120	271.0	1.386	0.017	384.8	1.396	0.000	700.2	1.404	0.156	948.1	1.417	0.006	1061.9	1.036	0.000	1175.7	1.276	0.000	1471.8	1.291	0.098
159.1	1.350	0.119	273.0	1.386	0.018	386.8	1.397	0.000	706.0	1.398	0.155	950.0	1.420	0.006	1063.8	1.062	0.000	1177.6	1.278	0.000	1477.6	1.282	0.098
161.1	1.345	0.113	274.9	1.386	0.017	388.7	1.397	0.001	711.8	1.388	0.153	951.9	1.424	0.004	1065.7	1.082	0.000	1179.6	1.279	0.000	1483.4	1.268	0.084
163.0	1.342	0.108	276.8	1.386	0.020	390.6	1.398	0.000	717.6	1.380	0.150	953.9	1.428	0.004	1067.7	1.100	0.000	1181.5	1.281	0.000	1489.2	1.264	0.068

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TABLE 4A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.261	0.058	1836.4	1.330	0.000	2059.2	1.340	0.003	2319.6	1.354	0.001	2661.0	1.377	0.001	3002.4	1.330	0.045	3343.8	1.192	0.138	3685.3	1.278	0.000
1500.7	1.261	0.049	1842.2	1.331	0.000	2061.1	1.340	0.003	2325.4	1.355	0.001	2666.8	1.379	0.000	3008.2	1.341	0.036	3349.6	1.192	0.132	3691.1	1.279	0.000
1506.5	1.264	0.040	1847.9	1.331	0.000	2063.0	1.340	0.002	2331.1	1.355	0.001	2672.6	1.381	0.000	3014.0	1.352	0.033	3355.4	1.191	0.126	3696.8	1.280	0.000
1512.3	1.267	0.033	1853.7	1.332	0.000	2064.9	1.340	0.002	2336.9	1.355	0.001	2678.4	1.382	0.000	3019.8	1.362	0.032	3361.2	1.196	0.121	3702.6	1.280	0.000
1518.1	1.271	0.026	1859.5	1.332	0.000	2066.9	1.340	0.002	2342.7	1.355	0.000	2684.1	1.385	0.000	3025.6	1.369	0.033	3367.0	1.195	0.116	3708.4	1.281	0.000
1523.9	1.277	0.022	1865.3	1.332	0.000	2068.8	1.340	0.002	2348.5	1.356	0.000	2689.9	1.386	0.000	3031.4	1.375	0.035	3372.8	1.198	0.112	3714.2	1.282	0.000
1529.7	1.281	0.019	1871.1	1.333	0.000	2070.7	1.340	0.002	2354.3	1.357	0.000	2695.7	1.389	0.000	3037.1	1.378	0.037	3378.6	1.195	0.107	3720.0	1.282	0.000
1535.4	1.283	0.016	1876.9	1.333	0.000	2072.7	1.341	0.002	2360.1	1.357	0.001	2701.5	1.391	0.001	3042.9	1.383	0.039	3384.4	1.193	0.102	3725.8	1.283	0.000
1541.2	1.287	0.015	1882.7	1.334	0.000	2074.6	1.341	0.002	2365.9	1.358	0.001	2707.3	1.393	0.001	3048.7	1.388	0.042	3390.1	1.184	0.095	3731.6	1.283	0.000
1547.0	1.289	0.014	1888.4	1.334	0.000	2076.5	1.341	0.002	2371.6	1.358	0.001	2713.1	1.395	0.001	3054.5	1.392	0.045	3395.9	1.182	0.089	3737.4	1.284	0.000
1552.8	1.292	0.013	1894.2	1.334	0.000	2078.4	1.341	0.000	2377.4	1.358	0.001	2718.9	1.398	0.002	3060.3	1.396	0.047	3401.7	1.185	0.082	3743.1	1.284	0.000
1558.6	1.294	0.013	1900.0	1.334	0.000	2080.4	1.341	0.000	2383.2	1.359	0.000	2724.6	1.400	0.002	3066.1	1.401	0.051	3407.5	1.185	0.075	3748.9	1.285	0.000
1564.4	1.296	0.012	1905.8	1.335	0.000	2082.3	1.342	0.001	2389.0	1.360	0.001	2730.4	1.403	0.003	3071.9	1.404	0.054	3413.3	1.188	0.069	3754.7	1.286	0.000
1570.2	1.298	0.012	1911.6	1.336	0.000	2084.2	1.342	0.001	2394.8	1.360	0.001	2736.2	1.406	0.004	3077.6	1.403	0.057	3419.1	1.190	0.062	3760.5	1.286	0.000
1576.0	1.299	0.011	1917.4	1.336	0.000	2086.2	1.342	0.001	2400.6	1.361	0.001	2742.0	1.410	0.005	3083.4	1.406	0.060	3424.9	1.192	0.056	3766.3	1.287	0.000
1581.7	1.300	0.010	1923.2	1.336	0.000	2088.1	1.342	0.001	2406.4	1.362	0.001	2747.8	1.413	0.006	3089.2	1.408	0.064	3430.6	1.190	0.050	3772.1	1.287	0.000
1587.5	1.300	0.010	1929.0	1.336	0.000	2090.0	1.342	0.001	2412.2	1.362	0.002	2753.6	1.417	0.008	3095.0	1.413	0.068	3436.4	1.193	0.045	3777.9	1.287	0.000
1593.3	1.302	0.009	1934.7	1.337	0.000	2092.0	1.342	0.001	2417.9	1.363	0.002	2759.4	1.421	0.011	3100.8	1.416	0.072	3442.2	1.196	0.041	3783.6	1.288	0.000
1599.1	1.303	0.008	1940.5	1.337	0.000	2093.9	1.342	0.000	2423.7	1.363	0.002	2765.2	1.426	0.014	3106.6	1.422	0.076	3448.0	1.201	0.038	3789.4	1.288	0.000
1604.9	1.304	0.008	1946.3	1.337	0.000	2095.8	1.342	0.000	2429.5	1.363	0.003	2770.9	1.429	0.018	3112.4	1.425	0.081	3453.8	1.203	0.035	3795.2	1.289	0.000
1610.7	1.306	0.007	1952.1	1.338	0.000	2097.7	1.343	0.001	2435.3	1.364	0.003	2776.7	1.433	0.023	3118.2	1.427	0.086	3459.6	1.206	0.032	3801.0	1.289	0.000
1616.5	1.307	0.007	1957.9	1.338	0.000	2099.7	1.343	0.000	2441.1	1.364	0.003	2782.5	1.436	0.028	3123.9	1.422	0.092	3465.4	1.208	0.028	3806.8	1.290	0.000
1622.3	1.308	0.006	1963.7	1.338	0.000	2105.5	1.344	0.000	2446.9	1.365	0.003	2788.3	1.441	0.035	3129.7	1.423	0.098	3471.2	1.210	0.024	3812.6	1.290	0.000
1628.0	1.308	0.006	1969.5	1.339	0.000	2111.2	1.344	0.001	2452.7	1.365	0.003	2794.1	1.443	0.042	3135.5	1.424	0.105	3476.9	1.211	0.021	3818.4	1.291	0.000
1633.8	1.309	0.005	1975.3	1.339	0.000	2117.0	1.344	0.001	2458.5	1.366	0.003	2799.9	1.447	0.050	3141.3	1.430	0.112	3482.7	1.214	0.017	3824.2	1.291	0.000
1639.6	1.310	0.005	1981.0	1.339	0.000	2122.8	1.345	0.001	2464.2	1.366	0.003	2805.7	1.451	0.060	3147.1	1.430	0.119	3488.5	1.217	0.014	3829.9	1.291	0.000
1645.4	1.310	0.004	1986.8	1.340	0.000	2128.6	1.345	0.001	2470.0	1.367	0.003	2811.5	1.453	0.074	3152.9	1.435	0.127	3494.3	1.221	0.012	3835.7	1.292	0.000
1651.2	1.312	0.004	1992.6	1.340	0.001	2134.4	1.345	0.001	2475.8	1.369	0.003	2817.2	1.443	0.093	3158.7	1.435	0.136	3500.1	1.224	0.009	3841.5	1.292	0.000
1657.0	1.313	0.005	1998.4	1.341	0.001	2140.2	1.346	0.001	2481.6	1.370	0.004	2823.0	1.429	0.118	3164.5	1.433	0.145	3505.9	1.228	0.007	3847.3	1.293	0.000
1662.8	1.314	0.004	2001.3	1.341	0.001	2146.0	1.346	0.001	2487.4	1.371	0.004	2828.8	1.397	0.131	3170.2	1.418	0.154	3511.7	1.231	0.006	3853.1	1.293	0.000
1668.5	1.314	0.004	2003.2	1.342	0.001	2151.8	1.346	0.001	2493.2	1.373	0.006	2834.6	1.364	0.111	3176.0	1.414	0.163	3517.4	1.234	0.005	3858.9	1.293	0.001
1674.3	1.315	0.004	2005.1	1.341	0.002	2157.5	1.346	0.001	2499.0	1.374	0.008	2840.4	1.355	0.080	3181.8	1.415	0.171	3523.2	1.237	0.003	3864.7	1.293	0.000
1680.1	1.316	0.003	2007.1	1.342	0.002	2163.3	1.347	0.000	2504.7	1.373	0.010	2846.2	1.366	0.060	3187.6	1.410	0.179	3529.0	1.240	0.003	3870.4	1.293	0.000
1685.9	1.317	0.003	2009.0	1.342	0.002	2169.1	1.347	0.001	2510.5	1.372	0.012	2852.0	1.378	0.053	3193.4	1.403	0.187	3534.8	1.242	0.002	3876.2	1.294	0.000
1691.7	1.317	0.003	2010.9	1.342	0.002	2174.9	1.348	0.001	2516.3	1.371	0.013	2857.7	1.383	0.051	3199.2	1.403	0.193	3540.6	1.245	0.002	3882.0	1.294	0.000
1697.5	1.318	0.003	2012.9	1.342	0.002	2180.7	1.348	0.001	2522.1	1.370	0.014	2863.5	1.389	0.053	3205.0	1.395	0.200	3546.4	1.247	0.001	3887.8	1.295	0.000
1703.3	1.319	0.002	2014.8	1.342	0.002	2186.5	1.348	0.001	2527.9	1.369	0.014	2869.3	1.394	0.056	3210.7	1.371	0.205	3552.2	1.249	0.000	3893.6	1.295	0.000
1709.1	1.319	0.002	2016.7	1.342	0.002	2192.3	1.349	0.001	2533.7	1.368	0.014	2875.1	1.399	0.058	3216.5	1.362	0.210	3558.0	1.252	0.001	3899.4	1.295	0.000
1714.8	1.320	0.002	2018.7	1.342	0.002	2198.0	1.349	0.001	2539.5	1.367	0.013	2880.9	1.403	0.061	3222.3	1.352	0.214	3563.7	1.253	0.000	3905.2	1.296	0.000
1720.6	1.321	0.002	2020.6	1.343	0.003	2203.8	1.350	0.002	2545.3	1.367	0.012	2886.7	1.409	0.066	3228.1	1.351	0.217	3569.5	1.255	0.000	3911.0	1.296	0.000
1726.4	1.321	0.002	2022.5	1.343	0.003	2209.6	1.350	0.002	2551.0	1.366	0.011	2892.5	1.410	0.073	3233.9	1.341	0.219	3575.3	1.257	0.000	3916.7	1.296	0.000
1732.2	1.322	0.001	2024.4	1.343	0.004	2215.4	1.351	0.002	2556.8	1.366	0.011	2898.3	1.410	0.079	3239.7	1.341	0.220	3581.1	1.259	0.000	3922.5	1.297	0.000
1738.0	1.322	0.001	2026.4	1.343	0.004	2221.2	1.351	0.003	2562.6	1.367	0.010	2904.0	1.402	0.086	3245.5	1.331	0.222	3586.9	1.260	0.000	3928.3	1.297	0.000
1743.8	1.323	0.001	2028.3	1.342	0.004	2227.0	1.350	0.004	2568.4	1.368	0.010	2909.8	1.397	0.092	3251.3	1.321	0.222	3592.7	1.261	0.000	3934.1	1.297	0.000
1749.6	1.324	0.001	2030.2	1.342	0.004	2232.8	1.350	0.004	2574.2	1.368	0.010	2915.6	1.392	0.096	3257.0	1.294	0.222	3598.5	1.263	0.000	3939.9	1.297	0.000
1755.3	1.324	0.001	2032.2	1.342	0.004	2238.6	1.350	0.004	2580.0	1.370	0.010	2921.4	1.391	0.099	3262.8	1.284	0.221	3604.3	1.264	0.000	3945.7	1.298	0.000
1761.1	1.325	0.001	2034.1	1.342	0.004	2244.3	1.350	0.004	2585.8	1.370	0.010	2927.2	1.385	0.102	3268.6	1.282	0.219	3610.0	1.266	0.000	3951.5	1.298	0.000
1766.9	1.325	0.001	2036.0	1.341	0.004	2250.1	1.349	0.003	2591.6	1.370	0.011	2933.0	1.383	0.104	3274.4	1.273	0.218	3615.8	1.267	0.000	3957.3	1.298	0.000
1772.7	1.326	0.001	2037.9	1.341	0.004	2255.9	1.350	0.003	2597.3	1.369	0.011	2938.8	1.377	0.104	3280.2	1.263	0.214	3621.6	1.268	0.000	3963.0	1.298	0.000
1778.5	1.326	0.001	2039.9	1.341	0.004	2261.7	1.350	0.002	2603.1	1.369	0.010	2944.5	1.364	0.103	3286.0	1.262	0.210	3627.4	1.269	0.000	3968.8	1.298	0.000
1784.3	1.327	0.001	2041.8	1.341	0.005	2267.5	1.350	0.002	2608.9	1.369	0.009	2950.3	1.359	0.104	3291.8	1.252	0.205	3633.2	1.270	0.000	3974.6	1.299	0.000
1790.1	1.327	0.001	2043.7	1.341	0.004	2273.3	1.351	0.002	2614.7	1.369	0.009	2956.1	1.351	0.104	3297.5	1.228	0.199	3639.0	1.271	0.000	3980.4	1.299	0.000
1795.9	1.328	0.001	2045.7	1.341	0.004	2279.1	1.351	0.001	2620.5	1.370	0.008	2961.9	1.347	0.100	3303.3	1.220	0.192	3644.8	1.272	0.000	3986.2	1.299	0.000
1801.6	1.327	0.000	2047.6	1.340	0.004	2284.8	1.351	0.001	2626.3	1.370	0.007	2967.7	1.341	0.092	3309.1	1.213	0.186	3650.5	1.273	0.000	3992.0	1.299	0.000
1807.4	1.328	0.000	2049.5	1.340	0.004	2290.6	1.352	0.001	2632.1	1.370	0.007	2973.5	1.344	0.084	3314.9	1.214	0.178	3656.3	1.274	0.000	3997.8	1.299	0.000
1813.2	1.328	0.000	2051.4	1.340	0.004	2296.4	1.352	0.001	2637.8	1.370	0.005	2979.3	1.343	0.084	3320.7	1.209	0.170	3662.1	1.275	0.000			
1819.0	1.329	0.000	2053.4	1.340	0.004	2302.2	1.353	0.001	2643.6	1.372	0.004	2985.1	1.336	0.081	3326.5	1.211	0.161	3667.9	1.276	0.000			
1824.8	1.330	0.000	2055.3	1.340	0.004	2308.0	1.353	0.001	2649.4	1.373	0.003	2990.8	1.324	0.071	3332.3	1.208	0.153	3673.7	1.277	0.000			
1830.6	1.330	0.000	2057.2	1.340	0.003	2313.8	1.354	0.001	2655.2	1.375	0.002	2996.6	1.324	0.057	3338.1	1.205	0.146	3679.5	1.278	0.000			

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TABLE 4B

CH_3OH AT 50 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.443	0.014	846.3	1.318	0.072	995.8	1.606	0.010	1109.6	1.288	0.033	1274.6	1.333	0.007	1616.0	1.304	0.010	1957.4	1.339	0.000	2298.8	1.355	0.000
510.7	1.433	0.014	852.1	1.318	0.064	997.8	1.626	0.016	1111.6	1.288	0.041	1280.3	1.335	0.007	1621.8	1.305	0.009	1963.2	1.339	0.000	2304.6	1.355	0.000
516.5	1.434	0.011	857.9	1.321	0.058	999.7	1.649	0.022	1113.5	1.286	0.048	1286.1	1.337	0.008	1627.6	1.306	0.008	1969.0	1.339	0.000	2310.4	1.356	0.000
522.3	1.434	0.008	863.7	1.323	0.053	1001.6	1.673	0.034	1115.4	1.284	0.054	1291.9	1.339	0.009	1633.3	1.307	0.007	1974.8	1.340	0.000	2316.2	1.356	0.001
528.1	1.432	0.003	869.5	1.326	0.047	1003.5	1.698	0.047	1117.3	1.282	0.058	1297.7	1.341	0.010	1639.1	1.308	0.007	1980.6	1.341	0.001	2322.0	1.357	0.001
533.8	1.437	0.003	875.3	1.329	0.042	1005.5	1.723	0.061	1119.3	1.279	0.060	1303.5	1.343	0.011	1644.9	1.309	0.006	1986.3	1.341	0.000	2327.8	1.357	0.001
539.6	1.440	0.006	881.1	1.333	0.036	1007.4	1.753	0.076	1121.2	1.277	0.064	1309.3	1.345	0.012	1650.7	1.310	0.006	1992.1	1.342	0.001	2333.6	1.357	0.000
545.4	1.444	0.003	886.8	1.339	0.029	1009.3	1.789	0.091	1123.1	1.274	0.067	1315.1	1.347	0.013	1656.5	1.311	0.005	1997.9	1.342	0.001	2339.3	1.358	0.001
551.2	1.448	0.003	892.6	1.344	0.026	1011.3	1.840	0.111	1125.1	1.271	0.071	1320.9	1.349	0.014	1662.3	1.312	0.005	2003.7	1.343	0.001	2345.1	1.358	0.001
557.0	1.451	0.003	898.4	1.350	0.021	1013.2	1.906	0.151	1127.0	1.266	0.074	1326.6	1.352	0.016	1668.1	1.313	0.004	2009.5	1.343	0.001	2350.9	1.359	0.000
562.8	1.455	0.003	901.3	1.353	0.019	1015.1	1.980	0.233	1128.9	1.261	0.078	1332.4	1.354	0.018	1673.9	1.314	0.004	2015.3	1.344	0.002	2356.7	1.360	0.001
568.6	1.458	0.003	903.2	1.355	0.019	1017.0	2.031	0.366	1130.8	1.254	0.079	1338.2	1.356	0.021	1679.6	1.315	0.004	2021.1	1.345	0.002	2362.5	1.360	0.001
574.4	1.461	0.008	905.2	1.358	0.018	1019.0	2.034	0.533	1132.8	1.246	0.081	1344.0	1.356	0.022	1685.4	1.316	0.003	2026.8	1.345	0.005	2368.3	1.360	0.001
580.1	1.465	0.005	907.1	1.360	0.016	1020.9	1.979	0.696	1134.7	1.235	0.079	1349.8	1.357	0.026	1691.2	1.316	0.004	2032.6	1.344	0.006	2374.1	1.361	0.001
585.9	1.469	0.010	909.0	1.362	0.015	1022.8	1.878	0.830	1136.6	1.225	0.073	1355.6	1.356	0.027	1697.0	1.317	0.003	2038.4	1.343	0.006	2379.8	1.361	0.000
591.7	1.473	0.009	911.0	1.364	0.015	1024.8	1.753	0.925	1138.6	1.217	0.062	1361.4	1.357	0.025	1702.8	1.318	0.003	2044.2	1.342	0.006	2385.6	1.362	0.001
597.5	1.477	0.011	912.9	1.366	0.015	1026.7	1.617	0.979	1140.5	1.211	0.049	1367.1	1.361	0.025	1708.6	1.319	0.003	2050.0	1.341	0.005	2391.4	1.363	0.001
603.3	1.482	0.013	914.8	1.369	0.012	1028.6	1.483	1.000	1142.4	1.211	0.033	1372.9	1.366	0.028	1714.4	1.319	0.003	2055.8	1.341	0.004	2397.2	1.363	0.001
609.1	1.488	0.015	916.7	1.371	0.012	1030.5	1.356	0.995	1144.4	1.216	0.020	1378.7	1.369	0.032	1720.1	1.320	0.003	2061.6	1.341	0.003	2403.0	1.364	0.001
614.9	1.494	0.021	918.7	1.374	0.012	1032.5	1.240	0.971	1146.3	1.224	0.011	1384.5	1.373	0.035	1725.9	1.321	0.003	2067.4	1.341	0.002	2408.8	1.365	0.001
620.6	1.500	0.025	920.6	1.377	0.010	1034.4	1.134	0.934	1148.2	1.232	0.006	1390.3	1.377	0.042	1731.7	1.321	0.002	2073.1	1.342	0.002	2414.6	1.365	0.002
626.4	1.507	0.029	922.5	1.379	0.010	1036.3	1.040	0.884	1150.1	1.241	0.002	1396.1	1.378	0.051	1737.5	1.322	0.002	2078.9	1.343	0.001	2420.4	1.366	0.002
632.2	1.513	0.037	924.5	1.381	0.008	1038.3	0.953	0.829	1152.1	1.247	0.003	1401.9	1.376	0.059	1743.3	1.323	0.002	2084.7	1.343	0.001	2426.1	1.366	0.002
638.0	1.518	0.046	926.4	1.384	0.008	1040.2	0.877	0.761	1154.0	1.252	0.004	1407.7	1.372	0.066	1749.1	1.323	0.002	2090.5	1.344	0.001	2431.9	1.367	0.003
643.8	1.524	0.056	928.3	1.387	0.008	1042.1	0.806	0.691	1155.9	1.255	0.004	1413.4	1.368	0.069	1754.9	1.324	0.002	2096.3	1.344	0.001	2437.7	1.367	0.003
649.6	1.528	0.068	930.2	1.389	0.007	1044.0	0.740	0.607	1157.9	1.258	0.004	1419.2	1.366	0.070	1760.7	1.324	0.002	2102.1	1.345	0.000	2443.5	1.368	0.003
655.4	1.531	0.081	932.2	1.392	0.007	1046.0	0.681	0.507	1159.8	1.260	0.005	1425.0	1.365	0.073	1766.4	1.325	0.002	2107.9	1.345	0.000	2449.3	1.368	0.003
661.2	1.533	0.094	934.1	1.395	0.007	1047.9	0.643	0.372	1161.7	1.262	0.003	1430.8	1.367	0.078	1772.2	1.326	0.001	2113.7	1.346	0.001	2455.1	1.369	0.003
666.9	1.531	0.112	936.0	1.398	0.006	1049.8	0.654	0.214	1163.6	1.264	0.003	1436.6	1.371	0.092	1778.0	1.326	0.002	2119.4	1.346	0.001	2460.9	1.369	0.003
672.7	1.526	0.126	938.0	1.401	0.006	1051.8	0.727	0.085	1165.6	1.266	0.000	1442.4	1.358	0.112	1783.8	1.327	0.002	2125.2	1.346	0.001	2466.7	1.370	0.003
678.5	1.520	0.142	939.9	1.404	0.006	1053.7	0.817	0.025	1167.5	1.268	0.001	1448.2	1.341	0.112	1789.6	1.327	0.001	2131.0	1.347	0.001	2472.4	1.371	0.003
684.3	1.509	0.155	941.8	1.407	0.006	1055.6	0.891	0.005	1169.4	1.271	0.000	1453.9	1.332	0.115	1795.4	1.328	0.001	2136.8	1.347	0.001	2478.2	1.372	0.003
690.1	1.498	0.170	943.7	1.410	0.004	1057.5	0.945	0.000	1171.4	1.273	0.000	1459.7	1.316	0.120	1801.2	1.328	0.001	2142.6	1.347	0.001	2484.0	1.374	0.004
695.9	1.484	0.176	945.7	1.413	0.004	1059.5	0.987	0.000	1173.3	1.276	0.000	1465.5	1.299	0.114	1806.9	1.329	0.001	2148.4	1.348	0.001	2489.8	1.375	0.005
701.7	1.470	0.185	947.6	1.417	0.004	1061.4	1.019	0.000	1175.2	1.278	0.000	1471.3	1.291	0.103	1812.7	1.329	0.002	2154.2	1.348	0.001	2495.6	1.377	0.006
707.4	1.456	0.190	949.5	1.420	0.003	1063.3	1.046	0.000	1177.1	1.280	0.000	1477.1	1.281	0.102	1818.5	1.329	0.002	2159.9	1.348	0.001	2501.4	1.377	0.009
713.2	1.442	0.192	951.5	1.424	0.004	1065.3	1.069	0.000	1179.1	1.282	0.000	1482.9	1.270	0.088	1824.3	1.330	0.002	2165.7	1.349	0.001	2507.2	1.378	0.011
719.0	1.428	0.194	953.4	1.428	0.003	1067.2	1.088	0.000	1181.0	1.284	0.000	1488.7	1.269	0.073	1830.1	1.330	0.002	2171.5	1.349	0.001	2512.9	1.377	0.013
724.8	1.416	0.192	955.3	1.432	0.003	1069.1	1.105	0.000	1182.9	1.286	0.000	1494.5	1.270	0.067	1835.9	1.331	0.002	2177.3	1.350	0.001	2518.7	1.376	0.015
730.6	1.403	0.190	957.2	1.436	0.003	1071.1	1.120	0.000	1184.9	1.287	0.000	1500.2	1.269	0.062	1841.7	1.330	0.002	2183.1	1.350	0.001	2524.5	1.374	0.015
736.4	1.392	0.188	959.2	1.440	0.002	1073.0	1.134	0.000	1186.8	1.289	0.000	1506.0	1.266	0.054	1847.5	1.331	0.000	2188.9	1.350	0.001	2530.3	1.372	0.015
742.2	1.381	0.183	961.1	1.444	0.002	1074.9	1.146	0.000	1188.7	1.290	0.000	1511.8	1.266	0.046	1853.2	1.332	0.000	2194.7	1.351	0.001	2536.1	1.371	0.015
748.0	1.370	0.178	963.0	1.448	0.002	1076.8	1.157	0.000	1190.6	1.291	0.000	1517.6	1.268	0.037	1859.0	1.332	0.000	2200.5	1.351	0.001	2541.9	1.370	0.014
753.7	1.362	0.174	965.0	1.454	0.002	1078.8	1.169	0.000	1192.6	1.293	0.000	1523.4	1.273	0.031	1864.8	1.333	0.000	2206.2	1.352	0.001	2547.7	1.370	0.013
759.5	1.354	0.167	966.9	1.458	0.002	1080.7	1.178	0.000	1194.5	1.294	0.000	1529.2	1.277	0.027	1870.6	1.333	0.000	2212.0	1.353	0.002	2553.5	1.370	0.012
765.3	1.347	0.160	968.8	1.464	0.002	1082.6	1.187	0.000	1196.4	1.295	0.000	1535.0	1.280	0.024	1876.4	1.334	0.000	2217.8	1.353	0.002	2559.2	1.370	0.012
771.1	1.341	0.155	970.8	1.470	0.002	1084.6	1.196	0.000	1198.4	1.297	0.000	1540.8	1.284	0.022	1882.2	1.334	0.000	2223.6	1.353	0.004	2565.0	1.371	0.011
776.9	1.337	0.148	972.7	1.476	0.002	1086.5	1.204	0.000	1205.1	1.301	0.000	1546.5	1.286	0.020	1888.0	1.334	0.000	2229.4	1.353	0.004	2570.8	1.371	0.010
782.7	1.332	0.141	974.6	1.482	0.002	1088.4	1.212	0.000	1210.9	1.305	0.000	1552.3	1.289	0.019	1893.8	1.335	0.000	2235.2	1.352	0.004	2576.6	1.372	0.010
788.5	1.328	0.134	976.5	1.489	0.002	1090.3	1.219	0.000	1216.7	1.308	0.000	1558.1	1.290	0.018	1899.5	1.335	0.000	2241.0	1.352	0.004	2582.4	1.373	0.010
794.3	1.325	0.127	978.5	1.496	0.001	1092.3	1.226	0.000	1222.5	1.311	0.000	1563.9	1.292	0.017	1905.3	1.336	0.000	2246.8	1.352	0.004	2588.2	1.373	0.011
800.0	1.322	0.121	980.4	1.505	0.001	1094.2	1.234	0.000	1228.3	1.314	0.000	1569.7	1.294	0.016	1911.1	1.336	0.000	2252.5	1.352	0.004	2594.0	1.373	0.011
805.8	1.320	0.112	982.3	1.513	0.002	1096.1	1.241	0.000	1234.0	1.316	0.000	1575.5	1.295	0.015	1916.9	1.336	0.000	2258.3	1.352	0.003	2599.8	1.373	0.011
811.6	1.319	0.107	984.3	1.522	0.002	1098.1	1.249	0.000	1239.8	1.320	0.002	1581.3	1.297	0.013	1922.7	1.337	0.000	2264.1	1.352	0.002	2605.5	1.373	0.011
817.4	1.318	0.101	986.2	1.532	0.003	1100.0	1.256	0.000	1245.6	1.322	0.003	1587.0	1.298	0.013	1928.5	1.337	0.000	2269.9	1.352	0.002	2611.3	1.373	0.010
823.2	1.317	0.095	988.1	1.544	0.004	1101.9	1.265	0.003	1251.4	1.325	0.003	1592.8	1.300	0.012	1934.3	1.337	0.000	2275.7	1.352	0.002	2617.1	1.372	0.010
829.0	1.316	0.088	990.0	1.557	0.004	1103.8	1.273	0.007	1257.2	1.326	0.004	1598.6	1.301	0.011	1940.0	1.338	0.000	2281.5	1.353	0.001	2622.9	1.372	0.009
834.8	1.317	0.082	992.0	1.571	0.005	1105.8	1.281	0.014	1263.0	1.329	0.004	1604.4	1.302	0.010	1945.8	1.338	0.000	2287.3	1.354	0.001	2628.7	1.373	0.008
840.5	1.317	0.078	993.9	1.587	0.007	1107.7	1.287	0.024	1268.8	1.331	0.006	1610.2	1.303	0.009	1951.6	1.338	0.000	2293.0	1.354	0.001	2634.5	1.373	0.006

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TABLE 4B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2640.3	1.374	0.005	2981.7	1.351	0.087	3323.1	1.127	0.145	3664.5	1.275	0.000
2646.0	1.376	0.004	2987.5	1.339	0.084	3328.9	1.128	0.130	3670.3	1.276	0.000
2651.8	1.377	0.002	2993.3	1.331	0.069	3334.7	1.131	0.116	3676.1	1.277	0.000
2657.6	1.379	0.002	2999.0	1.335	0.051	3340.5	1.135	0.104	3681.9	1.277	0.000
2663.4	1.381	0.001	3004.8	1.346	0.039	3346.3	1.140	0.093	3687.7	1.278	0.000
2669.2	1.383	0.000	3010.6	1.357	0.034	3352.0	1.145	0.084	3693.5	1.279	0.000
2675.0	1.385	0.000	3016.4	1.367	0.033	3357.8	1.150	0.077	3699.3	1.280	0.000
2680.8	1.388	0.000	3022.2	1.376	0.033	3363.6	1.155	0.070	3705.0	1.280	0.000
2686.6	1.389	0.000	3028.0	1.383	0.034	3369.4	1.160	0.066	3710.8	1.281	0.000
2692.3	1.392	0.000	3033.8	1.390	0.035	3375.2	1.163	0.059	3716.6	1.281	0.000
2698.1	1.394	0.000	3039.6	1.396	0.036	3381.0	1.166	0.056	3722.4	1.282	0.000
2703.9	1.396	0.000	3045.3	1.402	0.039	3386.8	1.170	0.051	3728.2	1.282	0.000
2709.7	1.399	0.001	3051.1	1.408	0.041	3392.6	1.173	0.046	3734.0	1.283	0.000
2715.5	1.401	0.001	3056.9	1.413	0.044	3398.3	1.176	0.041	3739.8	1.283	0.000
2721.3	1.404	0.002	3062.7	1.419	0.046	3404.1	1.179	0.036	3745.5	1.284	0.000
2727.1	1.406	0.003	3068.5	1.424	0.049	3409.9	1.183	0.032	3751.3	1.284	0.000
2732.8	1.410	0.003	3074.3	1.430	0.053	3415.7	1.188	0.028	3757.1	1.285	0.000
2738.6	1.413	0.004	3080.1	1.436	0.057	3421.5	1.192	0.024	3762.9	1.285	0.000
2744.4	1.416	0.005	3085.8	1.441	0.062	3427.3	1.196	0.021	3768.7	1.286	0.000
2750.2	1.420	0.007	3091.6	1.447	0.067	3433.1	1.200	0.019	3774.5	1.286	0.000
2756.0	1.424	0.009	3097.4	1.453	0.073	3438.8	1.204	0.016	3780.3	1.286	0.000
2761.8	1.429	0.011	3103.2	1.459	0.081	3444.6	1.207	0.015	3786.1	1.287	0.000
2767.6	1.433	0.015	3109.0	1.464	0.088	3450.4	1.210	0.013	3791.8	1.287	0.000
2773.4	1.438	0.019	3114.8	1.470	0.098	3456.2	1.213	0.011	3797.6	1.288	0.000
2779.1	1.442	0.025	3120.6	1.474	0.108	3462.0	1.217	0.010	3803.4	1.288	0.000
2784.9	1.446	0.031	3126.4	1.478	0.120	3467.8	1.220	0.009	3809.2	1.289	0.000
2790.7	1.448	0.038	3132.1	1.481	0.133	3473.6	1.222	0.007	3815.0	1.289	0.000
2796.5	1.450	0.046	3137.9	1.482	0.147	3479.4	1.225	0.006	3820.8	1.289	0.000
2802.3	1.452	0.054	3143.7	1.482	0.162	3485.1	1.228	0.005	3826.6	1.290	0.000
2808.1	1.455	0.063	3149.5	1.480	0.176	3490.9	1.231	0.004	3832.4	1.290	0.000
2813.9	1.457	0.076	3155.3	1.476	0.192	3496.7	1.234	0.003	3838.1	1.291	0.000
2819.6	1.457	0.098	3161.1	1.470	0.208	3502.5	1.236	0.003	3843.9	1.291	0.000
2825.4	1.436	0.130	3166.9	1.463	0.223	3508.3	1.238	0.002	3849.7	1.291	0.001
2831.2	1.390	0.134	3172.6	1.452	0.238	3514.1	1.241	0.002	3855.5	1.292	0.001
2837.0	1.361	0.101	3178.4	1.440	0.251	3519.9	1.243	0.002	3861.3	1.292	0.001
2842.8	1.364	0.069	3184.2	1.426	0.262	3525.6	1.245	0.001	3867.1	1.292	0.000
2848.6	1.378	0.055	3190.0	1.411	0.271	3531.4	1.247	0.000	3872.9	1.292	0.000
2854.4	1.389	0.052	3195.8	1.396	0.279	3537.2	1.249	0.000	3878.6	1.293	0.000
2860.2	1.396	0.053	3201.6	1.381	0.285	3543.0	1.251	0.000	3884.4	1.293	0.000
2865.9	1.402	0.054	3207.4	1.364	0.289	3548.8	1.252	0.000	3890.2	1.293	0.000
2871.7	1.407	0.057	3213.2	1.349	0.292	3554.6	1.254	0.000	3896.0	1.294	0.000
2877.5	1.411	0.061	3218.9	1.333	0.293	3560.4	1.256	0.000	3901.8	1.294	0.000
2883.3	1.415	0.066	3224.7	1.318	0.293	3566.2	1.257	0.000	3907.6	1.295	0.000
2889.1	1.416	0.072	3230.5	1.303	0.292	3571.9	1.258	0.000	3913.4	1.295	0.000
2894.9	1.417	0.078	3236.3	1.289	0.291	3577.7	1.260	0.000	3919.2	1.295	0.000
2900.7	1.415	0.084	3242.1	1.275	0.288	3583.5	1.261	0.000	3924.9	1.295	0.000
2906.5	1.413	0.090	3247.9	1.261	0.285	3589.3	1.263	0.000	3930.7	1.296	0.000
2912.2	1.410	0.094	3253.7	1.247	0.281	3595.1	1.264	0.000	3936.5	1.296	0.000
2918.0	1.407	0.098	3259.5	1.233	0.277	3600.9	1.265	0.000	3942.3	1.296	0.000
2923.8	1.403	0.103	3265.2	1.220	0.271	3606.7	1.266	0.000	3948.1	1.296	0.000
2929.6	1.397	0.108	3271.0	1.206	0.265	3612.5	1.267	0.000	3953.9	1.296	0.000
2935.4	1.390	0.111	3276.8	1.192	0.257	3618.2	1.268	0.000	3959.7	1.297	0.000
2941.2	1.384	0.112	3282.6	1.179	0.247	3624.0	1.269	0.000	3965.4	1.297	0.000
2947.0	1.378	0.113	3288.4	1.166	0.235	3629.8	1.270	0.000	3971.2	1.297	0.000
2952.7	1.369	0.117	3294.2	1.155	0.224	3635.6	1.271	0.000	3977.0	1.297	0.000
2958.5	1.355	0.114	3300.0	1.145	0.209	3641.4	1.272	0.000	3982.8	1.297	0.000
2964.3	1.343	0.101	3305.7	1.137	0.194	3647.2	1.273	0.000	3988.6	1.297	0.000
2970.1	1.345	0.085	3311.5	1.132	0.177	3653.0	1.274	0.000	3994.4	1.297	0.000
2975.9	1.352	0.082	3317.3	1.128	0.162	3658.7	1.274	0.000			

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TABLE 4C

CH_3OH AT 75 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.440	0.025	846.3	1.313	0.065	995.8	1.597	0.008	1109.6	1.290	0.027	1274.6	1.336	0.007	1616.0	1.304	0.010	1957.4	1.339	0.000	2298.8	1.355	0.001
510.7	1.432	0.022	852.1	1.315	0.059	997.8	1.615	0.010	1111.6	1.290	0.037	1280.3	1.338	0.008	1621.8	1.305	0.009	1963.2	1.340	0.001	2304.6	1.356	0.001
516.5	1.428	0.014	857.9	1.318	0.051	999.7	1.636	0.015	1113.5	1.289	0.044	1286.1	1.340	0.009	1627.6	1.306	0.008	1969.0	1.340	0.001	2310.4	1.356	0.000
522.3	1.429	0.014	863.7	1.321	0.046	1001.6	1.659	0.021	1115.4	1.287	0.051	1291.9	1.342	0.010	1633.3	1.307	0.008	1974.8	1.341	0.001	2316.2	1.357	0.001
528.1	1.428	0.006	869.5	1.324	0.039	1003.5	1.684	0.031	1117.3	1.285	0.055	1297.7	1.344	0.011	1639.1	1.308	0.007	1980.6	1.341	0.000	2322.0	1.357	0.000
533.8	1.432	0.008	875.3	1.329	0.033	1005.5	1.710	0.040	1119.3	1.282	0.059	1303.5	1.346	0.012	1644.9	1.309	0.007	1986.3	1.342	0.001	2327.8	1.357	0.000
539.6	1.434	0.006	881.1	1.335	0.028	1007.4	1.741	0.051	1121.2	1.279	0.063	1309.3	1.348	0.013	1650.7	1.310	0.006	1992.1	1.342	0.001	2333.6	1.358	0.000
545.4	1.435	0.006	886.8	1.340	0.023	1009.3	1.778	0.059	1123.1	1.277	0.067	1315.1	1.350	0.015	1656.5	1.311	0.005	1997.9	1.342	0.001	2339.3	1.358	0.000
551.2	1.439	0.003	892.6	1.347	0.020	1011.3	1.830	0.072	1125.1	1.272	0.071	1320.9	1.352	0.016	1662.3	1.312	0.005	2003.7	1.343	0.001	2345.1	1.359	0.000
557.0	1.442	0.003	898.4	1.353	0.016	1013.2	1.902	0.096	1127.0	1.267	0.074	1326.6	1.354	0.018	1668.1	1.313	0.004	2009.5	1.344	0.001	2350.9	1.360	0.000
562.8	1.446	0.003	901.3	1.357	0.015	1015.1	1.995	0.158	1128.9	1.262	0.077	1332.4	1.356	0.019	1673.9	1.314	0.004	2015.3	1.345	0.001	2356.7	1.361	0.000
568.6	1.449	0.003	903.2	1.359	0.013	1017.0	2.080	0.287	1130.8	1.254	0.079	1338.2	1.358	0.023	1679.6	1.314	0.004	2021.1	1.346	0.002	2362.5	1.361	0.000
574.4	1.453	0.003	905.2	1.361	0.013	1019.0	2.115	0.477	1132.8	1.245	0.079	1344.0	1.358	0.025	1685.4	1.316	0.003	2026.8	1.346	0.004	2368.3	1.361	0.001
580.1	1.456	0.000	907.1	1.363	0.012	1020.9	2.075	0.679	1134.7	1.235	0.077	1349.8	1.358	0.028	1691.2	1.317	0.004	2032.6	1.346	0.007	2374.1	1.361	0.001
585.9	1.461	0.003	909.0	1.366	0.010	1022.8	1.970	0.853	1136.6	1.224	0.070	1355.6	1.357	0.030	1697.0	1.317	0.003	2038.4	1.344	0.007	2379.8	1.362	0.001
591.7	1.465	0.003	911.0	1.368	0.010	1024.8	1.826	0.972	1138.6	1.217	0.059	1361.4	1.357	0.027	1702.8	1.318	0.003	2044.2	1.342	0.006	2385.6	1.363	0.001
597.5	1.470	0.005	912.9	1.370	0.010	1026.7	1.669	1.038	1140.5	1.212	0.043	1367.1	1.362	0.027	1708.6	1.319	0.003	2050.0	1.341	0.005	2391.4	1.363	0.001
603.3	1.475	0.005	914.8	1.373	0.009	1028.6	1.515	1.063	1142.4	1.214	0.028	1372.9	1.366	0.030	1714.4	1.319	0.003	2055.8	1.341	0.004	2397.2	1.364	0.001
609.1	1.481	0.007	916.7	1.375	0.009	1030.5	1.370	1.056	1144.4	1.220	0.016	1378.7	1.368	0.034	1720.1	1.320	0.003	2061.6	1.341	0.002	2403.0	1.365	0.001
614.9	1.487	0.009	918.7	1.377	0.007	1032.5	1.241	1.026	1146.3	1.228	0.008	1384.5	1.372	0.036	1725.9	1.321	0.002	2067.4	1.342	0.002	2408.8	1.366	0.002
620.6	1.494	0.015	920.6	1.380	0.007	1034.4	1.125	0.981	1148.2	1.237	0.003	1390.3	1.376	0.043	1731.7	1.322	0.002	2073.1	1.343	0.002	2414.6	1.366	0.002
626.4	1.503	0.017	922.5	1.382	0.006	1036.3	1.024	0.922	1150.1	1.243	0.002	1396.1	1.377	0.050	1737.5	1.322	0.002	2078.9	1.343	0.001	2420.4	1.367	0.002
632.2	1.511	0.022	924.5	1.386	0.006	1038.3	0.935	0.857	1152.1	1.250	0.001	1401.9	1.375	0.058	1743.3	1.323	0.002	2084.7	1.344	0.001	2426.1	1.367	0.002
638.0	1.518	0.030	926.4	1.388	0.006	1040.2	0.857	0.786	1154.0	1.255	0.003	1407.7	1.372	0.065	1749.1	1.324	0.002	2090.5	1.344	0.001	2431.9	1.367	0.003
643.8	1.526	0.040	928.3	1.391	0.006	1042.1	0.784	0.708	1155.9	1.258	0.003	1413.4	1.369	0.067	1754.9	1.324	0.002	2096.3	1.345	0.001	2437.7	1.368	0.003
649.6	1.532	0.049	930.2	1.393	0.006	1044.0	0.718	0.621	1157.9	1.261	0.003	1419.2	1.367	0.069	1760.7	1.325	0.002	2102.1	1.345	0.000	2443.5	1.368	0.003
655.4	1.539	0.064	932.2	1.396	0.004	1046.0	0.657	0.513	1159.8	1.263	0.003	1425.0	1.368	0.073	1766.4	1.325	0.001	2107.9	1.346	0.001	2449.3	1.369	0.003
661.2	1.544	0.079	934.1	1.399	0.004	1047.9	0.614	0.367	1161.7	1.264	0.002	1430.8	1.371	0.078	1772.2	1.326	0.001	2113.7	1.346	0.001	2455.1	1.369	0.003
666.9	1.545	0.099	936.0	1.402	0.004	1049.8	0.637	0.188	1163.6	1.266	0.002	1436.6	1.374	0.092	1778.0	1.327	0.001	2119.4	1.347	0.001	2460.9	1.370	0.003
672.7	1.544	0.116	938.0	1.405	0.004	1051.8	0.729	0.067	1165.6	1.269	0.000	1442.4	1.361	0.115	1783.8	1.327	0.001	2125.2	1.347	0.001	2466.7	1.371	0.003
678.5	1.539	0.136	939.9	1.407	0.004	1053.7	0.824	0.021	1167.5	1.271	0.000	1448.2	1.341	0.116	1789.6	1.327	0.001	2131.0	1.347	0.001	2472.4	1.372	0.003
684.3	1.530	0.153	941.8	1.411	0.004	1055.6	0.894	0.008	1169.4	1.274	0.000	1453.9	1.333	0.116	1795.4	1.328	0.001	2136.8	1.348	0.001	2478.2	1.373	0.004
690.1	1.517	0.172	943.7	1.413	0.003	1057.5	0.946	0.003	1171.4	1.277	0.000	1459.7	1.317	0.122	1801.2	1.329	0.001	2142.6	1.348	0.001	2484.0	1.374	0.004
695.9	1.503	0.183	945.7	1.417	0.003	1059.5	0.986	0.000	1173.3	1.279	0.000	1465.5	1.298	0.115	1806.9	1.329	0.002	2148.4	1.348	0.001	2489.8	1.376	0.005
701.7	1.487	0.192	947.6	1.420	0.003	1061.4	1.018	0.000	1175.2	1.281	0.000	1471.3	1.290	0.103	1812.7	1.329	0.002	2154.2	1.349	0.001	2495.6	1.378	0.006
707.4	1.470	0.199	949.5	1.424	0.003	1063.3	1.044	0.000	1177.1	1.283	0.000	1477.1	1.282	0.100	1818.5	1.330	0.002	2159.9	1.349	0.001	2501.4	1.378	0.009
713.2	1.452	0.204	951.5	1.427	0.003	1065.3	1.067	0.000	1179.1	1.284	0.000	1482.9	1.273	0.087	1824.3	1.330	0.002	2165.7	1.349	0.001	2507.2	1.378	0.011
719.0	1.436	0.206	953.4	1.431	0.003	1067.2	1.087	0.000	1181.0	1.286	0.000	1488.7	1.273	0.076	1830.1	1.331	0.002	2171.5	1.350	0.001	2512.9	1.378	0.013
724.8	1.421	0.204	955.3	1.434	0.003	1069.1	1.103	0.000	1182.9	1.288	0.000	1494.5	1.273	0.070	1835.9	1.331	0.002	2177.3	1.350	0.001	2518.7	1.376	0.015
730.6	1.405	0.203	957.2	1.438	0.003	1071.1	1.118	0.000	1184.9	1.289	0.000	1500.2	1.270	0.065	1841.7	1.331	0.002	2183.1	1.350	0.001	2524.5	1.375	0.015
736.4	1.391	0.201	959.2	1.442	0.002	1073.0	1.132	0.000	1186.8	1.291	0.000	1506.0	1.266	0.057	1847.5	1.331	0.002	2188.9	1.351	0.001	2530.3	1.373	0.016
742.2	1.379	0.196	961.1	1.446	0.002	1074.9	1.144	0.000	1188.7	1.292	0.000	1511.8	1.266	0.048	1853.2	1.332	0.000	2194.7	1.352	0.001	2536.1	1.372	0.015
748.0	1.367	0.190	963.0	1.451	0.002	1076.8	1.155	0.000	1190.6	1.294	0.000	1517.6	1.269	0.039	1859.0	1.333	0.000	2200.5	1.352	0.001	2541.9	1.371	0.014
753.7	1.358	0.180	965.0	1.455	0.002	1078.8	1.166	0.000	1192.6	1.296	0.000	1523.4	1.273	0.033	1864.8	1.333	0.000	2206.2	1.353	0.001	2547.7	1.371	0.013
759.5	1.349	0.174	966.9	1.460	0.002	1080.7	1.176	0.000	1194.5	1.296	0.000	1529.2	1.277	0.029	1870.6	1.334	0.000	2212.0	1.353	0.002	2553.5	1.371	0.013
765.3	1.342	0.167	968.8	1.465	0.002	1082.6	1.185	0.000	1196.4	1.298	0.000	1535.0	1.280	0.025	1876.4	1.334	0.000	2217.8	1.354	0.002	2559.2	1.371	0.012
771.1	1.335	0.158	970.8	1.471	0.002	1084.6	1.193	0.000	1198.4	1.299	0.000	1540.8	1.284	0.024	1882.2	1.334	0.000	2223.6	1.354	0.004	2565.0	1.371	0.012
776.9	1.330	0.153	972.7	1.476	0.002	1086.5	1.202	0.000	1205.1	1.303	0.000	1546.5	1.286	0.022	1888.0	1.335	0.000	2229.4	1.353	0.004	2570.8	1.372	0.010
782.7	1.325	0.144	974.6	1.482	0.002	1088.4	1.209	0.000	1210.9	1.306	0.000	1552.3	1.288	0.021	1893.8	1.335	0.000	2235.2	1.353	0.004	2576.6	1.373	0.010
788.5	1.321	0.137	976.5	1.489	0.002	1090.3	1.217	0.000	1216.7	1.310	0.000	1558.1	1.290	0.019	1899.5	1.336	0.000	2241.0	1.353	0.004	2582.4	1.373	0.010
794.3	1.318	0.128	978.5	1.496	0.003	1092.3	1.223	0.000	1222.5	1.313	0.000	1563.9	1.292	0.018	1905.3	1.336	0.000	2246.8	1.352	0.004	2588.2	1.374	0.011
800.0	1.315	0.121	980.4	1.504	0.003	1094.2	1.232	0.000	1228.3	1.316	0.002	1569.7	1.294	0.017	1911.1	1.336	0.000	2252.5	1.352	0.004	2594.0	1.374	0.011
805.8	1.313	0.114	982.3	1.511	0.002	1096.1	1.238	0.000	1234.0	1.318	0.000	1575.5	1.295	0.016	1916.9	1.337	0.000	2258.3	1.352	0.003	2599.8	1.374	0.011
811.6	1.312	0.106	984.3	1.521	0.002	1098.1	1.245	0.000	1239.8	1.322	0.002	1581.3	1.297	0.014	1922.7	1.337	0.000	2264.1	1.352	0.002	2605.5	1.373	0.011
817.4	1.311	0.099	986.2	1.530	0.003	1100.0	1.252	0.000	1245.6	1.324	0.003	1587.0	1.298	0.013	1928.5	1.338	0.000	2269.9	1.353	0.002	2611.3	1.373	0.011
823.2	1.310	0.093	988.1	1.541	0.004	1101.9	1.261	0.000	1251.4	1.327	0.003	1592.8	1.299	0.012	1934.3	1.338	0.000	2275.7	1.353	0.002	2617.1	1.373	0.010
829.0	1.310	0.085	990.0	1.552	0.004	1103.8	1.270	0.003	1257.2	1.329	0.004	1598.6	1.300	0.012	1940.0	1.338	0.000	2281.5	1.354	0.001	2622.9	1.373	0.009
834.8	1.311	0.078	992.0	1.565	0.005	1105.8	1.279	0.007	1263.0	1.331	0.005	1604.4	1.301	0.011	1945.8	1.339	0.000	2287.3	1.354	0.001	2628.7	1.373	0.008
840.5	1.311	0.072	993.9	1.580	0.007	1107.7	1.287	0.017	1268.8	1.333	0.006	1610.2	1.303	0.010	1951.6	1.339	0.000	2293.0	1.355	0.001	2634.5	1.374	0.006

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TABLE 4C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2640.3	1.375	0.005	2981.7	1.355	0.088	3323.1	1.105	0.140	3664.5	1.274	0.000
2646.0	1.376	0.003	2987.5	1.342	0.085	3328.9	1.107	0.122	3670.3	1.275	0.000
2651.8	1.378	0.002	2993.3	1.334	0.069	3334.7	1.112	0.106	3676.1	1.276	0.000
2657.6	1.380	0.002	2999.0	1.338	0.050	3340.5	1.118	0.093	3681.9	1.277	0.000
2663.4	1.382	0.001	3004.8	1.350	0.039	3346.3	1.124	0.081	3687.7	1.277	0.000
2669.2	1.384	0.000	3010.6	1.361	0.034	3352.0	1.132	0.071	3693.5	1.279	0.000
2675.0	1.386	0.000	3016.4	1.371	0.032	3357.8	1.139	0.063	3699.3	1.279	0.000
2680.8	1.388	0.000	3022.2	1.380	0.033	3363.6	1.146	0.056	3705.0	1.280	0.000
2686.6	1.390	0.000	3028.0	1.387	0.033	3369.4	1.152	0.051	3710.8	1.280	0.000
2692.3	1.392	0.000	3033.8	1.394	0.034	3375.2	1.158	0.045	3716.6	1.281	0.000
2698.1	1.395	0.000	3039.6	1.400	0.036	3381.0	1.163	0.042	3722.4	1.281	0.000
2703.9	1.397	0.000	3045.3	1.407	0.038	3386.8	1.168	0.038	3728.2	1.282	0.000
2709.7	1.399	0.000	3051.1	1.413	0.040	3392.6	1.173	0.034	3734.0	1.282	0.000
2715.5	1.402	0.002	3056.9	1.419	0.042	3398.3	1.177	0.030	3739.8	1.283	0.000
2721.3	1.404	0.002	3062.7	1.425	0.044	3404.1	1.181	0.026	3745.5	1.283	0.000
2727.1	1.407	0.003	3068.5	1.431	0.048	3409.9	1.185	0.024	3751.3	1.284	0.000
2732.8	1.410	0.003	3074.3	1.437	0.052	3415.7	1.190	0.021	3757.1	1.284	0.000
2738.6	1.413	0.004	3080.1	1.444	0.056	3421.5	1.194	0.018	3762.9	1.285	0.000
2744.4	1.417	0.005	3085.8	1.450	0.061	3427.3	1.198	0.016	3768.7	1.285	0.000
2750.2	1.421	0.006	3091.6	1.457	0.066	3433.1	1.202	0.014	3774.5	1.286	0.000
2756.0	1.425	0.009	3097.4	1.464	0.073	3438.8	1.206	0.013	3780.3	1.286	0.000
2761.8	1.429	0.011	3103.2	1.470	0.080	3444.6	1.209	0.011	3786.1	1.287	0.000
2767.6	1.434	0.015	3109.0	1.477	0.089	3450.4	1.212	0.010	3791.8	1.287	0.000
2773.4	1.438	0.019	3114.8	1.484	0.099	3456.2	1.216	0.008	3797.6	1.287	0.000
2779.1	1.442	0.025	3120.6	1.490	0.111	3462.0	1.219	0.007	3803.4	1.288	0.000
2784.9	1.445	0.031	3126.4	1.494	0.125	3467.8	1.222	0.006	3809.2	1.288	0.000
2790.7	1.448	0.038	3132.1	1.498	0.139	3473.6	1.224	0.006	3815.0	1.289	0.000
2796.5	1.449	0.045	3137.9	1.500	0.156	3479.4	1.227	0.005	3820.8	1.289	0.000
2802.3	1.451	0.052	3143.7	1.500	0.173	3485.1	1.230	0.004	3826.6	1.290	0.000
2808.1	1.453	0.060	3149.5	1.497	0.191	3490.9	1.232	0.003	3832.4	1.290	0.000
2813.9	1.456	0.071	3155.3	1.493	0.208	3496.7	1.235	0.003	3838.1	1.290	0.000
2819.6	1.458	0.090	3161.1	1.485	0.226	3502.5	1.237	0.002	3843.9	1.291	0.000
2825.4	1.444	0.124	3166.9	1.476	0.245	3508.3	1.239	0.002	3849.7	1.291	0.001
2831.2	1.397	0.136	3172.6	1.463	0.261	3514.1	1.241	0.001	3855.5	1.291	0.001
2837.0	1.364	0.103	3178.4	1.448	0.275	3519.9	1.243	0.000	3861.3	1.291	0.001
2842.8	1.366	0.069	3184.2	1.432	0.288	3525.6	1.245	0.000	3867.1	1.292	0.000
2848.6	1.380	0.055	3190.0	1.414	0.298	3531.4	1.247	0.000	3872.9	1.292	0.000
2854.4	1.391	0.052	3195.8	1.396	0.305	3537.2	1.249	0.000	3878.6	1.292	0.000
2860.2	1.398	0.052	3201.6	1.377	0.310	3543.0	1.251	0.000	3884.4	1.293	0.000
2865.9	1.404	0.054	3207.4	1.359	0.314	3548.8	1.253	0.000	3890.2	1.293	0.000
2871.7	1.409	0.056	3213.2	1.341	0.315	3554.6	1.254	0.000	3896.0	1.293	0.000
2877.5	1.413	0.060	3218.9	1.324	0.315	3560.4	1.256	0.000	3901.8	1.294	0.000
2883.3	1.417	0.065	3224.7	1.307	0.314	3566.2	1.257	0.000	3907.6	1.294	0.000
2889.1	1.419	0.071	3230.5	1.292	0.311	3571.9	1.259	0.000	3913.4	1.295	0.000
2894.9	1.419	0.076	3236.3	1.276	0.309	3577.7	1.260	0.000	3919.2	1.295	0.000
2900.7	1.418	0.082	3242.1	1.261	0.305	3583.5	1.261	0.000	3924.9	1.295	0.000
2906.5	1.416	0.088	3247.9	1.247	0.301	3589.3	1.263	0.000	3930.7	1.295	0.000
2912.2	1.413	0.092	3253.7	1.232	0.297	3595.1	1.264	0.000	3936.5	1.295	0.000
2918.0	1.411	0.096	3259.5	1.218	0.291	3600.9	1.265	0.000	3942.3	1.296	0.000
2923.8	1.408	0.101	3265.2	1.203	0.286	3606.7	1.266	0.000	3948.1	1.296	0.000
2929.6	1.404	0.107	3271.0	1.188	0.278	3612.5	1.267	0.000	3953.9	1.296	0.000
2935.4	1.396	0.112	3276.8	1.173	0.269	3618.2	1.268	0.000	3959.7	1.296	0.000
2941.2	1.389	0.113	3282.6	1.159	0.258	3624.0	1.269	0.000	3965.4	1.296	0.000
2947.0	1.383	0.116	3288.4	1.145	0.246	3629.8	1.270	0.000	3971.2	1.297	0.000
2952.7	1.372	0.120	3294.2	1.132	0.231	3635.6	1.271	0.000	3977.0	1.297	0.000
2958.5	1.356	0.117	3300.0	1.121	0.214	3641.4	1.272	0.000	3982.8	1.297	0.000
2964.3	1.344	0.101	3305.7	1.113	0.196	3647.2	1.272	0.000	3988.6	1.297	0.000
2970.1	1.346	0.083	3311.5	1.107	0.177	3653.0	1.273	0.000	3994.4	1.297	0.000
2975.9	1.357	0.080	3317.3	1.105	0.158	3658.7	1.274	0.000			

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TABLE 4D

CH_3OH AT 100 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.550	0.000	164.9	1.347	0.077	278.7	1.394	0.016	392.5	1.406	0.002	723.4	1.410	0.225	955.8	1.432	0.001	1069.6	1.097	0.000	1183.4	1.286	0.000
53.0	1.548	0.012	166.9	1.348	0.074	280.7	1.394	0.019	394.5	1.406	0.002	729.2	1.393	0.223	957.7	1.435	0.003	1071.5	1.111	0.000	1185.3	1.287	0.000
55.0	1.552	0.008	168.8	1.346	0.075	282.6	1.395	0.017	396.4	1.406	0.001	734.9	1.377	0.217	959.7	1.440	0.003	1073.5	1.125	0.000	1187.3	1.288	0.000
56.9	1.565	0.026	170.7	1.350	0.063	284.5	1.396	0.020	398.3	1.407	0.001	740.7	1.365	0.212	961.6	1.444	0.001	1075.4	1.138	0.000	1189.2	1.290	0.000
58.8	1.559	0.044	172.6	1.353	0.068	286.5	1.396	0.019	405.1	1.409	0.000	746.5	1.353	0.203	963.5	1.448	0.002	1077.3	1.150	0.000	1191.1	1.292	0.000
60.8	1.559	0.055	174.6	1.352	0.064	288.4	1.396	0.019	410.9	1.411	0.001	752.3	1.341	0.196	965.4	1.453	0.000	1079.3	1.160	0.000	1193.1	1.294	0.000
62.7	1.562	0.063	176.5	1.354	0.062	290.3	1.396	0.018	416.7	1.412	0.002	758.1	1.334	0.187	967.4	1.458	0.002	1081.2	1.169	0.000	1195.0	1.294	0.000
64.6	1.560	0.071	178.4	1.352	0.056	292.2	1.398	0.018	422.4	1.414	0.001	763.9	1.326	0.180	969.3	1.463	0.002	1083.1	1.179	0.000	1196.9	1.296	0.000
66.5	1.560	0.076	180.4	1.360	0.046	294.2	1.398	0.019	428.2	1.415	0.000	769.7	1.318	0.170	971.2	1.469	0.002	1085.0	1.187	0.000	1198.8	1.297	0.000
68.5	1.553	0.080	182.3	1.361	0.050	296.1	1.397	0.019	434.0	1.416	0.002	775.4	1.312	0.161	973.2	1.475	0.002	1087.0	1.195	0.000	1205.6	1.301	0.000
70.4	1.549	0.085	184.2	1.363	0.048	298.0	1.398	0.019	439.8	1.417	0.003	781.2	1.309	0.151	975.1	1.481	0.002	1088.9	1.203	0.000	1211.4	1.305	0.000
72.3	1.548	0.094	186.1	1.361	0.047	300.0	1.397	0.020	445.6	1.419	0.002	787.0	1.304	0.144	977.0	1.488	0.002	1090.8	1.211	0.000	1217.2	1.308	0.000
74.3	1.539	0.104	188.1	1.361	0.043	301.9	1.397	0.019	451.4	1.420	0.002	792.8	1.301	0.133	978.9	1.495	0.003	1092.8	1.217	0.000	1223.0	1.311	0.000
76.2	1.531	0.102	190.0	1.364	0.042	303.8	1.398	0.022	457.2	1.421	0.002	798.6	1.300	0.126	980.9	1.502	0.003	1094.7	1.225	0.000	1228.7	1.314	0.002
78.1	1.528	0.103	191.9	1.365	0.043	305.7	1.398	0.022	463.0	1.422	0.002	804.4	1.297	0.119	982.8	1.511	0.004	1096.6	1.232	0.000	1234.5	1.318	0.000
80.1	1.526	0.105	193.9	1.366	0.042	307.7	1.398	0.025	468.7	1.424	0.002	810.2	1.296	0.110	984.7	1.519	0.003	1098.5	1.239	0.000	1240.3	1.320	0.003
82.0	1.524	0.109	195.8	1.369	0.043	309.6	1.397	0.024	474.5	1.425	0.002	816.0	1.296	0.102	986.7	1.529	0.004	1100.5	1.247	0.000	1246.1	1.323	0.003
83.9	1.521	0.114	197.7	1.369	0.043	311.5	1.397	0.027	480.3	1.427	0.001	821.7	1.295	0.095	988.6	1.540	0.004	1102.4	1.256	0.000	1251.9	1.325	0.004
85.8	1.517	0.118	199.7	1.371	0.046	313.5	1.396	0.027	486.1	1.429	0.001	827.5	1.296	0.087	990.5	1.552	0.005	1104.3	1.264	0.003	1257.7	1.328	0.006
87.8	1.510	0.142	201.6	1.370	0.045	315.4	1.395	0.027	491.9	1.431	0.001	833.3	1.298	0.080	992.5	1.564	0.006	1106.3	1.273	0.009	1263.5	1.330	0.006
89.7	1.493	0.124	203.5	1.370	0.048	317.3	1.394	0.027	497.7	1.433	0.002	839.1	1.299	0.072	994.4	1.579	0.007	1108.2	1.281	0.016	1269.3	1.333	0.007
91.6	1.501	0.124	205.4	1.367	0.045	319.2	1.393	0.027	503.5	1.435	0.002	844.9	1.301	0.064	996.3	1.596	0.010	1110.1	1.284	0.027	1275.0	1.335	0.008
93.6	1.497	0.134	207.4	1.367	0.042	321.2	1.391	0.027	509.2	1.437	0.002	850.7	1.304	0.056	998.2	1.614	0.012	1112.0	1.283	0.036	1280.8	1.336	0.009
95.5	1.492	0.128	209.3	1.364	0.040	323.1	1.390	0.026	515.0	1.439	0.002	856.5	1.308	0.050	1000.2	1.636	0.017	1114.0	1.285	0.043	1286.6	1.339	0.010
97.4	1.490	0.129	211.2	1.364	0.036	325.0	1.389	0.026	520.8	1.442	0.002	862.2	1.312	0.043	1002.1	1.657	0.022	1115.9	1.282	0.050	1292.4	1.340	0.011
99.3	1.488	0.130	213.2	1.363	0.033	327.0	1.386	0.025	526.6	1.444	0.002	868.0	1.317	0.037	1004.0	1.681	0.030	1117.8	1.277	0.056	1298.2	1.342	0.013
101.3	1.479	0.130	215.1	1.364	0.028	328.9	1.385	0.024	532.4	1.447	0.003	873.8	1.322	0.032	1006.0	1.712	0.039	1119.8	1.279	0.060	1304.0	1.344	0.014
103.2	1.478	0.133	217.0	1.366	0.028	330.8	1.383	0.024	538.2	1.450	0.003	879.6	1.328	0.028	1007.9	1.742	0.048	1121.7	1.273	0.065	1309.8	1.347	0.015
105.1	1.475	0.135	218.9	1.367	0.027	332.7	1.381	0.021	544.0	1.455	0.004	885.4	1.333	0.023	1009.8	1.776	0.057	1123.6	1.266	0.070	1315.5	1.347	0.017
107.1	1.471	0.136	220.9	1.368	0.027	334.7	1.380	0.020	549.8	1.458	0.004	891.2	1.340	0.018	1011.7	1.824	0.065	1125.5	1.261	0.072	1321.3	1.348	0.018
109.0	1.467	0.138	222.8	1.367	0.028	336.6	1.380	0.018	555.5	1.462	0.008	897.0	1.346	0.015	1013.7	1.907	0.081	1127.5	1.261	0.075	1327.1	1.351	0.019
110.9	1.463	0.139	224.7	1.368	0.024	338.5	1.380	0.016	561.3	1.465	0.010	901.8	1.353	0.013	1015.6	2.000	0.133	1129.4	1.251	0.078	1332.9	1.354	0.021
112.8	1.459	0.141	226.7	1.372	0.023	340.5	1.380	0.013	567.1	1.468	0.011	903.7	1.355	0.013	1017.5	2.098	0.259	1131.3	1.239	0.078	1338.7	1.356	0.025
114.8	1.456	0.148	228.6	1.373	0.024	342.4	1.381	0.010	572.9	1.472	0.014	905.6	1.356	0.012	1019.5	2.187	0.454	1133.3	1.236	0.076	1344.5	1.357	0.026
116.7	1.450	0.149	230.5	1.375	0.023	344.3	1.382	0.008	578.7	1.474	0.016	907.6	1.359	0.010	1021.4	2.167	0.683	1135.2	1.223	0.070	1350.3	1.357	0.031
118.6	1.449	0.151	232.4	1.375	0.022	346.3	1.384	0.006	584.5	1.479	0.018	909.5	1.362	0.010	1023.3	2.016	0.898	1137.1	1.213	0.059	1356.1	1.354	0.032
120.6	1.447	0.158	234.4	1.377	0.018	348.2	1.385	0.004	590.3	1.481	0.022	911.4	1.365	0.010	1025.2	1.829	1.044	1139.0	1.209	0.046	1361.8	1.353	0.028
122.5	1.429	0.165	236.3	1.379	0.018	350.1	1.386	0.003	596.1	1.485	0.024	913.4	1.366	0.010	1027.2	1.728	1.087	1141.0	1.213	0.031	1367.6	1.358	0.029
124.4	1.420	0.155	238.2	1.381	0.018	352.0	1.388	0.002	601.8	1.489	0.027	915.3	1.369	0.009	1029.1	1.502	1.136	1142.9	1.216	0.019	1373.4	1.361	0.031
126.4	1.418	0.140	240.2	1.381	0.018	354.0	1.389	0.000	607.6	1.494	0.030	917.2	1.371	0.009	1031.0	1.314	1.137	1144.8	1.223	0.011	1379.2	1.364	0.034
128.3	1.417	0.146	242.1	1.382	0.017	355.9	1.390	0.000	613.4	1.498	0.034	919.2	1.373	0.007	1033.0	1.250	1.058	1146.8	1.231	0.006	1385.0	1.368	0.037
130.2	1.412	0.139	244.0	1.381	0.020	357.8	1.392	0.000	619.2	1.503	0.038	921.1	1.376	0.007	1034.9	1.126	1.001	1148.7	1.238	0.004	1390.8	1.374	0.042
132.1	1.405	0.145	245.9	1.380	0.019	359.8	1.393	0.000	625.0	1.509	0.045	923.0	1.378	0.006	1036.8	0.971	0.959	1150.6	1.244	0.001	1396.6	1.376	0.050
134.1	1.398	0.138	247.9	1.380	0.016	361.7	1.395	0.000	630.8	1.515	0.049	924.9	1.382	0.006	1038.7	0.857	0.892	1152.6	1.250	0.002	1402.3	1.371	0.058
136.0	1.392	0.139	249.8	1.384	0.018	363.6	1.396	0.000	636.6	1.520	0.058	926.9	1.384	0.006	1040.7	0.840	0.777	1154.5	1.254	0.003	1408.1	1.368	0.063
137.9	1.390	0.125	251.7	1.382	0.018	365.5	1.397	0.000	642.3	1.524	0.067	928.8	1.387	0.006	1042.6	0.733	0.711	1156.4	1.257	0.003	1413.9	1.365	0.067
139.9	1.393	0.133	253.7	1.384	0.018	367.5	1.397	0.001	648.1	1.530	0.078	930.7	1.389	0.006	1044.5	0.650	0.628	1158.3	1.258	0.003	1419.7	1.367	0.071
141.8	1.387	0.139	255.6	1.385	0.018	369.4	1.399	0.000	653.9	1.533	0.090	932.7	1.392	0.004	1046.5	0.622	0.487	1160.3	1.261	0.002	1425.5	1.367	0.076
143.7	1.378	0.135	257.5	1.386	0.017	371.3	1.399	0.001	659.7	1.535	0.103	934.6	1.395	0.004	1048.4	0.577	0.317	1162.2	1.263	0.000	1431.3	1.368	0.082
145.6	1.375	0.135	259.4	1.386	0.016	373.3	1.400	0.000	665.5	1.536	0.120	936.5	1.398	0.004	1050.3	0.631	0.134	1164.1	1.265	0.001	1437.1	1.374	0.095
147.6	1.367	0.131	261.4	1.388	0.014	375.2	1.401	0.000	671.3	1.534	0.134	938.4	1.401	0.004	1052.2	0.742	0.046	1166.1	1.267	0.000	1442.9	1.361	0.118
149.5	1.364	0.125	263.3	1.389	0.013	377.1	1.402	0.000	677.1	1.529	0.151	940.4	1.404	0.004	1054.2	0.836	0.020	1168.0	1.270	0.000	1448.6	1.331	0.118
151.4	1.357	0.120	265.2	1.392	0.012	379.0	1.403	0.000	682.9	1.525	0.166	942.3	1.407	0.003	1056.1	0.897	0.010	1169.9	1.273	0.000	1454.4	1.322	0.118
153.4	1.356	0.111	267.2	1.393	0.014	381.0	1.403	0.000	688.6	1.515	0.186	944.2	1.411	0.003	1058.0	0.944	0.004	1171.8	1.275	0.000	1460.2	1.305	0.122
155.3	1.352	0.109	269.1	1.393	0.014	382.9	1.404	0.000	694.4	1.498	0.202	946.2	1.414	0.003	1060.0	0.983	0.002	1173.8	1.277	0.000	1466.0	1.293	0.113
157.2	1.352	0.094	271.0	1.394	0.015	384.8	1.404	0.000	700.2	1.482	0.211	948.1	1.417	0.003	1061.9	1.013	0.000	1175.7	1.279	0.000	1471.8	1.286	0.100
159.1	1.351	0.097	273.0	1.393	0.017	386.8	1.404	0.000	706.0	1.464	0.221	950.0	1.421	0.003	1063.8	1.039	0.000	1177.6	1.281	0.000	1477.6	1.283	0.097
161.1	1.347	0.087	274.9	1.393	0.016	388.7	1.405	0.000	711.8	1.445	0.226	951.9	1.424	0.003	1065.7	1.060	0.000	1179.6	1.283	0.000	1483.4	1.276	0.085
163.0	1.347	0.083	276.8	1.392	0.018	390.6	1.405	0.000	717.6	1.426	0.227	953.9	1.428	0.003	1067.7	1.081	0.000	1181.5	1.284	0.000	1489.2	1.274	0.077

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TABLE 4D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.267	0.071	1836.4	1.330	0.002	2059.2	1.340	0.003	2319.6	1.357	0.001	2661.0	1.382	0.000	3002.4	1.345	0.043	3343.8	1.107	0.091	3685.3	1.276	0.000
1500.7	1.263	0.064	1842.2	1.330	0.002	2061.1	1.340	0.002	2325.4	1.357	0.000	2666.8	1.384	0.000	3008.2	1.358	0.037	3349.6	1.115	0.079	3691.1	1.277	0.000
1506.5	1.263	0.055	1847.9	1.331	0.000	2063.0	1.341	0.002	2331.1	1.357	0.001	2672.6	1.386	0.000	3014.0	1.368	0.034	3355.4	1.123	0.069	3696.8	1.278	0.000
1512.3	1.265	0.045	1853.7	1.331	0.000	2064.9	1.341	0.002	2336.9	1.358	0.000	2678.4	1.388	0.000	3019.8	1.379	0.033	3361.2	1.134	0.061	3702.6	1.278	0.000
1518.1	1.268	0.038	1859.5	1.332	0.000	2066.9	1.341	0.002	2342.7	1.358	0.001	2684.1	1.390	0.000	3025.6	1.386	0.034	3367.0	1.141	0.055	3708.4	1.279	0.000
1523.9	1.273	0.032	1865.3	1.332	0.000	2068.8	1.341	0.002	2348.5	1.359	0.000	2689.9	1.392	0.000	3031.4	1.393	0.034	3372.8	1.149	0.049	3714.2	1.279	0.000
1529.7	1.277	0.029	1871.1	1.333	0.000	2070.7	1.342	0.002	2354.3	1.360	0.001	2695.7	1.394	0.000	3037.1	1.396	0.036	3378.6	1.156	0.043	3720.0	1.280	0.000
1535.4	1.278	0.026	1876.9	1.333	0.000	2072.7	1.342	0.002	2360.1	1.360	0.001	2701.5	1.396	0.000	3042.9	1.402	0.037	3384.4	1.162	0.039	3725.8	1.280	0.000
1541.2	1.281	0.023	1882.7	1.334	0.000	2074.6	1.342	0.002	2365.9	1.361	0.001	2707.3	1.399	0.000	3048.7	1.410	0.039	3390.1	1.164	0.035	3731.6	1.281	0.000
1547.0	1.283	0.022	1888.4	1.334	0.000	2076.5	1.342	0.002	2371.6	1.361	0.001	2713.1	1.401	0.001	3054.5	1.416	0.041	3395.9	1.169	0.032	3737.4	1.282	0.000
1552.8	1.286	0.020	1894.2	1.335	0.000	2078.4	1.342	0.001	2377.4	1.361	0.001	2718.9	1.404	0.002	3060.3	1.422	0.043	3401.7	1.175	0.028	3743.1	1.282	0.000
1558.6	1.288	0.018	1900.0	1.335	0.000	2080.4	1.343	0.001	2383.2	1.362	0.001	2724.6	1.406	0.002	3066.1	1.430	0.046	3407.5	1.180	0.025	3748.9	1.283	0.000
1564.4	1.291	0.018	1905.8	1.335	0.000	2082.3	1.343	0.001	2389.0	1.363	0.001	2730.4	1.409	0.003	3071.9	1.436	0.049	3413.3	1.185	0.020	3754.7	1.283	0.000
1570.2	1.292	0.016	1911.6	1.336	0.000	2084.2	1.343	0.001	2394.8	1.363	0.001	2736.2	1.412	0.004	3077.6	1.438	0.053	3419.1	1.190	0.019	3760.5	1.284	0.000
1576.0	1.294	0.015	1917.4	1.336	0.000	2086.2	1.343	0.001	2400.6	1.364	0.001	2742.0	1.416	0.005	3083.4	1.444	0.057	3424.9	1.194	0.017	3766.3	1.284	0.000
1581.7	1.294	0.014	1923.2	1.336	0.000	2088.1	1.343	0.001	2406.4	1.365	0.001	2747.8	1.419	0.006	3089.2	1.451	0.062	3430.6	1.196	0.015	3772.1	1.285	0.000
1587.5	1.295	0.013	1929.0	1.337	0.000	2090.0	1.344	0.000	2412.2	1.365	0.001	2753.6	1.424	0.009	3095.0	1.460	0.068	3436.4	1.200	0.014	3777.9	1.285	0.000
1593.3	1.297	0.012	1934.7	1.337	0.000	2092.0	1.344	0.001	2417.9	1.366	0.002	2759.4	1.428	0.011	3100.8	1.467	0.074	3442.2	1.204	0.012	3783.6	1.285	0.000
1599.1	1.299	0.011	1940.5	1.337	0.000	2093.9	1.344	0.001	2423.7	1.366	0.002	2765.2	1.432	0.014	3106.6	1.477	0.082	3448.0	1.208	0.011	3789.4	1.286	0.000
1604.9	1.300	0.011	1946.3	1.338	0.000	2095.8	1.344	0.001	2429.5	1.367	0.002	2770.9	1.435	0.018	3112.4	1.484	0.090	3453.8	1.211	0.009	3795.2	1.286	0.000
1610.7	1.302	0.009	1952.1	1.338	0.000	2097.7	1.344	0.001	2435.3	1.367	0.003	2776.7	1.439	0.023	3118.2	1.491	0.100	3459.6	1.215	0.008	3801.0	1.287	0.000
1616.5	1.302	0.010	1957.9	1.339	0.000	2099.7	1.345	0.001	2441.1	1.368	0.003	2782.5	1.442	0.029	3123.9	1.489	0.113	3465.4	1.218	0.007	3806.8	1.287	0.000
1622.3	1.303	0.009	1963.7	1.339	0.000	2105.5	1.345	0.001	2446.9	1.369	0.003	2788.3	1.445	0.035	3129.7	1.494	0.126	3471.2	1.221	0.006	3812.6	1.288	0.000
1628.0	1.304	0.008	1969.5	1.339	0.000	2111.2	1.345	0.001	2452.7	1.369	0.003	2794.1	1.447	0.041	3135.5	1.497	0.141	3476.9	1.223	0.005	3818.4	1.288	0.000
1633.8	1.305	0.007	1975.3	1.340	0.000	2117.0	1.345	0.000	2458.5	1.370	0.003	2799.9	1.451	0.048	3141.3	1.505	0.158	3482.7	1.226	0.004	3824.2	1.288	0.000
1639.6	1.306	0.007	1981.0	1.340	0.001	2122.8	1.346	0.001	2464.2	1.370	0.003	2805.7	1.453	0.055	3147.1	1.506	0.176	3488.5	1.228	0.003	3829.9	1.289	0.000
1645.4	1.308	0.006	1986.8	1.341	0.001	2128.6	1.347	0.001	2470.0	1.371	0.003	2811.5	1.456	0.064	3152.9	1.512	0.193	3494.3	1.231	0.003	3835.7	1.289	0.000
1651.2	1.309	0.005	1992.6	1.341	0.001	2134.4	1.347	0.001	2475.8	1.372	0.003	2817.2	1.453	0.078	3158.7	1.508	0.212	3500.1	1.233	0.002	3841.5	1.290	0.000
1657.0	1.310	0.005	1998.4	1.342	0.001	2140.2	1.347	0.001	2481.6	1.374	0.004	2823.0	1.451	0.103	3164.5	1.501	0.233	3505.9	1.236	0.002	3847.3	1.290	0.000
1662.8	1.310	0.004	2001.3	1.342	0.001	2146.0	1.348	0.001	2487.4	1.375	0.004	2828.8	1.425	0.135	3170.2	1.472	0.253	3511.7	1.238	0.001	3853.1	1.290	0.000
1668.5	1.311	0.004	2003.2	1.342	0.001	2151.8	1.348	0.001	2493.2	1.377	0.006	2834.6	1.377	0.123	3176.0	1.458	0.270	3517.4	1.240	0.000	3858.9	1.290	0.001
1674.3	1.312	0.004	2005.1	1.342	0.001	2157.5	1.348	0.001	2499.0	1.378	0.008	2840.4	1.362	0.083	3181.8	1.452	0.284	3523.2	1.242	0.000	3864.7	1.291	0.001
1680.1	1.313	0.004	2007.1	1.343	0.001	2163.3	1.348	0.001	2504.7	1.378	0.010	2846.2	1.376	0.060	3187.6	1.435	0.297	3529.0	1.244	0.000	3870.4	1.291	0.000
1685.9	1.315	0.003	2009.0	1.343	0.001	2169.1	1.349	0.001	2510.5	1.377	0.012	2852.0	1.389	0.053	3193.4	1.416	0.307	3534.8	1.247	0.000	3876.2	1.291	0.000
1691.7	1.315	0.004	2010.9	1.343	0.001	2174.9	1.349	0.001	2516.3	1.376	0.014	2857.7	1.393	0.052	3199.2	1.410	0.314	3540.6	1.248	0.000	3882.0	1.291	0.000
1697.5	1.316	0.003	2012.9	1.344	0.001	2180.7	1.350	0.001	2522.1	1.375	0.015	2863.5	1.400	0.053	3205.0	1.390	0.320	3546.4	1.250	0.000	3887.8	1.292	0.000
1703.3	1.317	0.003	2014.8	1.344	0.001	2186.5	1.350	0.001	2527.9	1.373	0.015	2869.3	1.405	0.054	3210.7	1.346	0.324	3552.2	1.252	0.000	3893.6	1.292	0.000
1709.1	1.318	0.003	2016.7	1.344	0.001	2192.3	1.350	0.001	2533.7	1.372	0.015	2875.1	1.411	0.057	3216.5	1.328	0.325	3558.0	1.253	0.000	3899.4	1.293	0.000
1714.8	1.318	0.002	2018.7	1.345	0.002	2198.0	1.351	0.001	2539.5	1.372	0.014	2880.9	1.415	0.062	3222.3	1.309	0.325	3563.7	1.255	0.000	3905.2	1.293	0.000
1720.6	1.319	0.002	2020.6	1.345	0.002	2203.8	1.352	0.001	2545.3	1.371	0.014	2886.7	1.421	0.067	3228.1	1.305	0.323	3569.5	1.256	0.000	3911.0	1.294	0.000
1726.4	1.320	0.002	2022.5	1.346	0.003	2209.6	1.353	0.001	2551.0	1.370	0.012	2892.5	1.422	0.072	3233.9	1.289	0.321	3575.3	1.258	0.000	3916.7	1.294	0.000
1732.2	1.321	0.002	2024.4	1.346	0.003	2215.4	1.354	0.002	2556.8	1.370	0.012	2898.3	1.422	0.078	3239.7	1.287	0.317	3581.1	1.259	0.000	3922.5	1.294	0.000
1738.0	1.321	0.002	2026.4	1.346	0.003	2221.2	1.354	0.003	2562.6	1.370	0.011	2904.0	1.415	0.084	3245.5	1.270	0.313	3586.9	1.260	0.000	3928.3	1.294	0.000
1743.8	1.322	0.002	2028.3	1.346	0.005	2227.0	1.354	0.004	2568.4	1.371	0.011	2909.8	1.412	0.089	3251.3	1.255	0.309	3592.7	1.262	0.000	3934.1	1.295	0.000
1749.6	1.322	0.001	2030.2	1.346	0.005	2232.8	1.353	0.004	2574.2	1.372	0.010	2915.6	1.410	0.093	3257.0	1.216	0.305	3598.5	1.263	0.000	3939.9	1.295	0.000
1755.3	1.323	0.001	2032.2	1.346	0.006	2238.6	1.353	0.004	2580.0	1.373	0.010	2921.4	1.412	0.097	3262.8	1.201	0.300	3604.3	1.264	0.000	3945.7	1.295	0.000
1761.1	1.324	0.001	2034.1	1.346	0.007	2244.3	1.352	0.004	2585.8	1.374	0.010	2927.2	1.409	0.104	3268.6	1.197	0.293	3610.0	1.265	0.000	3951.5	1.295	0.000
1766.9	1.324	0.001	2036.0	1.345	0.007	2250.1	1.352	0.004	2591.6	1.374	0.011	2933.0	1.407	0.111	3274.4	1.181	0.285	3615.8	1.266	0.000	3957.3	1.295	0.000
1772.7	1.325	0.001	2037.9	1.344	0.008	2255.9	1.351	0.003	2597.3	1.373	0.011	2938.8	1.399	0.114	3280.2	1.166	0.275	3621.6	1.267	0.000	3963.0	1.296	0.000
1778.5	1.326	0.001	2039.9	1.343	0.008	2261.7	1.352	0.003	2603.1	1.373	0.010	2944.5	1.382	0.117	3286.0	1.161	0.264	3627.4	1.268	0.000	3968.8	1.296	0.000
1784.3	1.326	0.001	2041.8	1.342	0.008	2267.5	1.352	0.002	2608.9	1.373	0.010	2950.3	1.373	0.120	3291.8	1.147	0.251	3633.2	1.269	0.000	3974.6	1.296	0.000
1790.1	1.327	0.001	2043.7	1.341	0.007	2273.3	1.353	0.002	2614.7	1.373	0.010	2956.1	1.358	0.122	3297.5	1.115	0.235	3639.0	1.270	0.000	3980.4	1.296	0.000
1795.9	1.327	0.001	2045.7	1.341	0.007	2279.1	1.353	0.002	2620.5	1.373	0.009	2961.9	1.346	0.109	3303.3	1.105	0.217	3644.8	1.271	0.000	3986.2	1.296	0.000
1801.6	1.328	0.001	2047.6	1.340	0.006	2284.8	1.354	0.001	2626.3	1.373	0.007	2967.7	1.344	0.089	3309.1	1.097	0.199	3650.5	1.271	0.000	3992.0	1.296	0.000
1807.4	1.328	0.001	2049.5	1.340	0.006	2290.6	1.354	0.001	2632.1	1.374	0.006	2973.5	1.357	0.079	3314.9	1.099	0.179	3656.3	1.272	0.000	3997.8	1.296	0.000
1813.2	1.328	0.002	2051.4	1.340	0.005	2296.4	1.355	0.001	2637.8	1.375	0.004	2979.3	1.362	0.084	3320.7	1.096	0.159	3662.1	1.273	0.000			
1819.0	1.329	0.002	2053.4	1.340	0.004	2302.2	1.355	0.001	2643.6	1.376	0.003	2985.1	1.353	0.088	3326.5	1.102	0.140	3667.9	1.274	0.000			
1824.8	1.329	0.002	2055.3	1.340	0.004	2308.0	1.356	0.001	2649.4	1.378	0.002	2990.8	1.334	0.077	3332.3	1.104	0.122	3673.7	1.275	0.000			
1830.6	1.330	0.000	2057.2	1.340	0.003	2313.8	1.356	0.001	2655.2	1.380	0.001	2996.6	1.335	0.057	3338.1	1.109	0.106	3679.5	1.275	0.000			

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TABLE 4E

CH_3OH AT 120 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
51.1	1.538	0.000	164.9	1.408	0.144	278.7	1.411	0.002	392.5	1.392	0.002	723.4	1.448	0.138	955.8	1.405	0.003	1069.6	1.149	0.000	1183.4	1.288	0.000
53.0	1.540	0.036	166.9	1.391	0.143	280.7	1.412	0.005	394.5	1.392	0.001	729.2	1.452	0.149	957.7	1.409	0.003	1071.5	1.157	0.000	1185.3	1.290	0.000
55.0	1.535	0.064	168.8	1.372	0.142	282.6	1.413	0.003	396.4	1.394	0.000	734.9	1.451	0.161	959.7	1.413	0.003	1073.5	1.166	0.000	1187.3	1.290	0.000
56.9	1.521	0.092	170.7	1.359	0.128	284.5	1.415	0.006	398.3	1.395	0.000	740.7	1.449	0.176	961.6	1.417	0.003	1075.4	1.174	0.000	1189.2	1.292	0.000
58.8	1.487	0.117	172.6	1.348	0.124	286.5	1.415	0.005	405.1	1.398	0.000	746.5	1.442	0.188	963.5	1.422	0.003	1077.3	1.180	0.000	1191.1	1.293	0.000
60.8	1.451	0.114	174.6	1.338	0.108	288.4	1.416	0.005	410.9	1.401	0.000	752.3	1.430	0.201	965.4	1.427	0.003	1079.3	1.187	0.000	1193.1	1.294	0.000
62.7	1.435	0.092	176.5	1.336	0.093	290.3	1.416	0.003	416.7	1.403	0.000	758.1	1.417	0.212	967.4	1.432	0.003	1081.2	1.193	0.000	1195.0	1.295	0.000
64.6	1.421	0.073	178.4	1.337	0.082	292.2	1.419	0.004	422.4	1.406	0.000	763.9	1.399	0.219	969.3	1.438	0.003	1083.1	1.199	0.000	1196.9	1.296	0.000
66.5	1.423	0.043	180.4	1.327	0.080	294.2	1.419	0.004	428.2	1.409	0.000	769.7	1.379	0.220	971.2	1.443	0.004	1085.0	1.205	0.000	1198.8	1.297	0.000
68.5	1.432	0.026	182.3	1.329	0.055	296.1	1.420	0.004	434.0	1.411	0.000	775.4	1.364	0.216	973.2	1.449	0.004	1087.0	1.210	0.000	1205.6	1.300	0.000
70.4	1.452	0.012	184.2	1.336	0.046	298.0	1.421	0.004	439.8	1.412	0.000	781.2	1.350	0.209	975.1	1.456	0.005	1088.9	1.214	0.000	1211.4	1.303	0.000
72.3	1.465	0.017	186.1	1.338	0.041	300.0	1.421	0.005	445.6	1.414	0.000	787.0	1.338	0.203	977.0	1.462	0.005	1090.8	1.219	0.000	1217.2	1.306	0.000
74.3	1.473	0.023	188.1	1.343	0.033	301.9	1.422	0.004	451.4	1.416	0.000	792.8	1.329	0.196	978.9	1.469	0.005	1092.8	1.224	0.000	1223.0	1.308	0.000
76.2	1.478	0.029	190.0	1.349	0.029	303.8	1.425	0.006	457.2	1.417	0.000	798.6	1.321	0.191	980.9	1.477	0.006	1094.7	1.227	0.000	1228.7	1.310	0.000
78.1	1.483	0.036	191.9	1.352	0.030	305.7	1.426	0.006	463.0	1.419	0.000	804.4	1.311	0.186	982.8	1.485	0.007	1096.6	1.231	0.000	1234.5	1.312	0.000
80.1	1.485	0.044	193.9	1.355	0.026	307.7	1.428	0.009	468.7	1.421	0.000	810.2	1.301	0.182	984.7	1.494	0.008	1098.5	1.236	0.000	1240.3	1.315	0.000
82.0	1.486	0.051	195.8	1.359	0.026	309.6	1.428	0.009	474.5	1.422	0.000	816.0	1.293	0.173	986.7	1.504	0.009	1100.5	1.240	0.000	1246.1	1.317	0.002
83.9	1.485	0.061	197.7	1.361	0.025	311.5	1.431	0.011	480.3	1.425	0.000	821.7	1.281	0.164	988.6	1.515	0.010	1102.4	1.244	0.000	1251.9	1.319	0.002
85.8	1.481	0.069	199.7	1.364	0.028	313.5	1.432	0.011	486.1	1.428	0.000	827.5	1.272	0.153	990.5	1.527	0.011	1104.3	1.247	0.000	1257.7	1.321	0.002
87.8	1.476	0.079	201.6	1.365	0.027	315.4	1.434	0.013	491.9	1.430	0.000	833.3	1.267	0.140	992.5	1.541	0.013	1106.3	1.252	0.000	1263.5	1.323	0.002
89.7	1.475	0.073	203.5	1.364	0.029	317.3	1.435	0.013	497.7	1.432	0.001	839.1	1.262	0.126	994.4	1.556	0.015	1108.2	1.255	0.000	1269.3	1.325	0.002
91.6	1.462	0.096	205.4	1.362	0.025	319.2	1.438	0.013	503.5	1.433	0.002	844.9	1.259	0.111	996.3	1.574	0.017	1110.1	1.260	0.000	1275.0	1.327	0.002
93.6	1.460	0.082	207.4	1.363	0.022	321.2	1.440	0.015	509.2	1.434	0.002	850.7	1.261	0.096	998.2	1.596	0.024	1112.0	1.262	0.001	1280.8	1.330	0.003
95.5	1.460	0.082	209.3	1.362	0.018	323.1	1.442	0.016	515.0	1.436	0.002	856.5	1.263	0.082	1000.2	1.616	0.036	1114.0	1.264	0.004	1286.6	1.332	0.006
97.4	1.460	0.087	211.2	1.363	0.013	325.0	1.446	0.017	520.8	1.438	0.002	862.2	1.266	0.070	1002.1	1.635	0.041	1115.9	1.264	0.003	1292.4	1.334	0.007
99.3	1.455	0.098	213.2	1.364	0.009	327.0	1.448	0.020	526.6	1.440	0.001	868.0	1.273	0.059	1004.0	1.662	0.047	1117.8	1.268	0.001	1298.2	1.336	0.009
101.3	1.440	0.096	215.1	1.367	0.005	328.9	1.452	0.023	532.4	1.443	0.000	873.8	1.279	0.051	1006.0	1.703	0.072	1119.8	1.271	0.002	1304.0	1.338	0.011
103.2	1.431	0.096	217.0	1.369	0.003	330.8	1.456	0.029	538.2	1.446	0.000	879.6	1.285	0.042	1007.9	1.709	0.097	1121.7	1.275	0.002	1309.8	1.340	0.015
105.1	1.425	0.092	218.9	1.372	0.003	332.7	1.460	0.034	544.0	1.448	0.002	885.4	1.293	0.035	1009.8	1.742	0.075	1123.6	1.278	0.002	1315.5	1.339	0.018
107.1	1.420	0.089	220.9	1.375	0.002	334.7	1.465	0.043	549.8	1.454	0.002	891.2	1.300	0.028	1011.7	1.807	0.085	1125.5	1.282	0.002	1321.3	1.338	0.021
109.0	1.414	0.085	222.8	1.375	0.003	336.6	1.469	0.054	555.5	1.457	0.002	897.0	1.308	0.023	1013.7	1.908	0.106	1127.5	1.286	0.002	1327.1	1.336	0.024
110.9	1.408	0.086	224.7	1.378	0.000	338.5	1.472	0.070	561.3	1.461	0.005	901.8	1.315	0.019	1015.6	2.030	0.159	1129.4	1.291	0.004	1332.9	1.334	0.026
112.8	1.399	0.073	226.7	1.383	0.001	340.5	1.470	0.091	567.1	1.464	0.006	903.7	1.318	0.018	1017.5	2.208	0.313	1131.3	1.297	0.005	1338.7	1.329	0.027
114.8	1.399	0.070	228.6	1.384	0.003	342.4	1.459	0.115	572.9	1.468	0.008	905.6	1.320	0.016	1019.5	2.327	0.829	1133.3	1.306	0.008	1344.5	1.326	0.024
116.7	1.396	0.064	230.5	1.387	0.002	344.3	1.438	0.136	578.7	1.472	0.009	907.6	1.323	0.014	1021.4	2.018	1.162	1135.2	1.314	0.012	1350.3	1.323	0.021
118.6	1.396	0.058	232.4	1.387	0.002	346.3	1.408	0.146	584.5	1.476	0.012	909.5	1.327	0.013	1023.3	1.654	1.244	1137.1	1.325	0.022	1356.1	1.321	0.017
120.6	1.397	0.046	234.4	1.390	0.000	348.2	1.375	0.143	590.3	1.481	0.013	911.4	1.329	0.013	1025.2	1.343	1.259	1139.0	1.340	0.042	1361.8	1.321	0.011
122.5	1.404	0.045	236.3	1.392	0.000	350.1	1.346	0.126	596.1	1.486	0.015	913.4	1.333	0.011	1027.2	1.218	1.071	1141.0	1.353	0.094	1367.6	1.324	0.006
124.4	1.400	0.039	238.2	1.394	0.000	352.0	1.327	0.098	601.8	1.490	0.018	915.3	1.335	0.011	1029.1	1.067	0.973	1142.9	1.285	0.178	1373.4	1.329	0.004
126.4	1.407	0.018	240.2	1.394	0.000	354.0	1.321	0.069	607.6	1.496	0.021	917.2	1.338	0.010	1031.0	0.982	0.912	1144.8	1.193	0.114	1379.2	1.333	0.003
128.3	1.417	0.025	242.1	1.396	0.000	355.9	1.325	0.046	613.4	1.502	0.025	919.2	1.341	0.008	1033.0	0.948	0.883	1146.8	1.199	0.041	1385.0	1.337	0.001
130.2	1.424	0.016	244.0	1.396	0.004	357.8	1.333	0.032	619.2	1.509	0.028	921.1	1.344	0.008	1034.9	0.807	0.779	1148.7	1.218	0.016	1390.8	1.341	0.001
132.1	1.428	0.023	245.9	1.392	0.003	359.8	1.342	0.021	625.0	1.514	0.036	923.0	1.347	0.007	1036.8	0.693	0.668	1150.6	1.233	0.007	1396.6	1.345	0.001
134.1	1.434	0.017	247.9	1.392	0.000	361.7	1.349	0.017	630.8	1.520	0.038	924.9	1.350	0.007	1038.7	0.602	0.557	1152.6	1.246	0.004	1402.3	1.349	0.002
136.0	1.438	0.025	249.8	1.400	0.000	363.6	1.355	0.012	636.6	1.532	0.044	926.9	1.353	0.007	1040.7	0.599	0.336	1154.5	1.255	0.006	1408.1	1.354	0.003
137.9	1.446	0.017	251.7	1.397	0.003	365.5	1.361	0.010	642.3	1.541	0.054	928.8	1.355	0.005	1042.6	0.654	0.163	1156.4	1.259	0.007	1413.9	1.360	0.003
139.9	1.456	0.031	253.7	1.399	0.003	367.5	1.365	0.009	648.1	1.552	0.065	930.7	1.358	0.005	1044.5	0.746	0.077	1158.3	1.260	0.009	1419.7	1.368	0.006
141.8	1.459	0.039	255.6	1.399	0.003	369.4	1.369	0.007	653.9	1.565	0.082	932.7	1.362	0.005	1046.5	0.834	0.035	1160.3	1.261	0.006	1425.5	1.374	0.014
143.7	1.462	0.047	257.5	1.400	0.002	371.3	1.373	0.006	659.7	1.582	0.106	934.6	1.365	0.004	1048.4	0.898	0.015	1162.2	1.263	0.002	1431.3	1.375	0.020
145.6	1.465	0.055	259.4	1.401	0.000	373.3	1.376	0.005	665.5	1.598	0.142	936.5	1.368	0.004	1050.3	0.948	0.007	1164.1	1.266	0.000	1437.1	1.382	0.020
147.6	1.466	0.062	261.4	1.404	0.000	375.2	1.379	0.004	671.3	1.599	0.215	938.4	1.371	0.004	1052.2	0.986	0.004	1166.1	1.270	0.000	1442.9	1.396	0.034
149.5	1.469	0.070	263.3	1.405	0.000	377.1	1.381	0.004	677.1	1.528	0.301	940.4	1.375	0.002	1054.2	1.019	0.001	1168.0	1.273	0.000	1448.6	1.392	0.055
151.4	1.466	0.078	265.2	1.408	0.000	379.0	1.383	0.003	682.9	1.413	0.281	942.3	1.378	0.002	1056.1	1.045	0.000	1169.9	1.276	0.000	1454.4	1.382	0.077
153.4	1.469	0.082	267.2	1.409	0.000	381.0	1.385	0.003	688.6	1.372	0.204	944.2	1.381	0.000	1058.0	1.066	0.000	1171.8	1.278	0.000	1460.2	1.363	0.075
155.3	1.466	0.098	269.1	1.409	0.000	382.9	1.386	0.004	694.4	1.382	0.153	946.2	1.386	0.001	1060.0	1.085	0.000	1173.8	1.280	0.000	1466.0	1.378	0.081
157.2	1.463	0.103	271.0	1.410	0.002	384.8	1.387	0.003	700.2	1.402	0.132	948.1	1.389	0.001	1061.9	1.101	0.000	1175.7	1.282	0.000	1471.8	1.359	0.128
159.1	1.456	0.121	273.0	1.409	0.003	386.8	1.388	0.002	706.0	1.418	0.125	950.0	1.394	0.003	1063.8	1.115	0.000	1177.6	1.283	0.000	1477.6	1.306	0.116
161.1	1.442	0.131	274.9	1.410	0.002	388.7	1.389	0.002	711.8	1.430	0.128	951.9	1.396	0.003	1065.7	1.127	0.000	1179.6	1.284	0.000	1483.4	1.293	0.063
163.0	1.427	0.140	276.8	1.409	0.004	390.6	1.390	0.002	717.6	1.439	0.132	953.9	1.401	0.003	1067.7	1.139	0.000	1181.5	1.287	0.000	1489.2	1.315	0.047

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TABLE 4E—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1494.9	1.329	0.055	1836.4	1.338	0.001	2059.2	1.346	0.002	2319.6	1.362	0.001	2661.0	1.386	0.003	3002.4	1.346	0.059	3343.8	1.101	0.080	3685.3	1.275	0.000
1500.7	1.332	0.072	1842.2	1.339	0.001	2061.1	1.346	0.002	2325.4	1.362	0.000	2666.8	1.388	0.002	3008.2	1.361	0.057	3349.6	1.112	0.070	3691.1	1.276	0.000
1506.5	1.321	0.092	1847.9	1.339	0.001	2063.0	1.346	0.001	2331.1	1.363	0.000	2672.6	1.391	0.001	3014.0	1.369	0.057	3355.4	1.121	0.061	3696.8	1.276	0.000
1512.3	1.294	0.095	1853.7	1.339	0.001	2064.9	1.347	0.001	2336.9	1.364	0.001	2678.4	1.393	0.000	3019.8	1.378	0.057	3361.2	1.132	0.055	3702.6	1.277	0.000
1518.1	1.273	0.078	1859.5	1.340	0.001	2066.9	1.347	0.001	2342.7	1.364	0.001	2684.1	1.396	0.000	3025.6	1.384	0.057	3367.0	1.140	0.049	3708.4	1.278	0.000
1523.9	1.270	0.058	1865.3	1.340	0.001	2068.8	1.347	0.001	2348.5	1.365	0.001	2689.9	1.398	0.000	3031.4	1.389	0.057	3372.8	1.149	0.044	3714.2	1.278	0.000
1529.7	1.271	0.042	1871.1	1.340	0.001	2070.7	1.348	0.001	2354.3	1.365	0.001	2695.7	1.401	0.000	3037.1	1.391	0.058	3378.6	1.156	0.039	3720.0	1.279	0.000
1535.4	1.272	0.032	1876.9	1.341	0.001	2072.7	1.348	0.001	2360.1	1.366	0.001	2701.5	1.403	0.000	3042.9	1.397	0.059	3384.4	1.162	0.035	3725.8	1.279	0.000
1541.2	1.277	0.025	1882.7	1.341	0.001	2074.6	1.348	0.001	2365.9	1.366	0.001	2707.3	1.406	0.000	3048.7	1.405	0.060	3390.1	1.164	0.032	3731.6	1.280	0.000
1547.0	1.282	0.020	1888.4	1.341	0.001	2076.5	1.348	0.001	2371.6	1.367	0.001	2713.1	1.409	0.000	3054.5	1.412	0.062	3395.9	1.169	0.028	3737.4	1.281	0.000
1552.8	1.286	0.016	1894.2	1.341	0.001	2078.4	1.349	0.001	2377.4	1.367	0.001	2718.9	1.412	0.001	3060.3	1.418	0.064	3401.7	1.175	0.024	3743.1	1.281	0.000
1558.6	1.289	0.013	1900.0	1.342	0.001	2080.4	1.349	0.001	2383.2	1.368	0.001	2724.6	1.415	0.002	3066.1	1.427	0.067	3407.5	1.181	0.021	3748.9	1.282	0.000
1564.4	1.293	0.011	1905.8	1.342	0.001	2082.3	1.349	0.001	2389.0	1.368	0.001	2730.4	1.417	0.002	3071.9	1.434	0.071	3413.3	1.186	0.016	3754.7	1.282	0.000
1570.2	1.296	0.009	1911.6	1.343	0.001	2084.2	1.349	0.001	2394.8	1.369	0.001	2736.2	1.421	0.003	3077.6	1.434	0.076	3419.1	1.191	0.016	3760.5	1.283	0.000
1576.0	1.298	0.007	1917.4	1.343	0.001	2086.2	1.349	0.001	2400.6	1.369	0.001	2742.0	1.424	0.004	3083.4	1.441	0.082	3424.9	1.195	0.015	3766.3	1.283	0.000
1581.7	1.300	0.005	1923.2	1.343	0.001	2088.1	1.349	0.000	2406.4	1.370	0.001	2747.8	1.428	0.005	3089.2	1.446	0.088	3430.6	1.198	0.014	3772.1	1.284	0.000
1587.5	1.303	0.004	1929.0	1.343	0.001	2090.0	1.349	0.000	2412.2	1.371	0.000	2753.6	1.432	0.006	3095.0	1.456	0.095	3436.4	1.202	0.013	3777.9	1.284	0.000
1593.3	1.305	0.004	1934.7	1.344	0.001	2092.0	1.350	0.001	2417.9	1.372	0.001	2759.4	1.436	0.008	3100.8	1.462	0.103	3442.2	1.206	0.012	3783.6	1.284	0.000
1599.1	1.308	0.003	1940.5	1.344	0.001	2093.9	1.350	0.001	2423.7	1.373	0.001	2765.2	1.441	0.009	3106.6	1.473	0.113	3448.0	1.209	0.011	3789.4	1.285	0.000
1604.9	1.310	0.002	1946.3	1.344	0.001	2095.8	1.350	0.001	2429.5	1.374	0.001	2770.9	1.445	0.012	3112.4	1.478	0.123	3453.8	1.212	0.010	3795.2	1.285	0.000
1610.7	1.311	0.001	1952.1	1.345	0.000	2097.7	1.350	0.001	2435.3	1.375	0.002	2776.7	1.450	0.014	3118.2	1.483	0.135	3459.6	1.215	0.009	3801.0	1.286	0.000
1616.5	1.312	0.002	1957.9	1.345	0.001	2099.7	1.350	0.001	2441.1	1.376	0.003	2782.5	1.456	0.018	3123.9	1.476	0.148	3465.4	1.217	0.008	3806.8	1.286	0.000
1622.3	1.314	0.001	1963.7	1.345	0.001	2105.5	1.350	0.001	2446.9	1.378	0.004	2788.3	1.463	0.021	3129.7	1.479	0.163	3471.2	1.220	0.007	3812.6	1.287	0.000
1628.0	1.316	0.001	1969.5	1.346	0.000	2111.2	1.351	0.000	2452.7	1.377	0.006	2794.1	1.470	0.027	3135.5	1.479	0.180	3476.9	1.222	0.006	3818.4	1.287	0.000
1633.8	1.317	0.000	1975.3	1.347	0.000	2117.0	1.351	0.000	2458.5	1.375	0.007	2799.9	1.480	0.033	3141.3	1.486	0.199	3482.7	1.225	0.005	3824.2	1.288	0.000
1639.6	1.318	0.000	1981.0	1.347	0.001	2122.8	1.352	0.000	2464.2	1.374	0.006	2805.7	1.489	0.043	3147.1	1.483	0.219	3488.5	1.227	0.004	3829.9	1.288	0.000
1645.4	1.319	0.000	1986.8	1.347	0.000	2128.6	1.352	0.001	2470.0	1.375	0.003	2811.5	1.501	0.056	3152.9	1.485	0.241	3494.3	1.230	0.004	3835.7	1.288	0.000
1651.2	1.320	0.000	1992.6	1.348	0.001	2134.4	1.353	0.001	2475.8	1.377	0.003	2817.2	1.506	0.078	3158.7	1.474	0.262	3500.1	1.232	0.003	3841.5	1.289	0.000
1657.0	1.322	0.000	1998.4	1.348	0.001	2140.2	1.353	0.001	2481.6	1.378	0.003	2823.0	1.514	0.114	3164.5	1.457	0.281	3505.9	1.235	0.002	3847.3	1.289	0.000
1662.8	1.322	0.000	2001.3	1.348	0.001	2146.0	1.353	0.001	2487.4	1.380	0.003	2828.8	1.504	0.185	3170.2	1.414	0.299	3511.7	1.237	0.002	3853.1	1.290	0.001
1668.5	1.323	0.000	2003.2	1.349	0.001	2151.8	1.353	0.001	2493.2	1.382	0.003	2834.6	1.380	0.211	3176.0	1.390	0.310	3517.4	1.239	0.002	3858.9	1.290	0.001
1674.3	1.324	0.000	2005.1	1.349	0.001	2157.5	1.353	0.001	2499.0	1.384	0.004	2840.4	1.363	0.125	3181.8	1.377	0.317	3523.2	1.241	0.000	3864.7	1.290	0.001
1680.1	1.325	0.000	2007.1	1.349	0.001	2163.3	1.355	0.000	2504.7	1.385	0.005	2846.2	1.371	0.095	3187.6	1.351	0.320	3529.0	1.243	0.000	3870.4	1.290	0.000
1685.9	1.326	0.000	2009.0	1.349	0.001	2169.1	1.355	0.001	2510.5	1.386	0.007	2852.0	1.384	0.073	3193.4	1.325	0.316	3534.8	1.245	0.000	3876.2	1.290	0.000
1691.7	1.326	0.000	2010.9	1.350	0.001	2174.9	1.355	0.001	2516.3	1.387	0.009	2857.7	1.393	0.066	3199.2	1.314	0.308	3540.6	1.247	0.000	3882.0	1.291	0.000
1697.5	1.327	0.000	2012.9	1.350	0.001	2180.7	1.355	0.001	2522.1	1.389	0.011	2863.5	1.404	0.066	3205.0	1.295	0.296	3546.4	1.248	0.000	3887.8	1.291	0.000
1703.3	1.328	0.000	2014.8	1.350	0.001	2186.5	1.356	0.001	2527.9	1.390	0.016	2869.3	1.412	0.068	3210.7	1.257	0.282	3552.2	1.250	0.000	3893.6	1.292	0.000
1709.1	1.328	0.000	2016.7	1.351	0.001	2192.3	1.356	0.001	2533.7	1.388	0.022	2875.1	1.420	0.071	3216.5	1.247	0.267	3558.0	1.252	0.000	3899.4	1.292	0.000
1714.8	1.329	0.000	2018.7	1.351	0.001	2198.0	1.356	0.001	2539.5	1.381	0.023	2880.9	1.426	0.076	3222.3	1.241	0.251	3563.7	1.253	0.000	3905.2	1.292	0.000
1720.6	1.330	0.000	2020.6	1.352	0.002	2203.8	1.357	0.001	2545.3	1.377	0.019	2886.7	1.433	0.082	3228.1	1.250	0.238	3569.5	1.255	0.000	3911.0	1.293	0.000
1726.4	1.330	0.000	2022.5	1.353	0.002	2209.6	1.358	0.001	2551.0	1.376	0.016	2892.5	1.436	0.089	3233.9	1.251	0.227	3575.3	1.256	0.000	3916.7	1.293	0.000
1732.2	1.330	0.000	2024.4	1.354	0.002	2215.4	1.358	0.001	2556.8	1.376	0.015	2898.3	1.436	0.097	3239.7	1.264	0.219	3581.1	1.258	0.000	3922.5	1.293	0.000
1738.0	1.331	0.000	2026.4	1.355	0.003	2221.2	1.360	0.002	2562.6	1.377	0.013	2904.0	1.425	0.105	3245.5	1.269	0.214	3586.9	1.259	0.000	3928.3	1.294	0.001
1743.8	1.331	0.000	2028.3	1.356	0.004	2227.0	1.360	0.004	2568.4	1.379	0.012	2909.8	1.420	0.109	3251.3	1.275	0.214	3592.7	1.260	0.000	3934.1	1.294	0.001
1749.6	1.332	0.000	2030.2	1.358	0.006	2232.8	1.358	0.004	2574.2	1.379	0.012	2915.6	1.419	0.111	3257.0	1.265	0.218	3598.5	1.261	0.000	3939.9	1.294	0.001
1755.3	1.333	0.000	2032.2	1.359	0.011	2238.6	1.358	0.004	2580.0	1.381	0.012	2921.4	1.424	0.118	3262.8	1.269	0.229	3604.3	1.263	0.000	3945.7	1.294	0.001
1761.1	1.333	0.000	2034.1	1.358	0.018	2244.3	1.358	0.004	2585.8	1.382	0.012	2927.2	1.418	0.128	3268.6	1.278	0.245	3610.0	1.264	0.000	3951.5	1.295	0.001
1766.9	1.334	0.000	2036.0	1.349	0.026	2250.1	1.358	0.004	2591.6	1.383	0.013	2933.0	1.415	0.132	3274.4	1.269	0.267	3615.8	1.265	0.000	3957.3	1.295	0.001
1772.7	1.334	0.000	2037.9	1.338	0.018	2255.9	1.357	0.004	2597.3	1.382	0.013	2938.8	1.409	0.134	3280.2	1.250	0.287	3621.6	1.266	0.000	3963.0	1.295	0.001
1778.5	1.334	0.000	2039.9	1.338	0.010	2261.7	1.358	0.003	2603.1	1.382	0.013	2944.5	1.391	0.139	3286.0	1.233	0.303	3627.4	1.267	0.000	3968.8	1.295	0.001
1784.3	1.335	0.000	2041.8	1.339	0.006	2267.5	1.358	0.003	2608.9	1.383	0.014	2950.3	1.383	0.144	3291.8	1.196	0.309	3633.2	1.268	0.000	3974.6	1.295	0.002
1790.1	1.335	0.000	2043.7	1.341	0.004	2273.3	1.358	0.003	2614.7	1.382	0.015	2956.1	1.369	0.154	3297.5	1.130	0.301	3639.0	1.269	0.000	3980.4	1.295	0.002
1795.9	1.336	0.000	2045.7	1.342	0.004	2279.1	1.358	0.002	2620.5	1.381	0.014	2961.9	1.342	0.142	3303.3	1.091	0.276	3644.8	1.269	0.000	3986.2	1.295	0.001
1801.6	1.336	0.000	2047.6	1.343	0.003	2284.8	1.358	0.001	2626.3	1.381	0.011	2967.7	1.343	0.109	3309.1	1.066	0.238	3650.5	1.270	0.000	3992.0	1.295	0.000
1807.4	1.336	0.000	2049.5	1.344	0.002	2290.6	1.359	0.001	2632.1	1.381	0.010	2973.5	1.362	0.102	3314.9	1.065	0.198	3656.3	1.271	0.000	3997.8	1.295	0.000
1813.2	1.337	0.000	2051.4	1.344	0.002	2296.4	1.360	0.001	2637.8	1.381	0.009	2979.3	1.368	0.111	3320.7	1.066	0.162	3662.1	1.272	0.000			
1819.0	1.337	0.001	2053.4	1.345	0.002	2302.2	1.361	0.000	2643.6	1.382	0.008	2985.1	1.352	0.127	3326.5	1.078	0.134	3667.9	1.272	0.000			
1824.8	1.337	0.001	2055.3	1.345	0.002	2308.0	1.361	0.001	2649.4	1.383	0.007	2990.8	1.314	0.100	3332.3	1.087	0.112	3673.7	1.273	0.000			
1830.6	1.338	0.001	2057.2	1.346	0.002	2313.8	1.362	0.001	2655.2	1.384	0.005	2996.6	1.328	0.066	3338.1	1.097	0.095	3679.5	1.274	0.000			

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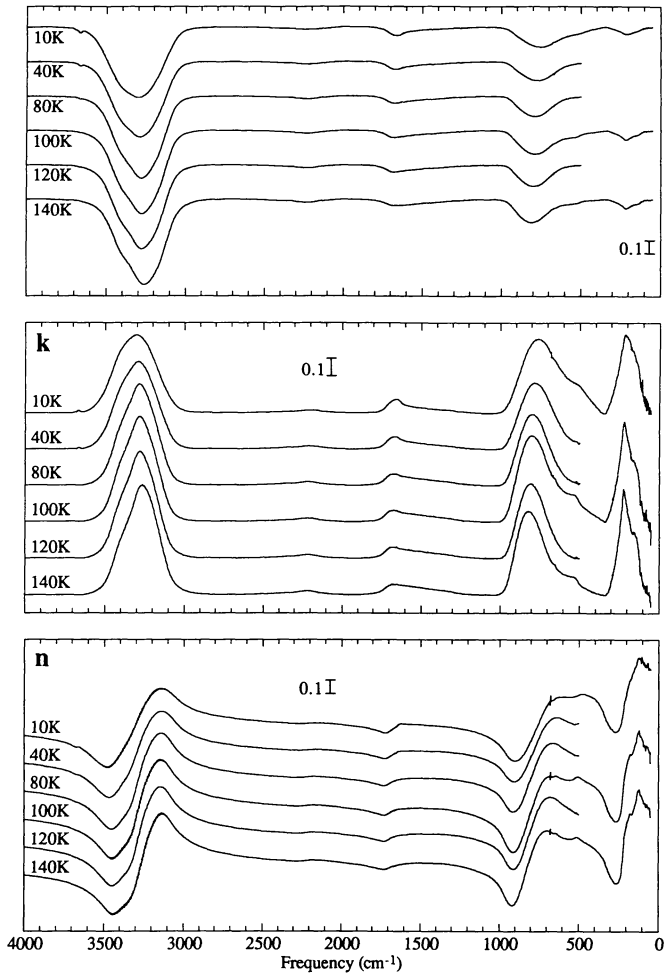

FIG. 5.—The 4000 to 50 cm^{-1} transmission spectra and optical constants (n and k) of a pure H_2O ice at temperatures of 10, 40, 80, 100, 120, and 140 K. The original ice was deposited at 10 K.

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TABLE 5A

H_2O AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
50.2	1.733	0.000	164.0	1.693	0.349	277.8	1.287	0.157	391.6	1.512	0.034	505.4	1.548	0.158	827.0	1.158	0.348	1282.3	1.317	0.012	1737.5	1.281	0.022
52.1	1.732	0.020	165.9	1.684	0.346	279.7	1.289	0.149	393.5	1.514	0.036	507.3	1.546	0.159	834.8	1.143	0.331	1290.0	1.318	0.014	1745.2	1.285	0.018
54.0	1.736	0.000	167.8	1.678	0.349	281.6	1.291	0.142	395.4	1.517	0.037	509.2	1.546	0.160	842.5	1.128	0.317	1297.7	1.319	0.014	1752.9	1.288	0.014
55.9	1.744	0.017	169.8	1.672	0.347	283.6	1.294	0.134	397.4	1.519	0.039	511.2	1.546	0.160	850.2	1.114	0.297	1305.4	1.320	0.015	1760.7	1.291	0.012
57.9	1.743	0.019	171.7	1.669	0.350	285.5	1.295	0.129	399.3	1.521	0.042	513.1	1.546	0.164	857.9	1.103	0.279	1313.1	1.320	0.015	1768.4	1.294	0.010
59.8	1.733	0.036	173.6	1.665	0.357	287.4	1.298	0.121	401.2	1.523	0.044	515.0	1.544	0.164	865.6	1.094	0.258	1320.9	1.323	0.016	1776.1	1.297	0.008
61.7	1.733	0.000	175.5	1.660	0.355	289.3	1.300	0.115	403.2	1.525	0.047	517.0	1.543	0.166	873.3	1.086	0.237	1328.6	1.323	0.016	1783.8	1.300	0.007
63.7	1.749	0.000	177.5	1.654	0.368	291.3	1.303	0.109	405.1	1.527	0.048	518.9	1.542	0.165	881.1	1.082	0.216	1336.3	1.324	0.018	1791.5	1.302	0.006
65.6	1.768	0.000	179.4	1.651	0.357	293.2	1.306	0.104	407.0	1.528	0.052	520.8	1.541	0.167	888.8	1.078	0.195	1344.0	1.324	0.018	1799.2	1.304	0.005
67.5	1.784	0.024	181.3	1.651	0.375	295.1	1.307	0.100	408.9	1.530	0.053	522.8	1.542	0.164	896.5	1.077	0.175	1351.7	1.326	0.019	1806.9	1.306	0.004
69.4	1.779	0.058	183.3	1.643	0.383	297.1	1.310	0.092	410.9	1.531	0.056	524.7	1.543	0.169	904.2	1.077	0.155	1359.4	1.325	0.019	1814.7	1.309	0.004
71.4	1.765	0.059	185.2	1.635	0.390	299.0	1.312	0.088	412.8	1.532	0.057	526.6	1.541	0.170	911.9	1.080	0.135	1367.1	1.326	0.020	1822.4	1.310	0.003
73.3	1.765	0.048	187.1	1.625	0.399	300.9	1.314	0.082	414.7	1.533	0.059	528.5	1.541	0.172	919.6	1.084	0.116	1374.9	1.328	0.020	1830.1	1.312	0.003
75.2	1.765	0.068	189.0	1.615	0.402	302.9	1.317	0.074	416.7	1.534	0.061	530.5	1.540	0.172	927.4	1.090	0.098	1382.6	1.328	0.020	1837.8	1.313	0.002
77.2	1.750	0.075	191.0	1.604	0.411	304.8	1.320	0.069	418.6	1.535	0.062	532.4	1.539	0.174	935.1	1.097	0.080	1390.3	1.329	0.021	1845.5	1.315	0.002
79.1	1.763	0.021	192.9	1.594	0.411	306.7	1.323	0.063	420.5	1.537	0.065	534.3	1.538	0.174	942.8	1.106	0.065	1398.0	1.329	0.021	1853.2	1.317	0.002
81.0	1.771	0.088	194.8	1.583	0.414	308.6	1.327	0.058	422.4	1.538	0.066	536.3	1.538	0.173	950.5	1.117	0.051	1405.7	1.330	0.023	1861.0	1.318	0.002
82.9	1.754	0.071	196.8	1.573	0.419	310.6	1.331	0.050	424.4	1.540	0.068	538.2	1.539	0.176	958.2	1.130	0.038	1413.4	1.330	0.022	1868.7	1.320	0.001
84.9	1.756	0.054	198.7	1.564	0.417	312.5	1.336	0.048	426.3	1.541	0.069	540.1	1.538	0.176	965.9	1.139	0.029	1421.2	1.332	0.024	1876.4	1.321	0.001
86.8	1.770	0.044	200.6	1.554	0.425	314.4	1.340	0.040	428.2	1.542	0.072	542.0	1.539	0.176	973.6	1.152	0.022	1428.9	1.333	0.024	1884.1	1.322	0.001
88.7	1.786	0.060	202.5	1.543	0.424	316.4	1.345	0.039	430.2	1.543	0.074	544.0	1.538	0.180	981.4	1.163	0.014	1436.6	1.332	0.025	1891.8	1.324	0.001
90.7	1.777	0.098	204.5	1.532	0.429	318.3	1.349	0.034	432.1	1.545	0.076	545.9	1.537	0.180	989.1	1.174	0.009	1444.3	1.333	0.025	1899.5	1.325	0.001
92.6	1.773	0.061	206.4	1.521	0.427	320.2	1.354	0.030	434.0	1.546	0.079	547.8	1.537	0.180	996.8	1.185	0.006	1452.0	1.333	0.026	1907.3	1.326	0.001
94.5	1.789	0.068	208.3	1.510	0.435	322.1	1.358	0.026	435.9	1.547	0.080	549.8	1.537	0.180	1004.5	1.193	0.004	1459.7	1.333	0.026	1915.0	1.327	0.001
96.4	1.789	0.094	210.3	1.497	0.433	324.1	1.363	0.021	437.9	1.548	0.083	557.5	1.537	0.186	1012.2	1.203	0.003	1467.5	1.335	0.027	1922.7	1.328	0.001
98.4	1.795	0.070	212.2	1.483	0.435	326.0	1.368	0.019	439.8	1.548	0.085	565.2	1.538	0.190	1019.9	1.209	0.000	1475.2	1.336	0.027	1930.4	1.329	0.001
100.3	1.805	0.099	214.1	1.469	0.437	327.9	1.373	0.013	441.7	1.549	0.087	572.9	1.538	0.195	1027.7	1.216	0.000	1482.9	1.335	0.028	1938.1	1.330	0.001
102.2	1.810	0.095	216.0	1.454	0.434	329.9	1.378	0.011	443.7	1.550	0.089	580.6	1.539	0.201	1035.4	1.225	0.000	1490.6	1.337	0.029	1945.8	1.331	0.001
104.2	1.826	0.105	218.0	1.439	0.434	331.8	1.383	0.007	445.6	1.550	0.091	588.3	1.538	0.207	1043.1	1.231	0.000	1498.3	1.337	0.029	1953.5	1.332	0.001
106.1	1.805	0.189	219.9	1.424	0.428	333.7	1.389	0.003	447.5	1.551	0.093	596.1	1.540	0.216	1050.8	1.237	0.000	1506.0	1.337	0.030	1961.3	1.333	0.001
108.0	1.779	0.129	221.8	1.409	0.424	335.6	1.396	0.001	449.5	1.552	0.095	603.8	1.539	0.223	1058.5	1.242	0.000	1513.7	1.337	0.031	1969.0	1.334	0.001
110.0	1.791	0.122	223.8	1.393	0.415	337.6	1.402	0.000	451.4	1.553	0.097	611.5	1.538	0.233	1066.2	1.247	0.000	1521.5	1.339	0.033	1976.7	1.335	0.001
111.9	1.801	0.130	225.7	1.381	0.401	339.5	1.409	0.000	453.3	1.553	0.099	619.2	1.537	0.241	1073.9	1.252	0.000	1529.2	1.339	0.032	1984.4	1.336	0.002
113.8	1.807	0.138	227.6	1.372	0.394	341.4	1.416	0.000	455.2	1.554	0.102	626.9	1.536	0.250	1081.7	1.256	0.000	1536.9	1.339	0.034	1992.1	1.337	0.002
115.7	1.810	0.150	229.6	1.362	0.383	343.4	1.423	0.000	457.2	1.555	0.104	634.6	1.535	0.262	1089.4	1.260	0.000	1544.6	1.340	0.035	1999.8	1.338	0.002
117.7	1.816	0.150	231.5	1.353	0.376	345.3	1.429	0.000	459.1	1.555	0.105	642.3	1.531	0.273	1097.1	1.264	0.000	1552.3	1.339	0.036	2007.6	1.339	0.003
119.6	1.820	0.172	233.4	1.344	0.361	347.2	1.435	0.000	461.0	1.556	0.108	650.1	1.525	0.286	1104.8	1.267	0.000	1560.0	1.340	0.037	2015.3	1.339	0.003
121.5	1.822	0.177	235.3	1.340	0.354	349.1	1.440	0.000	463.0	1.556	0.110	657.8	1.517	0.296	1112.5	1.271	0.000	1567.8	1.342	0.039	2023.0	1.341	0.004
123.5	1.821	0.198	237.3	1.332	0.349	351.1	1.444	0.001	464.9	1.557	0.113	665.5	1.511	0.303	1120.2	1.275	0.002	1575.5	1.342	0.040	2030.7	1.341	0.004
125.4	1.819	0.205	239.2	1.325	0.335	353.0	1.448	0.003	466.8	1.557	0.115	673.2	1.508	0.313	1128.0	1.277	0.002	1583.2	1.341	0.041	2038.4	1.342	0.004
127.3	1.817	0.222	241.1	1.319	0.327	354.9	1.453	0.003	468.7	1.557	0.117	680.4	1.478	0.341	1135.7	1.280	0.002	1590.9	1.342	0.042	2046.1	1.343	0.004
129.2	1.812	0.237	243.1	1.313	0.317	356.9	1.457	0.005	470.7	1.558	0.121	688.2	1.493	0.345	1143.4	1.282	0.002	1598.6	1.342	0.045	2053.9	1.344	0.005
131.2	1.805	0.249	245.0	1.307	0.309	358.8	1.460	0.005	472.6	1.557	0.122	695.9	1.479	0.359	1151.1	1.285	0.002	1606.3	1.343	0.048	2061.6	1.344	0.005
133.1	1.794	0.265	246.9	1.303	0.295	360.7	1.464	0.006	474.5	1.557	0.125	703.6	1.464	0.370	1158.8	1.289	0.002	1614.1	1.345	0.051	2069.3	1.345	0.006
135.0	1.784	0.263	248.8	1.300	0.286	362.6	1.468	0.007	476.5	1.557	0.126	711.3	1.449	0.380	1166.5	1.290	0.004	1621.8	1.346	0.057	2077.0	1.345	0.006
137.0	1.777	0.275	250.8	1.296	0.277	364.6	1.472	0.008	478.4	1.557	0.129	719.0	1.432	0.389	1174.3	1.292	0.004	1629.5	1.343	0.063	2084.7	1.346	0.007
138.9	1.768	0.273	252.7	1.294	0.264	366.5	1.476	0.010	480.3	1.557	0.131	726.7	1.415	0.397	1182.0	1.295	0.004	1637.2	1.338	0.070	2092.4	1.346	0.007
140.8	1.764	0.280	254.6	1.292	0.256	368.4	1.480	0.011	482.2	1.557	0.134	734.5	1.396	0.403	1189.7	1.297	0.004	1644.9	1.332	0.075	2100.1	1.347	0.008
142.7	1.757	0.285	256.6	1.291	0.243	370.4	1.484	0.013	484.2	1.557	0.136	742.2	1.379	0.408	1197.4	1.299	0.006	1652.6	1.322	0.077	2107.9	1.347	0.009
144.7	1.753	0.284	258.5	1.291	0.238	372.3	1.487	0.015	486.1	1.557	0.138	749.9	1.356	0.412	1205.1	1.301	0.006	1660.3	1.314	0.077	2115.6	1.348	0.010
146.6	1.748	0.295	260.4	1.290	0.230	374.2	1.491	0.017	488.0	1.557	0.140	757.6	1.337	0.411	1212.8	1.303	0.008	1668.1	1.309	0.075	2123.3	1.348	0.011
148.5	1.745	0.292	262.3	1.288	0.222	376.2	1.494	0.019	490.0	1.556	0.143	765.3	1.317	0.411	1220.5	1.304	0.008	1675.8	1.303	0.072	2131.0	1.349	0.011
150.5	1.741	0.308	264.3	1.288	0.213	378.1	1.497	0.021	491.9	1.555	0.145	773.0	1.295	0.411	1228.3	1.306	0.008	1683.5	1.295	0.069	2138.7	1.348	0.012
152.4	1.735	0.307	266.2	1.288	0.205	380.0	1.499	0.024	493.8	1.555	0.147	780.7	1.273	0.405	1236.0	1.309	0.008	1691.2	1.289	0.064	2146.4	1.348	0.012
154.3	1.732	0.318	268.1	1.286	0.199	381.9	1.501	0.026	495.7	1.554	0.150	788.5	1.253	0.402	1243.7	1.310	0.009	1698.9	1.283	0.058	2154.2	1.348	0.013
156.2	1.722	0.326	270.1	1.287	0.188	383.9	1.504	0.028	497.7	1.553	0.152	796.2	1.232	0.392	1251.4	1.311	0.011	1706.6	1.279	0.052	2161.9	1.348	0.014
158.2	1.718	0.323	272.0	1.287	0.184	385.8	1.505	0.031	499.6	1.551	0.154	803.9	1.213	0.386	1259.1	1.312	0.011	1714.4	1.279	0.044	2169.6	1.348	0.014
160.1	1.712	0.339	273.9	1.286	0.174	387.7	1.507	0.032	501.5	1.551	0.154	811.6	1.195	0.372	1266.8	1.314	0.011	1722.1	1.278	0.037	2177.3	1.348	0.015
162.0	1.703	0.341	275.8	1.286	0.166	389.7	1.509	0.033	503.5	1.550	0.158	819.3	1.176	0.362	1274.6	1.316	0.012	1729.8	1.279	0.030	2185.0	1.347	0.015

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TABLE 5A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2192.7	1.346	0.016	2648.0	1.377	0.002	3103.2	1.580	0.103	3558.4	1.085	0.047
2200.5	1.347	0.016	2655.7	1.378	0.002	3110.9	1.583	0.117	3566.2	1.094	0.039
2208.2	1.346	0.015	2663.4	1.379	0.002	3118.6	1.587	0.132	3573.9	1.102	0.033
2215.9	1.345	0.015	2671.1	1.380	0.002	3126.4	1.595	0.146	3581.6	1.109	0.027
2223.6	1.345	0.015	2678.8	1.381	0.001	3134.1	1.597	0.162	3589.3	1.117	0.022
2231.3	1.345	0.014	2686.6	1.382	0.002	3141.8	1.594	0.179	3597.0	1.125	0.018
2239.0	1.344	0.014	2694.3	1.383	0.001	3149.5	1.594	0.196	3604.7	1.132	0.014
2246.7	1.344	0.013	2702.0	1.384	0.001	3157.2	1.592	0.212	3612.5	1.139	0.012
2254.5	1.345	0.013	2709.7	1.386	0.001	3164.9	1.584	0.231	3620.2	1.146	0.009
2262.2	1.345	0.013	2717.4	1.387	0.001	3172.6	1.580	0.248	3627.9	1.153	0.007
2269.9	1.344	0.013	2725.1	1.388	0.002	3180.4	1.583	0.264	3635.6	1.159	0.006
2277.6	1.345	0.012	2732.8	1.389	0.002	3188.1	1.571	0.282	3643.3	1.167	0.005
2285.3	1.345	0.012	2740.6	1.391	0.002	3195.8	1.563	0.298	3651.0	1.173	0.008
2293.0	1.345	0.011	2748.3	1.392	0.002	3203.5	1.553	0.315	3658.7	1.176	0.012
2300.8	1.346	0.011	2756.0	1.393	0.002	3211.2	1.535	0.332	3666.5	1.175	0.014
2308.5	1.346	0.010	2763.7	1.395	0.002	3218.9	1.521	0.347	3674.2	1.174	0.010
2316.2	1.347	0.010	2771.4	1.396	0.002	3226.7	1.520	0.359	3681.9	1.177	0.005
2323.9	1.347	0.010	2779.1	1.398	0.002	3234.4	1.505	0.373	3689.6	1.181	0.004
2331.6	1.347	0.009	2786.9	1.400	0.002	3242.1	1.482	0.385	3697.3	1.184	0.001
2339.3	1.348	0.009	2794.6	1.401	0.003	3249.8	1.466	0.396	3705.0	1.188	0.000
2347.1	1.348	0.008	2802.3	1.403	0.002	3257.5	1.439	0.406	3712.8	1.193	0.000
2354.8	1.349	0.008	2810.0	1.404	0.002	3265.2	1.421	0.414	3720.5	1.197	0.000
2362.5	1.349	0.008	2817.7	1.406	0.002	3273.0	1.418	0.420	3728.2	1.200	0.000
2370.2	1.350	0.007	2825.4	1.408	0.002	3280.7	1.398	0.426	3735.9	1.204	0.000
2377.9	1.350	0.007	2833.2	1.410	0.003	3288.4	1.369	0.431	3743.6	1.207	0.000
2385.6	1.350	0.006	2840.9	1.411	0.003	3296.1	1.349	0.433	3751.3	1.209	0.000
2393.4	1.352	0.006	2848.6	1.413	0.003	3303.8	1.329	0.434	3759.1	1.212	0.000
2401.1	1.352	0.006	2856.3	1.415	0.003	3311.5	1.300	0.433	3766.8	1.214	0.000
2408.8	1.352	0.006	2864.0	1.417	0.003	3319.3	1.296	0.429	3774.5	1.217	0.000
2416.5	1.353	0.006	2871.7	1.420	0.003	3327.0	1.277	0.425	3782.2	1.219	0.000
2424.2	1.354	0.006	2879.4	1.422	0.003	3334.7	1.251	0.421	3789.9	1.221	0.000
2431.9	1.354	0.006	2887.2	1.425	0.003	3342.4	1.234	0.414	3797.6	1.223	0.000
2439.6	1.355	0.006	2894.9	1.428	0.003	3350.1	1.217	0.408	3805.3	1.225	0.000
2447.4	1.356	0.005	2902.6	1.430	0.003	3357.8	1.193	0.402	3813.1	1.227	0.000
2455.1	1.356	0.005	2910.3	1.434	0.003	3365.5	1.178	0.395	3820.8	1.229	0.000
2462.8	1.357	0.005	2918.0	1.436	0.004	3373.3	1.177	0.385	3828.5	1.230	0.000
2470.5	1.358	0.004	2925.7	1.440	0.003	3381.0	1.161	0.377	3836.2	1.232	0.000
2478.2	1.358	0.004	2933.5	1.443	0.004	3388.7	1.138	0.368	3843.9	1.233	0.000
2485.9	1.359	0.004	2941.2	1.447	0.004	3396.4	1.124	0.358	3851.6	1.235	0.000
2493.7	1.360	0.004	2948.9	1.451	0.005	3404.1	1.103	0.346	3859.4	1.236	0.000
2501.4	1.360	0.004	2956.6	1.456	0.006	3411.8	1.090	0.333	3867.1	1.238	0.000
2509.1	1.361	0.004	2964.3	1.460	0.007	3419.6	1.089	0.319	3874.8	1.239	0.000
2516.8	1.362	0.003	2972.0	1.465	0.008	3427.3	1.077	0.303	3882.5	1.241	0.000
2524.5	1.363	0.003	2979.8	1.470	0.009	3435.0	1.059	0.287	3890.2	1.242	0.000
2532.2	1.363	0.003	2987.5	1.475	0.010	3442.7	1.050	0.270	3897.9	1.243	0.000
2540.0	1.364	0.003	2995.2	1.480	0.012	3450.4	1.042	0.251	3905.7	1.244	0.000
2547.7	1.365	0.003	3002.9	1.486	0.014	3458.1	1.032	0.233	3913.4	1.246	0.000
2555.4	1.366	0.003	3010.6	1.492	0.017	3465.9	1.036	0.214	3921.1	1.247	0.000
2563.1	1.367	0.003	3018.3	1.498	0.019	3473.6	1.034	0.194	3928.8	1.248	0.000
2570.8	1.368	0.003	3026.0	1.505	0.022	3481.3	1.029	0.176	3936.5	1.249	0.000
2578.5	1.368	0.003	3033.8	1.514	0.026	3489.0	1.031	0.158	3944.2	1.250	0.000
2586.2	1.369	0.003	3041.5	1.520	0.030	3496.7	1.035	0.140	3951.9	1.251	0.000
2594.0	1.370	0.002	3049.2	1.528	0.036	3504.4	1.037	0.125	3959.7	1.252	0.000
2601.7	1.371	0.002	3056.9	1.537	0.042	3512.1	1.043	0.111	3967.4	1.253	0.000
2609.4	1.372	0.002	3064.6	1.543	0.049	3519.9	1.053	0.098	3975.1	1.254	0.000
2617.1	1.373	0.002	3072.3	1.551	0.058	3527.6	1.059	0.086	3982.8	1.255	0.000
2624.8	1.374	0.002	3080.1	1.562	0.067	3535.3	1.064	0.075	3990.5	1.257	0.000
2632.5	1.375	0.002	3087.8	1.569	0.078	3543.0	1.071	0.065	3998.2	1.258	0.000
2640.3	1.376	0.002	3095.5	1.574	0.090	3550.7	1.077	0.055			

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TABLE 5B

H_2O AT 40 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
500.1	1.549	0.037	858.9	1.166	0.269	1314.1	1.339	0.017	1769.3	1.305	0.010	2224.6	1.353	0.016	2672.1	1.387	0.002	3119.6	1.625	0.143	3567.1	1.098	0.029
503.9	1.547	0.030	866.6	1.153	0.251	1321.8	1.340	0.017	1777.1	1.307	0.009	2232.3	1.353	0.016	2679.8	1.388	0.002	3127.3	1.629	0.161	3574.8	1.106	0.024
507.8	1.545	0.033	874.3	1.145	0.230	1329.5	1.341	0.018	1784.8	1.310	0.008	2240.0	1.352	0.015	2687.5	1.389	0.001	3135.0	1.631	0.181	3582.6	1.113	0.020
511.7	1.545	0.036	882.0	1.137	0.211	1337.2	1.341	0.018	1792.5	1.312	0.006	2247.7	1.352	0.015	2695.2	1.390	0.001	3142.7	1.631	0.200	3590.3	1.121	0.016
515.5	1.544	0.043	889.7	1.132	0.190	1345.0	1.342	0.018	1800.2	1.314	0.005	2255.4	1.352	0.014	2702.9	1.392	0.001	3150.5	1.630	0.221	3598.0	1.128	0.013
519.4	1.542	0.046	897.5	1.128	0.169	1352.7	1.343	0.019	1807.9	1.316	0.005	2263.1	1.352	0.014	2710.7	1.393	0.001	3158.2	1.627	0.242	3605.7	1.135	0.010
523.2	1.540	0.046	905.2	1.127	0.148	1360.4	1.343	0.021	1815.6	1.318	0.004	2270.9	1.352	0.013	2718.4	1.395	0.002	3165.9	1.622	0.263	3613.4	1.141	0.008
527.1	1.540	0.045	912.9	1.128	0.128	1368.1	1.343	0.020	1823.3	1.319	0.003	2278.6	1.352	0.013	2726.1	1.396	0.002	3173.6	1.616	0.283	3621.1	1.148	0.006
530.9	1.541	0.048	920.6	1.131	0.111	1375.8	1.344	0.022	1831.1	1.321	0.003	2286.3	1.353	0.013	2733.8	1.397	0.002	3181.3	1.608	0.303	3628.8	1.154	0.005
534.8	1.541	0.048	928.3	1.136	0.091	1383.5	1.345	0.022	1838.8	1.323	0.002	2294.0	1.353	0.012	2741.5	1.398	0.002	3189.0	1.598	0.323	3636.6	1.160	0.003
538.7	1.544	0.047	936.0	1.142	0.073	1391.3	1.345	0.023	1846.5	1.324	0.002	2301.7	1.353	0.012	2749.2	1.400	0.002	3196.8	1.587	0.342	3644.3	1.166	0.003
542.5	1.547	0.050	943.7	1.151	0.060	1399.0	1.345	0.023	1854.2	1.325	0.002	2309.4	1.353	0.012	2757.0	1.401	0.002	3204.5	1.574	0.361	3652.0	1.171	0.005
546.4	1.549	0.053	951.5	1.159	0.045	1406.7	1.346	0.024	1861.9	1.327	0.001	2317.2	1.354	0.011	2764.7	1.403	0.002	3212.2	1.560	0.380	3659.7	1.174	0.007
550.2	1.551	0.055	959.2	1.170	0.033	1414.4	1.346	0.025	1869.6	1.329	0.001	2324.9	1.354	0.011	2772.4	1.404	0.002	3219.9	1.544	0.397	3667.4	1.174	0.007
554.1	1.552	0.058	966.9	1.182	0.024	1422.1	1.346	0.025	1877.4	1.330	0.001	2332.6	1.354	0.010	2780.1	1.406	0.002	3227.6	1.527	0.412	3675.1	1.176	0.004
558.0	1.554	0.061	974.6	1.193	0.015	1429.8	1.347	0.026	1885.1	1.331	0.001	2340.3	1.355	0.010	2787.8	1.408	0.002	3235.3	1.508	0.427	3682.9	1.180	0.000
561.8	1.557	0.063	982.3	1.204	0.011	1437.6	1.347	0.026	1892.8	1.332	0.001	2348.0	1.355	0.009	2795.5	1.409	0.002	3243.1	1.489	0.441	3690.6	1.184	0.000
565.7	1.558	0.069	990.0	1.215	0.004	1445.3	1.347	0.028	1900.5	1.333	0.000	2355.7	1.355	0.009	2803.3	1.410	0.002	3250.8	1.467	0.453	3698.3	1.188	0.000
569.5	1.560	0.068	997.8	1.225	0.003	1453.0	1.348	0.027	1908.2	1.334	0.000	2363.5	1.356	0.008	2811.0	1.412	0.002	3258.5	1.445	0.464	3706.0	1.192	0.000
573.4	1.562	0.074	1005.5	1.234	0.000	1460.7	1.347	0.029	1915.9	1.335	0.000	2371.2	1.356	0.008	2818.7	1.414	0.002	3266.2	1.421	0.473	3713.7	1.196	0.000
577.2	1.563	0.076	1013.2	1.241	0.001	1468.4	1.348	0.028	1923.7	1.337	0.002	2378.9	1.357	0.007	2826.4	1.416	0.002	3273.9	1.397	0.480	3721.4	1.199	0.000
581.1	1.566	0.078	1020.9	1.247	0.001	1476.1	1.348	0.030	1931.4	1.337	0.000	2386.6	1.358	0.007	2834.1	1.417	0.002	3281.6	1.372	0.484	3729.2	1.202	0.000
585.0	1.568	0.084	1028.6	1.254	0.000	1483.8	1.348	0.031	1939.1	1.339	0.000	2394.3	1.358	0.007	2841.8	1.419	0.002	3289.4	1.346	0.486	3736.9	1.205	0.000
588.8	1.570	0.086	1036.3	1.259	0.000	1491.6	1.349	0.031	1946.8	1.339	0.000	2402.0	1.359	0.007	2849.5	1.421	0.002	3297.1	1.320	0.486	3744.6	1.208	0.000
592.7	1.573	0.091	1044.0	1.264	0.000	1499.3	1.349	0.032	1954.5	1.340	0.000	2409.7	1.359	0.007	2857.3	1.424	0.001	3304.8	1.295	0.483	3752.3	1.210	0.000
596.5	1.575	0.096	1051.8	1.269	0.000	1507.0	1.349	0.033	1962.2	1.342	0.000	2417.5	1.360	0.007	2865.0	1.426	0.001	3312.5	1.270	0.478	3760.0	1.213	0.000
604.2	1.580	0.106	1059.5	1.273	0.000	1514.7	1.349	0.033	1969.9	1.342	0.000	2425.2	1.360	0.007	2872.7	1.429	0.001	3320.2	1.248	0.470	3767.7	1.215	0.000
612.0	1.582	0.116	1067.2	1.278	0.000	1522.4	1.350	0.034	1977.7	1.344	0.002	2432.9	1.361	0.006	2880.4	1.431	0.002	3327.9	1.227	0.461	3775.4	1.217	0.000
619.7	1.586	0.125	1074.9	1.283	0.000	1530.1	1.350	0.035	1985.4	1.344	0.002	2440.6	1.362	0.006	2888.1	1.434	0.002	3335.6	1.208	0.451	3783.2	1.219	0.000
627.4	1.589	0.141	1082.6	1.286	0.000	1537.9	1.349	0.036	1993.1	1.345	0.002	2448.3	1.362	0.006	2895.8	1.437	0.002	3343.4	1.189	0.442	3790.9	1.221	0.000
635.1	1.588	0.153	1090.3	1.289	0.000	1545.6	1.350	0.037	2000.8	1.346	0.002	2456.0	1.363	0.006	2903.6	1.440	0.002	3351.1	1.172	0.430	3798.6	1.223	0.000
642.8	1.589	0.168	1098.1	1.292	0.000	1553.3	1.349	0.038	2008.5	1.347	0.002	2463.8	1.364	0.005	2911.3	1.444	0.002	3358.8	1.156	0.419	3806.3	1.225	0.000
650.5	1.587	0.183	1105.8	1.295	0.001	1561.0	1.350	0.039	2016.2	1.348	0.002	2471.5	1.364	0.005	2919.0	1.447	0.002	3366.5	1.141	0.407	3814.0	1.227	0.000
658.3	1.585	0.198	1113.5	1.297	0.001	1568.7	1.350	0.040	2024.0	1.349	0.003	2479.2	1.365	0.005	2926.7	1.451	0.002	3374.2	1.126	0.397	3821.7	1.228	0.000
666.0	1.581	0.213	1121.2	1.300	0.001	1576.4	1.349	0.043	2031.7	1.349	0.003	2486.9	1.366	0.005	2934.4	1.454	0.002	3381.9	1.112	0.382	3829.5	1.230	0.000
673.7	1.575	0.228	1128.9	1.303	0.001	1584.2	1.349	0.043	2039.4	1.351	0.004	2494.6	1.366	0.004	2942.1	1.458	0.003	3389.7	1.097	0.372	3837.2	1.232	0.000
681.4	1.567	0.247	1136.6	1.306	0.003	1591.9	1.349	0.044	2047.1	1.351	0.004	2502.3	1.367	0.004	2949.9	1.463	0.004	3397.4	1.083	0.358	3844.9	1.233	0.000
689.1	1.559	0.263	1144.4	1.308	0.003	1599.6	1.349	0.046	2054.8	1.352	0.005	2510.1	1.368	0.004	2957.6	1.467	0.004	3405.1	1.069	0.343	3852.6	1.235	0.000
696.8	1.549	0.276	1152.1	1.310	0.003	1607.3	1.349	0.048	2062.5	1.353	0.005	2517.8	1.368	0.004	2965.3	1.472	0.004	3412.8	1.058	0.325	3860.3	1.236	0.000
704.6	1.538	0.289	1159.8	1.312	0.003	1615.0	1.348	0.050	2070.3	1.353	0.006	2525.5	1.369	0.003	2973.0	1.477	0.006	3420.5	1.047	0.311	3868.0	1.238	0.000
712.3	1.525	0.306	1167.5	1.315	0.005	1622.7	1.348	0.053	2078.0	1.354	0.007	2533.2	1.370	0.003	2980.7	1.482	0.007	3428.2	1.036	0.293	3875.8	1.239	0.000
720.0	1.510	0.317	1175.2	1.316	0.005	1630.4	1.347	0.056	2085.7	1.354	0.006	2540.9	1.371	0.003	2988.4	1.488	0.008	3436.0	1.027	0.275	3883.5	1.241	0.000
727.7	1.494	0.328	1182.9	1.317	0.005	1638.2	1.344	0.061	2093.4	1.355	0.007	2548.6	1.372	0.003	2996.1	1.494	0.010	3443.7	1.020	0.254	3891.2	1.242	0.000
735.4	1.478	0.340	1190.6	1.320	0.005	1645.9	1.340	0.066	2101.1	1.356	0.007	2556.3	1.372	0.003	3003.9	1.500	0.011	3451.4	1.014	0.234	3898.9	1.243	0.000
743.1	1.458	0.350	1198.4	1.322	0.007	1653.6	1.334	0.068	2108.8	1.356	0.008	2564.1	1.373	0.003	3011.6	1.507	0.013	3459.1	1.011	0.213	3906.6	1.244	0.000
750.9	1.439	0.357	1206.1	1.323	0.007	1661.3	1.329	0.069	2116.5	1.356	0.009	2571.8	1.374	0.003	3019.3	1.515	0.016	3466.8	1.010	0.192	3914.3	1.245	0.000
758.6	1.418	0.363	1213.8	1.324	0.007	1669.0	1.323	0.069	2124.3	1.357	0.010	2579.5	1.375	0.003	3027.0	1.523	0.019	3474.5	1.011	0.172	3922.0	1.247	0.000
766.3	1.398	0.368	1221.5	1.327	0.007	1676.7	1.317	0.067	2132.0	1.357	0.011	2587.2	1.376	0.003	3034.7	1.531	0.022	3482.2	1.014	0.153	3929.8	1.248	0.000
774.0	1.376	0.369	1229.2	1.328	0.008	1684.5	1.311	0.065	2139.7	1.358	0.012	2594.9	1.377	0.003	3042.4	1.540	0.027	3490.0	1.019	0.135	3937.5	1.249	0.000
781.7	1.355	0.370	1236.9	1.329	0.010	1692.2	1.305	0.063	2147.4	1.358	0.013	2602.6	1.378	0.003	3050.2	1.549	0.032	3497.7	1.025	0.118	3945.2	1.250	0.000
789.4	1.333	0.369	1244.7	1.330	0.010	1699.9	1.300	0.057	2155.1	1.357	0.013	2610.4	1.379	0.002	3057.9	1.559	0.038	3505.4	1.032	0.103	3952.9	1.251	0.000
797.1	1.311	0.364	1252.4	1.332	0.010	1707.6	1.295	0.051	2162.8	1.358	0.014	2618.1	1.380	0.002	3065.6	1.569	0.046	3513.1	1.040	0.090	3960.6	1.252	0.000
804.9	1.290	0.359	1260.1	1.333	0.011	1715.3	1.293	0.045	2170.6	1.357	0.015	2625.8	1.381	0.002	3073.3	1.579	0.056	3520.8	1.048	0.078	3968.3	1.253	0.000
812.6	1.268	0.352	1267.8	1.334	0.011	1723.0	1.292	0.037	2178.3	1.357	0.016	2633.5	1.382	0.002	3081.0	1.589	0.067	3528.5	1.056	0.068	3976.1	1.254	0.000
820.3	1.249	0.340	1275.5	1.335	0.013	1730.8	1.292	0.031	2186.0	1.356	0.016	2641.2	1.383	0.002	3088.7	1.598	0.079	3536.3	1.064	0.058	3983.8	1.255	0.000
828.0	1.229	0.329	1283.2	1.336	0.014	1738.5	1.294	0.025	2193.7	1.356	0.017	2648.9	1.384	0.002	3096.5	1.606	0.093	3544.0	1.072	0.049	3991.5	1.256	0.000
835.7	1.211	0.318	1291.0	1.337	0.014	1746.2	1.296	0.019	2201.4	1.355	0.017	2656.7	1.385	0.002	3104.2	1.614	0.109	3551.7	1.081	0.042	3999.2	1.258	0.000
843.4	1.196	0.302	1298.7	1.338	0.014	1753.9	1.299	0.016	2209.1	1.355	0.017	2664.4	1.386	0.001	3111.9	1.620	0.125	3559.4	1.090	0.035			
851.2	1.179	0.285	1306.4	1.339	0.015	1761.6	1.302	0.013	2216.9	1.353	0.017												

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TABLE 5C

H_2O AT 80 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
500.1	1.513	0.014	858.9	1.174	0.313	1314.1	1.343	0.018	1769.3	1.306	0.013	2224.6	1.357	0.019	2672.1	1.392	0.002	3119.6	1.664	0.147	3567.1	1.102	0.019
503.9	1.515	0.007	866.6	1.157	0.292	1321.8	1.344	0.018	1777.1	1.309	0.011	2232.3	1.356	0.019	2679.8	1.393	0.002	3127.3	1.669	0.170	3574.8	1.109	0.016
507.8	1.517	0.014	874.3	1.142	0.271	1329.5	1.344	0.020	1784.8	1.311	0.008	2240.0	1.356	0.018	2687.5	1.394	0.002	3135.0	1.673	0.194	3582.6	1.117	0.013
511.7	1.517	0.017	882.0	1.130	0.250	1337.2	1.345	0.021	1792.5	1.313	0.007	2247.7	1.355	0.018	2695.2	1.395	0.002	3142.7	1.674	0.219	3590.3	1.124	0.011
515.5	1.519	0.013	889.7	1.120	0.226	1345.0	1.346	0.021	1800.2	1.315	0.006	2255.4	1.355	0.017	2702.9	1.397	0.002	3150.5	1.673	0.244	3598.0	1.130	0.008
519.4	1.518	0.027	897.5	1.114	0.198	1352.7	1.346	0.022	1807.9	1.317	0.005	2263.1	1.355	0.016	2710.7	1.398	0.002	3158.2	1.669	0.270	3605.7	1.137	0.007
523.2	1.516	0.017	905.2	1.111	0.174	1360.4	1.347	0.022	1815.6	1.319	0.004	2270.9	1.355	0.015	2718.4	1.399	0.002	3165.9	1.664	0.295	3613.4	1.142	0.005
527.1	1.520	0.016	912.9	1.110	0.150	1368.1	1.347	0.023	1823.3	1.321	0.004	2278.6	1.355	0.015	2726.1	1.401	0.002	3173.6	1.656	0.320	3621.1	1.148	0.003
530.9	1.524	0.019	920.6	1.111	0.125	1375.8	1.347	0.023	1831.1	1.323	0.003	2286.3	1.355	0.014	2733.8	1.402	0.002	3181.3	1.646	0.345	3628.8	1.154	0.003
534.8	1.525	0.022	928.3	1.117	0.102	1383.5	1.348	0.024	1838.8	1.325	0.003	2294.0	1.355	0.013	2741.5	1.404	0.002	3189.0	1.633	0.369	3636.6	1.159	0.001
538.7	1.527	0.022	936.0	1.126	0.080	1391.3	1.348	0.026	1846.5	1.326	0.003	2301.7	1.355	0.013	2749.2	1.405	0.002	3196.8	1.619	0.391	3644.3	1.164	0.000
542.5	1.530	0.022	943.7	1.136	0.062	1399.0	1.348	0.027	1854.2	1.327	0.002	2309.4	1.356	0.013	2757.0	1.407	0.002	3204.5	1.604	0.414	3652.0	1.169	0.000
546.4	1.533	0.025	951.5	1.147	0.047	1406.7	1.349	0.027	1861.9	1.328	0.002	2317.2	1.356	0.012	2764.7	1.409	0.002	3212.2	1.586	0.436	3659.7	1.173	0.001
550.2	1.535	0.028	959.2	1.160	0.032	1414.4	1.349	0.028	1869.6	1.330	0.002	2324.9	1.357	0.012	2772.4	1.410	0.002	3219.9	1.567	0.456	3667.4	1.176	0.001
554.1	1.537	0.027	966.9	1.174	0.021	1422.1	1.349	0.029	1877.4	1.331	0.001	2332.6	1.357	0.012	2780.1	1.412	0.002	3227.6	1.546	0.475	3675.1	1.178	0.000
558.0	1.540	0.030	974.6	1.187	0.014	1429.8	1.349	0.029	1885.1	1.333	0.001	2340.3	1.357	0.011	2787.8	1.413	0.002	3235.3	1.523	0.494	3682.9	1.182	0.000
561.8	1.543	0.033	982.3	1.199	0.008	1437.6	1.349	0.030	1892.8	1.334	0.001	2348.0	1.358	0.011	2795.5	1.415	0.002	3243.1	1.499	0.512	3690.6	1.186	0.000
565.7	1.545	0.036	990.0	1.211	0.004	1445.3	1.349	0.030	1900.5	1.335	0.002	2355.7	1.358	0.010	2803.3	1.417	0.002	3250.8	1.472	0.526	3698.3	1.189	0.000
569.5	1.548	0.035	997.8	1.221	0.003	1453.0	1.349	0.031	1908.2	1.336	0.002	2363.5	1.358	0.010	2811.0	1.419	0.002	3258.5	1.443	0.541	3706.0	1.192	0.000
573.4	1.552	0.038	1005.5	1.231	0.000	1460.7	1.349	0.031	1915.9	1.337	0.000	2371.2	1.359	0.009	2818.7	1.421	0.003	3266.2	1.411	0.552	3713.7	1.195	0.000
577.2	1.555	0.044	1013.2	1.240	0.001	1468.4	1.350	0.032	1923.7	1.338	0.002	2378.9	1.359	0.009	2826.4	1.423	0.003	3273.9	1.378	0.559	3721.4	1.199	0.000
581.1	1.557	0.046	1020.9	1.246	0.001	1476.1	1.349	0.034	1931.4	1.339	0.000	2386.6	1.360	0.008	2834.1	1.425	0.003	3281.6	1.344	0.563	3729.2	1.201	0.000
585.0	1.560	0.049	1028.6	1.253	0.000	1483.8	1.350	0.033	1939.1	1.341	0.002	2394.3	1.361	0.008	2841.8	1.427	0.003	3289.4	1.309	0.562	3736.9	1.204	0.000
588.8	1.562	0.054	1036.3	1.259	0.000	1491.6	1.350	0.035	1946.8	1.341	0.000	2402.0	1.361	0.007	2849.5	1.429	0.003	3297.1	1.275	0.556	3744.6	1.207	0.000
592.7	1.564	0.053	1044.0	1.265	0.000	1499.3	1.350	0.036	1954.5	1.342	0.000	2409.7	1.362	0.007	2857.3	1.432	0.003	3304.8	1.243	0.547	3752.3	1.209	0.000
596.5	1.568	0.059	1051.8	1.269	0.000	1507.0	1.350	0.037	1962.2	1.343	0.000	2417.5	1.363	0.007	2865.0	1.434	0.002	3312.5	1.213	0.533	3760.0	1.211	0.000
604.2	1.574	0.066	1059.5	1.274	0.000	1514.7	1.350	0.037	1969.9	1.345	0.000	2425.2	1.363	0.007	2872.7	1.437	0.003	3320.2	1.186	0.518	3767.7	1.213	0.000
612.0	1.579	0.073	1067.2	1.279	0.000	1522.4	1.350	0.038	1977.7	1.345	0.000	2432.9	1.364	0.007	2880.4	1.439	0.003	3327.9	1.162	0.500	3775.4	1.216	0.000
619.7	1.586	0.083	1074.9	1.283	0.000	1530.1	1.350	0.039	1985.4	1.346	0.002	2440.6	1.365	0.007	2888.1	1.442	0.003	3335.6	1.142	0.483	3783.2	1.217	0.000
627.4	1.591	0.095	1082.6	1.286	0.000	1537.9	1.349	0.040	1993.1	1.347	0.002	2448.3	1.365	0.007	2895.8	1.445	0.003	3343.4	1.124	0.464	3790.9	1.220	0.000
635.1	1.595	0.108	1090.3	1.290	0.000	1545.6	1.349	0.041	2000.8	1.348	0.002	2456.0	1.366	0.007	2903.6	1.448	0.003	3351.1	1.108	0.447	3798.6	1.222	0.000
642.8	1.601	0.119	1098.1	1.293	0.000	1553.3	1.349	0.041	2008.5	1.349	0.002	2463.8	1.367	0.006	2911.3	1.452	0.003	3358.8	1.094	0.431	3806.3	1.223	0.000
650.5	1.602	0.137	1105.8	1.296	0.001	1561.0	1.349	0.043	2016.2	1.350	0.002	2471.5	1.367	0.006	2919.0	1.455	0.003	3366.5	1.080	0.414	3814.0	1.225	0.000
658.3	1.604	0.151	1113.5	1.300	0.001	1568.7	1.348	0.043	2024.0	1.351	0.003	2479.2	1.368	0.006	2926.7	1.459	0.003	3374.2	1.068	0.398	3821.7	1.227	0.000
666.0	1.605	0.165	1121.2	1.302	0.003	1576.4	1.348	0.047	2031.7	1.352	0.003	2486.9	1.369	0.005	2934.4	1.463	0.004	3381.9	1.056	0.380	3829.5	1.228	0.000
673.7	1.604	0.182	1128.9	1.304	0.003	1584.2	1.347	0.045	2039.4	1.353	0.003	2494.6	1.370	0.005	2942.1	1.467	0.004	3389.7	1.044	0.367	3837.2	1.230	0.000
681.4	1.602	0.202	1136.6	1.306	0.003	1591.9	1.346	0.046	2047.1	1.353	0.004	2502.3	1.370	0.005	2949.9	1.471	0.005	3397.4	1.032	0.350	3844.9	1.232	0.000
689.1	1.597	0.220	1144.4	1.309	0.003	1599.6	1.346	0.048	2054.8	1.354	0.004	2510.1	1.371	0.005	2957.6	1.476	0.005	3405.1	1.020	0.331	3852.6	1.233	0.000
696.8	1.592	0.237	1152.1	1.311	0.003	1607.3	1.345	0.049	2062.5	1.355	0.005	2517.8	1.372	0.004	2965.3	1.481	0.006	3412.8	1.011	0.310	3860.3	1.234	0.000
704.6	1.585	0.255	1159.8	1.314	0.003	1615.0	1.344	0.051	2070.3	1.356	0.005	2525.5	1.373	0.004	2973.0	1.487	0.007	3420.5	1.002	0.294	3868.0	1.236	0.000
712.3	1.575	0.273	1167.5	1.317	0.005	1622.7	1.344	0.053	2078.0	1.357	0.006	2533.2	1.373	0.004	2980.7	1.492	0.008	3428.2	0.994	0.273	3875.8	1.237	0.000
720.0	1.564	0.292	1175.2	1.318	0.005	1630.4	1.343	0.054	2085.7	1.358	0.006	2540.9	1.374	0.004	2988.4	1.498	0.009	3436.0	0.988	0.251	3883.5	1.239	0.000
727.7	1.550	0.308	1182.9	1.320	0.005	1638.2	1.341	0.057	2093.4	1.358	0.007	2548.6	1.375	0.004	2996.1	1.504	0.010	3443.7	0.984	0.229	3891.2	1.240	0.000
735.4	1.536	0.325	1190.6	1.323	0.005	1645.9	1.338	0.059	2101.1	1.359	0.007	2556.3	1.376	0.004	3003.9	1.511	0.012	3451.4	0.982	0.205	3898.9	1.241	0.000
743.1	1.518	0.339	1198.4	1.324	0.007	1653.6	1.334	0.063	2108.8	1.359	0.008	2564.1	1.377	0.004	3011.6	1.518	0.014	3459.1	0.983	0.182	3906.6	1.242	0.000
750.9	1.499	0.354	1206.1	1.326	0.007	1661.3	1.330	0.061	2116.5	1.360	0.008	2571.8	1.378	0.003	3019.3	1.525	0.015	3466.8	0.986	0.161	3914.3	1.244	0.000
758.6	1.478	0.364	1213.8	1.328	0.008	1669.0	1.326	0.062	2124.3	1.361	0.009	2579.5	1.379	0.004	3027.0	1.533	0.018	3474.5	0.992	0.140	3922.0	1.245	0.000
766.3	1.457	0.377	1221.5	1.329	0.008	1676.7	1.322	0.062	2132.0	1.361	0.010	2587.2	1.380	0.003	3034.7	1.543	0.021	3482.2	0.999	0.122	3929.8	1.246	0.000
774.0	1.432	0.385	1229.2	1.330	0.010	1684.5	1.317	0.062	2139.7	1.362	0.011	2594.9	1.381	0.003	3042.4	1.552	0.025	3490.0	1.007	0.105	3937.5	1.247	0.000
781.7	1.408	0.390	1236.9	1.332	0.010	1692.2	1.312	0.060	2147.4	1.362	0.013	2602.6	1.382	0.003	3050.2	1.562	0.029	3497.7	1.017	0.090	3945.2	1.248	0.000
789.4	1.383	0.393	1244.7	1.334	0.010	1699.9	1.306	0.057	2155.1	1.362	0.013	2610.4	1.383	0.003	3057.9	1.574	0.034	3505.4	1.027	0.077	3952.9	1.249	0.000
797.1	1.358	0.392	1252.4	1.335	0.011	1707.6	1.302	0.052	2162.8	1.362	0.014	2618.1	1.383	0.003	3065.6	1.585	0.041	3513.1	1.037	0.065	3960.6	1.250	0.000
804.9	1.333	0.391	1260.1	1.336	0.011	1715.3	1.298	0.047	2170.6	1.362	0.015	2625.8	1.385	0.002	3073.3	1.598	0.050	3520.8	1.047	0.056	3968.3	1.251	0.000
812.6	1.309	0.388	1267.8	1.337	0.013	1723.0	1.296	0.040	2178.3	1.362	0.016	2633.5	1.386	0.002	3081.0	1.611	0.061	3528.5	1.057	0.047	3976.1	1.252	0.000
820.3	1.284	0.381	1275.5	1.339	0.014	1730.8	1.296	0.034	2186.0	1.361	0.018	2641.2	1.387	0.002	3088.7	1.623	0.073	3536.3	1.067	0.040	3983.8	1.253	0.000
828.0	1.258	0.374	1283.2	1.340	0.014	1738.5	1.296	0.026	2193.7	1.360	0.018	2648.9	1.388	0.002	3096.5	1.635	0.089	3544.0	1.076	0.034	3991.5	1.254	0.000
835.7	1.236	0.361	1291.0	1.340	0.016	1746.2	1.299	0.022	2201.4	1.360	0.018	2656.7	1.389	0.002	3104.2	1.646	0.106	3551.7	1.085	0.028	3999.2	1.256	0.000
843.4	1.212	0.347	1298.7	1.342	0.015	1753.9	1.301	0.018	2209.1	1.359	0.019	2664.4	1.391	0.002	3111.9	1.656	0.126	3559.4	1.093	0.024			
851.2	1.192	0.330	1306.4	1.343	0.017	1761.6	1.304	0.015	2216.9	1.358	0.019												

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TABLE 5D

H_2O AT 100 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
50.2	1.660	0.000	164.0	1.729	0.343	277.8	1.246	0.172	391.6	1.480	0.029	505.4	1.562	0.117	827.0	1.209	0.456	1282.3	1.319	0.014	1737.5	1.286	0.027
52.1	1.698	0.000	165.9	1.724	0.339	279.7	1.249	0.163	393.5	1.483	0.031	507.3	1.562	0.120	834.8	1.182	0.445	1290.0	1.320	0.015	1745.2	1.288	0.023
54.0	1.744	0.000	167.8	1.723	0.341	281.6	1.251	0.155	395.4	1.485	0.031	509.2	1.562	0.123	842.5	1.155	0.430	1297.7	1.322	0.015	1752.9	1.290	0.019
55.9	1.743	0.000	169.8	1.721	0.343	283.6	1.255	0.143	397.4	1.487	0.033	511.2	1.561	0.127	850.2	1.128	0.411	1305.4	1.323	0.017	1760.7	1.294	0.016
57.9	1.735	0.000	171.7	1.721	0.344	285.5	1.258	0.139	399.3	1.489	0.035	513.1	1.561	0.129	857.9	1.105	0.392	1313.1	1.324	0.018	1768.4	1.297	0.013
59.8	1.743	0.000	173.6	1.721	0.354	287.4	1.263	0.127	401.2	1.491	0.035	515.0	1.560	0.133	865.6	1.083	0.368	1320.9	1.326	0.018	1776.1	1.299	0.010
61.7	1.755	0.000	175.5	1.720	0.351	289.3	1.269	0.123	403.2	1.493	0.038	517.0	1.559	0.136	873.3	1.063	0.345	1328.6	1.326	0.019	1783.8	1.302	0.009
63.7	1.760	0.000	177.5	1.726	0.362	291.3	1.267	0.132	405.1	1.495	0.038	518.9	1.557	0.139	881.1	1.048	0.313	1336.3	1.326	0.021	1791.5	1.304	0.008
65.6	1.771	0.000	179.4	1.719	0.393	293.2	1.265	0.108	407.0	1.496	0.041	520.8	1.556	0.142	888.8	1.036	0.285	1344.0	1.328	0.021	1799.2	1.306	0.007
67.5	1.778	0.000	181.3	1.708	0.388	295.1	1.270	0.104	408.9	1.497	0.040	522.8	1.554	0.144	896.5	1.026	0.253	1351.7	1.328	0.022	1806.9	1.308	0.005
69.4	1.780	0.002	183.3	1.705	0.396	297.1	1.274	0.094	410.9	1.499	0.043	524.7	1.552	0.146	904.2	1.021	0.221	1359.4	1.329	0.023	1814.7	1.310	0.005
71.4	1.780	0.012	185.2	1.700	0.406	299.0	1.277	0.090	412.8	1.500	0.043	526.6	1.550	0.148	911.9	1.019	0.193	1367.1	1.330	0.025	1822.4	1.312	0.004
73.3	1.782	0.012	187.1	1.693	0.416	300.9	1.281	0.081	414.7	1.502	0.044	528.5	1.548	0.150	919.6	1.022	0.159	1374.9	1.330	0.024	1830.1	1.314	0.004
75.2	1.788	0.018	189.0	1.687	0.422	302.9	1.285	0.074	416.7	1.503	0.045	530.5	1.546	0.150	927.4	1.029	0.132	1382.6	1.331	0.024	1837.8	1.316	0.003
77.2	1.789	0.041	191.0	1.677	0.440	304.8	1.290	0.068	418.6	1.505	0.045	532.4	1.545	0.150	935.1	1.039	0.103	1390.3	1.332	0.026	1845.5	1.317	0.003
79.1	1.767	0.070	192.9	1.667	0.441	306.7	1.295	0.061	420.5	1.506	0.047	534.3	1.544	0.150	942.8	1.053	0.081	1398.0	1.332	0.027	1853.2	1.319	0.002
81.0	1.754	0.027	194.8	1.656	0.452	308.6	1.299	0.056	422.4	1.508	0.047	536.3	1.542	0.152	950.5	1.068	0.060	1405.7	1.333	0.028	1861.0	1.320	0.002
82.9	1.768	0.009	196.8	1.647	0.455	310.6	1.305	0.047	424.4	1.510	0.049	538.2	1.541	0.152	958.2	1.085	0.043	1413.4	1.333	0.028	1868.7	1.322	0.002
84.9	1.781	0.023	198.7	1.640	0.461	312.5	1.310	0.046	426.3	1.511	0.050	540.1	1.540	0.151	965.9	1.102	0.029	1421.2	1.333	0.029	1876.4	1.323	0.001
86.8	1.786	0.024	200.6	1.631	0.473	314.4	1.316	0.037	428.2	1.513	0.052	542.0	1.540	0.152	973.6	1.119	0.021	1428.9	1.335	0.030	1884.1	1.325	0.001
88.7	1.795	0.023	202.5	1.621	0.481	316.4	1.322	0.036	430.2	1.514	0.053	544.0	1.539	0.152	981.4	1.135	0.013	1436.6	1.334	0.032	1891.8	1.326	0.001
90.7	1.793	0.054	204.5	1.610	0.492	318.3	1.326	0.030	432.1	1.515	0.054	545.9	1.539	0.152	989.1	1.148	0.007	1444.3	1.334	0.032	1899.5	1.327	0.001
92.6	1.785	0.036	206.4	1.597	0.502	320.2	1.332	0.026	434.0	1.517	0.056	547.8	1.539	0.151	996.8	1.162	0.002	1452.0	1.335	0.031	1907.3	1.329	0.001
94.5	1.803	0.009	208.3	1.581	0.513	322.1	1.338	0.022	435.9	1.518	0.057	549.8	1.539	0.155	1004.5	1.175	0.000	1459.7	1.334	0.033	1915.0	1.330	0.001
96.4	1.818	0.042	210.3	1.566	0.521	324.1	1.344	0.017	437.9	1.519	0.059	557.5	1.538	0.154	1012.2	1.185	0.000	1467.5	1.336	0.034	1922.7	1.330	0.001
98.4	1.824	0.036	212.2	1.547	0.532	326.0	1.350	0.015	439.8	1.520	0.059	565.2	1.538	0.157	1019.9	1.194	0.000	1475.2	1.336	0.034	1930.4	1.332	0.000
100.3	1.831	0.056	214.1	1.527	0.541	327.9	1.356	0.010	441.7	1.521	0.061	572.9	1.540	0.160	1027.7	1.204	0.000	1482.9	1.336	0.035	1938.1	1.333	0.001
102.2	1.836	0.053	216.0	1.505	0.548	329.9	1.362	0.008	443.7	1.522	0.061	580.6	1.541	0.164	1035.4	1.212	0.000	1490.6	1.336	0.036	1945.8	1.334	0.000
104.2	1.846	0.066	218.0	1.478	0.556	331.8	1.369	0.005	445.6	1.523	0.063	588.3	1.542	0.167	1043.1	1.220	0.000	1498.3	1.336	0.036	1953.5	1.335	0.000
106.1	1.847	0.086	219.9	1.449	0.554	333.7	1.376	0.002	447.5	1.524	0.064	596.1	1.545	0.171	1050.8	1.227	0.000	1506.0	1.336	0.038	1961.3	1.337	0.000
108.0	1.851	0.081	221.8	1.423	0.543	335.6	1.383	0.001	449.5	1.525	0.064	603.8	1.548	0.176	1058.5	1.234	0.000	1513.7	1.335	0.038	1969.0	1.337	0.002
110.0	1.856	0.104	223.8	1.399	0.541	337.6	1.391	0.000	451.4	1.527	0.066	611.5	1.551	0.183	1066.2	1.239	0.000	1521.5	1.337	0.040	1976.7	1.338	0.002
111.9	1.850	0.116	225.7	1.373	0.527	339.5	1.397	0.003	453.3	1.528	0.067	619.2	1.553	0.186	1073.9	1.244	0.000	1529.2	1.336	0.039	1984.4	1.339	0.002
113.8	1.853	0.101	227.6	1.351	0.511	341.4	1.403	0.002	455.2	1.529	0.068	626.9	1.557	0.194	1081.7	1.249	0.000	1536.9	1.337	0.040	1992.1	1.340	0.002
115.7	1.860	0.116	229.6	1.332	0.491	343.4	1.409	0.004	457.2	1.531	0.069	634.6	1.561	0.202	1089.4	1.253	0.000	1544.6	1.335	0.041	1999.8	1.341	0.002
117.7	1.881	0.094	231.5	1.318	0.476	345.3	1.414	0.005	459.1	1.532	0.070	642.3	1.565	0.213	1097.1	1.257	0.000	1552.3	1.335	0.042	2007.6	1.342	0.002
119.6	1.897	0.152	233.4	1.304	0.452	347.2	1.418	0.007	461.0	1.533	0.072	650.1	1.566	0.229	1104.8	1.261	0.000	1560.0	1.334	0.045	2015.3	1.343	0.002
121.5	1.892	0.172	235.3	1.296	0.439	349.1	1.422	0.009	463.0	1.534	0.074	657.8	1.561	0.242	1112.5	1.265	0.000	1567.8	1.336	0.044	2023.0	1.344	0.003
123.5	1.886	0.191	237.3	1.286	0.422	351.1	1.426	0.009	464.9	1.535	0.075	665.5	1.564	0.244	1120.2	1.270	0.000	1575.5	1.336	0.045	2030.7	1.345	0.003
125.4	1.883	0.201	239.2	1.279	0.405	353.0	1.429	0.011	466.8	1.536	0.076	673.2	1.562	0.256	1128.0	1.273	0.002	1583.2	1.334	0.046	2038.4	1.346	0.003
127.3	1.880	0.219	241.1	1.273	0.392	354.9	1.432	0.012	468.7	1.537	0.077	680.4	1.539	0.276	1135.7	1.276	0.002	1590.9	1.334	0.047	2046.1	1.347	0.004
129.2	1.875	0.237	243.1	1.267	0.377	356.9	1.435	0.013	470.7	1.539	0.079	688.2	1.562	0.287	1143.4	1.279	0.002	1598.6	1.332	0.049	2053.9	1.348	0.004
131.2	1.866	0.255	245.0	1.262	0.365	358.8	1.438	0.012	472.6	1.540	0.080	695.9	1.561	0.305	1151.1	1.282	0.002	1606.3	1.331	0.050	2061.6	1.349	0.004
133.1	1.854	0.270	246.9	1.257	0.348	360.7	1.442	0.012	474.5	1.541	0.081	703.6	1.555	0.324	1158.8	1.285	0.002	1614.1	1.333	0.051	2069.3	1.349	0.005
135.0	1.843	0.277	248.8	1.255	0.336	362.6	1.445	0.015	476.5	1.542	0.082	711.3	1.547	0.341	1166.5	1.288	0.002	1621.8	1.332	0.052	2077.0	1.351	0.005
137.0	1.830	0.292	250.8	1.251	0.324	364.6	1.448	0.014	478.4	1.544	0.083	719.0	1.537	0.361	1174.3	1.291	0.004	1629.5	1.330	0.054	2084.7	1.351	0.006
138.9	1.815	0.289	252.7	1.248	0.313	366.5	1.452	0.017	480.3	1.545	0.085	726.7	1.525	0.379	1182.0	1.293	0.004	1637.2	1.328	0.055	2092.4	1.352	0.006
140.8	1.811	0.286	254.6	1.245	0.300	368.4	1.454	0.016	482.2	1.547	0.087	734.5	1.509	0.397	1189.7	1.296	0.004	1644.9	1.327	0.057	2100.1	1.353	0.006
142.7	1.807	0.298	256.6	1.244	0.284	370.4	1.458	0.018	484.2	1.548	0.088	742.2	1.494	0.413	1197.4	1.298	0.006	1652.6	1.323	0.062	2107.9	1.354	0.007
144.7	1.800	0.304	258.5	1.242	0.276	372.3	1.461	0.020	486.1	1.550	0.090	749.9	1.473	0.427	1205.1	1.300	0.006	1660.3	1.319	0.060	2115.6	1.354	0.008
146.6	1.791	0.313	260.4	1.243	0.259	374.2	1.463	0.022	488.0	1.552	0.092	757.6	1.454	0.441	1212.8	1.303	0.006	1668.1	1.318	0.061	2123.3	1.355	0.009
148.5	1.785	0.310	262.3	1.244	0.254	376.2	1.465	0.024	490.0	1.553	0.094	765.3	1.428	0.454	1220.5	1.304	0.008	1675.8	1.313	0.063	2131.0	1.356	0.010
150.5	1.776	0.329	264.3	1.242	0.244	378.1	1.467	0.024	491.9	1.554	0.096	773.0	1.404	0.461	1228.3	1.306	0.008	1683.5	1.307	0.062	2138.7	1.356	0.011
152.4	1.767	0.319	266.2	1.242	0.232	380.0	1.469	0.026	493.8	1.556	0.099	780.7	1.377	0.468	1236.0	1.311	0.009	1691.2	1.302	0.059	2146.4	1.356	0.012
154.3	1.765	0.327	268.1	1.242	0.223	381.9	1.471	0.026	495.7	1.557	0.101	788.5	1.351	0.473	1243.7	1.311	0.009	1698.9	1.296	0.057	2154.2	1.357	0.013
156.2	1.756	0.333	270.1	1.243	0.212	383.9	1.473	0.028	497.7	1.558	0.104	796.2	1.323	0.474	1251.4	1.313	0.011	1706.6	1.290	0.053	2161.9	1.357	0.014
158.2	1.751	0.334	272.0	1.242	0.205	385.8	1.474	0.028	499.6	1.559	0.107	803.9	1.295	0.476	1259.1	1.314	0.011	1714.4	1.289	0.047	2169.6	1.357	0.015
160.1	1.743	0.343	273.9	1.242	0.193	387.7	1.476	0.029	501.5	1.560	0.110	811.6	1.266	0.472	1266.8	1.316	0.012	1722.1	1.287	0.041	2177.3	1.357	0.016
162.0	1.735	0.341	275.8	1.244	0.181	389.7	1.478	0.030	503.5	1.561	0.113	819.3	1.237	0.464	1274.6	1.318	0.014	1729.8	1.285	0.034	2185.0	1.356	0.018

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TABLE 5D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2192.7	1.355	0.018	2648.0	1.385	0.002	3103.2	1.648	0.104	3558.4	1.091	0.022
2200.5	1.355	0.019	2655.7	1.386	0.002	3110.9	1.656	0.123	3566.2	1.100	0.018
2208.2	1.354	0.019	2663.4	1.387	0.002	3118.6	1.665	0.145	3573.9	1.108	0.015
2215.9	1.353	0.020	2671.1	1.389	0.002	3126.4	1.678	0.167	3581.6	1.114	0.011
2223.6	1.352	0.020	2678.8	1.390	0.002	3134.1	1.683	0.192	3589.3	1.121	0.009
2231.3	1.351	0.019	2686.6	1.391	0.002	3141.8	1.682	0.218	3597.0	1.128	0.007
2239.0	1.350	0.019	2694.3	1.392	0.002	3149.5	1.682	0.245	3604.7	1.134	0.005
2246.7	1.350	0.018	2702.0	1.394	0.001	3157.2	1.679	0.272	3612.5	1.140	0.004
2254.5	1.350	0.018	2709.7	1.395	0.002	3164.9	1.667	0.300	3620.2	1.146	0.003
2262.2	1.350	0.017	2717.4	1.396	0.002	3172.6	1.659	0.327	3627.9	1.151	0.001
2269.9	1.349	0.016	2725.1	1.398	0.002	3180.4	1.660	0.351	3635.6	1.156	0.000
2277.6	1.350	0.015	2732.8	1.399	0.002	3188.1	1.641	0.376	3643.3	1.161	0.000
2285.3	1.349	0.014	2740.6	1.401	0.002	3195.8	1.627	0.400	3651.0	1.166	0.000
2293.0	1.350	0.014	2748.3	1.402	0.002	3203.5	1.611	0.423	3658.7	1.170	0.000
2300.8	1.351	0.013	2756.0	1.404	0.002	3211.2	1.584	0.447	3666.5	1.174	0.000
2308.5	1.351	0.013	2763.7	1.406	0.002	3218.9	1.564	0.468	3674.2	1.177	0.000
2316.2	1.351	0.012	2771.4	1.408	0.002	3226.7	1.559	0.486	3681.9	1.180	0.000
2323.9	1.351	0.012	2779.1	1.409	0.002	3234.4	1.537	0.505	3689.6	1.184	0.000
2331.6	1.352	0.012	2786.9	1.411	0.002	3242.1	1.501	0.525	3697.3	1.188	0.000
2339.3	1.352	0.011	2794.6	1.413	0.002	3249.8	1.474	0.541	3705.0	1.191	0.000
2347.1	1.353	0.011	2802.3	1.414	0.002	3257.5	1.432	0.557	3712.8	1.194	0.000
2354.8	1.353	0.011	2810.0	1.416	0.002	3265.2	1.399	0.570	3720.5	1.197	0.000
2362.5	1.354	0.010	2817.7	1.418	0.002	3273.0	1.384	0.575	3728.2	1.200	0.000
2370.2	1.354	0.009	2825.4	1.420	0.002	3280.7	1.348	0.579	3735.9	1.202	0.000
2377.9	1.355	0.009	2833.2	1.422	0.002	3288.4	1.299	0.579	3743.6	1.205	0.000
2385.6	1.355	0.008	2840.9	1.425	0.002	3296.1	1.264	0.572	3751.3	1.207	0.000
2393.4	1.357	0.008	2848.6	1.427	0.002	3303.8	1.230	0.562	3759.1	1.209	0.000
2401.1	1.357	0.008	2856.3	1.430	0.002	3311.5	1.187	0.548	3766.8	1.211	0.000
2408.8	1.357	0.007	2864.0	1.433	0.002	3319.3	1.177	0.527	3774.5	1.213	0.000
2416.5	1.358	0.007	2871.7	1.435	0.002	3327.0	1.153	0.508	3782.2	1.215	0.000
2424.2	1.359	0.007	2879.4	1.438	0.002	3334.7	1.123	0.488	3789.9	1.218	0.000
2431.9	1.359	0.007	2887.2	1.441	0.002	3342.4	1.106	0.469	3797.6	1.220	0.000
2439.6	1.360	0.007	2894.9	1.444	0.003	3350.1	1.091	0.449	3805.3	1.221	0.000
2447.4	1.361	0.007	2902.6	1.447	0.003	3357.8	1.069	0.431	3813.1	1.223	0.000
2455.1	1.362	0.007	2910.3	1.451	0.003	3365.5	1.057	0.414	3820.8	1.225	0.000
2462.8	1.362	0.006	2918.0	1.454	0.003	3373.3	1.060	0.397	3828.5	1.226	0.000
2470.5	1.363	0.006	2925.7	1.458	0.003	3381.0	1.048	0.381	3836.2	1.228	0.000
2478.2	1.364	0.006	2933.5	1.462	0.004	3388.7	1.030	0.365	3843.9	1.230	0.000
2485.9	1.364	0.006	2941.2	1.467	0.005	3396.4	1.019	0.348	3851.6	1.231	0.000
2493.7	1.365	0.005	2948.9	1.471	0.005	3404.1	1.002	0.329	3859.4	1.232	0.000
2501.4	1.366	0.005	2956.6	1.476	0.006	3411.8	0.992	0.310	3867.1	1.234	0.000
2509.1	1.367	0.004	2964.3	1.481	0.007	3419.6	0.996	0.290	3874.8	1.235	0.000
2516.8	1.368	0.004	2972.0	1.486	0.008	3427.3	0.988	0.269	3882.5	1.237	0.000
2524.5	1.369	0.004	2979.8	1.492	0.009	3435.0	0.976	0.246	3890.2	1.238	0.000
2532.2	1.370	0.004	2987.5	1.498	0.010	3442.7	0.973	0.224	3897.9	1.239	0.000
2540.0	1.370	0.004	2995.2	1.504	0.012	3450.4	0.972	0.201	3905.7	1.240	0.000
2547.7	1.371	0.003	3002.9	1.510	0.013	3458.1	0.971	0.177	3913.4	1.242	0.000
2555.4	1.372	0.003	3010.6	1.517	0.015	3465.9	0.980	0.156	3921.1	1.243	0.000
2563.1	1.373	0.003	3018.3	1.524	0.017	3473.6	0.986	0.135	3928.8	1.244	0.000
2570.8	1.374	0.003	3026.0	1.532	0.020	3481.3	0.991	0.116	3936.5	1.245	0.000
2578.5	1.375	0.003	3033.8	1.542	0.023	3489.0	1.001	0.099	3944.2	1.246	0.000
2586.2	1.376	0.003	3041.5	1.551	0.026	3496.7	1.012	0.084	3951.9	1.247	0.000
2594.0	1.377	0.003	3049.2	1.561	0.031	3504.4	1.021	0.071	3959.7	1.248	0.000
2601.7	1.378	0.003	3056.9	1.572	0.036	3512.1	1.032	0.060	3967.4	1.249	0.000
2609.4	1.379	0.003	3064.6	1.583	0.042	3519.9	1.045	0.052	3975.1	1.250	0.000
2617.1	1.380	0.002	3072.3	1.595	0.050	3527.6	1.055	0.044	3982.8	1.251	0.000
2624.8	1.381	0.002	3080.1	1.610	0.059	3535.3	1.064	0.037	3990.5	1.253	0.000
2632.5	1.383	0.002	3087.8	1.624	0.071	3543.0	1.074	0.031	3998.2	1.255	0.000
2640.3	1.384	0.002	3095.5	1.635	0.086	3550.7	1.082	0.026			

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TABLE 5E

H_2O AT 120 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
500.1	1.491	0.000	858.9	1.179	0.339	1314.1	1.345	0.018	1769.3	1.308	0.013	2224.6	1.359	0.020	2672.1	1.394	0.001	3119.6	1.672	0.150	3567.1	1.103	0.017
503.9	1.493	0.000	866.6	1.157	0.319	1321.8	1.346	0.020	1777.1	1.309	0.011	2232.3	1.358	0.020	2679.8	1.395	0.001	3127.3	1.679	0.173	3574.8	1.111	0.014
507.8	1.496	0.000	874.3	1.137	0.296	1329.5	1.347	0.021	1784.8	1.312	0.009	2240.0	1.357	0.019	2687.5	1.396	0.001	3135.0	1.685	0.199	3582.6	1.118	0.011
511.7	1.502	0.000	882.0	1.123	0.269	1337.2	1.347	0.021	1792.5	1.314	0.008	2247.7	1.357	0.019	2695.2	1.398	0.001	3142.7	1.687	0.226	3590.3	1.124	0.009
515.5	1.505	0.007	889.7	1.111	0.241	1345.0	1.347	0.022	1800.2	1.316	0.007	2255.4	1.356	0.018	2702.9	1.400	0.001	3150.5	1.686	0.253	3598.0	1.131	0.007
519.4	1.501	0.010	897.5	1.102	0.214	1352.7	1.348	0.024	1807.9	1.318	0.006	2263.1	1.356	0.017	2710.7	1.401	0.002	3158.2	1.683	0.282	3605.7	1.137	0.005
523.2	1.502	0.000	905.2	1.098	0.184	1360.4	1.348	0.023	1815.6	1.320	0.005	2270.9	1.356	0.016	2718.4	1.402	0.001	3165.9	1.677	0.309	3613.4	1.143	0.004
527.1	1.507	0.003	912.9	1.098	0.157	1368.1	1.348	0.025	1823.3	1.322	0.004	2278.6	1.355	0.016	2726.1	1.404	0.002	3173.6	1.668	0.336	3621.1	1.148	0.002
530.9	1.511	0.000	920.6	1.101	0.130	1375.8	1.349	0.025	1831.1	1.323	0.004	2286.3	1.356	0.014	2733.8	1.405	0.002	3181.3	1.657	0.364	3628.8	1.154	0.002
534.8	1.515	0.007	928.3	1.107	0.102	1383.5	1.350	0.026	1838.8	1.325	0.003	2294.0	1.356	0.014	2741.5	1.406	0.002	3189.0	1.643	0.389	3636.6	1.158	0.000
538.7	1.517	0.006	936.0	1.117	0.080	1391.3	1.350	0.027	1846.5	1.326	0.003	2301.7	1.357	0.013	2749.2	1.408	0.002	3196.8	1.628	0.414	3644.3	1.163	0.000
542.5	1.520	0.006	943.7	1.129	0.059	1399.0	1.350	0.028	1854.2	1.328	0.002	2309.4	1.357	0.013	2757.0	1.410	0.002	3204.5	1.610	0.438	3652.0	1.168	0.000
546.4	1.522	0.013	951.5	1.143	0.042	1406.7	1.350	0.028	1861.9	1.330	0.002	2317.2	1.357	0.012	2764.7	1.412	0.002	3212.2	1.590	0.460	3659.7	1.172	0.000
550.2	1.525	0.009	959.2	1.157	0.030	1414.4	1.350	0.030	1869.6	1.331	0.002	2324.9	1.357	0.012	2772.4	1.413	0.002	3219.9	1.569	0.481	3667.4	1.177	0.000
554.1	1.529	0.012	966.9	1.172	0.019	1422.1	1.351	0.031	1877.4	1.332	0.001	2332.6	1.358	0.012	2780.1	1.415	0.002	3227.6	1.546	0.502	3675.1	1.179	0.000
558.0	1.532	0.015	974.6	1.188	0.012	1429.8	1.351	0.031	1885.1	1.334	0.001	2340.3	1.358	0.012	2787.8	1.416	0.002	3235.3	1.520	0.521	3682.9	1.183	0.000
561.8	1.533	0.018	982.3	1.199	0.008	1437.6	1.350	0.033	1892.8	1.335	0.002	2348.0	1.359	0.011	2795.5	1.418	0.002	3243.1	1.493	0.539	3690.6	1.186	0.000
565.7	1.536	0.018	990.0	1.212	0.004	1445.3	1.351	0.032	1900.5	1.336	0.002	2355.7	1.359	0.010	2803.3	1.420	0.002	3250.8	1.464	0.554	3698.3	1.190	0.000
569.5	1.539	0.021	997.8	1.223	0.000	1453.0	1.351	0.033	1908.2	1.337	0.002	2363.5	1.360	0.010	2811.0	1.422	0.002	3258.5	1.432	0.568	3706.0	1.193	0.000
573.4	1.543	0.020	1005.5	1.233	0.000	1460.7	1.350	0.033	1915.9	1.338	0.002	2371.2	1.360	0.009	2818.7	1.425	0.002	3266.2	1.398	0.578	3713.7	1.196	0.000
577.2	1.547	0.026	1013.2	1.241	0.001	1468.4	1.351	0.034	1923.7	1.339	0.002	2378.9	1.361	0.009	2826.4	1.426	0.003	3273.9	1.362	0.585	3721.4	1.199	0.000
581.1	1.549	0.029	1020.9	1.247	0.001	1476.1	1.350	0.035	1931.4	1.340	0.000	2386.6	1.361	0.009	2834.1	1.428	0.003	3281.6	1.324	0.587	3729.2	1.202	0.000
585.0	1.551	0.031	1028.6	1.254	0.000	1483.8	1.351	0.035	1939.1	1.341	0.002	2394.3	1.362	0.008	2841.8	1.431	0.002	3289.4	1.287	0.583	3736.9	1.204	0.000
588.8	1.554	0.034	1036.3	1.261	0.000	1491.6	1.351	0.036	1946.8	1.342	0.000	2402.0	1.363	0.008	2849.5	1.433	0.003	3297.1	1.251	0.575	3744.6	1.207	0.000
592.7	1.556	0.037	1044.0	1.266	0.000	1499.3	1.351	0.038	1954.5	1.343	0.000	2409.7	1.363	0.007	2857.3	1.436	0.002	3304.8	1.216	0.562	3752.3	1.209	0.000
596.5	1.560	0.036	1051.8	1.271	0.000	1507.0	1.350	0.040	1962.2	1.345	0.000	2417.5	1.364	0.007	2865.0	1.439	0.002	3312.5	1.185	0.545	3760.0	1.211	0.000
604.2	1.568	0.047	1059.5	1.276	0.000	1514.7	1.350	0.038	1969.9	1.345	0.002	2425.2	1.365	0.007	2872.7	1.442	0.003	3320.2	1.158	0.526	3767.7	1.213	0.000
612.0	1.574	0.054	1067.2	1.280	0.000	1522.4	1.350	0.039	1977.7	1.346	0.002	2432.9	1.365	0.007	2880.4	1.444	0.003	3327.9	1.135	0.506	3775.4	1.215	0.000
619.7	1.580	0.061	1074.9	1.284	0.000	1530.1	1.350	0.040	1985.4	1.347	0.002	2440.6	1.366	0.007	2888.1	1.448	0.003	3335.6	1.115	0.484	3783.2	1.217	0.000
627.4	1.587	0.071	1082.6	1.288	0.000	1537.9	1.349	0.041	1993.1	1.348	0.002	2448.3	1.367	0.007	2895.8	1.451	0.003	3343.4	1.099	0.464	3790.9	1.219	0.000
635.1	1.593	0.080	1090.3	1.290	0.000	1545.6	1.349	0.042	2000.8	1.349	0.002	2456.0	1.367	0.007	2903.6	1.454	0.004	3351.1	1.084	0.444	3798.6	1.222	0.000
642.8	1.599	0.092	1098.1	1.294	0.003	1553.3	1.349	0.042	2008.5	1.350	0.002	2463.8	1.368	0.006	2911.3	1.458	0.004	3358.8	1.071	0.425	3806.3	1.223	0.000
650.5	1.604	0.107	1105.8	1.297	0.001	1561.0	1.349	0.046	2016.2	1.351	0.002	2471.5	1.368	0.006	2919.0	1.461	0.004	3366.5	1.060	0.407	3814.0	1.225	0.000
658.3	1.608	0.121	1113.5	1.301	0.003	1568.7	1.348	0.044	2024.0	1.352	0.003	2479.2	1.369	0.006	2926.7	1.466	0.005	3374.2	1.049	0.390	3821.7	1.227	0.000
666.0	1.612	0.135	1121.2	1.303	0.003	1576.4	1.347	0.049	2031.7	1.352	0.003	2486.9	1.370	0.005	2934.4	1.469	0.005	3381.9	1.039	0.371	3829.5	1.228	0.000
673.7	1.614	0.154	1128.9	1.305	0.003	1584.2	1.346	0.046	2039.4	1.353	0.003	2494.6	1.371	0.005	2942.1	1.474	0.006	3389.7	1.029	0.358	3837.2	1.230	0.000
681.4	1.615	0.171	1136.6	1.308	0.003	1591.9	1.346	0.047	2047.1	1.354	0.004	2502.3	1.372	0.005	2949.9	1.478	0.007	3397.4	1.018	0.341	3844.9	1.231	0.000
689.1	1.613	0.190	1144.4	1.310	0.003	1599.6	1.345	0.048	2054.8	1.355	0.004	2510.1	1.372	0.005	2957.6	1.483	0.008	3405.1	1.007	0.322	3852.6	1.233	0.000
696.8	1.609	0.210	1152.1	1.313	0.003	1607.3	1.345	0.049	2062.5	1.356	0.004	2517.8	1.373	0.004	2965.3	1.488	0.009	3412.8	0.999	0.300	3860.3	1.234	0.000
704.6	1.605	0.227	1159.8	1.315	0.003	1615.0	1.344	0.052	2070.3	1.357	0.005	2525.5	1.374	0.004	2973.0	1.493	0.010	3420.5	0.992	0.284	3868.0	1.236	0.000
712.3	1.599	0.247	1167.5	1.318	0.005	1622.7	1.342	0.053	2078.0	1.358	0.005	2533.2	1.375	0.004	2980.7	1.499	0.011	3428.2	0.984	0.263	3875.8	1.237	0.000
720.0	1.590	0.267	1175.2	1.320	0.005	1630.4	1.341	0.054	2085.7	1.358	0.006	2540.9	1.375	0.004	2988.4	1.505	0.013	3436.0	0.979	0.241	3883.5	1.238	0.000
727.7	1.581	0.288	1182.9	1.322	0.005	1638.2	1.340	0.056	2093.4	1.359	0.007	2548.6	1.376	0.004	2996.1	1.511	0.015	3443.7	0.976	0.218	3891.2	1.240	0.000
735.4	1.568	0.307	1190.6	1.324	0.005	1645.9	1.338	0.058	2101.1	1.360	0.007	2556.3	1.377	0.004	3003.9	1.518	0.017	3451.4	0.975	0.195	3898.9	1.241	0.000
743.1	1.552	0.326	1198.4	1.326	0.007	1653.6	1.334	0.063	2108.8	1.361	0.007	2564.1	1.378	0.004	3011.6	1.525	0.019	3459.1	0.977	0.172	3906.6	1.242	0.000
750.9	1.533	0.344	1206.1	1.327	0.007	1661.3	1.331	0.060	2116.5	1.362	0.008	2571.8	1.379	0.004	3019.3	1.532	0.022	3466.8	0.982	0.151	3914.3	1.243	0.000
758.6	1.515	0.358	1213.8	1.330	0.008	1669.0	1.327	0.061	2124.3	1.362	0.009	2579.5	1.380	0.003	3027.0	1.540	0.024	3474.5	0.988	0.130	3922.0	1.244	0.000
766.3	1.493	0.374	1221.5	1.331	0.008	1676.7	1.324	0.061	2132.0	1.363	0.010	2587.2	1.381	0.003	3034.7	1.548	0.028	3482.2	0.996	0.112	3929.8	1.245	0.000
774.0	1.469	0.385	1229.2	1.332	0.010	1684.5	1.319	0.062	2139.7	1.363	0.011	2594.9	1.382	0.003	3042.4	1.557	0.032	3490.0	1.006	0.095	3937.5	1.246	0.000
781.7	1.443	0.396	1236.9	1.334	0.010	1692.2	1.314	0.059	2147.4	1.364	0.012	2602.6	1.383	0.003	3050.2	1.567	0.036	3497.7	1.016	0.081	3945.2	1.248	0.000
789.4	1.418	0.402	1244.7	1.336	0.010	1699.9	1.307	0.057	2155.1	1.364	0.013	2610.4	1.384	0.002	3057.9	1.578	0.041	3505.4	1.027	0.069	3952.9	1.249	0.000
797.1	1.391	0.408	1252.4	1.337	0.011	1707.6	1.303	0.052	2162.8	1.364	0.014	2618.1	1.385	0.002	3065.6	1.589	0.048	3513.1	1.038	0.058	3960.6	1.250	0.000
804.9	1.363	0.408	1260.1	1.339	0.013	1715.3	1.300	0.047	2170.6	1.364	0.015	2625.8	1.387	0.002	3073.3	1.601	0.056	3520.8	1.048	0.049	3968.3	1.251	0.000
812.6	1.335	0.408	1267.8	1.340	0.013	1723.0	1.297	0.040	2178.3	1.364	0.017	2633.5	1.388	0.002	3081.0	1.613	0.066	3528.5	1.059	0.041	3976.1	1.252	0.000
820.3	1.306	0.403	1275.5	1.341	0.014	1730.8	1.297	0.034	2186.0	1.363	0.018	2641.2	1.389	0.002	3088.7	1.626	0.077	3536.3	1.069	0.035	3983.8	1.253	0.000
828.0	1.279	0.397	1283.2	1.342	0.016	1738.5	1.298	0.028	2193.7	1.363	0.018	2648.9	1.390	0.002	3096.5	1.639	0.092	3544.0	1.078	0.029	3991.5	1.254	0.000
835.7	1.251	0.388	1291.0	1.343	0.016	1746.2	1.300	0.023	2201.4	1.362	0.019	2656.7	1.391	0.002	3104.2	1.652	0.108	3551.7	1.087	0.024	3999.2	1.256	0.000
843.4	1.226	0.375	1298.7	1.343	0.017	1753.9	1.302	0.019	2209.1	1.361	0.020	2664.4	1.392	0.001	3111.9	1.662	0.128	3559.4	1.095	0.020			
851.2	1.200	0.359	1306.4	1.344	0.018	1761.6	1.304	0.016	2216.9	1.360	0.020												

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TABLE 5F

H_2O AT 140 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
50.2	1.674	0.000	164.0	1.693	0.334	277.8	1.202	0.160	391.6	1.435	0.008	505.4	1.527	0.067	827.0	1.287	0.456	1282.3	1.327	0.014	1737.5	1.295	0.028
52.1	1.697	0.000	165.9	1.693	0.339	279.7	1.206	0.147	393.5	1.438	0.009	507.3	1.528	0.071	834.8	1.257	0.449	1290.0	1.328	0.014	1745.2	1.297	0.024
54.0	1.721	0.000	167.8	1.691	0.341	281.6	1.210	0.141	395.4	1.440	0.009	509.2	1.528	0.074	842.5	1.224	0.444	1297.7	1.330	0.015	1752.9	1.299	0.021
55.9	1.734	0.000	169.8	1.691	0.337	283.6	1.214	0.129	397.4	1.442	0.010	511.2	1.528	0.077	850.2	1.194	0.431	1305.4	1.331	0.017	1760.7	1.301	0.017
57.9	1.736	0.002	171.7	1.694	0.342	285.5	1.218	0.125	399.3	1.445	0.011	513.1	1.528	0.080	857.9	1.165	0.414	1313.1	1.332	0.018	1768.4	1.304	0.015
59.8	1.741	0.000	173.6	1.695	0.350	287.4	1.222	0.114	401.2	1.447	0.012	515.0	1.528	0.083	865.6	1.138	0.393	1320.9	1.333	0.018	1776.1	1.305	0.013
61.7	1.743	0.019	175.5	1.696	0.354	289.3	1.228	0.108	403.2	1.448	0.014	517.0	1.527	0.085	873.3	1.111	0.373	1328.6	1.334	0.019	1783.8	1.308	0.012
63.7	1.737	0.001	177.5	1.698	0.367	291.3	1.228	0.114	405.1	1.450	0.013	518.9	1.527	0.089	881.1	1.088	0.344	1336.3	1.335	0.021	1791.5	1.310	0.010
65.6	1.741	0.009	179.4	1.692	0.386	293.2	1.227	0.093	407.0	1.451	0.016	520.8	1.525	0.090	888.8	1.069	0.315	1344.0	1.336	0.021	1799.2	1.311	0.008
67.5	1.743	0.009	181.3	1.684	0.392	295.1	1.233	0.087	408.9	1.453	0.015	522.8	1.525	0.092	896.5	1.055	0.285	1351.7	1.337	0.022	1806.9	1.313	0.007
69.4	1.747	0.008	183.3	1.678	0.398	297.1	1.237	0.079	410.9	1.454	0.017	524.7	1.523	0.095	904.2	1.045	0.252	1359.4	1.337	0.023	1814.7	1.315	0.006
71.4	1.755	0.008	185.2	1.674	0.406	299.0	1.241	0.074	412.8	1.456	0.016	526.6	1.521	0.095	911.9	1.039	0.218	1367.1	1.338	0.025	1822.4	1.316	0.006
73.3	1.768	0.012	187.1	1.667	0.419	300.9	1.245	0.065	414.7	1.458	0.016	528.5	1.520	0.097	919.6	1.038	0.185	1374.9	1.339	0.026	1830.1	1.318	0.005
75.2	1.763	0.056	189.0	1.657	0.429	302.9	1.250	0.059	416.7	1.459	0.018	530.5	1.520	0.096	927.4	1.042	0.153	1382.6	1.339	0.026	1837.8	1.320	0.004
77.2	1.749	0.041	191.0	1.650	0.428	304.8	1.254	0.052	418.6	1.461	0.017	532.4	1.519	0.100	935.1	1.048	0.122	1390.3	1.339	0.027	1845.5	1.321	0.003
79.1	1.750	0.033	192.9	1.645	0.442	306.7	1.260	0.044	420.5	1.463	0.019	534.3	1.517	0.099	942.8	1.060	0.094	1398.0	1.340	0.028	1853.2	1.323	0.003
81.0	1.747	0.046	194.8	1.636	0.448	308.6	1.266	0.040	422.4	1.465	0.018	536.3	1.517	0.098	950.5	1.075	0.073	1405.7	1.340	0.028	1861.0	1.324	0.003
82.9	1.751	0.016	196.8	1.628	0.460	310.6	1.272	0.032	424.4	1.467	0.020	538.2	1.516	0.100	958.2	1.092	0.054	1413.4	1.340	0.029	1868.7	1.326	0.002
84.9	1.770	0.019	198.7	1.619	0.466	312.5	1.278	0.031	426.3	1.468	0.020	540.1	1.516	0.100	965.9	1.108	0.038	1421.2	1.341	0.031	1876.4	1.327	0.002
86.8	1.777	0.045	200.6	1.611	0.477	314.4	1.284	0.023	428.2	1.470	0.022	542.0	1.516	0.100	973.6	1.125	0.027	1428.9	1.342	0.032	1884.1	1.328	0.001
88.7	1.775	0.048	202.5	1.600	0.488	316.4	1.290	0.022	430.2	1.472	0.023	544.0	1.516	0.100	981.4	1.141	0.017	1436.6	1.341	0.033	1891.8	1.330	0.001
90.7	1.775	0.053	204.5	1.588	0.500	318.3	1.296	0.016	432.1	1.473	0.024	545.9	1.516	0.101	989.1	1.155	0.012	1444.3	1.341	0.033	1899.5	1.331	0.001
92.6	1.772	0.055	206.4	1.576	0.505	320.2	1.302	0.014	434.0	1.474	0.025	547.8	1.516	0.103	996.8	1.169	0.007	1452.0	1.342	0.034	1907.3	1.333	0.001
94.5	1.780	0.037	208.3	1.563	0.525	322.1	1.307	0.011	435.9	1.475	0.026	549.8	1.515	0.103	1004.5	1.182	0.004	1459.7	1.341	0.034	1915.0	1.334	0.001
96.4	1.789	0.056	210.3	1.547	0.533	324.1	1.313	0.007	437.9	1.477	0.027	557.5	1.516	0.103	1012.2	1.194	0.001	1467.5	1.342	0.035	1922.7	1.335	0.002
98.4	1.797	0.047	212.2	1.526	0.548	326.0	1.319	0.005	439.8	1.477	0.028	565.2	1.515	0.105	1019.9	1.203	0.000	1475.2	1.343	0.035	1930.4	1.336	0.002
100.3	1.801	0.072	214.1	1.504	0.560	327.9	1.325	0.002	441.7	1.479	0.028	572.9	1.518	0.108	1027.7	1.213	0.000	1482.9	1.342	0.036	1938.1	1.337	0.002
102.2	1.808	0.053	216.0	1.478	0.568	329.9	1.332	0.000	443.7	1.480	0.029	580.6	1.520	0.110	1035.4	1.222	0.000	1490.6	1.342	0.037	1945.8	1.338	0.002
104.2	1.820	0.076	218.0	1.450	0.574	331.8	1.338	0.000	445.6	1.481	0.029	588.3	1.522	0.111	1043.1	1.230	0.000	1498.3	1.342	0.038	1953.5	1.339	0.000
106.1	1.823	0.086	219.9	1.423	0.571	333.7	1.344	0.000	447.5	1.483	0.030	596.1	1.525	0.113	1050.8	1.237	0.000	1506.0	1.342	0.041	1961.3	1.341	0.000
108.0	1.829	0.089	221.8	1.390	0.582	335.6	1.350	0.000	449.5	1.484	0.030	603.8	1.529	0.118	1058.5	1.243	0.000	1513.7	1.341	0.041	1969.0	1.341	0.002
110.0	1.834	0.109	223.8	1.356	0.562	337.6	1.356	0.000	451.4	1.486	0.031	611.5	1.533	0.122	1066.2	1.250	0.001	1521.5	1.343	0.043	1976.7	1.342	0.002
111.9	1.827	0.126	225.7	1.330	0.546	339.5	1.361	0.000	453.3	1.488	0.032	619.2	1.537	0.126	1073.9	1.254	0.001	1529.2	1.342	0.042	1984.4	1.343	0.002
113.8	1.829	0.106	227.6	1.306	0.530	341.4	1.365	0.000	455.2	1.489	0.035	626.9	1.542	0.131	1081.7	1.258	0.002	1536.9	1.342	0.043	1992.1	1.344	0.002
115.7	1.841	0.117	229.6	1.286	0.507	343.4	1.370	0.000	457.2	1.489	0.034	634.6	1.547	0.135	1089.4	1.263	0.002	1544.6	1.340	0.044	1999.8	1.345	0.002
117.7	1.859	0.114	231.5	1.271	0.487	345.3	1.374	0.000	459.1	1.491	0.034	642.3	1.554	0.144	1097.1	1.266	0.002	1552.3	1.340	0.045	2007.6	1.346	0.002
119.6	1.872	0.156	233.4	1.256	0.467	347.2	1.378	0.001	461.0	1.493	0.036	650.1	1.557	0.158	1104.8	1.270	0.002	1560.0	1.338	0.047	2015.3	1.348	0.002
121.5	1.868	0.181	235.3	1.244	0.449	349.1	1.380	0.002	463.0	1.494	0.037	657.8	1.555	0.168	1112.5	1.273	0.002	1567.8	1.340	0.047	2023.0	1.348	0.003
123.5	1.859	0.201	237.3	1.237	0.421	351.1	1.383	0.002	464.9	1.495	0.038	665.5	1.558	0.170	1120.2	1.277	0.002	1575.5	1.339	0.048	2030.7	1.349	0.003
125.4	1.857	0.197	239.2	1.233	0.411	353.0	1.386	0.003	466.8	1.496	0.039	673.2	1.564	0.180	1128.0	1.280	0.002	1583.2	1.337	0.049	2038.4	1.350	0.003
127.3	1.863	0.216	241.1	1.226	0.395	354.9	1.389	0.003	468.7	1.497	0.039	680.4	1.549	0.194	1135.7	1.283	0.002	1590.9	1.337	0.050	2046.1	1.351	0.004
129.2	1.857	0.249	243.1	1.219	0.381	356.9	1.391	0.003	470.7	1.498	0.041	688.2	1.573	0.206	1143.4	1.286	0.002	1598.6	1.335	0.051	2053.9	1.352	0.004
131.2	1.847	0.260	245.0	1.213	0.364	358.8	1.394	0.002	472.6	1.499	0.041	695.9	1.576	0.224	1151.1	1.289	0.002	1606.3	1.333	0.052	2061.6	1.353	0.004
133.1	1.836	0.282	246.9	1.210	0.347	360.7	1.398	0.002	474.5	1.501	0.042	703.6	1.575	0.239	1158.8	1.292	0.003	1614.1	1.334	0.053	2069.3	1.354	0.005
135.0	1.823	0.289	248.8	1.208	0.335	362.6	1.401	0.002	476.5	1.502	0.042	711.3	1.573	0.257	1166.5	1.295	0.003	1621.8	1.333	0.054	2077.0	1.355	0.006
137.0	1.809	0.303	250.8	1.203	0.323	364.6	1.404	0.002	478.4	1.504	0.043	719.0	1.569	0.276	1174.3	1.298	0.003	1629.5	1.330	0.054	2084.7	1.356	0.006
138.9	1.797	0.300	252.7	1.201	0.306	366.5	1.407	0.004	480.3	1.506	0.044	726.7	1.564	0.295	1182.0	1.302	0.003	1637.2	1.328	0.055	2092.4	1.357	0.007
140.8	1.789	0.314	254.6	1.199	0.295	368.4	1.410	0.003	482.2	1.507	0.045	734.5	1.556	0.314	1189.7	1.303	0.004	1644.9	1.327	0.056	2100.1	1.358	0.007
142.7	1.777	0.315	256.6	1.198	0.278	370.4	1.413	0.005	484.2	1.509	0.046	742.2	1.547	0.334	1197.4	1.306	0.004	1652.6	1.322	0.058	2107.9	1.359	0.007
144.7	1.769	0.317	258.5	1.197	0.271	372.3	1.415	0.005	486.1	1.511	0.047	749.9	1.534	0.354	1205.1	1.309	0.006	1660.3	1.319	0.056	2115.6	1.359	0.008
146.6	1.761	0.325	260.4	1.197	0.253	374.2	1.417	0.006	488.0	1.513	0.049	757.6	1.519	0.373	1212.8	1.311	0.006	1668.1	1.319	0.056	2123.3	1.360	0.009
148.5	1.754	0.323	262.3	1.199	0.245	376.2	1.419	0.007	490.0	1.514	0.050	765.3	1.501	0.392	1220.5	1.312	0.006	1675.8	1.316	0.057	2131.0	1.361	0.010
150.5	1.746	0.337	264.3	1.198	0.239	378.1	1.421	0.006	491.9	1.516	0.052	773.0	1.480	0.406	1228.3	1.315	0.008	1683.5	1.312	0.056	2138.7	1.361	0.011
152.4	1.738	0.332	266.2	1.197	0.224	380.0	1.423	0.008	493.8	1.518	0.053	780.7	1.456	0.422	1236.0	1.318	0.008	1691.2	1.307	0.054	2146.4	1.361	0.013
154.3	1.731	0.343	268.1	1.196	0.216	381.9	1.425	0.008	495.7	1.519	0.056	788.5	1.432	0.435	1243.7	1.320	0.009	1698.9	1.303	0.051	2154.2	1.362	0.013
156.2	1.720	0.344	270.1	1.197	0.202	383.9	1.427	0.009	497.7	1.521	0.057	796.2	1.406	0.445	1251.4	1.321	0.009	1706.6	1.299	0.047	2161.9	1.363	0.014
158.2	1.712	0.345	272.0	1.198	0.194	385.8	1.429	0.009	499.6	1.523	0.060	803.9	1.377	0.454	1259.1	1.323	0.011	1714.4	1.299	0.044	2169.6	1.362	0.015
160.1	1.703	0.348	273.9	1.199	0.180	387.7	1.431	0.008	501.5	1.524	0.062	811.6	1.347	0.456	1266.8	1.325	0.011	1722.1	1.297	0.039	2177.3	1.362	0.017
162.0	1.695	0.343	275.8	1.201	0.174	389.7	1.433	0.008	503.5	1.525	0.064	819.3	1.318	0.456	1274.6	1.326	0.012	1729.8	1.295	0.034	2185.0	1.361	0.018

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TABLE 5F—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2192.7	1.361	0.019	2648.0	1.392	0.002	3103.2	1.672	0.143	3558.4	1.097	0.018
2200.5	1.361	0.020	2655.7	1.393	0.002	3110.9	1.678	0.167	3566.2	1.105	0.015
2208.2	1.360	0.020	2663.4	1.394	0.002	3118.6	1.685	0.191	3573.9	1.112	0.012
2215.9	1.358	0.021	2671.1	1.395	0.002	3126.4	1.697	0.216	3581.6	1.119	0.010
2223.6	1.358	0.021	2678.8	1.397	0.001	3134.1	1.700	0.244	3589.3	1.125	0.008
2231.3	1.357	0.021	2686.6	1.398	0.002	3141.8	1.694	0.274	3597.0	1.131	0.006
2239.0	1.355	0.021	2694.3	1.400	0.001	3149.5	1.690	0.303	3604.7	1.137	0.004
2246.7	1.355	0.020	2702.0	1.402	0.002	3157.2	1.683	0.332	3612.5	1.143	0.003
2254.5	1.355	0.020	2709.7	1.403	0.002	3164.9	1.665	0.361	3620.2	1.148	0.002
2262.2	1.354	0.019	2717.4	1.404	0.002	3172.6	1.652	0.389	3627.9	1.153	0.000
2269.9	1.354	0.018	2725.1	1.406	0.002	3180.4	1.652	0.414	3635.6	1.158	0.000
2277.6	1.353	0.017	2732.8	1.408	0.002	3188.1	1.626	0.441	3643.3	1.163	0.000
2285.3	1.354	0.016	2740.6	1.409	0.002	3195.8	1.608	0.466	3651.0	1.167	0.000
2293.0	1.354	0.015	2748.3	1.411	0.002	3203.5	1.587	0.489	3658.7	1.171	0.000
2300.8	1.355	0.014	2756.0	1.413	0.002	3211.2	1.552	0.511	3666.5	1.175	0.000
2308.5	1.355	0.013	2763.7	1.415	0.002	3218.9	1.526	0.532	3674.2	1.179	0.000
2316.2	1.355	0.013	2771.4	1.416	0.002	3226.7	1.517	0.549	3681.9	1.182	0.000
2323.9	1.356	0.012	2779.1	1.418	0.002	3234.4	1.487	0.565	3689.6	1.185	0.000
2331.6	1.356	0.012	2786.9	1.420	0.002	3242.1	1.442	0.580	3697.3	1.189	0.000
2339.3	1.357	0.012	2794.6	1.423	0.002	3249.8	1.408	0.590	3705.0	1.192	0.000
2347.1	1.357	0.012	2802.3	1.425	0.002	3257.5	1.359	0.599	3712.8	1.194	0.000
2354.8	1.358	0.011	2810.0	1.427	0.003	3265.2	1.322	0.602	3720.5	1.197	0.000
2362.5	1.358	0.011	2817.7	1.429	0.003	3273.0	1.306	0.596	3728.2	1.200	0.000
2370.2	1.359	0.010	2825.4	1.431	0.003	3280.7	1.269	0.589	3735.9	1.203	0.000
2377.9	1.359	0.009	2833.2	1.434	0.003	3288.4	1.221	0.581	3743.6	1.205	0.000
2385.6	1.360	0.009	2840.9	1.437	0.003	3296.1	1.189	0.565	3751.3	1.207	0.000
2393.4	1.361	0.009	2848.6	1.440	0.003	3303.8	1.160	0.546	3759.1	1.209	0.000
2401.1	1.361	0.009	2856.3	1.443	0.003	3311.5	1.122	0.525	3766.8	1.211	0.000
2408.8	1.362	0.008	2864.0	1.446	0.003	3319.3	1.119	0.501	3774.5	1.213	0.000
2416.5	1.363	0.008	2871.7	1.449	0.004	3327.0	1.101	0.478	3782.2	1.215	0.000
2424.2	1.363	0.007	2879.4	1.452	0.004	3334.7	1.076	0.455	3789.9	1.218	0.000
2431.9	1.364	0.007	2887.2	1.456	0.004	3342.4	1.065	0.437	3797.6	1.219	0.000
2439.6	1.365	0.007	2894.9	1.460	0.005	3350.1	1.054	0.416	3805.3	1.221	0.000
2447.4	1.365	0.007	2902.6	1.463	0.005	3357.8	1.037	0.399	3813.1	1.223	0.000
2455.1	1.367	0.007	2910.3	1.467	0.006	3365.5	1.029	0.381	3820.8	1.225	0.000
2462.8	1.367	0.007	2918.0	1.471	0.007	3373.3	1.032	0.363	3828.5	1.226	0.000
2470.5	1.368	0.006	2925.7	1.476	0.008	3381.0	1.025	0.348	3836.2	1.228	0.000
2478.2	1.369	0.006	2933.5	1.480	0.008	3388.7	1.009	0.332	3843.9	1.229	0.000
2485.9	1.369	0.006	2941.2	1.485	0.009	3396.4	1.002	0.315	3851.6	1.231	0.000
2493.7	1.370	0.005	2948.9	1.490	0.011	3404.1	0.987	0.296	3859.4	1.232	0.000
2501.4	1.371	0.005	2956.6	1.495	0.012	3411.8	0.980	0.277	3867.1	1.234	0.000
2509.1	1.372	0.005	2964.3	1.501	0.014	3419.6	0.985	0.257	3874.8	1.235	0.000
2516.8	1.373	0.004	2972.0	1.506	0.015	3427.3	0.981	0.236	3882.5	1.236	0.000
2524.5	1.374	0.004	2979.8	1.513	0.017	3435.0	0.972	0.215	3890.2	1.238	0.000
2532.2	1.375	0.004	2987.5	1.520	0.020	3442.7	0.972	0.193	3897.9	1.239	0.000
2540.0	1.376	0.004	2995.2	1.526	0.022	3450.4	0.973	0.171	3905.7	1.240	0.000
2547.7	1.376	0.004	3002.9	1.533	0.025	3458.1	0.975	0.150	3913.4	1.241	0.000
2555.4	1.378	0.004	3010.6	1.541	0.028	3465.9	0.987	0.131	3921.1	1.242	0.000
2563.1	1.379	0.004	3018.3	1.548	0.031	3473.6	0.995	0.113	3928.8	1.243	0.000
2570.8	1.380	0.004	3026.0	1.557	0.035	3481.3	1.001	0.096	3936.5	1.244	0.000
2578.5	1.381	0.003	3033.8	1.568	0.039	3489.0	1.012	0.082	3944.2	1.245	0.000
2586.2	1.382	0.003	3041.5	1.577	0.045	3496.7	1.022	0.070	3951.9	1.247	0.000
2594.0	1.383	0.003	3049.2	1.588	0.051	3504.4	1.032	0.060	3959.7	1.248	0.000
2601.7	1.384	0.003	3056.9	1.599	0.059	3512.1	1.042	0.050	3967.4	1.249	0.000
2609.4	1.385	0.003	3064.6	1.610	0.068	3519.9	1.055	0.043	3975.1	1.250	0.000
2617.1	1.386	0.002	3072.3	1.622	0.078	3527.6	1.064	0.036	3982.8	1.251	0.000
2624.8	1.388	0.002	3080.1	1.638	0.091	3535.3	1.073	0.031	3990.5	1.253	0.000
2632.5	1.389	0.002	3087.8	1.651	0.105	3543.0	1.082	0.026	3998.2	1.254	0.000
2640.3	1.390	0.002	3095.5	1.661	0.123	3550.7	1.089	0.022			

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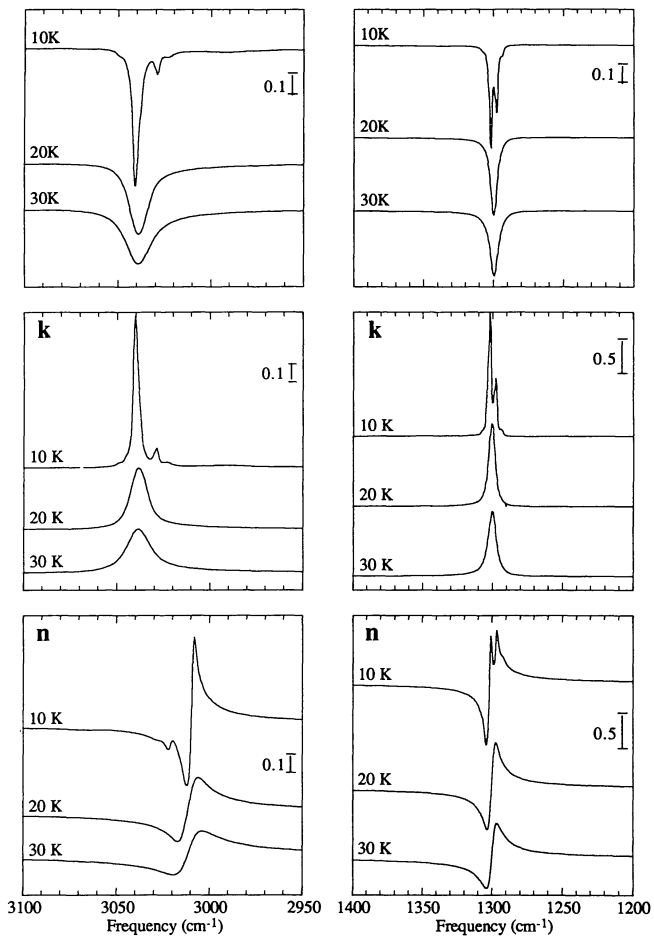

FIG. 6.—The 3100 to 2950 cm^{-1} and 1400 to 1200 cm^{-1} transmission spectra and optical constants (n and k) of a pure CH_4 ice at temperatures of 10, 20, and 30 K. The original ice was deposited at 10 K.

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TABLE 6A

CH_4 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1023.3	1.346	0.003	1250.0	1.387	0.000	1306.9	0.820	0.103	1363.8	1.286	0.008	1824.3	1.330	0.001	2958.5	1.358	0.000	3014.5	1.065	0.107	3070.4	1.297	0.011
1047.4	1.345	0.003	1250.9	1.388	0.000	1307.8	0.892	0.081	1364.7	1.287	0.008	1843.6	1.330	0.001	2959.5	1.359	0.000	3015.4	1.112	0.075	3071.4	1.297	0.010
1071.5	1.347	0.003	1251.9	1.389	0.000	1308.8	0.946	0.053	1365.7	1.287	0.008	1874.9	1.328	0.002	2960.5	1.359	0.000	3016.4	1.151	0.057	3072.3	1.298	0.010
1095.6	1.348	0.003	1252.9	1.390	0.000	1309.8	0.995	0.036	1366.7	1.287	0.008	1899.1	1.328	0.000	2961.4	1.360	0.000	3017.4	1.184	0.050	3073.3	1.298	0.009
1124.1	1.346	0.000	1253.8	1.391	0.000	1310.7	1.034	0.027	1367.6	1.287	0.005	1923.2	1.329	0.001	2962.4	1.361	0.002	3018.3	1.213	0.053	3074.3	1.298	0.009
1148.2	1.350	0.003	1254.8	1.393	0.000	1311.7	1.063	0.025	1368.6	1.289	0.006	1947.3	1.329	0.001	2963.4	1.361	0.000	3019.3	1.232	0.071	3075.2	1.299	0.009
1172.3	1.353	0.000	1255.8	1.394	0.000	1312.7	1.088	0.021	1369.6	1.290	0.008	1971.4	1.329	0.001	2964.3	1.362	0.000	3020.3	1.232	0.093	3076.2	1.299	0.009
1196.4	1.359	0.000	1256.7	1.395	0.000	1313.6	1.109	0.016	1370.5	1.291	0.006	1995.5	1.329	0.001	2965.3	1.363	0.000	3021.2	1.208	0.113	3077.2	1.299	0.008
1200.8	1.359	0.000	1257.7	1.397	0.000	1314.6	1.126	0.017	1371.5	1.292	0.008	2019.6	1.329	0.001	2966.3	1.364	0.000	3022.2	1.184	0.076	3078.1	1.300	0.008
1201.7	1.360	0.000	1258.6	1.398	0.000	1315.5	1.140	0.015	1372.5	1.290	0.006	2043.7	1.330	0.001	2967.2	1.364	0.000	3023.2	1.195	0.043	3079.1	1.301	0.008
1202.7	1.360	0.000	1259.6	1.400	0.000	1316.5	1.154	0.013	1373.4	1.292	0.006	2067.8	1.329	0.001	2968.2	1.365	0.000	3024.1	1.211	0.032	3080.1	1.301	0.008
1203.7	1.361	0.000	1260.6	1.401	0.000	1317.5	1.164	0.014	1374.4	1.292	0.006	2092.0	1.329	0.001	2969.1	1.366	0.000	3025.1	1.224	0.031	3081.0	1.301	0.008
1204.6	1.360	0.003	1261.5	1.403	0.000	1318.4	1.173	0.012	1375.3	1.293	0.006	2116.1	1.330	0.001	2970.1	1.367	0.000	3026.0	1.232	0.032	3082.0	1.301	0.007
1205.6	1.359	0.000	1262.5	1.405	0.000	1319.4	1.182	0.012	1376.3	1.294	0.006	2140.2	1.330	0.001	2971.1	1.368	0.002	3027.0	1.235	0.034	3083.0	1.302	0.007
1206.6	1.361	0.000	1263.5	1.407	0.000	1320.4	1.190	0.010	1377.3	1.294	0.006	2164.3	1.330	0.001	2972.0	1.369	0.000	3028.0	1.236	0.031	3083.9	1.302	0.007
1207.5	1.361	0.003	1264.4	1.409	0.000	1321.3	1.197	0.010	1378.2	1.295	0.006	2188.4	1.331	0.001	2973.0	1.370	0.000	3028.9	1.238	0.026	3084.9	1.302	0.007
1208.5	1.361	0.000	1265.4	1.411	0.000	1322.3	1.203	0.008	1379.2	1.295	0.006	2212.5	1.330	0.001	2974.0	1.371	0.002	3029.9	1.242	0.021	3085.8	1.303	0.007
1209.5	1.362	0.000	1266.4	1.413	0.000	1323.3	1.210	0.008	1380.2	1.295	0.006	2236.6	1.330	0.001	2974.9	1.373	0.001	3030.9	1.247	0.019	3086.8	1.303	0.006
1210.4	1.362	0.000	1267.3	1.415	0.000	1324.2	1.216	0.008	1381.1	1.296	0.006	2260.7	1.331	0.001	2975.9	1.374	0.002	3031.8	1.252	0.016	3087.8	1.303	0.007
1211.4	1.363	0.000	1268.3	1.418	0.000	1325.2	1.221	0.008	1382.1	1.296	0.006	2284.8	1.331	0.001	2976.9	1.375	0.001	3032.8	1.256	0.014	3088.7	1.303	0.006
1212.3	1.363	0.003	1269.3	1.421	0.000	1326.2	1.226	0.009	1383.1	1.297	0.006	2309.0	1.331	0.001	2977.8	1.377	0.002	3033.8	1.259	0.013	3089.7	1.304	0.006
1213.3	1.363	0.000	1270.2	1.423	0.000	1327.1	1.230	0.009	1384.0	1.297	0.006	2333.1	1.331	0.001	2978.8	1.378	0.002	3034.7	1.263	0.012	3090.7	1.304	0.006
1214.3	1.364	0.000	1271.2	1.426	0.000	1328.1	1.234	0.009	1385.0	1.297	0.006	2357.2	1.331	0.001	2979.8	1.379	0.002	3035.7	1.266	0.012	3091.6	1.304	0.006
1215.2	1.365	0.000	1272.1	1.430	0.000	1329.1	1.237	0.009	1386.0	1.297	0.006	2381.3	1.331	0.001	2980.7	1.381	0.002	3036.7	1.269	0.011	3092.6	1.304	0.006
1216.2	1.364	0.000	1273.1	1.433	0.000	1330.0	1.240	0.009	1386.9	1.298	0.006	2405.4	1.332	0.001	2981.7	1.383	0.002	3037.6	1.272	0.011	3093.6	1.304	0.006
1217.2	1.365	0.000	1274.1	1.437	0.000	1331.0	1.244	0.009	1387.9	1.298	0.006	2429.5	1.332	0.001	2982.6	1.385	0.002	3038.6	1.274	0.011	3094.5	1.305	0.007
1218.1	1.365	0.000	1275.0	1.441	0.000	1331.9	1.246	0.009	1388.8	1.298	0.006	2453.6	1.332	0.001	2983.6	1.387	0.002	3039.6	1.276	0.010	3095.5	1.305	0.006
1219.1	1.366	0.000	1276.0	1.445	0.000	1332.9	1.249	0.009	1389.8	1.297	0.006	2477.7	1.332	0.001	2984.6	1.389	0.003	3040.5	1.279	0.011	3096.5	1.305	0.006
1220.1	1.366	0.000	1277.0	1.450	0.000	1333.9	1.251	0.009	1390.8	1.298	0.003	2501.9	1.332	0.000	2985.5	1.392	0.003	3041.5	1.280	0.010	3097.4	1.306	0.006
1221.0	1.366	0.000	1277.9	1.455	0.000	1334.8	1.254	0.009	1391.7	1.299	0.004	2526.0	1.333	0.000	2986.5	1.394	0.003	3042.4	1.282	0.010	3098.4	1.306	0.006
1222.0	1.367	0.000	1278.9	1.461	0.000	1335.8	1.256	0.009	1392.7	1.300	0.004	2550.1	1.333	0.000	2987.5	1.396	0.003	3043.4	1.284	0.011	3099.3	1.306	0.006
1223.0	1.367	0.000	1279.9	1.467	0.000	1336.8	1.257	0.009	1393.7	1.300	0.004	2574.2	1.333	0.000	2988.4	1.400	0.003	3044.4	1.286	0.011	3123.9	1.310	0.005
1223.9	1.368	0.000	1280.8	1.475	0.000	1337.7	1.260	0.007	1394.6	1.301	0.006	2598.3	1.334	0.001	2989.4	1.403	0.003	3045.3	1.287	0.011	3148.1	1.313	0.003
1224.9	1.368	0.000	1281.8	1.481	0.002	1338.7	1.262	0.010	1395.6	1.301	0.004	2622.4	1.334	0.001	2990.4	1.407	0.004	3046.3	1.289	0.012	3172.2	1.315	0.003
1225.9	1.369	0.000	1282.8	1.489	0.002	1339.7	1.263	0.010	1396.6	1.302	0.004	2646.5	1.334	0.001	2991.3	1.411	0.005	3047.3	1.289	0.012	3196.3	1.317	0.002
1226.8	1.369	0.000	1283.7	1.498	0.002	1340.6	1.265	0.010	1397.5	1.302	0.006	2669.2	1.333	0.001	2992.3	1.415	0.005	3048.2	1.291	0.012	3220.4	1.318	0.002
1227.8	1.370	0.000	1284.7	1.509	0.002	1341.6	1.266	0.010	1398.5	1.302	0.004	2688.5	1.333	0.001	2993.3	1.420	0.006	3049.2	1.292	0.012	3244.5	1.319	0.002
1228.7	1.370	0.000	1285.6	1.521	0.003	1342.6	1.268	0.010	1399.5	1.302	0.004	2707.8	1.333	0.001	2994.2	1.426	0.007	3050.2	1.292	0.013	3268.6	1.320	0.001
1229.7	1.371	0.000	1286.6	1.535	0.003	1343.5	1.269	0.010	1419.2	1.308	0.004	2727.1	1.334	0.001	2995.2	1.432	0.008	3051.1	1.293	0.013	3292.7	1.321	0.001
1230.7	1.372	0.000	1287.6	1.551	0.004	1344.5	1.270	0.010	1438.5	1.311	0.004	2746.4	1.334	0.001	2996.1	1.439	0.009	3052.1	1.294	0.014	3316.8	1.321	0.001
1231.6	1.372	0.000	1288.5	1.572	0.006	1345.4	1.271	0.010	1457.8	1.313	0.004	2765.6	1.335	0.001	2997.1	1.447	0.012	3053.1	1.294	0.014	3340.9	1.322	0.001
1232.6	1.373	0.000	1289.5	1.596	0.010	1346.4	1.272	0.010	1477.1	1.315	0.002	2784.9	1.336	0.001	2998.1	1.456	0.014	3054.0	1.295	0.014	3365.1	1.322	0.001
1233.6	1.373	0.000	1290.5	1.625	0.015	1347.4	1.273	0.010	1496.4	1.319	0.004	2804.2	1.340	0.002	2999.0	1.467	0.018	3055.0	1.295	0.015	3389.2	1.323	0.001
1234.5	1.374	0.000	1291.4	1.664	0.023	1348.3	1.274	0.010	1515.7	1.319	0.004	2823.5	1.333	0.005	3000.0	1.477	0.025	3055.9	1.295	0.015	3413.3	1.323	0.000
1235.5	1.375	0.000	1292.4	1.708	0.055	1349.3	1.275	0.010	1535.0	1.319	0.002	2842.8	1.335	0.002	3001.0	1.488	0.030	3056.9	1.295	0.015	3437.4	1.323	0.000
1236.5	1.375	0.000	1293.4	1.732	0.098	1350.3	1.276	0.010	1554.3	1.323	0.004	2862.1	1.337	0.002	3001.9	1.501	0.033	3057.9	1.295	0.015	3461.5	1.324	0.000
1237.4	1.376	0.000	1294.3	1.769	0.105	1351.2	1.277	0.010	1573.5	1.322	0.002	2881.4	1.339	0.002	3002.9	1.523	0.036	3058.8	1.295	0.015	3485.6	1.324	0.000
1238.4	1.377	0.000	1295.3	1.862	0.106	1352.2	1.278	0.010	1592.8	1.324	0.002	2900.7	1.341	0.001	3003.9	1.552	0.047	3059.8	1.296	0.015	3509.7	1.324	0.000
1239.4	1.377	0.000	1296.3	2.036	0.226	1353.2	1.278	0.010	1612.1	1.323	0.003	2920.0	1.344	0.001	3004.8	1.585	0.068	3060.8	1.295	0.015	3533.8	1.325	0.000
1240.3	1.378	0.000	1297.2	2.000	0.746	1354.1	1.279	0.010	1631.4	1.324	0.003	2939.2	1.349	0.000	3005.8	1.628	0.090	3061.7	1.295	0.015	3558.0	1.325	0.000
1241.3	1.379	0.000	1298.2	1.657	0.733	1355.1	1.278	0.010	1650.7	1.325	0.002	2950.8	1.354	0.000	3006.8	1.700	0.133	3062.7	1.295	0.014	3582.1	1.325	0.000
1242.2	1.380	0.000	1299.2	1.600	0.573	1356.1	1.280	0.008	1670.0	1.325	0.002	2951.8	1.355	0.000	3007.7	1.801	0.265	3063.7	1.295	0.014	3606.2	1.325	0.000
1243.2	1.380	0.000	1300.1	1.778	0.482	1357.0	1.281	0.008	1689.3	1.326	0.002	2952.7	1.355	0.000	3008.7	1.776	0.634	3064.6	1.295	0.013	3630.3	1.326	0.000
1244.2	1.381	0.000	1301.1	2.008	0.996	1358.0	1.282	0.008	1708.6	1.325	0.000	2953.7	1.356	0.000	3009.7	1.432	0.883	3065.6	1.296	0.013	3654.4	1.326	0.000
1245.1	1.382	0.000	1302.0	1.295	1.794	1358.9	1.283	0.008	1727.9	1.327	0.002	2954.7	1.356	0.000	3010.6	1.102	0.709	3066.6	1.296	0.012	3678.5	1.326	0.000
1246.1	1.383	0.000	1303.0	0.661	1.231	1359.9	1.284	0.008	1747.2	1.327	0.000	2955.6	1.357	0.000	3011.6	0.992	0.463	3067.5	1.296	0.012			
1247.1	1.384	0.000	1304.0	0.472	0.798	1360.9	1.285	0.008	1766.4	1.329	0.000	2956.6	1.358	0.000	3012.5	0.978	0.306	3068.5	1.296	0.012			
1248.0	1.385	0.000	1304.9	0.494	0.340	1361.8	1.285	0.008	1785.7	1.329	0.000	2957.6	1.357	0.002	3013.5	1.009	0.175	3069.4	1.297	0.011			
1249.0	1.386	0.000	1305.9	0.689	0.140	1362.8	1.286	0.008	1805.0	1.329	0.001												

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TABLE 6B

CH_4 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1023.3	1.348	0.003	1250.0	1.390	0.003	1306.9	0.909	0.166	1363.8	1.283	0.008	1824.8	1.329	0.002	2958.5	1.361	0.002	3014.5	1.205	0.293	3070.4	1.295	0.010
1047.4	1.347	0.000	1250.9	1.391	0.000	1307.8	0.954	0.130	1364.7	1.283	0.008	1844.1	1.329	0.002	2959.5	1.361	0.002	3015.4	1.176	0.253	3071.4	1.295	0.009
1071.5	1.350	0.003	1251.9	1.392	0.003	1308.8	0.992	0.104	1365.7	1.283	0.008	1874.9	1.328	0.001	2960.5	1.362	0.002	3016.4	1.161	0.210	3072.3	1.296	0.009
1095.6	1.350	0.003	1252.9	1.393	0.003	1309.8	1.025	0.085	1366.7	1.284	0.008	1899.1	1.328	0.001	2961.4	1.363	0.002	3017.4	1.158	0.172	3073.3	1.296	0.009
1124.1	1.347	0.003	1253.8	1.395	0.003	1310.7	1.052	0.070	1367.6	1.285	0.006	1923.2	1.328	0.001	2962.4	1.364	0.002	3018.3	1.162	0.141	3074.3	1.297	0.009
1148.2	1.350	0.003	1254.8	1.396	0.003	1311.7	1.074	0.062	1368.6	1.287	0.006	1947.3	1.328	0.001	2963.4	1.364	0.002	3019.3	1.171	0.116	3075.2	1.297	0.009
1172.3	1.354	0.003	1255.8	1.397	0.003	1312.7	1.093	0.054	1369.6	1.286	0.006	1971.4	1.329	0.001	2964.3	1.365	0.002	3020.3	1.181	0.098	3076.2	1.297	0.009
1196.4	1.359	0.003	1256.7	1.399	0.003	1313.6	1.111	0.049	1370.5	1.288	0.006	1995.5	1.329	0.001	2965.3	1.366	0.002	3021.2	1.190	0.086	3077.2	1.298	0.008
1200.8	1.360	0.003	1257.7	1.400	0.003	1314.6	1.124	0.044	1371.5	1.289	0.006	2019.6	1.329	0.001	2966.3	1.367	0.002	3022.2	1.198	0.076	3078.1	1.298	0.008
1201.7	1.360	0.003	1258.6	1.401	0.003	1315.5	1.137	0.039	1372.5	1.289	0.008	2043.7	1.329	0.001	2967.2	1.368	0.002	3023.2	1.206	0.067	3079.1	1.299	0.008
1202.7	1.361	0.003	1259.6	1.403	0.000	1316.5	1.149	0.036	1373.4	1.289	0.006	2067.8	1.329	0.001	2968.2	1.369	0.002	3024.1	1.213	0.060	3080.1	1.299	0.008
1203.7	1.361	0.003	1260.6	1.405	0.003	1317.5	1.159	0.031	1374.4	1.290	0.006	2092.0	1.330	0.001	2969.1	1.370	0.003	3025.1	1.219	0.054	3081.0	1.299	0.008
1204.6	1.361	0.003	1261.5	1.407	0.003	1318.4	1.168	0.032	1375.3	1.291	0.006	2116.1	1.330	0.001	2970.1	1.371	0.003	3026.0	1.225	0.050	3082.0	1.299	0.008
1205.6	1.361	0.003	1262.5	1.409	0.003	1319.4	1.175	0.029	1376.3	1.291	0.006	2140.2	1.330	0.001	2971.1	1.372	0.003	3027.0	1.230	0.046	3083.0	1.300	0.007
1206.6	1.362	0.003	1263.5	1.411	0.003	1320.4	1.182	0.027	1377.3	1.292	0.006	2164.3	1.330	0.001	2972.0	1.373	0.003	3028.0	1.234	0.043	3083.9	1.300	0.007
1207.5	1.362	0.003	1264.4	1.413	0.003	1321.3	1.189	0.025	1378.2	1.292	0.006	2188.4	1.330	0.001	2973.0	1.374	0.003	3028.9	1.238	0.040	3084.9	1.301	0.007
1208.5	1.362	0.003	1265.4	1.415	0.003	1322.3	1.196	0.022	1379.2	1.293	0.006	2212.5	1.330	0.001	2974.0	1.375	0.003	3029.9	1.242	0.038	3085.8	1.301	0.007
1209.5	1.363	0.003	1266.4	1.418	0.003	1323.3	1.201	0.020	1380.2	1.293	0.006	2236.6	1.331	0.001	2974.9	1.377	0.003	3030.9	1.245	0.036	3086.8	1.301	0.007
1210.4	1.363	0.003	1267.3	1.420	0.003	1324.2	1.207	0.020	1381.1	1.294	0.006	2260.7	1.331	0.001	2975.9	1.378	0.004	3031.8	1.249	0.033	3087.8	1.302	0.007
1211.4	1.363	0.003	1268.3	1.423	0.003	1325.2	1.211	0.020	1382.1	1.294	0.006	2284.8	1.331	0.001	2976.9	1.379	0.004	3032.8	1.251	0.032	3088.7	1.302	0.007
1212.3	1.363	0.003	1269.3	1.426	0.003	1326.2	1.216	0.018	1383.1	1.295	0.006	2309.0	1.331	0.001	2977.8	1.381	0.004	3033.8	1.254	0.030	3089.7	1.302	0.007
1213.3	1.363	0.000	1270.2	1.429	0.003	1327.1	1.221	0.018	1384.0	1.295	0.006	2333.1	1.331	0.001	2978.8	1.383	0.004	3034.7	1.257	0.029	3090.7	1.302	0.006
1214.3	1.364	0.000	1271.2	1.432	0.003	1328.1	1.224	0.018	1385.0	1.295	0.006	2357.2	1.331	0.001	2979.8	1.384	0.005	3035.7	1.259	0.027	3091.6	1.303	0.006
1215.2	1.365	0.003	1272.1	1.436	0.003	1329.1	1.227	0.016	1386.0	1.296	0.006	2381.3	1.332	0.001	2980.7	1.386	0.005	3036.7	1.261	0.026	3092.6	1.303	0.006
1216.2	1.364	0.000	1273.1	1.441	0.003	1330.0	1.231	0.016	1386.9	1.296	0.006	2405.4	1.332	0.001	2981.7	1.388	0.006	3037.6	1.263	0.026	3093.6	1.303	0.006
1217.2	1.367	0.000	1274.1	1.444	0.005	1331.0	1.233	0.016	1387.9	1.296	0.006	2429.5	1.332	0.001	2982.6	1.390	0.006	3038.6	1.265	0.025	3094.5	1.304	0.006
1218.1	1.366	0.003	1275.0	1.448	0.005	1331.9	1.236	0.016	1388.8	1.297	0.006	2453.6	1.332	0.001	2983.6	1.392	0.007	3039.6	1.267	0.023	3095.5	1.304	0.006
1219.1	1.365	0.000	1276.0	1.452	0.005	1332.9	1.239	0.014	1389.8	1.297	0.006	2477.7	1.332	0.001	2984.6	1.395	0.007	3040.5	1.268	0.023	3096.5	1.304	0.006
1220.1	1.367	0.000	1277.0	1.458	0.005	1333.9	1.242	0.014	1390.8	1.298	0.006	2501.9	1.333	0.001	2985.5	1.397	0.008	3041.5	1.270	0.022	3097.4	1.304	0.006
1221.0	1.368	0.000	1277.9	1.464	0.005	1334.8	1.245	0.014	1391.7	1.298	0.006	2526.0	1.333	0.001	2986.5	1.400	0.009	3042.4	1.271	0.021	3098.4	1.304	0.006
1222.0	1.370	0.000	1278.9	1.470	0.007	1335.8	1.247	0.014	1392.7	1.298	0.006	2550.1	1.333	0.001	2987.5	1.402	0.010	3043.4	1.273	0.020	3099.3	1.304	0.006
1223.0	1.369	0.003	1279.9	1.476	0.007	1336.8	1.248	0.014	1393.7	1.298	0.006	2574.2	1.333	0.001	2988.4	1.405	0.010	3044.4	1.274	0.019	3123.9	1.310	0.005
1223.9	1.370	0.000	1280.8	1.484	0.008	1337.7	1.250	0.012	1394.6	1.298	0.006	2598.3	1.334	0.001	2989.4	1.408	0.011	3045.3	1.275	0.019	3148.1	1.313	0.004
1224.9	1.370	0.003	1281.8	1.492	0.008	1338.7	1.253	0.012	1395.6	1.299	0.004	2622.4	1.334	0.001	2990.4	1.412	0.012	3046.3	1.277	0.018	3172.2	1.315	0.003
1225.9	1.370	0.000	1282.8	1.501	0.010	1339.7	1.255	0.012	1396.6	1.299	0.006	2646.5	1.335	0.001	2991.3	1.416	0.014	3047.3	1.277	0.018	3196.3	1.317	0.003
1226.8	1.370	0.000	1283.7	1.511	0.012	1340.6	1.256	0.012	1397.5	1.298	0.006	2669.2	1.333	0.001	2992.3	1.420	0.016	3048.2	1.279	0.017	3220.4	1.318	0.003
1227.8	1.372	0.000	1284.7	1.521	0.014	1341.6	1.258	0.012	1398.5	1.300	0.004	2688.5	1.333	0.001	2993.3	1.424	0.018	3049.2	1.279	0.016	3244.5	1.318	0.003
1228.7	1.372	0.000	1285.6	1.534	0.015	1342.6	1.258	0.009	1399.5	1.300	0.006	2707.8	1.334	0.001	2994.2	1.430	0.019	3050.2	1.280	0.016	3268.6	1.319	0.002
1229.7	1.374	0.003	1286.6	1.549	0.018	1343.5	1.261	0.010	1419.2	1.307	0.006	2727.1	1.334	0.001	2995.2	1.435	0.023	3051.1	1.282	0.015	3292.7	1.320	0.002
1230.7	1.374	0.003	1287.6	1.566	0.022	1344.5	1.263	0.010	1438.5	1.310	0.004	2746.4	1.335	0.001	2996.1	1.441	0.026	3052.1	1.282	0.015	3316.8	1.321	0.002
1231.6	1.374	0.003	1288.5	1.586	0.028	1345.4	1.265	0.010	1457.8	1.312	0.004	2765.6	1.336	0.001	2997.1	1.447	0.030	3053.1	1.284	0.014	3340.9	1.321	0.002
1232.6	1.373	0.003	1289.5	1.608	0.035	1346.4	1.266	0.010	1477.1	1.315	0.004	2784.9	1.337	0.001	2998.1	1.454	0.035	3054.0	1.284	0.014	3365.1	1.322	0.002
1233.6	1.375	0.003	1290.5	1.634	0.000	1347.4	1.267	0.010	1496.4	1.318	0.004	2804.2	1.340	0.003	2999.0	1.462	0.041	3055.0	1.285	0.013	3389.2	1.322	0.002
1234.5	1.375	0.000	1291.4	1.664	0.059	1348.3	1.269	0.010	1515.7	1.319	0.004	2823.5	1.335	0.006	3000.0	1.471	0.048	3055.9	1.286	0.014	3413.3	1.323	0.000
1235.5	1.377	0.003	1292.4	1.700	0.079	1349.3	1.270	0.010	1535.0	1.320	0.004	2842.8	1.336	0.003	3001.0	1.480	0.057	3056.9	1.286	0.014	3437.4	1.322	0.002
1236.5	1.378	0.000	1293.4	1.743	0.109	1350.3	1.271	0.010	1554.3	1.321	0.004	2862.1	1.338	0.002	3001.9	1.490	0.068	3057.9	1.287	0.013	3461.5	1.323	0.002
1237.4	1.379	0.003	1294.3	1.791	0.146	1351.2	1.271	0.010	1573.5	1.322	0.004	2881.4	1.340	0.002	3002.9	1.500	0.083	3058.8	1.288	0.013	3485.6	1.323	0.001
1238.4	1.379	0.000	1295.3	1.855	0.203	1352.2	1.271	0.010	1592.8	1.322	0.004	2900.7	1.343	0.000	3003.9	1.510	0.103	3059.8	1.288	0.013	3509.7	1.324	0.002
1239.4	1.381	0.003	1296.3	1.926	0.306	1353.2	1.274	0.008	1612.1	1.323	0.003	2920.0	1.346	0.001	3004.8	1.520	0.127	3060.8	1.289	0.012	3533.8	1.324	0.001
1240.3	1.380	0.003	1297.2	1.980	0.481	1354.1	1.275	0.010	1631.9	1.324	0.003	2939.2	1.352	0.002	3005.8	1.525	0.159	3061.7	1.290	0.012	3558.0	1.324	0.001
1241.3	1.381	0.003	1298.2	1.955	0.746	1355.1	1.275	0.008	1651.2	1.324	0.003	2950.8	1.356	0.002	3006.8	1.522	0.198	3062.7	1.290	0.012	3582.1	1.324	0.000
1242.2	1.383	0.000	1299.2	1.781	1.029	1356.1	1.276	0.008	1670.5	1.323	0.002	2951.8	1.357	0.002	3007.7	1.509	0.240	3063.7	1.291	0.011	3606.2	1.325	0.000
1243.2	1.383	0.003	1300.1	1.474	1.179	1357.0	1.278	0.008	1689.8	1.325	0.002	2952.7	1.357	0.002	3008.7	1.484	0.280	3064.6	1.292	0.011	3630.3	1.325	0.001
1244.2	1.384	0.003	1301.1	1.144	1.146	1358.0	1.279	0.008	1709.1	1.326	0.002	2953.7	1.358	0.002	3009.7	1.448	0.317	3065.6	1.292	0.011	3654.4	1.325	0.000
1245.1	1.384	0.003	1302.0	0.886	0.950	1358.9	1.279	0.008	1728.3	1.327	0.002	2954.7	1.358	0.002	3010.6	1.399	0.343	3066.6	1.293	0.011	3678.5	1.325	0.001
1246.1	1.384	0.003	1303.0	0.760	0.693	1359.9	1.280	0.008	1747.6	1.327	0.002	2955.6	1.359	0.002	3011.6	1.344	0.350	3067.5	1.293	0.010			
1247.1	1.387	0.000	1304.0	0.749	0.466	1360.9	1.281	0.008	1766.9	1.328	0.002	2956.6	1.360	0.002	3012.5	1.292	0.342	3068.5	1.294	0.010			
1248.0	1.387	0.003	1304.9	0.795	0.315	1361.8	1.282	0.008	1786.2	1.328	0.002	2957.6	1.360	0.000	3013.5	1.245	0.323	3069.4	1.295	0.010			
1249.0	1.389	0.000	1305.9	0.855	0.226	1362.8	1.282	0.008	1805.5	1.329	0.002												

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TABLE 6C

CH_4 AT 30 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1023.3	1.345	0.000	1250.0	1.394	0.000	1306.9	0.962	0.208	1363.8	1.283	0.008	1824.3	1.328	0.002	2958.5	1.364	0.002	3014.5	1.261	0.221	3070.4	1.295	0.010
1047.4	1.346	0.000	1250.9	1.396	0.000	1307.8	0.992	0.166	1364.7	1.284	0.008	1843.6	1.328	0.002	2959.5	1.364	0.002	3015.4	1.244	0.204	3071.4	1.296	0.010
1071.5	1.348	0.000	1251.9	1.398	0.000	1308.8	1.020	0.137	1365.7	1.285	0.005	1874.9	1.328	0.001	2960.5	1.365	0.002	3016.4	1.232	0.184	3072.3	1.297	0.010
1095.6	1.350	0.000	1252.9	1.398	0.003	1309.8	1.043	0.114	1366.7	1.286	0.006	1899.1	1.328	0.001	2961.4	1.366	0.002	3017.4	1.224	0.165	3073.3	1.297	0.009
1124.1	1.350	0.000	1253.8	1.399	0.003	1310.7	1.066	0.096	1367.6	1.287	0.006	1923.2	1.328	0.001	2962.4	1.367	0.003	3018.3	1.220	0.147	3074.3	1.297	0.010
1148.2	1.353	0.000	1254.8	1.402	0.000	1311.7	1.085	0.085	1368.6	1.288	0.006	1947.3	1.328	0.001	2963.4	1.368	0.003	3019.3	1.219	0.131	3075.2	1.298	0.009
1172.3	1.356	0.003	1255.8	1.403	0.003	1312.7	1.100	0.073	1369.6	1.288	0.006	1971.4	1.328	0.001	2964.3	1.368	0.003	3020.3	1.219	0.117	3076.2	1.298	0.009
1196.4	1.362	0.000	1256.7	1.404	0.003	1313.6	1.116	0.065	1370.5	1.289	0.006	1995.5	1.328	0.001	2965.3	1.369	0.003	3021.2	1.221	0.105	3077.2	1.298	0.009
1200.8	1.363	0.003	1257.7	1.405	0.003	1314.6	1.129	0.057	1371.5	1.290	0.006	2019.6	1.329	0.001	2966.3	1.370	0.003	3022.2	1.223	0.094	3078.1	1.299	0.008
1201.7	1.363	0.000	1258.6	1.406	0.003	1315.5	1.141	0.052	1372.5	1.290	0.006	2043.7	1.329	0.001	2967.2	1.371	0.003	3023.2	1.226	0.085	3079.1	1.299	0.008
1202.7	1.364	0.000	1259.6	1.408	0.003	1316.5	1.151	0.047	1373.4	1.291	0.006	2067.8	1.329	0.001	2968.2	1.372	0.003	3024.1	1.229	0.078	3080.1	1.300	0.008
1203.7	1.364	0.000	1260.6	1.410	0.003	1317.5	1.161	0.042	1374.4	1.291	0.006	2092.0	1.329	0.000	2969.1	1.373	0.004	3025.1	1.233	0.071	3081.0	1.300	0.008
1204.6	1.365	0.000	1261.5	1.411	0.003	1318.4	1.169	0.039	1375.3	1.292	0.006	2116.1	1.329	0.001	2970.1	1.375	0.004	3026.0	1.236	0.066	3082.0	1.301	0.008
1205.6	1.365	0.000	1262.5	1.413	0.003	1319.4	1.176	0.037	1376.3	1.292	0.006	2140.2	1.330	0.001	2971.1	1.376	0.004	3027.0	1.238	0.060	3083.0	1.301	0.008
1206.6	1.365	0.000	1263.5	1.416	0.003	1320.4	1.183	0.032	1377.3	1.293	0.006	2164.3	1.330	0.000	2972.0	1.376	0.005	3028.0	1.242	0.056	3083.9	1.301	0.008
1207.5	1.366	0.000	1264.4	1.418	0.003	1321.3	1.190	0.030	1378.2	1.293	0.006	2188.4	1.330	0.001	2973.0	1.377	0.005	3028.9	1.245	0.052	3084.9	1.301	0.007
1208.5	1.366	0.000	1265.4	1.420	0.003	1322.3	1.196	0.027	1379.2	1.293	0.006	2212.5	1.330	0.000	2974.0	1.379	0.005	3029.9	1.247	0.049	3085.8	1.302	0.007
1209.5	1.366	0.000	1266.4	1.423	0.003	1323.3	1.202	0.027	1380.2	1.294	0.006	2236.6	1.331	0.000	2974.9	1.380	0.005	3030.9	1.250	0.046	3086.8	1.302	0.007
1210.4	1.367	0.000	1267.3	1.426	0.003	1324.2	1.206	0.025	1381.1	1.293	0.006	2260.7	1.331	0.000	2975.9	1.382	0.006	3031.8	1.252	0.043	3087.8	1.303	0.007
1211.4	1.367	0.000	1268.3	1.430	0.003	1325.2	1.211	0.023	1382.1	1.294	0.003	2284.8	1.331	0.000	2976.9	1.383	0.006	3032.8	1.255	0.041	3088.7	1.303	0.007
1212.3	1.368	0.000	1269.3	1.432	0.005	1326.2	1.215	0.023	1383.1	1.295	0.003	2309.0	1.331	0.000	2977.8	1.385	0.007	3033.8	1.256	0.039	3089.7	1.303	0.007
1213.3	1.368	0.000	1270.2	1.435	0.005	1327.1	1.220	0.020	1384.0	1.296	0.003	2333.1	1.331	0.000	2978.8	1.386	0.008	3034.7	1.259	0.036	3090.7	1.303	0.006
1214.3	1.368	0.000	1271.2	1.438	0.005	1328.1	1.224	0.020	1385.0	1.297	0.004	2357.2	1.332	0.000	2979.8	1.388	0.008	3035.7	1.261	0.035	3091.6	1.303	0.006
1215.2	1.369	0.000	1272.1	1.442	0.005	1329.1	1.226	0.018	1386.0	1.297	0.004	2381.3	1.332	0.000	2980.7	1.390	0.009	3036.7	1.262	0.033	3092.6	1.304	0.006
1216.2	1.369	0.000	1273.1	1.446	0.007	1330.0	1.230	0.018	1386.9	1.298	0.006	2405.4	1.332	0.000	2981.7	1.392	0.010	3037.6	1.264	0.031	3093.6	1.304	0.006
1217.2	1.370	0.000	1274.1	1.450	0.007	1331.0	1.234	0.016	1387.9	1.298	0.006	2429.5	1.332	0.000	2982.6	1.394	0.011	3038.6	1.266	0.030	3094.5	1.305	0.006
1218.1	1.370	0.000	1275.0	1.454	0.007	1331.9	1.237	0.016	1388.8	1.297	0.004	2453.6	1.333	0.000	2983.6	1.396	0.011	3039.6	1.268	0.028	3095.5	1.305	0.006
1219.1	1.371	0.000	1276.0	1.460	0.007	1332.9	1.240	0.016	1389.8	1.298	0.004	2477.7	1.333	0.000	2984.6	1.398	0.012	3040.5	1.269	0.027	3096.5	1.305	0.007
1220.1	1.371	0.000	1277.0	1.465	0.009	1333.9	1.242	0.016	1390.8	1.299	0.004	2501.9	1.333	0.000	2985.5	1.401	0.013	3041.5	1.270	0.026	3097.4	1.305	0.007
1221.0	1.371	0.000	1277.9	1.471	0.011	1334.8	1.244	0.014	1391.7	1.299	0.004	2526.0	1.333	0.000	2986.5	1.403	0.014	3042.4	1.272	0.025	3098.4	1.305	0.007
1222.0	1.372	0.000	1278.9	1.477	0.011	1335.8	1.247	0.014	1392.7	1.300	0.004	2550.1	1.334	0.000	2987.5	1.406	0.016	3043.4	1.273	0.024	3099.3	1.305	0.006
1223.0	1.372	0.000	1279.9	1.484	0.013	1336.8	1.249	0.014	1393.7	1.300	0.004	2574.2	1.334	0.000	2988.4	1.408	0.018	3044.4	1.275	0.023	3123.9	1.311	0.005
1223.9	1.373	0.000	1280.8	1.491	0.015	1337.7	1.251	0.012	1394.6	1.301	0.004	2598.3	1.335	0.000	2989.4	1.411	0.020	3045.3	1.276	0.022	3148.1	1.314	0.004
1224.9	1.373	0.000	1281.8	1.499	0.016	1338.7	1.253	0.014	1395.6	1.301	0.004	2622.4	1.335	0.000	2990.4	1.414	0.022	3046.3	1.277	0.021	3172.2	1.316	0.004
1225.9	1.374	0.000	1282.8	1.507	0.020	1339.7	1.255	0.012	1396.6	1.301	0.004	2646.5	1.335	0.000	2991.3	1.418	0.024	3047.3	1.278	0.021	3196.3	1.318	0.004
1226.8	1.375	0.000	1283.7	1.518	0.022	1340.6	1.257	0.012	1397.5	1.302	0.004	2669.2	1.335	0.000	2992.3	1.421	0.026	3048.2	1.279	0.019	3220.4	1.318	0.003
1227.8	1.375	0.000	1284.7	1.528	0.025	1341.6	1.258	0.012	1398.5	1.302	0.004	2688.5	1.335	0.000	2993.3	1.425	0.030	3049.2	1.280	0.019	3244.5	1.320	0.003
1228.7	1.376	0.000	1285.6	1.541	0.029	1342.6	1.259	0.012	1399.5	1.302	0.004	2707.8	1.336	0.000	2994.2	1.429	0.034	3050.2	1.281	0.018	3268.6	1.320	0.003
1229.7	1.376	0.000	1286.6	1.556	0.034	1343.5	1.262	0.010	1419.2	1.309	0.004	2727.1	1.336	0.000	2995.2	1.433	0.037	3051.1	1.282	0.017	3292.7	1.321	0.003
1230.7	1.377	0.000	1287.6	1.571	0.041	1344.5	1.264	0.010	1438.5	1.310	0.004	2746.4	1.337	0.000	2996.1	1.438	0.042	3052.1	1.283	0.017	3316.8	1.321	0.003
1231.6	1.378	0.000	1288.5	1.590	0.050	1345.4	1.265	0.010	1457.8	1.313	0.004	2765.6	1.338	0.001	2997.1	1.442	0.047	3053.1	1.284	0.016	3340.9	1.321	0.003
1232.6	1.379	0.003	1289.5	1.610	0.060	1346.4	1.267	0.010	1477.1	1.315	0.004	2784.9	1.339	0.001	2998.1	1.447	0.054	3054.0	1.285	0.016	3365.1	1.322	0.002
1233.6	1.377	0.003	1290.5	1.634	0.076	1347.4	1.268	0.010	1496.4	1.319	0.004	2804.2	1.340	0.003	2999.0	1.452	0.062	3055.0	1.285	0.015	3389.2	1.322	0.002
1234.5	1.378	0.000	1291.4	1.661	0.095	1348.3	1.269	0.010	1515.7	1.319	0.004	2823.5	1.338	0.005	3000.0	1.456	0.071	3055.9	1.286	0.015	3413.3	1.323	0.000
1235.5	1.382	0.003	1292.4	1.690	0.124	1349.3	1.270	0.010	1535.0	1.320	0.002	2842.8	1.337	0.003	3001.0	1.460	0.081	3056.9	1.287	0.015	3437.4	1.322	0.002
1236.5	1.381	0.000	1293.4	1.722	0.158	1350.3	1.270	0.010	1554.3	1.322	0.004	2862.1	1.339	0.002	3001.9	1.464	0.093	3057.9	1.288	0.015	3461.5	1.322	0.002
1237.4	1.382	0.000	1294.3	1.759	0.205	1351.2	1.272	0.010	1573.5	1.322	0.002	2881.4	1.342	0.001	3002.9	1.467	0.107	3058.8	1.288	0.014	3485.6	1.323	0.001
1238.4	1.383	0.000	1295.3	1.797	0.275	1352.2	1.273	0.007	1592.8	1.323	0.002	2900.7	1.344	0.001	3003.9	1.468	0.124	3059.8	1.289	0.014	3509.7	1.323	0.001
1239.4	1.383	0.000	1296.3	1.828	0.381	1353.2	1.275	0.008	1612.1	1.324	0.002	2920.0	1.347	0.000	3004.8	1.466	0.143	3060.8	1.290	0.013	3533.8	1.323	0.001
1240.3	1.384	0.000	1297.2	1.828	0.530	1354.1	1.276	0.008	1631.4	1.325	0.002	2939.2	1.353	0.000	3005.8	1.462	0.162	3061.7	1.291	0.013	3558.0	1.324	0.000
1241.3	1.385	0.003	1298.2	1.759	0.713	1355.1	1.277	0.008	1650.7	1.326	0.003	2950.8	1.359	0.002	3006.8	1.453	0.184	3062.7	1.291	0.013	3582.1	1.324	0.000
1242.2	1.385	0.000	1299.2	1.600	0.875	1356.1	1.278	0.008	1670.0	1.324	0.003	2951.8	1.360	0.002	3007.7	1.439	0.205	3063.7	1.291	0.013	3606.2	1.324	0.000
1243.2	1.386	0.000	1300.1	1.378	0.933	1357.0	1.279	0.008	1689.3	1.325	0.002	2952.7	1.360	0.002	3008.7	1.420	0.225	3064.6	1.292	0.012	3630.3	1.325	0.000
1244.2	1.388	0.000	1301.1	1.167	0.876	1358.0	1.280	0.008	1708.6	1.326	0.002	2953.7	1.361	0.002	3009.7	1.396	0.241	3065.6	1.293	0.012	3654.4	1.325	0.000
1245.1	1.389	0.000	1302.0	1.013	0.748	1358.9	1.280	0.008	1727.9	1.327	0.002	2954.7	1.361	0.002	3010.6	1.368	0.250	3066.6	1.293	0.011	3678.5	1.325	0.000
1246.1	1.390	0.000	1303.0	0.927	0.596	1359.9	1.281	0.008	1747.2	1.327	0.002	2955.6	1.362	0.002	3011.6	1.338	0.253	3067.5	1.294	0.011			
1247.1	1.391	0.000	1304.0	0.900	0.455	1360.9	1.283	0.008	1766.4	1.328	0.002	2956.6	1.362	0.002	3012.5	1.309	0.249	3068.5	1.295	0.011			
1248.0	1.392	0.000	1304.9	0.909	0.347	1361.8	1.283	0.008	1785.7	1.327	0.002	2957.6	1.363	0.002	3013.5	1.283	0.237	3069.4	1.295	0.011			
1249.0	1.392	0.000	1305.9	0.933	0.267	1362.8	1.283	0.008	1805.0	1.329	0.000												

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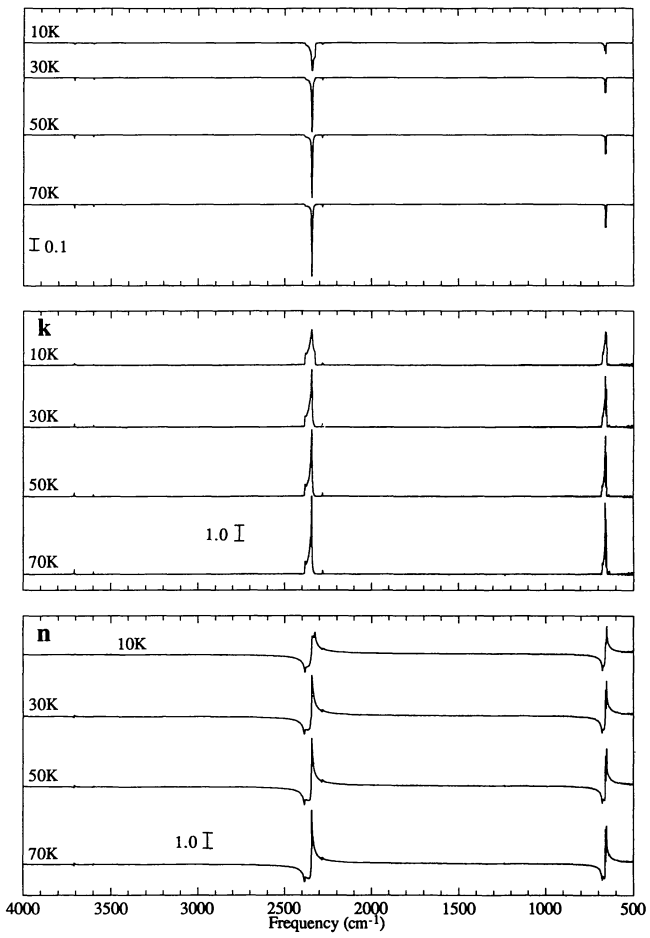

FIG. 7.—The 4000 to 500 cm^{-1} transmission spectra and optical constants (n and k) of a pure CO_2 ice at temperatures of 10, 30, 50, and 70 K. The original ice was deposited at 10 K.

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TABLE 7A

CO_2 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.415	0.000	614.9	1.504	0.000	728.7	1.058	0.045	1109.6	1.236	0.000	1906.3	1.272	0.015	2186.0	1.355	0.013	2299.8	1.684	0.008	2413.6	0.805	0.028
503.0	1.432	0.049	616.8	1.525	0.000	730.6	1.079	0.044	1123.1	1.230	0.026	1919.8	1.272	0.015	2187.9	1.364	0.013	2301.7	1.708	0.008	2415.5	0.820	0.010
504.9	1.378	0.050	618.7	1.538	0.037	732.5	1.098	0.043	1136.6	1.226	0.025	1933.3	1.275	0.015	2189.8	1.363	0.013	2303.7	1.734	0.007	2417.5	0.838	0.010
506.8	1.434	0.049	620.6	1.545	0.037	734.5	1.078	0.044	1150.1	1.235	0.000	1946.8	1.276	0.015	2191.8	1.364	0.013	2305.6	1.763	0.007	2419.4	0.850	0.027
508.8	1.368	0.051	622.6	1.554	0.037	736.4	1.095	0.043	1163.6	1.232	0.025	1960.3	1.277	0.014	2193.7	1.363	0.013	2307.5	1.797	0.006	2421.3	0.860	0.010
510.7	1.374	0.101	624.5	1.560	0.036	738.3	1.112	0.043	1177.1	1.227	0.000	1973.8	1.282	0.014	2195.6	1.372	0.012	2309.4	1.829	0.005	2423.2	0.876	0.010
512.6	1.412	0.098	626.4	1.598	0.035	740.2	1.091	0.043	1190.6	1.229	0.024	1987.3	1.283	0.014	2197.6	1.371	0.012	2311.4	1.875	0.012	2425.2	0.877	0.010
514.6	1.330	0.052	628.4	1.606	0.035	742.2	1.112	0.042	1204.2	1.228	0.000	2000.8	1.285	0.014	2199.5	1.372	0.012	2313.3	1.920	0.011	2427.1	0.890	0.010
516.5	1.341	0.051	630.3	1.631	0.000	744.1	1.097	0.000	1217.7	1.234	0.024	2014.3	1.288	0.014	2201.4	1.374	0.012	2315.2	1.978	0.009	2429.0	0.900	0.010
518.4	1.374	0.050	632.2	1.659	0.033	746.0	1.117	0.042	1231.2	1.236	0.000	2027.8	1.292	0.014	2203.3	1.375	0.012	2317.2	2.052	0.013	2431.0	0.910	0.011
520.3	1.373	0.000	634.1	1.693	0.000	748.0	1.135	0.000	1244.7	1.229	0.023	2041.3	1.294	0.014	2205.3	1.377	0.012	2319.1	2.146	0.016	2432.9	0.918	0.011
522.3	1.359	0.100	636.1	1.744	0.031	749.9	1.136	0.000	1258.2	1.233	0.023	2054.8	1.297	0.014	2207.2	1.376	0.012	2321.0	2.280	0.030	2434.8	0.926	0.011
524.2	1.358	0.050	638.0	1.772	0.062	751.8	1.134	0.041	1271.7	1.233	0.023	2068.3	1.301	0.014	2209.1	1.386	0.012	2322.9	2.486	0.097	2436.8	0.933	0.011
526.1	1.417	0.048	639.9	1.785	0.061	753.7	1.135	0.000	1285.2	1.238	0.022	2081.8	1.304	0.014	2211.1	1.385	0.012	2324.9	2.633	0.440	2438.7	0.941	0.011
528.1	1.397	0.096	641.9	1.837	0.059	755.7	1.138	0.041	1298.7	1.237	0.022	2095.3	1.303	0.013	2213.0	1.385	0.012	2326.8	2.559	0.732	2440.6	0.947	0.011
530.0	1.340	0.050	643.8	1.900	0.028	757.6	1.123	0.041	1312.2	1.230	0.000	2101.1	1.313	0.013	2214.9	1.388	0.000	2328.7	2.440	0.859	2442.5	0.954	0.011
531.9	1.394	0.000	645.7	2.016	0.025	759.5	1.137	0.041	1325.7	1.245	0.000	2103.0	1.313	0.013	2216.9	1.393	0.000	2330.7	2.362	0.931	2444.5	0.961	0.011
533.8	1.390	0.095	647.7	2.170	0.047	761.5	1.143	0.040	1339.2	1.240	0.000	2105.0	1.314	0.013	2218.8	1.398	0.000	2332.6	2.323	0.980	2446.4	0.970	0.011
535.8	1.360	0.097	649.6	2.416	0.038	763.4	1.165	0.000	1352.7	1.242	0.021	2106.9	1.314	0.013	2220.7	1.402	0.012	2334.5	2.315	1.050	2448.3	0.966	0.011
537.7	1.413	0.000	651.5	2.822	0.317	765.3	1.161	0.040	1366.2	1.250	0.021	2108.8	1.315	0.013	2222.6	1.403	0.012	2336.4	2.340	1.137	2450.3	0.975	0.011
539.6	1.364	0.048	653.4	3.038	1.144	767.2	1.156	0.040	1379.7	1.237	0.021	2110.8	1.316	0.013	2224.6	1.405	0.012	2338.4	2.379	1.303	2452.2	0.982	0.011
541.6	1.346	0.049	655.4	2.210	2.102	769.2	1.154	0.040	1393.2	1.235	0.021	2112.7	1.316	0.013	2226.5	1.408	0.012	2340.3	2.380	1.594	2454.1	0.989	0.011
543.5	1.352	0.048	657.3	1.879	1.423	771.1	1.153	0.039	1406.7	1.238	0.020	2114.6	1.317	0.013	2228.4	1.411	0.012	2342.2	2.216	1.987	2456.0	0.993	0.025
545.4	1.349	0.000	659.2	1.940	1.824	773.0	1.152	0.039	1420.2	1.250	0.000	2116.5	1.318	0.013	2230.4	1.413	0.012	2344.2	1.823	2.270	2458.0	0.994	0.025
547.3	1.375	0.047	661.2	1.345	2.088	775.0	1.151	0.039	1433.7	1.248	0.020	2118.5	1.318	0.013	2232.3	1.416	0.012	2346.1	1.386	2.257	2459.9	0.997	0.025
549.3	1.404	0.000	663.1	0.939	1.834	776.9	1.149	0.039	1447.2	1.252	0.020	2120.4	1.319	0.013	2234.2	1.419	0.012	2348.0	1.072	2.090	2461.8	0.999	0.025
551.2	1.367	0.000	665.0	0.692	1.608	778.8	1.138	0.040	1460.7	1.244	0.020	2122.3	1.320	0.013	2236.1	1.424	0.000	2349.9	0.876	1.903	2463.8	1.001	0.025
553.1	1.400	0.046	666.9	0.564	1.395	780.7	1.154	0.039	1474.2	1.247	0.019	2124.3	1.321	0.013	2238.1	1.429	0.012	2351.9	0.751	1.748	2465.7	1.005	0.011
555.1	1.429	0.045	668.9	0.458	1.137	782.7	1.166	0.039	1487.7	1.237	0.000	2126.2	1.322	0.013	2240.0	1.431	0.012	2353.8	0.658	1.600	2467.6	1.008	0.025
557.0	1.372	0.093	670.8	0.444	0.934	784.6	1.158	0.000	1501.2	1.247	0.019	2128.1	1.323	0.013	2241.9	1.436	0.000	2355.7	0.587	1.471	2469.5	1.010	0.011
558.9	1.404	0.045	672.7	0.412	0.877	786.5	1.160	0.000	1514.7	1.246	0.000	2130.0	1.323	0.013	2243.9	1.442	0.012	2357.7	0.538	1.375	2471.5	1.015	0.011
560.8	1.394	0.091	674.7	0.449	0.803	788.5	1.187	0.038	1528.2	1.246	0.000	2132.0	1.324	0.013	2245.8	1.445	0.012	2359.6	0.498	1.272	2473.4	1.019	0.011
562.8	1.395	0.045	676.6	0.300	0.845	790.4	1.175	0.038	1541.7	1.248	0.000	2133.9	1.325	0.013	2247.7	1.450	0.012	2361.5	0.462	1.176	2475.3	1.023	0.011
564.7	1.361	0.046	678.5	0.160	0.295	792.3	1.172	0.038	1555.2	1.243	0.018	2135.8	1.326	0.013	2249.6	1.454	0.012	2363.5	0.440	1.097	2477.3	1.026	0.011
566.6	1.409	0.044	680.4	0.395	0.121	794.3	1.170	0.038	1568.7	1.254	0.018	2137.8	1.327	0.013	2251.6	1.459	0.012	2365.4	0.420	1.011	2479.2	1.030	0.011
568.6	1.368	0.046	682.4	0.543	0.089	796.2	1.169	0.038	1582.2	1.253	0.018	2139.7	1.328	0.013	2253.5	1.464	0.011	2367.3	0.410	0.962	2481.1	1.033	0.011
570.5	1.372	0.000	684.3	0.638	0.076	798.1	1.166	0.038	1595.7	1.248	0.018	2141.6	1.329	0.013	2255.4	1.470	0.011	2369.2	0.397	0.884	2483.0	1.035	0.011
572.4	1.418	0.000	686.2	0.707	0.069	812.6	1.183	0.037	1609.2	1.253	0.018	2143.6	1.330	0.013	2257.4	1.476	0.011	2371.2	0.404	0.834	2485.0	1.038	0.011
574.4	1.417	0.044	688.2	0.759	0.065	826.1	1.186	0.036	1622.7	1.253	0.018	2145.5	1.331	0.013	2259.3	1.482	0.011	2373.1	0.388	0.791	2486.9	1.041	0.011
576.3	1.422	0.043	690.1	0.801	0.061	839.6	1.194	0.035	1636.2	1.254	0.000	2147.4	1.332	0.013	2261.2	1.488	0.011	2375.0	0.388	0.755	2488.8	1.043	0.011
578.2	1.392	0.044	692.0	0.835	0.059	853.1	1.193	0.035	1649.7	1.249	0.017	2149.3	1.333	0.013	2263.1	1.495	0.011	2377.0	0.371	0.712	2490.8	1.046	0.011
580.1	1.399	0.044	693.9	0.862	0.057	866.6	1.195	0.034	1663.2	1.254	0.017	2151.3	1.334	0.013	2265.1	1.503	0.011	2378.9	0.331	0.733	2492.7	1.048	0.011
582.1	1.408	0.000	695.9	0.883	0.056	880.1	1.193	0.034	1676.7	1.252	0.017	2153.2	1.335	0.013	2267.0	1.512	0.011	2380.8	0.238	0.711	2494.6	1.051	0.011
584.0	1.418	0.043	697.8	0.912	0.000	893.6	1.206	0.033	1690.2	1.254	0.017	2155.1	1.336	0.013	2268.9	1.521	0.011	2382.7	0.064	0.438	2496.6	1.053	0.011
585.9	1.416	0.043	699.7	0.940	0.052	907.1	1.225	0.032	1703.7	1.256	0.017	2157.1	1.337	0.013	2270.9	1.532	0.011	2384.7	0.037	0.296	2498.5	1.055	0.011
587.9	1.415	0.043	701.7	0.952	0.052	920.6	1.205	0.032	1717.3	1.259	0.017	2159.0	1.339	0.013	2272.8	1.546	0.010	2386.6	0.214	0.065	2500.4	1.057	0.011
589.8	1.406	0.043	703.6	0.965	0.051	934.1	1.205	0.000	1730.8	1.257	0.016	2160.9	1.340	0.013	2274.7	1.565	0.020	2388.5	0.355	0.043	2502.3	1.059	0.011
591.7	1.426	0.042	705.5	0.976	0.050	947.6	1.215	0.000	1744.3	1.253	0.016	2162.8	1.341	0.013	2276.6	1.583	0.039	2390.5	0.445	0.037	2504.3	1.061	0.011
593.6	1.446	0.041	707.4	0.985	0.050	961.1	1.202	0.031	1757.8	1.260	0.016	2164.8	1.342	0.013	2278.6	1.586	0.059	2392.4	0.510	0.034	2506.2	1.063	0.011
595.6	1.434	0.042	709.4	0.984	0.050	974.6	1.198	0.030	1771.3	1.258	0.016	2166.7	1.342	0.013	2280.5	1.585	0.079	2394.3	0.561	0.033	2508.1	1.064	0.011
597.5	1.439	0.000	711.3	1.023	0.048	988.1	1.221	0.029	1784.8	1.258	0.016	2168.6	1.345	0.000	2282.4	1.572	0.119	2396.2	0.602	0.031	2510.1	1.065	0.011
599.4	1.454	0.000	713.2	1.019	0.048	1001.6	1.203	0.000	1798.3	1.261	0.016	2170.6	1.348	0.013	2284.4	1.505	0.083	2398.2	0.637	0.031	2512.0	1.069	0.000
601.4	1.460	0.040	715.2	1.012	0.048	1015.1	1.210	0.000	1811.8	1.260	0.016	2172.5	1.349	0.013	2286.3	1.528	0.031	2400.1	0.666	0.030	2513.9	1.073	0.011
603.3	1.456	0.040	717.1	1.043	0.046	1028.6	1.240	0.028	1825.3	1.259	0.016	2174.4	1.350	0.013	2288.2	1.555	0.010	2402.0	0.690	0.030	2515.8	1.073	0.011
605.2	1.457	0.000	719.0	1.036	0.000	1042.1	1.223	0.028	1838.8	1.266	0.015	2176.3	1.351	0.013	2290.2	1.582	0.010	2404.0	0.714	0.009	2517.8	1.074	0.011
607.1	1.494	0.039	721.0	1.077	0.045	1055.6	1.220	0.027	1852.3	1.262	0.015	2178.3	1.352	0.013	2292.1	1.602	0.010	2405.9	0.740	0.009	2519.7	1.075	0.011
609.1	1.488	0.039	722.9	1.067	0.045	1069.1	1.217	0.000	1865.8	1.269	0.015	2180.2	1.354	0.013	2294.0	1.622	0.009	2407.8	0.754	0.028	2521.6	1.074	0.011
611.0	1.490	0.039	724.8	1.067	0.045	1082.6	1.229	0.000	1879.3	1.269	0.015	2182.1	1.355	0.013	2295.9	1.642	0.009	2409.7	0.782	0.009	2523.6	1.084	0.011
612.9	1.493	0.039	726.7	1.067	0.045	1096.1	1.223	0.000	1892.8	1.270	0.015	2184.1	1.356	0.013	2297.9	1.662	0.009	2411.7	0.789	0.028	2525.5	1.083	0.011

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TABLE 7A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2527.4	1.083	0.011	2883.3	1.164	0.000	3566.6	1.192	0.008	3678.5	1.202	0.008
2529.3	1.085	0.011	2896.8	1.168	0.000	3568.6	1.192	0.008	3680.4	1.201	0.008
2531.3	1.086	0.011	2910.3	1.174	0.010	3570.5	1.191	0.008	3682.4	1.202	0.008
2533.2	1.087	0.011	2923.8	1.171	0.010	3572.4	1.191	0.008	3684.3	1.202	0.008
2535.1	1.088	0.011	2937.3	1.171	0.010	3574.4	1.190	0.008	3686.2	1.203	0.008
2537.1	1.090	0.011	2950.8	1.171	0.000	3576.3	1.189	0.000	3688.2	1.204	0.008
2539.0	1.091	0.011	2964.3	1.173	0.000	3578.2	1.194	0.008	3690.1	1.203	0.008
2540.9	1.092	0.011	2977.8	1.172	0.000	3580.1	1.191	0.000	3692.0	1.210	0.008
2542.8	1.093	0.011	2991.3	1.180	0.000	3582.1	1.198	0.000	3693.9	1.210	0.008
2544.8	1.095	0.011	3004.8	1.178	0.000	3584.0	1.196	0.008	3695.9	1.213	0.008
2546.7	1.096	0.011	3018.3	1.178	0.000	3585.9	1.199	0.008	3697.8	1.218	0.008
2548.6	1.097	0.011	3031.8	1.182	0.009	3587.9	1.198	0.000	3699.7	1.227	0.015
2550.6	1.098	0.011	3045.3	1.183	0.009	3589.8	1.205	0.008	3701.7	1.228	0.030
2552.5	1.099	0.011	3058.8	1.183	0.009	3591.7	1.205	0.008	3703.6	1.221	0.038
2554.4	1.100	0.011	3072.3	1.183	0.000	3593.6	1.209	0.016	3705.5	1.216	0.038
2556.3	1.101	0.011	3085.8	1.181	0.009	3595.6	1.207	0.024	3707.5	1.224	0.053
2558.3	1.102	0.011	3099.3	1.182	0.009	3597.5	1.204	0.024	3709.4	1.168	0.093
2560.2	1.102	0.011	3112.9	1.180	0.009	3599.4	1.206	0.039	3711.3	1.153	0.039
2562.1	1.101	0.011	3126.4	1.185	0.000	3601.4	1.172	0.032	3713.2	1.164	0.015
2564.1	1.109	0.011	3139.9	1.185	0.009	3603.3	1.175	0.016	3715.2	1.174	0.015
2566.0	1.108	0.011	3153.4	1.185	0.009	3605.2	1.178	0.008	3717.1	1.177	0.015
2567.9	1.108	0.011	3166.9	1.180	0.009	3607.1	1.183	0.008	3719.0	1.178	0.007
2569.9	1.109	0.011	3180.4	1.186	0.000	3609.1	1.186	0.008	3721.0	1.184	0.015
2571.8	1.110	0.011	3193.9	1.178	0.009	3611.0	1.187	0.008	3722.9	1.182	0.007
2573.7	1.110	0.011	3206.9	1.171	0.000	3612.9	1.188	0.008	3724.8	1.181	0.007
2575.6	1.111	0.011	3220.4	1.170	0.009	3614.9	1.189	0.008	3726.7	1.185	0.007
2577.6	1.112	0.011	3233.9	1.172	0.009	3616.8	1.190	0.008	3728.7	1.186	0.007
2579.5	1.113	0.011	3247.4	1.169	0.000	3618.7	1.190	0.008	3730.6	1.188	0.007
2581.4	1.113	0.011	3260.9	1.169	0.009	3620.6	1.191	0.008	3732.5	1.188	0.008
2583.4	1.114	0.011	3274.4	1.170	0.009	3622.6	1.191	0.008	3734.5	1.189	0.008
2585.3	1.114	0.011	3287.9	1.174	0.009	3624.5	1.191	0.008	3736.4	1.190	0.008
2587.2	1.114	0.011	3301.4	1.171	0.000	3626.4	1.192	0.008	3738.3	1.190	0.008
2589.1	1.117	0.000	3314.9	1.172	0.009	3628.4	1.192	0.008	3740.2	1.191	0.007
2591.1	1.119	0.011	3328.4	1.176	0.000	3630.3	1.192	0.008	3742.2	1.191	0.007
2593.0	1.119	0.011	3341.9	1.174	0.008	3632.2	1.193	0.008	3744.1	1.191	0.007
2594.9	1.118	0.011	3355.4	1.173	0.000	3634.2	1.193	0.008	3746.0	1.192	0.007
2596.9	1.121	0.000	3368.9	1.174	0.008	3636.1	1.193	0.008	3748.0	1.192	0.007
2598.8	1.123	0.011	3382.4	1.177	0.008	3638.0	1.193	0.008	3749.9	1.192	0.007
2613.3	1.126	0.011	3395.9	1.177	0.008	3639.9	1.194	0.008	3763.4	1.194	0.007
2626.8	1.130	0.000	3409.4	1.178	0.000	3641.9	1.194	0.008	3776.9	1.195	0.007
2640.3	1.134	0.011	3422.9	1.179	0.000	3643.8	1.194	0.008	3790.4	1.200	0.000
2653.8	1.137	0.011	3436.4	1.181	0.008	3645.7	1.194	0.008	3803.9	1.202	0.007
2667.3	1.144	0.011	3449.9	1.182	0.008	3647.7	1.194	0.008	3817.4	1.203	0.000
2680.8	1.142	0.011	3463.4	1.180	0.008	3649.6	1.195	0.008	3830.9	1.201	0.007
2694.3	1.148	0.011	3476.9	1.184	0.008	3651.5	1.195	0.008	3844.4	1.206	0.007
2707.8	1.149	0.010	3490.4	1.183	0.008	3653.4	1.195	0.008	3857.9	1.204	0.000
2721.3	1.151	0.010	3503.9	1.182	0.008	3655.4	1.195	0.008	3871.4	1.207	0.007
2734.8	1.151	0.000	3517.4	1.189	0.008	3657.3	1.193	0.008	3884.9	1.205	0.000
2748.3	1.154	0.000	3531.0	1.190	0.008	3659.2	1.198	0.008	3898.4	1.207	0.000
2761.8	1.159	0.010	3544.5	1.189	0.008	3661.2	1.197	0.008	3911.9	1.209	0.007
2775.3	1.163	0.000	3551.2	1.189	0.000	3663.1	1.197	0.008	3925.4	1.209	0.007
2788.8	1.160	0.010	3553.1	1.190	0.008	3665.0	1.197	0.008	3938.9	1.209	0.000
2802.3	1.165	0.010	3555.1	1.190	0.000	3666.9	1.197	0.008	3952.4	1.212	0.000
2815.8	1.162	0.010	3557.0	1.189	0.008	3668.9	1.197	0.008	3965.9	1.211	0.007
2829.3	1.160	0.010	3558.9	1.193	0.008	3670.8	1.196	0.008	3979.4	1.209	0.007
2842.8	1.168	0.000	3560.9	1.191	0.008	3672.7	1.201	0.008	3992.9	1.210	0.000
2856.3	1.168	0.010	3562.8	1.192	0.000	3674.7	1.199	0.008			
2869.8	1.166	0.010	3564.7	1.193	0.008	3676.6	1.200	0.000			

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TABLE 7B

CO_2 AT 30 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.395	0.152	614.9	1.530	0.000	728.7	1.049	0.000	1109.6	1.230	0.000	1906.3	1.282	0.000	2186.0	1.355	0.013	2299.8	1.644	0.009	2413.6	0.797	0.009
503.0	1.405	0.000	616.8	1.536	0.000	730.6	1.084	0.044	1123.1	1.231	0.000	1919.8	1.269	0.015	2187.9	1.351	0.013	2301.7	1.663	0.009	2415.5	0.812	0.010
504.9	1.346	0.104	618.7	1.567	0.036	732.5	1.066	0.045	1136.6	1.241	0.025	1933.3	1.276	0.000	2189.8	1.360	0.000	2303.7	1.683	0.008	2417.5	0.827	0.010
506.8	1.357	0.052	620.6	1.560	0.037	734.5	1.056	0.000	1150.1	1.239	0.000	1946.8	1.282	0.015	2191.8	1.360	0.000	2305.6	1.705	0.008	2419.4	0.840	0.010
508.8	1.342	0.104	622.6	1.563	0.000	736.4	1.088	0.000	1163.6	1.229	0.025	1960.3	1.283	0.014	2193.7	1.360	0.000	2307.5	1.728	0.007	2421.3	0.853	0.010
510.7	1.403	0.000	624.5	1.602	0.000	738.3	1.109	0.043	1177.1	1.228	0.000	1973.8	1.280	0.014	2195.6	1.368	0.000	2309.4	1.755	0.007	2423.2	0.864	0.010
512.6	1.368	0.152	626.4	1.634	0.034	740.2	1.083	0.043	1190.6	1.243	0.024	1987.3	1.289	0.014	2197.6	1.373	0.012	2311.4	1.785	0.006	2425.2	0.875	0.010
514.6	1.337	0.103	628.4	1.636	0.034	742.2	1.103	0.043	1204.2	1.226	0.024	2000.8	1.283	0.014	2199.5	1.368	0.000	2313.3	1.817	0.014	2427.1	0.885	0.010
516.5	1.348	0.000	630.3	1.652	0.000	744.1	1.077	0.044	1217.7	1.229	0.024	2014.3	1.291	0.000	2201.4	1.379	0.000	2315.2	1.854	0.013	2429.0	0.895	0.010
518.4	1.377	0.000	632.2	1.704	0.032	746.0	1.095	0.000	1231.2	1.231	0.000	2027.8	1.289	0.000	2203.3	1.377	0.012	2317.2	1.891	0.012	2431.0	0.904	0.010
520.3	1.398	0.000	634.1	1.726	0.032	748.0	1.122	0.000	1244.7	1.223	0.023	2041.3	1.297	0.000	2205.3	1.373	0.012	2319.1	1.937	0.010	2432.9	0.912	0.011
522.3	1.361	0.050	636.1	1.771	0.031	749.9	1.099	0.042	1258.2	1.243	0.023	2054.8	1.296	0.014	2207.2	1.380	0.000	2321.0	1.994	0.008	2434.8	0.920	0.011
524.2	1.400	0.048	638.0	1.815	0.060	751.8	1.111	0.000	1271.7	1.234	0.000	2068.3	1.295	0.014	2209.1	1.388	0.012	2322.9	2.058	0.013	2436.8	0.928	0.011
526.1	1.421	0.000	639.9	1.785	0.061	753.7	1.135	0.000	1285.2	1.216	0.023	2081.8	1.307	0.014	2211.1	1.384	0.012	2324.9	2.142	0.017	2438.7	0.935	0.011
528.1	1.406	0.000	641.9	1.848	0.029	755.7	1.129	0.000	1298.7	1.223	0.000	2095.3	1.305	0.013	2213.0	1.386	0.000	2326.8	2.248	0.045	2440.6	0.942	0.011
530.0	1.335	0.050	643.8	1.937	0.027	757.6	1.113	0.041	1312.2	1.239	0.000	2101.1	1.321	0.013	2214.9	1.388	0.012	2328.7	2.344	0.085	2442.5	0.949	0.011
531.9	1.398	0.000	645.7	2.042	0.024	759.5	1.128	0.000	1325.7	1.239	0.000	2103.0	1.317	0.013	2216.9	1.389	0.000	2330.7	2.462	0.137	2444.5	0.955	0.011
533.8	1.398	0.095	647.7	2.185	0.046	761.5	1.135	0.041	1339.2	1.239	0.000	2105.0	1.316	0.013	2218.8	1.394	0.000	2332.6	2.599	0.201	2446.4	0.961	0.011
535.8	1.388	0.048	649.6	2.388	0.039	763.4	1.142	0.000	1352.7	1.243	0.021	2106.9	1.315	0.013	2220.7	1.394	0.012	2334.5	2.775	0.281	2448.3	0.968	0.011
537.7	1.372	0.000	651.5	2.781	0.104	765.3	1.157	0.040	1366.2	1.241	0.000	2108.8	1.315	0.013	2222.6	1.400	0.012	2336.4	3.003	0.416	2450.3	0.974	0.011
539.6	1.354	0.049	653.4	3.469	0.781	767.2	1.144	0.000	1379.7	1.236	0.021	2110.8	1.315	0.013	2224.6	1.399	0.000	2338.4	3.311	0.652	2452.2	0.984	0.011
541.6	1.366	0.000	655.4	2.072	2.472	769.2	1.143	0.000	1393.2	1.246	0.020	2112.7	1.312	0.013	2226.5	1.409	0.012	2340.3	3.688	1.159	2454.1	0.979	0.026
543.5	1.371	0.048	657.3	2.116	0.751	771.1	1.169	0.039	1406.7	1.230	0.000	2114.6	1.320	0.013	2228.4	1.409	0.000	2342.2	3.828	2.354	2456.0	0.984	0.026
545.4	1.352	0.048	659.2	2.898	2.107	773.0	1.155	0.039	1420.2	1.243	0.000	2116.5	1.315	0.013	2230.4	1.412	0.012	2344.2	2.787	3.738	2458.0	0.986	0.025
547.3	1.366	0.047	661.2	1.345	2.994	775.0	1.149	0.039	1433.7	1.249	0.020	2118.5	1.323	0.013	2232.3	1.410	0.012	2346.1	1.538	3.453	2459.9	0.991	0.011
549.3	1.369	0.047	663.1	0.693	2.207	776.9	1.136	0.040	1447.2	1.245	0.020	2120.4	1.321	0.013	2234.2	1.419	0.012	2348.0	0.944	2.867	2461.8	0.994	0.025
551.2	1.381	0.000	665.0	0.492	1.798	778.8	1.151	0.039	1460.7	1.235	0.020	2122.3	1.320	0.013	2236.1	1.421	0.000	2349.9	0.675	2.435	2463.8	0.997	0.011
553.1	1.394	0.046	666.9	0.413	1.505	780.7	1.167	0.039	1474.2	1.248	0.000	2124.3	1.320	0.013	2238.1	1.424	0.012	2351.9	0.536	2.119	2465.7	1.002	0.011
555.1	1.404	0.046	668.9	0.356	1.158	782.7	1.155	0.039	1487.7	1.235	0.000	2126.2	1.320	0.013	2240.0	1.427	0.000	2353.8	0.449	1.872	2467.6	1.007	0.011
557.0	1.378	0.046	670.8	0.337	1.067	784.6	1.150	0.039	1501.2	1.236	0.000	2128.1	1.320	0.013	2241.9	1.432	0.012	2355.7	0.405	1.668	2469.5	1.010	0.011
558.9	1.393	0.046	672.7	0.331	0.927	786.5	1.139	0.039	1514.7	1.248	0.000	2130.0	1.318	0.013	2243.9	1.433	0.012	2357.7	0.370	1.512	2471.5	1.014	0.011
560.8	1.409	0.045	674.7	0.376	0.820	788.5	1.160	0.038	1528.2	1.248	0.019	2132.0	1.326	0.013	2245.8	1.432	0.012	2359.6	0.356	1.387	2473.4	1.018	0.011
562.8	1.395	0.045	676.6	0.347	0.737	790.4	1.145	0.039	1541.7	1.245	0.000	2133.9	1.324	0.013	2247.7	1.442	0.000	2361.5	0.348	1.265	2475.3	1.021	0.011
564.7	1.389	0.045	678.5	0.149	0.650	792.3	1.137	0.000	1555.2	1.245	0.000	2135.8	1.322	0.013	2249.6	1.450	0.012	2363.5	0.326	1.170	2477.3	1.024	0.011
566.6	1.381	0.045	680.4	0.224	0.212	794.3	1.153	0.038	1568.7	1.250	0.000	2137.8	1.324	0.000	2251.6	1.457	0.012	2365.4	0.323	1.061	2479.2	1.027	0.011
568.6	1.374	0.000	682.4	0.370	0.129	796.2	1.162	0.000	1582.2	1.263	0.018	2139.7	1.325	0.013	2253.5	1.458	0.012	2367.3	0.321	0.982	2481.1	1.030	0.011
570.5	1.397	0.045	684.3	0.533	0.091	798.1	1.177	0.037	1595.7	1.248	0.018	2141.6	1.324	0.000	2255.4	1.458	0.012	2369.2	0.333	0.909	2483.0	1.033	0.011
572.4	1.400	0.044	686.2	0.629	0.077	812.6	1.181	0.037	1609.2	1.251	0.018	2143.6	1.325	0.000	2257.4	1.471	0.000	2371.2	0.341	0.849	2485.0	1.036	0.011
574.4	1.404	0.044	688.2	0.709	0.069	826.1	1.158	0.000	1622.7	1.252	0.000	2145.5	1.333	0.013	2259.3	1.475	0.011	2373.1	0.346	0.796	2486.9	1.038	0.011
576.3	1.409	0.044	690.1	0.730	0.000	839.6	1.189	0.035	1636.2	1.250	0.000	2147.4	1.329	0.000	2261.2	1.481	0.000	2375.0	0.358	0.734	2488.8	1.041	0.011
578.2	1.421	0.043	692.0	0.815	0.060	853.1	1.193	0.000	1649.7	1.251	0.017	2149.3	1.337	0.013	2263.1	1.488	0.011	2377.0	0.353	0.703	2490.8	1.043	0.011
580.1	1.396	0.044	693.9	0.818	0.060	866.6	1.195	0.000	1663.2	1.254	0.017	2151.3	1.331	0.013	2265.1	1.493	0.011	2378.9	0.352	0.705	2492.7	1.046	0.011
582.1	1.407	0.043	695.9	0.842	0.000	880.1	1.192	0.000	1676.7	1.256	0.000	2153.2	1.334	0.013	2267.0	1.500	0.011	2380.8	0.295	0.669	2494.6	1.048	0.011
584.0	1.407	0.043	697.8	0.876	0.000	893.6	1.195	0.033	1690.2	1.256	0.017	2155.1	1.342	0.000	2268.9	1.508	0.011	2382.7	0.219	0.701	2496.6	1.050	0.011
585.9	1.414	0.000	699.7	0.883	0.055	907.1	1.217	0.032	1703.7	1.260	0.017	2157.1	1.341	0.013	2270.9	1.516	0.011	2384.7	0.061	0.369	2498.5	1.052	0.011
587.9	1.428	0.000	701.7	0.911	0.054	920.6	1.212	0.000	1717.3	1.256	0.000	2159.0	1.339	0.013	2272.8	1.526	0.011	2386.6	0.045	0.230	2500.4	1.054	0.011
589.8	1.440	0.000	703.6	0.951	0.000	934.1	1.210	0.000	1730.8	1.256	0.016	2160.9	1.339	0.013	2274.7	1.538	0.011	2388.5	0.230	0.061	2502.3	1.055	0.011
591.7	1.454	0.000	705.5	0.945	0.052	947.6	1.217	0.000	1744.3	1.257	0.016	2162.8	1.337	0.013	2276.6	1.557	0.010	2390.5	0.358	0.043	2504.3	1.054	0.011
593.6	1.478	0.000	707.4	0.975	0.050	961.1	1.204	0.030	1757.8	1.270	0.016	2164.8	1.336	0.000	2278.6	1.576	0.020	2392.4	0.440	0.037	2506.2	1.065	0.011
595.6	1.471	0.041	709.4	0.972	0.000	974.6	1.227	0.030	1771.3	1.257	0.016	2166.7	1.348	0.000	2280.5	1.604	0.048	2394.3	0.493	0.035	2508.1	1.064	0.011
597.5	1.465	0.041	711.3	0.986	0.000	988.1	1.207	0.030	1784.8	1.255	0.000	2168.6	1.347	0.013	2282.4	1.601	0.176	2396.2	0.563	0.006	2510.1	1.065	0.011
599.4	1.468	0.040	713.2	0.996	0.000	1001.6	1.200	0.000	1798.3	1.265	0.016	2170.6	1.343	0.013	2284.4	1.464	0.086	2398.2	0.598	0.031	2512.0	1.066	0.011
601.4	1.444	0.000	715.2	0.996	0.000	1015.1	1.226	0.000	1811.8	1.261	0.000	2172.5	1.350	0.013	2286.3	1.499	0.032	2400.1	0.629	0.007	2513.9	1.067	0.011
603.3	1.461	0.000	717.1	1.030	0.000	1028.6	1.224	0.000	1825.3	1.262	0.016	2174.4	1.345	0.013	2288.2	1.534	0.011	2402.0	0.656	0.008	2515.8	1.068	0.011
605.2	1.462	0.000	719.0	1.047	0.046	1042.1	1.218	0.028	1838.8	1.262	0.015	2176.3	1.350	0.013	2290.2	1.555	0.010	2404.0	0.696	0.008	2517.8	1.068	0.011
607.1	1.490	0.000	721.0	1.061	0.045	1055.6	1.200	0.028	1852.3	1.258	0.015	2178.3	1.353	0.013	2292.1	1.579	0.010	2405.9	0.710	0.008	2519.7	1.065	0.011
609.1	1.508	0.039	722.9	1.040	0.046	1069.1	1.204	0.000	1865.8	1.269	0.015	2180.2	1.358	0.013	2294.0	1.594	0.010	2407.8	0.738	0.009	2521.6	1.073	0.000
611.0	1.493	0.000	724.8	1.067	0.045	1082.6	1.225	0.000	1879.3	1.270	0.015	2182.1	1.355	0.013	2295.9	1.610	0.010	2409.7	0.760	0.009	2523.6	1.079	0.011
612.9	1.528	0.000	726.7	1.053	0.045	1096.1	1.218	0.026	1892.8	1.276	0.015	2184.1	1.355	0.013	2297.9	1.627	0.009	2411.7	0.779	0.009	2525.5	1.081	0.011

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TABLE 7B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2527.4	1.087	0.011	2883.3	1.173	0.000	3566.6	1.191	0.008	3678.5	1.200	0.008
2529.3	1.084	0.011	2896.8	1.172	0.010	3568.6	1.193	0.008	3680.4	1.199	0.008
2531.3	1.083	0.011	2910.3	1.175	0.010	3570.5	1.195	0.008	3682.4	1.199	0.000
2533.2	1.082	0.011	2923.8	1.173	0.000	3572.4	1.198	0.008	3684.3	1.199	0.000
2535.1	1.083	0.000	2937.3	1.178	0.010	3574.4	1.195	0.008	3686.2	1.203	0.008
2537.1	1.084	0.000	2950.8	1.184	0.010	3576.3	1.193	0.008	3688.2	1.205	0.000
2539.0	1.096	0.000	2964.3	1.173	0.000	3578.2	1.197	0.008	3690.1	1.210	0.008
2540.9	1.094	0.011	2977.8	1.178	0.000	3580.1	1.196	0.000	3692.0	1.206	0.008
2542.8	1.092	0.011	2991.3	1.181	0.009	3582.1	1.196	0.008	3693.9	1.212	0.000
2544.8	1.092	0.000	3004.8	1.181	0.009	3584.0	1.196	0.000	3695.9	1.213	0.008
2546.7	1.096	0.000	3018.3	1.181	0.009	3585.9	1.202	0.008	3697.8	1.216	0.000
2548.6	1.099	0.000	3031.8	1.183	0.009	3587.9	1.200	0.008	3699.7	1.221	0.008
2550.6	1.097	0.011	3045.3	1.183	0.009	3589.8	1.201	0.008	3701.7	1.227	0.008
2552.5	1.101	0.011	3058.8	1.182	0.009	3591.7	1.202	0.008	3703.6	1.238	0.016
2554.4	1.107	0.011	3072.3	1.188	0.009	3593.6	1.204	0.008	3705.5	1.257	0.023
2556.3	1.104	0.011	3085.8	1.184	0.009	3595.6	1.209	0.008	3707.5	1.284	0.090
2558.3	1.103	0.011	3099.3	1.184	0.009	3597.5	1.220	0.008	3709.4	1.137	0.147
2560.2	1.103	0.011	3112.9	1.182	0.009	3599.4	1.236	0.055	3711.3	1.133	0.032
2562.1	1.105	0.000	3126.4	1.185	0.000	3601.4	1.156	0.049	3713.2	1.156	0.016
2564.1	1.106	0.011	3139.9	1.184	0.009	3603.3	1.168	0.016	3715.2	1.168	0.016
2566.0	1.108	0.000	3153.4	1.181	0.000	3605.2	1.174	0.008	3717.1	1.171	0.016
2567.9	1.110	0.011	3166.9	1.186	0.009	3607.1	1.181	0.008	3719.0	1.179	0.008
2569.9	1.110	0.011	3180.4	1.188	0.009	3609.1	1.184	0.008	3721.0	1.177	0.016
2571.8	1.110	0.011	3193.9	1.181	0.009	3611.0	1.186	0.008	3722.9	1.180	0.008
2573.7	1.110	0.011	3206.9	1.173	0.009	3612.9	1.187	0.008	3724.8	1.183	0.008
2575.6	1.111	0.011	3220.4	1.167	0.009	3614.9	1.188	0.008	3726.7	1.185	0.008
2577.6	1.111	0.011	3233.9	1.164	0.009	3616.8	1.189	0.008	3728.7	1.186	0.008
2579.5	1.111	0.011	3247.4	1.173	0.000	3618.7	1.190	0.008	3730.6	1.187	0.008
2581.4	1.110	0.011	3260.9	1.168	0.000	3620.6	1.190	0.008	3732.5	1.187	0.008
2583.4	1.112	0.000	3274.4	1.170	0.000	3622.6	1.190	0.008	3734.5	1.187	0.008
2585.3	1.116	0.000	3287.9	1.169	0.009	3624.5	1.191	0.008	3736.4	1.189	0.000
2587.2	1.117	0.011	3301.4	1.169	0.009	3626.4	1.191	0.008	3738.3	1.191	0.008
2589.1	1.115	0.011	3314.9	1.170	0.009	3628.4	1.191	0.008	3740.2	1.190	0.008
2591.1	1.116	0.000	3328.4	1.172	0.000	3630.3	1.191	0.008	3742.2	1.190	0.008
2593.0	1.115	0.011	3341.9	1.173	0.009	3632.2	1.192	0.008	3744.1	1.189	0.008
2594.9	1.118	0.011	3355.4	1.171	0.000	3634.2	1.192	0.008	3746.0	1.194	0.008
2596.9	1.125	0.000	3368.9	1.174	0.009	3636.1	1.191	0.008	3748.0	1.192	0.008
2598.8	1.123	0.011	3382.4	1.176	0.000	3638.0	1.190	0.008	3749.9	1.190	0.008
2613.3	1.128	0.011	3395.9	1.174	0.009	3639.9	1.195	0.008	3763.4	1.191	0.008
2626.8	1.128	0.000	3409.4	1.171	0.008	3641.9	1.193	0.008	3776.9	1.196	0.000
2640.3	1.138	0.011	3422.9	1.181	0.008	3643.8	1.192	0.008	3790.4	1.199	0.000
2653.8	1.134	0.011	3436.4	1.181	0.008	3645.7	1.191	0.008	3803.9	1.204	0.008
2667.3	1.142	0.011	3449.9	1.175	0.000	3647.7	1.192	0.000	3817.4	1.201	0.000
2680.8	1.148	0.011	3463.4	1.183	0.000	3649.6	1.192	0.000	3830.9	1.204	0.008
2694.3	1.153	0.011	3476.9	1.186	0.008	3651.5	1.199	0.000	3844.4	1.204	0.000
2707.8	1.152	0.000	3490.4	1.190	0.008	3653.4	1.197	0.008	3857.9	1.204	0.000
2721.3	1.153	0.010	3503.9	1.186	0.008	3655.4	1.195	0.008	3871.4	1.206	0.000
2734.8	1.157	0.000	3517.4	1.190	0.008	3657.3	1.194	0.000	3884.9	1.205	0.007
2748.3	1.159	0.000	3531.0	1.192	0.000	3659.2	1.201	0.008	3898.4	1.204	0.000
2761.8	1.159	0.010	3544.5	1.194	0.008	3661.2	1.198	0.008	3911.9	1.212	0.000
2775.3	1.163	0.000	3551.2	1.192	0.008	3663.1	1.198	0.008	3925.4	1.211	0.000
2788.8	1.163	0.010	3553.1	1.192	0.000	3665.0	1.197	0.008	3938.9	1.210	0.000
2802.3	1.170	0.010	3555.1	1.192	0.008	3666.9	1.197	0.008	3952.4	1.213	0.007
2815.8	1.165	0.010	3557.0	1.190	0.008	3668.9	1.197	0.008	3965.9	1.210	0.007
2829.3	1.166	0.000	3558.9	1.190	0.000	3670.8	1.195	0.008	3979.4	1.210	0.000
2842.8	1.171	0.010	3560.9	1.190	0.000	3672.7	1.200	0.008	3992.9	1.212	0.000
2856.3	1.169	0.000	3562.8	1.196	0.000	3674.7	1.198	0.008			
2869.8	1.174	0.010	3564.7	1.194	0.008	3676.6	1.199	0.000			

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TABLE 7C

CO_2 AT 50 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.363	0.052	614.9	1.542	0.037	728.7	1.045	0.000	1109.6	1.235	0.000	1906.3	1.272	0.015	2186.0	1.357	0.013	2299.8	1.641	0.009	2413.6	0.797	0.009
503.0	1.370	0.051	616.8	1.534	0.000	730.6	1.084	0.000	1123.1	1.225	0.026	1919.8	1.274	0.015	2187.9	1.359	0.013	2301.7	1.660	0.009	2415.5	0.811	0.028
504.9	1.359	0.000	618.7	1.557	0.037	732.5	1.083	0.000	1136.6	1.223	0.025	1933.3	1.276	0.015	2189.8	1.360	0.013	2303.7	1.681	0.008	2417.5	0.823	0.010
506.8	1.369	0.000	620.6	1.577	0.000	734.5	1.071	0.044	1150.1	1.233	0.025	1946.8	1.276	0.015	2191.8	1.362	0.013	2305.6	1.703	0.008	2419.4	0.839	0.010
508.8	1.343	0.052	622.6	1.607	0.035	736.4	1.091	0.000	1163.6	1.229	0.025	1960.3	1.281	0.014	2193.7	1.363	0.013	2307.5	1.727	0.007	2421.3	0.853	0.010
510.7	1.351	0.000	624.5	1.605	0.035	738.3	1.114	0.043	1177.1	1.230	0.024	1973.8	1.281	0.014	2195.6	1.365	0.013	2309.4	1.754	0.007	2423.2	0.869	0.010
512.6	1.363	0.000	626.4	1.608	0.035	740.2	1.096	0.043	1190.6	1.233	0.024	1987.3	1.283	0.014	2197.6	1.366	0.013	2311.4	1.785	0.015	2425.2	0.869	0.010
514.6	1.369	0.000	628.4	1.636	0.034	742.2	1.076	0.044	1204.2	1.228	0.024	2000.8	1.286	0.014	2199.5	1.367	0.013	2313.3	1.812	0.014	2427.1	0.883	0.010
516.5	1.397	0.098	630.3	1.673	0.000	744.1	1.095	0.000	1217.7	1.231	0.000	2014.3	1.290	0.014	2201.4	1.370	0.000	2315.2	1.845	0.013	2429.0	0.894	0.010
518.4	1.391	0.049	632.2	1.699	0.000	746.0	1.121	0.000	1231.2	1.223	0.023	2027.8	1.293	0.014	2203.3	1.375	0.000	2317.2	1.884	0.012	2431.0	0.903	0.010
520.3	1.324	0.051	634.1	1.725	0.032	748.0	1.115	0.000	1244.7	1.235	0.023	2041.3	1.296	0.014	2205.3	1.378	0.012	2319.1	1.930	0.010	2432.9	0.912	0.011
522.3	1.307	0.000	636.1	1.782	0.031	749.9	1.116	0.000	1258.2	1.241	0.023	2054.8	1.298	0.014	2207.2	1.379	0.012	2321.0	1.986	0.008	2434.8	0.921	0.011
524.2	1.360	0.000	638.0	1.838	0.059	751.8	1.110	0.000	1271.7	1.224	0.023	2068.3	1.302	0.014	2209.1	1.381	0.012	2322.9	2.047	0.014	2436.8	0.929	0.011
526.1	1.399	0.000	639.9	1.802	0.061	753.7	1.139	0.000	1285.2	1.225	0.022	2081.8	1.305	0.014	2211.1	1.383	0.012	2324.9	2.128	0.017	2438.7	0.937	0.011
528.1	1.402	0.048	641.9	1.863	0.028	755.7	1.135	0.000	1298.7	1.236	0.000	2095.3	1.304	0.013	2213.0	1.385	0.012	2326.8	2.224	0.040	2440.6	0.944	0.011
530.0	1.361	0.000	643.8	1.951	0.026	757.6	1.121	0.041	1312.2	1.228	0.000	2101.1	1.314	0.013	2214.9	1.387	0.012	2328.7	2.314	0.067	2442.5	0.952	0.011
531.9	1.379	0.000	645.7	2.056	0.024	759.5	1.138	0.000	1325.7	1.234	0.022	2103.0	1.313	0.013	2216.9	1.389	0.012	2330.7	2.440	0.101	2444.5	0.960	0.011
533.8	1.391	0.000	647.7	2.194	0.046	761.5	1.157	0.040	1339.2	1.233	0.000	2105.0	1.314	0.013	2218.8	1.392	0.012	2332.6	2.582	0.147	2446.4	0.971	0.011
535.8	1.378	0.096	649.6	2.418	0.016	763.4	1.133	0.041	1352.7	1.242	0.021	2106.9	1.314	0.013	2220.7	1.394	0.012	2334.5	2.767	0.216	2448.3	0.966	0.026
537.7	1.377	0.000	651.5	2.802	0.103	765.3	1.152	0.040	1366.2	1.235	0.021	2108.8	1.315	0.013	2222.6	1.396	0.012	2336.4	3.014	0.314	2450.3	0.976	0.011
539.6	1.409	0.000	653.4	3.638	0.624	767.2	1.136	0.040	1379.7	1.223	0.021	2110.8	1.315	0.013	2224.6	1.399	0.012	2338.4	3.364	0.507	2452.2	0.987	0.026
541.6	1.396	0.000	655.4	2.026	2.885	769.2	1.126	0.000	1393.2	1.243	0.021	2112.7	1.316	0.013	2226.5	1.401	0.012	2340.3	3.867	0.943	2454.1	0.985	0.026
543.5	1.382	0.047	657.3	2.095	0.624	771.1	1.161	0.000	1406.7	1.233	0.000	2114.6	1.316	0.013	2228.4	1.403	0.012	2342.2	4.282	2.285	2456.0	0.986	0.026
545.4	1.357	0.000	659.2	3.168	2.249	773.0	1.150	0.039	1420.2	1.248	0.000	2116.5	1.317	0.013	2230.4	1.408	0.000	2344.2	3.032	4.322	2458.0	0.988	0.025
547.3	1.388	0.000	661.2	1.124	3.225	775.0	1.144	0.000	1433.7	1.244	0.020	2118.5	1.317	0.013	2232.3	1.412	0.012	2346.1	1.394	3.809	2459.9	0.990	0.025
549.3	1.421	0.000	663.1	0.499	2.176	776.9	1.144	0.000	1447.2	1.241	0.020	2120.4	1.317	0.013	2234.2	1.414	0.012	2348.0	0.752	3.003	2461.8	0.989	0.025
551.2	1.381	0.000	665.0	0.333	1.691	778.8	1.162	0.039	1460.7	1.255	0.019	2122.3	1.320	0.000	2236.1	1.419	0.000	2349.9	0.527	2.477	2463.8	1.000	0.025
553.1	1.379	0.000	666.9	0.349	1.327	780.7	1.172	0.038	1474.2	1.251	0.000	2124.3	1.322	0.013	2238.1	1.424	0.012	2351.9	0.410	2.116	2465.7	0.997	0.025
555.1	1.425	0.045	668.9	0.331	1.090	782.7	1.157	0.039	1487.7	1.233	0.000	2126.2	1.322	0.013	2240.0	1.426	0.012	2353.8	0.352	1.857	2467.6	0.993	0.025
557.0	1.386	0.000	670.8	0.362	0.996	784.6	1.147	0.039	1501.2	1.252	0.000	2128.1	1.323	0.013	2241.9	1.430	0.012	2355.7	0.316	1.654	2469.5	1.001	0.011
558.9	1.405	0.000	672.7	0.353	0.872	786.5	1.137	0.000	1514.7	1.251	0.019	2130.0	1.323	0.013	2243.9	1.433	0.012	2357.7	0.311	1.461	2471.5	1.007	0.011
560.8	1.416	0.000	674.7	0.399	0.773	788.5	1.164	0.000	1528.2	1.254	0.000	2132.0	1.324	0.013	2245.8	1.437	0.012	2359.6	0.306	1.323	2473.4	1.012	0.011
562.8	1.436	0.000	676.6	0.394	0.650	790.4	1.179	0.038	1541.7	1.249	0.000	2133.9	1.325	0.013	2247.7	1.441	0.012	2361.5	0.313	1.209	2475.3	1.017	0.011
564.7	1.431	0.000	678.5	0.199	0.748	792.3	1.154	0.038	1555.2	1.249	0.000	2135.8	1.326	0.013	2249.6	1.446	0.012	2363.5	0.318	1.114	2477.3	1.020	0.011
566.6	1.427	0.044	680.4	0.237	0.200	794.3	1.162	0.038	1568.7	1.258	0.018	2137.8	1.327	0.013	2251.6	1.450	0.012	2365.4	0.319	1.030	2479.2	1.024	0.011
568.6	1.415	0.044	682.4	0.386	0.124	796.2	1.180	0.000	1582.2	1.256	0.018	2139.7	1.328	0.013	2253.5	1.455	0.012	2367.3	0.322	0.937	2481.1	1.027	0.011
570.5	1.396	0.045	684.3	0.578	0.000	798.1	1.172	0.038	1595.7	1.252	0.018	2141.6	1.329	0.013	2255.4	1.460	0.012	2369.2	0.324	0.888	2483.0	1.030	0.011
572.4	1.423	0.000	686.2	0.635	0.076	812.6	1.190	0.000	1609.2	1.249	0.018	2143.6	1.329	0.013	2257.4	1.465	0.011	2371.2	0.334	0.823	2485.0	1.033	0.011
574.4	1.421	0.000	688.2	0.724	0.068	826.1	1.194	0.000	1622.7	1.248	0.018	2145.5	1.330	0.013	2259.3	1.471	0.011	2373.1	0.349	0.750	2486.9	1.036	0.011
576.3	1.418	0.000	690.1	0.746	0.000	839.6	1.203	0.035	1636.2	1.253	0.000	2147.4	1.331	0.013	2261.2	1.477	0.011	2375.0	0.359	0.731	2488.8	1.039	0.011
578.2	1.438	0.043	692.0	0.831	0.059	853.1	1.204	0.000	1649.7	1.245	0.017	2149.3	1.332	0.013	2263.1	1.483	0.011	2377.0	0.366	0.680	2490.8	1.042	0.011
580.1	1.451	0.042	693.9	0.840	0.058	866.6	1.196	0.000	1663.2	1.254	0.017	2151.3	1.333	0.013	2265.1	1.490	0.011	2378.9	0.346	0.673	2492.7	1.044	0.011
582.1	1.438	0.042	695.9	0.853	0.057	880.1	1.201	0.033	1676.7	1.257	0.017	2153.2	1.334	0.013	2267.0	1.497	0.011	2380.8	0.341	0.635	2494.6	1.046	0.011
584.0	1.433	0.042	697.8	0.868	0.000	893.6	1.199	0.033	1690.2	1.251	0.017	2155.1	1.335	0.013	2268.9	1.505	0.011	2382.7	0.269	0.782	2496.6	1.049	0.011
585.9	1.428	0.042	699.7	0.929	0.053	907.1	1.222	0.032	1703.7	1.254	0.017	2157.1	1.336	0.013	2270.9	1.514	0.011	2384.7	0.085	0.421	2498.5	1.051	0.011
587.9	1.413	0.043	701.7	0.917	0.053	920.6	1.211	0.000	1717.3	1.257	0.000	2159.0	1.337	0.013	2272.8	1.525	0.011	2386.6	0.041	0.235	2500.4	1.052	0.011
589.8	1.435	0.000	703.6	0.960	0.051	934.1	1.217	0.000	1730.8	1.255	0.000	2160.9	1.338	0.013	2274.7	1.538	0.011	2388.5	0.234	0.060	2502.3	1.056	0.000
591.7	1.446	0.041	705.5	0.955	0.051	947.6	1.219	0.031	1744.3	1.266	0.016	2162.8	1.339	0.013	2276.6	1.557	0.010	2390.5	0.365	0.042	2504.3	1.060	0.011
593.6	1.457	0.000	707.4	0.968	0.000	961.1	1.230	0.030	1757.8	1.264	0.016	2164.8	1.337	0.013	2278.6	1.577	0.020	2392.4	0.450	0.037	2506.2	1.061	0.011
595.6	1.471	0.041	709.4	0.980	0.050	974.6	1.232	0.029	1771.3	1.260	0.016	2166.7	1.346	0.013	2280.5	1.606	0.048	2394.3	0.512	0.034	2508.1	1.062	0.011
597.5	1.483	0.040	711.3	0.985	0.000	988.1	1.213	0.029	1784.8	1.261	0.016	2168.6	1.344	0.013	2282.4	1.608	0.185	2396.2	0.561	0.032	2510.1	1.063	0.011
599.4	1.470	0.040	713.2	1.002	0.000	1001.6	1.206	0.000	1798.3	1.263	0.016	2170.6	1.346	0.000	2284.4	1.459	0.086	2398.2	0.600	0.031	2512.0	1.067	0.000
601.4	1.474	0.000	715.2	1.015	0.000	1015.1	1.229	0.028	1811.8	1.267	0.016	2172.5	1.349	0.013	2286.3	1.495	0.032	2400.1	0.632	0.031	2513.9	1.070	0.011
603.3	1.479	0.040	717.1	1.029	0.000	1028.6	1.229	0.000	1825.3	1.264	0.000	2174.4	1.350	0.013	2288.2	1.527	0.011	2402.0	0.654	0.030	2515.8	1.071	0.011
605.2	1.465	0.040	719.0	1.024	0.047	1042.1	1.211	0.028	1838.8	1.266	0.015	2176.3	1.351	0.013	2290.2	1.553	0.010	2404.0	0.694	0.008	2517.8	1.072	0.011
607.1	1.493	0.000	721.0	1.041	0.046	1055.6	1.223	0.027	1852.3	1.263	0.015	2178.3	1.352	0.013	2292.1	1.572	0.010	2405.9	0.713	0.008	2519.7	1.070	0.011
609.1	1.488	0.000	722.9	1.059	0.045	1069.1	1.231	0.000	1865.8	1.267	0.015	2180.2	1.353	0.013	2294.0	1.590	0.010	2407.8	0.744	0.029	2521.6	1.080	0.011
611.0	1.516	0.000	724.8	1.054	0.000	1082.6	1.239	0.026	1879.3	1.270	0.015	2182.1	1.354	0.013	2295.9	1.606	0.010	2409.7	0.751	0.009	2523.6	1.079	0.011
612.9	1.530	0.038	726.7	1.055	0.045	1096.1	1.226	0.026	1892.8	1.271	0.015	2184.1	1.356	0.013	2297.9	1.624	0.009	2411.7	0.777	0.009	2525.5	1.080	0.011

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TABLE 7C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2527.4	1.081	0.011	2883.3	1.169	0.010	3566.6	1.193	0.000	3678.5	1.202	0.008
2529.3	1.082	0.011	2896.8	1.168	0.010	3568.6	1.191	0.008	3680.4	1.201	0.008
2531.3	1.084	0.011	2910.3	1.167	0.010	3570.5	1.194	0.008	3682.4	1.202	0.000
2533.2	1.085	0.011	2923.8	1.176	0.000	3572.4	1.193	0.000	3684.3	1.203	0.008
2535.1	1.086	0.011	2937.3	1.174	0.010	3574.4	1.195	0.000	3686.2	1.202	0.008
2537.1	1.084	0.011	2950.8	1.170	0.000	3576.3	1.195	0.008	3688.2	1.201	0.000
2539.0	1.094	0.011	2964.3	1.170	0.000	3578.2	1.193	0.008	3690.1	1.207	0.008
2540.9	1.092	0.011	2977.8	1.175	0.000	3580.1	1.192	0.000	3692.0	1.206	0.000
2542.8	1.093	0.011	2991.3	1.179	0.009	3582.1	1.197	0.008	3693.9	1.213	0.008
2544.8	1.094	0.011	3004.8	1.179	0.000	3584.0	1.194	0.008	3695.9	1.210	0.008
2546.7	1.095	0.011	3018.3	1.180	0.009	3585.9	1.192	0.000	3697.8	1.217	0.008
2548.6	1.096	0.011	3031.8	1.186	0.009	3587.9	1.197	0.000	3699.7	1.220	0.008
2550.6	1.097	0.011	3045.3	1.180	0.000	3589.8	1.201	0.000	3701.7	1.226	0.008
2552.5	1.098	0.011	3058.8	1.180	0.009	3591.7	1.205	0.008	3703.6	1.237	0.016
2554.4	1.100	0.011	3072.3	1.184	0.000	3593.6	1.204	0.000	3705.5	1.255	0.016
2556.3	1.101	0.011	3085.8	1.178	0.000	3595.6	1.214	0.008	3707.5	1.295	0.082
2558.3	1.102	0.011	3099.3	1.182	0.009	3597.5	1.222	0.008	3709.4	1.129	0.156
2560.2	1.103	0.011	3112.9	1.177	0.009	3599.4	1.242	0.047	3711.3	1.133	0.032
2562.1	1.104	0.011	3126.4	1.187	0.000	3601.4	1.150	0.049	3713.2	1.155	0.016
2564.1	1.105	0.011	3139.9	1.181	0.009	3603.3	1.167	0.016	3715.2	1.167	0.016
2566.0	1.106	0.011	3153.4	1.184	0.000	3605.2	1.178	0.008	3717.1	1.169	0.016
2567.9	1.107	0.011	3166.9	1.182	0.009	3607.1	1.182	0.008	3719.0	1.175	0.008
2569.9	1.108	0.011	3180.4	1.188	0.009	3609.1	1.183	0.008	3721.0	1.180	0.008
2571.8	1.109	0.011	3193.9	1.186	0.009	3611.0	1.190	0.008	3722.9	1.182	0.008
2573.7	1.109	0.011	3206.9	1.171	0.000	3612.9	1.189	0.008	3724.8	1.184	0.008
2575.6	1.110	0.011	3220.4	1.169	0.009	3614.9	1.189	0.008	3726.7	1.186	0.008
2577.6	1.111	0.011	3233.9	1.168	0.009	3616.8	1.190	0.008	3728.7	1.187	0.008
2579.5	1.112	0.011	3247.4	1.167	0.009	3618.7	1.190	0.008	3730.6	1.188	0.008
2581.4	1.113	0.011	3260.9	1.174	0.000	3620.6	1.190	0.008	3732.5	1.188	0.008
2583.4	1.114	0.011	3274.4	1.172	0.009	3622.6	1.191	0.008	3734.5	1.189	0.008
2585.3	1.115	0.011	3287.9	1.174	0.009	3624.5	1.191	0.008	3736.4	1.190	0.008
2587.2	1.115	0.011	3301.4	1.172	0.009	3626.4	1.190	0.008	3738.3	1.190	0.008
2589.1	1.116	0.011	3314.9	1.174	0.000	3628.4	1.191	0.000	3740.2	1.190	0.008
2591.1	1.117	0.011	3328.4	1.178	0.009	3630.3	1.191	0.008	3742.2	1.190	0.008
2593.0	1.117	0.011	3341.9	1.172	0.009	3632.2	1.196	0.008	3744.1	1.189	0.008
2594.9	1.118	0.011	3355.4	1.181	0.000	3634.2	1.194	0.008	3746.0	1.194	0.008
2596.9	1.118	0.011	3368.9	1.180	0.009	3636.1	1.194	0.008	3748.0	1.192	0.008
2598.8	1.117	0.011	3382.4	1.179	0.009	3638.0	1.194	0.008	3749.9	1.192	0.000
2613.3	1.126	0.011	3395.9	1.179	0.009	3639.9	1.193	0.008	3763.4	1.192	0.008
2626.8	1.130	0.000	3409.4	1.179	0.009	3641.9	1.193	0.008	3776.9	1.197	0.008
2640.3	1.134	0.011	3422.9	1.180	0.008	3643.8	1.193	0.008	3790.4	1.199	0.008
2653.8	1.136	0.011	3436.4	1.180	0.008	3645.7	1.192	0.008	3803.9	1.204	0.008
2667.3	1.141	0.011	3449.9	1.180	0.008	3647.7	1.191	0.000	3817.4	1.202	0.000
2680.8	1.142	0.011	3463.4	1.181	0.008	3649.6	1.199	0.000	3830.9	1.201	0.008
2694.3	1.146	0.011	3476.9	1.180	0.008	3651.5	1.198	0.008	3844.4	1.205	0.008
2707.8	1.149	0.010	3490.4	1.185	0.008	3653.4	1.197	0.008	3857.9	1.206	0.000
2721.3	1.153	0.010	3503.9	1.180	0.008	3655.4	1.197	0.008	3871.4	1.209	0.000
2734.8	1.152	0.010	3517.4	1.184	0.008	3657.3	1.197	0.008	3884.9	1.205	0.000
2748.3	1.158	0.000	3531.0	1.189	0.000	3659.2	1.197	0.008	3898.4	1.206	0.007
2761.8	1.158	0.010	3544.5	1.189	0.008	3661.2	1.197	0.008	3911.9	1.208	0.007
2775.3	1.161	0.010	3551.2	1.193	0.000	3663.1	1.197	0.008	3925.4	1.209	0.007
2788.8	1.157	0.010	3553.1	1.190	0.008	3665.0	1.197	0.008	3938.9	1.207	0.000
2802.3	1.165	0.010	3555.1	1.193	0.008	3666.9	1.196	0.008	3952.4	1.209	0.007
2815.8	1.159	0.010	3557.0	1.189	0.008	3668.9	1.196	0.008	3965.9	1.212	0.000
2829.3	1.166	0.010	3558.9	1.192	0.008	3670.8	1.194	0.008	3979.4	1.211	0.007
2842.8	1.166	0.010	3560.9	1.187	0.008	3672.7	1.200	0.000	3992.9	1.212	0.000
2856.3	1.170	0.010	3562.8	1.191	0.000	3674.7	1.197	0.008			
2869.8	1.164	0.010	3564.7	1.195	0.008	3676.6	1.203	0.000			

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TABLE 7D

CO_2 AT 70 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.371	0.103	614.9	1.523	0.038	728.7	1.076	0.044	1109.6	1.232	0.000	1906.3	1.272	0.015	2186.0	1.353	0.013	2299.8	1.639	0.009	2413.6	0.791	0.009
503.0	1.398	0.000	616.8	1.546	0.000	730.6	1.105	0.000	1123.1	1.225	0.026	1919.8	1.273	0.015	2187.9	1.362	0.013	2301.7	1.659	0.009	2415.5	0.811	0.010
504.9	1.379	0.000	618.7	1.571	0.036	732.5	1.104	0.043	1136.6	1.232	0.025	1933.3	1.274	0.015	2189.8	1.361	0.013	2303.7	1.681	0.008	2417.5	0.831	0.010
506.8	1.404	0.000	620.6	1.563	0.000	734.5	1.100	0.043	1150.1	1.230	0.000	1946.8	1.275	0.015	2191.8	1.362	0.013	2305.6	1.697	0.008	2419.4	0.834	0.010
508.8	1.363	0.000	622.6	1.604	0.000	736.4	1.091	0.043	1163.6	1.228	0.025	1960.3	1.275	0.014	2193.7	1.364	0.013	2307.5	1.726	0.007	2421.3	0.850	0.010
510.7	1.396	0.050	624.5	1.618	0.000	738.3	1.121	0.042	1177.1	1.229	0.000	1973.8	1.281	0.014	2195.6	1.365	0.013	2309.4	1.749	0.007	2423.2	0.863	0.010
512.6	1.378	0.150	626.4	1.634	0.034	740.2	1.115	0.042	1190.6	1.231	0.024	1987.3	1.282	0.014	2197.6	1.366	0.013	2311.4	1.776	0.015	2425.2	0.875	0.010
514.6	1.352	0.051	628.4	1.646	0.034	742.2	1.115	0.042	1204.2	1.227	0.024	2000.8	1.281	0.014	2199.5	1.367	0.013	2313.3	1.805	0.014	2427.1	0.886	0.010
516.5	1.396	0.049	630.3	1.671	0.000	744.1	1.117	0.042	1217.7	1.224	0.024	2014.3	1.288	0.014	2201.4	1.370	0.000	2315.2	1.838	0.013	2429.0	0.896	0.010
518.4	1.379	0.099	632.2	1.702	0.033	746.0	1.118	0.042	1231.2	1.219	0.024	2027.8	1.289	0.014	2203.3	1.374	0.012	2317.2	1.877	0.012	2431.0	0.905	0.010
520.3	1.388	0.000	634.1	1.726	0.032	748.0	1.119	0.042	1244.7	1.236	0.023	2041.3	1.292	0.014	2205.3	1.374	0.012	2319.1	1.924	0.011	2432.9	0.915	0.011
522.3	1.393	0.000	636.1	1.796	0.030	749.9	1.120	0.042	1258.2	1.235	0.023	2054.8	1.294	0.014	2207.2	1.374	0.012	2321.0	1.972	0.017	2434.8	0.924	0.011
524.2	1.352	0.000	638.0	1.849	0.059	751.8	1.112	0.042	1271.7	1.233	0.023	2068.3	1.295	0.014	2209.1	1.383	0.012	2322.9	2.030	0.014	2436.8	0.930	0.026
526.1	1.415	0.000	639.9	1.772	0.093	753.7	1.140	0.041	1285.2	1.239	0.022	2081.8	1.301	0.014	2211.1	1.381	0.012	2324.9	2.107	0.018	2438.7	0.935	0.011
528.1	1.403	0.000	641.9	1.855	0.058	755.7	1.132	0.041	1298.7	1.232	0.022	2095.3	1.307	0.013	2213.0	1.385	0.000	2326.8	2.197	0.035	2440.6	0.945	0.011
530.0	1.348	0.000	643.8	1.932	0.027	757.6	1.128	0.041	1312.2	1.238	0.022	2101.1	1.310	0.013	2214.9	1.389	0.012	2328.7	2.276	0.050	2442.5	0.953	0.011
531.9	1.398	0.048	645.7	2.057	0.024	759.5	1.134	0.000	1325.7	1.236	0.022	2103.0	1.308	0.013	2216.9	1.390	0.012	2330.7	2.401	0.073	2444.5	0.966	0.011
533.8	1.411	0.047	647.7	2.188	0.046	761.5	1.139	0.040	1339.2	1.230	0.000	2105.0	1.316	0.013	2218.8	1.392	0.012	2332.6	2.545	0.109	2446.4	0.964	0.026
535.8	1.400	0.047	649.6	2.403	0.016	763.4	1.143	0.000	1352.7	1.240	0.021	2106.9	1.312	0.013	2220.7	1.394	0.012	2334.5	2.726	0.163	2448.3	0.963	0.011
537.7	1.382	0.000	651.5	2.777	0.104	765.3	1.149	0.040	1366.2	1.234	0.021	2108.8	1.314	0.000	2222.6	1.397	0.012	2336.4	2.965	0.233	2450.3	0.980	0.011
539.6	1.404	0.094	653.4	3.690	0.363	767.2	1.143	0.040	1379.7	1.216	0.021	2110.8	1.316	0.013	2224.6	1.399	0.012	2338.4	3.319	0.365	2452.2	0.981	0.026
541.6	1.363	0.000	655.4	2.105	3.512	769.2	1.148	0.000	1393.2	1.250	0.020	2112.7	1.313	0.013	2226.5	1.402	0.012	2340.3	3.872	0.661	2454.1	0.982	0.026
543.5	1.378	0.047	657.3	2.014	0.457	771.1	1.154	0.039	1406.7	1.236	0.020	2114.6	1.321	0.013	2228.4	1.405	0.012	2342.2	4.690	1.710	2456.0	0.984	0.026
545.4	1.359	0.048	659.2	3.453	2.095	773.0	1.143	0.040	1420.2	1.249	0.000	2116.5	1.319	0.013	2230.4	1.408	0.012	2344.2	3.557	5.016	2458.0	0.986	0.025
547.3	1.363	0.048	661.2	0.962	3.312	775.0	1.168	0.039	1433.7	1.237	0.020	2118.5	1.319	0.013	2232.3	1.411	0.012	2346.1	1.347	4.109	2459.9	0.987	0.025
549.3	1.416	0.000	663.1	0.402	2.153	776.9	1.160	0.039	1447.2	1.235	0.020	2120.4	1.319	0.013	2234.2	1.414	0.012	2348.0	0.701	3.141	2461.8	0.984	0.025
551.2	1.414	0.000	665.0	0.296	1.716	778.8	1.158	0.039	1460.7	1.249	0.019	2122.3	1.320	0.013	2236.1	1.417	0.012	2349.9	0.480	2.563	2463.8	0.995	0.011
553.1	1.383	0.000	666.9	0.290	1.405	780.7	1.158	0.039	1474.2	1.242	0.000	2124.3	1.320	0.013	2238.1	1.421	0.012	2351.9	0.368	2.197	2465.7	1.004	0.025
555.1	1.406	0.091	668.9	0.287	1.071	782.7	1.157	0.039	1487.7	1.241	0.019	2126.2	1.321	0.013	2240.0	1.424	0.012	2353.8	0.308	1.896	2467.6	0.995	0.025
557.0	1.396	0.091	670.8	0.316	0.972	784.6	1.153	0.039	1501.2	1.244	0.019	2128.1	1.322	0.013	2241.9	1.428	0.012	2355.7	0.280	1.710	2469.5	1.002	0.011
558.9	1.406	0.045	672.7	0.309	0.828	786.5	1.156	0.000	1514.7	1.242	0.019	2130.0	1.323	0.013	2243.9	1.432	0.012	2357.7	0.263	1.500	2471.5	1.008	0.011
560.8	1.387	0.046	674.7	0.399	0.644	788.5	1.169	0.000	1528.2	1.251	0.019	2132.0	1.323	0.013	2245.8	1.436	0.012	2359.6	0.260	1.371	2473.4	1.013	0.011
562.8	1.413	0.045	676.6	0.418	0.614	790.4	1.173	0.038	1541.7	1.243	0.000	2133.9	1.324	0.013	2247.7	1.440	0.012	2361.5	0.270	1.225	2475.3	1.018	0.011
564.7	1.402	0.045	678.5	0.212	0.705	792.3	1.170	0.038	1555.2	1.243	0.000	2135.8	1.325	0.013	2249.6	1.444	0.012	2363.5	0.263	1.109	2477.3	1.021	0.011
566.6	1.378	0.091	680.4	0.279	0.170	794.3	1.169	0.038	1568.7	1.249	0.000	2137.8	1.326	0.013	2251.6	1.449	0.012	2365.4	0.273	1.034	2479.2	1.024	0.011
568.6	1.376	0.045	682.4	0.423	0.113	796.2	1.168	0.038	1582.2	1.253	0.018	2139.7	1.327	0.013	2253.5	1.454	0.012	2367.3	0.274	0.931	2481.1	1.028	0.011
570.5	1.412	0.044	684.3	0.565	0.086	798.1	1.167	0.038	1595.7	1.248	0.018	2141.6	1.328	0.013	2255.4	1.459	0.012	2369.2	0.284	0.854	2483.0	1.031	0.011
572.4	1.423	0.000	686.2	0.667	0.000	812.6	1.166	0.037	1609.2	1.245	0.018	2143.6	1.329	0.013	2257.4	1.464	0.011	2371.2	0.291	0.788	2485.0	1.034	0.011
574.4	1.420	0.000	688.2	0.753	0.065	826.1	1.174	0.000	1622.7	1.253	0.018	2145.5	1.330	0.013	2259.3	1.469	0.011	2373.1	0.309	0.748	2486.9	1.036	0.011
576.3	1.427	0.000	690.1	0.764	0.000	839.6	1.197	0.035	1636.2	1.248	0.000	2147.4	1.331	0.013	2261.2	1.475	0.011	2375.0	0.324	0.672	2488.8	1.039	0.011
578.2	1.427	0.043	692.0	0.853	0.000	853.1	1.196	0.035	1649.7	1.245	0.000	2149.3	1.331	0.013	2263.1	1.482	0.011	2377.0	0.345	0.635	2490.8	1.042	0.011
580.1	1.417	0.043	693.9	0.872	0.056	866.6	1.200	0.000	1663.2	1.252	0.017	2151.3	1.332	0.013	2265.1	1.488	0.011	2378.9	0.357	0.614	2492.7	1.044	0.011
582.1	1.419	0.000	695.9	0.881	0.056	880.1	1.187	0.034	1676.7	1.258	0.017	2153.2	1.334	0.013	2267.0	1.496	0.011	2380.8	0.371	0.626	2494.6	1.047	0.011
584.0	1.419	0.043	697.8	0.903	0.000	893.6	1.199	0.033	1690.2	1.253	0.017	2155.1	1.335	0.013	2268.9	1.504	0.011	2382.7	0.233	0.809	2496.6	1.049	0.011
585.9	1.407	0.000	699.7	0.937	0.000	907.1	1.210	0.032	1703.7	1.256	0.017	2157.1	1.336	0.013	2270.9	1.513	0.011	2384.7	0.075	0.383	2498.5	1.052	0.011
587.9	1.416	0.043	701.7	0.957	0.051	920.6	1.206	0.032	1717.3	1.250	0.017	2159.0	1.337	0.013	2272.8	1.523	0.011	2386.6	0.069	0.161	2500.4	1.054	0.011
589.8	1.450	0.000	703.6	0.965	0.051	934.1	1.221	0.000	1730.8	1.254	0.016	2160.9	1.338	0.013	2274.7	1.535	0.011	2388.5	0.267	0.054	2502.3	1.056	0.011
591.7	1.458	0.000	705.5	0.971	0.050	947.6	1.215	0.031	1744.3	1.258	0.016	2162.8	1.339	0.013	2276.6	1.552	0.010	2390.5	0.386	0.041	2504.3	1.058	0.011
593.6	1.480	0.000	707.4	0.989	0.000	961.1	1.215	0.030	1757.8	1.258	0.016	2164.8	1.340	0.013	2278.6	1.578	0.020	2392.4	0.465	0.036	2506.2	1.060	0.011
595.6	1.479	0.000	709.4	1.007	0.049	974.6	1.216	0.030	1771.3	1.256	0.016	2166.7	1.341	0.013	2280.5	1.608	0.039	2394.3	0.524	0.034	2508.1	1.061	0.011
597.5	1.479	0.040	711.3	1.010	0.048	988.1	1.211	0.029	1784.8	1.262	0.016	2168.6	1.341	0.013	2282.4	1.609	0.195	2396.2	0.571	0.032	2510.1	1.062	0.011
599.4	1.475	0.040	713.2	1.012	0.048	1001.6	1.207	0.029	1798.3	1.262	0.016	2170.6	1.340	0.013	2284.4	1.457	0.086	2398.2	0.609	0.031	2512.0	1.066	0.000
601.4	1.471	0.040	715.2	1.023	0.000	1015.1	1.233	0.028	1811.8	1.262	0.016	2172.5	1.348	0.013	2286.3	1.495	0.032	2400.1	0.641	0.030	2513.9	1.070	0.011
603.3	1.476	0.000	717.1	1.044	0.000	1028.6	1.221	0.028	1825.3	1.256	0.000	2174.4	1.346	0.013	2288.2	1.525	0.021	2402.0	0.663	0.030	2515.8	1.070	0.011
605.2	1.473	0.040	719.0	1.054	0.046	1042.1	1.220	0.028	1838.8	1.261	0.015	2176.3	1.344	0.013	2290.2	1.550	0.010	2404.0	0.705	0.008	2517.8	1.071	0.011
607.1	1.496	0.000	721.0	1.053	0.046	1055.6	1.221	0.027	1852.3	1.260	0.015	2178.3	1.350	0.013	2292.1	1.570	0.010	2405.9	0.726	0.029	2519.7	1.070	0.011
609.1	1.520	0.038	722.9	1.045	0.046	1069.1	1.218	0.027	1865.8	1.273	0.015	2180.2	1.357	0.013	2294.0	1.587	0.010	2407.8	0.742	0.029	2521.6	1.080	0.011
611.0	1.501	0.039	724.8	1.076	0.045	1082.6	1.220	0.027	1879.3	1.268	0.015	2182.1	1.355	0.013	2295.9	1.604	0.010	2409.7	0.752	0.028	2523.6	1.079	0.011
612.9	1.531	0.000	726.7	1.058	0.045	1096.1	1.221	0.026	1892.8	1.270	0.015	2184.1	1.355	0.013	2297.9	1.621	0.009	2411.7	0.773	0.028	2525.5	1.080	0.011

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TABLE 7D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2527.4	1.081	0.011	2883.3	1.170	0.010	3566.6	1.190	0.000	3678.5	1.205	0.008
2529.3	1.082	0.011	2896.8	1.170	0.010	3568.6	1.190	0.000	3680.4	1.203	0.008
2531.3	1.084	0.011	2910.3	1.169	0.010	3570.5	1.196	0.008	3682.4	1.203	0.008
2533.2	1.085	0.011	2923.8	1.176	0.010	3572.4	1.193	0.008	3684.3	1.202	0.008
2535.1	1.086	0.011	2937.3	1.176	0.010	3574.4	1.191	0.008	3686.2	1.201	0.008
2537.1	1.088	0.011	2950.8	1.180	0.010	3576.3	1.190	0.000	3688.2	1.205	0.008
2539.0	1.089	0.011	2964.3	1.175	0.000	3578.2	1.196	0.008	3690.1	1.209	0.008
2540.9	1.090	0.011	2977.8	1.178	0.010	3580.1	1.192	0.008	3692.0	1.208	0.008
2542.8	1.091	0.011	2991.3	1.182	0.009	3582.1	1.196	0.008	3693.9	1.209	0.008
2544.8	1.093	0.011	3004.8	1.180	0.009	3584.0	1.192	0.008	3695.9	1.209	0.008
2546.7	1.094	0.011	3018.3	1.181	0.009	3585.9	1.194	0.008	3697.8	1.216	0.008
2548.6	1.095	0.011	3031.8	1.181	0.009	3587.9	1.197	0.000	3699.7	1.219	0.008
2550.6	1.096	0.011	3045.3	1.180	0.009	3589.8	1.201	0.000	3701.7	1.224	0.008
2552.5	1.097	0.011	3058.8	1.180	0.009	3591.7	1.206	0.008	3703.6	1.237	0.008
2554.4	1.098	0.011	3072.3	1.179	0.000	3593.6	1.206	0.008	3705.5	1.257	0.016
2556.3	1.098	0.011	3085.8	1.184	0.009	3595.6	1.209	0.008	3707.5	1.304	0.067
2558.3	1.098	0.011	3099.3	1.183	0.009	3597.5	1.220	0.008	3709.4	1.118	0.157
2560.2	1.101	0.000	3112.9	1.182	0.009	3599.4	1.244	0.040	3711.3	1.132	0.024
2562.1	1.101	0.011	3126.4	1.183	0.009	3601.4	1.143	0.049	3713.2	1.160	0.016
2564.1	1.109	0.011	3139.9	1.183	0.009	3603.3	1.165	0.008	3715.2	1.171	0.016
2566.0	1.107	0.011	3153.4	1.182	0.009	3605.2	1.177	0.008	3717.1	1.175	0.016
2567.9	1.107	0.011	3166.9	1.182	0.009	3607.1	1.182	0.008	3719.0	1.177	0.016
2569.9	1.108	0.011	3180.4	1.184	0.009	3609.1	1.184	0.008	3721.0	1.176	0.016
2571.8	1.109	0.011	3193.9	1.178	0.009	3611.0	1.185	0.008	3722.9	1.182	0.008
2573.7	1.109	0.011	3206.9	1.173	0.009	3612.9	1.186	0.008	3724.8	1.180	0.008
2575.6	1.110	0.011	3220.4	1.170	0.009	3614.9	1.184	0.008	3726.7	1.183	0.008
2577.6	1.111	0.011	3233.9	1.170	0.009	3616.8	1.191	0.000	3728.7	1.185	0.008
2579.5	1.111	0.011	3247.4	1.169	0.009	3618.7	1.191	0.008	3730.6	1.187	0.008
2581.4	1.112	0.011	3260.9	1.168	0.009	3620.6	1.190	0.008	3732.5	1.187	0.008
2583.4	1.112	0.011	3274.4	1.170	0.009	3622.6	1.190	0.008	3734.5	1.188	0.008
2585.3	1.112	0.011	3287.9	1.172	0.009	3624.5	1.189	0.008	3736.4	1.189	0.008
2587.2	1.114	0.000	3301.4	1.172	0.009	3626.4	1.187	0.008	3738.3	1.189	0.008
2589.1	1.118	0.000	3314.9	1.173	0.009	3628.4	1.193	0.000	3740.2	1.190	0.008
2591.1	1.120	0.011	3328.4	1.171	0.000	3630.3	1.194	0.000	3742.2	1.190	0.008
2593.0	1.119	0.011	3341.9	1.172	0.009	3632.2	1.194	0.008	3744.1	1.188	0.008
2594.9	1.120	0.011	3355.4	1.177	0.000	3634.2	1.191	0.008	3746.0	1.193	0.008
2596.9	1.120	0.011	3368.9	1.180	0.009	3636.1	1.195	0.008	3748.0	1.191	0.008
2598.8	1.121	0.011	3382.4	1.178	0.009	3638.0	1.192	0.008	3749.9	1.190	0.000
2613.3	1.129	0.011	3395.9	1.181	0.009	3639.9	1.197	0.008	3763.4	1.195	0.008
2626.8	1.129	0.011	3409.4	1.179	0.009	3641.9	1.195	0.008	3776.9	1.197	0.008
2640.3	1.132	0.011	3422.9	1.178	0.008	3643.8	1.194	0.008	3790.4	1.196	0.000
2653.8	1.134	0.011	3436.4	1.182	0.008	3645.7	1.193	0.008	3803.9	1.202	0.008
2667.3	1.139	0.011	3449.9	1.182	0.008	3647.7	1.193	0.000	3817.4	1.202	0.000
2680.8	1.144	0.011	3463.4	1.182	0.008	3649.6	1.199	0.008	3830.9	1.201	0.008
2694.3	1.146	0.000	3476.9	1.181	0.008	3651.5	1.197	0.008	3844.4	1.207	0.008
2707.8	1.149	0.010	3490.4	1.185	0.008	3653.4	1.196	0.008	3857.9	1.205	0.000
2721.3	1.154	0.010	3503.9	1.184	0.008	3655.4	1.195	0.008	3871.4	1.206	0.000
2734.8	1.153	0.000	3517.4	1.187	0.000	3657.3	1.196	0.000	3884.9	1.207	0.007
2748.3	1.154	0.000	3531.0	1.188	0.000	3659.2	1.198	0.008	3898.4	1.208	0.000
2761.8	1.158	0.010	3544.5	1.187	0.008	3661.2	1.197	0.008	3911.9	1.209	0.007
2775.3	1.160	0.000	3551.2	1.189	0.000	3663.1	1.197	0.008	3925.4	1.210	0.000
2788.8	1.162	0.010	3553.1	1.190	0.008	3665.0	1.197	0.008	3938.9	1.208	0.007
2802.3	1.163	0.010	3555.1	1.189	0.008	3666.9	1.196	0.008	3952.4	1.210	0.007
2815.8	1.161	0.010	3557.0	1.187	0.008	3668.9	1.194	0.008	3965.9	1.211	0.007
2829.3	1.164	0.010	3558.9	1.191	0.008	3670.8	1.198	0.008	3979.4	1.207	0.007
2842.8	1.164	0.010	3560.9	1.187	0.008	3672.7	1.201	0.008	3992.9	1.211	0.007
2856.3	1.167	0.010	3562.8	1.192	0.000	3674.7	1.196	0.008			
2869.8	1.171	0.010	3564.7	1.191	0.008	3676.6	1.201	0.000			

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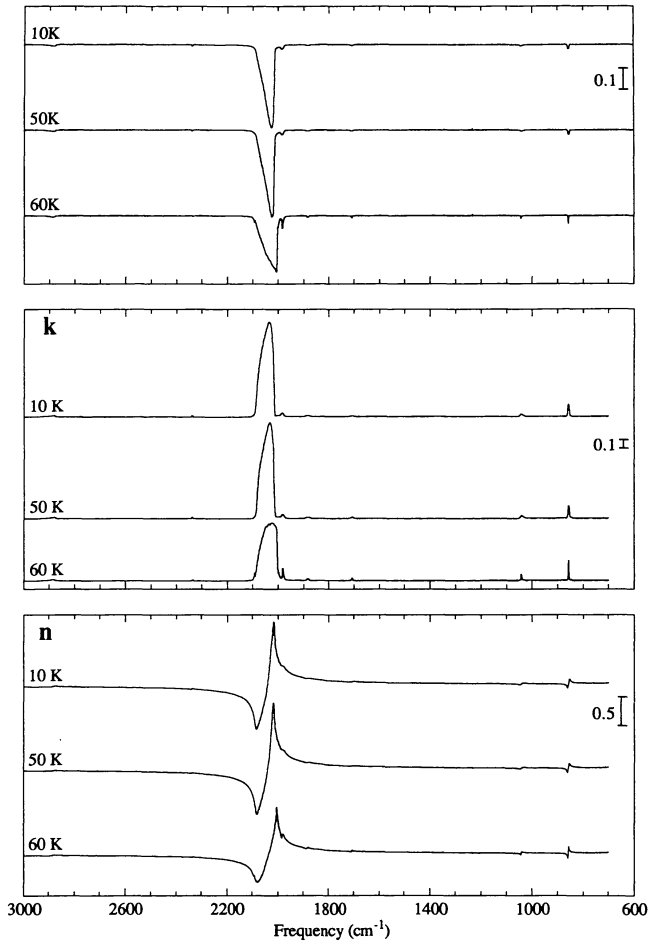

FIG. 8.—The 3000 to 600 cm^{-1} transmission spectra and optical constants (n and k) of a pure OCS ice at temperatures of 10, 50, and 60 K. The original ice was deposited at 10 K.

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TABLE 8A

OCS AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
708.9	1.275	0.008	896.0	1.260	0.007	1089.9	1.264	0.006	1620.3	1.295	0.005	1919.3	1.401	0.005	2031.2	1.662	1.131	2143.1	1.025	0.000	2479.7	1.197	0.000
718.5	1.272	0.008	897.9	1.259	0.007	1091.8	1.263	0.006	1630.0	1.295	0.005	1921.2	1.403	0.005	2033.1	1.579	1.142	2145.0	1.030	0.000	2489.3	1.199	0.000
728.2	1.271	0.000	899.9	1.259	0.007	1093.7	1.264	0.000	1639.6	1.295	0.005	1923.2	1.406	0.005	2035.0	1.498	1.149	2146.9	1.034	0.000	2499.0	1.199	0.000
737.8	1.272	0.000	909.5	1.260	0.007	1095.6	1.265	0.006	1649.3	1.296	0.001	1925.1	1.409	0.005	2037.0	1.421	1.145	2148.9	1.039	0.000	2508.6	1.201	0.000
747.5	1.274	0.000	919.2	1.267	0.007	1097.6	1.264	0.006	1658.9	1.299	0.005	1927.0	1.412	0.005	2038.9	1.349	1.135	2150.8	1.043	0.000	2518.2	1.201	0.000
757.1	1.272	0.000	928.8	1.264	0.006	1099.5	1.264	0.006	1668.5	1.299	0.005	1929.0	1.415	0.005	2040.8	1.281	1.123	2152.7	1.046	0.000	2527.9	1.203	0.000
766.8	1.274	0.008	938.4	1.265	0.006	1109.1	1.263	0.000	1678.2	1.300	0.001	1930.9	1.418	0.005	2042.8	1.220	1.107	2154.6	1.049	0.000	2537.5	1.204	0.000
776.4	1.275	0.000	948.1	1.265	0.006	1118.8	1.265	0.000	1687.8	1.305	0.005	1932.8	1.421	0.005	2044.7	1.161	1.086	2156.6	1.052	0.000	2547.2	1.204	0.000
786.1	1.270	0.000	957.7	1.265	0.006	1128.4	1.267	0.000	1697.5	1.308	0.005	1934.7	1.425	0.005	2046.6	1.108	1.064	2158.5	1.057	0.000	2556.8	1.204	0.000
795.7	1.275	0.000	967.4	1.266	0.006	1138.1	1.269	0.000	1707.1	1.304	0.014	1936.7	1.428	0.005	2048.6	1.058	1.040	2160.4	1.060	0.000	2566.5	1.205	0.000
801.5	1.275	0.007	977.0	1.267	0.006	1147.7	1.266	0.005	1716.8	1.300	0.008	1938.6	1.432	0.005	2050.5	1.010	1.015	2162.4	1.064	0.000	2576.1	1.205	0.000
803.4	1.275	0.000	986.7	1.269	0.006	1157.4	1.267	0.005	1726.4	1.303	0.005	1940.5	1.435	0.005	2052.4	0.965	0.992	2164.3	1.068	0.000	2585.8	1.207	0.000
805.3	1.274	0.000	996.3	1.268	0.006	1167.0	1.267	0.005	1736.1	1.306	0.005	1942.5	1.439	0.005	2054.3	0.920	0.964	2166.2	1.071	0.000	2595.4	1.207	0.000
807.3	1.280	0.000	1001.1	1.268	0.006	1176.7	1.267	0.005	1745.7	1.308	0.002	1944.4	1.444	0.005	2056.3	0.880	0.936	2168.1	1.074	0.000	2605.1	1.209	0.000
809.2	1.278	0.007	1003.1	1.269	0.006	1186.3	1.269	0.005	1755.3	1.313	0.002	1946.3	1.448	0.005	2058.2	0.840	0.908	2170.1	1.077	0.000	2614.7	1.210	0.000
811.1	1.281	0.007	1005.0	1.269	0.006	1196.0	1.268	0.005	1765.0	1.314	0.002	1948.2	1.452	0.005	2060.1	0.803	0.882	2172.0	1.080	0.000	2624.3	1.209	0.000
813.1	1.279	0.007	1006.9	1.269	0.006	1205.6	1.269	0.005	1774.6	1.318	0.002	1950.2	1.457	0.005	2062.1	0.766	0.849	2173.9	1.082	0.000	2634.0	1.210	0.000
815.0	1.279	0.007	1008.8	1.269	0.006	1215.2	1.269	0.005	1784.3	1.320	0.002	1952.1	1.462	0.005	2064.0	0.729	0.816	2175.9	1.085	0.000	2643.6	1.211	0.000
816.9	1.278	0.007	1010.8	1.270	0.000	1224.9	1.267	0.005	1793.9	1.324	0.005	1954.0	1.468	0.005	2065.9	0.694	0.780	2177.8	1.087	0.000	2653.3	1.211	0.000
818.8	1.278	0.007	1012.7	1.271	0.006	1234.5	1.267	0.000	1803.6	1.326	0.005	1956.0	1.474	0.005	2067.8	0.662	0.741	2179.7	1.090	0.000	2662.9	1.212	0.000
820.8	1.276	0.007	1014.6	1.271	0.006	1244.2	1.272	0.005	1813.2	1.330	0.005	1957.9	1.480	0.005	2069.8	0.630	0.705	2181.6	1.092	0.000	2672.6	1.212	0.000
822.7	1.281	0.000	1016.6	1.271	0.006	1253.8	1.272	0.000	1822.9	1.334	0.005	1959.8	1.485	0.007	2071.7	0.601	0.666	2183.6	1.094	0.000	2682.2	1.212	0.000
824.6	1.279	0.007	1018.5	1.272	0.006	1263.5	1.269	0.005	1832.5	1.340	0.002	1961.7	1.493	0.007	2073.6	0.571	0.623	2185.5	1.096	0.000	2691.9	1.215	0.001
826.6	1.284	0.000	1020.4	1.273	0.006	1273.1	1.274	0.000	1842.2	1.345	0.005	1963.7	1.499	0.007	2075.6	0.542	0.576	2187.4	1.098	0.000	2701.5	1.214	0.000
828.5	1.284	0.007	1022.3	1.274	0.006	1282.8	1.273	0.005	1851.8	1.350	0.005	1965.6	1.506	0.007	2077.5	0.516	0.522	2189.4	1.099	0.000	2711.1	1.214	0.000
830.4	1.284	0.007	1024.3	1.275	0.006	1292.4	1.272	0.005	1853.7	1.351	0.005	1967.5	1.514	0.007	2079.4	0.490	0.462	2191.3	1.102	0.000	2720.8	1.215	0.000
832.3	1.284	0.007	1026.2	1.279	0.006	1302.0	1.272	0.005	1855.7	1.352	0.005	1969.5	1.523	0.007	2081.3	0.471	0.393	2193.2	1.103	0.000	2730.4	1.214	0.000
834.3	1.285	0.007	1028.1	1.278	0.012	1311.7	1.274	0.005	1857.6	1.353	0.005	1971.4	1.534	0.009	2083.3	0.460	0.317	2195.2	1.105	0.000	2740.1	1.216	0.000
836.2	1.287	0.000	1030.1	1.280	0.012	1321.3	1.274	0.005	1859.5	1.354	0.005	1973.3	1.545	0.008	2085.2	0.469	0.225	2197.1	1.108	0.000	2749.7	1.216	0.000
838.1	1.288	0.007	1032.0	1.278	0.017	1331.0	1.272	0.005	1861.4	1.356	0.005	1975.3	1.557	0.013	2087.1	0.508	0.135	2199.0	1.109	0.000	2759.4	1.216	0.000
840.1	1.294	0.007	1033.9	1.279	0.017	1340.6	1.274	0.000	1863.4	1.357	0.005	1977.2	1.570	0.019	2089.1	0.569	0.080	2209.6	1.119	0.000	2769.0	1.218	0.001
842.0	1.296	0.007	1035.8	1.277	0.022	1350.3	1.274	0.005	1865.3	1.359	0.005	1979.1	1.581	0.028	2091.0	0.624	0.052	2219.3	1.126	0.000	2778.7	1.219	0.001
843.9	1.299	0.007	1037.8	1.278	0.028	1359.9	1.275	0.005	1867.2	1.361	0.005	1981.0	1.587	0.040	2092.9	0.671	0.033	2228.9	1.133	0.000	2788.3	1.218	0.001
845.9	1.307	0.007	1039.7	1.270	0.033	1369.6	1.275	0.005	1869.2	1.364	0.005	1983.0	1.589	0.047	2094.8	0.711	0.025	2238.6	1.139	0.000	2797.9	1.218	0.001
847.8	1.312	0.014	1041.6	1.264	0.033	1379.2	1.275	0.005	1871.1	1.365	0.008	1984.9	1.591	0.051	2096.8	0.743	0.018	2248.2	1.144	0.000	2807.6	1.219	0.001
849.7	1.325	0.014	1043.6	1.257	0.033	1388.8	1.275	0.000	1873.0	1.367	0.011	1986.8	1.594	0.049	2098.7	0.772	0.016	2257.8	1.149	0.000	2817.2	1.220	0.001
851.6	1.344	0.039	1045.5	1.249	0.028	1398.5	1.276	0.005	1874.9	1.368	0.011	1988.8	1.600	0.041	2100.6	0.796	0.009	2267.5	1.153	0.000	2826.9	1.221	0.001
853.6	1.344	0.083	1047.4	1.247	0.022	1408.1	1.274	0.000	1876.9	1.368	0.014	1990.7	1.613	0.031	2102.6	0.818	0.007	2277.1	1.157	0.000	2836.5	1.221	0.001
855.5	1.318	0.130	1049.4	1.247	0.011	1417.8	1.277	0.005	1878.8	1.369	0.017	1992.6	1.631	0.025	2104.5	0.837	0.004	2286.8	1.161	0.000	2846.2	1.221	0.001
857.4	1.261	0.149	1051.3	1.250	0.006	1427.4	1.278	0.005	1880.7	1.367	0.017	1994.5	1.653	0.020	2106.4	0.856	0.002	2296.4	1.164	0.000	2855.8	1.223	0.001
859.4	1.209	0.126	1053.2	1.254	0.006	1437.1	1.277	0.005	1882.7	1.367	0.017	1996.5	1.678	0.018	2108.3	0.872	0.003	2306.1	1.168	0.000	2865.5	1.226	0.001
861.3	1.183	0.070	1055.1	1.256	0.006	1446.7	1.278	0.005	1884.6	1.367	0.017	1998.4	1.704	0.018	2110.3	0.888	0.000	2315.7	1.171	0.000	2875.1	1.232	0.008
863.2	1.194	0.027	1057.1	1.257	0.006	1456.4	1.279	0.005	1886.5	1.367	0.016	2000.3	1.733	0.018	2112.2	0.901	0.002	2325.4	1.173	0.000	2884.8	1.220	0.013
865.1	1.214	0.006	1059.0	1.258	0.006	1466.0	1.280	0.005	1888.4	1.366	0.016	2002.3	1.765	0.018	2114.1	0.912	0.003	2335.0	1.182	0.000	2894.4	1.217	0.011
867.1	1.228	0.007	1060.9	1.259	0.006	1475.7	1.281	0.005	1890.4	1.365	0.014	2004.2	1.804	0.017	2116.1	0.924	0.000	2344.6	1.170	0.000	2904.0	1.215	0.007
869.0	1.234	0.007	1062.9	1.258	0.006	1485.3	1.282	0.000	1892.3	1.366	0.011	2006.1	1.852	0.016	2118.0	0.935	0.000	2354.3	1.177	0.000	2913.7	1.215	0.007
870.9	1.243	0.007	1064.8	1.262	0.006	1494.9	1.281	0.005	1894.2	1.367	0.011	2008.0	1.914	0.015	2119.9	0.943	0.001	2363.9	1.181	0.000	2923.3	1.215	0.005
872.9	1.243	0.007	1066.7	1.262	0.006	1504.6	1.282	0.005	1896.2	1.370	0.008	2010.0	1.997	0.016	2121.9	0.953	0.000	2373.6	1.182	0.000	2933.0	1.216	0.003
874.8	1.250	0.007	1068.6	1.262	0.006	1514.2	1.283	0.005	1898.1	1.372	0.005	2011.9	2.123	0.030	2123.8	0.962	0.000	2383.2	1.184	0.000	2942.6	1.217	0.000
876.7	1.250	0.007	1070.6	1.262	0.006	1523.9	1.283	0.005	1900.0	1.375	0.005	2013.8	2.293	0.146	2125.7	0.970	0.000	2392.9	1.186	0.000	2952.3	1.218	0.000
878.6	1.250	0.007	1072.5	1.262	0.006	1533.5	1.283	0.005	1901.9	1.378	0.005	2015.8	2.371	0.414	2127.6	0.976	0.000	2402.5	1.187	0.000	2961.9	1.218	0.000
880.6	1.255	0.007	1074.4	1.262	0.006	1543.2	1.284	0.005	1903.9	1.381	0.005	2017.7	2.322	0.639	2129.6	0.984	0.000	2412.2	1.189	0.000	2971.6	1.219	0.000
882.5	1.255	0.007	1076.4	1.262	0.006	1552.8	1.285	0.001	1905.8	1.383	0.005	2019.6	2.231	0.791	2131.5	0.991	0.000	2421.8	1.191	0.000	2981.2	1.219	0.000
884.4	1.256	0.007	1078.3	1.260	0.006	1562.5	1.285	0.001	1907.7	1.385	0.005	2021.5	2.131	0.899	2133.4	0.998	0.000	2431.4	1.192	0.000	2990.8	1.220	0.000
886.4	1.256	0.007	1080.2	1.265	0.000	1572.1	1.288	0.001	1909.7	1.388	0.005	2023.5	2.029	0.977	2135.4	1.003	0.000	2441.1	1.193	0.000			
888.3	1.257	0.007	1082.1	1.265	0.006	1581.7	1.288	0.005	1911.6	1.389	0.005	2025.4	1.934	1.033	2137.3	1.008	0.000	2450.7	1.194	0.000			
890.2	1.257	0.007	1084.1	1.264	0.006	1591.4	1.289	0.005	1913.5	1.393	0.005	2027.3	1.840	1.078	2139.2	1.013	0.000	2460.4	1.196	0.000			
892.1	1.257	0.007	1086.0	1.264	0.006	1601.0	1.291	0.005	1915.5	1.396	0.005	2029.3	1.749	1.107	2141.1	1.020	0.000	2470.0	1.197	0.000			
894.1	1.258	0.000	1087.9	1.264	0.006	1610.7	1.290	0.005	1917.4	1.398	0.005												

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TABLE 8B

OCS AT 50 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
708.9	1.278	0.008	896.0	1.255	0.007	1089.9	1.261	0.006	1620.3	1.293	0.005	1919.3	1.402	0.005	2031.2	1.616	1.175	2143.1	1.028	0.000	2479.7	1.199	0.000
718.5	1.272	0.008	897.9	1.259	0.007	1091.8	1.264	0.006	1630.0	1.293	0.005	1921.2	1.404	0.003	2033.1	1.529	1.181	2145.0	1.033	0.000	2489.3	1.200	0.000
728.2	1.272	0.000	899.9	1.258	0.007	1093.7	1.262	0.006	1639.6	1.294	0.005	1923.2	1.407	0.003	2035.0	1.444	1.178	2146.9	1.038	0.000	2499.0	1.201	0.000
737.8	1.275	0.000	909.5	1.258	0.007	1095.6	1.262	0.000	1649.3	1.295	0.005	1925.1	1.411	0.005	2037.0	1.368	1.167	2148.9	1.041	0.000	2508.6	1.201	0.000
747.5	1.274	0.008	919.2	1.264	0.007	1097.6	1.263	0.000	1658.9	1.297	0.005	1927.0	1.413	0.005	2038.9	1.295	1.154	2150.8	1.047	0.000	2518.2	1.202	0.000
757.1	1.274	0.000	928.8	1.259	0.006	1099.5	1.262	0.006	1668.5	1.299	0.001	1929.0	1.416	0.003	2040.8	1.229	1.132	2152.7	1.051	0.000	2527.9	1.204	0.000
766.8	1.273	0.008	938.4	1.264	0.006	1109.1	1.264	0.000	1678.2	1.301	0.001	1930.9	1.419	0.003	2042.8	1.167	1.108	2154.6	1.054	0.000	2537.5	1.204	0.000
776.4	1.272	0.008	948.1	1.266	0.006	1118.8	1.267	0.000	1687.8	1.302	0.005	1932.8	1.422	0.005	2044.7	1.113	1.084	2156.6	1.058	0.000	2547.2	1.205	0.000
786.1	1.271	0.000	957.7	1.266	0.006	1128.4	1.267	0.000	1697.5	1.308	0.005	1934.7	1.426	0.005	2046.6	1.062	1.057	2158.5	1.062	0.000	2556.8	1.205	0.000
795.7	1.272	0.000	967.4	1.265	0.000	1138.1	1.267	0.000	1707.1	1.306	0.014	1936.7	1.431	0.005	2048.6	1.014	1.032	2160.4	1.066	0.000	2566.5	1.205	0.000
801.5	1.274	0.007	977.0	1.265	0.006	1147.7	1.269	0.005	1716.8	1.299	0.008	1938.6	1.434	0.005	2050.5	0.968	1.005	2162.4	1.069	0.000	2576.1	1.207	0.000
803.4	1.273	0.007	986.7	1.267	0.006	1157.4	1.267	0.005	1726.4	1.304	0.005	1940.5	1.437	0.005	2052.4	0.927	0.979	2164.3	1.072	0.000	2585.8	1.208	0.000
805.3	1.272	0.000	996.3	1.267	0.006	1167.0	1.267	0.005	1736.1	1.307	0.005	1942.5	1.441	0.005	2054.3	0.886	0.952	2166.2	1.075	0.000	2595.4	1.208	0.000
807.3	1.278	0.007	1001.1	1.267	0.000	1176.7	1.266	0.005	1745.7	1.309	0.005	1944.4	1.445	0.005	2056.3	0.845	0.924	2168.1	1.078	0.000	2605.1	1.209	0.000
809.2	1.273	0.007	1003.1	1.268	0.000	1186.3	1.270	0.005	1755.3	1.312	0.002	1946.3	1.450	0.005	2058.2	0.806	0.895	2170.1	1.081	0.000	2614.7	1.209	0.000
811.1	1.279	0.000	1005.0	1.272	0.006	1196.0	1.268	0.000	1765.0	1.315	0.005	1948.2	1.454	0.005	2060.1	0.769	0.863	2172.0	1.083	0.000	2624.3	1.210	0.000
813.1	1.278	0.007	1006.9	1.270	0.006	1205.6	1.265	0.005	1774.6	1.315	0.002	1950.2	1.459	0.005	2062.1	0.733	0.835	2173.9	1.086	0.000	2634.0	1.210	0.000
815.0	1.277	0.007	1008.8	1.270	0.006	1215.2	1.266	0.005	1784.3	1.319	0.002	1952.1	1.464	0.005	2064.0	0.698	0.799	2175.9	1.089	0.000	2643.6	1.211	0.000
816.9	1.275	0.007	1010.8	1.270	0.006	1224.9	1.270	0.000	1793.9	1.323	0.002	1954.0	1.469	0.005	2065.9	0.662	0.763	2177.8	1.091	0.000	2653.3	1.211	0.000
818.8	1.279	0.007	1012.7	1.270	0.006	1234.5	1.269	0.000	1803.6	1.326	0.005	1956.0	1.475	0.005	2067.8	0.629	0.723	2179.7	1.093	0.000	2662.9	1.212	0.000
820.8	1.277	0.007	1014.6	1.270	0.006	1244.2	1.273	0.005	1813.2	1.331	0.002	1957.9	1.481	0.005	2069.8	0.599	0.685	2181.6	1.096	0.000	2672.6	1.212	0.000
822.7	1.277	0.000	1016.6	1.270	0.006	1253.8	1.272	0.005	1822.9	1.335	0.005	1959.8	1.487	0.005	2071.7	0.568	0.639	2183.6	1.098	0.000	2682.2	1.213	0.000
824.6	1.282	0.007	1018.5	1.271	0.006	1263.5	1.268	0.005	1832.5	1.339	0.002	1961.7	1.494	0.005	2073.6	0.536	0.595	2185.5	1.100	0.000	2691.9	1.214	0.000
826.6	1.281	0.000	1020.4	1.272	0.006	1273.1	1.270	0.000	1842.2	1.344	0.005	1963.7	1.502	0.005	2075.6	0.507	0.545	2187.4	1.102	0.000	2701.5	1.216	0.001
828.5	1.283	0.000	1022.3	1.273	0.006	1282.8	1.273	0.000	1851.8	1.350	0.005	1965.6	1.511	0.004	2077.5	0.478	0.481	2189.4	1.104	0.000	2711.1	1.216	0.001
830.4	1.284	0.007	1024.3	1.274	0.006	1292.4	1.273	0.005	1853.7	1.350	0.005	1967.5	1.518	0.007	2079.4	0.454	0.414	2191.3	1.106	0.000	2720.8	1.215	0.000
832.3	1.285	0.007	1026.2	1.278	0.006	1302.0	1.273	0.005	1855.7	1.352	0.005	1969.5	1.527	0.006	2081.3	0.441	0.327	2193.2	1.108	0.000	2730.4	1.215	0.000
834.3	1.285	0.007	1028.1	1.277	0.012	1311.7	1.275	0.000	1857.6	1.354	0.005	1971.4	1.538	0.006	2083.3	0.451	0.232	2195.2	1.110	0.000	2740.1	1.216	0.000
836.2	1.287	0.007	1030.1	1.279	0.012	1321.3	1.273	0.005	1859.5	1.355	0.002	1973.3	1.550	0.008	2085.2	0.492	0.144	2197.1	1.112	0.000	2749.7	1.216	0.000
838.1	1.289	0.007	1032.0	1.277	0.017	1331.0	1.272	0.005	1861.4	1.357	0.005	1975.3	1.562	0.012	2087.1	0.550	0.081	2199.0	1.113	0.000	2759.4	1.218	0.000
840.1	1.291	0.007	1033.9	1.278	0.017	1340.6	1.273	0.000	1863.4	1.358	0.005	1977.2	1.576	0.019	2089.1	0.609	0.051	2209.6	1.122	0.000	2769.0	1.217	0.001
842.0	1.295	0.007	1035.8	1.278	0.022	1350.3	1.275	0.005	1865.3	1.359	0.005	1979.1	1.587	0.030	2091.0	0.657	0.032	2219.3	1.129	0.000	2778.7	1.218	0.001
843.9	1.300	0.014	1037.8	1.274	0.028	1359.9	1.274	0.000	1867.2	1.361	0.005	1981.0	1.593	0.042	2092.9	0.698	0.024	2228.9	1.135	0.000	2788.3	1.219	0.001
845.9	1.301	0.014	1039.7	1.268	0.033	1369.6	1.275	0.005	1869.2	1.364	0.005	1983.0	1.595	0.049	2094.8	0.730	0.017	2238.6	1.141	0.000	2797.9	1.218	0.001
847.8	1.306	0.014	1041.6	1.261	0.039	1379.2	1.271	0.005	1871.1	1.365	0.008	1984.9	1.596	0.053	2096.8	0.759	0.010	2248.2	1.147	0.000	2807.6	1.220	0.001
849.7	1.318	0.014	1043.6	1.252	0.033	1388.8	1.274	0.000	1873.0	1.367	0.008	1986.8	1.598	0.048	2098.7	0.786	0.008	2257.8	1.150	0.000	2817.2	1.220	0.001
851.6	1.337	0.026	1045.5	1.247	0.028	1398.5	1.277	0.000	1874.9	1.368	0.011	1988.8	1.606	0.041	2100.6	0.808	0.002	2267.5	1.154	0.000	2826.9	1.221	0.001
853.6	1.347	0.070	1047.4	1.243	0.017	1408.1	1.277	0.000	1876.9	1.369	0.014	1990.7	1.620	0.031	2102.6	0.829	0.000	2277.1	1.159	0.000	2836.5	1.221	0.001
855.5	1.327	0.123	1049.4	1.247	0.011	1417.8	1.278	0.005	1878.8	1.369	0.017	1992.6	1.640	0.023	2104.5	0.847	0.000	2286.8	1.162	0.000	2846.2	1.222	0.000
857.4	1.271	0.155	1051.3	1.248	0.006	1427.4	1.277	0.000	1880.7	1.368	0.017	1994.5	1.665	0.019	2106.4	0.864	0.000	2296.4	1.165	0.000	2855.8	1.223	0.000
859.4	1.210	0.133	1053.2	1.252	0.006	1437.1	1.280	0.005	1882.7	1.367	0.017	1996.5	1.691	0.019	2108.3	0.881	0.000	2306.1	1.167	0.000	2865.5	1.226	0.001
861.3	1.182	0.077	1055.1	1.254	0.006	1446.7	1.279	0.000	1884.6	1.367	0.017	1998.4	1.718	0.022	2110.3	0.894	0.000	2315.7	1.172	0.000	2875.1	1.232	0.008
863.2	1.190	0.027	1057.1	1.253	0.006	1456.4	1.281	0.005	1886.5	1.367	0.016	2000.3	1.747	0.022	2112.2	0.908	0.000	2325.4	1.177	0.000	2884.8	1.221	0.013
865.1	1.208	0.006	1059.0	1.258	0.000	1466.0	1.280	0.000	1888.4	1.365	0.016	2002.3	1.781	0.023	2114.1	0.918	0.000	2335.0	1.181	0.000	2894.4	1.217	0.009
867.1	1.225	0.007	1060.9	1.258	0.006	1475.7	1.280	0.000	1890.4	1.366	0.014	2004.2	1.821	0.021	2116.1	0.931	0.000	2344.6	1.170	0.000	2904.0	1.216	0.007
869.0	1.234	0.000	1062.9	1.256	0.006	1485.3	1.282	0.000	1892.3	1.366	0.011	2006.1	1.871	0.022	2118.0	0.941	0.000	2354.3	1.178	0.000	2913.7	1.216	0.005
870.9	1.240	0.007	1064.8	1.260	0.000	1494.9	1.284	0.000	1894.2	1.368	0.011	2008.0	1.934	0.025	2119.9	0.950	0.000	2363.9	1.183	0.000	2923.3	1.216	0.003
872.9	1.243	0.007	1066.7	1.260	0.000	1504.6	1.286	0.005	1896.2	1.369	0.008	2010.0	2.018	0.030	2121.9	0.958	0.000	2373.6	1.183	0.000	2933.0	1.216	0.000
874.8	1.246	0.007	1068.6	1.261	0.000	1514.2	1.285	0.005	1898.1	1.373	0.005	2011.9	2.139	0.046	2123.8	0.967	0.000	2383.2	1.187	0.000	2942.6	1.217	0.000
876.7	1.248	0.007	1070.6	1.260	0.006	1523.9	1.285	0.000	1900.0	1.376	0.005	2013.8	2.318	0.138	2125.7	0.975	0.000	2392.9	1.188	0.000	2952.3	1.219	0.000
878.6	1.250	0.007	1072.5	1.261	0.006	1533.5	1.286	0.005	1901.9	1.378	0.005	2015.8	2.430	0.428	2127.6	0.983	0.000	2402.5	1.187	0.000	2961.9	1.219	0.000
880.6	1.251	0.007	1074.4	1.264	0.000	1543.2	1.286	0.005	1903.9	1.381	0.005	2017.7	2.373	0.699	2129.6	0.989	0.000	2412.2	1.191	0.000	2971.6	1.220	0.000
882.5	1.252	0.007	1076.4	1.263	0.006	1552.8	1.286	0.005	1905.8	1.383	0.005	2019.6	2.259	0.867	2131.5	0.994	0.000	2421.8	1.193	0.000	2981.2	1.220	0.000
884.4	1.253	0.007	1078.3	1.262	0.006	1562.5	1.287	0.001	1907.7	1.384	0.005	2021.5	2.137	0.976	2133.4	1.001	0.000	2431.4	1.194	0.000	2990.8	1.222	0.001
886.4	1.254	0.007	1080.2	1.261	0.006	1572.1	1.289	0.005	1909.7	1.388	0.003	2023.5	2.022	1.050	2135.4	1.008	0.000	2441.1	1.194	0.000			
888.3	1.255	0.007	1082.1	1.260	0.000	1581.7	1.289	0.005	1911.6	1.390	0.003	2025.4	1.912	1.103	2137.3	1.014	0.000	2450.7	1.196	0.000			
890.2	1.255	0.007	1084.1	1.264	0.006	1591.4	1.290	0.005	1913.5	1.394	0.005	2027.3	1.807	1.140	2139.2	1.019	0.000	2460.4	1.198	0.000			
892.1	1.256	0.007	1086.0	1.262	0.006	1601.0	1.290	0.005	1915.5	1.396	0.005	2029.3	1.710	1.162	2141.1	1.024	0.000	2470.0	1.198	0.000			
894.1	1.256	0.007	1087.9	1.262	0.000	1610.7	1.293	0.001	1917.4	1.400	0.003												

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TABLE 8C

OCS AT 60 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
708.9	1.268	0.008	896.0	1.255	0.007	1089.9	1.259	0.006	1620.3	1.284	0.004	1919.3	1.379	0.005	2031.2	1.294	0.680	2143.1	1.078	0.000	2479.7	1.207	0.000
718.5	1.268	0.008	897.9	1.252	0.007	1091.8	1.261	0.006	1630.0	1.284	0.004	1921.2	1.382	0.005	2033.1	1.275	0.677	2145.0	1.082	0.000	2489.3	1.208	0.000
728.2	1.269	0.008	899.9	1.255	0.000	1093.7	1.260	0.000	1639.6	1.285	0.004	1923.2	1.384	0.005	2035.0	1.254	0.682	2146.9	1.085	0.000	2499.0	1.208	0.000
737.8	1.267	0.008	909.5	1.255	0.000	1095.6	1.261	0.000	1649.3	1.285	0.004	1925.1	1.387	0.005	2037.0	1.225	0.687	2148.9	1.088	0.000	2508.6	1.209	0.000
747.5	1.267	0.000	919.2	1.258	0.006	1097.6	1.261	0.006	1658.9	1.286	0.004	1927.0	1.390	0.005	2038.9	1.191	0.682	2150.8	1.091	0.000	2518.3	1.211	0.000
757.1	1.266	0.008	928.8	1.258	0.006	1099.5	1.260	0.006	1668.5	1.288	0.004	1929.0	1.393	0.005	2040.8	1.162	0.672	2152.7	1.093	0.000	2527.9	1.210	0.000
766.8	1.265	0.008	938.4	1.262	0.006	1109.2	1.262	0.000	1678.2	1.288	0.001	1930.9	1.396	0.005	2042.8	1.138	0.658	2154.6	1.096	0.000	2537.5	1.211	0.001
776.4	1.263	0.000	948.1	1.262	0.000	1118.8	1.262	0.005	1687.8	1.289	0.004	1932.8	1.399	0.005	2044.7	1.122	0.653	2156.6	1.098	0.000	2547.2	1.212	0.001
786.1	1.265	0.000	957.7	1.263	0.006	1128.4	1.259	0.000	1697.5	1.296	0.005	1934.7	1.403	0.005	2046.6	1.096	0.657	2158.5	1.101	0.000	2556.8	1.212	0.001
795.7	1.264	0.000	967.4	1.263	0.000	1138.1	1.263	0.000	1707.1	1.300	0.034	1936.7	1.406	0.005	2048.6	1.063	0.656	2160.4	1.105	0.000	2566.5	1.213	0.001
801.5	1.268	0.007	977.0	1.263	0.006	1147.7	1.262	0.000	1716.8	1.289	0.004	1938.6	1.410	0.005	2050.5	1.030	0.647	2162.4	1.107	0.000	2576.1	1.213	0.000
803.4	1.266	0.007	986.7	1.264	0.006	1157.4	1.263	0.005	1726.4	1.292	0.004	1940.5	1.415	0.005	2052.4	0.998	0.632	2164.3	1.110	0.000	2585.8	1.214	0.001
805.3	1.264	0.007	996.3	1.262	0.006	1167.0	1.262	0.000	1736.1	1.292	0.004	1942.5	1.419	0.005	2054.3	0.970	0.611	2166.2	1.112	0.000	2595.4	1.214	0.001
807.3	1.269	0.000	1001.1	1.263	0.006	1176.7	1.262	0.005	1745.7	1.296	0.001	1944.4	1.423	0.008	2056.3	0.943	0.593	2168.1	1.115	0.000	2605.1	1.215	0.000
809.2	1.268	0.007	1003.1	1.263	0.006	1186.3	1.263	0.005	1755.3	1.298	0.001	1946.3	1.426	0.008	2058.2	0.921	0.572	2170.1	1.117	0.000	2614.7	1.215	0.001
811.1	1.268	0.000	1005.0	1.263	0.006	1196.0	1.263	0.000	1765.0	1.301	0.001	1948.2	1.431	0.008	2060.1	0.897	0.551	2172.0	1.119	0.000	2624.3	1.216	0.000
813.1	1.268	0.007	1006.9	1.263	0.006	1205.6	1.262	0.005	1774.6	1.303	0.002	1950.2	1.436	0.008	2062.1	0.876	0.529	2173.9	1.121	0.000	2634.0	1.217	0.000
815.0	1.267	0.000	1008.8	1.263	0.006	1215.2	1.263	0.000	1784.3	1.306	0.002	1952.1	1.441	0.008	2064.0	0.856	0.510	2175.9	1.123	0.000	2643.6	1.217	0.000
816.9	1.269	0.000	1010.8	1.263	0.006	1224.9	1.265	0.005	1793.9	1.309	0.002	1954.0	1.447	0.008	2065.9	0.835	0.485	2177.8	1.125	0.000	2653.3	1.217	0.001
818.8	1.268	0.007	1012.7	1.263	0.006	1234.5	1.266	0.000	1803.6	1.310	0.002	1956.0	1.452	0.008	2067.8	0.817	0.459	2179.7	1.126	0.000	2662.9	1.218	0.000
820.8	1.271	0.007	1014.6	1.263	0.006	1244.2	1.266	0.005	1813.2	1.314	0.002	1957.9	1.459	0.010	2069.8	0.800	0.432	2181.6	1.128	0.000	2672.6	1.217	0.001
822.7	1.269	0.007	1016.6	1.263	0.006	1253.8	1.265	0.000	1822.9	1.319	0.002	1959.8	1.465	0.010	2071.7	0.784	0.404	2183.6	1.130	0.000	2682.2	1.219	0.001
824.6	1.267	0.007	1018.5	1.262	0.006	1263.5	1.263	0.005	1832.5	1.322	0.002	1961.7	1.473	0.010	2073.6	0.770	0.374	2185.5	1.132	0.000	2691.9	1.219	0.001
826.6	1.271	0.007	1020.4	1.265	0.006	1273.1	1.265	0.005	1842.2	1.327	0.002	1963.7	1.481	0.012	2075.6	0.756	0.339	2187.4	1.133	0.000	2701.5	1.219	0.000
828.5	1.269	0.000	1022.3	1.267	0.006	1282.8	1.266	0.000	1851.8	1.332	0.005	1965.6	1.488	0.012	2077.5	0.747	0.302	2189.4	1.135	0.000	2711.1	1.220	0.000
830.4	1.274	0.007	1024.3	1.265	0.006	1292.4	1.265	0.000	1853.7	1.332	0.005	1967.5	1.497	0.012	2079.4	0.743	0.264	2191.3	1.136	0.000	2720.8	1.220	0.001
832.3	1.270	0.007	1026.2	1.269	0.006	1302.0	1.267	0.000	1855.7	1.335	0.005	1969.5	1.509	0.012	2081.3	0.743	0.225	2193.2	1.138	0.000	2730.4	1.220	0.001
834.3	1.275	0.000	1028.1	1.269	0.006	1311.7	1.268	0.000	1857.6	1.335	0.005	1971.4	1.521	0.014	2083.3	0.748	0.186	2195.1	1.139	0.000	2740.1	1.221	0.001
836.2	1.276	0.000	1030.1	1.272	0.006	1321.3	1.265	0.005	1859.5	1.336	0.005	1973.3	1.535	0.018	2085.2	0.757	0.153	2197.1	1.140	0.000	2749.7	1.221	0.000
838.1	1.276	0.007	1032.0	1.271	0.011	1331.0	1.266	0.005	1861.4	1.337	0.005	1975.3	1.552	0.020	2087.1	0.773	0.106	2199.0	1.142	0.000	2759.4	1.221	0.000
840.1	1.278	0.000	1033.9	1.271	0.011	1340.6	1.266	0.005	1863.4	1.338	0.005	1977.2	1.573	0.031	2089.1	0.804	0.070	2209.6	1.148	0.000	2769.0	1.222	0.001
842.0	1.280	0.007	1035.8	1.273	0.011	1350.3	1.269	0.005	1865.3	1.340	0.005	1979.1	1.592	0.054	2091.0	0.848	0.055	2219.3	1.154	0.000	2778.7	1.222	0.000
843.9	1.282	0.007	1037.8	1.277	0.017	1359.9	1.268	0.005	1867.2	1.341	0.005	1981.0	1.597	0.082	2092.9	0.855	0.095	2228.9	1.157	0.000	2788.3	1.222	0.001
845.9	1.285	0.014	1039.7	1.283	0.028	1369.6	1.266	0.000	1869.2	1.343	0.005	1983.0	1.581	0.143	2094.8	0.855	0.046	2238.6	1.163	0.000	2797.9	1.222	0.001
847.8	1.283	0.007	1041.6	1.272	0.061	1379.2	1.265	0.005	1871.1	1.344	0.005	1984.9	1.523	0.095	2096.8	0.870	0.039	2248.2	1.166	0.000	2807.6	1.224	0.001
849.7	1.291	0.007	1043.6	1.224	0.039	1388.8	1.267	0.000	1873.0	1.347	0.005	1986.8	1.552	0.041	2098.7	0.891	0.017	2257.8	1.170	0.000	2817.2	1.225	0.000
851.6	1.302	0.007	1045.5	1.233	0.011	1398.5	1.268	0.000	1874.9	1.350	0.005	1988.8	1.591	0.032	2100.6	0.913	0.011	2267.5	1.172	0.000	2826.9	1.226	0.001
853.6	1.316	0.020	1047.4	1.243	0.006	1408.1	1.269	0.000	1876.9	1.354	0.008	1990.7	1.627	0.032	2102.6	0.933	0.008	2277.1	1.175	0.000	2836.5	1.224	0.000
855.5	1.352	0.032	1049.4	1.246	0.006	1417.8	1.272	0.000	1878.8	1.359	0.011	1992.6	1.664	0.035	2104.5	0.947	0.006	2286.8	1.179	0.000	2846.2	1.227	0.000
857.4	1.310	0.244	1051.3	1.248	0.000	1427.4	1.271	0.000	1880.7	1.356	0.025	1994.5	1.707	0.045	2106.4	0.959	0.007	2296.4	1.182	0.000	2855.8	1.227	0.001
859.4	1.170	0.100	1053.2	1.254	0.000	1437.1	1.270	0.005	1882.7	1.349	0.025	1996.5	1.756	0.062	2108.3	0.972	0.004	2306.1	1.185	0.000	2865.5	1.230	0.002
861.3	1.184	0.034	1055.1	1.255	0.000	1446.7	1.272	0.005	1884.6	1.346	0.025	1998.4	1.799	0.105	2110.3	0.983	0.005	2315.7	1.189	0.000	2875.1	1.233	0.006
863.2	1.210	0.006	1057.1	1.255	0.006	1456.4	1.273	0.005	1886.5	1.341	0.022	2000.3	1.856	0.089	2112.2	0.991	0.005	2325.4	1.190	0.000	2884.8	1.227	0.013
865.1	1.224	0.007	1059.0	1.255	0.000	1466.0	1.273	0.000	1888.4	1.339	0.016	2002.3	2.010	0.136	2114.1	0.999	0.002	2335.0	1.194	0.011	2894.4	1.220	0.011
867.1	1.236	0.007	1060.9	1.255	0.006	1475.7	1.273	0.000	1890.4	1.340	0.011	2004.2	2.062	0.461	2116.1	1.008	0.003	2344.6	1.189	0.000	2904.0	1.219	0.005
869.0	1.237	0.007	1062.9	1.254	0.000	1485.3	1.275	0.000	1892.3	1.344	0.008	2006.1	1.917	0.614	2118.0	1.015	0.003	2354.3	1.192	0.000	2913.7	1.219	0.005
870.9	1.243	0.007	1064.8	1.259	0.000	1494.9	1.278	0.000	1894.2	1.346	0.005	2008.0	1.801	0.648	2119.9	1.020	0.004	2363.9	1.194	0.000	2923.3	1.221	0.003
872.9	1.246	0.007	1066.7	1.258	0.006	1504.6	1.279	0.000	1896.2	1.350	0.005	2010.0	1.722	0.658	2121.9	1.027	0.000	2373.6	1.195	0.000	2933.0	1.221	0.001
874.8	1.250	0.007	1068.6	1.255	0.006	1514.2	1.278	0.005	1898.1	1.352	0.005	2011.9	1.662	0.665	2123.8	1.033	0.001	2383.2	1.196	0.000	2942.6	1.222	0.001
876.7	1.248	0.007	1070.6	1.258	0.000	1523.9	1.276	0.005	1900.0	1.354	0.005	2013.8	1.615	0.673	2125.7	1.038	0.002	2392.9	1.198	0.000	2952.3	1.222	0.001
878.6	1.248	0.000	1072.5	1.260	0.006	1533.5	1.277	0.005	1901.9	1.357	0.005	2015.8	1.573	0.679	2127.6	1.043	0.000	2402.5	1.198	0.000	2961.9	1.223	0.001
880.6	1.254	0.007	1074.4	1.257	0.006	1543.2	1.277	0.004	1903.9	1.360	0.002	2017.7	1.533	0.687	2129.6	1.049	0.000	2412.2	1.200	0.000	2971.6	1.223	0.001
882.5	1.252	0.007	1076.4	1.258	0.006	1552.8	1.278	0.005	1905.8	1.361	0.002	2019.6	1.494	0.693	2131.5	1.054	0.000	2421.8	1.202	0.000	2981.2	1.223	0.000
884.4	1.252	0.007	1078.3	1.260	0.000	1562.5	1.278	0.004	1907.7	1.365	0.003	2021.5	1.456	0.697	2133.4	1.059	0.000	2431.4	1.201	0.000	2990.8	1.225	0.001
886.4	1.251	0.007	1080.2	1.258	0.006	1572.1	1.278	0.004	1909.7	1.368	0.003	2023.5	1.421	0.701	2135.4	1.063	0.000	2441.1	1.204	0.000			
888.3	1.251	0.000	1082.1	1.260	0.000	1581.7	1.280	0.004	1911.6	1.369	0.003	2025.4	1.385	0.698	2137.3	1.066	0.000	2450.7	1.206	0.000			
890.2	1.254	0.007	1084.1	1.262	0.006	1591.4	1.279	0.004	1913.5	1.373	0.005	2027.3	1.353	0.696	2139.2	1.069	0.000	2460.4	1.205	0.000			
892.1	1.257	0.000	1086.0	1.259	0.006	1601.0	1.281	0.000	1915.5	1.376	0.005	2029.3	1.320	0.691	2141.1	1.074	0.000	2470.0	1.206	0.000			
894.1	1.256	0.007	1087.9	1.261	0.006	1610.7	1.284	0.001	1917.4	1.377	0.005												

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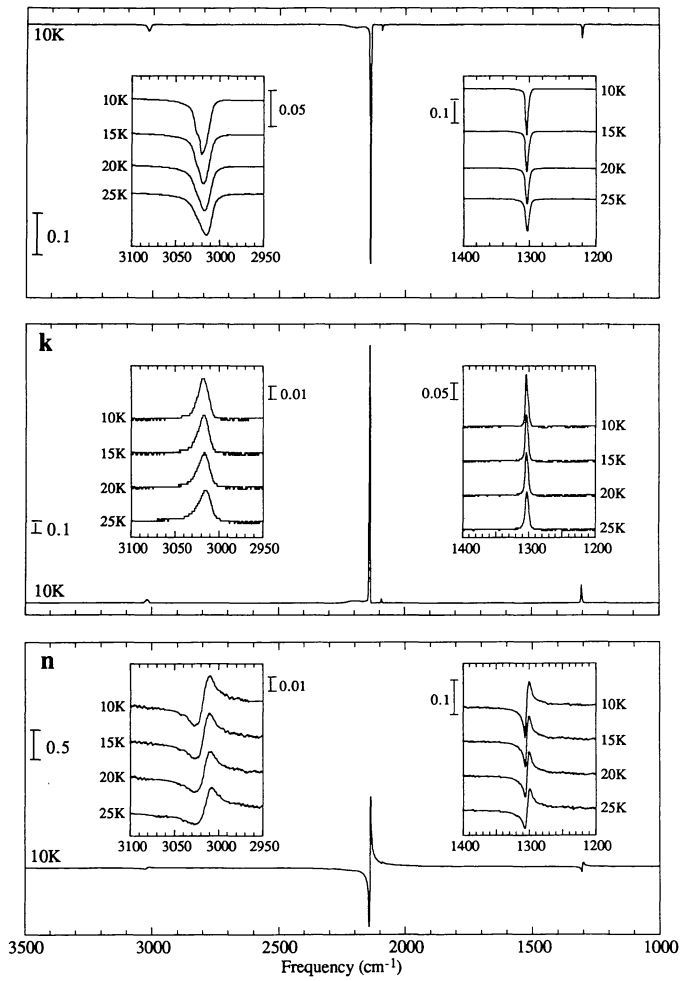

FIG. 9.—The 3500 to 1000 cm^{-1} transmission spectrum and optical constants (n and k) of a $CO:CH_4$ = 20:1 ice mixture at 10 K. The insets show expansions of the CH_4 features in the 3100 to 2950 cm^{-1} and 1400 to 1200 cm^{-1} regions for the ice at temperatures of 10, 15, 20, and 25 K. The original ice was deposited at 10 K.

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TABLE 9A

$CO:CH_4$ = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1007.9	1.313	0.006	1230.7	1.309	0.005	1287.6	1.324	0.005	1344.5	1.301	0.004	1408.6	1.304	0.004	1829.6	1.313	0.003	2147.9	0.880	0.030	2457.5	1.290	0.002
1016.6	1.311	0.006	1231.6	1.308	0.000	1288.5	1.325	0.005	1345.4	1.299	0.004	1413.0	1.304	0.000	1838.3	1.314	0.003	2150.8	1.000	0.020	2466.2	1.289	0.002
1025.2	1.309	0.006	1232.6	1.312	0.005	1289.5	1.326	0.005	1346.4	1.300	0.000	1417.3	1.306	0.004	1847.0	1.313	0.003	2153.7	1.065	0.016	2474.8	1.289	0.002
1033.9	1.312	0.006	1233.6	1.310	0.005	1290.5	1.327	0.005	1347.4	1.301	0.004	1421.6	1.303	0.004	1855.7	1.315	0.000	2156.6	1.107	0.015	2483.5	1.290	0.000
1042.6	1.309	0.006	1234.5	1.310	0.000	1291.4	1.329	0.005	1348.3	1.300	0.004	1426.0	1.307	0.004	1864.3	1.315	0.003	2159.5	1.137	0.016	2492.2	1.290	0.002
1051.3	1.311	0.000	1235.5	1.310	0.005	1292.4	1.331	0.005	1349.3	1.300	0.004	1430.3	1.305	0.000	1873.0	1.315	0.003	2162.4	1.160	0.014	2500.9	1.290	0.002
1060.0	1.312	0.000	1236.5	1.310	0.005	1293.4	1.333	0.005	1350.3	1.300	0.004	1434.7	1.308	0.000	1881.7	1.315	0.003	2165.3	1.177	0.014	2509.6	1.291	0.002
1068.6	1.310	0.006	1237.4	1.309	0.005	1294.3	1.336	0.005	1351.2	1.300	0.004	1439.0	1.305	0.004	1890.4	1.315	0.003	2168.1	1.190	0.014	2518.2	1.291	0.002
1077.3	1.308	0.006	1238.4	1.307	0.005	1295.3	1.340	0.005	1352.2	1.300	0.004	1443.3	1.305	0.000	1899.1	1.317	0.003	2171.0	1.201	0.015	2526.9	1.291	0.002
1086.0	1.308	0.006	1239.4	1.309	0.000	1296.3	1.347	0.005	1353.2	1.300	0.004	1447.7	1.303	0.000	1907.7	1.316	0.003	2173.9	1.210	0.015	2535.6	1.291	0.002
1094.7	1.309	0.000	1240.3	1.310	0.000	1297.2	1.354	0.009	1354.1	1.300	0.004	1452.0	1.304	0.004	1916.4	1.317	0.003	2176.8	1.218	0.015	2544.3	1.291	0.002
1103.4	1.310	0.000	1241.3	1.312	0.000	1298.2	1.360	0.018	1355.1	1.300	0.004	1456.4	1.305	0.000	1925.1	1.320	0.003	2179.7	1.223	0.018	2553.0	1.291	0.002
1112.0	1.308	0.005	1242.2	1.314	0.005	1299.2	1.369	0.027	1356.1	1.299	0.004	1460.7	1.306	0.004	1933.8	1.318	0.003	2182.6	1.228	0.018	2561.7	1.291	0.002
1120.7	1.308	0.000	1243.2	1.312	0.000	1300.1	1.378	0.044	1357.0	1.302	0.000	1465.0	1.304	0.004	1942.5	1.319	0.003	2185.5	1.231	0.018	2570.3	1.292	0.002
1129.4	1.312	0.000	1244.2	1.312	0.005	1301.1	1.375	0.066	1358.0	1.301	0.004	1469.4	1.306	0.004	1951.1	1.323	0.003	2188.4	1.235	0.018	2579.0	1.292	0.002
1138.1	1.310	0.000	1245.1	1.311	0.005	1302.0	1.366	0.088	1358.9	1.301	0.004	1473.7	1.304	0.004	1959.8	1.322	0.003	2191.3	1.239	0.018	2587.7	1.293	0.002
1146.8	1.308	0.005	1246.1	1.313	0.005	1303.0	1.355	0.111	1359.9	1.299	0.004	1478.1	1.305	0.000	1968.5	1.321	0.003	2194.2	1.240	0.021	2596.4	1.292	0.002
1153.0	1.306	0.005	1247.1	1.312	0.005	1304.0	1.328	0.145	1360.9	1.302	0.000	1482.4	1.307	0.000	1977.2	1.323	0.003	2197.1	1.241	0.021	2605.1	1.291	0.002
1157.4	1.308	0.005	1248.0	1.312	0.005	1304.9	1.272	0.154	1361.8	1.301	0.004	1486.7	1.308	0.000	1985.9	1.326	0.003	2200.0	1.242	0.018	2613.7	1.294	0.002
1161.7	1.309	0.000	1249.0	1.312	0.005	1305.9	1.232	0.118	1362.8	1.303	0.004	1491.1	1.305	0.000	1994.5	1.325	0.000	2202.9	1.243	0.018	2622.4	1.293	0.002
1166.1	1.308	0.005	1250.0	1.312	0.005	1306.9	1.214	0.066	1363.8	1.302	0.000	1495.4	1.308	0.004	2003.2	1.328	0.000	2205.8	1.245	0.018	2631.1	1.293	0.002
1170.4	1.308	0.005	1250.9	1.312	0.005	1307.8	1.229	0.032	1364.7	1.302	0.004	1499.8	1.305	0.000	2011.9	1.330	0.000	2208.7	1.246	0.018	2639.8	1.292	0.002
1174.7	1.308	0.005	1251.9	1.312	0.005	1308.8	1.243	0.018	1365.7	1.300	0.004	1508.4	1.305	0.004	2020.6	1.332	0.000	2211.5	1.246	0.018	2648.5	1.293	0.000
1179.1	1.309	0.005	1252.9	1.312	0.005	1309.8	1.254	0.013	1366.7	1.304	0.000	1517.1	1.304	0.004	2029.3	1.335	0.004	2214.4	1.247	0.015	2657.1	1.294	0.002
1183.4	1.308	0.005	1253.8	1.312	0.005	1310.7	1.263	0.009	1367.6	1.303	0.004	1525.8	1.305	0.000	2037.9	1.336	0.000	2217.3	1.248	0.015	2665.8	1.294	0.002
1187.8	1.307	0.005	1254.8	1.312	0.005	1311.7	1.267	0.009	1368.6	1.303	0.004	1534.5	1.305	0.000	2046.6	1.340	0.000	2220.2	1.248	0.013	2674.5	1.293	0.002
1192.1	1.310	0.005	1255.8	1.312	0.005	1312.7	1.273	0.004	1369.6	1.302	0.004	1543.2	1.306	0.000	2052.4	1.343	0.000	2223.1	1.249	0.013	2683.2	1.294	0.002
1196.4	1.308	0.005	1256.7	1.312	0.005	1313.6	1.277	0.004	1370.5	1.302	0.004	1551.8	1.306	0.000	2055.3	1.345	0.000	2226.0	1.249	0.010	2691.9	1.294	0.002
1200.8	1.311	0.005	1257.7	1.312	0.005	1314.6	1.280	0.004	1371.5	1.301	0.004	1560.5	1.307	0.000	2058.2	1.347	0.004	2228.9	1.251	0.010	2700.5	1.293	0.002
1201.7	1.310	0.005	1258.6	1.312	0.005	1315.5	1.283	0.004	1372.5	1.303	0.004	1569.2	1.307	0.000	2061.1	1.348	0.000	2231.8	1.253	0.007	2709.2	1.294	0.002
1202.7	1.309	0.005	1259.6	1.312	0.005	1316.5	1.285	0.004	1373.4	1.302	0.004	1577.9	1.306	0.000	2064.0	1.350	0.000	2234.7	1.255	0.007	2717.9	1.293	0.002
1203.7	1.309	0.005	1260.6	1.312	0.005	1317.5	1.287	0.004	1374.4	1.301	0.004	1586.6	1.308	0.000	2066.9	1.354	0.000	2237.6	1.255	0.007	2726.6	1.294	0.002
1204.6	1.309	0.005	1261.5	1.312	0.005	1318.4	1.288	0.004	1375.3	1.300	0.000	1595.2	1.308	0.000	2069.8	1.354	0.004	2240.5	1.258	0.004	2735.3	1.293	0.002
1205.6	1.309	0.005	1262.5	1.312	0.005	1319.4	1.289	0.004	1376.3	1.303	0.000	1603.9	1.309	0.000	2072.7	1.357	0.000	2243.4	1.260	0.004	2743.9	1.294	0.002
1206.6	1.309	0.005	1263.5	1.312	0.005	1320.4	1.290	0.004	1377.3	1.305	0.004	1612.6	1.308	0.000	2075.6	1.358	0.004	2246.3	1.261	0.004	2751.7	1.296	0.002
1207.5	1.309	0.005	1264.4	1.312	0.005	1321.3	1.291	0.004	1378.2	1.304	0.000	1621.3	1.308	0.004	2078.4	1.362	0.000	2249.2	1.262	0.004	2756.0	1.295	0.002
1208.5	1.308	0.005	1265.4	1.312	0.005	1322.3	1.292	0.004	1379.2	1.304	0.004	1630.0	1.310	0.004	2081.3	1.365	0.001	2257.8	1.264	0.004	2760.3	1.295	0.002
1209.5	1.308	0.005	1266.4	1.310	0.005	1323.3	1.293	0.004	1380.2	1.303	0.004	1638.6	1.310	0.004	2084.2	1.372	0.001	2266.5	1.268	0.002	2764.7	1.296	0.000
1210.4	1.308	0.005	1267.3	1.314	0.000	1324.2	1.293	0.004	1381.1	1.302	0.004	1647.3	1.307	0.004	2087.1	1.378	0.004	2275.2	1.271	0.002	2769.0	1.294	0.002
1211.4	1.308	0.005	1268.3	1.314	0.005	1325.2	1.294	0.004	1382.1	1.304	0.004	1656.0	1.309	0.000	2090.0	1.383	0.009	2283.9	1.273	0.002	2773.4	1.294	0.000
1212.3	1.308	0.000	1269.3	1.313	0.005	1326.2	1.294	0.004	1383.1	1.303	0.004	1664.7	1.308	0.000	2092.9	1.367	0.040	2292.6	1.275	0.002	2777.7	1.294	0.002
1213.3	1.309	0.005	1270.2	1.313	0.005	1327.1	1.295	0.004	1384.0	1.302	0.004	1673.4	1.308	0.004	2095.8	1.369	0.004	2301.2	1.276	0.002	2782.0	1.295	0.002
1214.3	1.308	0.005	1271.2	1.312	0.005	1328.1	1.295	0.004	1385.0	1.304	0.004	1682.0	1.310	0.000	2098.7	1.379	0.001	2309.9	1.278	0.002	2786.4	1.296	0.002
1215.2	1.308	0.005	1272.1	1.310	0.005	1329.1	1.296	0.004	1386.0	1.303	0.004	1690.7	1.309	0.000	2101.6	1.389	0.001	2318.6	1.279	0.002	2790.7	1.296	0.002
1216.2	1.307	0.005	1273.1	1.312	0.000	1330.0	1.296	0.004	1386.9	1.301	0.004	1699.4	1.309	0.000	2104.5	1.398	0.004	2327.3	1.280	0.002	2795.1	1.295	0.002
1217.2	1.309	0.005	1274.1	1.314	0.000	1331.0	1.296	0.004	1387.9	1.303	0.004	1708.1	1.308	0.000	2107.4	1.406	0.004	2336.0	1.281	0.002	2799.4	1.296	0.002
1218.1	1.307	0.005	1275.0	1.315	0.000	1331.9	1.297	0.004	1388.8	1.303	0.000	1716.8	1.308	0.000	2110.3	1.416	0.004	2344.6	1.283	0.002	2803.7	1.295	0.000
1219.1	1.309	0.005	1276.0	1.317	0.000	1332.9	1.297	0.004	1389.8	1.303	0.004	1725.4	1.310	0.004	2113.2	1.427	0.004	2353.3	1.282	0.002	2808.1	1.295	0.002
1220.1	1.308	0.005	1277.0	1.319	0.000	1333.9	1.297	0.004	1390.8	1.302	0.004	1734.1	1.310	0.000	2116.1	1.443	0.001	2362.0	1.283	0.002	2812.4	1.296	0.000
1221.0	1.307	0.000	1277.9	1.318	0.000	1334.8	1.298	0.004	1391.7	1.302	0.004	1742.8	1.311	0.000	2119.0	1.464	0.001	2370.7	1.284	0.002	2816.8	1.296	0.002
1222.0	1.307	0.000	1278.9	1.317	0.005	1335.8	1.298	0.004	1392.7	1.300	0.004	1751.5	1.311	0.000	2121.9	1.490	0.003	2379.4	1.284	0.002	2821.1	1.295	0.002
1223.0	1.310	0.000	1279.9	1.319	0.005	1336.8	1.298	0.004	1393.7	1.301	0.000	1760.2	1.312	0.000	2124.7	1.527	0.000	2388.0	1.286	0.002	2825.4	1.295	0.002
1223.9	1.312	0.005	1280.8	1.318	0.000	1337.7	1.298	0.004	1394.6	1.303	0.000	1768.9	1.313	0.000	2127.6	1.584	0.000	2396.7	1.286	0.002	2829.8	1.295	0.002
1224.9	1.310	0.005	1281.8	1.320	0.005	1338.7	1.298	0.004	1395.6	1.305	0.000	1777.5	1.312	0.004	2130.5	1.679	0.000	2405.4	1.286	0.002	2834.1	1.295	0.002
1225.9	1.308	0.005	1282.8	1.322	0.005	1339.7	1.299	0.004	1396.6	1.303	0.000	1786.2	1.312	0.000	2133.4	1.892	0.000	2414.1	1.286	0.002	2838.5	1.295	0.000
1226.8	1.308	0.000	1283.7	1.321	0.005	1340.6	1.299	0.004	1397.5	1.305	0.000	1794.9	1.314	0.000	2136.3	2.441	0.370	2422.8	1.287	0.002	2842.8	1.295	0.002
1227.8	1.312	0.000	1284.7	1.320	0.005	1341.6	1.299	0.004	1398.5	1.305	0.004	1803.6	1.313	0.000	2139.2	1.533	2.217	2431.4	1.288	0.000	2847.1	1.295	0.002
1228.7	1.311	0.005	1285.6	1.324	0.005	1342.6	1.299	0.004	1399.5	1.305	0.004	1812.3	1.312	0.000	2142.1	0.380	1.035	2440.1	1.288	0.002	2851.5	1.295	0.002
1229.7	1.310	0.005	1286.6	1.323	0.005	1343.5	1.298	0.004	1404.3	1.304	0.004	1820.9	1.313	0.003	2145.0	0.580	0.065	2448.8	1.287	0.002	2855.8	1.296	0.002

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TABLE 9A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2860.2	1.296	0.002	2987.5	1.298	0.002	3044.4	1.288	0.002	3108.5	1.293	0.002
2864.5	1.295	0.002	2988.4	1.299	0.000	3045.3	1.288	0.002	3112.9	1.294	0.002
2868.8	1.296	0.000	2989.4	1.300	0.000	3046.3	1.289	0.002	3117.2	1.293	0.000
2873.2	1.296	0.002	2990.4	1.301	0.000	3047.3	1.289	0.002	3121.5	1.293	0.002
2877.5	1.295	0.002	2991.3	1.301	0.002	3048.2	1.289	0.002	3125.9	1.294	0.000
2881.9	1.296	0.002	2992.3	1.301	0.002	3049.2	1.289	0.002	3130.2	1.293	0.002
2886.2	1.296	0.002	2993.3	1.300	0.000	3050.2	1.290	0.002	3134.6	1.294	0.000
2890.5	1.296	0.002	2994.2	1.301	0.002	3051.1	1.290	0.002	3138.9	1.295	0.002
2894.9	1.296	0.002	2995.2	1.302	0.000	3052.1	1.290	0.002	3143.2	1.295	0.002
2899.2	1.296	0.002	2996.1	1.302	0.002	3053.1	1.290	0.002	3147.6	1.294	0.002
2903.6	1.296	0.002	2997.1	1.303	0.002	3054.0	1.290	0.002	3151.9	1.295	0.000
2907.9	1.296	0.002	2998.1	1.302	0.002	3055.0	1.290	0.002	3156.3	1.294	0.000
2912.2	1.296	0.002	2999.0	1.304	0.002	3055.9	1.291	0.002	3160.6	1.295	0.002
2916.6	1.296	0.002	3000.0	1.304	0.002	3056.9	1.291	0.002	3164.9	1.294	0.002
2920.9	1.296	0.002	3001.0	1.304	0.002	3057.9	1.291	0.002	3169.3	1.295	0.002
2925.3	1.296	0.002	3001.9	1.305	0.002	3058.8	1.291	0.002	3173.6	1.296	0.000
2929.6	1.296	0.002	3002.9	1.305	0.002	3059.8	1.291	0.002	3178.0	1.295	0.000
2933.9	1.297	0.002	3003.9	1.306	0.002	3060.8	1.291	0.002	3182.3	1.295	0.002
2938.3	1.296	0.000	3004.8	1.308	0.002	3061.7	1.290	0.002	3186.6	1.295	0.000
2942.6	1.297	0.002	3005.8	1.310	0.004	3062.7	1.292	0.002	3191.0	1.294	0.002
2947.0	1.297	0.002	3006.8	1.311	0.004	3063.7	1.291	0.002	3195.3	1.296	0.002
2950.8	1.297	0.002	3007.7	1.312	0.006	3064.6	1.291	0.002	3199.7	1.296	0.000
2951.8	1.297	0.002	3008.7	1.313	0.008	3065.6	1.291	0.002	3204.0	1.295	0.002
2952.7	1.297	0.002	3009.7	1.314	0.012	3066.6	1.291	0.002	3208.3	1.295	0.002
2953.7	1.297	0.002	3010.6	1.313	0.015	3067.5	1.291	0.002	3212.7	1.295	0.002
2954.7	1.297	0.002	3011.6	1.313	0.017	3068.5	1.292	0.002	3217.0	1.295	0.002
2955.6	1.297	0.002	3012.5	1.312	0.021	3069.4	1.292	0.002	3221.4	1.295	0.002
2956.6	1.297	0.002	3013.5	1.310	0.023	3070.4	1.291	0.002	3225.7	1.295	0.002
2957.6	1.297	0.002	3014.5	1.308	0.025	3071.4	1.292	0.000	3230.0	1.295	0.002
2958.5	1.297	0.002	3015.4	1.305	0.027	3072.3	1.292	0.002	3234.4	1.295	0.002
2959.5	1.297	0.002	3016.4	1.303	0.029	3073.3	1.292	0.002	3238.7	1.295	0.002
2960.5	1.297	0.002	3017.4	1.299	0.031	3074.3	1.291	0.002	3243.1	1.295	0.000
2961.4	1.297	0.002	3018.3	1.295	0.031	3075.2	1.292	0.000	3247.4	1.295	0.002
2962.4	1.297	0.002	3019.3	1.292	0.031	3076.2	1.292	0.002	3251.7	1.295	0.002
2963.4	1.297	0.002	3020.3	1.288	0.029	3077.2	1.292	0.002	3256.1	1.295	0.002
2964.3	1.297	0.002	3021.2	1.285	0.027	3078.1	1.291	0.002	3260.4	1.295	0.002
2965.3	1.297	0.002	3022.2	1.282	0.025	3079.1	1.292	0.002	3264.8	1.295	0.002
2966.3	1.296	0.002	3023.2	1.281	0.021	3080.1	1.292	0.002	3269.1	1.295	0.002
2967.2	1.297	0.000	3024.1	1.280	0.019	3081.0	1.291	0.000	3273.4	1.296	0.002
2968.2	1.297	0.002	3025.1	1.281	0.017	3082.0	1.292	0.000	3277.8	1.295	0.002
2969.1	1.296	0.002	3026.0	1.280	0.015	3083.0	1.292	0.000	3282.1	1.295	0.002
2970.1	1.298	0.000	3027.0	1.280	0.013	3083.9	1.293	0.000	3286.5	1.295	0.000
2971.1	1.297	0.002	3028.0	1.279	0.011	3084.9	1.294	0.002	3290.8	1.296	0.002
2972.0	1.297	0.002	3028.9	1.280	0.009	3085.8	1.293	0.002	3295.1	1.295	0.002
2973.0	1.298	0.000	3029.9	1.281	0.007	3086.8	1.292	0.002	3299.5	1.296	0.002
2974.0	1.298	0.002	3030.9	1.281	0.007	3087.8	1.293	0.000	3308.2	1.296	0.002
2974.9	1.297	0.002	3031.8	1.283	0.005	3088.7	1.292	0.000	3316.8	1.296	0.002
2975.9	1.298	0.000	3032.8	1.283	0.005	3089.7	1.293	0.000	3325.5	1.295	0.002
2976.9	1.299	0.000	3033.8	1.283	0.003	3090.7	1.294	0.002	3334.2	1.296	0.002
2977.8	1.298	0.002	3034.7	1.285	0.003	3091.6	1.293	0.002	3342.9	1.295	0.002
2978.8	1.299	0.002	3035.7	1.286	0.003	3092.6	1.292	0.000	3351.6	1.296	0.000
2979.8	1.299	0.002	3036.7	1.286	0.003	3093.6	1.293	0.000	3360.2	1.295	0.002
2980.7	1.299	0.002	3037.6	1.287	0.004	3094.5	1.294	0.002	3368.9	1.296	0.002
2981.7	1.298	0.002	3038.6	1.287	0.004	3095.5	1.294	0.002	3377.6	1.295	0.000
2982.6	1.298	0.002	3039.6	1.287	0.004	3096.5	1.293	0.002	3386.3	1.296	0.002
2983.6	1.298	0.000	3040.5	1.287	0.004	3097.4	1.293	0.002	3395.0	1.296	0.002
2984.6	1.300	0.000	3041.5	1.287	0.004	3098.4	1.293	0.002			
2985.5	1.299	0.002	3042.4	1.287	0.004	3099.3	1.292	0.002			
2986.5	1.299	0.002	3043.4	1.287	0.002	3104.2	1.293	0.000			

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TABLE 9B

$CO:CH_4$ = 20:1 AT 15 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1007.9	1.313	0.006	1230.7	1.311	0.005	1287.6	1.328	0.000	1344.5	1.302	0.000	1408.6	1.304	0.004	1829.6	1.313	0.000	2147.9	0.888	0.030	2457.5	1.289	0.002
1016.6	1.311	0.006	1231.6	1.312	0.000	1288.5	1.327	0.005	1345.4	1.302	0.004	1413.0	1.303	0.004	1838.3	1.312	0.003	2150.8	1.003	0.024	2466.2	1.288	0.002
1025.2	1.309	0.006	1232.6	1.313	0.005	1289.5	1.331	0.005	1346.4	1.302	0.004	1417.3	1.304	0.004	1847.0	1.313	0.003	2153.7	1.067	0.020	2474.8	1.288	0.002
1033.9	1.308	0.006	1233.6	1.309	0.005	1290.5	1.331	0.005	1347.4	1.302	0.004	1421.6	1.304	0.004	1855.7	1.314	0.000	2156.6	1.108	0.018	2483.5	1.290	0.002
1042.6	1.311	0.006	1234.5	1.310	0.000	1291.4	1.332	0.005	1348.3	1.302	0.004	1426.0	1.307	0.004	1864.3	1.315	0.003	2159.5	1.138	0.016	2492.2	1.289	0.002
1051.3	1.311	0.006	1235.5	1.311	0.000	1292.4	1.334	0.005	1349.3	1.302	0.004	1430.3	1.307	0.004	1873.0	1.316	0.000	2162.4	1.159	0.013	2500.9	1.290	0.002
1060.0	1.308	0.006	1236.5	1.313	0.000	1293.4	1.336	0.005	1350.3	1.302	0.004	1434.7	1.306	0.004	1881.7	1.315	0.003	2165.3	1.178	0.014	2509.6	1.291	0.002
1068.6	1.310	0.006	1237.4	1.310	0.000	1294.3	1.339	0.005	1351.2	1.302	0.004	1439.0	1.304	0.004	1890.4	1.316	0.000	2168.1	1.192	0.014	2518.2	1.290	0.000
1077.3	1.309	0.000	1238.4	1.311	0.000	1295.3	1.344	0.005	1352.2	1.302	0.004	1443.3	1.304	0.000	1899.1	1.317	0.003	2171.0	1.203	0.015	2526.9	1.291	0.002
1086.0	1.308	0.000	1239.4	1.312	0.000	1296.3	1.350	0.009	1353.2	1.302	0.004	1447.7	1.303	0.000	1907.7	1.316	0.000	2173.9	1.210	0.015	2535.6	1.290	0.000
1094.7	1.308	0.000	1240.3	1.313	0.000	1297.2	1.356	0.009	1354.1	1.302	0.004	1452.0	1.304	0.004	1916.4	1.317	0.003	2176.8	1.217	0.018	2544.3	1.292	0.002
1103.4	1.305	0.005	1241.3	1.314	0.000	1298.2	1.364	0.018	1355.1	1.302	0.004	1456.4	1.303	0.004	1925.1	1.319	0.003	2179.7	1.222	0.018	2553.0	1.291	0.002
1112.0	1.308	0.000	1242.2	1.315	0.005	1299.2	1.372	0.027	1356.1	1.302	0.004	1460.7	1.307	0.000	1933.8	1.319	0.003	2182.6	1.227	0.018	2561.7	1.291	0.002
1120.7	1.307	0.000	1243.2	1.312	0.000	1300.1	1.378	0.048	1357.0	1.302	0.004	1465.0	1.303	0.004	1942.5	1.320	0.000	2185.5	1.232	0.018	2570.3	1.291	0.002
1129.4	1.309	0.005	1244.2	1.311	0.000	1301.1	1.376	0.070	1358.0	1.301	0.004	1469.4	1.307	0.000	1951.1	1.323	0.003	2188.4	1.237	0.018	2579.0	1.292	0.002
1138.1	1.312	0.000	1245.1	1.313	0.000	1302.0	1.365	0.093	1358.9	1.301	0.004	1473.7	1.305	0.000	1959.8	1.323	0.003	2191.3	1.238	0.021	2587.7	1.293	0.002
1146.8	1.309	0.005	1246.1	1.313	0.005	1303.0	1.346	0.116	1359.9	1.300	0.004	1478.1	1.307	0.000	1968.5	1.323	0.003	2194.2	1.240	0.021	2596.4	1.292	0.002
1153.0	1.309	0.005	1247.1	1.313	0.000	1304.0	1.312	0.137	1360.9	1.303	0.000	1482.4	1.306	0.004	1977.2	1.324	0.003	2197.1	1.241	0.021	2605.1	1.292	0.002
1157.4	1.309	0.005	1248.0	1.314	0.000	1304.9	1.269	0.131	1361.8	1.302	0.004	1486.7	1.304	0.000	1985.9	1.325	0.003	2200.0	1.243	0.021	2613.7	1.294	0.002
1161.7	1.313	0.005	1249.0	1.315	0.000	1305.9	1.238	0.099	1362.8	1.304	0.004	1491.1	1.307	0.000	1994.5	1.326	0.003	2202.9	1.244	0.021	2622.4	1.293	0.002
1166.1	1.311	0.000	1250.0	1.316	0.000	1306.9	1.229	0.056	1363.8	1.303	0.004	1495.4	1.306	0.000	2003.2	1.328	0.003	2205.8	1.244	0.018	2631.1	1.292	0.002
1170.4	1.309	0.005	1250.9	1.318	0.005	1307.8	1.239	0.032	1364.7	1.302	0.004	1499.8	1.308	0.004	2011.9	1.329	0.003	2208.7	1.245	0.018	2639.8	1.293	0.002
1174.7	1.309	0.005	1251.9	1.315	0.005	1308.8	1.253	0.018	1365.7	1.302	0.004	1508.4	1.307	0.004	2020.6	1.332	0.003	2211.5	1.247	0.018	2648.5	1.293	0.002
1179.1	1.313	0.000	1252.9	1.314	0.005	1309.8	1.261	0.013	1366.7	1.301	0.000	1517.1	1.306	0.004	2029.3	1.334	0.003	2214.4	1.247	0.018	2657.1	1.293	0.002
1183.4	1.309	0.005	1253.8	1.313	0.000	1310.7	1.267	0.013	1367.6	1.304	0.004	1525.8	1.305	0.000	2037.9	1.336	0.004	2217.3	1.246	0.018	2665.8	1.294	0.002
1187.8	1.308	0.000	1254.8	1.316	0.005	1311.7	1.273	0.009	1368.6	1.304	0.000	1534.5	1.305	0.000	2046.6	1.340	0.004	2220.2	1.248	0.015	2674.5	1.293	0.002
1192.1	1.312	0.005	1255.8	1.315	0.005	1312.7	1.277	0.009	1369.6	1.304	0.004	1543.2	1.308	0.004	2052.4	1.342	0.004	2223.1	1.248	0.013	2683.2	1.293	0.002
1196.4	1.309	0.005	1256.7	1.313	0.005	1313.6	1.279	0.009	1370.5	1.303	0.004	1551.8	1.306	0.004	2055.3	1.344	0.004	2226.0	1.250	0.013	2691.9	1.293	0.002
1200.8	1.309	0.005	1257.7	1.316	0.005	1314.6	1.280	0.009	1371.5	1.303	0.004	1560.5	1.309	0.000	2058.2	1.346	0.004	2228.9	1.251	0.010	2700.5	1.293	0.002
1201.7	1.311	0.000	1258.6	1.315	0.005	1315.5	1.283	0.004	1372.5	1.303	0.000	1569.2	1.307	0.000	2061.1	1.346	0.004	2231.8	1.252	0.010	2709.2	1.293	0.002
1202.7	1.310	0.000	1259.6	1.314	0.005	1316.5	1.286	0.004	1373.4	1.304	0.004	1577.9	1.307	0.000	2064.0	1.349	0.004	2234.7	1.254	0.007	2717.9	1.293	0.002
1203.7	1.313	0.005	1260.6	1.314	0.005	1317.5	1.288	0.004	1374.4	1.303	0.004	1586.6	1.308	0.000	2066.9	1.352	0.000	2237.6	1.256	0.007	2726.6	1.293	0.002
1204.6	1.311	0.005	1261.5	1.314	0.005	1318.4	1.291	0.004	1375.3	1.303	0.004	1595.2	1.310	0.000	2069.8	1.353	0.000	2240.5	1.258	0.007	2735.3	1.294	0.000
1205.6	1.310	0.005	1262.5	1.313	0.005	1319.4	1.289	0.004	1376.3	1.302	0.004	1603.9	1.309	0.000	2072.7	1.355	0.000	2243.4	1.258	0.007	2743.9	1.294	0.002
1206.6	1.310	0.005	1263.5	1.312	0.005	1320.4	1.291	0.004	1377.3	1.304	0.004	1612.6	1.308	0.004	2075.6	1.359	0.004	2246.3	1.259	0.004	2751.7	1.294	0.002
1207.5	1.310	0.005	1264.4	1.312	0.000	1321.3	1.292	0.004	1378.2	1.303	0.004	1621.3	1.311	0.004	2078.4	1.361	0.004	2249.2	1.260	0.004	2756.0	1.294	0.002
1208.5	1.309	0.005	1265.4	1.315	0.005	1322.3	1.293	0.004	1379.2	1.303	0.004	1630.0	1.309	0.004	2081.3	1.365	0.004	2257.8	1.265	0.004	2760.3	1.295	0.002
1209.5	1.309	0.005	1266.4	1.312	0.000	1323.3	1.294	0.004	1380.2	1.303	0.004	1638.6	1.309	0.004	2084.2	1.369	0.004	2266.5	1.267	0.005	2764.7	1.293	0.000
1210.4	1.308	0.005	1267.3	1.315	0.000	1324.2	1.295	0.004	1381.1	1.301	0.004	1647.3	1.309	0.004	2087.1	1.376	0.007	2275.2	1.268	0.005	2769.0	1.294	0.002
1211.4	1.307	0.005	1268.3	1.317	0.005	1325.2	1.295	0.004	1382.1	1.304	0.004	1656.0	1.308	0.004	2090.0	1.382	0.009	2283.9	1.271	0.002	2773.4	1.295	0.000
1212.3	1.308	0.005	1269.3	1.314	0.005	1326.2	1.296	0.004	1383.1	1.302	0.004	1664.7	1.310	0.004	2092.9	1.363	0.040	2292.6	1.273	0.002	2777.7	1.294	0.000
1213.3	1.309	0.000	1270.2	1.316	0.005	1327.1	1.296	0.004	1384.0	1.301	0.000	1673.4	1.308	0.004	2095.8	1.367	0.004	2301.2	1.274	0.002	2782.0	1.295	0.002
1214.3	1.311	0.005	1271.2	1.313	0.005	1328.1	1.297	0.004	1385.0	1.305	0.000	1682.0	1.308	0.000	2098.7	1.378	0.004	2309.9	1.276	0.002	2786.4	1.295	0.002
1215.2	1.310	0.000	1272.1	1.314	0.000	1329.1	1.297	0.004	1386.0	1.304	0.004	1690.7	1.309	0.000	2101.6	1.387	0.001	2318.6	1.277	0.002	2790.7	1.295	0.002
1216.2	1.309	0.005	1273.1	1.315	0.000	1330.0	1.298	0.004	1386.9	1.303	0.000	1699.4	1.308	0.004	2104.5	1.396	0.001	2327.3	1.278	0.002	2795.1	1.294	0.002
1217.2	1.307	0.005	1274.1	1.316	0.000	1331.0	1.298	0.004	1387.9	1.305	0.004	1708.1	1.309	0.004	2107.4	1.405	0.004	2336.0	1.280	0.002	2799.4	1.295	0.000
1218.1	1.307	0.005	1275.0	1.317	0.000	1331.9	1.298	0.005	1388.8	1.303	0.004	1716.8	1.308	0.004	2110.3	1.415	0.001	2344.6	1.281	0.002	2803.7	1.295	0.002
1219.1	1.308	0.000	1276.0	1.318	0.000	1332.9	1.298	0.005	1389.8	1.303	0.000	1725.4	1.308	0.004	2113.2	1.427	0.004	2353.3	1.281	0.000	2808.1	1.296	0.000
1220.1	1.309	0.000	1277.0	1.319	0.000	1333.9	1.299	0.005	1390.8	1.302	0.004	1734.1	1.309	0.000	2116.1	1.444	0.001	2362.0	1.283	0.000	2812.4	1.296	0.002
1221.0	1.311	0.000	1277.9	1.319	0.000	1334.8	1.299	0.004	1391.7	1.303	0.004	1742.8	1.311	0.000	2119.0	1.463	0.004	2370.7	1.283	0.002	2816.8	1.295	0.002
1222.0	1.309	0.000	1278.9	1.321	0.000	1335.8	1.299	0.004	1392.7	1.304	0.000	1751.5	1.309	0.000	2121.9	1.487	0.003	2379.4	1.283	0.002	2821.1	1.295	0.002
1223.0	1.311	0.000	1279.9	1.321	0.005	1336.8	1.299	0.004	1393.7	1.305	0.004	1760.2	1.308	0.000	2124.7	1.526	0.000	2388.0	1.285	0.002	2825.4	1.295	0.002
1223.9	1.312	0.005	1280.8	1.321	0.000	1337.7	1.300	0.004	1394.6	1.306	0.004	1768.9	1.311	0.000	2127.6	1.581	0.000	2396.7	1.285	0.000	2829.8	1.295	0.002
1224.9	1.310	0.000	1281.8	1.322	0.005	1338.7	1.300	0.004	1395.6	1.305	0.000	1777.5	1.312	0.004	2130.5	1.675	0.000	2405.4	1.286	0.002	2834.1	1.294	0.000
1225.9	1.309	0.000	1282.8	1.324	0.000	1339.7	1.300	0.004	1396.6	1.304	0.004	1786.2	1.311	0.000	2133.4	1.886	0.000	2414.1	1.285	0.002	2838.5	1.295	0.002
1226.8	1.311	0.005	1283.7	1.322	0.005	1340.6	1.300	0.004	1397.5	1.303	0.000	1794.9	1.313	0.000	2136.3	2.449	0.352	2422.8	1.286	0.002	2842.8	1.294	0.000
1227.8	1.308	0.000	1284.7	1.325	0.000	1341.6	1.300	0.004	1398.5	1.305	0.004	1803.6	1.313	0.004	2139.2	1.510	2.230	2431.4	1.288	0.000	2847.1	1.294	0.002
1228.7	1.310	0.000	1285.6	1.324	0.005	1342.6	1.300	0.004	1399.5	1.307	0.004	1812.3	1.313	0.000	2142.1	0.373	1.015	2440.1	1.288	0.000	2851.5	1.293	0.002
1229.7	1.311	0.000	1286.6	1.324	0.000	1343.5	1.299	0.004	1404.3	1.306	0.004	1820.9	1.311	0.003	2145.0	0.598	0.065	2448.8	1.286	0.002	2855.8	1.295	0.000

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TABLE 9B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2860.2	1.295	0.002	2987.5	1.299	0.002	3044.4	1.287	0.002	3108.5	1.293	0.002
2864.5	1.295	0.002	2988.4	1.300	0.000	3045.3	1.288	0.004	3112.9	1.294	0.002
2868.8	1.294	0.000	2989.4	1.301	0.002	3046.3	1.288	0.002	3117.2	1.293	0.000
2873.2	1.294	0.000	2990.4	1.300	0.002	3047.3	1.289	0.002	3121.5	1.293	0.002
2877.5	1.295	0.000	2991.3	1.300	0.002	3048.2	1.289	0.002	3125.9	1.295	0.000
2881.9	1.295	0.002	2992.3	1.300	0.000	3049.2	1.290	0.002	3130.2	1.293	0.000
2886.2	1.297	0.000	2993.3	1.301	0.000	3050.2	1.290	0.002	3134.6	1.295	0.002
2890.5	1.297	0.000	2994.2	1.302	0.002	3051.1	1.290	0.002	3138.9	1.294	0.002
2894.9	1.296	0.000	2995.2	1.303	0.002	3052.1	1.290	0.002	3143.2	1.294	0.002
2899.2	1.296	0.002	2996.1	1.302	0.002	3053.1	1.290	0.002	3147.6	1.293	0.002
2903.6	1.296	0.002	2997.1	1.303	0.002	3054.0	1.290	0.002	3151.9	1.295	0.000
2907.9	1.296	0.002	2998.1	1.303	0.002	3055.0	1.291	0.002	3156.3	1.294	0.000
2912.2	1.296	0.002	2999.0	1.303	0.002	3055.9	1.291	0.002	3160.6	1.295	0.000
2916.6	1.296	0.002	3000.0	1.304	0.002	3056.9	1.291	0.002	3164.9	1.295	0.000
2920.9	1.295	0.002	3001.0	1.304	0.002	3057.9	1.291	0.002	3169.3	1.295	0.002
2925.3	1.295	0.002	3001.9	1.305	0.002	3058.8	1.291	0.002	3173.6	1.294	0.000
2929.6	1.295	0.000	3002.9	1.306	0.002	3059.8	1.291	0.002	3178.0	1.295	0.000
2933.9	1.297	0.000	3003.9	1.307	0.002	3060.8	1.291	0.002	3182.3	1.295	0.002
2938.3	1.296	0.000	3004.8	1.308	0.004	3061.7	1.291	0.002	3186.6	1.296	0.000
2942.6	1.297	0.002	3005.8	1.309	0.004	3062.7	1.291	0.000	3191.0	1.295	0.002
2947.0	1.297	0.000	3006.8	1.311	0.006	3063.7	1.292	0.002	3195.3	1.294	0.002
2950.8	1.297	0.002	3007.7	1.311	0.008	3064.6	1.291	0.002	3199.7	1.295	0.000
2951.8	1.297	0.002	3008.7	1.312	0.010	3065.6	1.291	0.002	3204.0	1.295	0.002
2952.7	1.297	0.002	3009.7	1.313	0.012	3066.6	1.291	0.002	3208.3	1.296	0.000
2953.7	1.296	0.002	3010.6	1.313	0.016	3067.5	1.291	0.002	3212.7	1.295	0.002
2954.7	1.296	0.002	3011.6	1.312	0.017	3068.5	1.292	0.002	3217.0	1.295	0.000
2955.6	1.296	0.002	3012.5	1.310	0.021	3069.4	1.292	0.002	3221.4	1.296	0.002
2956.6	1.297	0.000	3013.5	1.309	0.023	3070.4	1.291	0.002	3225.7	1.296	0.002
2957.6	1.297	0.002	3014.5	1.306	0.025	3071.4	1.292	0.002	3230.0	1.295	0.002
2958.5	1.296	0.000	3015.4	1.304	0.027	3072.3	1.292	0.002	3234.4	1.295	0.002
2959.5	1.297	0.002	3016.4	1.300	0.029	3073.3	1.292	0.002	3238.7	1.295	0.000
2960.5	1.297	0.002	3017.4	1.297	0.029	3074.3	1.291	0.002	3243.1	1.295	0.000
2961.4	1.297	0.000	3018.3	1.294	0.029	3075.2	1.292	0.000	3247.4	1.296	0.000
2962.4	1.297	0.000	3019.3	1.290	0.027	3076.2	1.293	0.000	3251.7	1.295	0.000
2963.4	1.297	0.002	3020.3	1.288	0.027	3077.2	1.293	0.002	3256.1	1.294	0.002
2964.3	1.298	0.000	3021.2	1.285	0.025	3078.1	1.292	0.002	3260.4	1.296	0.002
2965.3	1.297	0.002	3022.2	1.284	0.021	3079.1	1.292	0.002	3264.8	1.296	0.000
2966.3	1.298	0.000	3023.2	1.282	0.019	3080.1	1.291	0.002	3269.1	1.296	0.000
2967.2	1.299	0.002	3024.1	1.283	0.017	3081.0	1.292	0.000	3273.4	1.296	0.002
2968.2	1.298	0.002	3025.1	1.282	0.015	3082.0	1.293	0.000	3277.8	1.296	0.000
2969.1	1.297	0.002	3026.0	1.282	0.013	3083.0	1.293	0.002	3282.1	1.296	0.000
2970.1	1.297	0.000	3027.0	1.282	0.013	3083.9	1.292	0.000	3286.5	1.296	0.000
2971.1	1.297	0.000	3028.0	1.282	0.011	3084.9	1.294	0.002	3290.8	1.296	0.002
2972.0	1.298	0.000	3028.9	1.282	0.009	3085.8	1.293	0.002	3295.1	1.296	0.002
2973.0	1.298	0.000	3029.9	1.282	0.009	3086.8	1.292	0.002	3299.5	1.296	0.000
2974.0	1.299	0.000	3030.9	1.282	0.007	3087.8	1.292	0.000	3308.2	1.296	0.000
2974.9	1.299	0.002	3031.8	1.284	0.005	3088.7	1.292	0.000	3316.8	1.296	0.002
2975.9	1.298	0.002	3032.8	1.285	0.005	3089.7	1.294	0.000	3325.5	1.296	0.000
2976.9	1.299	0.000	3033.8	1.285	0.005	3090.7	1.294	0.002	3334.2	1.296	0.000
2977.8	1.298	0.002	3034.7	1.285	0.005	3091.6	1.293	0.002	3342.9	1.296	0.000
2978.8	1.299	0.000	3035.7	1.286	0.004	3092.6	1.292	0.002	3351.6	1.297	0.000
2979.8	1.300	0.002	3036.7	1.286	0.004	3093.6	1.293	0.002	3360.2	1.296	0.000
2980.7	1.299	0.000	3037.6	1.287	0.004	3094.5	1.294	0.000	3368.9	1.297	0.002
2981.7	1.299	0.000	3038.6	1.287	0.004	3095.5	1.294	0.002	3377.6	1.297	0.000
2982.6	1.300	0.002	3039.6	1.288	0.004	3096.5	1.293	0.002	3386.3	1.296	0.002
2983.6	1.299	0.002	3040.5	1.288	0.004	3097.4	1.293	0.002	3395.0	1.296	0.002
2984.6	1.299	0.000	3041.5	1.288	0.004	3098.4	1.294	0.002			
2985.5	1.300	0.002	3042.4	1.288	0.004	3099.3	1.293	0.002			
2986.5	1.299	0.002	3043.4	1.288	0.004	3104.2	1.293	0.002			

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TABLE 9C

$CO:CH_4$ = 20:1 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1007.9	1.312	0.006	1230.7	1.308	0.000	1287.6	1.324	0.000	1344.5	1.301	0.000	1408.6	1.305	0.004	1829.6	1.313	0.003	2147.9	0.892	0.035	2457.5	1.287	0.000
1016.6	1.311	0.006	1231.6	1.310	0.000	1288.5	1.328	0.005	1345.4	1.303	0.005	1413.0	1.305	0.004	1838.3	1.313	0.003	2150.8	1.005	0.024	2466.2	1.289	0.002
1025.2	1.309	0.006	1232.6	1.312	0.005	1289.5	1.328	0.005	1346.4	1.302	0.004	1417.3	1.307	0.004	1847.0	1.314	0.003	2153.7	1.067	0.020	2474.8	1.289	0.000
1033.9	1.308	0.006	1233.6	1.307	0.005	1290.5	1.329	0.005	1347.4	1.302	0.004	1421.6	1.306	0.004	1855.7	1.314	0.000	2156.6	1.109	0.015	2483.5	1.290	0.000
1042.6	1.309	0.006	1234.5	1.310	0.000	1291.4	1.331	0.005	1348.3	1.302	0.004	1426.0	1.306	0.004	1864.3	1.315	0.003	2159.5	1.139	0.016	2492.2	1.289	0.000
1051.3	1.308	0.000	1235.5	1.312	0.005	1292.4	1.333	0.005	1349.3	1.301	0.004	1430.3	1.306	0.004	1873.0	1.316	0.003	2162.4	1.161	0.014	2500.9	1.290	0.002
1060.0	1.309	0.000	1236.5	1.312	0.005	1293.4	1.335	0.005	1350.3	1.302	0.004	1434.7	1.308	0.004	1881.7	1.316	0.003	2165.3	1.179	0.014	2509.6	1.290	0.000
1068.6	1.310	0.006	1237.4	1.310	0.000	1294.3	1.340	0.005	1351.2	1.302	0.004	1439.0	1.304	0.000	1890.4	1.316	0.003	2168.1	1.193	0.015	2518.2	1.290	0.000
1077.3	1.307	0.000	1238.4	1.309	0.000	1295.3	1.342	0.009	1352.2	1.302	0.004	1443.3	1.306	0.000	1899.1	1.317	0.000	2171.0	1.202	0.018	2526.9	1.290	0.002
1086.0	1.309	0.006	1239.4	1.311	0.000	1296.3	1.346	0.009	1353.2	1.302	0.004	1447.7	1.305	0.004	1907.7	1.317	0.003	2173.9	1.211	0.015	2535.6	1.291	0.002
1094.7	1.310	0.000	1240.3	1.313	0.000	1297.2	1.353	0.014	1354.1	1.302	0.004	1452.0	1.304	0.004	1916.4	1.317	0.003	2176.8	1.218	0.018	2544.3	1.292	0.002
1103.4	1.309	0.006	1241.3	1.311	0.000	1298.2	1.361	0.018	1355.1	1.302	0.004	1456.4	1.306	0.004	1925.1	1.319	0.003	2179.7	1.223	0.018	2553.0	1.291	0.002
1112.0	1.308	0.000	1242.2	1.313	0.005	1299.2	1.368	0.031	1356.1	1.302	0.004	1460.7	1.308	0.000	1933.8	1.319	0.003	2182.6	1.228	0.018	2561.7	1.292	0.002
1120.7	1.310	0.000	1243.2	1.311	0.005	1300.1	1.374	0.049	1357.0	1.302	0.004	1465.0	1.305	0.000	1942.5	1.321	0.003	2185.5	1.233	0.018	2570.3	1.292	0.000
1129.4	1.309	0.000	1244.2	1.310	0.000	1301.1	1.372	0.071	1358.0	1.302	0.004	1469.4	1.308	0.004	1951.1	1.323	0.003	2188.4	1.237	0.021	2579.0	1.292	0.002
1138.1	1.309	0.000	1245.1	1.309	0.000	1302.0	1.360	0.098	1358.9	1.302	0.004	1473.7	1.306	0.000	1959.8	1.324	0.003	2191.3	1.238	0.021	2587.7	1.293	0.002
1146.8	1.308	0.005	1246.1	1.312	0.000	1303.0	1.336	0.117	1359.9	1.302	0.004	1478.1	1.307	0.004	1968.5	1.323	0.000	2194.2	1.240	0.021	2596.4	1.292	0.002
1153.0	1.306	0.005	1247.1	1.310	0.000	1304.0	1.304	0.128	1360.9	1.302	0.004	1482.4	1.307	0.000	1977.2	1.324	0.003	2197.1	1.242	0.021	2605.1	1.292	0.002
1157.4	1.309	0.005	1248.0	1.312	0.000	1304.9	1.267	0.116	1361.8	1.301	0.004	1486.7	1.309	0.000	1985.9	1.325	0.003	2200.0	1.243	0.021	2613.7	1.294	0.002
1161.7	1.311	0.005	1249.0	1.313	0.000	1305.9	1.245	0.084	1362.8	1.300	0.004	1491.1	1.309	0.000	1994.5	1.326	0.003	2202.9	1.243	0.021	2622.4	1.294	0.000
1166.1	1.308	0.005	1250.0	1.316	0.000	1306.9	1.241	0.056	1363.8	1.304	0.000	1495.4	1.309	0.004	2003.2	1.328	0.003	2205.8	1.244	0.018	2631.1	1.293	0.002
1170.4	1.306	0.005	1250.9	1.314	0.005	1307.8	1.245	0.037	1364.7	1.303	0.004	1499.8	1.306	0.004	2011.9	1.331	0.000	2208.7	1.246	0.018	2639.8	1.293	0.002
1174.7	1.307	0.000	1251.9	1.313	0.005	1308.8	1.254	0.023	1365.7	1.303	0.004	1508.4	1.307	0.004	2020.6	1.332	0.003	2211.5	1.247	0.018	2648.5	1.292	0.002
1179.1	1.310	0.000	1252.9	1.312	0.005	1309.8	1.262	0.018	1366.7	1.303	0.004	1517.1	1.305	0.004	2029.3	1.335	0.004	2214.4	1.247	0.018	2657.1	1.293	0.002
1183.4	1.306	0.005	1253.8	1.311	0.000	1310.7	1.269	0.013	1367.6	1.303	0.004	1525.8	1.307	0.000	2037.9	1.337	0.004	2217.3	1.248	0.015	2665.8	1.294	0.002
1187.8	1.308	0.005	1254.8	1.315	0.005	1311.7	1.271	0.013	1368.6	1.303	0.004	1534.5	1.306	0.004	2046.6	1.340	0.004	2220.2	1.249	0.015	2674.5	1.293	0.000
1192.1	1.307	0.005	1255.8	1.313	0.005	1312.7	1.276	0.009	1369.6	1.302	0.004	1543.2	1.308	0.000	2052.4	1.342	0.004	2223.1	1.249	0.013	2683.2	1.294	0.002
1196.4	1.310	0.005	1256.7	1.311	0.005	1313.6	1.279	0.009	1370.5	1.302	0.004	1551.8	1.306	0.004	2055.3	1.343	0.004	2226.0	1.250	0.013	2691.9	1.293	0.002
1200.8	1.307	0.000	1257.7	1.314	0.005	1314.6	1.281	0.009	1371.5	1.302	0.004	1560.5	1.308	0.000	2058.2	1.346	0.004	2228.9	1.252	0.010	2700.5	1.293	0.002
1201.7	1.310	0.005	1258.6	1.312	0.005	1315.5	1.281	0.009	1372.5	1.302	0.004	1569.2	1.307	0.004	2061.1	1.347	0.004	2231.8	1.253	0.010	2709.2	1.293	0.002
1202.7	1.308	0.000	1259.6	1.311	0.005	1316.5	1.284	0.004	1373.4	1.302	0.004	1577.9	1.305	0.000	2064.0	1.349	0.004	2234.7	1.254	0.007	2717.9	1.293	0.000
1203.7	1.311	0.005	1260.6	1.312	0.005	1317.5	1.288	0.004	1374.4	1.302	0.004	1586.6	1.308	0.004	2066.9	1.350	0.004	2237.6	1.257	0.007	2726.6	1.292	0.000
1204.6	1.310	0.000	1261.5	1.313	0.005	1318.4	1.287	0.004	1375.3	1.301	0.004	1595.2	1.307	0.000	2069.8	1.353	0.000	2240.5	1.258	0.007	2735.3	1.293	0.000
1205.6	1.310	0.005	1262.5	1.315	0.005	1319.4	1.289	0.004	1376.3	1.300	0.000	1603.9	1.309	0.000	2072.7	1.355	0.004	2243.4	1.258	0.007	2743.9	1.295	0.000
1206.6	1.309	0.005	1263.5	1.313	0.005	1320.4	1.291	0.004	1377.3	1.304	0.000	1612.6	1.309	0.004	2075.6	1.357	0.004	2246.3	1.260	0.007	2751.7	1.295	0.000
1207.5	1.309	0.005	1264.4	1.313	0.005	1321.3	1.292	0.004	1378.2	1.304	0.004	1621.3	1.308	0.004	2078.4	1.359	0.004	2249.2	1.261	0.004	2756.0	1.295	0.000
1208.5	1.309	0.005	1265.4	1.311	0.005	1322.3	1.293	0.004	1379.2	1.303	0.004	1630.0	1.309	0.004	2081.3	1.363	0.004	2257.8	1.265	0.004	2760.3	1.296	0.002
1209.5	1.308	0.005	1266.4	1.310	0.000	1323.3	1.293	0.004	1380.2	1.302	0.004	1638.6	1.310	0.004	2084.2	1.369	0.001	2266.5	1.267	0.005	2764.7	1.295	0.000
1210.4	1.308	0.005	1267.3	1.314	0.000	1324.2	1.294	0.004	1381.1	1.302	0.004	1647.3	1.308	0.004	2087.1	1.376	0.007	2275.2	1.269	0.005	2769.0	1.294	0.002
1211.4	1.308	0.005	1268.3	1.315	0.005	1325.2	1.295	0.004	1382.1	1.300	0.004	1656.0	1.309	0.004	2090.0	1.381	0.009	2283.9	1.270	0.002	2773.4	1.295	0.000
1212.3	1.307	0.005	1269.3	1.312	0.005	1326.2	1.295	0.004	1383.1	1.302	0.000	1664.7	1.308	0.004	2092.9	1.363	0.040	2292.6	1.273	0.002	2777.7	1.295	0.002
1213.3	1.306	0.005	1270.2	1.313	0.000	1327.1	1.296	0.004	1384.0	1.304	0.000	1673.4	1.309	0.004	2095.8	1.369	0.004	2301.2	1.275	0.002	2782.0	1.296	0.002
1214.3	1.306	0.000	1271.2	1.314	0.005	1328.1	1.296	0.004	1385.0	1.305	0.004	1682.0	1.308	0.000	2098.7	1.379	0.004	2309.9	1.277	0.002	2786.4	1.295	0.002
1215.2	1.307	0.000	1272.1	1.314	0.000	1329.1	1.297	0.004	1386.0	1.303	0.004	1690.7	1.309	0.000	2101.6	1.387	0.001	2318.6	1.278	0.002	2790.7	1.295	0.002
1216.2	1.308	0.000	1273.1	1.317	0.000	1330.0	1.297	0.004	1386.9	1.302	0.000	1699.4	1.309	0.000	2104.5	1.395	0.004	2327.3	1.279	0.002	2795.1	1.295	0.002
1217.2	1.306	0.005	1274.1	1.314	0.000	1331.0	1.297	0.004	1387.9	1.303	0.004	1708.1	1.307	0.000	2107.4	1.405	0.004	2336.0	1.280	0.002	2799.4	1.296	0.002
1218.1	1.307	0.000	1275.0	1.316	0.000	1331.9	1.298	0.004	1388.8	1.305	0.000	1716.8	1.310	0.004	2110.3	1.414	0.004	2344.6	1.281	0.002	2803.7	1.295	0.002
1219.1	1.309	0.000	1276.0	1.317	0.000	1332.9	1.298	0.004	1389.8	1.304	0.004	1725.4	1.310	0.004	2113.2	1.427	0.004	2353.3	1.282	0.002	2808.1	1.296	0.000
1220.1	1.310	0.005	1277.0	1.319	0.000	1333.9	1.298	0.004	1390.8	1.303	0.000	1734.1	1.309	0.000	2116.1	1.442	0.004	2362.0	1.282	0.002	2812.4	1.296	0.002
1221.0	1.308	0.000	1277.9	1.319	0.005	1334.8	1.298	0.004	1391.7	1.305	0.004	1742.8	1.311	0.000	2119.0	1.461	0.004	2370.7	1.283	0.002	2816.8	1.296	0.002
1222.0	1.308	0.000	1278.9	1.319	0.000	1335.8	1.299	0.004	1392.7	1.302	0.004	1751.5	1.311	0.000	2121.9	1.486	0.003	2379.4	1.283	0.002	2821.1	1.295	0.002
1223.0	1.311	0.000	1279.9	1.322	0.000	1336.8	1.299	0.004	1393.7	1.305	0.000	1760.2	1.310	0.004	2124.7	1.523	0.000	2388.0	1.284	0.002	2825.4	1.295	0.002
1223.9	1.309	0.005	1280.8	1.320	0.005	1337.7	1.299	0.004	1394.6	1.304	0.004	1768.9	1.313	0.000	2127.6	1.578	0.001	2396.7	1.284	0.000	2829.8	1.295	0.002
1224.9	1.307	0.005	1281.8	1.322	0.005	1338.7	1.299	0.004	1395.6	1.303	0.000	1777.5	1.311	0.004	2130.5	1.671	0.000	2405.4	1.285	0.002	2834.1	1.295	0.002
1225.9	1.309	0.000	1282.8	1.321	0.005	1339.7	1.299	0.004	1396.6	1.302	0.000	1786.2	1.313	0.004	2133.4	1.875	0.000	2414.1	1.286	0.002	2838.5	1.295	0.002
1226.8	1.307	0.005	1283.7	1.320	0.000	1340.6	1.299	0.004	1397.5	1.305	0.000	1794.9	1.311	0.000	2136.3	2.447	0.317	2422.8	1.286	0.002	2842.8	1.295	0.002
1227.8	1.308	0.000	1284.7	1.325	0.000	1341.6	1.299	0.004	1398.5	1.305	0.004	1803.6	1.312	0.004	2139.2	1.521	2.268	2431.4	1.287	0.000	2847.1	1.295	0.002
1228.7	1.310	0.000	1285.6	1.324	0.005	1342.6	1.299	0.004	1399.5	1.306	0.000	1812.3	1.312	0.000	2142.1	0.366	1.019	2440.1	1.287	0.000	2851.5	1.295	0.002
1229.7	1.311	0.005	1286.6	1.324	0.005	1343.5	1.298	0.004	1404.3	1.305	0.004	1820.9	1.313	0.003	2145.0	0.605	0.059	2448.8	1.288	0.002	2855.8	1.295	0.002

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TABLE 9C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2860.2	1.295	0.002	2987.5	1.299	0.002	3044.4	1.289	0.002	3108.5	1.293	0.002
2864.5	1.294	0.002	2988.4	1.301	0.002	3045.3	1.289	0.002	3112.9	1.294	0.002
2868.8	1.296	0.000	2989.4	1.300	0.002	3046.3	1.289	0.004	3117.2	1.294	0.000
2873.2	1.295	0.002	2990.4	1.300	0.002	3047.3	1.289	0.002	3121.5	1.293	0.000
2877.5	1.294	0.002	2991.3	1.301	0.002	3048.2	1.290	0.002	3125.9	1.295	0.000
2881.9	1.295	0.000	2992.3	1.301	0.000	3049.2	1.290	0.002	3130.2	1.294	0.002
2886.2	1.295	0.002	2993.3	1.302	0.002	3050.2	1.290	0.002	3134.6	1.294	0.002
2890.5	1.296	0.002	2994.2	1.302	0.002	3051.1	1.290	0.002	3138.9	1.294	0.002
2894.9	1.296	0.000	2995.2	1.302	0.002	3052.1	1.291	0.002	3143.2	1.295	0.002
2899.2	1.296	0.000	2996.1	1.302	0.002	3053.1	1.291	0.002	3147.6	1.295	0.002
2903.6	1.297	0.000	2997.1	1.302	0.002	3054.0	1.291	0.002	3151.9	1.295	0.002
2907.9	1.296	0.002	2998.1	1.303	0.002	3055.0	1.291	0.002	3156.3	1.295	0.002
2912.2	1.295	0.002	2999.0	1.303	0.002	3055.9	1.291	0.002	3160.6	1.295	0.002
2916.6	1.296	0.002	3000.0	1.304	0.002	3056.9	1.291	0.002	3164.9	1.294	0.002
2920.9	1.296	0.000	3001.0	1.304	0.002	3057.9	1.291	0.002	3169.3	1.295	0.002
2925.3	1.297	0.002	3001.9	1.306	0.002	3058.8	1.291	0.002	3173.6	1.295	0.000
2929.6	1.296	0.002	3002.9	1.307	0.004	3059.8	1.292	0.002	3178.0	1.295	0.002
2933.9	1.297	0.000	3003.9	1.307	0.004	3060.8	1.292	0.002	3182.3	1.295	0.002
2938.3	1.297	0.000	3004.8	1.308	0.004	3061.7	1.292	0.002	3186.6	1.296	0.000
2942.6	1.296	0.002	3005.8	1.309	0.006	3062.7	1.292	0.002	3191.0	1.295	0.002
2947.0	1.297	0.000	3006.8	1.310	0.006	3063.7	1.292	0.002	3195.3	1.296	0.002
2950.8	1.297	0.002	3007.7	1.311	0.008	3064.6	1.292	0.002	3199.7	1.295	0.002
2951.8	1.298	0.002	3008.7	1.311	0.012	3065.6	1.292	0.002	3204.0	1.296	0.002
2952.7	1.297	0.002	3009.7	1.311	0.014	3066.6	1.292	0.002	3208.3	1.295	0.002
2953.7	1.297	0.002	3010.6	1.311	0.016	3067.5	1.292	0.002	3212.7	1.296	0.002
2954.7	1.297	0.002	3011.6	1.310	0.019	3068.5	1.292	0.002	3217.0	1.296	0.000
2955.6	1.298	0.002	3012.5	1.308	0.021	3069.4	1.292	0.002	3221.4	1.296	0.002
2956.6	1.297	0.000	3013.5	1.306	0.023	3070.4	1.292	0.002	3225.7	1.295	0.002
2957.6	1.298	0.002	3014.5	1.304	0.025	3071.4	1.292	0.002	3230.0	1.295	0.002
2958.5	1.297	0.000	3015.4	1.302	0.025	3072.3	1.292	0.002	3234.4	1.296	0.002
2959.5	1.299	0.002	3016.4	1.298	0.027	3073.3	1.292	0.002	3238.7	1.296	0.002
2960.5	1.298	0.002	3017.4	1.295	0.027	3074.3	1.292	0.002	3243.1	1.296	0.002
2961.4	1.298	0.002	3018.3	1.293	0.025	3075.2	1.292	0.000	3247.4	1.295	0.002
2962.4	1.297	0.002	3019.3	1.290	0.025	3076.2	1.293	0.002	3251.7	1.295	0.002
2963.4	1.297	0.002	3020.3	1.288	0.023	3077.2	1.292	0.002	3256.1	1.294	0.000
2964.3	1.298	0.002	3021.2	1.287	0.021	3078.1	1.292	0.002	3260.4	1.296	0.002
2965.3	1.298	0.002	3022.2	1.286	0.019	3079.1	1.292	0.002	3264.8	1.296	0.000
2966.3	1.297	0.002	3023.2	1.285	0.017	3080.1	1.292	0.000	3269.1	1.295	0.000
2967.2	1.297	0.002	3024.1	1.284	0.017	3081.0	1.293	0.002	3273.4	1.296	0.002
2968.2	1.297	0.000	3025.1	1.284	0.015	3082.0	1.292	0.002	3277.8	1.296	0.000
2969.1	1.298	0.002	3026.0	1.284	0.013	3083.0	1.292	0.000	3282.1	1.295	0.002
2970.1	1.297	0.000	3027.0	1.283	0.013	3083.9	1.293	0.000	3286.5	1.296	0.000
2971.1	1.298	0.000	3028.0	1.283	0.011	3084.9	1.293	0.002	3290.8	1.295	0.002
2972.0	1.298	0.000	3028.9	1.283	0.009	3085.8	1.293	0.002	3295.1	1.296	0.002
2973.0	1.299	0.000	3029.9	1.284	0.007	3086.8	1.292	0.002	3299.5	1.296	0.002
2974.0	1.299	0.002	3030.9	1.285	0.007	3087.8	1.293	0.000	3308.2	1.296	0.000
2974.9	1.298	0.000	3031.8	1.284	0.007	3088.7	1.294	0.000	3316.8	1.296	0.002
2975.9	1.300	0.000	3032.8	1.285	0.005	3089.7	1.293	0.002	3325.5	1.296	0.002
2976.9	1.299	0.000	3033.8	1.286	0.005	3090.7	1.293	0.002	3334.2	1.296	0.000
2977.8	1.299	0.002	3034.7	1.286	0.005	3091.6	1.292	0.000	3342.9	1.295	0.000
2978.8	1.300	0.000	3035.7	1.286	0.004	3092.6	1.293	0.000	3351.6	1.296	0.002
2979.8	1.300	0.002	3036.7	1.286	0.004	3093.6	1.294	0.002	3360.2	1.296	0.000
2980.7	1.299	0.002	3037.6	1.287	0.004	3094.5	1.294	0.000	3368.9	1.297	0.002
2981.7	1.299	0.002	3038.6	1.288	0.004	3095.5	1.295	0.002	3377.6	1.296	0.000
2982.6	1.299	0.002	3039.6	1.288	0.004	3096.5	1.294	0.002	3386.3	1.296	0.002
2983.6	1.300	0.000	3040.5	1.288	0.004	3097.4	1.293	0.002	3395.0	1.296	0.002
2984.6	1.300	0.002	3041.5	1.288	0.004	3098.4	1.294	0.002			
2985.5	1.300	0.002	3042.4	1.288	0.004	3099.3	1.294	0.002			
2986.5	1.300	0.002	3043.4	1.288	0.004	3104.2	1.294	0.002			

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TABLE 9D

$CO:CH_4$ = 20:1 AT 25 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1007.9	1.314	0.006	1230.7	1.308	0.005	1287.6	1.324	0.005	1344.5	1.300	0.000	1408.6	1.304	0.004	1829.6	1.311	0.000	2147.9	0.894	0.035	2457.5	1.289	0.002
1016.6	1.312	0.006	1231.6	1.309	0.000	1288.5	1.326	0.005	1345.4	1.303	0.005	1413.0	1.304	0.004	1838.3	1.314	0.000	2150.8	1.006	0.028	2466.2	1.289	0.002
1025.2	1.311	0.006	1232.6	1.308	0.005	1289.5	1.327	0.005	1346.4	1.302	0.004	1417.3	1.303	0.004	1847.0	1.314	0.003	2153.7	1.067	0.020	2474.8	1.288	0.000
1033.9	1.312	0.006	1233.6	1.305	0.005	1290.5	1.329	0.005	1347.4	1.301	0.004	1421.6	1.305	0.004	1855.7	1.313	0.000	2156.6	1.109	0.015	2483.5	1.290	0.000
1042.6	1.311	0.006	1234.5	1.308	0.000	1291.4	1.331	0.005	1348.3	1.301	0.004	1426.0	1.306	0.004	1864.3	1.314	0.003	2159.5	1.138	0.016	2492.2	1.289	0.000
1051.3	1.312	0.006	1235.5	1.315	0.005	1292.4	1.334	0.005	1349.3	1.301	0.004	1430.3	1.305	0.000	1873.0	1.314	0.003	2162.4	1.161	0.014	2500.9	1.290	0.002
1060.0	1.311	0.006	1236.5	1.311	0.005	1293.4	1.337	0.009	1350.3	1.301	0.004	1434.7	1.305	0.004	1881.7	1.316	0.003	2165.3	1.178	0.014	2509.6	1.290	0.000
1068.6	1.309	0.006	1237.4	1.308	0.005	1294.3	1.338	0.009	1351.2	1.301	0.004	1439.0	1.306	0.004	1890.4	1.316	0.000	2168.1	1.191	0.014	2518.2	1.290	0.000
1077.3	1.307	0.000	1238.4	1.309	0.000	1295.3	1.342	0.009	1352.2	1.302	0.004	1443.3	1.305	0.004	1899.1	1.317	0.003	2171.0	1.202	0.015	2526.9	1.291	0.000
1086.0	1.310	0.006	1239.4	1.311	0.000	1296.3	1.348	0.014	1353.2	1.302	0.004	1447.7	1.305	0.004	1907.7	1.316	0.003	2173.9	1.211	0.015	2535.6	1.291	0.000
1094.7	1.309	0.000	1240.3	1.312	0.000	1297.2	1.353	0.018	1354.1	1.302	0.004	1452.0	1.304	0.004	1916.4	1.316	0.003	2176.8	1.217	0.015	2544.3	1.291	0.000
1103.4	1.309	0.000	1241.3	1.313	0.000	1298.2	1.360	0.027	1355.1	1.302	0.004	1456.4	1.302	0.004	1925.1	1.319	0.003	2179.7	1.224	0.018	2553.0	1.292	0.000
1112.0	1.308	0.005	1242.2	1.315	0.000	1299.2	1.364	0.036	1356.1	1.302	0.004	1460.7	1.308	0.004	1933.8	1.318	0.000	2182.6	1.228	0.018	2561.7	1.292	0.002
1120.7	1.309	0.000	1243.2	1.313	0.005	1300.1	1.367	0.053	1357.0	1.302	0.004	1465.0	1.303	0.004	1942.5	1.318	0.003	2185.5	1.231	0.018	2570.3	1.290	0.000
1129.4	1.312	0.000	1244.2	1.312	0.005	1301.1	1.360	0.075	1358.0	1.302	0.004	1469.4	1.305	0.004	1951.1	1.321	0.003	2188.4	1.235	0.018	2579.0	1.292	0.002
1138.1	1.311	0.005	1245.1	1.312	0.000	1302.0	1.346	0.094	1358.9	1.302	0.004	1473.7	1.306	0.000	1959.8	1.321	0.003	2191.3	1.239	0.018	2587.7	1.293	0.000
1146.8	1.309	0.005	1246.1	1.312	0.005	1303.0	1.324	0.109	1359.9	1.302	0.004	1478.1	1.307	0.004	1968.5	1.321	0.000	2194.2	1.240	0.021	2596.4	1.293	0.002
1153.0	1.307	0.005	1247.1	1.310	0.000	1304.0	1.294	0.110	1360.9	1.302	0.004	1482.4	1.305	0.004	1977.2	1.324	0.003	2197.1	1.241	0.018	2605.1	1.291	0.000
1157.4	1.310	0.005	1248.0	1.313	0.005	1304.9	1.270	0.097	1361.8	1.302	0.004	1486.7	1.305	0.004	1985.9	1.324	0.003	2200.0	1.241	0.018	2613.7	1.294	0.000
1161.7	1.310	0.000	1249.0	1.311	0.000	1305.9	1.254	0.074	1362.8	1.302	0.004	1491.1	1.308	0.000	1994.5	1.324	0.003	2202.9	1.244	0.018	2622.4	1.294	0.002
1166.1	1.309	0.005	1250.0	1.315	0.000	1306.9	1.250	0.051	1363.8	1.302	0.004	1495.4	1.307	0.004	2003.2	1.328	0.000	2205.8	1.245	0.018	2631.1	1.293	0.002
1170.4	1.308	0.005	1250.9	1.314	0.005	1307.8	1.252	0.037	1364.7	1.302	0.004	1499.8	1.306	0.004	2011.9	1.328	0.003	2208.7	1.246	0.018	2639.8	1.293	0.000
1174.7	1.307	0.005	1251.9	1.313	0.005	1308.8	1.258	0.023	1365.7	1.302	0.004	1508.4	1.307	0.004	2020.6	1.330	0.003	2211.5	1.245	0.018	2648.5	1.293	0.000
1179.1	1.308	0.000	1252.9	1.313	0.005	1309.8	1.264	0.018	1366.7	1.302	0.004	1517.1	1.305	0.004	2029.3	1.335	0.004	2214.4	1.247	0.015	2657.1	1.294	0.002
1183.4	1.308	0.005	1253.8	1.313	0.005	1310.7	1.269	0.013	1367.6	1.303	0.004	1525.8	1.305	0.004	2037.9	1.337	0.000	2217.3	1.248	0.015	2665.8	1.294	0.002
1187.8	1.307	0.000	1254.8	1.313	0.005	1311.7	1.274	0.013	1368.6	1.303	0.004	1534.5	1.305	0.000	2046.6	1.339	0.004	2220.2	1.247	0.013	2674.5	1.293	0.002
1192.1	1.310	0.005	1255.8	1.313	0.005	1312.7	1.276	0.009	1369.6	1.303	0.004	1543.2	1.307	0.000	2052.4	1.341	0.004	2223.1	1.249	0.013	2683.2	1.293	0.002
1196.4	1.309	0.000	1256.7	1.312	0.005	1313.6	1.280	0.009	1370.5	1.303	0.004	1551.8	1.306	0.004	2055.3	1.342	0.004	2226.0	1.250	0.010	2691.9	1.294	0.000
1200.8	1.307	0.005	1257.7	1.312	0.005	1314.6	1.283	0.009	1371.5	1.303	0.004	1560.5	1.309	0.000	2058.2	1.344	0.004	2228.9	1.250	0.010	2700.5	1.294	0.002
1201.7	1.310	0.005	1258.6	1.312	0.005	1315.5	1.284	0.009	1372.5	1.303	0.004	1569.2	1.306	0.000	2061.1	1.345	0.000	2231.8	1.253	0.007	2709.2	1.294	0.002
1202.7	1.307	0.005	1259.6	1.311	0.005	1316.5	1.285	0.009	1373.4	1.303	0.004	1577.9	1.308	0.000	2064.0	1.348	0.004	2234.7	1.254	0.007	2717.9	1.294	0.000
1203.7	1.310	0.000	1260.6	1.314	0.005	1317.5	1.287	0.004	1374.4	1.303	0.004	1586.6	1.308	0.004	2066.9	1.351	0.004	2237.6	1.255	0.004	2726.6	1.293	0.002
1204.6	1.310	0.005	1261.5	1.313	0.005	1318.4	1.287	0.009	1375.3	1.303	0.004	1595.2	1.307	0.000	2069.8	1.352	0.004	2240.5	1.258	0.004	2735.3	1.295	0.000
1205.6	1.309	0.005	1262.5	1.312	0.005	1319.4	1.287	0.004	1376.3	1.303	0.004	1603.9	1.308	0.004	2072.7	1.354	0.004	2243.4	1.259	0.004	2743.9	1.295	0.002
1206.6	1.308	0.005	1263.5	1.312	0.005	1320.4	1.289	0.009	1377.3	1.303	0.004	1612.6	1.308	0.004	2075.6	1.356	0.004	2246.3	1.260	0.004	2751.7	1.295	0.000
1207.5	1.309	0.000	1264.4	1.312	0.000	1321.3	1.290	0.004	1378.2	1.303	0.004	1621.3	1.308	0.004	2078.4	1.358	0.004	2249.2	1.261	0.004	2756.0	1.296	0.002
1208.5	1.309	0.005	1265.4	1.311	0.005	1322.3	1.291	0.004	1379.2	1.303	0.004	1630.0	1.309	0.004	2081.3	1.362	0.004	2257.8	1.265	0.002	2760.3	1.296	0.002
1209.5	1.308	0.005	1266.4	1.312	0.005	1323.3	1.292	0.004	1380.2	1.302	0.004	1638.6	1.309	0.004	2084.2	1.366	0.001	2266.5	1.268	0.002	2764.7	1.295	0.000
1210.4	1.308	0.005	1267.3	1.314	0.000	1324.2	1.293	0.004	1381.1	1.302	0.004	1647.3	1.308	0.004	2087.1	1.375	0.007	2275.2	1.270	0.002	2769.0	1.294	0.000
1211.4	1.306	0.005	1268.3	1.317	0.000	1325.2	1.294	0.004	1382.1	1.302	0.004	1656.0	1.308	0.004	2090.0	1.379	0.009	2283.9	1.273	0.002	2773.4	1.295	0.000
1212.3	1.309	0.005	1269.3	1.316	0.005	1326.2	1.295	0.004	1383.1	1.301	0.000	1664.7	1.308	0.004	2092.9	1.361	0.042	2292.6	1.274	0.002	2777.7	1.295	0.000
1213.3	1.307	0.005	1270.2	1.315	0.005	1327.1	1.295	0.004	1384.0	1.304	0.000	1673.4	1.308	0.004	2095.8	1.366	0.004	2301.2	1.275	0.002	2782.0	1.295	0.002
1214.3	1.307	0.000	1271.2	1.314	0.005	1328.1	1.296	0.004	1385.0	1.306	0.004	1682.0	1.308	0.004	2098.7	1.375	0.001	2309.9	1.275	0.002	2786.4	1.295	0.000
1215.2	1.307	0.005	1272.1	1.313	0.000	1329.1	1.296	0.004	1386.0	1.305	0.004	1690.7	1.308	0.004	2101.6	1.384	0.001	2318.6	1.278	0.000	2790.7	1.296	0.000
1216.2	1.306	0.000	1273.1	1.316	0.005	1330.0	1.296	0.004	1386.9	1.304	0.004	1699.4	1.307	0.004	2104.5	1.392	0.001	2327.3	1.280	0.000	2795.1	1.295	0.002
1217.2	1.307	0.005	1274.1	1.314	0.000	1331.0	1.297	0.004	1387.9	1.304	0.004	1708.1	1.309	0.004	2107.4	1.403	0.001	2336.0	1.282	0.000	2799.4	1.296	0.000
1218.1	1.308	0.000	1275.0	1.317	0.000	1331.9	1.297	0.004	1388.8	1.304	0.004	1716.8	1.307	0.004	2110.3	1.413	0.004	2344.6	1.284	0.002	2803.7	1.296	0.002
1219.1	1.309	0.000	1276.0	1.316	0.000	1332.9	1.298	0.004	1389.8	1.304	0.004	1725.4	1.308	0.004	2113.2	1.424	0.004	2353.3	1.283	0.002	2808.1	1.296	0.000
1220.1	1.310	0.005	1277.0	1.319	0.000	1333.9	1.298	0.004	1390.8	1.304	0.004	1734.1	1.306	0.000	2116.1	1.439	0.001	2362.0	1.284	0.002	2812.4	1.296	0.000
1221.0	1.307	0.000	1277.9	1.321	0.005	1334.8	1.298	0.004	1391.7	1.304	0.004	1742.8	1.310	0.000	2119.0	1.459	0.004	2370.7	1.284	0.002	2816.8	1.296	0.002
1222.0	1.310	0.000	1278.9	1.318	0.005	1335.8	1.298	0.004	1392.7	1.304	0.004	1751.5	1.309	0.000	2121.9	1.484	0.003	2379.4	1.284	0.002	2821.1	1.295	0.002
1223.0	1.311	0.000	1279.9	1.318	0.000	1336.8	1.299	0.004	1393.7	1.304	0.004	1760.2	1.310	0.000	2124.7	1.518	0.003	2388.0	1.284	0.002	2825.4	1.295	0.000
1223.9	1.313	0.005	1280.8	1.322	0.000	1337.7	1.299	0.004	1394.6	1.304	0.004	1768.9	1.311	0.004	2127.6	1.572	0.000	2396.7	1.285	0.000	2829.8	1.295	0.002
1224.9	1.311	0.000	1281.8	1.322	0.005	1338.7	1.299	0.004	1395.6	1.304	0.004	1777.5	1.310	0.004	2130.5	1.662	0.000	2405.4	1.287	0.000	2834.1	1.295	0.002
1225.9	1.311	0.005	1282.8	1.321	0.005	1339.7	1.299	0.004	1396.6	1.303	0.004	1786.2	1.311	0.000	2133.4	1.856	0.000	2414.1	1.286	0.002	2838.5	1.295	0.002
1226.8	1.310	0.005	1283.7	1.322	0.005	1340.6	1.299	0.004	1397.5	1.303	0.004	1794.9	1.313	0.004	2136.3	2.422	0.252	2422.8	1.287	0.002	2842.8	1.295	0.000
1227.8	1.310	0.000	1284.7	1.322	0.005	1341.6	1.299	0.004	1398.5	1.305	0.004	1803.6	1.313	0.000	2139.2	1.566	2.357	2431.4	1.286	0.000	2847.1	1.294	0.002
1228.7	1.310	0.005	1285.6	1.323	0.005	1342.6	1.299	0.004	1399.5	1.304	0.004	1812.3	1.313	0.000	2142.1	0.357	1.019	2440.1	1.288	0.000	2851.5	1.295	0.000
1229.7	1.309	0.005	1286.6	1.324	0.005	1343.5	1.298	0.004	1404.3	1.304	0.004	1820.9	1.312	0.003	2145.0	0.616	0.065	2448.8	1.288	0.002	2855.8	1.294	0.002

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TABLE 9D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2860.2	1.296	0.002	2987.5	1.300	0.002	3044.4	1.290	0.004	3108.5	1.294	0.002
2864.5	1.295	0.000	2988.4	1.302	0.002	3045.3	1.290	0.004	3112.9	1.294	0.002
2868.8	1.296	0.000	2989.4	1.301	0.002	3046.3	1.290	0.004	3117.2	1.294	0.002
2873.2	1.296	0.000	2990.4	1.302	0.002	3047.3	1.291	0.004	3121.5	1.294	0.002
2877.5	1.296	0.000	2991.3	1.302	0.002	3048.2	1.291	0.004	3125.9	1.294	0.002
2881.9	1.296	0.000	2992.3	1.302	0.002	3049.2	1.291	0.004	3130.2	1.294	0.002
2886.2	1.297	0.000	2993.3	1.302	0.002	3050.2	1.291	0.004	3134.6	1.294	0.002
2890.5	1.297	0.000	2994.2	1.302	0.002	3051.1	1.291	0.004	3138.9	1.294	0.002
2894.9	1.297	0.000	2995.2	1.303	0.002	3052.1	1.291	0.004	3143.2	1.294	0.002
2899.2	1.296	0.000	2996.1	1.303	0.002	3053.1	1.291	0.004	3147.6	1.294	0.002
2903.6	1.297	0.000	2997.1	1.304	0.002	3054.0	1.291	0.004	3151.9	1.294	0.002
2907.9	1.297	0.002	2998.1	1.304	0.002	3055.0	1.291	0.004	3156.3	1.294	0.002
2912.2	1.296	0.002	2999.0	1.306	0.002	3055.9	1.291	0.004	3160.6	1.294	0.002
2916.6	1.296	0.002	3000.0	1.306	0.004	3056.9	1.291	0.004	3164.9	1.294	0.002
2920.9	1.296	0.000	3001.0	1.306	0.004	3057.9	1.291	0.002	3169.3	1.294	0.002
2925.3	1.297	0.002	3001.9	1.306	0.004	3058.8	1.292	0.004	3173.6	1.294	0.002
2929.6	1.296	0.002	3002.9	1.307	0.004	3059.8	1.292	0.004	3178.0	1.295	0.002
2933.9	1.296	0.002	3003.9	1.308	0.006	3060.8	1.291	0.004	3182.3	1.295	0.002
2938.3	1.297	0.000	3004.8	1.309	0.006	3061.7	1.291	0.004	3186.6	1.295	0.002
2942.6	1.297	0.002	3005.8	1.310	0.008	3062.7	1.291	0.002	3191.0	1.295	0.002
2947.0	1.298	0.000	3006.8	1.311	0.009	3063.7	1.291	0.004	3195.3	1.295	0.002
2950.8	1.299	0.002	3007.7	1.312	0.011	3064.6	1.291	0.002	3199.7	1.295	0.002
2951.8	1.298	0.002	3008.7	1.311	0.013	3065.6	1.291	0.004	3204.0	1.295	0.002
2952.7	1.298	0.002	3009.7	1.310	0.017	3066.6	1.290	0.002	3208.3	1.295	0.002
2953.7	1.297	0.002	3010.6	1.310	0.019	3067.5	1.292	0.002	3212.7	1.295	0.002
2954.7	1.297	0.002	3011.6	1.307	0.020	3068.5	1.292	0.004	3217.0	1.295	0.002
2955.6	1.297	0.002	3012.5	1.305	0.022	3069.4	1.291	0.002	3221.4	1.295	0.002
2956.6	1.298	0.000	3013.5	1.303	0.024	3070.4	1.291	0.004	3225.7	1.295	0.002
2957.6	1.299	0.002	3014.5	1.300	0.024	3071.4	1.291	0.002	3230.0	1.295	0.002
2958.5	1.298	0.000	3015.4	1.298	0.024	3072.3	1.292	0.002	3234.4	1.295	0.002
2959.5	1.297	0.002	3016.4	1.296	0.024	3073.3	1.292	0.002	3238.7	1.295	0.002
2960.5	1.298	0.000	3017.4	1.293	0.024	3074.3	1.292	0.002	3243.1	1.295	0.002
2961.4	1.299	0.000	3018.3	1.292	0.022	3075.2	1.292	0.002	3247.4	1.295	0.002
2962.4	1.298	0.002	3019.3	1.290	0.020	3076.2	1.292	0.002	3251.7	1.295	0.002
2963.4	1.298	0.002	3020.3	1.289	0.020	3077.2	1.292	0.002	3256.1	1.295	0.002
2964.3	1.299	0.000	3021.2	1.288	0.018	3078.1	1.292	0.002	3260.4	1.294	0.002
2965.3	1.298	0.002	3022.2	1.287	0.016	3079.1	1.292	0.002	3264.8	1.295	0.002
2966.3	1.298	0.000	3023.2	1.287	0.016	3080.1	1.293	0.002	3269.1	1.295	0.000
2967.2	1.299	0.000	3024.1	1.286	0.015	3081.0	1.293	0.002	3273.4	1.295	0.002
2968.2	1.298	0.002	3025.1	1.286	0.013	3082.0	1.293	0.002	3277.8	1.295	0.000
2969.1	1.299	0.002	3026.0	1.286	0.013	3083.0	1.293	0.002	3282.1	1.294	0.000
2970.1	1.299	0.000	3027.0	1.286	0.011	3083.9	1.293	0.002	3286.5	1.295	0.000
2971.1	1.299	0.000	3028.0	1.286	0.011	3084.9	1.293	0.002	3290.8	1.295	0.000
2972.0	1.300	0.000	3028.9	1.286	0.009	3085.8	1.293	0.002	3295.1	1.294	0.002
2973.0	1.300	0.002	3029.9	1.287	0.009	3086.8	1.293	0.002	3299.5	1.295	0.002
2974.0	1.299	0.002	3030.9	1.286	0.009	3087.8	1.293	0.002	3308.2	1.296	0.002
2974.9	1.299	0.002	3031.8	1.287	0.007	3088.7	1.293	0.002	3316.8	1.296	0.002
2975.9	1.299	0.000	3032.8	1.287	0.007	3089.7	1.293	0.002	3325.5	1.296	0.002
2976.9	1.301	0.000	3033.8	1.287	0.007	3090.7	1.293	0.002	3334.2	1.296	0.000
2977.8	1.300	0.002	3034.7	1.287	0.005	3091.6	1.293	0.002	3342.9	1.295	0.002
2978.8	1.300	0.000	3035.7	1.288	0.005	3092.6	1.293	0.002	3351.6	1.296	0.002
2979.8	1.300	0.002	3036.7	1.288	0.005	3093.6	1.293	0.002	3360.2	1.295	0.000
2980.7	1.300	0.002	3037.6	1.288	0.005	3094.5	1.293	0.002	3368.9	1.295	0.002
2981.7	1.300	0.002	3038.6	1.288	0.005	3095.5	1.293	0.002	3377.6	1.295	0.000
2982.6	1.301	0.002	3039.6	1.288	0.005	3096.5	1.293	0.002	3386.3	1.296	0.002
2983.6	1.301	0.002	3040.5	1.288	0.003	3097.4	1.293	0.002	3395.0	1.296	0.002
2984.6	1.301	0.002	3041.5	1.289	0.003	3098.4	1.293	0.002			
2985.5	1.301	0.002	3042.4	1.289	0.004	3099.3	1.293	0.002			
2986.5	1.301	0.002	3043.4	1.290	0.004	3104.2	1.294	0.002			

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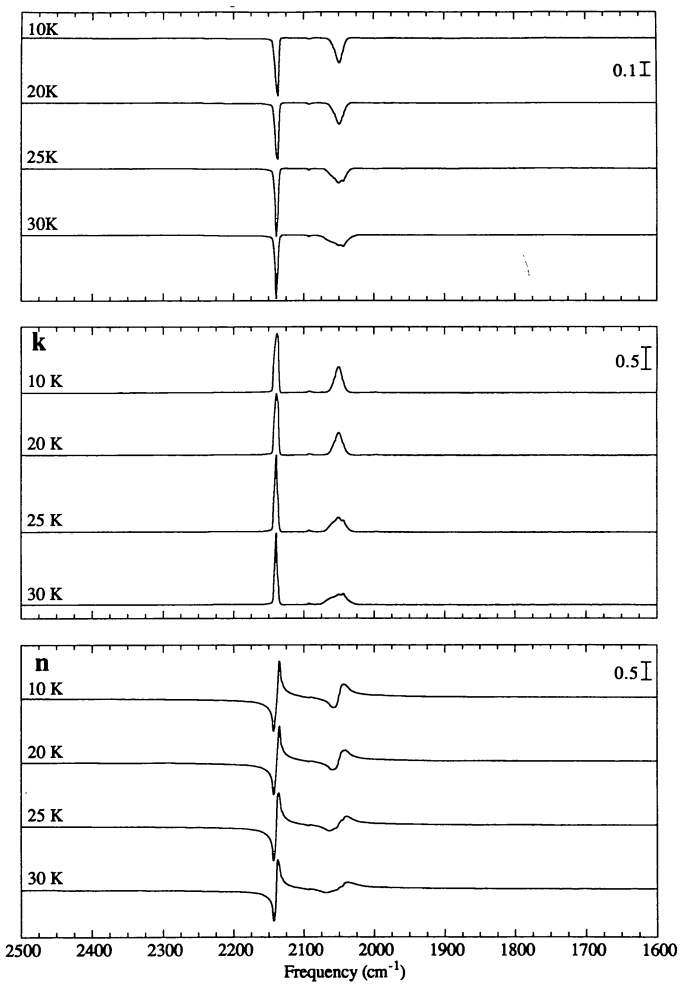

FIG. 10.—The 2500 to 1600 cm^{-1} transmission spectra and optical constants (n and k) of a CO:OCS = 20:1 ice mixture at temperatures of 10, 20, 25, and 30 K. The original ice was deposited at 10 K.

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TABLE 10A

CO:OCS = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1610.2	1.318	0.004	2033.1	1.498	0.003	2118.5	1.420	0.004	2147.9	0.893	0.028
1620.8	1.318	0.004	2034.6	1.518	0.008	2119.9	1.433	0.004	2148.4	0.917	0.025
1631.4	1.317	0.004	2036.0	1.544	0.017	2120.4	1.437	0.004	2148.9	0.938	0.026
1642.0	1.318	0.004	2037.5	1.574	0.032	2120.9	1.442	0.004	2149.3	0.956	0.023
1652.6	1.315	0.000	2038.9	1.607	0.059	2121.4	1.447	0.004	2149.8	0.972	0.024
1663.2	1.318	0.000	2040.4	1.639	0.100.	2121.9	1.452	0.004	2150.3	0.987	0.021
1673.8	1.319	0.000	2041.8	1.661	0.157	2122.3	1.458	0.001	2150.8	1.001	0.022
1684.5	1.319	0.000	2043.2	1.671	0.224	2122.8	1.465	0.001	2151.3	1.013	0.023
1695.1	1.320	0.004	2044.7	1.668	0.301	2123.3	1.473	0.001	2151.7	1.023	0.023
1705.7	1.320	0.004	2046.1	1.646	0.394	2123.8	1.480	0.000	2152.2	1.032	0.020
1716.3	1.320	0.004	2047.6	1.584	0.492	2124.3	1.488	0.000	2152.7	1.042	0.021
1726.9	1.320	0.004	2049.0	1.478	0.563	2124.7	1.496	0.003	2153.2	1.051	0.021
1737.5	1.321	0.004	2050.5	1.354	0.586	2125.2	1.505	0.000	2153.7	1.058	0.021
1748.1	1.320	0.004	2051.9	1.233	0.561	2125.7	1.515	0.000	2154.2	1.065	0.018
1758.7	1.322	0.004	2053.4	1.135	0.497	2126.2	1.525	0.003	2154.6	1.073	0.019
1769.3	1.323	0.004	2054.8	1.070	0.412	2126.7	1.535	0.002	2155.1	1.079	0.019
1779.9	1.321	0.000	2056.3	1.043	0.324	2127.2	1.547	0.000	2155.6	1.085	0.019
1790.6	1.323	0.004	2057.7	1.036	0.256	2127.6	1.562	0.000	2156.1	1.090	0.019
1801.2	1.324	0.004	2059.2	1.035	0.194	2128.1	1.576	0.001	2156.6	1.095	0.016
1811.8	1.326	0.004	2060.6	1.045	0.138	2128.6	1.593	0.000	2157.1	1.101	0.017
1822.4	1.324	0.004	2062.1	1.067	0.086	2129.1	1.612	0.000	2157.5	1.107	0.017
1833.0	1.326	0.000	2063.5	1.100	0.048	2129.6	1.632	0.000	2158.0	1.111	0.017
1843.6	1.326	0.004	2064.9	1.131	0.029	2130.0	1.657	0.000	2158.5	1.116	0.017
1854.2	1.328	0.004	2066.4	1.161	0.017	2130.5	1.684	0.000	2159.0	1.120	0.017
1864.8	1.331	0.000	2067.8	1.182	0.014	2131.0	1.717	0.000	2159.5	1.123	0.017
1875.4	1.333	0.000	2069.3	1.200	0.009	2131.5	1.756	0.000	2159.9	1.127	0.018
1886.0	1.333	0.004	2070.7	1.216	0.009	2132.0	1.804	0.000	2170.6	1.181	0.016
1896.6	1.333	0.004	2072.2	1.228	0.010	2132.5	1.863	0.007	2181.2	1.204	0.017
1907.3	1.336	0.004	2073.6	1.238	0.010	2132.9	1.938	0.022	2191.8	1.220	0.014
1917.9	1.337	0.004	2075.1	1.247	0.007	2133.4	2.029	0.057	2202.4	1.230	0.014
1928.5	1.341	0.004	2076.5	1.256	0.007	2133.9	2.134	0.127	2213.0	1.236	0.012
1939.1	1.342	0.000	2078.0	1.264	0.008	2134.4	2.239	0.257	2223.6	1.241	0.012
1949.7	1.346	0.000	2079.4	1.270	0.008	2134.9	2.311	0.465	2234.2	1.245	0.009
1960.3	1.351	0.004	2080.9	1.277	0.008	2135.4	2.311	0.728	2244.8	1.249	0.007
1970.9	1.356	0.004	2082.3	1.283	0.008	2135.8	2.223	0.982	2255.4	1.253	0.004
1981.5	1.363	0.004	2083.8	1.289	0.008	2136.3	2.071	1.169	2266.0	1.258	0.004
1992.1	1.375	0.007	2085.2	1.296	0.008	2136.8	1.893	1.280	2276.6	1.260	0.004
2001.3	1.374	0.007	2086.6	1.302	0.011	2137.3	1.718	1.330	2287.3	1.263	0.004
2002.7	1.377	0.004	2088.1	1.308	0.014	2137.8	1.553	1.348	2297.9	1.263	0.004
2004.2	1.380	0.004	2089.5	1.313	0.020	2138.2	1.404	1.342	2308.5	1.267	0.002
2005.6	1.383	0.004	2091.0	1.313	0.028	2138.7	1.265	1.325	2319.1	1.270	0.002
2007.1	1.385	0.004	2092.4	1.304	0.031	2139.2	1.135	1.288	2329.7	1.271	0.004
2008.5	1.388	0.004	2093.9	1.301	0.019	2139.7	1.016	1.239	2340.3	1.273	0.002
2010.0	1.391	0.004	2095.3	1.306	0.011	2140.2	0.909	1.178	2350.9	1.272	0.002
2011.4	1.394	0.004	2096.8	1.315	0.009	2140.7	0.811	1.111	2361.5	1.273	0.002
2012.9	1.397	0.007	2098.2	1.321	0.009	2141.1	0.722	1.039	2372.1	1.275	0.002
2014.3	1.398	0.004	2099.7	1.326	0.009	2141.6	0.640	0.954	2382.7	1.276	0.002
2015.8	1.402	0.004	2101.1	1.330	0.009	2142.1	0.567	0.866	2393.4	1.277	0.000
2017.2	1.406	0.004	2102.6	1.336	0.006	2142.6	0.495	0.774	2404.0	1.278	0.002
2018.7	1.410	0.004	2104.0	1.342	0.006	2143.1	0.426	0.652	2414.6	1.279	0.002
2020.1	1.414	0.004	2105.5	1.348	0.006	2143.6	0.387	0.475	2425.2	1.279	0.002
2021.5	1.419	0.001	2106.9	1.354	0.006	2144.0	0.415	0.269	2435.8	1.280	0.000
2023.0	1.425	0.004	2108.3	1.360	0.006	2144.5	0.504	0.125	2446.4	1.281	0.002
2024.4	1.430	0.001	2109.8	1.366	0.006	2145.0	0.604	0.069	2457.0	1.281	0.002
2025.9	1.439	0.001	2111.2	1.373	0.006	2145.5	0.685	0.044	2467.6	1.281	0.002
2027.3	1.448	0.001	2112.7	1.380	0.006	2146.0	0.749	0.037	2478.2	1.283	0.000
2028.8	1.456	0.001	2114.1	1.387	0.004	2146.4	0.797	0.035	2488.8	1.282	0.000
2030.2	1.467	0.004	2115.6	1.397	0.004	2146.9	0.835	0.033	2499.4	1.282	0.000
2031.7	1.480	0.003	2117.0	1.408	0.004	2147.4	0.866	0.030			

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TABLE 10B

CO:OCS = 20:1 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1610.2	1.314	0.000	2033.1	1.490	0.006	2118.5	1.420	0.001	2147.9	0.910	0.036
1620.8	1.317	0.000	2034.6	1.511	0.013	2119.9	1.432	0.001	2148.4	0.931	0.033
1631.4	1.315	0.000	2036.0	1.535	0.024	2120.4	1.437	0.001	2148.9	0.950	0.034
1642.0	1.318	0.004	2037.5	1.560	0.045	2120.9	1.442	0.001	2149.3	0.966	0.031
1652.6	1.316	0.004	2038.9	1.585	0.076	2121.4	1.447	0.001	2149.8	0.981	0.028
1663.2	1.316	0.004	2040.4	1.607	0.118	2121.9	1.453	0.001	2150.3	0.996	0.029
1673.8	1.318	0.000	2041.8	1.617	0.173	2122.3	1.458	0.001	2150.8	1.007	0.029
1684.5	1.317	0.004	2043.2	1.611	0.229	2122.8	1.465	0.001	2151.3	1.018	0.026
1695.1	1.320	0.000	2044.7	1.597	0.280	2123.3	1.471	0.001	2151.7	1.028	0.027
1705.7	1.319	0.004	2046.1	1.578	0.346	2123.8	1.478	0.001	2152.2	1.038	0.024
1716.3	1.317	0.004	2047.6	1.532	0.420	2124.3	1.486	0.000	2152.7	1.047	0.024
1726.9	1.319	0.000	2049.0	1.451	0.478	2124.7	1.495	0.000	2153.2	1.054	0.024
1737.5	1.318	0.000	2050.5	1.349	0.503	2125.2	1.503	0.003	2153.7	1.062	0.021
1748.1	1.321	0.004	2051.9	1.247	0.479	2125.7	1.511	0.003	2154.2	1.070	0.022
1758.7	1.321	0.004	2053.4	1.170	0.421	2126.2	1.521	0.003	2154.6	1.075	0.022
1769.3	1.320	0.000	2054.8	1.123	0.355	2126.7	1.531	0.002	2155.1	1.082	0.019
1779.9	1.320	0.000	2056.3	1.099	0.297	2127.2	1.543	0.002	2155.6	1.088	0.019
1790.6	1.323	0.004	2057.7	1.087	0.244	2127.6	1.555	0.002	2156.1	1.094	0.016
1801.2	1.322	0.000	2059.2	1.077	0.197	2128.1	1.570	0.001	2156.6	1.100	0.020
1811.8	1.322	0.000	2060.6	1.075	0.146	2128.6	1.585	0.003	2157.1	1.104	0.017
1822.4	1.325	0.000	2062.1	1.088	0.096	2129.1	1.602	0.003	2157.5	1.109	0.017
1833.0	1.323	0.004	2063.5	1.112	0.055	2129.6	1.622	0.002	2158.0	1.114	0.017
1843.6	1.328	0.000	2064.9	1.142	0.032	2130.0	1.644	0.003	2158.5	1.117	0.017
1854.2	1.326	0.000	2066.4	1.167	0.020	2130.5	1.669	0.004	2159.0	1.122	0.014
1864.8	1.327	0.004	2067.8	1.189	0.012	2131.0	1.699	0.004	2159.5	1.127	0.014
1875.4	1.330	0.000	2069.3	1.207	0.009	2131.5	1.734	0.006	2159.9	1.131	0.015
1886.0	1.331	0.004	2070.7	1.221	0.007	2132.0	1.776	0.009	2170.6	1.184	0.013
1896.6	1.331	0.004	2072.2	1.234	0.007	2132.5	1.827	0.015	2181.2	1.209	0.014
1907.3	1.332	0.004	2073.6	1.243	0.007	2132.9	1.891	0.028	2191.8	1.222	0.014
1917.9	1.335	0.004	2075.1	1.252	0.004	2133.4	1.969	0.053	2202.4	1.233	0.012
1928.5	1.338	0.000	2076.5	1.261	0.005	2133.9	2.063	0.103	2213.0	1.237	0.012
1939.1	1.339	0.000	2078.0	1.268	0.005	2134.4	2.165	0.201	2223.6	1.244	0.009
1949.7	1.344	0.000	2079.4	1.275	0.005	2134.9	2.249	0.368	2234.2	1.248	0.007
1960.3	1.348	0.000	2080.9	1.281	0.005	2135.4	2.278	0.599	2244.8	1.252	0.004
1970.9	1.353	0.000	2082.3	1.287	0.005	2135.8	2.229	0.844	2255.4	1.257	0.004
1981.5	1.358	0.004	2083.8	1.293	0.005	2136.3	2.113	1.043	2266.0	1.258	0.004
1992.1	1.370	0.004	2085.2	1.299	0.006	2136.8	1.964	1.171	2276.6	1.263	0.002
2001.3	1.369	0.004	2086.6	1.306	0.008	2137.3	1.813	1.249	2287.3	1.266	0.002
2002.7	1.372	0.004	2088.1	1.311	0.011	2137.8	1.664	1.302	2297.9	1.268	0.002
2004.2	1.374	0.004	2089.5	1.315	0.017	2138.2	1.519	1.344	2308.5	1.271	0.002
2005.6	1.377	0.001	2091.0	1.316	0.025	2138.7	1.362	1.377	2319.1	1.273	0.002
2007.1	1.380	0.001	2092.4	1.307	0.031	2139.2	1.195	1.371	2329.7	1.274	0.002
2008.5	1.384	0.001	2093.9	1.301	0.017	2139.7	1.039	1.316	2340.3	1.275	0.002
2010.0	1.385	0.004	2095.3	1.309	0.008	2140.2	0.904	1.242	2350.9	1.275	0.002
2011.4	1.388	0.004	2096.8	1.317	0.006	2140.7	0.787	1.155	2361.5	1.276	0.002
2012.9	1.390	0.004	2098.2	1.323	0.006	2141.1	0.689	1.056	2372.1	1.277	0.002
2014.3	1.393	0.004	2099.7	1.327	0.003	2141.6	0.606	0.954	2382.7	1.278	0.002
2015.8	1.396	0.004	2101.1	1.333	0.003	2142.1	0.533	0.853	2393.4	1.279	0.000
2017.2	1.398	0.004	2102.6	1.339	0.003	2142.6	0.463	0.742	2404.0	1.280	0.002
2018.7	1.402	0.004	2104.0	1.344	0.003	2143.1	0.406	0.593	2414.6	1.280	0.002
2020.1	1.407	0.001	2105.5	1.350	0.004	2143.6	0.399	0.387	2425.2	1.281	0.002
2021.5	1.412	0.001	2106.9	1.355	0.004	2144.0	0.463	0.205	2435.8	1.281	0.002
2023.0	1.418	0.001	2108.3	1.361	0.004	2144.5	0.561	0.113	2446.4	1.281	0.000
2024.4	1.424	0.001	2109.8	1.368	0.004	2145.0	0.649	0.075	2457.0	1.283	0.002
2025.9	1.431	0.001	2111.2	1.374	0.004	2145.5	0.718	0.055	2467.6	1.282	0.002
2027.3	1.439	0.001	2112.7	1.381	0.004	2146.0	0.773	0.048	2478.2	1.283	0.002
2028.8	1.449	0.001	2114.1	1.387	0.004	2146.4	0.817	0.040	2488.8	1.283	0.002
2030.2	1.459	0.004	2115.6	1.398	0.001	2146.9	0.854	0.038	2499.4	1.282	0.002
2031.7	1.472	0.004	2117.0	1.408	0.001	2147.4	0.885	0.035			

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TABLE 10C

CO:OCS = 20:1 AT 25 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1610.2	1.317	0.000	2033.1	1.495	0.026	2118.5	1.417	0.004	2147.9	0.892	0.036
1620.8	1.316	0.004	2034.6	1.511	0.040	2119.9	1.429	0.004	2148.4	0.915	0.037
1631.4	1.316	0.004	2036.0	1.527	0.062	2120.4	1.433	0.004	2148.9	0.935	0.034
1642.0	1.316	0.004	2037.5	1.541	0.089	2120.9	1.438	0.004	2149.3	0.953	0.031
1652.6	1.315	0.004	2038.9	1.550	0.124	2121.4	1.443	0.004	2149.8	0.970	0.031
1663.2	1.315	0.004	2040.4	1.552	0.166	2121.9	1.448	0.004	2150.3	0.984	0.028
1673.8	1.313	0.000	2041.8	1.539	0.216	2122.3	1.453	0.004	2150.8	0.997	0.029
1684.5	1.316	0.004	2043.2	1.500	0.259	2122.8	1.458	0.004	2151.3	1.009	0.026
1695.1	1.318	0.000	2044.7	1.454	0.264	2123.3	1.464	0.001	2151.7	1.020	0.026
1705.7	1.317	0.004	2046.1	1.438	0.257	2123.8	1.472	0.001	2152.2	1.030	0.023
1716.3	1.315	0.004	2047.6	1.431	0.276	2124.3	1.478	0.003	2152.7	1.039	0.024
1726.9	1.317	0.000	2049.0	1.407	0.311	2124.7	1.486	0.000	2153.2	1.048	0.021
1737.5	1.316	0.000	2050.5	1.355	0.337	2125.2	1.495	0.000	2153.7	1.057	0.021
1748.1	1.319	0.000	2051.9	1.295	0.327	2125.7	1.503	0.003	2154.2	1.063	0.022
1758.7	1.319	0.000	2053.4	1.256	0.295	2126.2	1.512	0.003	2154.6	1.070	0.019
1769.3	1.321	0.000	2054.8	1.234	0.265	2126.7	1.521	0.003	2155.1	1.077	0.019
1779.9	1.320	0.000	2056.3	1.219	0.244	2127.2	1.532	0.002	2155.6	1.084	0.016
1790.6	1.322	0.000	2057.7	1.204	0.226	2127.6	1.543	0.002	2156.1	1.091	0.016
1801.2	1.322	0.000	2059.2	1.191	0.208	2128.1	1.556	0.002	2156.6	1.096	0.016
1811.8	1.324	0.000	2060.6	1.174	0.186	2128.6	1.571	0.001	2157.1	1.101	0.017
1822.4	1.324	0.000	2062.1	1.161	0.160	2129.1	1.586	0.003	2157.5	1.106	0.014
1833.0	1.324	0.000	2063.5	1.156	0.127	2129.6	1.603	0.002	2158.0	1.112	0.014
1843.6	1.328	0.000	2064.9	1.156	0.101	2130.0	1.623	0.004	2158.5	1.117	0.014
1854.2	1.327	0.000	2066.4	1.161	0.071	2130.5	1.644	0.005	2159.0	1.122	0.014
1864.8	1.328	0.004	2067.8	1.176	0.046	2131.0	1.669	0.006	2159.5	1.126	0.014
1875.4	1.329	0.000	2069.3	1.194	0.027	2131.5	1.698	0.006	2159.9	1.130	0.015
1886.0	1.330	0.004	2070.7	1.211	0.018	2132.0	1.733	0.010	2170.6	1.185	0.013
1896.6	1.330	0.004	2072.2	1.227	0.013	2132.5	1.773	0.015	2181.2	1.211	0.014
1907.3	1.331	0.004	2073.6	1.241	0.010	2132.9	1.821	0.025	2191.8	1.226	0.014
1917.9	1.334	0.004	2075.1	1.251	0.007	2133.4	1.879	0.041	2202.4	1.235	0.015
1928.5	1.338	0.004	2076.5	1.261	0.008	2133.9	1.946	0.073	2213.0	1.240	0.015
1939.1	1.339	0.000	2078.0	1.269	0.008	2134.4	2.021	0.123	2223.6	1.244	0.012
1949.7	1.344	0.000	2079.4	1.276	0.008	2134.9	2.096	0.207	2234.2	1.248	0.007
1960.3	1.347	0.004	2080.9	1.281	0.008	2135.4	2.158	0.329	2244.8	1.253	0.007
1970.9	1.352	0.004	2082.3	1.287	0.005	2135.8	2.192	0.476	2255.4	1.256	0.004
1981.5	1.357	0.004	2083.8	1.295	0.005	2136.3	2.197	0.625	2266.0	1.261	0.004
1992.1	1.367	0.007	2085.2	1.303	0.008	2136.8	2.186	0.770	2276.6	1.264	0.004
2001.3	1.368	0.004	2086.6	1.308	0.008	2137.3	2.166	0.926	2287.3	1.266	0.004
2002.7	1.371	0.004	2088.1	1.314	0.011	2137.8	2.117	1.126	2297.9	1.268	0.004
2004.2	1.374	0.004	2089.5	1.317	0.017	2138.2	2.002	1.385	2308.5	1.270	0.004
2005.6	1.376	0.004	2091.0	1.322	0.022	2138.7	1.778	1.637	2319.1	1.270	0.004
2007.1	1.378	0.004	2092.4	1.314	0.039	2139.2	1.468	1.755	2329.7	1.273	0.002
2008.5	1.380	0.004	2093.9	1.301	0.019	2139.7	1.160	1.702	2340.3	1.275	0.002
2010.0	1.382	0.004	2095.3	1.310	0.008	2140.2	0.915	1.557	2350.9	1.273	0.004
2011.4	1.385	0.004	2096.8	1.319	0.006	2140.7	0.741	1.384	2361.5	1.274	0.002
2012.9	1.388	0.004	2098.2	1.325	0.006	2141.1	0.620	1.226	2372.1	1.276	0.002
2014.3	1.391	0.004	2099.7	1.331	0.006	2141.6	0.531	1.076	2382.7	1.277	0.002
2015.8	1.394	0.004	2101.1	1.336	0.006	2142.1	0.464	0.934	2393.4	1.278	0.002
2017.2	1.397	0.004	2102.6	1.341	0.006	2142.6	0.408	0.805	2404.0	1.279	0.002
2018.7	1.400	0.004	2104.0	1.345	0.006	2143.1	0.353	0.666	2414.6	1.280	0.002
2020.1	1.405	0.004	2105.5	1.350	0.006	2143.6	0.333	0.456	2425.2	1.281	0.002
2021.5	1.409	0.001	2106.9	1.354	0.006	2144.0	0.392	0.239	2435.8	1.281	0.002
2023.0	1.416	0.004	2108.3	1.361	0.004	2144.5	0.501	0.119	2446.4	1.282	0.002
2024.4	1.422	0.001	2109.8	1.368	0.004	2145.0	0.605	0.075	2457.0	1.282	0.002
2025.9	1.431	0.004	2111.2	1.376	0.006	2145.5	0.684	0.059	2467.6	1.283	0.002
2027.3	1.439	0.004	2112.7	1.380	0.006	2146.0	0.744	0.051	2478.2	1.283	0.002
2028.8	1.450	0.006	2114.1	1.388	0.004	2146.4	0.792	0.044	2488.8	1.283	0.002
2030.2	1.463	0.009	2115.6	1.397	0.004	2146.9	0.831	0.041	2499.4	1.282	0.002
2031.7	1.478	0.016	2117.0	1.407	0.004	2147.4	0.864	0.038			

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TABLE 10D

CO:OCS = 20:1 AT 30 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1610.2	1.315	0.000	2033.1	1.470	0.058	2118.5	1.393	0.004	2147.9	0.959	0.035
1620.8	1.317	0.004	2034.6	1.477	0.073	2119.9	1.403	0.004	2148.4	0.979	0.032
1631.4	1.318	0.004	2036.0	1.484	0.091	2120.4	1.406	0.004	2148.9	0.996	0.033
1642.0	1.315	0.004	2037.5	1.487	0.109	2120.9	1.410	0.004	2149.3	1.010	0.030
1652.6	1.314	0.004	2038.9	1.491	0.135	2121.4	1.414	0.004	2149.8	1.024	0.030
1663.2	1.314	0.004	2040.4	1.485	0.166	2121.9	1.418	0.004	2150.3	1.035	0.027
1673.8	1.312	0.000	2041.8	1.474	0.200	2122.3	1.423	0.004	2150.8	1.046	0.028
1684.5	1.315	0.004	2043.2	1.440	0.240	2122.8	1.427	0.004	2151.3	1.056	0.025
1695.1	1.318	0.000	2044.7	1.388	0.236	2123.3	1.432	0.004	2151.7	1.066	0.025
1705.7	1.316	0.004	2046.1	1.369	0.214	2123.8	1.437	0.004	2152.2	1.073	0.025
1716.3	1.314	0.004	2047.6	1.363	0.212	2124.3	1.442	0.004	2152.7	1.081	0.022
1726.9	1.315	0.004	2049.0	1.353	0.222	2124.7	1.449	0.001	2153.2	1.089	0.023
1737.5	1.314	0.000	2050.5	1.327	0.232	2125.2	1.457	0.001	2153.7	1.094	0.023
1748.1	1.318	0.004	2051.9	1.299	0.220	2125.7	1.464	0.004	2154.2	1.100	0.020
1758.7	1.316	0.000	2053.4	1.283	0.203	2126.2	1.470	0.004	2154.6	1.107	0.020
1769.3	1.318	0.000	2054.8	1.272	0.192	2126.7	1.478	0.003	2155.1	1.112	0.020
1779.9	1.317	0.000	2056.3	1.265	0.180	2127.2	1.486	0.003	2155.6	1.117	0.017
1790.6	1.322	0.000	2057.7	1.259	0.171	2127.6	1.496	0.000	2156.1	1.122	0.017
1801.2	1.320	0.000	2059.2	1.253	0.165	2128.1	1.507	0.003	2156.6	1.126	0.018
1811.8	1.320	0.000	2060.6	1.242	0.160	2128.6	1.518	0.003	2157.1	1.131	0.015
1822.4	1.320	0.000	2062.1	1.233	0.151	2129.1	1.531	0.002	2157.5	1.136	0.015
1833.0	1.321	0.000	2063.5	1.224	0.139	2129.6	1.546	0.002	2158.0	1.140	0.015
1843.6	1.323	0.004	2064.9	1.216	0.127	2130.0	1.562	0.004	2158.5	1.143	0.015
1854.2	1.323	0.000	2066.4	1.211	0.111	2130.5	1.579	0.006	2159.0	1.147	0.012
1864.8	1.325	0.000	2067.8	1.207	0.095	2131.0	1.598	0.007	2159.5	1.152	0.012
1875.4	1.327	0.000	2069.3	1.205	0.080	2131.5	1.621	0.008	2159.9	1.155	0.013
1886.0	1.327	0.004	2070.7	1.209	0.064	2132.0	1.647	0.011	2170.6	1.202	0.014
1896.6	1.328	0.003	2072.2	1.214	0.049	2132.5	1.678	0.014	2181.2	1.224	0.015
1907.3	1.329	0.003	2073.6	1.223	0.033	2132.9	1.714	0.022	2191.8	1.235	0.015
1917.9	1.331	0.004	2075.1	1.233	0.028	2133.4	1.757	0.034	2202.4	1.242	0.015
1928.5	1.335	0.000	2076.5	1.242	0.019	2133.9	1.807	0.054	2213.0	1.246	0.012
1939.1	1.334	0.004	2078.0	1.252	0.016	2134.4	1.863	0.085	2223.6	1.250	0.009
1949.7	1.340	0.000	2079.4	1.260	0.013	2134.9	1.924	0.134	2234.2	1.254	0.007
1960.3	1.343	0.004	2080.9	1.269	0.011	2135.4	1.982	0.213	2244.8	1.257	0.004
1970.9	1.347	0.004	2082.3	1.274	0.011	2135.8	2.027	0.311	2255.4	1.262	0.004
1981.5	1.351	0.000	2083.8	1.282	0.008	2136.3	2.060	0.416	2266.0	1.265	0.004
1992.1	1.359	0.007	2085.2	1.289	0.008	2136.8	2.088	0.529	2276.6	1.268	0.004
2001.3	1.364	0.004	2086.6	1.297	0.011	2137.3	2.115	0.667	2287.3	1.269	0.004
2002.7	1.366	0.004	2088.1	1.302	0.014	2137.8	2.118	0.875	2297.9	1.270	0.004
2004.2	1.367	0.004	2089.5	1.303	0.017	2138.2	2.044	1.166	2308.5	1.272	0.004
2005.6	1.370	0.001	2091.0	1.311	0.020	2138.7	1.837	1.471	2319.1	1.274	0.002
2007.1	1.372	0.004	2092.4	1.304	0.039	2139.2	1.523	1.622	2329.7	1.276	0.002
2008.5	1.376	0.001	2093.9	1.291	0.017	2139.7	1.202	1.586	2340.3	1.277	0.002
2010.0	1.378	0.004	2095.3	1.301	0.008	2140.2	0.946	1.435	2350.9	1.278	0.002
2011.4	1.380	0.004	2096.8	1.309	0.008	2140.7	0.771	1.255	2361.5	1.279	0.002
2012.9	1.382	0.004	2098.2	1.313	0.008	2141.1	0.655	1.086	2372.1	1.280	0.002
2014.3	1.384	0.004	2099.7	1.318	0.006	2141.6	0.575	0.931	2382.7	1.281	0.002
2015.8	1.388	0.001	2101.1	1.323	0.006	2142.1	0.516	0.793	2393.4	1.281	0.002
2017.2	1.393	0.004	2102.6	1.327	0.006	2142.6	0.465	0.654	2404.0	1.282	0.002
2018.7	1.399	0.001	2104.0	1.332	0.006	2143.1	0.443	0.467	2414.6	1.283	0.002
2020.1	1.404	0.004	2105.5	1.337	0.006	2143.6	0.483	0.271	2425.2	1.283	0.002
2021.5	1.410	0.004	2106.9	1.341	0.006	2144.0	0.573	0.143	2435.8	1.284	0.002
2023.0	1.418	0.007	2108.3	1.346	0.006	2144.5	0.666	0.091	2446.4	1.284	0.002
2024.4	1.424	0.009	2109.8	1.351	0.006	2145.0	0.740	0.065	2457.0	1.284	0.002
2025.9	1.432	0.014	2111.2	1.357	0.006	2145.5	0.799	0.053	2467.6	1.285	0.002
2027.3	1.439	0.019	2112.7	1.362	0.006	2146.0	0.845	0.046	2478.2	1.285	0.002
2028.8	1.448	0.027	2114.1	1.367	0.004	2146.4	0.882	0.043	2488.8	1.285	0.002
2030.2	1.455	0.037	2115.6	1.375	0.004	2146.9	0.912	0.040	2499.4	1.283	0.002
2031.7	1.463	0.047	2117.0	1.384	0.004	2147.4	0.937	0.038			

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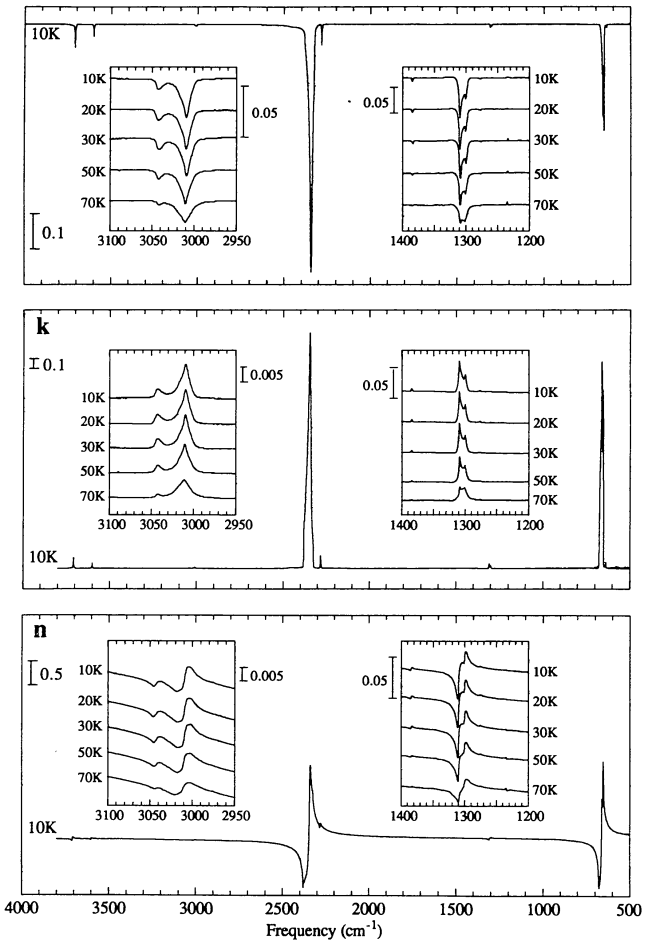

FIG. 11.—The 4000 to 500 cm^{-1} transmission spectrum and optical constants (n and k) of a CO_2:CH_4 = 20:1 ice mixture at 10 K. The insets show expansions of the CH_4 features in the 3100 to 2950 cm^{-1} and 1400 to 1200 cm^{-1} regions for the ice at temperatures of 10, 20, 30, 50, and 70 K. The original ice was deposited at 10 K.

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TABLE 11A

CO_2:CH_4 = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.316	0.000	614.9	1.464	0.009	728.7	1.089	0.006	1202.7	1.233	0.000	1259.6	1.237	0.002	1316.5	1.218	0.001	1373.4	1.236	0.003	2009.5	1.280	0.005
503.0	1.323	0.011	616.8	1.477	0.009	730.6	1.093	0.006	1203.7	1.233	0.000	1260.6	1.237	0.002	1317.5	1.220	0.002	1374.4	1.236	0.003	2031.7	1.284	0.002
504.9	1.314	0.011	618.7	1.486	0.000	732.5	1.098	0.006	1204.6	1.233	0.000	1261.5	1.237	0.002	1318.4	1.222	0.002	1375.3	1.236	0.003	2053.9	1.287	0.002
506.8	1.325	0.000	620.6	1.498	0.000	734.5	1.102	0.007	1205.6	1.233	0.000	1262.5	1.237	0.002	1319.4	1.223	0.002	1376.3	1.236	0.003	2076.0	1.293	0.002
508.8	1.332	0.000	622.6	1.512	0.000	736.4	1.105	0.007	1206.6	1.233	0.000	1263.5	1.237	0.002	1320.4	1.225	0.002	1377.3	1.236	0.003	2098.2	1.300	0.002
510.7	1.338	0.000	624.5	1.526	0.008	738.3	1.109	0.007	1207.5	1.232	0.000	1264.4	1.237	0.002	1321.3	1.226	0.002	1378.2	1.236	0.003	2120.4	1.307	0.003
512.6	1.327	0.011	626.4	1.541	0.008	740.2	1.112	0.007	1208.5	1.233	0.000	1265.4	1.237	0.002	1322.3	1.226	0.002	1379.2	1.237	0.003	2142.6	1.316	0.005
514.6	1.322	0.011	628.4	1.559	0.008	742.2	1.116	0.007	1209.5	1.233	0.000	1266.4	1.237	0.002	1323.3	1.227	0.002	1380.2	1.237	0.003	2151.3	1.321	0.003
516.5	1.327	0.000	630.3	1.579	0.007	744.1	1.119	0.007	1210.4	1.233	0.000	1267.3	1.238	0.002	1324.2	1.227	0.002	1381.1	1.237	0.003	2153.2	1.321	0.003
518.4	1.331	0.011	632.2	1.605	0.007	746.0	1.121	0.007	1211.4	1.233	0.000	1268.3	1.238	0.002	1325.2	1.228	0.002	1382.1	1.238	0.003	2155.1	1.322	0.003
520.3	1.326	0.000	634.1	1.630	0.013	748.0	1.124	0.007	1212.3	1.233	0.000	1269.3	1.238	0.002	1326.2	1.229	0.002	1383.1	1.238	0.004	2157.1	1.323	0.003
522.3	1.335	0.000	636.1	1.670	0.019	749.9	1.127	0.007	1213.3	1.233	0.000	1270.2	1.238	0.002	1327.1	1.229	0.002	1384.0	1.237	0.007	2159.0	1.325	0.003
524.2	1.335	0.011	638.0	1.704	0.044	751.8	1.129	0.007	1214.3	1.234	0.000	1271.2	1.238	0.002	1328.1	1.230	0.002	1385.0	1.235	0.006	2160.9	1.326	0.003
526.1	1.323	0.011	639.9	1.710	0.057	753.7	1.131	0.007	1215.2	1.233	0.001	1272.1	1.238	0.002	1329.1	1.230	0.002	1386.0	1.234	0.004	2162.8	1.327	0.003
528.1	1.331	0.000	641.9	1.753	0.029	755.7	1.132	0.007	1216.2	1.233	0.000	1273.1	1.239	0.002	1330.0	1.230	0.002	1386.9	1.235	0.003	2164.8	1.329	0.006
530.0	1.336	0.011	643.8	1.817	0.020	757.6	1.139	0.007	1217.2	1.234	0.000	1274.1	1.239	0.002	1331.0	1.231	0.002	1387.9	1.235	0.003	2166.7	1.329	0.003
531.9	1.334	0.000	645.7	1.908	0.016	759.5	1.139	0.007	1218.1	1.234	0.000	1275.0	1.240	0.002	1331.9	1.231	0.002	1388.8	1.236	0.003	2168.6	1.329	0.006
533.8	1.335	0.011	647.7	2.032	0.021	761.5	1.140	0.007	1219.1	1.234	0.001	1276.0	1.240	0.003	1332.9	1.231	0.002	1389.8	1.236	0.003	2170.6	1.330	0.006
535.8	1.332	0.011	649.6	2.225	0.038	763.4	1.140	0.007	1220.1	1.234	0.001	1277.0	1.239	0.003	1333.9	1.232	0.002	1390.8	1.236	0.003	2172.5	1.332	0.003
537.7	1.331	0.000	651.5	2.558	0.155	765.3	1.147	0.007	1221.0	1.234	0.001	1277.9	1.239	0.003	1334.8	1.232	0.002	1391.7	1.236	0.003	2174.4	1.334	0.003
539.6	1.337	0.000	653.4	2.877	0.893	767.2	1.147	0.007	1222.0	1.234	0.001	1278.9	1.239	0.003	1335.8	1.232	0.002	1392.7	1.236	0.002	2176.3	1.334	0.003
541.6	1.344	0.000	655.4	2.230	1.796	769.2	1.147	0.007	1223.0	1.234	0.000	1279.9	1.239	0.003	1336.8	1.232	0.002	1393.7	1.237	0.003	2178.3	1.335	0.003
543.5	1.341	0.011	657.3	1.904	1.178	771.1	1.150	0.000	1223.9	1.234	0.001	1280.8	1.239	0.003	1337.7	1.232	0.002	1394.6	1.237	0.003	2180.2	1.337	0.003
545.4	1.340	0.000	659.2	2.072	1.591	773.0	1.153	0.007	1224.9	1.234	0.000	1281.8	1.240	0.002	1338.7	1.232	0.002	1395.6	1.237	0.003	2182.1	1.338	0.006
547.3	1.346	0.010	661.2	1.509	2.079	775.0	1.154	0.007	1225.9	1.234	0.000	1282.8	1.240	0.002	1339.7	1.233	0.002	1396.6	1.237	0.003	2184.1	1.339	0.003
549.3	1.343	0.000	663.1	0.997	1.855	776.9	1.155	0.007	1226.8	1.234	0.001	1283.7	1.241	0.002	1340.6	1.233	0.002	1397.5	1.237	0.003	2186.0	1.341	0.003
551.2	1.351	0.010	665.0	0.723	1.607	778.8	1.156	0.007	1227.8	1.234	0.000	1284.7	1.241	0.002	1341.6	1.233	0.002	1398.5	1.237	0.003	2187.9	1.342	0.003
553.1	1.347	0.010	666.9	0.550	1.392	780.7	1.157	0.007	1228.7	1.234	0.001	1285.6	1.241	0.002	1342.6	1.233	0.002	1399.5	1.237	0.003	2189.8	1.344	0.003
555.1	1.353	0.010	668.9	0.408	1.205	782.7	1.158	0.007	1229.7	1.234	0.001	1286.6	1.242	0.002	1343.5	1.233	0.002	1411.0	1.238	0.003	2191.8	1.346	0.003
557.0	1.352	0.010	670.8	0.325	0.985	784.6	1.157	0.007	1230.7	1.234	0.000	1287.6	1.242	0.002	1344.5	1.233	0.002	1422.1	1.238	0.003	2193.7	1.347	0.006
558.9	1.352	0.010	672.7	0.270	0.813	786.5	1.163	0.007	1231.6	1.234	0.000	1288.5	1.243	0.002	1345.4	1.233	0.002	1433.2	1.238	0.003	2195.6	1.348	0.003
560.8	1.352	0.010	674.7	0.236	0.610	788.5	1.162	0.007	1232.6	1.235	0.000	1289.5	1.244	0.002	1346.4	1.233	0.002	1444.3	1.239	0.003	2197.6	1.350	0.000
562.8	1.355	0.000	676.6	0.178	0.557	790.4	1.163	0.007	1233.6	1.235	0.001	1290.5	1.244	0.003	1347.4	1.234	0.002	1455.4	1.240	0.003	2199.5	1.352	0.003
564.7	1.356	0.010	678.5	0.307	0.067	792.3	1.163	0.007	1234.5	1.235	0.000	1291.4	1.245	0.003	1348.3	1.234	0.002	1466.5	1.241	0.003	2201.4	1.353	0.004
566.6	1.360	0.019	680.4	0.502	0.007	794.3	1.164	0.007	1235.5	1.235	0.001	1292.4	1.247	0.003	1349.3	1.234	0.002	1477.6	1.241	0.004	2203.3	1.355	0.004
568.6	1.357	0.000	682.4	0.625	0.010	796.2	1.162	0.007	1236.5	1.235	0.001	1293.4	1.248	0.003	1350.3	1.234	0.002	1488.7	1.242	0.004	2205.3	1.357	0.004
570.5	1.368	0.000	684.3	0.705	0.012	798.1	1.168	0.000	1237.4	1.235	0.001	1294.3	1.250	0.004	1351.2	1.234	0.002	1499.8	1.242	0.004	2207.2	1.359	0.004
572.4	1.370	0.010	686.2	0.751	0.012	821.3	1.181	0.007	1238.4	1.235	0.001	1295.3	1.252	0.005	1352.2	1.234	0.002	1521.5	1.244	0.000	2209.1	1.361	0.004
574.4	1.365	0.000	688.2	0.794	0.013	843.4	1.189	0.000	1239.4	1.235	0.001	1296.3	1.254	0.007	1353.2	1.234	0.002	1543.6	1.245	0.004	2211.1	1.363	0.004
576.3	1.374	0.019	690.1	0.836	0.001	865.6	1.197	0.000	1240.3	1.235	0.001	1297.2	1.256	0.011	1354.1	1.234	0.002	1565.8	1.244	0.004	2213.0	1.365	0.004
578.2	1.370	0.010	692.0	0.873	0.002	887.8	1.201	0.000	1241.3	1.235	0.001	1298.2	1.257	0.016	1355.1	1.234	0.002	1588.0	1.245	0.004	2214.9	1.367	0.004
580.1	1.377	0.010	693.9	0.894	0.003	910.0	1.207	0.000	1242.2	1.235	0.001	1299.2	1.257	0.022	1356.1	1.234	0.002	1610.2	1.245	0.004	2216.9	1.369	0.004
582.1	1.382	0.019	695.9	0.921	0.004	932.2	1.210	0.000	1243.2	1.235	0.001	1300.1	1.251	0.030	1357.0	1.235	0.002	1632.4	1.246	0.004	2218.8	1.371	0.004
584.0	1.381	0.010	697.8	0.940	0.015	954.4	1.215	0.000	1244.2	1.235	0.001	1301.1	1.244	0.027	1358.0	1.235	0.002	1654.6	1.246	0.004	2220.7	1.373	0.004
585.9	1.382	0.010	699.7	0.957	0.004	976.5	1.216	0.000	1245.1	1.235	0.001	1302.0	1.243	0.024	1358.9	1.235	0.002	1676.7	1.246	0.004	2222.6	1.376	0.004
587.9	1.390	0.010	701.7	0.975	0.005	998.7	1.219	0.000	1246.1	1.236	0.001	1303.0	1.244	0.024	1359.9	1.235	0.002	1698.9	1.245	0.004	2224.6	1.378	0.004
589.8	1.392	0.010	703.6	0.983	0.005	1020.9	1.218	0.000	1247.1	1.236	0.001	1304.0	1.244	0.026	1360.9	1.235	0.003	1721.1	1.249	0.000	2226.5	1.381	0.004
591.7	1.394	0.010	705.5	0.998	0.005	1043.1	1.220	0.000	1248.0	1.236	0.002	1304.9	1.244	0.028	1361.8	1.235	0.003	1743.3	1.251	0.000	2228.4	1.383	0.004
593.6	1.395	0.010	707.4	1.010	0.005	1065.3	1.222	0.000	1249.0	1.236	0.002	1305.9	1.243	0.031	1362.8	1.235	0.003	1765.5	1.253	0.001	2230.4	1.386	0.004
595.6	1.405	0.001	709.4	1.021	0.006	1087.4	1.225	0.005	1250.0	1.236	0.002	1306.9	1.241	0.036	1363.8	1.235	0.003	1787.7	1.255	0.001	2232.3	1.389	0.004
597.5	1.410	0.001	711.3	1.030	0.006	1109.6	1.226	0.000	1250.9	1.236	0.002	1307.8	1.237	0.040	1364.7	1.235	0.003	1809.8	1.257	0.001	2234.2	1.392	0.004
599.4	1.414	0.009	713.2	1.039	0.006	1131.8	1.228	0.000	1251.9	1.236	0.002	1308.8	1.229	0.049	1365.7	1.235	0.003	1832.0	1.258	0.004	2236.1	1.395	0.004
601.4	1.419	0.001	715.2	1.047	0.006	1152.1	1.231	0.000	1252.9	1.236	0.002	1309.8	1.211	0.050	1366.7	1.235	0.003	1854.2	1.260	0.001	2238.1	1.399	0.004
603.3	1.425	0.009	717.1	1.054	0.006	1163.2	1.231	0.000	1253.8	1.236	0.002	1310.7	1.201	0.033	1367.6	1.235	0.003	1876.4	1.262	0.001	2240.0	1.400	0.004
605.2	1.430	0.009	719.0	1.061	0.006	1174.3	1.231	0.000	1254.8	1.236	0.002	1311.7	1.201	0.018	1368.6	1.235	0.003	1898.6	1.265	0.001	2241.9	1.404	0.004
607.1	1.436	0.009	721.0	1.067	0.006	1185.3	1.232	0.000	1255.8	1.236	0.002	1312.7	1.205	0.011	1369.6	1.236	0.003	1920.8	1.267	0.001	2243.9	1.408	0.004
609.1	1.441	0.009	722.9	1.073	0.006	1196.4	1.232	0.000	1256.7	1.236	0.002	1313.6	1.209	0.006	1370.5	1.236	0.003	1942.9	1.269	0.002	2245.8	1.412	0.004
611.0	1.449	0.001	724.8	1.079	0.006	1200.8	1.232	0.000	1257.7	1.236	0.002	1314.6	1.213	0.004	1371.5	1.236	0.003	1965.1	1.272	0.002	2247.7	1.416	0.006
612.9	1.458	0.009	726.7	1.084	0.006	1201.7	1.233	0.000	1258.6	1.237	0.002	1315.5	1.216	0.002	1372.5	1.236	0.003	1987.3	1.275	0.002	2249.6	1.418	0.006

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TABLE 11A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2251.6	1.423	0.004	2365.4	0.381	0.944	2479.2	1.060	0.005	2969.1	1.184	0.000	3026.0	1.183	0.002	3083.0	1.188	0.000	3574.8	1.211	0.000	3688.6	1.215	0.000
2253.5	1.428	0.006	2367.3	0.361	0.870	2481.1	1.062	0.003	2970.1	1.184	0.000	3027.0	1.183	0.002	3083.9	1.188	0.000	3576.8	1.211	0.000	3690.6	1.217	0.000
2255.4	1.433	0.004	2369.2	0.341	0.797	2483.0	1.064	0.003	2971.1	1.184	0.000	3028.0	1.184	0.002	3084.9	1.188	0.000	3578.7	1.211	0.000	3692.5	1.219	0.000
2257.4	1.437	0.006	2371.2	0.318	0.728	2485.0	1.068	0.003	2972.0	1.184	0.000	3028.9	1.184	0.002	3085.8	1.188	0.000	3580.6	1.212	0.000	3694.4	1.221	0.002
2259.3	1.442	0.006	2373.1	0.297	0.655	2486.9	1.070	0.003	2973.0	1.185	0.000	3029.9	1.184	0.002	3086.8	1.188	0.000	3582.6	1.213	0.000	3696.4	1.224	0.000
2261.2	1.447	0.006	2375.0	0.278	0.571	2488.8	1.073	0.004	2974.0	1.185	0.000	3030.9	1.184	0.002	3087.8	1.188	0.000	3584.5	1.213	0.001	3698.3	1.227	0.002
2263.1	1.452	0.006	2377.0	0.277	0.488	2490.8	1.075	0.004	2974.9	1.185	0.000	3031.8	1.184	0.002	3088.7	1.188	0.000	3586.4	1.214	0.000	3700.2	1.232	0.007
2265.1	1.458	0.006	2378.9	0.235	0.463	2492.7	1.077	0.004	2975.9	1.185	0.001	3032.8	1.185	0.002	3089.7	1.188	0.000	3588.3	1.215	0.000	3702.1	1.236	0.012
2267.0	1.465	0.006	2380.8	0.163	0.225	2494.6	1.078	0.004	2976.9	1.185	0.001	3033.8	1.185	0.002	3090.7	1.188	0.000	3590.3	1.217	0.001	3704.1	1.240	0.018
2268.9	1.473	0.006	2382.7	0.325	0.040	2496.6	1.081	0.004	2977.8	1.185	0.001	3034.7	1.185	0.002	3091.6	1.188	0.000	3592.2	1.219	0.001	3706.0	1.249	0.034
2270.9	1.481	0.006	2384.7	0.448	0.018	2498.5	1.082	0.004	2978.8	1.185	0.001	3035.7	1.185	0.003	3092.6	1.188	0.000	3594.1	1.221	0.003	3707.9	1.233	0.097
2272.8	1.492	0.005	2386.6	0.530	0.015	2521.6	1.102	0.003	2979.8	1.185	0.001	3036.7	1.185	0.003	3093.6	1.188	0.000	3596.1	1.224	0.007	3709.9	1.166	0.071
2274.7	1.504	0.009	2388.5	0.590	0.017	2543.8	1.115	0.001	2980.7	1.185	0.001	3037.6	1.185	0.003	3094.5	1.188	0.000	3598.0	1.229	0.013	3711.8	1.164	0.025
2276.6	1.519	0.015	2390.5	0.636	0.012	2566.0	1.127	0.002	2981.7	1.185	0.001	3038.6	1.185	0.003	3095.5	1.188	0.000	3599.9	1.220	0.053	3713.7	1.176	0.011
2278.6	1.534	0.029	2392.4	0.675	0.012	2588.2	1.136	0.002	2982.6	1.185	0.001	3039.6	1.185	0.003	3096.5	1.188	0.000	3601.8	1.189	0.026	3715.6	1.184	0.007
2280.5	1.548	0.055	2394.3	0.708	0.011	2610.4	1.142	0.003	2983.6	1.186	0.001	3040.5	1.185	0.003	3097.4	1.189	0.000	3603.8	1.192	0.011	3717.6	1.189	0.006
2282.4	1.523	0.124	2396.2	0.737	0.010	2632.5	1.149	0.000	2984.6	1.186	0.001	3041.5	1.185	0.004	3098.4	1.189	0.000	3605.7	1.196	0.006	3719.5	1.192	0.006
2284.4	1.455	0.078	2398.2	0.761	0.013	2654.7	1.155	0.000	2985.5	1.186	0.001	3042.4	1.184	0.004	3099.3	1.189	0.000	3607.6	1.198	0.003	3721.4	1.193	0.006
2286.3	1.470	0.025	2400.1	0.784	0.011	2676.9	1.160	0.001	2986.5	1.186	0.001	3043.4	1.184	0.004	3110.9	1.189	0.000	3609.6	1.200	0.002	3723.4	1.194	0.004
2288.2	1.496	0.009	2402.0	0.804	0.009	2699.1	1.164	0.001	2987.5	1.186	0.001	3044.4	1.184	0.003	3122.0	1.190	0.000	3611.5	1.202	0.002	3725.3	1.195	0.004
2290.2	1.518	0.007	2404.0	0.822	0.011	2721.3	1.167	0.001	2988.4	1.186	0.001	3045.3	1.183	0.003	3133.1	1.191	0.000	3613.4	1.203	0.002	3727.2	1.196	0.003
2292.1	1.535	0.006	2405.9	0.838	0.009	2743.5	1.170	0.001	2989.4	1.186	0.001	3046.3	1.183	0.002	3144.2	1.191	0.000	3615.3	1.203	0.002	3729.2	1.197	0.003
2294.0	1.550	0.006	2407.8	0.854	0.010	2757.9	1.172	0.002	2990.4	1.187	0.001	3047.3	1.184	0.002	3155.3	1.192	0.000	3617.3	1.204	0.000	3731.1	1.198	0.003
2295.9	1.566	0.007	2409.7	0.866	0.012	2769.0	1.172	0.002	2991.3	1.187	0.001	3048.2	1.184	0.002	3166.4	1.193	0.000	3619.2	1.204	0.002	3733.0	1.198	0.003
2297.9	1.581	0.007	2411.7	0.879	0.009	2780.1	1.173	0.002	2992.3	1.187	0.001	3049.2	1.184	0.001	3177.5	1.193	0.000	3621.1	1.205	0.002	3734.9	1.198	0.003
2299.8	1.598	0.006	2413.6	0.891	0.010	2791.2	1.173	0.001	2993.3	1.187	0.001	3050.2	1.184	0.001	3188.6	1.194	0.000	3623.1	1.205	0.000	3736.9	1.198	0.003
2301.7	1.617	0.005	2415.5	0.901	0.008	2802.3	1.174	0.001	2994.2	1.187	0.001	3051.1	1.185	0.000	3199.7	1.194	0.000	3625.0	1.206	0.000	3738.8	1.199	0.002
2303.7	1.636	0.006	2417.5	0.912	0.009	2813.4	1.175	0.001	2995.2	1.188	0.001	3052.1	1.185	0.000	3210.7	1.195	0.000	3626.9	1.206	0.000	3740.7	1.200	0.002
2305.6	1.656	0.007	2419.4	0.921	0.010	2824.5	1.175	0.001	2996.1	1.188	0.001	3053.1	1.185	0.000	3221.8	1.196	0.000	3628.8	1.207	0.002	3742.7	1.200	0.002
2307.5	1.680	0.007	2421.3	0.930	0.007	2835.6	1.176	0.001	2997.1	1.188	0.002	3054.0	1.185	0.000	3232.9	1.196	0.000	3630.8	1.207	0.000	3744.6	1.200	0.002
2309.4	1.706	0.007	2423.2	0.939	0.008	2846.7	1.176	0.000	2998.1	1.189	0.002	3055.0	1.185	0.000	3244.0	1.197	0.000	3632.7	1.207	0.002	3746.5	1.200	0.002
2311.4	1.734	0.008	2425.2	0.948	0.009	2857.7	1.177	0.000	2999.0	1.189	0.002	3055.9	1.185	0.000	3255.1	1.197	0.000	3634.6	1.206	0.002	3748.4	1.201	0.002
2313.3	1.767	0.007	2427.1	0.955	0.009	2868.8	1.178	0.000	3000.0	1.190	0.003	3056.9	1.186	0.000	3266.2	1.198	0.000	3636.6	1.206	0.000	3750.4	1.200	0.002
2315.2	1.806	0.009	2429.0	0.961	0.010	2879.9	1.178	0.000	3001.0	1.190	0.003	3057.9	1.186	0.000	3277.3	1.199	0.000	3638.5	1.207	0.000	3752.3	1.200	0.000
2317.2	1.851	0.009	2431.0	0.967	0.010	2891.0	1.179	0.000	3001.9	1.190	0.004	3058.8	1.186	0.000	3288.4	1.199	0.000	3640.4	1.207	0.000	3754.2	1.201	0.000
2319.1	1.906	0.013	2432.9	0.974	0.008	2902.1	1.180	0.000	3002.9	1.190	0.004	3059.8	1.186	0.000	3299.5	1.200	0.000	3642.3	1.207	0.000	3756.2	1.202	0.000
2321.0	1.976	0.018	2434.8	0.981	0.008	2913.2	1.180	0.000	3003.9	1.191	0.005	3060.8	1.186	0.000	3321.2	1.202	0.000	3644.3	1.208	0.000	3758.1	1.202	0.000
2322.9	2.071	0.035	2436.8	0.986	0.009	2924.3	1.181	0.000	3004.8	1.191	0.006	3061.7	1.186	0.000	3343.4	1.201	0.000	3646.2	1.208	0.000	3760.0	1.202	0.000
2324.9	2.180	0.118	2438.7	0.992	0.009	2935.4	1.182	0.000	3005.8	1.190	0.007	3062.7	1.186	0.000	3365.5	1.202	0.000	3648.1	1.208	0.000	3761.9	1.202	0.000
2326.8	2.237	0.247	2440.6	0.997	0.010	2946.5	1.182	0.000	3006.8	1.190	0.009	3063.7	1.186	0.000	3387.7	1.204	0.000	3650.1	1.208	0.000	3763.9	1.202	0.000
2328.7	2.254	0.329	2442.5	1.002	0.010	2950.8	1.183	0.000	3007.7	1.189	0.010	3064.6	1.186	0.000	3409.9	1.204	0.000	3652.0	1.208	0.000	3765.8	1.203	0.000
2330.7	2.297	0.382	2444.5	1.006	0.010	2951.8	1.183	0.000	3008.7	1.188	0.011	3065.6	1.186	0.000	3432.1	1.204	0.000	3653.9	1.209	0.000	3767.7	1.203	0.000
2332.6	2.372	0.446	2446.4	1.010	0.011	2952.7	1.183	0.000	3009.7	1.186	0.011	3066.6	1.186	0.000	3454.3	1.205	0.000	3655.9	1.209	0.000	3769.7	1.202	0.000
2334.5	2.482	0.537	2448.3	1.014	0.011	2953.7	1.183	0.000	3010.6	1.184	0.010	3067.5	1.187	0.000	3476.5	1.206	0.000	3657.8	1.209	0.000	3771.6	1.204	0.000
2336.4	2.627	0.698	2450.3	1.018	0.011	2954.7	1.183	0.000	3011.6	1.183	0.009	3068.5	1.187	0.000	3498.6	1.206	0.000	3659.7	1.209	0.000	3773.5	1.203	0.000
2338.4	2.769	1.008	2452.2	1.022	0.011	2955.6	1.183	0.000	3012.5	1.183	0.009	3069.4	1.187	0.000	3520.8	1.207	0.000	3661.6	1.209	0.000	3775.4	1.203	0.000
2340.3	2.766	1.510	2454.1	1.025	0.011	2956.6	1.183	0.000	3013.5	1.182	0.008	3070.4	1.187	0.000	3543.0	1.207	0.000	3663.6	1.210	0.000	3777.4	1.203	0.000
2342.2	2.493	2.038	2456.0	1.028	0.012	2957.6	1.183	0.000	3014.5	1.182	0.007	3071.4	1.187	0.000	3551.7	1.208	0.000	3665.5	1.210	0.000	3779.3	1.204	0.000
2344.2	2.002	2.345	2458.0	1.030	0.012	2958.5	1.183	0.000	3015.4	1.182	0.007	3072.3	1.187	0.000	3553.6	1.209	0.000	3667.4	1.210	0.000	3781.2	1.205	0.000
2346.1	1.494	2.325	2459.9	1.032	0.012	2959.5	1.183	0.000	3016.4	1.182	0.006	3073.3	1.187	0.000	3555.5	1.209	0.000	3669.4	1.210	0.000	3783.2	1.204	0.000
2348.0	1.131	2.138	2461.8	1.036	0.009	2960.5	1.183	0.000	3017.4	1.182	0.006	3074.3	1.187	0.000	3557.5	1.209	0.000	3671.3	1.210	0.000	3785.1	1.204	0.000
2349.9	0.895	1.934	2463.8	1.039	0.010	2961.4	1.184	0.000	3018.3	1.182	0.005	3075.2	1.187	0.000	3559.4	1.209	0.000	3673.2	1.211	0.000	3787.0	1.204	0.000
2351.9	0.741	1.743	2465.7	1.040	0.010	2962.4	1.184	0.000	3019.3	1.182	0.004	3076.2	1.187	0.000	3561.3	1.209	0.000	3675.1	1.211	0.000	3788.9	1.205	0.000
2353.8	0.638	1.580	2467.6	1.044	0.007	2963.4	1.184	0.000	3020.3	1.182	0.004	3077.2	1.187	0.000	3563.3	1.209	0.000	3677.1	1.211	0.000	3790.9	1.205	0.000
2355.7	0.567	1.440	2469.5	1.047	0.007	2964.3	1.184	0.000	3021.2	1.182	0.004	3078.1	1.187	0.000	3565.2	1.208	0.000	3679.0	1.212	0.001	3792.8	1.205	0.000
2357.7	0.514	1.318	2471.5	1.050	0.007	2965.3	1.184	0.000	3022.2	1.182	0.003	3079.1	1.187	0.000	3567.1	1.209	0.000	3680.9	1.213	0.001	3794.7	1.205	0.000
2359.6	0.470	1.214	2473.4	1.051	0.008	2966.3	1.184	0.000	3023.2	1.182	0.003	3080.1	1.187	0.000	3569.0	1.209	0.000	3682.9	1.213	0.001	3796.7	1.205	0.000
2361.5	0.436	1.118	2475.3	1.055	0.005	2967.2	1.184	0.000	3024.1	1.183	0.003	3081.0	1.188	0.000	3571.0	1.210	0.000	3684.8	1.214	0.001	3798.6	1.205	0.000
2363.5	0.408	1.029	2477.3	1.058	0.005	2968.2	1.184	0.001	3025.1	1.183	0.003	3082.0	1.188	0.000	3572.9	1.210	0.000	3686.7	1.215	0.000			

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TABLE 11B

CO_2:CH_4 = 20:1 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.339	0.011	614.9	1.470	0.017	728.7	1.083	0.015	1202.7	1.232	0.000	1259.6	1.237	0.001	1316.5	1.219	0.002	1373.4	1.236	0.003	2009.5	1.279	0.002
503.0	1.340	0.011	616.8	1.482	0.009	730.6	1.093	0.015	1203.7	1.232	0.000	1260.6	1.237	0.002	1317.5	1.221	0.002	1374.4	1.236	0.003	2031.7	1.284	0.005
504.9	1.331	0.011	618.7	1.492	0.009	732.5	1.095	0.015	1204.6	1.232	0.000	1261.5	1.237	0.001	1318.4	1.222	0.002	1375.3	1.236	0.003	2053.9	1.287	0.005
506.8	1.349	0.022	620.6	1.501	0.016	734.5	1.098	0.015	1205.6	1.232	0.000	1262.5	1.237	0.001	1319.4	1.224	0.002	1376.3	1.236	0.003	2076.0	1.293	0.005
508.8	1.339	0.022	622.6	1.515	0.016	736.4	1.101	0.015	1206.6	1.232	0.000	1263.5	1.237	0.001	1320.4	1.224	0.002	1377.3	1.236	0.003	2098.2	1.297	0.002
510.7	1.333	0.022	624.5	1.531	0.015	738.3	1.104	0.015	1207.5	1.232	0.000	1264.4	1.237	0.001	1321.3	1.226	0.002	1378.2	1.236	0.003	2120.4	1.304	0.003
512.6	1.330	0.000	626.4	1.545	0.008	740.2	1.104	0.015	1208.5	1.232	0.000	1265.4	1.237	0.001	1322.3	1.227	0.002	1379.2	1.236	0.002	2142.6	1.315	0.005
514.6	1.345	0.021	628.4	1.563	0.015	742.2	1.112	0.015	1209.5	1.232	0.000	1266.4	1.237	0.001	1323.3	1.227	0.002	1380.2	1.237	0.002	2151.3	1.317	0.005
516.5	1.341	0.011	630.3	1.582	0.014	744.1	1.112	0.007	1210.4	1.233	0.000	1267.3	1.238	0.001	1324.2	1.228	0.002	1381.1	1.237	0.002	2153.2	1.318	0.003
518.4	1.341	0.031	632.2	1.604	0.014	746.0	1.121	0.015	1211.4	1.233	0.000	1268.3	1.238	0.001	1325.2	1.229	0.002	1382.1	1.238	0.003	2155.1	1.320	0.005
520.3	1.328	0.021	634.1	1.637	0.013	748.0	1.120	0.015	1212.3	1.233	0.000	1269.3	1.238	0.001	1326.2	1.229	0.002	1383.1	1.239	0.004	2157.1	1.320	0.005
522.3	1.331	0.021	636.1	1.680	0.019	749.9	1.118	0.015	1213.3	1.233	0.000	1270.2	1.238	0.001	1327.1	1.230	0.002	1384.0	1.237	0.007	2159.0	1.321	0.003
524.2	1.343	0.011	638.0	1.712	0.057	751.8	1.125	0.007	1214.3	1.233	0.000	1271.2	1.238	0.001	1328.1	1.230	0.002	1385.0	1.235	0.006	2160.9	1.321	0.005
526.1	1.343	0.011	639.9	1.716	0.063	753.7	1.125	0.007	1215.2	1.233	0.000	1272.1	1.239	0.001	1329.1	1.230	0.002	1386.0	1.235	0.004	2162.8	1.323	0.003
528.1	1.334	0.021	641.9	1.757	0.035	755.7	1.132	0.007	1216.2	1.233	0.000	1273.1	1.239	0.001	1330.0	1.231	0.002	1386.9	1.235	0.003	2164.8	1.325	0.005
530.0	1.341	0.021	643.8	1.825	0.026	757.6	1.136	0.015	1217.2	1.233	0.000	1274.1	1.239	0.002	1331.0	1.231	0.002	1387.9	1.236	0.003	2166.7	1.325	0.003
531.9	1.340	0.011	645.7	1.913	0.022	759.5	1.135	0.007	1218.1	1.233	0.000	1275.0	1.240	0.002	1331.9	1.231	0.002	1388.8	1.236	0.002	2168.6	1.328	0.006
533.8	1.341	0.021	647.7	2.036	0.026	761.5	1.138	0.007	1219.1	1.233	0.000	1276.0	1.240	0.003	1332.9	1.232	0.002	1389.8	1.236	0.002	2170.6	1.328	0.006
535.8	1.337	0.021	649.6	2.225	0.038	763.4	1.137	0.015	1220.1	1.233	0.000	1277.0	1.239	0.003	1333.9	1.232	0.002	1390.8	1.237	0.002	2172.5	1.328	0.003
537.7	1.340	0.020	651.5	2.555	0.132	765.3	1.144	0.007	1221.0	1.233	0.000	1277.9	1.239	0.003	1334.8	1.232	0.002	1391.7	1.237	0.002	2174.4	1.331	0.006
539.6	1.344	0.011	653.4	2.919	0.864	767.2	1.143	0.015	1222.0	1.233	0.000	1278.9	1.239	0.003	1335.8	1.232	0.002	1392.7	1.237	0.002	2176.3	1.331	0.003
541.6	1.349	0.020	655.4	2.244	1.841	769.2	1.143	0.007	1223.0	1.233	0.000	1279.9	1.239	0.002	1336.8	1.233	0.002	1393.7	1.237	0.002	2178.3	1.332	0.003
543.5	1.344	0.020	657.3	1.932	1.101	771.1	1.145	0.007	1223.9	1.233	0.000	1280.8	1.240	0.002	1337.7	1.233	0.002	1394.6	1.238	0.003	2180.2	1.334	0.003
545.4	1.348	0.020	659.2	2.213	1.596	773.0	1.145	0.007	1224.9	1.233	0.000	1281.8	1.240	0.002	1338.7	1.233	0.002	1395.6	1.237	0.003	2182.1	1.335	0.006
547.3	1.350	0.030	661.2	1.551	2.241	775.0	1.150	0.007	1225.9	1.234	0.000	1282.8	1.240	0.002	1339.7	1.233	0.002	1396.6	1.237	0.003	2184.1	1.337	0.003
549.3	1.345	0.020	663.1	0.958	1.938	776.9	1.152	0.015	1226.8	1.234	0.000	1283.7	1.241	0.002	1340.6	1.233	0.002	1397.5	1.237	0.003	2186.0	1.338	0.006
551.2	1.345	0.010	665.0	0.687	1.627	778.8	1.153	0.015	1227.8	1.234	0.000	1284.7	1.242	0.002	1341.6	1.233	0.002	1398.5	1.237	0.003	2187.9	1.339	0.003
553.1	1.351	0.020	666.9	0.529	1.399	780.7	1.154	0.015	1228.7	1.234	0.000	1285.6	1.242	0.002	1342.6	1.233	0.002	1399.5	1.237	0.003	2189.8	1.341	0.006
555.1	1.353	0.020	668.9	0.407	1.206	782.7	1.156	0.014	1229.7	1.234	0.000	1286.6	1.242	0.002	1343.5	1.233	0.002	1411.0	1.238	0.003	2191.8	1.342	0.003
557.0	1.354	0.000	670.8	0.325	0.986	784.6	1.152	0.007	1230.7	1.234	0.000	1287.6	1.243	0.002	1344.5	1.234	0.002	1422.1	1.239	0.003	2193.7	1.344	0.003
558.9	1.357	0.010	672.7	0.262	0.834	786.5	1.156	0.007	1231.6	1.234	0.000	1288.5	1.243	0.002	1345.4	1.234	0.002	1433.2	1.239	0.003	2195.6	1.346	0.006
560.8	1.358	0.010	674.7	0.228	0.626	788.5	1.159	0.007	1232.6	1.234	0.000	1289.5	1.244	0.003	1346.4	1.234	0.002	1444.3	1.240	0.003	2197.6	1.347	0.003
562.8	1.366	0.019	676.6	0.206	0.546	790.4	1.160	0.007	1233.6	1.234	0.000	1290.5	1.245	0.003	1347.4	1.234	0.002	1455.4	1.241	0.003	2199.5	1.349	0.003
564.7	1.360	0.029	678.5	0.272	0.073	792.3	1.162	0.007	1234.5	1.234	0.000	1291.4	1.246	0.003	1348.3	1.234	0.002	1466.5	1.241	0.003	2201.4	1.351	0.006
566.6	1.364	0.019	680.4	0.496	0.028	794.3	1.163	0.007	1235.5	1.235	0.000	1292.4	1.247	0.003	1349.3	1.234	0.002	1477.6	1.242	0.004	2203.3	1.352	0.004
568.6	1.361	0.019	682.4	0.613	0.027	796.2	1.165	0.007	1236.5	1.235	0.000	1293.4	1.248	0.003	1350.3	1.234	0.002	1488.7	1.243	0.004	2205.3	1.355	0.004
570.5	1.369	0.010	684.3	0.689	0.026	798.1	1.166	0.007	1237.4	1.235	0.000	1294.3	1.250	0.004	1351.2	1.234	0.002	1499.8	1.243	0.004	2207.2	1.355	0.004
572.4	1.372	0.010	686.2	0.741	0.026	821.3	1.179	0.007	1238.4	1.235	0.000	1295.3	1.252	0.005	1352.2	1.234	0.002	1521.5	1.243	0.000	2209.1	1.359	0.004
574.4	1.374	0.019	688.2	0.791	0.013	843.4	1.186	0.006	1239.4	1.235	0.000	1296.3	1.254	0.007	1353.2	1.234	0.002	1543.6	1.242	0.000	2211.1	1.360	0.004
576.3	1.372	0.028	690.1	0.832	0.014	865.6	1.194	0.006	1240.3	1.235	0.000	1297.2	1.257	0.011	1354.1	1.235	0.002	1565.8	1.243	0.000	2213.0	1.361	0.004
578.2	1.377	0.019	692.0	0.865	0.014	887.8	1.199	0.006	1241.3	1.235	0.000	1298.2	1.258	0.016	1355.1	1.235	0.002	1588.0	1.243	0.004	2214.9	1.363	0.006
580.1	1.376	0.019	693.9	0.892	0.014	910.0	1.205	0.006	1242.2	1.235	0.000	1299.2	1.257	0.023	1356.1	1.235	0.002	1610.2	1.245	0.004	2216.9	1.365	0.004
582.1	1.381	0.027	695.9	0.915	0.015	932.2	1.206	0.006	1243.2	1.235	0.001	1300.1	1.250	0.031	1357.0	1.235	0.002	1632.4	1.245	0.004	2218.8	1.368	0.004
584.0	1.380	0.010	697.8	0.935	0.015	954.4	1.212	0.000	1244.2	1.235	0.000	1301.1	1.243	0.028	1358.0	1.235	0.002	1654.6	1.246	0.004	2220.7	1.370	0.004
585.9	1.383	0.010	699.7	0.953	0.015	976.5	1.213	0.006	1245.1	1.235	0.000	1302.0	1.243	0.024	1358.9	1.235	0.002	1676.7	1.246	0.004	2222.6	1.372	0.004
587.9	1.391	0.010	701.7	0.968	0.015	998.7	1.214	0.006	1246.1	1.235	0.000	1303.0	1.243	0.024	1359.9	1.235	0.003	1698.9	1.245	0.004	2224.6	1.375	0.004
589.8	1.397	0.018	703.6	0.981	0.015	1020.9	1.214	0.000	1247.1	1.235	0.002	1304.0	1.243	0.026	1360.9	1.235	0.003	1721.1	1.250	0.004	2226.5	1.377	0.004
591.7	1.397	0.010	705.5	0.991	0.015	1043.1	1.218	0.000	1248.0	1.235	0.000	1304.9	1.242	0.028	1361.8	1.235	0.003	1743.3	1.251	0.000	2228.4	1.380	0.004
593.6	1.399	0.010	707.4	1.008	0.015	1065.3	1.219	0.005	1249.0	1.235	0.000	1305.9	1.242	0.030	1362.8	1.235	0.003	1765.5	1.253	0.000	2230.4	1.383	0.004
595.6	1.407	0.010	709.4	1.014	0.015	1087.4	1.223	0.005	1250.0	1.235	0.000	1306.9	1.240	0.034	1363.8	1.235	0.003	1787.7	1.255	0.001	2232.3	1.386	0.004
597.5	1.415	0.009	711.3	1.030	0.006	1109.6	1.223	0.000	1250.9	1.236	0.000	1307.8	1.237	0.039	1364.7	1.235	0.003	1809.8	1.257	0.001	2234.2	1.387	0.004
599.4	1.416	0.009	713.2	1.038	0.015	1131.8	1.227	0.000	1251.9	1.236	0.000	1308.8	1.228	0.049	1365.7	1.236	0.003	1832.0	1.258	0.001	2236.1	1.391	0.004
601.4	1.423	0.018	715.2	1.045	0.015	1152.1	1.229	0.000	1252.9	1.236	0.000	1309.8	1.210	0.048	1366.7	1.236	0.003	1854.2	1.262	0.001	2238.1	1.394	0.004
603.3	1.431	0.009	717.1	1.051	0.015	1163.2	1.230	0.000	1253.8	1.236	0.000	1310.7	1.200	0.031	1367.6	1.236	0.003	1876.4	1.263	0.001	2240.0	1.397	0.004
605.2	1.433	0.017	719.0	1.058	0.015	1174.3	1.230	0.000	1254.8	1.236	0.000	1311.7	1.202	0.017	1368.6	1.236	0.003	1898.6	1.265	0.001	2241.9	1.401	0.004
607.1	1.440	0.017	721.0	1.063	0.015	1185.3	1.231	0.000	1255.8	1.236	0.000	1312.7	1.206	0.009	1369.6	1.236	0.003	1920.8	1.267	0.004	2243.9	1.403	0.004
609.1	1.450	0.009	722.9	1.068	0.015	1196.4	1.232	0.000	1256.7	1.236	0.001	1313.6	1.210	0.005	1370.5	1.236	0.003	1942.9	1.268	0.004	2245.8	1.407	0.004
611.0	1.457	0.017	724.8	1.075	0.006	1200.8	1.232	0.000	1257.7	1.236	0.000	1314.6	1.214	0.004	1371.5	1.236	0.003	1965.1	1.273	0.004	2247.7	1.411	0.006
612.9	1.457	0.009	726.7	1.081	0.015	1201.7	1.232	0.000	1258.6	1.236	0.001	1315.5	1.217	0.002	1372.5	1.236	0.003	1987.3	1.275	0.002	2249.6	1.415	0.004

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TABLE 11B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2251.6	1.419	0.004	2365.4	0.366	0.966	2479.2	1.059	0.005	2969.1	1.183	0.000	3026.0	1.182	0.002	3083.0	1.187	0.000	3574.8	1.210	0.000	3688.6	1.215	0.000
2253.5	1.423	0.004	2367.3	0.347	0.883	2481.1	1.062	0.006	2970.1	1.183	0.000	3027.0	1.182	0.002	3083.9	1.187	0.000	3576.8	1.210	0.000	3690.6	1.217	0.000
2255.4	1.428	0.004	2369.2	0.327	0.811	2483.0	1.065	0.006	2971.1	1.183	0.000	3028.0	1.183	0.002	3084.9	1.187	0.000	3578.7	1.210	0.000	3692.5	1.219	0.000
2257.4	1.434	0.004	2371.2	0.309	0.741	2485.0	1.067	0.006	2972.0	1.183	0.000	3028.9	1.183	0.002	3085.8	1.187	0.000	3580.6	1.210	0.000	3694.4	1.220	0.002
2259.3	1.437	0.006	2373.1	0.286	0.662	2486.9	1.069	0.006	2973.0	1.183	0.000	3029.9	1.183	0.001	3086.8	1.187	0.000	3582.6	1.212	0.000	3696.4	1.222	0.002
2261.2	1.443	0.006	2375.0	0.269	0.575	2488.8	1.070	0.003	2974.0	1.183	0.000	3030.9	1.183	0.001	3087.8	1.187	0.000	3584.5	1.212	0.000	3698.3	1.225	0.002
2263.1	1.448	0.004	2377.0	0.272	0.494	2490.8	1.074	0.004	2974.9	1.183	0.000	3031.8	1.184	0.001	3088.7	1.187	0.000	3586.4	1.212	0.001	3700.2	1.230	0.005
2265.1	1.454	0.006	2378.9	0.243	0.462	2492.7	1.076	0.004	2975.9	1.183	0.000	3032.8	1.184	0.002	3089.7	1.187	0.000	3588.3	1.214	0.000	3702.1	1.234	0.008
2267.0	1.460	0.006	2380.8	0.163	0.285	2494.6	1.078	0.004	2976.9	1.184	0.000	3033.8	1.184	0.002	3090.7	1.187	0.000	3590.3	1.216	0.000	3704.1	1.243	0.013
2268.9	1.468	0.006	2382.7	0.293	0.049	2496.6	1.080	0.004	2977.8	1.184	0.000	3034.7	1.184	0.002	3091.6	1.187	0.000	3592.2	1.218	0.001	3706.0	1.256	0.031
2270.9	1.476	0.006	2384.7	0.431	0.024	2498.5	1.082	0.004	2978.8	1.184	0.000	3035.7	1.184	0.002	3092.6	1.187	0.000	3594.1	1.220	0.003	3707.9	1.240	0.104
2272.8	1.486	0.005	2386.6	0.516	0.014	2521.6	1.102	0.003	2979.8	1.184	0.000	3036.7	1.184	0.002	3093.6	1.188	0.000	3596.1	1.224	0.005	3709.9	1.163	0.080
2274.7	1.497	0.007	2388.5	0.577	0.015	2543.8	1.115	0.004	2980.7	1.184	0.000	3037.6	1.184	0.002	3094.5	1.188	0.000	3598.0	1.232	0.013	3711.8	1.160	0.026
2276.6	1.512	0.011	2390.5	0.627	0.011	2566.0	1.127	0.002	2981.7	1.184	0.000	3038.6	1.184	0.002	3095.5	1.188	0.000	3599.9	1.222	0.058	3713.7	1.175	0.011
2278.6	1.528	0.023	2392.4	0.668	0.011	2588.2	1.136	0.002	2982.6	1.184	0.000	3039.6	1.184	0.003	3096.5	1.188	0.000	3601.8	1.186	0.027	3715.6	1.183	0.007
2280.5	1.547	0.049	2394.3	0.702	0.010	2610.4	1.143	0.003	2983.6	1.184	0.000	3040.5	1.184	0.003	3097.4	1.188	0.000	3603.8	1.190	0.011	3717.6	1.188	0.006
2282.4	1.524	0.128	2396.2	0.731	0.013	2632.5	1.149	0.003	2984.6	1.184	0.000	3041.5	1.184	0.003	3098.4	1.188	0.000	3605.7	1.195	0.006	3719.5	1.191	0.006
2284.4	1.448	0.081	2398.2	0.756	0.012	2654.7	1.153	0.003	2985.5	1.185	0.000	3042.4	1.183	0.003	3099.3	1.188	0.000	3607.6	1.197	0.003	3721.4	1.192	0.004
2286.3	1.463	0.025	2400.1	0.780	0.011	2676.9	1.157	0.000	2986.5	1.185	0.000	3043.4	1.183	0.003	3110.9	1.188	0.000	3609.6	1.199	0.002	3723.4	1.194	0.004
2288.2	1.489	0.010	2402.0	0.800	0.009	2699.1	1.162	0.001	2987.5	1.185	0.000	3044.4	1.183	0.003	3122.0	1.189	0.000	3611.5	1.201	0.002	3725.3	1.195	0.004
2290.2	1.510	0.007	2404.0	0.820	0.011	2721.3	1.166	0.001	2988.4	1.185	0.000	3045.3	1.182	0.002	3133.1	1.190	0.000	3613.4	1.202	0.002	3727.2	1.195	0.004
2292.1	1.527	0.007	2405.9	0.835	0.012	2743.5	1.170	0.001	2989.4	1.185	0.000	3046.3	1.182	0.002	3144.2	1.191	0.000	3615.3	1.203	0.002	3729.2	1.196	0.003
2294.0	1.542	0.006	2407.8	0.851	0.010	2757.9	1.171	0.002	2990.4	1.185	0.000	3047.3	1.182	0.001	3155.3	1.191	0.000	3617.3	1.204	0.002	3731.1	1.197	0.003
2295.9	1.557	0.006	2409.7	0.865	0.011	2769.0	1.171	0.002	2991.3	1.186	0.000	3048.2	1.183	0.000	3166.4	1.192	0.000	3619.2	1.203	0.002	3733.0	1.198	0.003
2297.9	1.572	0.007	2411.7	0.877	0.009	2780.1	1.172	0.002	2992.3	1.186	0.000	3049.2	1.183	0.000	3177.5	1.193	0.000	3621.1	1.205	0.000	3734.9	1.198	0.003
2299.8	1.587	0.006	2413.6	0.890	0.010	2791.2	1.172	0.001	2993.3	1.186	0.000	3050.2	1.183	0.000	3188.6	1.193	0.000	3623.1	1.205	0.000	3736.9	1.198	0.003
2301.7	1.605	0.006	2415.5	0.900	0.011	2802.3	1.173	0.001	2994.2	1.186	0.000	3051.1	1.184	0.000	3199.7	1.194	0.000	3625.0	1.205	0.000	3738.8	1.199	0.002
2303.7	1.622	0.007	2417.5	0.909	0.009	2813.4	1.174	0.001	2995.2	1.186	0.000	3052.1	1.184	0.000	3210.7	1.195	0.000	3626.9	1.205	0.000	3740.7	1.200	0.002
2305.6	1.642	0.007	2419.4	0.920	0.010	2824.5	1.174	0.001	2996.1	1.187	0.001	3053.1	1.184	0.000	3221.8	1.195	0.000	3628.8	1.206	0.002	3742.7	1.200	0.003
2307.5	1.664	0.006	2421.3	0.929	0.010	2835.6	1.174	0.001	2997.1	1.187	0.001	3054.0	1.184	0.000	3232.9	1.196	0.000	3630.8	1.207	0.000	3744.6	1.200	0.002
2309.4	1.687	0.007	2423.2	0.937	0.008	2846.7	1.175	0.000	2998.1	1.188	0.001	3055.0	1.184	0.000	3244.0	1.196	0.000	3632.7	1.206	0.002	3746.5	1.200	0.002
2311.4	1.714	0.008	2425.2	0.946	0.009	2857.7	1.176	0.000	2999.0	1.188	0.002	3055.9	1.185	0.000	3255.1	1.197	0.000	3634.6	1.206	0.002	3748.4	1.200	0.002
2313.3	1.743	0.008	2427.1	0.954	0.009	2868.8	1.176	0.000	3000.0	1.188	0.002	3056.9	1.185	0.000	3266.2	1.198	0.000	3636.6	1.205	0.000	3750.4	1.200	0.002
2315.2	1.778	0.008	2429.0	0.961	0.010	2879.9	1.177	0.000	3001.0	1.189	0.003	3057.9	1.185	0.000	3277.3	1.198	0.000	3638.5	1.206	0.000	3752.3	1.200	0.002
2317.2	1.817	0.010	2431.0	0.967	0.010	2891.0	1.178	0.000	3001.9	1.189	0.003	3058.8	1.185	0.000	3288.4	1.199	0.000	3640.4	1.207	0.000	3754.2	1.200	0.000
2319.1	1.863	0.011	2432.9	0.973	0.011	2902.1	1.178	0.000	3002.9	1.189	0.004	3059.8	1.185	0.000	3299.5	1.200	0.000	3642.3	1.207	0.000	3756.2	1.201	0.000
2321.0	1.920	0.014	2434.8	0.979	0.011	2913.2	1.179	0.000	3003.9	1.189	0.005	3060.8	1.185	0.000	3321.2	1.201	0.000	3644.3	1.207	0.000	3758.1	1.201	0.000
2322.9	1.994	0.024	2436.8	0.983	0.009	2924.3	1.180	0.000	3004.8	1.189	0.006	3061.7	1.185	0.000	3343.4	1.202	0.000	3646.2	1.207	0.000	3760.0	1.202	0.000
2324.9	2.081	0.064	2438.7	0.990	0.009	2935.4	1.180	0.000	3005.8	1.189	0.007	3062.7	1.185	0.000	3365.5	1.203	0.000	3648.1	1.208	0.000	3761.9	1.202	0.000
2326.8	2.154	0.135	2440.6	0.996	0.009	2946.5	1.181	0.000	3006.8	1.188	0.008	3063.7	1.185	0.000	3387.7	1.203	0.000	3650.1	1.208	0.000	3763.9	1.202	0.000
2328.7	2.204	0.191	2442.5	1.001	0.010	2950.8	1.181	0.000	3007.7	1.188	0.009	3064.6	1.185	0.000	3409.9	1.203	0.000	3652.0	1.208	0.000	3765.8	1.202	0.000
2330.7	2.281	0.232	2444.5	1.005	0.010	2951.8	1.181	0.000	3008.7	1.186	0.010	3065.6	1.186	0.000	3432.1	1.204	0.000	3653.9	1.208	0.000	3767.7	1.203	0.000
2332.6	2.387	0.286	2446.4	1.010	0.010	2952.7	1.181	0.000	3009.7	1.184	0.011	3066.6	1.186	0.000	3454.3	1.205	0.000	3655.9	1.209	0.000	3769.7	1.202	0.000
2334.5	2.530	0.372	2448.3	1.014	0.011	2953.7	1.182	0.000	3010.6	1.183	0.010	3067.5	1.186	0.000	3476.5	1.206	0.000	3657.8	1.209	0.000	3771.6	1.203	0.000
2336.4	2.716	0.528	2450.3	1.018	0.011	2954.7	1.182	0.000	3011.6	1.181	0.009	3068.5	1.186	0.000	3498.6	1.207	0.000	3659.7	1.209	0.000	3773.5	1.203	0.000
2338.4	2.912	0.842	2452.2	1.021	0.011	2955.6	1.182	0.000	3012.5	1.181	0.007	3069.4	1.186	0.000	3520.8	1.207	0.000	3661.6	1.209	0.000	3775.4	1.203	0.000
2340.3	2.983	1.386	2454.1	1.025	0.011	2956.6	1.182	0.000	3013.5	1.181	0.007	3070.4	1.186	0.000	3543.0	1.208	0.000	3663.6	1.210	0.000	3777.4	1.204	0.000
2342.2	2.750	2.019	2456.0	1.028	0.012	2957.6	1.182	0.000	3014.5	1.181	0.006	3071.4	1.186	0.000	3551.7	1.209	0.000	3665.5	1.210	0.000	3779.3	1.204	0.000
2344.2	2.239	2.434	2458.0	1.031	0.012	2958.5	1.182	0.000	3015.4	1.181	0.006	3072.3	1.186	0.000	3553.6	1.209	0.000	3667.4	1.210	0.000	3781.2	1.204	0.000
2346.1	1.657	2.501	2459.9	1.034	0.012	2959.5	1.182	0.000	3016.4	1.180	0.005	3073.3	1.186	0.000	3555.5	1.209	0.000	3669.4	1.209	0.000	3783.2	1.204	0.000
2348.0	1.206	2.320	2461.8	1.036	0.012	2960.5	1.182	0.000	3017.4	1.180	0.004	3074.3	1.186	0.000	3557.5	1.209	0.000	3671.3	1.210	0.000	3785.1	1.204	0.000
2349.9	0.913	2.079	2463.8	1.038	0.009	2961.4	1.182	0.000	3018.3	1.180	0.004	3075.2	1.186	0.000	3559.4	1.209	0.000	3673.2	1.210	0.000	3787.0	1.204	0.000
2351.9	0.732	1.856	2465.7	1.042	0.010	2962.4	1.182	0.000	3019.3	1.181	0.003	3076.2	1.186	0.000	3561.3	1.208	0.000	3675.1	1.211	0.000	3788.9	1.205	0.000
2353.8	0.617	1.661	2467.6	1.044	0.010	2963.4	1.182	0.000	3020.3	1.181	0.003	3077.2	1.186	0.000	3563.3	1.210	0.000	3677.1	1.211	0.000	3790.9	1.204	0.000
2355.7	0.542	1.501	2469.5	1.047	0.010	2964.3	1.182	0.000	3021.2	1.181	0.003	3078.1	1.187	0.000	3565.2	1.209	0.000	3679.0	1.211	0.000	3792.8	1.204	0.000
2357.7	0.489	1.367	2471.5	1.048	0.007	2965.3	1.183	0.000	3022.2	1.181	0.002	3079.1	1.187	0.000	3567.1	1.209	0.000	3680.9	1.212	0.001	3794.7	1.205	0.000
2359.6	0.449	1.249	2473.4	1.052	0.008	2966.3	1.183	0.000	3023.2	1.181	0.002	3080.1	1.187	0.000	3569.0	1.209	0.000	3682.9	1.213	0.001	3796.7	1.204	0.000
2361.5	0.416	1.147	2475.3	1.055	0.008	2967.2	1.183	0.000	3024.1	1.182	0.002	3081.0	1.187	0.000	3571.0	1.209	0.000	3684.8	1.214	0.001	3798.6	1.205	0.000
2363.5	0.388	1.052	2477.3	1.056	0.008	2968.2	1.183	0.000	3025.1	1.182	0.002	3082.0	1.187	0.000	3572.9	1.210	0.000	3686.7	1.214	0.000			

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TABLE 11C

CO_2:CH_4 = 20:1 AT 30 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.349	0.022	614.9	1.473	0.017	728.7	1.085	0.015	1202.7	1.230	0.000	1259.6	1.235	0.002	1316.5	1.218	0.002	1373.4	1.234	0.002	2009.5	1.279	0.005
503.0	1.355	0.032	616.8	1.486	0.009	730.6	1.089	0.015	1203.7	1.230	0.000	1260.6	1.235	0.002	1317.5	1.219	0.002	1374.4	1.234	0.003	2031.7	1.282	0.005
504.9	1.333	0.032	618.7	1.496	0.009	732.5	1.093	0.015	1204.6	1.230	0.000	1261.5	1.235	0.002	1318.4	1.221	0.002	1375.3	1.234	0.002	2053.9	1.286	0.002
506.8	1.335	0.022	620.6	1.506	0.016	734.5	1.097	0.015	1205.6	1.230	0.000	1262.5	1.235	0.002	1319.4	1.222	0.002	1376.3	1.234	0.002	2076.0	1.291	0.005
508.8	1.336	0.022	622.6	1.516	0.016	736.4	1.100	0.015	1206.6	1.230	0.000	1263.5	1.235	0.002	1320.4	1.223	0.002	1377.3	1.235	0.003	2098.2	1.298	0.002
510.7	1.330	0.032	624.5	1.533	0.015	738.3	1.104	0.015	1207.5	1.230	0.000	1264.4	1.235	0.002	1321.3	1.224	0.002	1378.2	1.235	0.003	2120.4	1.306	0.003
512.6	1.342	0.021	626.4	1.548	0.008	740.2	1.107	0.015	1208.5	1.230	0.000	1265.4	1.235	0.002	1322.3	1.225	0.002	1379.2	1.235	0.003	2142.6	1.313	0.003
514.6	1.342	0.021	628.4	1.566	0.015	742.2	1.110	0.015	1209.5	1.231	0.000	1266.4	1.235	0.002	1323.3	1.226	0.002	1380.2	1.235	0.003	2151.3	1.319	0.005
516.5	1.333	0.032	630.3	1.586	0.014	744.1	1.113	0.015	1210.4	1.231	0.000	1267.3	1.236	0.002	1324.2	1.226	0.002	1381.1	1.236	0.003	2153.2	1.320	0.003
518.4	1.333	0.021	632.2	1.610	0.014	746.0	1.115	0.015	1211.4	1.230	0.000	1268.3	1.236	0.002	1325.2	1.227	0.002	1382.1	1.236	0.003	2155.1	1.320	0.003
520.3	1.339	0.011	634.1	1.639	0.013	748.0	1.117	0.015	1212.3	1.231	0.000	1269.3	1.236	0.002	1326.2	1.228	0.002	1383.1	1.237	0.004	2157.1	1.322	0.005
522.3	1.333	0.031	636.1	1.681	0.019	749.9	1.117	0.015	1213.3	1.230	0.000	1270.2	1.236	0.002	1327.1	1.228	0.002	1384.0	1.236	0.006	2159.0	1.323	0.005
524.2	1.333	0.021	638.0	1.715	0.057	751.8	1.125	0.007	1214.3	1.231	0.000	1271.2	1.236	0.002	1328.1	1.229	0.002	1385.0	1.234	0.005	2160.9	1.324	0.005
526.1	1.334	0.021	639.9	1.715	0.063	753.7	1.127	0.007	1215.2	1.231	0.000	1272.1	1.237	0.002	1329.1	1.229	0.002	1386.0	1.233	0.004	2162.8	1.326	0.003
528.1	1.333	0.021	641.9	1.758	0.035	755.7	1.129	0.007	1216.2	1.231	0.000	1273.1	1.237	0.002	1330.0	1.229	0.002	1386.9	1.234	0.003	2164.8	1.326	0.005
530.0	1.337	0.031	643.8	1.825	0.026	757.6	1.136	0.015	1217.2	1.232	0.000	1274.1	1.237	0.002	1331.0	1.229	0.002	1387.9	1.234	0.003	2166.7	1.326	0.003
531.9	1.334	0.011	645.7	1.911	0.022	759.5	1.134	0.015	1218.1	1.232	0.000	1275.0	1.238	0.002	1331.9	1.230	0.002	1388.8	1.234	0.003	2168.6	1.329	0.006
533.8	1.336	0.011	647.7	2.034	0.026	761.5	1.137	0.007	1219.1	1.232	0.000	1276.0	1.238	0.003	1332.9	1.230	0.002	1389.8	1.235	0.003	2170.6	1.329	0.006
535.8	1.336	0.011	649.6	2.217	0.039	763.4	1.138	0.015	1220.1	1.231	0.000	1277.0	1.237	0.003	1333.9	1.230	0.002	1390.8	1.235	0.003	2172.5	1.329	0.006
537.7	1.341	0.020	651.5	2.542	0.102	765.3	1.140	0.007	1221.0	1.231	0.000	1277.9	1.237	0.002	1334.8	1.230	0.002	1391.7	1.235	0.003	2174.4	1.331	0.006
539.6	1.345	0.011	653.4	2.968	0.801	767.2	1.142	0.015	1222.0	1.231	0.001	1278.9	1.237	0.003	1335.8	1.230	0.002	1392.7	1.235	0.003	2176.3	1.332	0.003
541.6	1.342	0.020	655.4	2.255	1.896	769.2	1.142	0.015	1223.0	1.232	0.001	1279.9	1.237	0.003	1336.8	1.231	0.002	1393.7	1.235	0.003	2178.3	1.333	0.006
543.5	1.348	0.011	657.3	1.950	1.011	771.1	1.143	0.007	1223.9	1.232	0.001	1280.8	1.238	0.002	1337.7	1.231	0.002	1394.6	1.235	0.003	2180.2	1.333	0.003
545.4	1.345	0.020	659.2	2.346	1.578	773.0	1.147	0.007	1224.9	1.231	0.001	1281.8	1.238	0.002	1338.7	1.231	0.002	1395.6	1.235	0.003	2182.1	1.336	0.006
547.3	1.349	0.020	661.2	1.598	2.396	775.0	1.146	0.015	1225.9	1.232	0.001	1282.8	1.239	0.002	1339.7	1.231	0.002	1396.6	1.235	0.003	2184.1	1.336	0.003
549.3	1.353	0.020	663.1	0.915	2.008	776.9	1.152	0.007	1226.8	1.232	0.001	1283.7	1.239	0.002	1340.6	1.231	0.002	1397.5	1.236	0.003	2186.0	1.338	0.006
551.2	1.350	0.020	665.0	0.644	1.648	778.8	1.150	0.015	1227.8	1.232	0.001	1284.7	1.240	0.002	1341.6	1.232	0.002	1398.5	1.236	0.003	2187.9	1.339	0.003
553.1	1.350	0.010	666.9	0.513	1.395	780.7	1.155	0.015	1228.7	1.232	0.001	1285.6	1.240	0.003	1342.6	1.232	0.002	1399.5	1.236	0.003	2189.8	1.342	0.003
555.1	1.358	0.020	668.9	0.399	1.207	782.7	1.152	0.014	1229.7	1.232	0.001	1286.6	1.240	0.002	1343.5	1.232	0.002	1411.0	1.237	0.003	2191.8	1.342	0.003
557.0	1.358	0.020	670.8	0.325	1.006	784.6	1.151	0.007	1230.7	1.232	0.001	1287.6	1.241	0.002	1344.5	1.232	0.002	1422.1	1.237	0.003	2193.7	1.344	0.006
558.9	1.355	0.010	672.7	0.260	0.847	786.5	1.156	0.014	1231.6	1.232	0.001	1288.5	1.242	0.003	1345.4	1.232	0.002	1433.2	1.238	0.003	2195.6	1.346	0.003
560.8	1.351	0.020	674.7	0.220	0.641	788.5	1.156	0.014	1232.6	1.232	0.001	1289.5	1.242	0.003	1346.4	1.233	0.003	1444.3	1.238	0.003	2197.6	1.348	0.003
562.8	1.359	0.019	676.6	0.201	0.562	790.4	1.158	0.007	1233.6	1.231	0.001	1290.5	1.243	0.003	1347.4	1.232	0.003	1455.4	1.239	0.003	2199.5	1.350	0.006
564.7	1.355	0.019	678.5	0.264	0.075	792.3	1.159	0.014	1234.5	1.232	0.000	1291.4	1.244	0.003	1348.3	1.232	0.003	1466.5	1.240	0.003	2201.4	1.350	0.006
566.6	1.367	0.019	680.4	0.477	0.028	794.3	1.160	0.007	1235.5	1.233	0.001	1292.4	1.245	0.003	1349.3	1.233	0.003	1477.6	1.240	0.004	2203.3	1.353	0.006
568.6	1.365	0.010	682.4	0.602	0.027	796.2	1.163	0.007	1236.5	1.233	0.001	1293.4	1.246	0.004	1350.3	1.233	0.003	1488.7	1.241	0.004	2205.3	1.353	0.004
570.5	1.367	0.019	684.3	0.682	0.026	798.1	1.164	0.014	1237.4	1.233	0.001	1294.3	1.248	0.005	1351.2	1.233	0.003	1499.8	1.241	0.004	2207.2	1.357	0.004
572.4	1.368	0.010	686.2	0.738	0.026	821.3	1.176	0.007	1238.4	1.233	0.001	1295.3	1.250	0.006	1352.2	1.233	0.003	1521.5	1.241	0.000	2209.1	1.358	0.004
574.4	1.371	0.010	688.2	0.781	0.013	843.4	1.186	0.006	1239.4	1.233	0.001	1296.3	1.252	0.008	1353.2	1.233	0.003	1543.6	1.243	0.004	2211.1	1.359	0.006
576.3	1.377	0.028	690.1	0.825	0.014	865.6	1.193	0.000	1240.3	1.233	0.001	1297.2	1.254	0.012	1354.1	1.233	0.003	1565.8	1.241	0.000	2213.0	1.361	0.004
578.2	1.374	0.019	692.0	0.859	0.014	887.8	1.198	0.006	1241.3	1.233	0.001	1298.2	1.256	0.017	1355.1	1.233	0.003	1588.0	1.242	0.004	2214.9	1.363	0.004
580.1	1.375	0.010	693.9	0.887	0.014	910.0	1.202	0.006	1242.2	1.233	0.001	1299.2	1.254	0.023	1356.1	1.233	0.003	1610.2	1.245	0.000	2216.9	1.366	0.004
582.1	1.384	0.019	695.9	0.911	0.015	932.2	1.206	0.006	1243.2	1.233	0.001	1300.1	1.248	0.031	1357.0	1.233	0.003	1632.4	1.248	0.004	2218.8	1.368	0.006
584.0	1.380	0.019	697.8	0.932	0.015	954.4	1.210	0.006	1244.2	1.233	0.001	1301.1	1.241	0.028	1358.0	1.233	0.003	1654.6	1.247	0.000	2220.7	1.369	0.004
585.9	1.386	0.010	699.7	0.950	0.015	976.5	1.212	0.006	1245.1	1.233	0.001	1302.0	1.240	0.025	1358.9	1.233	0.003	1676.7	1.248	0.004	2222.6	1.371	0.004
587.9	1.395	0.010	701.7	0.966	0.015	998.7	1.213	0.006	1246.1	1.233	0.001	1303.0	1.240	0.025	1359.9	1.233	0.003	1698.9	1.248	0.000	2224.6	1.374	0.006
589.8	1.395	0.018	703.6	0.980	0.015	1020.9	1.214	0.006	1247.1	1.233	0.001	1304.0	1.240	0.025	1360.9	1.233	0.003	1721.1	1.250	0.000	2226.5	1.376	0.006
591.7	1.397	0.010	705.5	0.993	0.015	1043.1	1.218	0.005	1248.0	1.233	0.001	1304.9	1.239	0.027	1361.8	1.233	0.003	1743.3	1.253	0.000	2228.4	1.379	0.004
593.6	1.399	0.010	707.4	1.004	0.015	1065.3	1.219	0.000	1249.0	1.234	0.001	1305.9	1.239	0.029	1362.8	1.233	0.003	1765.5	1.254	0.004	2230.4	1.382	0.004
595.6	1.406	0.010	709.4	1.015	0.015	1087.4	1.222	0.005	1250.0	1.234	0.001	1306.9	1.238	0.033	1363.8	1.234	0.003	1787.7	1.256	0.004	2232.3	1.386	0.006
597.5	1.412	0.009	711.3	1.024	0.015	1109.6	1.221	0.000	1250.9	1.234	0.001	1307.8	1.235	0.039	1364.7	1.233	0.003	1809.8	1.256	0.001	2234.2	1.387	0.004
599.4	1.418	0.009	713.2	1.032	0.015	1131.8	1.226	0.000	1251.9	1.234	0.001	1308.8	1.225	0.049	1365.7	1.233	0.003	1832.0	1.257	0.004	2236.1	1.390	0.004
601.4	1.425	0.009	715.2	1.040	0.015	1152.1	1.227	0.000	1252.9	1.234	0.001	1309.8	1.207	0.046	1366.7	1.234	0.002	1854.2	1.260	0.004	2238.1	1.393	0.004
603.3	1.432	0.009	717.1	1.049	0.006	1163.2	1.228	0.000	1253.8	1.234	0.001	1310.7	1.199	0.028	1367.6	1.234	0.003	1876.4	1.263	0.004	2240.0	1.396	0.006
605.2	1.439	0.017	719.0	1.057	0.015	1174.3	1.229	0.000	1254.8	1.234	0.001	1311.7	1.201	0.015	1368.6	1.234	0.003	1898.6	1.263	0.004	2241.9	1.399	0.004
607.1	1.441	0.009	721.0	1.062	0.015	1185.3	1.229	0.000	1255.8	1.234	0.001	1312.7	1.205	0.009	1369.6	1.234	0.003	1920.8	1.265	0.004	2243.9	1.403	0.004
609.1	1.451	0.017	722.9	1.068	0.015	1196.4	1.230	0.000	1256.7	1.234	0.001	1313.6	1.209	0.005	1370.5	1.234	0.003	1942.9	1.267	0.004	2245.8	1.406	0.006
611.0	1.455	0.009	724.8	1.071	0.015	1200.8	1.230	0.000	1257.7	1.234	0.001	1314.6	1.213	0.003	1371.5	1.234	0.003	1965.1	1.271	0.004	2247.7	1.410	0.006
612.9	1.465	0.017	726.7	1.082	0.015	1201.7	1.230	0.000	1258.6	1.234	0.002	1315.5	1.215	0.002	1372.5	1.234	0.002	1987.3	1.274	0.002	2249.6	1.413	0.006

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TABLE 11C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2251.6	1.417	0.004	2365.4	0.360	0.981	2479.2	1.059	0.005	2969.1	1.184	0.001	3026.0	1.183	0.002	3083.0	1.187	0.000	3574.8	1.211	0.000	3688.6	1.214	0.001
2253.5	1.421	0.006	2367.3	0.341	0.899	2481.1	1.062	0.006	2970.1	1.184	0.001	3027.0	1.183	0.002	3083.9	1.188	0.000	3576.8	1.211	0.001	3690.6	1.216	0.000
2255.4	1.425	0.006	2369.2	0.324	0.823	2483.0	1.064	0.006	2971.1	1.184	0.001	3028.0	1.183	0.002	3084.9	1.188	0.000	3578.7	1.211	0.001	3692.5	1.217	0.000
2257.4	1.430	0.006	2371.2	0.306	0.754	2485.0	1.066	0.006	2972.0	1.184	0.001	3028.9	1.184	0.002	3085.8	1.188	0.000	3580.6	1.211	0.001	3694.4	1.219	0.000
2259.3	1.434	0.006	2373.1	0.283	0.675	2486.9	1.068	0.003	2973.0	1.184	0.001	3029.9	1.184	0.002	3086.8	1.188	0.000	3582.6	1.212	0.001	3696.4	1.221	0.002
2261.2	1.439	0.006	2375.0	0.262	0.592	2488.8	1.070	0.003	2974.0	1.184	0.001	3030.9	1.184	0.002	3087.8	1.188	0.000	3584.5	1.212	0.001	3698.3	1.224	0.002
2263.1	1.445	0.006	2377.0	0.264	0.502	2490.8	1.074	0.004	2974.9	1.184	0.001	3031.8	1.184	0.002	3088.7	1.188	0.001	3586.4	1.213	0.001	3700.2	1.229	0.002
2265.1	1.451	0.006	2378.9	0.246	0.467	2492.7	1.076	0.004	2975.9	1.184	0.001	3032.8	1.184	0.002	3089.7	1.188	0.000	3588.3	1.213	0.000	3702.1	1.235	0.005
2267.0	1.457	0.006	2380.8	0.155	0.327	2494.6	1.078	0.004	2976.9	1.184	0.001	3033.8	1.185	0.002	3090.7	1.188	0.000	3590.3	1.216	0.001	3704.1	1.245	0.011
2268.9	1.464	0.006	2382.7	0.272	0.049	2496.6	1.080	0.004	2977.8	1.184	0.001	3034.7	1.185	0.002	3091.6	1.188	0.001	3592.2	1.218	0.001	3706.0	1.262	0.031
2270.9	1.472	0.006	2384.7	0.416	0.022	2498.5	1.082	0.004	2978.8	1.185	0.001	3035.7	1.185	0.003	3092.6	1.188	0.000	3594.1	1.221	0.002	3707.9	1.243	0.115
2272.8	1.481	0.006	2386.6	0.506	0.018	2521.6	1.102	0.003	2979.8	1.185	0.001	3036.7	1.185	0.003	3093.6	1.188	0.001	3596.1	1.225	0.003	3709.9	1.157	0.081
2274.7	1.492	0.007	2388.5	0.569	0.014	2543.8	1.116	0.004	2980.7	1.185	0.001	3037.6	1.185	0.003	3094.5	1.188	0.000	3598.0	1.235	0.012	3711.8	1.158	0.024
2276.6	1.507	0.009	2390.5	0.620	0.015	2566.0	1.126	0.002	2981.7	1.185	0.001	3038.6	1.185	0.003	3095.5	1.188	0.001	3599.9	1.224	0.066	3713.7	1.174	0.009
2278.6	1.525	0.019	2392.4	0.662	0.010	2588.2	1.136	0.002	2982.6	1.185	0.001	3039.6	1.185	0.003	3096.5	1.188	0.001	3601.8	1.183	0.029	3715.6	1.183	0.007
2280.5	1.548	0.047	2394.3	0.697	0.010	2610.4	1.143	0.003	2983.6	1.185	0.001	3040.5	1.185	0.004	3097.4	1.188	0.001	3603.8	1.189	0.009	3717.6	1.188	0.007
2282.4	1.524	0.137	2396.2	0.727	0.013	2632.5	1.149	0.003	2984.6	1.185	0.001	3041.5	1.184	0.004	3098.4	1.188	0.001	3605.7	1.195	0.005	3719.5	1.190	0.006
2284.4	1.441	0.083	2398.2	0.754	0.012	2654.7	1.154	0.003	2985.5	1.185	0.001	3042.4	1.184	0.004	3099.3	1.188	0.001	3607.6	1.198	0.003	3721.4	1.192	0.006
2286.3	1.457	0.025	2400.1	0.776	0.010	2676.9	1.158	0.000	2986.5	1.186	0.001	3043.4	1.184	0.004	3110.9	1.189	0.000	3609.6	1.200	0.003	3723.4	1.194	0.004
2288.2	1.484	0.010	2402.0	0.797	0.012	2699.1	1.163	0.001	2987.5	1.186	0.001	3044.4	1.183	0.003	3122.0	1.190	0.000	3611.5	1.202	0.004	3725.3	1.195	0.004
2290.2	1.505	0.007	2404.0	0.816	0.010	2721.3	1.167	0.001	2988.4	1.186	0.001	3045.3	1.183	0.003	3133.1	1.190	0.000	3613.4	1.202	0.002	3727.2	1.195	0.004
2292.1	1.521	0.007	2405.9	0.833	0.012	2743.5	1.170	0.001	2989.4	1.186	0.001	3046.3	1.183	0.002	3144.2	1.191	0.000	3615.3	1.203	0.002	3729.2	1.196	0.005
2294.0	1.536	0.006	2407.8	0.847	0.010	2757.9	1.171	0.002	2990.4	1.186	0.001	3047.3	1.183	0.001	3155.3	1.192	0.000	3617.3	1.204	0.002	3731.1	1.197	0.003
2295.9	1.551	0.008	2409.7	0.862	0.011	2769.0	1.172	0.001	2991.3	1.186	0.001	3048.2	1.184	0.001	3166.4	1.192	0.000	3619.2	1.204	0.002	3733.0	1.198	0.003
2297.9	1.564	0.007	2411.7	0.874	0.009	2780.1	1.172	0.001	2992.3	1.186	0.001	3049.2	1.184	0.001	3177.5	1.193	0.000	3621.1	1.205	0.002	3734.9	1.198	0.003
2299.8	1.579	0.007	2413.6	0.887	0.010	2791.2	1.173	0.001	2993.3	1.187	0.001	3050.2	1.184	0.001	3188.6	1.194	0.000	3623.1	1.205	0.002	3736.9	1.198	0.003
2301.7	1.596	0.006	2415.5	0.897	0.011	2802.3	1.173	0.001	2994.2	1.187	0.002	3051.1	1.184	0.000	3199.7	1.194	0.000	3625.0	1.205	0.000	3738.8	1.198	0.002
2303.7	1.613	0.007	2417.5	0.909	0.009	2813.4	1.174	0.001	2995.2	1.187	0.002	3052.1	1.184	0.000	3210.7	1.195	0.000	3626.9	1.205	0.002	3740.7	1.199	0.002
2305.6	1.631	0.008	2419.4	0.919	0.010	2824.5	1.175	0.002	2996.1	1.188	0.002	3053.1	1.185	0.000	3221.8	1.196	0.000	3628.8	1.206	0.002	3742.7	1.199	0.003
2307.5	1.651	0.007	2421.3	0.927	0.010	2835.6	1.175	0.001	2997.1	1.188	0.002	3054.0	1.185	0.000	3232.9	1.196	0.000	3630.8	1.206	0.002	3744.6	1.199	0.002
2309.4	1.673	0.007	2423.2	0.935	0.008	2846.7	1.176	0.001	2998.1	1.188	0.002	3055.0	1.185	0.000	3244.0	1.197	0.000	3632.7	1.207	0.002	3746.5	1.200	0.002
2311.4	1.698	0.008	2425.2	0.945	0.009	2857.7	1.176	0.001	2999.0	1.189	0.003	3055.9	1.185	0.000	3255.1	1.197	0.000	3634.6	1.206	0.002	3748.4	1.200	0.002
2313.3	1.724	0.009	2427.1	0.953	0.009	2868.8	1.177	0.001	3000.0	1.189	0.003	3056.9	1.185	0.000	3266.2	1.198	0.000	3636.6	1.206	0.002	3750.4	1.200	0.002
2315.2	1.755	0.008	2429.0	0.960	0.010	2879.9	1.178	0.001	3001.0	1.189	0.004	3057.9	1.185	0.000	3277.3	1.198	0.000	3638.5	1.206	0.002	3752.3	1.200	0.000
2317.2	1.790	0.009	2431.0	0.966	0.010	2891.0	1.178	0.001	3001.9	1.190	0.004	3058.8	1.186	0.000	3288.4	1.199	0.000	3640.4	1.206	0.000	3754.2	1.201	0.000
2319.1	1.830	0.010	2432.9	0.972	0.011	2902.1	1.179	0.001	3002.9	1.190	0.005	3059.8	1.186	0.000	3299.5	1.200	0.000	3642.3	1.206	0.000	3756.2	1.201	0.002
2321.0	1.877	0.011	2434.8	0.977	0.008	2913.2	1.180	0.001	3003.9	1.189	0.006	3060.8	1.186	0.000	3321.2	1.202	0.000	3644.3	1.207	0.000	3758.1	1.201	0.000
2322.9	1.933	0.014	2436.8	0.984	0.009	2924.3	1.180	0.001	3004.8	1.189	0.006	3061.7	1.186	0.000	3343.4	1.202	0.000	3646.2	1.207	0.000	3760.0	1.201	0.000
2324.9	2.003	0.019	2438.7	0.990	0.009	2935.4	1.181	0.001	3005.8	1.189	0.007	3062.7	1.186	0.000	3365.5	1.204	0.000	3648.1	1.208	0.000	3761.9	1.201	0.000
2326.8	2.091	0.043	2440.6	0.996	0.009	2946.5	1.182	0.001	3006.8	1.189	0.009	3063.7	1.186	0.000	3387.7	1.204	0.000	3650.1	1.208	0.000	3763.9	1.202	0.000
2328.7	2.173	0.074	2442.5	1.001	0.010	2950.8	1.182	0.001	3007.7	1.188	0.010	3064.6	1.186	0.000	3409.9	1.205	0.000	3652.0	1.208	0.002	3765.8	1.202	0.000
2330.7	2.282	0.110	2444.5	1.005	0.010	2951.8	1.182	0.001	3008.7	1.187	0.011	3065.6	1.186	0.000	3432.1	1.205	0.000	3653.9	1.208	0.002	3767.7	1.203	0.000
2332.6	2.415	0.167	2446.4	1.010	0.013	2952.7	1.182	0.001	3009.7	1.185	0.011	3066.6	1.186	0.000	3454.3	1.205	0.000	3655.9	1.208	0.000	3769.7	1.203	0.000
2334.5	2.580	0.257	2448.3	1.013	0.011	2953.7	1.182	0.001	3010.6	1.183	0.010	3067.5	1.186	0.000	3476.5	1.206	0.000	3657.8	1.209	0.000	3771.6	1.203	0.000
2336.4	2.792	0.411	2450.3	1.018	0.011	2954.7	1.182	0.001	3011.6	1.182	0.009	3068.5	1.186	0.000	3498.6	1.205	0.000	3659.7	1.209	0.002	3773.5	1.203	0.000
2338.4	3.030	0.723	2452.2	1.020	0.011	2955.6	1.183	0.001	3012.5	1.182	0.008	3069.4	1.186	0.000	3520.8	1.206	0.000	3661.6	1.208	0.000	3775.4	1.203	0.000
2340.3	3.163	1.303	2454.1	1.025	0.011	2956.6	1.183	0.001	3013.5	1.181	0.007	3070.4	1.187	0.000	3543.0	1.208	0.000	3663.6	1.209	0.000	3777.4	1.203	0.000
2342.2	2.951	2.045	2456.0	1.027	0.012	2957.6	1.183	0.001	3014.5	1.181	0.007	3071.4	1.187	0.000	3551.7	1.208	0.000	3665.5	1.210	0.002	3779.3	1.203	0.000
2344.2	2.392	2.543	2458.0	1.030	0.012	2958.5	1.183	0.001	3015.4	1.181	0.006	3072.3	1.187	0.000	3553.6	1.209	0.000	3667.4	1.209	0.000	3781.2	1.203	0.000
2346.1	1.742	2.638	2459.9	1.033	0.012	2959.5	1.183	0.001	3016.4	1.181	0.006	3073.3	1.187	0.000	3555.5	1.209	0.000	3669.4	1.209	0.000	3783.2	1.203	0.000
2348.0	1.235	2.446	2461.8	1.036	0.012	2960.5	1.183	0.001	3017.4	1.181	0.005	3074.3	1.187	0.000	3557.5	1.210	0.000	3671.3	1.210	0.000	3785.1	1.203	0.000
2349.9	0.910	2.174	2463.8	1.038	0.009	2961.4	1.183	0.001	3018.3	1.181	0.004	3075.2	1.187	0.000	3559.4	1.209	0.000	3673.2	1.210	0.000	3787.0	1.204	0.000
2351.9	0.714	1.921	2465.7	1.040	0.010	2962.4	1.183	0.001	3019.3	1.181	0.004	3076.2	1.187	0.000	3561.3	1.209	0.000	3675.1	1.211	0.000	3788.9	1.204	0.000
2353.8	0.598	1.708	2467.6	1.044	0.010	2963.4	1.183	0.001	3020.3	1.182	0.004	3077.2	1.187	0.000	3563.3	1.210	0.000	3677.1	1.211	0.000	3790.9	1.204	0.000
2355.7	0.524	1.535	2469.5	1.046	0.010	2964.3	1.183	0.001	3021.2	1.182	0.003	3078.1	1.187	0.000	3565.2	1.210	0.000	3679.0	1.212	0.000	3792.8	1.204	0.000
2357.7	0.474	1.387	2471.5	1.048	0.007	2965.3	1.183	0.001	3022.2	1.182	0.003	3079.1	1.187	0.000	3567.1	1.210	0.000	3680.9	1.212	0.001	3794.7	1.204	0.000
2359.6	0.438	1.264	2473.4	1.051	0.008	2966.3	1.183	0.001	3023.2	1.182	0.003	3080.1	1.187	0.000	3569.0	1.210	0.000	3682.9	1.213	0.001	3796.7	1.204	0.000
2361.5	0.408	1.163	2475.3	1.054	0.008	2967.2	1.184	0.001	3024.1	1.183	0.003	3081.0	1.187	0.000	3571.0	1.210	0.000	3684.8	1.213	0.001	3798.6	1.204	0.000
2363.5	0.382	1.067	2477.3	1.056	0.005	2968.2	1.184	0.001	3025.1	1.183	0.003	3082.0	1.187	0.000	3572.9	1.210	0.000	3686.7	1.214	0.001			

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TABLE 11D

CO_2:CH_4 = 20:1 AT 50 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.361	0.042	614.9	1.469	0.009	728.7	1.081	0.006	1202.7	1.231	0.005	1259.6	1.235	0.005	1316.5	1.220	0.005	1373.4	1.235	0.005	2009.5	1.275	0.005
503.0	1.356	0.032	616.8	1.480	0.009	730.6	1.087	0.006	1203.7	1.231	0.005	1260.6	1.235	0.005	1317.5	1.221	0.005	1374.4	1.235	0.005	2031.7	1.280	0.005
504.9	1.331	0.032	618.7	1.492	0.009	732.5	1.092	0.006	1204.6	1.231	0.005	1261.5	1.235	0.005	1318.4	1.222	0.004	1375.3	1.235	0.005	2053.9	1.284	0.005
506.8	1.338	0.043	620.6	1.504	0.016	734.5	1.096	0.006	1205.6	1.231	0.005	1262.5	1.236	0.005	1319.4	1.223	0.004	1376.3	1.235	0.004	2076.0	1.288	0.005
508.8	1.343	0.032	622.6	1.519	0.008	736.4	1.100	0.006	1206.6	1.231	0.005	1263.5	1.236	0.005	1320.4	1.224	0.004	1377.3	1.235	0.005	2098.2	1.295	0.002
510.7	1.329	0.042	624.5	1.530	0.016	738.3	1.104	0.006	1207.5	1.231	0.005	1264.4	1.236	0.005	1321.3	1.225	0.004	1378.2	1.235	0.005	2120.4	1.303	0.003
512.6	1.338	0.021	626.4	1.545	0.008	740.2	1.108	0.007	1208.5	1.231	0.005	1265.4	1.236	0.005	1322.3	1.226	0.004	1379.2	1.235	0.005	2142.6	1.312	0.003
514.6	1.329	0.032	628.4	1.564	0.008	742.2	1.111	0.007	1209.5	1.232	0.004	1266.4	1.236	0.005	1323.3	1.227	0.004	1380.2	1.235	0.005	2151.3	1.316	0.003
516.5	1.337	0.032	630.3	1.583	0.014	744.1	1.114	0.007	1210.4	1.231	0.005	1267.3	1.236	0.005	1324.2	1.228	0.004	1381.1	1.235	0.005	2153.2	1.317	0.003
518.4	1.332	0.042	632.2	1.607	0.007	746.0	1.117	0.007	1211.4	1.231	0.004	1268.3	1.236	0.005	1325.2	1.229	0.004	1382.1	1.236	0.005	2155.1	1.318	0.003
520.3	1.328	0.031	634.1	1.638	0.013	748.0	1.120	0.007	1212.3	1.232	0.005	1269.3	1.236	0.005	1326.2	1.229	0.004	1383.1	1.236	0.005	2157.1	1.319	0.003
522.3	1.329	0.021	636.1	1.676	0.019	749.9	1.123	0.007	1213.3	1.231	0.004	1270.2	1.237	0.005	1327.1	1.229	0.004	1384.0	1.235	0.007	2159.0	1.320	0.003
524.2	1.328	0.031	638.0	1.718	0.050	751.8	1.126	0.007	1214.3	1.232	0.004	1271.2	1.237	0.005	1328.1	1.229	0.004	1385.0	1.234	0.005	2160.9	1.321	0.003
526.1	1.325	0.021	639.9	1.706	0.064	753.7	1.128	0.007	1215.2	1.232	0.005	1272.1	1.237	0.005	1329.1	1.230	0.004	1386.0	1.234	0.005	2162.8	1.322	0.003
528.1	1.331	0.021	641.9	1.754	0.029	755.7	1.131	0.007	1216.2	1.232	0.004	1273.1	1.237	0.005	1330.0	1.230	0.004	1386.9	1.235	0.005	2164.8	1.323	0.003
530.0	1.334	0.031	643.8	1.824	0.020	757.6	1.133	0.007	1217.2	1.232	0.005	1274.1	1.238	0.005	1331.0	1.230	0.004	1387.9	1.235	0.005	2166.7	1.324	0.003
531.9	1.328	0.021	645.7	1.913	0.022	759.5	1.135	0.007	1218.1	1.232	0.005	1275.0	1.238	0.005	1331.9	1.231	0.004	1388.8	1.235	0.004	2168.6	1.325	0.003
533.8	1.335	0.021	647.7	2.027	0.027	761.5	1.138	0.007	1219.1	1.232	0.005	1276.0	1.238	0.006	1332.9	1.231	0.004	1389.8	1.235	0.004	2170.6	1.326	0.003
535.8	1.329	0.031	649.6	2.204	0.035	763.4	1.140	0.007	1220.1	1.232	0.005	1277.0	1.238	0.006	1333.9	1.231	0.005	1390.8	1.236	0.004	2172.5	1.327	0.003
537.7	1.331	0.021	651.5	2.515	0.088	765.3	1.142	0.007	1221.0	1.232	0.005	1277.9	1.238	0.006	1334.8	1.231	0.004	1391.7	1.236	0.005	2174.4	1.328	0.003
539.6	1.333	0.020	653.4	3.044	0.633	767.2	1.143	0.007	1222.0	1.232	0.005	1278.9	1.238	0.006	1335.8	1.231	0.005	1392.7	1.236	0.004	2176.3	1.330	0.003
541.6	1.333	0.020	655.4	2.258	2.116	769.2	1.145	0.007	1223.0	1.232	0.005	1279.9	1.238	0.006	1336.8	1.231	0.005	1393.7	1.236	0.005	2178.3	1.331	0.003
543.5	1.334	0.011	657.3	1.923	0.853	771.1	1.147	0.007	1223.9	1.232	0.005	1280.8	1.239	0.006	1337.7	1.232	0.005	1394.6	1.236	0.005	2180.2	1.332	0.003
545.4	1.337	0.011	659.2	2.588	1.533	773.0	1.147	0.007	1224.9	1.232	0.004	1281.8	1.239	0.006	1338.7	1.232	0.005	1395.6	1.236	0.005	2182.1	1.333	0.003
547.3	1.340	0.030	661.2	1.606	2.712	775.0	1.153	0.007	1225.9	1.233	0.005	1282.8	1.239	0.006	1339.7	1.232	0.005	1396.6	1.236	0.005	2184.1	1.335	0.003
549.3	1.344	0.010	663.1	0.768	2.131	776.9	1.153	0.007	1226.8	1.233	0.005	1283.7	1.239	0.006	1340.6	1.232	0.005	1397.5	1.236	0.005	2186.0	1.336	0.003
551.2	1.344	0.020	665.0	0.498	1.630	778.8	1.154	0.007	1227.8	1.233	0.005	1284.7	1.240	0.006	1341.6	1.232	0.005	1398.5	1.236	0.005	2187.9	1.338	0.003
553.1	1.343	0.010	666.9	0.406	1.318	780.7	1.156	0.007	1228.7	1.233	0.005	1285.6	1.240	0.006	1342.6	1.232	0.004	1399.5	1.236	0.005	2189.8	1.339	0.003
555.1	1.350	0.020	668.9	0.380	1.099	782.7	1.157	0.007	1229.7	1.233	0.005	1286.6	1.241	0.006	1343.5	1.232	0.004	1411.0	1.237	0.004	2191.8	1.341	0.003
557.0	1.350	0.010	670.8	0.358	0.942	784.6	1.158	0.007	1230.7	1.233	0.005	1287.6	1.241	0.006	1344.5	1.233	0.004	1422.1	1.237	0.005	2193.7	1.342	0.006
558.9	1.352	0.020	672.7	0.310	0.815	786.5	1.159	0.007	1231.6	1.233	0.005	1288.5	1.242	0.006	1345.4	1.233	0.005	1433.2	1.238	0.005	2195.6	1.343	0.003
560.8	1.352	0.020	674.7	0.242	0.664	788.5	1.161	0.007	1232.6	1.232	0.005	1289.5	1.242	0.006	1346.4	1.233	0.005	1444.3	1.238	0.005	2197.6	1.345	0.003
562.8	1.352	0.020	676.6	0.221	0.529	790.4	1.162	0.007	1233.6	1.232	0.005	1290.5	1.243	0.007	1347.4	1.233	0.005	1455.4	1.239	0.004	2199.5	1.346	0.003
564.7	1.350	0.019	678.5	0.206	0.089	792.3	1.163	0.007	1234.5	1.233	0.004	1291.4	1.244	0.007	1348.3	1.233	0.005	1466.5	1.240	0.004	2201.4	1.348	0.003
566.6	1.356	0.019	680.4	0.455	0.006	794.3	1.163	0.007	1235.5	1.234	0.005	1292.4	1.245	0.007	1349.3	1.233	0.005	1477.6	1.240	0.004	2203.3	1.350	0.003
568.6	1.353	0.010	682.4	0.590	0.027	796.2	1.163	0.007	1236.5	1.234	0.005	1293.4	1.246	0.007	1350.3	1.233	0.005	1488.7	1.241	0.004	2205.3	1.351	0.003
570.5	1.360	0.010	684.3	0.672	0.011	798.1	1.168	0.007	1237.4	1.234	0.005	1294.3	1.248	0.009	1351.2	1.233	0.005	1499.8	1.241	0.004	2207.2	1.353	0.004
572.4	1.365	0.010	686.2	0.734	0.012	821.3	1.179	0.007	1238.4	1.234	0.005	1295.3	1.249	0.010	1352.2	1.233	0.005	1521.5	1.241	0.004	2209.1	1.355	0.004
574.4	1.370	0.010	688.2	0.780	0.013	843.4	1.191	0.007	1239.4	1.234	0.005	1296.3	1.251	0.012	1353.2	1.233	0.005	1543.6	1.243	0.004	2211.1	1.357	0.004
576.3	1.373	0.028	690.1	0.826	0.014	865.6	1.197	0.006	1240.3	1.234	0.005	1297.2	1.252	0.015	1354.1	1.233	0.005	1565.8	1.242	0.004	2213.0	1.359	0.004
578.2	1.370	0.010	692.0	0.854	0.014	887.8	1.201	0.006	1241.3	1.234	0.005	1298.2	1.253	0.020	1355.1	1.233	0.005	1588.0	1.243	0.004	2214.9	1.361	0.004
580.1	1.372	0.010	693.9	0.880	0.014	910.0	1.205	0.006	1242.2	1.234	0.005	1299.2	1.252	0.024	1356.1	1.233	0.005	1610.2	1.244	0.000	2216.9	1.363	0.004
582.1	1.377	0.019	695.9	0.900	0.014	932.2	1.208	0.006	1243.2	1.234	0.005	1300.1	1.248	0.031	1357.0	1.234	0.005	1632.4	1.245	0.004	2218.8	1.365	0.004
584.0	1.382	0.010	697.8	0.917	0.003	954.4	1.212	0.006	1244.2	1.234	0.005	1301.1	1.241	0.031	1358.0	1.234	0.005	1654.6	1.246	0.004	2220.7	1.367	0.004
585.9	1.381	0.010	699.7	0.941	0.004	976.5	1.213	0.006	1245.1	1.234	0.005	1302.0	1.239	0.027	1358.9	1.234	0.005	1676.7	1.246	0.004	2222.6	1.369	0.004
587.9	1.387	0.010	701.7	0.958	0.004	998.7	1.215	0.006	1246.1	1.234	0.005	1303.0	1.239	0.027	1359.9	1.234	0.005	1698.9	1.247	0.004	2224.6	1.372	0.004
589.8	1.393	0.010	703.6	0.974	0.005	1020.9	1.216	0.006	1247.1	1.234	0.005	1304.0	1.237	0.028	1360.9	1.234	0.005	1721.1	1.250	0.000	2226.5	1.374	0.004
591.7	1.396	0.001	705.5	0.988	0.005	1043.1	1.221	0.000	1248.0	1.234	0.005	1304.9	1.237	0.028	1361.8	1.234	0.005	1743.3	1.251	0.004	2228.4	1.377	0.004
593.6	1.398	0.010	707.4	1.000	0.005	1065.3	1.220	0.005	1249.0	1.234	0.005	1305.9	1.236	0.030	1362.8	1.234	0.005	1765.5	1.251	0.004	2230.4	1.379	0.004
595.6	1.404	0.010	709.4	1.011	0.005	1087.4	1.223	0.000	1250.0	1.234	0.005	1306.9	1.235	0.033	1363.8	1.234	0.005	1787.7	1.255	0.004	2232.3	1.382	0.004
597.5	1.408	0.009	711.3	1.021	0.006	1109.6	1.224	0.000	1250.9	1.234	0.005	1307.8	1.232	0.039	1364.7	1.234	0.005	1809.8	1.255	0.004	2234.2	1.385	0.004
599.4	1.419	0.009	713.2	1.030	0.006	1131.8	1.226	0.000	1251.9	1.234	0.005	1308.8	1.221	0.046	1365.7	1.234	0.005	1832.0	1.257	0.004	2236.1	1.388	0.004
601.4	1.425	0.009	715.2	1.039	0.006	1152.1	1.229	0.005	1252.9	1.234	0.005	1309.8	1.208	0.037	1366.7	1.234	0.005	1854.2	1.258	0.004	2238.1	1.390	0.004
603.3	1.426	0.009	717.1	1.047	0.006	1163.2	1.229	0.005	1253.8	1.235	0.005	1310.7	1.205	0.023	1367.6	1.234	0.005	1876.4	1.260	0.004	2240.0	1.393	0.004
605.2	1.433	0.017	719.0	1.054	0.006	1174.3	1.230	0.005	1254.8	1.235	0.005	1311.7	1.208	0.015	1368.6	1.234	0.005	1898.6	1.262	0.004	2241.9	1.396	0.004
607.1	1.439	0.009	721.0	1.061	0.006	1185.3	1.230	0.005	1255.8	1.235	0.005	1312.7	1.211	0.010	1369.6	1.234	0.005	1920.8	1.264	0.004	2243.9	1.400	0.004
609.1	1.450	0.009	722.9	1.067	0.006	1196.4	1.231	0.005	1256.7	1.235	0.005	1313.6	1.214	0.008	1370.5	1.234	0.005	1942.9	1.266	0.004	2245.8	1.402	0.004
611.0	1.453	0.017	724.8	1.074	0.006	1200.8	1.231	0.005	1257.7	1.235	0.005	1314.6	1.217	0.007	1371.5	1.235	0.005	1965.1	1.269	0.004	2247.7	1.407	0.006
612.9	1.457	0.009	726.7	1.078	0.015	1201.7	1.231	0.005	1258.6	1.235	0.005	1315.5	1.218	0.006	1372.5	1.235	0.005	1987.3	1.270	0.004	2249.6	1.410	0.006

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TABLE 11D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2251.6	1.414	0.004	2365.4	0.387	0.949	2479.2	1.059	0.003	2969.1	1.184	0.001	3026.0	1.184	0.002	3083.0	1.188	0.000	3574.8	1.210	0.000	3688.6	1.215	0.000
2253.5	1.419	0.006	2367.3	0.372	0.880	2481.1	1.063	0.003	2970.1	1.184	0.001	3027.0	1.184	0.002	3083.9	1.188	0.000	3576.8	1.210	0.000	3690.6	1.216	0.001
2255.4	1.422	0.004	2369.2	0.357	0.816	2483.0	1.065	0.003	2971.1	1.184	0.001	3028.0	1.184	0.002	3084.9	1.189	0.000	3578.7	1.211	0.000	3692.5	1.218	0.000
2257.4	1.427	0.006	2371.2	0.338	0.750	2485.0	1.068	0.003	2972.0	1.184	0.001	3028.9	1.184	0.002	3085.8	1.189	0.000	3580.6	1.211	0.001	3694.4	1.220	0.002
2259.3	1.431	0.006	2373.1	0.315	0.690	2486.9	1.070	0.003	2973.0	1.184	0.001	3029.9	1.184	0.002	3086.8	1.189	0.000	3582.6	1.211	0.001	3696.4	1.222	0.002
2261.2	1.436	0.006	2375.0	0.290	0.620	2488.8	1.072	0.004	2974.0	1.184	0.001	3030.9	1.184	0.002	3087.8	1.189	0.000	3584.5	1.212	0.001	3698.3	1.224	0.002
2263.1	1.441	0.006	2377.0	0.264	0.540	2490.8	1.074	0.004	2974.9	1.185	0.001	3031.8	1.185	0.002	3088.7	1.189	0.001	3586.4	1.212	0.001	3700.2	1.229	0.002
2265.1	1.447	0.006	2378.9	0.245	0.449	2492.7	1.075	0.004	2975.9	1.185	0.001	3032.8	1.185	0.002	3089.7	1.189	0.001	3588.3	1.214	0.000	3702.1	1.236	0.004
2267.0	1.453	0.006	2380.8	0.185	0.371	2494.6	1.078	0.001	2976.9	1.185	0.001	3033.8	1.185	0.002	3090.7	1.189	0.000	3590.3	1.215	0.001	3704.1	1.246	0.011
2268.9	1.459	0.006	2382.7	0.242	0.072	2496.6	1.081	0.002	2977.8	1.185	0.001	3034.7	1.185	0.002	3091.6	1.189	0.000	3592.2	1.218	0.001	3706.0	1.265	0.026
2270.9	1.467	0.006	2384.7	0.402	0.021	2498.5	1.083	0.002	2978.8	1.185	0.001	3035.7	1.185	0.002	3092.6	1.189	0.000	3594.1	1.220	0.002	3707.9	1.247	0.130
2272.8	1.476	0.006	2386.6	0.498	0.012	2521.6	1.101	0.000	2979.8	1.185	0.001	3036.7	1.186	0.002	3093.6	1.189	0.000	3596.1	1.225	0.003	3709.9	1.147	0.076
2274.7	1.486	0.008	2388.5	0.565	0.014	2543.8	1.117	0.001	2980.7	1.185	0.001	3037.6	1.186	0.003	3094.5	1.189	0.000	3598.0	1.237	0.010	3711.8	1.159	0.018
2276.6	1.500	0.009	2390.5	0.617	0.010	2566.0	1.128	0.002	2981.7	1.185	0.001	3038.6	1.186	0.003	3095.5	1.189	0.000	3599.9	1.226	0.076	3713.7	1.176	0.010
2278.6	1.520	0.017	2392.4	0.658	0.010	2588.2	1.135	0.002	2982.6	1.185	0.001	3039.6	1.186	0.003	3096.5	1.189	0.000	3601.8	1.177	0.027	3715.6	1.184	0.008
2280.5	1.544	0.043	2394.3	0.695	0.010	2610.4	1.143	0.000	2983.6	1.185	0.001	3040.5	1.186	0.003	3097.4	1.189	0.000	3603.8	1.188	0.006	3717.6	1.188	0.007
2282.4	1.519	0.147	2396.2	0.727	0.009	2632.5	1.150	0.000	2984.6	1.185	0.001	3041.5	1.185	0.003	3098.4	1.189	0.000	3605.7	1.195	0.005	3719.5	1.191	0.007
2284.4	1.431	0.072	2398.2	0.753	0.008	2654.7	1.156	0.000	2985.5	1.186	0.001	3042.4	1.185	0.003	3099.3	1.189	0.000	3607.6	1.198	0.003	3721.4	1.192	0.006
2286.3	1.454	0.023	2400.1	0.776	0.010	2676.9	1.160	0.001	2986.5	1.186	0.001	3043.4	1.184	0.003	3110.9	1.190	0.000	3609.6	1.200	0.003	3723.4	1.194	0.004
2288.2	1.480	0.010	2402.0	0.797	0.009	2699.1	1.164	0.001	2987.5	1.186	0.001	3044.4	1.184	0.003	3122.0	1.191	0.000	3611.5	1.201	0.002	3725.3	1.195	0.004
2290.2	1.499	0.007	2404.0	0.816	0.007	2721.3	1.167	0.001	2988.4	1.186	0.001	3045.3	1.184	0.002	3133.1	1.192	0.000	3613.4	1.203	0.002	3727.2	1.195	0.003
2292.1	1.515	0.007	2405.9	0.834	0.009	2743.5	1.170	0.001	2989.4	1.186	0.001	3046.3	1.184	0.002	3144.2	1.192	0.000	3615.3	1.203	0.002	3729.2	1.196	0.003
2294.0	1.529	0.007	2407.8	0.848	0.010	2757.9	1.171	0.002	2990.4	1.186	0.002	3047.3	1.185	0.002	3155.3	1.193	0.000	3617.3	1.204	0.002	3731.1	1.197	0.003
2295.9	1.543	0.006	2409.7	0.863	0.008	2769.0	1.172	0.001	2991.3	1.187	0.002	3048.2	1.185	0.002	3166.4	1.194	0.000	3619.2	1.204	0.002	3733.0	1.197	0.003
2297.9	1.558	0.006	2411.7	0.875	0.009	2780.1	1.172	0.001	2992.3	1.187	0.002	3049.2	1.185	0.001	3177.5	1.194	0.000	3621.1	1.205	0.002	3734.9	1.198	0.003
2299.8	1.572	0.007	2413.6	0.888	0.007	2791.2	1.173	0.001	2993.3	1.187	0.002	3050.2	1.185	0.001	3188.6	1.195	0.000	3623.1	1.205	0.002	3736.9	1.199	0.003
2301.7	1.587	0.006	2415.5	0.900	0.008	2802.3	1.174	0.001	2994.2	1.187	0.002	3051.1	1.185	0.001	3199.7	1.196	0.000	3625.0	1.205	0.000	3738.8	1.199	0.002
2303.7	1.604	0.008	2417.5	0.909	0.009	2813.4	1.174	0.001	2995.2	1.187	0.002	3052.1	1.186	0.001	3210.7	1.196	0.000	3626.9	1.205	0.000	3740.7	1.200	0.002
2305.6	1.621	0.007	2419.4	0.920	0.007	2824.5	1.175	0.002	2996.1	1.188	0.002	3053.1	1.186	0.001	3221.8	1.197	0.000	3628.8	1.206	0.002	3742.7	1.200	0.002
2307.5	1.641	0.008	2421.3	0.929	0.007	2835.6	1.175	0.001	2997.1	1.188	0.002	3054.0	1.186	0.001	3232.9	1.198	0.000	3630.8	1.207	0.002	3744.6	1.200	0.002
2309.4	1.663	0.006	2423.2	0.938	0.008	2846.7	1.176	0.001	2998.1	1.188	0.002	3055.0	1.186	0.001	3244.0	1.198	0.000	3632.7	1.206	0.004	3746.5	1.201	0.002
2311.4	1.686	0.008	2425.2	0.945	0.009	2857.7	1.177	0.001	2999.0	1.188	0.003	3055.9	1.186	0.001	3255.1	1.199	0.000	3634.6	1.205	0.002	3748.4	1.201	0.002
2313.3	1.712	0.008	2427.1	0.953	0.006	2868.8	1.177	0.001	3000.0	1.189	0.003	3056.9	1.186	0.001	3266.2	1.199	0.000	3636.6	1.205	0.000	3750.4	1.201	0.002
2315.2	1.741	0.008	2429.0	0.961	0.007	2879.9	1.178	0.001	3001.0	1.189	0.003	3057.9	1.186	0.001	3277.3	1.200	0.000	3638.5	1.206	0.000	3752.3	1.201	0.002
2317.2	1.774	0.008	2431.0	0.968	0.007	2891.0	1.179	0.001	3001.9	1.189	0.004	3058.8	1.186	0.001	3288.4	1.201	0.000	3640.4	1.207	0.000	3754.2	1.201	0.002
2319.1	1.811	0.010	2432.9	0.975	0.008	2902.1	1.179	0.001	3002.9	1.189	0.005	3059.8	1.187	0.001	3299.5	1.201	0.000	3642.3	1.207	0.000	3756.2	1.201	0.002
2321.0	1.856	0.010	2434.8	0.981	0.008	2913.2	1.180	0.001	3003.9	1.189	0.005	3060.8	1.187	0.001	3321.2	1.204	0.000	3644.3	1.207	0.000	3758.1	1.201	0.000
2322.9	1.908	0.012	2436.8	0.986	0.009	2924.3	1.181	0.001	3004.8	1.189	0.006	3061.7	1.187	0.000	3343.4	1.203	0.000	3646.2	1.208	0.000	3760.0	1.202	0.000
2324.9	1.972	0.017	2438.7	0.991	0.009	2935.4	1.181	0.001	3005.8	1.189	0.006	3062.7	1.187	0.000	3365.5	1.204	0.000	3648.1	1.208	0.000	3761.9	1.202	0.000
2326.8	2.049	0.037	2440.6	0.998	0.010	2946.5	1.182	0.001	3006.8	1.189	0.007	3063.7	1.187	0.000	3387.7	1.204	0.000	3650.1	1.207	0.002	3763.9	1.202	0.000
2328.7	2.123	0.051	2442.5	1.002	0.010	2950.8	1.183	0.001	3007.7	1.188	0.008	3064.6	1.187	0.000	3409.9	1.204	0.000	3652.0	1.208	0.000	3765.8	1.203	0.000
2330.7	2.233	0.073	2444.5	1.006	0.010	2951.8	1.183	0.001	3008.7	1.188	0.008	3065.6	1.187	0.000	3432.1	1.205	0.000	3653.9	1.208	0.000	3767.7	1.203	0.000
2332.6	2.364	0.118	2446.4	1.010	0.011	2952.7	1.183	0.001	3009.7	1.187	0.010	3066.6	1.187	0.000	3454.3	1.205	0.000	3655.9	1.208	0.000	3769.7	1.203	0.000
2334.5	2.527	0.185	2448.3	1.014	0.011	2953.7	1.183	0.001	3010.6	1.185	0.010	3067.5	1.187	0.000	3476.5	1.206	0.000	3657.8	1.209	0.000	3771.6	1.203	0.000
2336.4	2.743	0.295	2450.3	1.018	0.011	2954.7	1.183	0.001	3011.6	1.184	0.009	3068.5	1.187	0.000	3498.6	1.207	0.000	3659.7	1.209	0.000	3773.5	1.204	0.000
2338.4	3.026	0.527	2452.2	1.022	0.011	2955.6	1.183	0.001	3012.5	1.183	0.008	3069.4	1.187	0.000	3520.8	1.207	0.000	3661.6	1.209	0.000	3775.4	1.204	0.000
2340.3	3.304	1.060	2454.1	1.025	0.011	2956.6	1.183	0.001	3013.5	1.183	0.007	3070.4	1.187	0.000	3543.0	1.208	0.000	3663.6	1.209	0.000	3777.4	1.204	0.000
2342.2	3.215	1.995	2456.0	1.028	0.012	2957.6	1.183	0.001	3014.5	1.183	0.007	3071.4	1.188	0.000	3551.7	1.208	0.000	3665.5	1.210	0.000	3779.3	1.204	0.000
2344.2	2.580	2.684	2458.0	1.030	0.012	2958.5	1.183	0.001	3015.4	1.182	0.006	3072.3	1.188	0.000	3553.6	1.209	0.000	3667.4	1.210	0.000	3781.2	1.204	0.000
2346.1	1.810	2.807	2459.9	1.033	0.009	2959.5	1.183	0.001	3016.4	1.182	0.006	3073.3	1.188	0.000	3555.5	1.209	0.000	3669.4	1.210	0.000	3783.2	1.204	0.000
2348.0	1.227	2.572	2461.8	1.035	0.012	2960.5	1.183	0.001	3017.4	1.182	0.005	3074.3	1.188	0.000	3557.5	1.209	0.000	3671.3	1.210	0.000	3785.1	1.204	0.000
2349.9	0.862	2.259	2463.8	1.038	0.009	2961.4	1.183	0.001	3018.3	1.182	0.005	3075.2	1.188	0.000	3559.4	1.209	0.000	3673.2	1.211	0.000	3787.0	1.204	0.000
2351.9	0.654	1.962	2465.7	1.040	0.010	2962.4	1.183	0.001	3019.3	1.182	0.004	3076.2	1.188	0.000	3561.3	1.209	0.000	3675.1	1.211	0.000	3788.9	1.204	0.000
2353.8	0.537	1.714	2467.6	1.043	0.007	2963.4	1.183	0.001	3020.3	1.182	0.004	3077.2	1.188	0.000	3563.3	1.209	0.000	3677.1	1.211	0.000	3790.9	1.204	0.000
2355.7	0.475	1.513	2469.5	1.046	0.007	2964.3	1.184	0.001	3021.2	1.183	0.003	3078.1	1.188	0.000	3565.2	1.209	0.000	3679.0	1.212	0.001	3792.8	1.204	0.000
2357.7	0.441	1.351	2471.5	1.048	0.007	2965.3	1.184	0.001	3022.2	1.183	0.003	3079.1	1.188	0.000	3567.1	1.209	0.000	3680.9	1.212	0.001	3794.7	1.204	0.000
2359.6	0.421	1.225	2473.4	1.052	0.005	2966.3	1.184	0.001	3023.2	1.183	0.003	3080.1	1.188	0.000	3569.0	1.210	0.000	3682.9	1.212	0.001	3796.7	1.204	0.000
2361.5	0.409	1.116	2475.3	1.055	0.005	2967.2	1.184	0.001	3024.1	1.183	0.003	3081.0	1.188	0.000	3571.0	1.210	0.000	3684.8	1.214	0.001	3798.6	1.205	0.000
2363.5	0.396	1.027	2477.3	1.057	0.005	2968.2	1.184	0.001	3025.1	1.183	0.003	3082.0	1.188	0.000	3572.9	1.210	0.000	3686.7	1.214	0.001			

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TABLE 11E

CO_2:CH_4 = 20:1 AT 70 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.408	0.092	614.9	1.457	0.025	728.7	1.075	0.015	1202.7	1.227	0.005	1259.6	1.232	0.005	1316.5	1.222	0.006	1373.4	1.233	0.004	2009.5	1.276	0.005
503.0	1.381	0.083	616.8	1.471	0.017	730.6	1.081	0.006	1203.7	1.228	0.004	1260.6	1.232	0.005	1317.5	1.222	0.005	1374.4	1.232	0.005	2031.7	1.281	0.005
504.9	1.361	0.063	618.7	1.479	0.016	732.5	1.086	0.015	1204.6	1.228	0.005	1261.5	1.232	0.005	1318.4	1.223	0.004	1375.3	1.232	0.005	2053.9	1.284	0.005
506.8	1.356	0.083	620.6	1.493	0.024	734.5	1.088	0.015	1205.6	1.227	0.004	1262.5	1.232	0.005	1319.4	1.224	0.004	1376.3	1.233	0.004	2076.0	1.289	0.002
508.8	1.357	0.062	622.6	1.507	0.016	736.4	1.089	0.015	1206.6	1.228	0.004	1263.5	1.232	0.005	1320.4	1.224	0.004	1377.3	1.233	0.004	2098.2	1.295	0.002
510.7	1.357	0.062	624.5	1.524	0.023	738.3	1.099	0.006	1207.5	1.228	0.004	1264.4	1.232	0.005	1321.3	1.225	0.004	1378.2	1.233	0.004	2120.4	1.301	0.005
512.6	1.347	0.073	626.4	1.537	0.015	740.2	1.100	0.015	1208.5	1.228	0.005	1265.4	1.232	0.005	1322.3	1.226	0.004	1379.2	1.233	0.004	2142.6	1.309	0.005
514.6	1.342	0.073	628.4	1.555	0.022	742.2	1.101	0.006	1209.5	1.228	0.004	1266.4	1.233	0.005	1323.3	1.227	0.004	1380.2	1.233	0.004	2151.3	1.313	0.003
516.5	1.342	0.052	630.3	1.574	0.022	744.1	1.111	0.007	1210.4	1.228	0.004	1267.3	1.233	0.005	1324.2	1.227	0.004	1381.1	1.233	0.004	2153.2	1.315	0.003
518.4	1.340	0.072	632.2	1.598	0.021	746.0	1.112	0.015	1211.4	1.228	0.004	1268.3	1.233	0.005	1325.2	1.228	0.004	1382.1	1.233	0.004	2155.1	1.316	0.003
520.3	1.339	0.052	634.1	1.626	0.020	748.0	1.111	0.015	1212.3	1.228	0.004	1269.3	1.233	0.005	1326.2	1.228	0.004	1383.1	1.234	0.005	2157.1	1.318	0.003
522.3	1.330	0.062	636.1	1.666	0.019	749.9	1.116	0.015	1213.3	1.228	0.004	1270.2	1.233	0.005	1327.1	1.228	0.004	1384.0	1.233	0.005	2159.0	1.318	0.005
524.2	1.325	0.052	638.0	1.724	0.043	751.8	1.120	0.015	1214.3	1.228	0.004	1271.2	1.233	0.005	1328.1	1.228	0.004	1385.0	1.233	0.005	2160.9	1.319	0.005
526.1	1.336	0.051	639.9	1.680	0.072	753.7	1.118	0.006	1215.2	1.229	0.004	1272.1	1.233	0.005	1329.1	1.228	0.004	1386.0	1.233	0.004	2162.8	1.320	0.005
528.1	1.333	0.051	641.9	1.740	0.030	755.7	1.126	0.007	1216.2	1.229	0.004	1273.1	1.234	0.005	1330.0	1.229	0.004	1386.9	1.233	0.004	2164.8	1.321	0.005
530.0	1.340	0.061	643.8	1.809	0.027	757.6	1.131	0.015	1217.2	1.229	0.004	1274.1	1.234	0.005	1331.0	1.229	0.004	1387.9	1.233	0.005	2166.7	1.321	0.003
531.9	1.332	0.051	645.7	1.895	0.023	759.5	1.129	0.015	1218.1	1.229	0.004	1275.0	1.234	0.005	1331.9	1.229	0.004	1388.8	1.233	0.004	2168.6	1.323	0.005
533.8	1.326	0.051	647.7	2.011	0.028	761.5	1.131	0.007	1219.1	1.229	0.004	1276.0	1.235	0.006	1332.9	1.230	0.004	1389.8	1.233	0.004	2170.6	1.325	0.005
535.8	1.324	0.051	649.6	2.178	0.037	763.4	1.132	0.015	1220.1	1.229	0.004	1277.0	1.234	0.006	1333.9	1.229	0.005	1390.8	1.233	0.004	2172.5	1.325	0.003
537.7	1.326	0.041	651.5	2.461	0.090	765.3	1.132	0.007	1221.0	1.229	0.004	1277.9	1.234	0.006	1334.8	1.230	0.005	1391.7	1.234	0.004	2174.4	1.326	0.006
539.6	1.335	0.040	653.4	3.090	0.344	767.2	1.138	0.015	1222.0	1.229	0.004	1278.9	1.235	0.006	1335.8	1.229	0.005	1392.7	1.234	0.004	2176.3	1.327	0.006
541.6	1.335	0.040	655.4	2.252	2.657	769.2	1.137	0.007	1223.0	1.229	0.004	1279.9	1.235	0.006	1336.8	1.229	0.004	1393.7	1.234	0.004	2178.3	1.327	0.006
543.5	1.336	0.040	657.3	1.866	0.574	771.1	1.137	0.007	1223.9	1.229	0.004	1280.8	1.235	0.006	1337.7	1.230	0.004	1394.6	1.234	0.005	2180.2	1.329	0.003
545.4	1.340	0.030	659.2	2.975	1.361	773.0	1.144	0.007	1224.9	1.229	0.004	1281.8	1.235	0.006	1338.7	1.230	0.004	1395.6	1.234	0.004	2182.1	1.330	0.003
547.3	1.343	0.049	661.2	1.460	3.020	775.0	1.145	0.007	1225.9	1.229	0.004	1282.8	1.235	0.006	1339.7	1.230	0.004	1396.6	1.234	0.004	2184.1	1.332	0.003
549.3	1.335	0.039	663.1	0.623	2.097	776.9	1.143	0.015	1226.8	1.230	0.004	1283.7	1.236	0.006	1340.6	1.230	0.005	1397.5	1.234	0.004	2186.0	1.334	0.003
551.2	1.338	0.039	665.0	0.449	1.574	778.8	1.145	0.014	1227.8	1.230	0.004	1284.7	1.236	0.006	1341.6	1.230	0.004	1398.5	1.234	0.004	2187.9	1.335	0.003
553.1	1.337	0.039	666.9	0.395	1.266	780.7	1.147	0.007	1228.7	1.230	0.005	1285.6	1.236	0.006	1342.6	1.230	0.004	1399.5	1.234	0.005	2189.8	1.337	0.003
555.1	1.342	0.039	668.9	0.393	1.074	782.7	1.151	0.007	1229.7	1.230	0.005	1286.6	1.237	0.006	1343.5	1.231	0.004	1411.0	1.235	0.004	2191.8	1.338	0.003
557.0	1.340	0.029	670.8	0.364	0.933	784.6	1.148	0.007	1230.7	1.229	0.005	1287.6	1.237	0.006	1344.5	1.231	0.004	1422.1	1.235	0.004	2193.7	1.340	0.003
558.9	1.351	0.029	672.7	0.335	0.815	786.5	1.152	0.007	1231.6	1.230	0.005	1288.5	1.238	0.006	1345.4	1.231	0.004	1433.2	1.236	0.004	2195.6	1.343	0.006
560.8	1.342	0.039	674.7	0.292	0.667	788.5	1.154	0.007	1232.6	1.229	0.005	1289.5	1.238	0.007	1346.4	1.231	0.005	1444.3	1.236	0.004	2197.6	1.342	0.006
562.8	1.350	0.029	676.6	0.245	0.517	790.4	1.156	0.007	1233.6	1.229	0.004	1290.5	1.238	0.007	1347.4	1.231	0.004	1455.4	1.237	0.004	2199.5	1.343	0.003
564.7	1.346	0.038	678.5	0.219	0.173	792.3	1.157	0.007	1234.5	1.231	0.004	1291.4	1.239	0.008	1348.3	1.231	0.004	1466.5	1.238	0.004	2201.4	1.346	0.003
566.6	1.349	0.029	680.4	0.441	0.052	794.3	1.159	0.007	1235.5	1.232	0.005	1292.4	1.240	0.008	1349.3	1.232	0.004	1477.6	1.238	0.004	2203.3	1.349	0.006
568.6	1.356	0.019	682.4	0.577	0.027	796.2	1.160	0.007	1236.5	1.231	0.005	1293.4	1.240	0.008	1350.3	1.232	0.005	1488.7	1.239	0.004	2205.3	1.349	0.006
570.5	1.359	0.037	684.3	0.664	0.026	798.1	1.161	0.007	1237.4	1.231	0.005	1294.3	1.241	0.010	1351.2	1.231	0.005	1499.8	1.239	0.004	2207.2	1.350	0.003
572.4	1.362	0.028	686.2	0.725	0.026	821.3	1.174	0.007	1238.4	1.231	0.005	1295.3	1.242	0.011	1352.2	1.231	0.005	1521.5	1.240	0.004	2209.1	1.352	0.004
574.4	1.361	0.028	688.2	0.769	0.026	843.4	1.183	0.006	1239.4	1.231	0.005	1296.3	1.243	0.013	1353.2	1.231	0.005	1543.6	1.240	0.004	2211.1	1.354	0.006
576.3	1.365	0.037	690.1	0.810	0.026	865.6	1.190	0.006	1240.3	1.231	0.005	1297.2	1.243	0.015	1354.1	1.231	0.005	1565.8	1.241	0.004	2213.0	1.354	0.006
578.2	1.365	0.037	692.0	0.844	0.014	887.8	1.196	0.006	1241.3	1.231	0.005	1298.2	1.243	0.018	1355.1	1.232	0.005	1588.0	1.242	0.004	2214.9	1.357	0.004
580.1	1.368	0.028	693.9	0.874	0.014	910.0	1.200	0.006	1242.2	1.231	0.005	1299.2	1.241	0.021	1356.1	1.232	0.005	1610.2	1.243	0.000	2216.9	1.360	0.004
582.1	1.371	0.037	695.9	0.899	0.014	932.2	1.204	0.006	1243.2	1.231	0.005	1300.1	1.239	0.023	1357.0	1.232	0.005	1632.4	1.244	0.004	2218.8	1.362	0.004
584.0	1.373	0.027	697.8	0.920	0.015	954.4	1.209	0.006	1244.2	1.231	0.005	1301.1	1.236	0.025	1358.0	1.232	0.005	1654.6	1.244	0.004	2220.7	1.364	0.006
585.9	1.376	0.027	699.7	0.939	0.015	976.5	1.210	0.006	1245.1	1.231	0.005	1302.0	1.233	0.024	1358.9	1.232	0.005	1676.7	1.244	0.004	2222.6	1.367	0.004
587.9	1.380	0.027	701.7	0.955	0.015	998.7	1.212	0.006	1246.1	1.231	0.005	1303.0	1.232	0.023	1359.9	1.232	0.005	1698.9	1.244	0.004	2224.6	1.370	0.006
589.8	1.382	0.027	703.6	0.969	0.015	1020.9	1.214	0.006	1247.1	1.231	0.005	1304.0	1.230	0.023	1360.9	1.232	0.005	1721.1	1.248	0.004	2226.5	1.371	0.006
591.7	1.386	0.018	705.5	0.980	0.015	1043.1	1.216	0.000	1248.0	1.231	0.005	1304.9	1.229	0.023	1361.8	1.232	0.005	1743.3	1.250	0.000	2228.4	1.373	0.004
593.6	1.392	0.018	707.4	0.998	0.015	1065.3	1.219	0.000	1249.0	1.231	0.005	1305.9	1.228	0.022	1362.8	1.232	0.005	1765.5	1.252	0.004	2230.4	1.377	0.006
595.6	1.394	0.027	709.4	1.007	0.015	1087.4	1.221	0.000	1250.0	1.231	0.005	1306.9	1.227	0.023	1363.8	1.232	0.005	1787.7	1.252	0.004	2232.3	1.379	0.006
597.5	1.401	0.018	711.3	1.016	0.015	1109.6	1.223	0.000	1250.9	1.231	0.005	1307.8	1.224	0.026	1364.7	1.232	0.005	1809.8	1.253	0.004	2234.2	1.381	0.006
599.4	1.409	0.018	713.2	1.024	0.015	1131.8	1.226	0.000	1251.9	1.231	0.005	1308.8	1.217	0.024	1365.7	1.232	0.004	1832.0	1.253	0.004	2236.1	1.383	0.006
601.4	1.419	0.018	715.2	1.032	0.015	1152.1	1.225	0.005	1252.9	1.231	0.005	1309.8	1.215	0.017	1366.7	1.232	0.005	1854.2	1.257	0.004	2238.1	1.386	0.006
603.3	1.423	0.026	717.1	1.039	0.015	1163.2	1.226	0.005	1253.8	1.231	0.005	1310.7	1.216	0.013	1367.6	1.232	0.005	1876.4	1.258	0.004	2240.0	1.389	0.006
605.2	1.427	0.026	719.0	1.045	0.015	1174.3	1.226	0.005	1254.8	1.231	0.005	1311.7	1.217	0.010	1368.6	1.232	0.004	1898.6	1.262	0.001	2241.9	1.392	0.006
607.1	1.432	0.026	721.0	1.051	0.006	1185.3	1.227	0.005	1255.8	1.231	0.005	1312.7	1.218	0.009	1369.6	1.232	0.004	1920.8	1.264	0.004	2243.9	1.395	0.006
609.1	1.438	0.025	722.9	1.064	0.015	1196.4	1.228	0.005	1256.7	1.232	0.005	1313.6	1.219	0.008	1370.5	1.232	0.005	1942.9	1.264	0.004	2245.8	1.398	0.006
611.0	1.444	0.025	724.8	1.067	0.015	1200.8	1.227	0.005	1257.7	1.232	0.005	1314.6	1.220	0.007	1371.5	1.232	0.005	1965.1	1.269	0.004	2247.7	1.402	0.006
612.9	1.451	0.025	726.7	1.071	0.015	1201.7	1.228	0.005	1258.6	1.232	0.005	1315.5	1.221	0.006	1372.5	1.232	0.004	1987.3	1.271	0.004	2249.6	1.405	0.006

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TABLE 11E—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2251.6	1.409	0.006	2365.4	0.405	0.949	2479.2	1.059	0.005	2969.1	1.185	0.000	3026.0	1.185	0.002	3083.0	1.190	0.000	3574.8	1.210	0.000	3688.6	1.215	0.000
2253.5	1.413	0.006	2367.3	0.389	0.877	2481.1	1.063	0.003	2970.1	1.185	0.000	3027.0	1.185	0.002	3083.9	1.190	0.000	3576.8	1.210	0.000	3690.6	1.217	0.000
2255.4	1.417	0.006	2369.2	0.373	0.808	2483.0	1.066	0.003	2971.1	1.185	0.000	3028.0	1.185	0.002	3084.9	1.190	0.000	3578.7	1.211	0.000	3692.5	1.218	0.000
2257.4	1.421	0.006	2371.2	0.360	0.741	2485.0	1.068	0.003	2972.0	1.185	0.000	3028.9	1.185	0.002	3085.8	1.190	0.000	3580.6	1.211	0.000	3694.4	1.220	0.000
2259.3	1.426	0.006	2373.1	0.346	0.687	2486.9	1.071	0.003	2973.0	1.185	0.000	3029.9	1.185	0.001	3086.8	1.190	0.000	3582.6	1.212	0.000	3696.4	1.222	0.002
2261.2	1.431	0.006	2375.0	0.323	0.624	2488.8	1.073	0.004	2974.0	1.185	0.000	3030.9	1.185	0.001	3087.8	1.190	0.000	3584.5	1.212	0.000	3698.3	1.225	0.000
2263.1	1.436	0.006	2377.0	0.296	0.566	2490.8	1.075	0.004	2974.9	1.185	0.000	3031.8	1.185	0.001	3088.7	1.190	0.000	3586.4	1.213	0.000	3700.2	1.228	0.002
2265.1	1.442	0.008	2378.9	0.259	0.480	2492.7	1.076	0.004	2975.9	1.185	0.000	3032.8	1.186	0.001	3089.7	1.190	0.000	3588.3	1.214	0.000	3702.1	1.234	0.002
2267.0	1.447	0.008	2380.8	0.213	0.387	2494.6	1.079	0.001	2976.9	1.185	0.000	3033.8	1.186	0.001	3090.7	1.190	0.000	3590.3	1.215	0.000	3704.1	1.244	0.006
2268.9	1.453	0.008	2382.7	0.227	0.133	2496.6	1.082	0.002	2977.8	1.185	0.000	3034.7	1.186	0.001	3091.6	1.190	0.000	3592.2	1.217	0.000	3706.0	1.265	0.017
2270.9	1.460	0.008	2384.7	0.385	0.027	2498.5	1.083	0.002	2978.8	1.185	0.000	3035.7	1.186	0.001	3092.6	1.190	0.000	3594.1	1.220	0.000	3707.9	1.271	0.126
2272.8	1.468	0.008	2386.6	0.489	0.016	2521.6	1.102	0.003	2979.8	1.185	0.000	3036.7	1.186	0.001	3093.6	1.190	0.000	3596.1	1.226	0.002	3709.9	1.132	0.069
2274.7	1.478	0.008	2388.5	0.561	0.013	2543.8	1.117	0.001	2980.7	1.186	0.000	3037.6	1.186	0.001	3094.5	1.190	0.000	3598.0	1.236	0.006	3711.8	1.161	0.015
2276.6	1.492	0.010	2390.5	0.617	0.014	2566.0	1.128	0.002	2981.7	1.186	0.000	3038.6	1.186	0.001	3095.5	1.190	0.000	3599.9	1.234	0.075	3713.7	1.178	0.010
2278.6	1.510	0.015	2392.4	0.660	0.010	2588.2	1.136	0.002	2982.6	1.186	0.000	3039.6	1.186	0.001	3096.5	1.190	0.000	3601.8	1.173	0.023	3715.6	1.185	0.009
2280.5	1.536	0.037	2394.3	0.696	0.014	2610.4	1.143	0.000	2983.6	1.186	0.000	3040.5	1.187	0.002	3097.4	1.190	0.000	3603.8	1.189	0.004	3717.6	1.189	0.007
2282.4	1.525	0.151	2396.2	0.727	0.013	2632.5	1.151	0.000	2984.6	1.186	0.000	3041.5	1.186	0.002	3098.4	1.190	0.000	3605.7	1.196	0.003	3719.5	1.191	0.007
2284.4	1.417	0.068	2398.2	0.754	0.012	2654.7	1.156	0.000	2985.5	1.186	0.000	3042.4	1.186	0.002	3099.3	1.191	0.000	3607.6	1.199	0.003	3721.4	1.192	0.006
2286.3	1.443	0.023	2400.1	0.777	0.010	2676.9	1.160	0.001	2986.5	1.186	0.000	3043.4	1.186	0.002	3110.9	1.191	0.000	3609.6	1.201	0.002	3723.4	1.194	0.004
2288.2	1.470	0.010	2402.0	0.798	0.012	2699.1	1.164	0.001	2987.5	1.186	0.000	3044.4	1.186	0.001	3122.0	1.192	0.000	3611.5	1.202	0.002	3725.3	1.195	0.003
2290.2	1.490	0.007	2404.0	0.818	0.011	2721.3	1.168	0.001	2988.4	1.187	0.001	3045.3	1.186	0.001	3133.1	1.193	0.000	3613.4	1.203	0.002	3727.2	1.196	0.003
2292.1	1.505	0.007	2405.9	0.834	0.012	2743.5	1.170	0.002	2989.4	1.187	0.001	3046.3	1.186	0.000	3144.2	1.193	0.000	3615.3	1.203	0.002	3729.2	1.197	0.003
2294.0	1.519	0.007	2407.8	0.850	0.010	2757.9	1.172	0.002	2990.4	1.187	0.001	3047.3	1.187	0.000	3155.3	1.194	0.000	3617.3	1.203	0.000	3731.1	1.197	0.003
2295.9	1.533	0.006	2409.7	0.864	0.011	2769.0	1.172	0.002	2991.3	1.187	0.001	3048.2	1.187	0.000	3166.4	1.195	0.000	3619.2	1.204	0.002	3733.0	1.198	0.002
2297.9	1.547	0.008	2411.7	0.876	0.009	2780.1	1.173	0.001	2992.3	1.187	0.001	3049.2	1.187	0.000	3177.5	1.195	0.000	3621.1	1.205	0.000	3734.9	1.199	0.002
2299.8	1.560	0.007	2413.6	0.888	0.010	2791.2	1.173	0.001	2993.3	1.187	0.001	3050.2	1.187	0.000	3188.6	1.196	0.000	3623.1	1.205	0.000	3736.9	1.199	0.002
2301.7	1.575	0.007	2415.5	0.900	0.008	2802.3	1.174	0.000	2994.2	1.187	0.001	3051.1	1.187	0.000	3199.7	1.197	0.000	3625.0	1.206	0.000	3738.8	1.200	0.002
2303.7	1.591	0.008	2417.5	0.911	0.009	2813.4	1.174	0.000	2995.2	1.187	0.001	3052.1	1.187	0.000	3210.7	1.197	0.000	3626.9	1.206	0.000	3740.7	1.200	0.002
2305.6	1.607	0.007	2419.4	0.920	0.007	2824.5	1.175	0.000	2996.1	1.187	0.002	3053.1	1.187	0.000	3221.8	1.198	0.000	3628.8	1.207	0.000	3742.7	1.200	0.002
2307.5	1.626	0.006	2421.3	0.931	0.007	2835.6	1.176	0.000	2997.1	1.188	0.002	3054.0	1.187	0.000	3232.9	1.198	0.000	3630.8	1.207	0.000	3744.6	1.200	0.002
2309.4	1.646	0.007	2423.2	0.940	0.008	2846.7	1.176	0.000	2998.1	1.188	0.002	3055.0	1.187	0.000	3244.0	1.199	0.000	3632.7	1.208	0.002	3746.5	1.201	0.002
2311.4	1.668	0.008	2425.2	0.948	0.009	2857.7	1.177	0.000	2999.0	1.188	0.002	3055.9	1.188	0.000	3255.1	1.200	0.000	3634.6	1.206	0.002	3748.4	1.201	0.002
2313.3	1.693	0.008	2427.1	0.955	0.009	2868.8	1.178	0.000	3000.0	1.188	0.002	3056.9	1.188	0.000	3266.2	1.200	0.000	3636.6	1.206	0.000	3750.4	1.201	0.002
2315.2	1.719	0.008	2429.0	0.962	0.007	2879.9	1.179	0.000	3001.0	1.188	0.002	3057.9	1.188	0.000	3277.3	1.201	0.000	3638.5	1.207	0.000	3752.3	1.200	0.000
2317.2	1.750	0.009	2431.0	0.968	0.007	2891.0	1.179	0.000	3001.9	1.188	0.003	3058.8	1.188	0.000	3288.4	1.202	0.000	3640.4	1.207	0.000	3754.2	1.201	0.000
2319.1	1.785	0.009	2432.9	0.976	0.008	2902.1	1.180	0.000	3002.9	1.188	0.003	3059.8	1.188	0.000	3299.5	1.202	0.000	3642.3	1.207	0.000	3756.2	1.202	0.000
2321.0	1.825	0.010	2434.8	0.982	0.009	2913.2	1.181	0.000	3003.9	1.188	0.003	3060.8	1.188	0.000	3321.2	1.202	0.000	3644.3	1.208	0.000	3758.1	1.202	0.000
2322.9	1.873	0.012	2436.8	0.988	0.009	2924.3	1.181	0.000	3004.8	1.188	0.004	3061.7	1.188	0.000	3343.4	1.201	0.000	3646.2	1.208	0.000	3760.0	1.202	0.000
2324.9	1.929	0.016	2438.7	0.993	0.009	2935.4	1.182	0.000	3005.8	1.188	0.004	3062.7	1.188	0.000	3365.5	1.204	0.000	3648.1	1.208	0.000	3761.9	1.202	0.000
2326.8	1.999	0.031	2440.6	0.999	0.010	2946.5	1.183	0.000	3006.8	1.188	0.004	3063.7	1.188	0.000	3387.7	1.203	0.000	3650.1	1.208	0.000	3763.9	1.202	0.000
2328.7	2.058	0.039	2442.5	1.003	0.010	2950.8	1.183	0.000	3007.7	1.188	0.005	3064.6	1.188	0.000	3409.9	1.204	0.000	3652.0	1.208	0.000	3765.8	1.202	0.000
2330.7	2.157	0.049	2444.5	1.008	0.010	2951.8	1.183	0.000	3008.7	1.188	0.005	3065.6	1.188	0.000	3432.1	1.205	0.000	3653.9	1.208	0.000	3767.7	1.202	0.000
2332.6	2.274	0.076	2446.4	1.012	0.011	2952.7	1.183	0.000	3009.7	1.187	0.006	3066.6	1.188	0.000	3454.3	1.205	0.000	3655.9	1.209	0.000	3769.7	1.203	0.000
2334.5	2.419	0.115	2448.3	1.017	0.011	2953.7	1.183	0.000	3010.6	1.187	0.006	3067.5	1.188	0.000	3476.5	1.206	0.000	3657.8	1.209	0.000	3771.6	1.204	0.000
2336.4	2.612	0.176	2450.3	1.021	0.011	2954.7	1.183	0.000	3011.6	1.186	0.006	3068.5	1.189	0.000	3498.6	1.206	0.000	3659.7	1.209	0.000	3773.5	1.204	0.000
2338.4	2.885	0.293	2452.2	1.025	0.011	2955.6	1.184	0.000	3012.5	1.185	0.006	3069.4	1.189	0.000	3520.8	1.207	0.000	3661.6	1.209	0.000	3775.4	1.203	0.000
2340.3	3.281	0.571	2454.1	1.027	0.014	2956.6	1.184	0.000	3013.5	1.185	0.005	3070.4	1.189	0.000	3543.0	1.207	0.000	3663.6	1.209	0.000	3777.4	1.204	0.000
2342.2	3.668	1.439	2456.0	1.029	0.014	2957.6	1.184	0.000	3014.5	1.185	0.005	3071.4	1.189	0.000	3551.7	1.209	0.000	3665.5	1.209	0.000	3779.3	1.205	0.000
2344.2	3.141	2.893	2458.0	1.032	0.015	2958.5	1.184	0.000	3015.4	1.185	0.005	3072.3	1.189	0.000	3553.6	1.208	0.000	3667.4	1.209	0.000	3781.2	1.205	0.000
2346.1	2.000	3.184	2459.9	1.033	0.012	2959.5	1.184	0.000	3016.4	1.184	0.004	3073.3	1.189	0.000	3555.5	1.208	0.000	3669.4	1.209	0.000	3783.2	1.204	0.000
2348.0	1.216	2.803	2461.8	1.037	0.012	2960.5	1.184	0.000	3017.4	1.184	0.004	3074.3	1.189	0.000	3557.5	1.209	0.000	3671.3	1.209	0.000	3785.1	1.204	0.000
2349.9	0.805	2.368	2463.8	1.039	0.012	2961.4	1.184	0.000	3018.3	1.184	0.004	3075.2	1.189	0.000	3559.4	1.208	0.000	3673.2	1.210	0.000	3787.0	1.204	0.000
2351.9	0.599	2.003	2465.7	1.040	0.010	2962.4	1.184	0.000	3019.3	1.184	0.004	3076.2	1.189	0.000	3561.3	1.209	0.000	3675.1	1.210	0.000	3788.9	1.205	0.000
2353.8	0.501	1.724	2467.6	1.043	0.010	2963.4	1.184	0.000	3020.3	1.184	0.003	3077.2	1.189	0.000	3563.3	1.209	0.000	3677.1	1.211	0.000	3790.9	1.205	0.000
2355.7	0.452	1.510	2469.5	1.046	0.007	2964.3	1.184	0.000	3021.2	1.184	0.003	3078.1	1.189	0.000	3565.2	1.208	0.000	3679.0	1.212	0.000	3792.8	1.205	0.000
2357.7	0.431	1.341	2471.5	1.049	0.007	2965.3	1.184	0.000	3022.2	1.184	0.003	3079.1	1.189	0.000	3567.1	1.209	0.000	3680.9	1.212	0.000	3794.7	1.205	0.000
2359.6	0.421	1.207	2473.4	1.051	0.008	2966.3	1.184	0.000	3023.2	1.184	0.002	3080.1	1.189	0.000	3569.0	1.209	0.000	3682.9	1.213	0.000	3796.7	1.206	0.000
2361.5	0.420	1.100	2475.3	1.054	0.005	2967.2	1.184	0.000	3024.1	1.184	0.002	3081.0	1.189	0.000	3571.0	1.210	0.000	3684.8	1.214	0.000	3798.6	1.206	0.000
2363.5	0.416	1.016	2477.3	1.057	0.005	2968.2	1.184	0.000	3025.1	1.184	0.002	3082.0	1.189	0.000	3572.9	1.210	0.000	3686.7	1.215	0.000			

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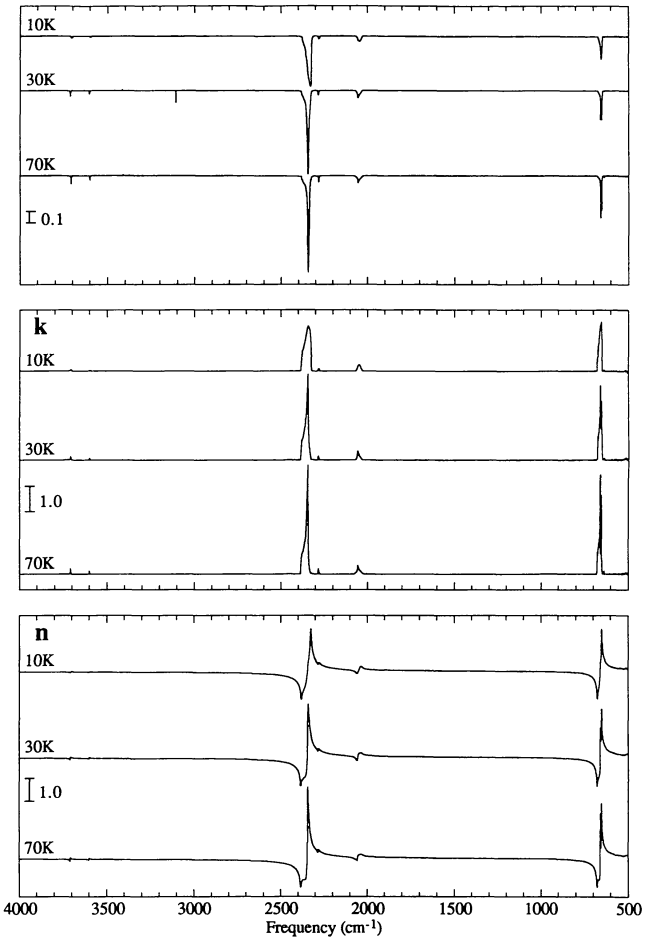

FIG. 12.—The 4000 to 500 cm^{-1} transmission spectra and optical constants (n and k) of a CO_2:OCS = 20:1 ice mixture at temperatures of 10, 30, and 70 K. The original ice was deposited at 10 K.

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TABLE 12A

CO_2:OCS = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.351	0.021	582.5	1.401	0.017	639.5	1.789	0.059	696.4	0.899	0.000	753.3	1.131	0.000	906.1	1.203	0.012	1475.2	1.244	0.008	1929.0	1.284	0.007
503.0	1.315	0.000	583.5	1.402	0.017	640.4	1.815	0.046	697.3	0.906	0.018	754.2	1.140	0.015	915.8	1.209	0.000	1484.8	1.245	0.000	1930.9	1.283	0.001
504.9	1.343	0.021	584.5	1.385	0.018	641.4	1.832	0.057	698.3	0.917	0.000	755.2	1.133	0.000	925.4	1.210	0.012	1494.5	1.250	0.000	1932.8	1.286	0.001
506.8	1.356	0.000	585.4	1.399	0.000	642.3	1.861	0.044	699.3	0.929	0.017	756.2	1.142	0.015	935.1	1.219	0.000	1504.1	1.250	0.000	1934.7	1.286	0.007
508.8	1.355	0.020	586.4	1.410	0.017	643.3	1.894	0.031	700.2	0.936	0.017	757.1	1.144	0.015	944.7	1.218	0.012	1513.7	1.254	0.008	1936.7	1.288	0.007
510.7	1.358	0.020	587.4	1.406	0.017	644.3	1.944	0.018	701.2	0.943	0.017	758.1	1.150	0.015	954.4	1.213	0.000	1523.4	1.247	0.008	1938.6	1.287	0.007
512.6	1.380	0.000	588.3	1.403	0.017	645.2	1.996	0.028	702.1	0.946	0.017	759.0	1.145	0.015	964.0	1.224	0.012	1533.0	1.251	0.000	1940.5	1.287	0.001
514.6	1.344	0.000	589.3	1.403	0.000	646.2	2.065	0.015	703.1	0.967	0.017	760.0	1.139	0.015	973.6	1.216	0.012	1542.7	1.253	0.000	1942.5	1.288	0.007
516.5	1.369	0.000	590.3	1.417	0.017	647.2	2.150	0.022	704.1	0.970	0.017	761.0	1.144	0.015	983.3	1.218	0.011	1552.3	1.252	0.007	1944.4	1.288	0.007
518.4	1.360	0.059	591.2	1.410	0.017	648.1	2.254	0.017	705.0	0.976	0.017	761.9	1.149	0.000	992.9	1.218	0.000	1562.0	1.255	0.000	1946.3	1.287	0.007
520.3	1.354	0.020	592.2	1.420	0.017	649.1	2.399	0.038	706.0	0.982	0.017	762.9	1.161	0.000	1002.6	1.222	0.011	1571.6	1.253	0.000	1948.2	1.290	0.007
522.3	1.344	0.020	593.2	1.417	0.017	650.1	2.592	0.093	707.0	0.988	0.017	763.9	1.159	0.015	1012.2	1.223	0.000	1581.3	1.258	0.007	1950.2	1.290	0.007
524.2	1.343	0.039	594.1	1.413	0.017	651.0	2.833	0.267	707.9	0.994	0.017	764.8	1.157	0.015	1021.9	1.227	0.011	1590.9	1.254	0.000	1952.1	1.290	0.007
526.1	1.333	0.020	595.1	1.427	0.000	652.0	3.004	0.626	708.9	0.999	0.017	765.8	1.157	0.015	1031.5	1.227	0.011	1600.6	1.257	0.007	1954.0	1.291	0.007
528.1	1.348	0.000	596.1	1.430	0.017	653.0	3.020	1.067	709.9	1.004	0.017	766.8	1.157	0.015	1041.2	1.226	0.011	1610.2	1.256	0.007	1956.0	1.291	0.007
530.0	1.341	0.020	597.0	1.413	0.017	653.9	2.867	1.484	710.8	1.008	0.017	767.7	1.157	0.015	1050.8	1.226	0.011	1619.8	1.257	0.007	1957.9	1.291	0.007
531.9	1.339	0.020	598.0	1.425	0.000	654.9	2.575	1.796	711.8	1.016	0.000	768.7	1.157	0.015	1060.4	1.221	0.000	1629.5	1.256	0.007	1959.8	1.292	0.001
533.8	1.358	0.000	598.9	1.436	0.000	655.8	2.234	1.930	712.8	1.024	0.017	769.7	1.157	0.015	1070.1	1.229	0.010	1639.1	1.258	0.007	1961.7	1.295	0.007
535.8	1.348	0.000	599.9	1.445	0.016	656.8	1.943	1.915	713.7	1.027	0.017	770.6	1.157	0.015	1079.7	1.227	0.010	1648.8	1.258	0.007	1963.7	1.294	0.007
537.7	1.355	0.000	600.9	1.444	0.000	657.8	1.751	1.861	714.7	1.030	0.017	771.6	1.160	0.000	1089.4	1.225	0.010	1658.4	1.261	0.007	1965.6	1.295	0.007
539.6	1.358	0.000	601.8	1.447	0.016	658.7	1.601	1.820	715.6	1.032	0.017	772.6	1.162	0.015	1099.0	1.233	0.010	1668.1	1.257	0.000	1967.5	1.295	0.007
541.6	1.370	0.000	602.8	1.447	0.016	659.7	1.470	1.804	716.6	1.039	0.000	773.5	1.164	0.000	1108.7	1.228	0.000	1677.7	1.261	0.007	1969.5	1.296	0.007
543.5	1.370	0.000	603.8	1.448	0.016	660.7	1.335	1.793	717.6	1.045	0.016	774.5	1.166	0.015	1118.3	1.230	0.010	1687.4	1.261	0.007	1971.4	1.296	0.001
545.4	1.364	0.019	604.7	1.448	0.016	661.6	1.208	1.754	718.5	1.042	0.016	775.4	1.166	0.015	1128.0	1.229	0.010	1697.0	1.265	0.007	1973.3	1.299	0.001
547.3	1.357	0.000	605.7	1.448	0.000	662.6	1.079	1.715	719.5	1.054	0.016	776.4	1.166	0.015	1137.6	1.233	0.000	1706.6	1.263	0.007	1975.3	1.300	0.007
549.3	1.367	0.000	606.7	1.465	0.000	663.6	0.961	1.678	720.5	1.065	0.016	777.4	1.166	0.015	1147.2	1.235	0.010	1716.3	1.259	0.007	1977.2	1.300	0.007
550.7	1.362	0.037	607.6	1.465	0.016	664.5	0.853	1.593	721.4	1.063	0.016	778.3	1.166	0.015	1156.9	1.234	0.010	1725.9	1.262	0.000	1979.1	1.300	0.001
551.7	1.362	0.019	608.6	1.460	0.016	665.5	0.761	1.517	722.4	1.066	0.016	779.3	1.167	0.015	1166.5	1.230	0.010	1735.6	1.263	0.007	1981.0	1.304	0.007
552.7	1.355	0.019	609.6	1.471	0.000	666.5	0.666	1.464	723.4	1.068	0.016	780.3	1.167	0.015	1176.2	1.236	0.010	1745.2	1.264	0.000	1983.0	1.304	0.007
553.6	1.346	0.019	610.5	1.485	0.000	667.4	0.604	1.361	724.3	1.071	0.016	781.2	1.167	0.015	1185.8	1.235	0.010	1754.9	1.265	0.007	1984.9	1.305	0.007
554.6	1.355	0.000	611.5	1.485	0.016	668.4	0.544	1.312	725.3	1.074	0.016	782.2	1.167	0.015	1195.5	1.235	0.009	1764.5	1.269	0.007	1986.8	1.306	0.007
555.5	1.360	0.019	612.4	1.482	0.016	669.4	0.478	1.224	726.3	1.077	0.016	783.2	1.164	0.015	1205.1	1.236	0.009	1774.2	1.268	0.007	1988.8	1.307	0.007
556.5	1.363	0.019	613.4	1.497	0.000	670.3	0.433	1.155	727.2	1.079	0.016	784.1	1.173	0.015	1214.8	1.231	0.009	1783.8	1.269	0.000	1990.7	1.309	0.007
557.5	1.351	0.019	614.4	1.500	0.016	671.3	0.400	1.090	728.2	1.082	0.016	785.1	1.172	0.000	1224.4	1.235	0.009	1793.4	1.270	0.007	1992.6	1.310	0.007
558.4	1.359	0.000	615.3	1.500	0.015	672.2	0.364	1.029	729.2	1.084	0.016	786.1	1.174	0.014	1234.0	1.237	0.009	1803.1	1.273	0.007	1994.5	1.311	0.007
559.4	1.364	0.018	616.3	1.503	0.000	673.2	0.326	0.948	730.1	1.087	0.016	787.0	1.170	0.014	1243.7	1.237	0.009	1812.7	1.272	0.007	1996.5	1.313	0.007
560.4	1.368	0.018	617.3	1.519	0.015	674.2	0.301	0.917	731.1	1.089	0.016	788.0	1.180	0.014	1253.3	1.237	0.009	1822.4	1.275	0.000	1998.4	1.315	0.007
561.3	1.356	0.019	618.2	1.516	0.015	675.1	0.212	0.799	732.0	1.091	0.016	788.9	1.176	0.014	1263.0	1.236	0.009	1832.0	1.277	0.007	2000.3	1.316	0.007
562.3	1.367	0.000	619.2	1.529	0.015	676.1	0.074	0.875	733.0	1.093	0.016	789.9	1.176	0.014	1272.6	1.237	0.009	1841.7	1.277	0.007	2002.3	1.318	0.007
563.3	1.360	0.018	620.2	1.530	0.000	677.1	9.174	0.568	734.0	1.091	0.016	790.9	1.176	0.014	1282.3	1.236	0.009	1851.3	1.279	0.007	2004.2	1.320	0.007
564.2	1.367	0.000	621.1	1.547	0.015	678.0	0.079	0.424	734.9	1.105	0.016	791.8	1.176	0.014	1291.9	1.239	0.009	1861.0	1.282	0.007	2006.1	1.323	0.007
565.2	1.376	0.018	622.1	1.550	0.015	679.0	0.065	0.190	735.9	1.103	0.016	792.8	1.176	0.014	1301.6	1.234	0.000	1870.6	1.279	0.007	2008.0	1.325	0.007
566.2	1.366	0.018	623.1	1.555	0.015	680.0	0.255	0.039	736.9	1.104	0.016	793.8	1.176	0.014	1311.2	1.237	0.000	1880.2	1.284	0.007	2010.0	1.328	0.007
567.1	1.361	0.000	624.0	1.562	0.014	680.9	0.385	0.027	737.8	1.105	0.016	794.7	1.176	0.014	1320.9	1.241	0.000	1889.9	1.285	0.007	2011.9	1.331	0.007
568.1	1.372	0.000	625.0	1.566	0.014	681.9	0.472	0.024	738.8	1.107	0.016	795.7	1.175	0.014	1330.5	1.243	0.009	1899.5	1.286	0.007	2013.8	1.334	0.007
569.0	1.383	0.000	626.0	1.582	0.014	682.9	0.536	0.022	739.8	1.105	0.016	796.7	1.175	0.014	1340.1	1.243	0.008	1901.9	1.282	0.007	2015.8	1.340	0.007
570.0	1.376	0.018	626.9	1.587	0.000	683.8	0.588	0.021	740.7	1.117	0.016	797.6	1.174	0.014	1349.8	1.240	0.008	1903.9	1.281	0.007	2017.7	1.343	0.007
571.0	1.385	0.018	627.9	1.607	0.014	684.8	0.631	0.020	741.7	1.115	0.016	798.6	1.171	0.014	1359.4	1.244	0.000	1905.8	1.280	0.001	2019.6	1.349	0.007
571.9	1.375	0.036	628.8	1.613	0.014	685.7	0.668	0.020	742.7	1.116	0.016	799.6	1.166	0.014	1369.1	1.241	0.008	1907.7	1.280	0.007	2021.5	1.355	0.007
572.9	1.371	0.000	629.8	1.625	0.000	686.7	0.700	0.019	743.6	1.118	0.016	809.7	1.182	0.014	1378.7	1.248	0.008	1909.7	1.277	0.007	2023.5	1.363	0.007
573.9	1.372	0.000	630.8	1.638	0.013	687.7	0.728	0.019	744.6	1.119	0.016	819.3	1.177	0.014	1388.4	1.245	0.000	1911.6	1.284	0.007	2025.4	1.375	0.011
574.8	1.386	0.000	631.7	1.653	0.000	688.6	0.753	0.019	745.5	1.120	0.015	829.0	1.184	0.000	1398.0	1.243	0.000	1913.5	1.281	0.007	2027.3	1.387	0.011
575.8	1.378	0.018	632.7	1.670	0.013	689.6	0.776	0.019	746.5	1.120	0.015	838.6	1.196	0.013	1407.7	1.245	0.008	1915.5	1.280	0.007	2029.3	1.401	0.021
576.8	1.385	0.000	633.7	1.686	0.012	690.6	0.800	0.018	747.5	1.118	0.015	848.3	1.196	0.013	1417.3	1.246	0.008	1917.4	1.278	0.007	2031.2	1.413	0.035
577.7	1.397	0.000	634.6	1.708	0.012	691.5	0.796	0.018	748.4	1.130	0.015	857.9	1.197	0.013	1426.9	1.245	0.008	1919.3	1.284	0.001	2033.1	1.429	0.053
578.7	1.393	0.018	635.6	1.725	0.012	692.5	0.832	0.018	749.4	1.127	0.015	867.6	1.198	0.013	1436.6	1.244	0.000	1921.2	1.281	0.007	2035.0	1.436	0.081
579.7	1.389	0.018	636.6	1.750	0.024	693.5	0.837	0.018	750.4	1.127	0.015	877.2	1.202	0.000	1446.2	1.244	0.000	1923.2	1.284	0.007	2037.0	1.437	0.110
580.6	1.386	0.000	637.5	1.770	0.036	694.4	0.859	0.018	751.3	1.126	0.015	886.8	1.205	0.000	1455.9	1.242	0.000	1925.1	1.282	0.007	2038.9	1.430	0.144
581.6	1.403	0.000	638.5	1.784	0.060	695.4	0.875	0.018	752.3	1.121	0.015	896.5	1.205	0.013	1465.5	1.248	0.008	1927.0	1.284	0.001	2040.8	1.416	0.170

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TABLE 12A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2042.8	1.394	0.198	2156.6	1.321	0.002	2235.7	1.420	0.006	2292.6	1.627	0.006	2349.5	0.957	1.623	2406.4	0.757	0.011	2463.3	0.998	0.008	2520.2	1.073	0.000
2044.7	1.367	0.222	2158.5	1.325	0.006	2236.6	1.422	0.006	2293.5	1.636	0.006	2350.4	0.901	1.590	2407.3	0.766	0.012	2464.2	1.000	0.008	2521.1	1.074	0.000
2046.6	1.336	0.237	2160.4	1.326	0.006	2237.6	1.424	0.006	2294.5	1.646	0.006	2351.4	0.850	1.550	2408.3	0.773	0.012	2465.2	1.002	0.008	2522.1	1.075	0.000
2048.6	1.299	0.243	2162.4	1.327	0.006	2238.6	1.426	0.006	2295.5	1.656	0.006	2352.4	0.806	1.515	2409.3	0.779	0.012	2466.2	1.003	0.008	2523.1	1.076	0.000
2050.5	1.263	0.238	2164.3	1.329	0.006	2239.5	1.428	0.006	2296.4	1.667	0.005	2353.3	0.766	1.475	2410.2	0.791	0.006	2467.1	1.005	0.008	2524.0	1.077	0.000
2052.4	1.228	0.232	2166.2	1.330	0.006	2240.5	1.430	0.006	2297.4	1.679	0.005	2354.3	0.727	1.440	2411.2	0.797	0.006	2468.1	1.006	0.008	2525.0	1.078	0.000
2054.3	1.196	0.214	2168.1	1.332	0.006	2241.4	1.432	0.006	2298.4	1.690	0.004	2355.3	0.693	1.405	2412.2	0.807	0.014	2469.1	1.007	0.008	2526.0	1.080	0.000
2056.3	1.166	0.195	2170.1	1.333	0.006	2242.4	1.434	0.006	2299.3	1.703	0.004	2356.2	0.661	1.366	2413.1	0.810	0.007	2470.0	1.009	0.003	2526.9	1.078	0.000
2058.2	1.142	0.156	2172.0	1.335	0.006	2243.4	1.436	0.006	2300.3	1.717	0.003	2357.2	0.631	1.331	2414.1	0.820	0.007	2471.0	1.010	0.008	2527.9	1.080	0.000
2060.1	1.129	0.115	2173.9	1.336	0.006	2244.3	1.438	0.006	2301.2	1.728	0.006	2358.1	0.604	1.299	2415.1	0.827	0.007	2472.0	1.011	0.003	2528.9	1.082	0.000
2062.1	1.134	0.080	2175.9	1.336	0.006	2245.3	1.443	0.006	2302.2	1.743	0.006	2359.1	0.577	1.266	2416.0	0.834	0.008	2472.9	1.014	0.003	2529.8	1.084	0.000
2064.0	1.148	0.044	2177.8	1.343	0.002	2246.3	1.444	0.006	2303.2	1.757	0.005	2360.1	0.553	1.228	2417.0	0.841	0.008	2473.9	1.013	0.009	2530.8	1.081	0.000
2065.9	1.164	0.027	2179.7	1.344	0.006	2247.2	1.445	0.006	2304.1	1.772	0.004	2361.0	0.532	1.202	2417.9	0.847	0.008	2474.8	1.015	0.009	2531.8	1.084	0.000
2067.8	1.183	0.016	2181.6	1.345	0.006	2248.2	1.451	0.002	2305.1	1.789	0.003	2362.0	0.510	1.167	2418.9	0.853	0.009	2475.8	1.017	0.003	2532.7	1.086	0.000
2069.8	1.200	0.011	2183.6	1.347	0.006	2249.2	1.453	0.006	2306.1	1.807	0.006	2363.0	0.491	1.136	2419.9	0.858	0.009	2476.8	1.020	0.003	2533.7	1.083	0.000
2071.7	1.213	0.005	2185.5	1.348	0.006	2250.1	1.455	0.006	2307.0	1.824	0.005	2363.9	0.472	1.101	2420.8	0.864	0.009	2477.7	1.022	0.003	2534.6	1.085	0.000
2073.6	1.223	0.006	2187.4	1.350	0.006	2251.1	1.457	0.006	2308.0	1.843	0.003	2364.9	0.453	1.079	2421.8	0.869	0.009	2478.7	1.024	0.004	2535.6	1.086	0.000
2075.6	1.231	0.006	2189.4	1.352	0.006	2252.1	1.460	0.002	2309.0	1.865	0.005	2365.9	0.436	1.051	2422.8	0.874	0.010	2479.7	1.025	0.004	2536.6	1.087	0.000
2077.5	1.237	0.006	2191.3	1.354	0.006	2253.0	1.464	0.006	2309.9	1.887	0.004	2366.8	0.418	1.023	2423.7	0.879	0.010	2480.6	1.027	0.004	2537.5	1.088	0.000
2079.4	1.243	0.006	2193.2	1.356	0.002	2254.0	1.466	0.006	2310.9	1.912	0.005	2367.8	0.402	0.990	2424.7	0.884	0.010	2481.6	1.029	0.004	2538.5	1.089	0.000
2081.3	1.248	0.006	2195.2	1.359	0.006	2254.9	1.469	0.006	2311.9	1.938	0.003	2368.8	0.385	0.971	2425.7	0.888	0.010	2482.6	1.030	0.004	2539.5	1.090	0.000
2083.3	1.252	0.006	2197.1	1.361	0.006	2255.9	1.472	0.006	2312.8	1.966	0.004	2369.7	0.368	0.937	2426.6	0.892	0.010	2483.5	1.032	0.004	2540.4	1.090	0.000
2085.2	1.255	0.006	2199.0	1.363	0.006	2256.9	1.476	0.006	2313.8	1.996	0.005	2370.7	0.352	0.912	2427.6	0.897	0.010	2484.5	1.033	0.004	2541.4	1.091	0.000
2087.1	1.259	0.006	2200.9	1.365	0.006	2257.8	1.479	0.006	2314.7	2.031	0.005	2371.6	0.335	0.888	2428.6	0.901	0.011	2485.5	1.035	0.004	2542.4	1.092	0.000
2089.1	1.262	0.006	2201.9	1.366	0.006	2258.8	1.482	0.006	2315.7	2.071	0.004	2372.6	0.318	0.864	2429.5	0.905	0.011	2486.4	1.036	0.004	2543.3	1.092	0.000
2091.0	1.265	0.006	2202.9	1.366	0.006	2259.8	1.486	0.006	2316.7	2.115	0.005	2373.6	0.299	0.840	2430.5	0.908	0.011	2487.4	1.037	0.004	2544.3	1.093	0.000
2092.9	1.267	0.006	2203.8	1.369	0.006	2260.7	1.489	0.006	2317.6	2.166	0.005	2374.5	0.278	0.819	2431.4	0.912	0.011	2488.4	1.039	0.004	2545.3	1.094	0.000
2094.8	1.270	0.006	2204.8	1.372	0.006	2261.7	1.493	0.006	2318.6	2.224	0.009	2375.5	0.252	0.806	2432.4	0.914	0.011	2489.3	1.040	0.004	2546.2	1.095	0.000
2096.8	1.272	0.006	2205.8	1.372	0.006	2262.7	1.497	0.006	2319.6	2.293	0.014	2376.5	0.219	0.790	2433.4	0.922	0.011	2490.3	1.041	0.004	2547.2	1.095	0.000
2098.7	1.274	0.006	2206.7	1.373	0.006	2263.6	1.501	0.006	2320.5	2.373	0.023	2377.4	0.170	0.772	2434.3	0.924	0.011	2491.2	1.042	0.004	2548.1	1.096	0.000
2100.6	1.276	0.006	2207.7	1.374	0.006	2264.6	1.506	0.005	2321.5	2.474	0.038	2378.4	0.116	0.709	2435.3	0.927	0.012	2492.2	1.043	0.004	2549.1	1.097	0.000
2102.6	1.278	0.006	2208.7	1.375	0.006	2265.6	1.510	0.005	2322.5	2.605	0.063	2379.4	0.045	0.642	2436.3	0.930	0.012	2493.2	1.045	0.004	2550.1	1.097	0.000
2104.5	1.280	0.006	2209.6	1.376	0.006	2266.5	1.515	0.005	2323.4	2.778	0.138	2380.3	0.033	0.529	2437.2	0.933	0.012	2494.1	1.046	0.004	2551.0	1.098	0.000
2106.4	1.282	0.006	2210.6	1.376	0.006	2267.5	1.520	0.005	2324.4	2.949	0.338	2381.3	0.008	0.402	2438.2	0.935	0.012	2495.1	1.047	0.004	2552.0	1.099	0.000
2108.3	1.284	0.006	2211.5	1.379	0.006	2268.5	1.525	0.005	2325.4	3.024	0.635	2382.3	0.010	0.347	2439.2	0.938	0.012	2496.1	1.048	0.004	2553.0	1.099	0.000
2110.3	1.286	0.006	2212.5	1.380	0.002	2269.4	1.531	0.005	2326.3	2.982	0.915	2383.2	0.033	0.220	2440.1	0.941	0.006	2497.0	1.049	0.004	2553.9	1.100	0.000
2112.2	1.287	0.006	2213.5	1.382	0.006	2270.4	1.538	0.005	2327.3	2.875	1.125	2384.2	0.081	0.053	2441.1	0.945	0.012	2498.0	1.050	0.004	2554.9	1.100	0.000
2114.1	1.289	0.006	2214.4	1.383	0.006	2271.3	1.546	0.005	2328.2	2.749	1.270	2385.2	0.212	0.030	2442.1	0.947	0.012	2499.0	1.051	0.004	2555.9	1.101	0.000
2116.1	1.291	0.006	2215.4	1.382	0.006	2272.3	1.556	0.005	2329.2	2.622	1.376	2386.1	0.288	0.028	2443.0	0.949	0.012	2499.9	1.052	0.004	2556.8	1.102	0.000
2118.0	1.292	0.006	2216.4	1.386	0.002	2273.3	1.566	0.008	2330.2	2.505	1.449	2387.1	0.342	0.011	2444.0	0.949	0.012	2500.9	1.052	0.004	2557.8	1.102	0.000
2119.9	1.294	0.006	2217.3	1.390	0.006	2274.2	1.577	0.016	2331.1	2.395	1.502	2388.0	0.396	0.013	2444.9	0.954	0.012	2501.9	1.052	0.004	2558.8	1.103	0.001
2121.9	1.295	0.006	2218.3	1.390	0.006	2275.2	1.588	0.023	2332.1	2.297	1.544	2389.0	0.436	0.015	2445.9	0.954	0.007	2502.8	1.057	0.000	2559.7	1.105	0.001
2123.8	1.297	0.006	2219.3	1.391	0.006	2276.2	1.597	0.038	2333.1	2.206	1.583	2390.0	0.468	0.017	2446.9	0.960	0.007	2503.8	1.057	0.005	2560.7	1.102	0.000
2125.7	1.298	0.006	2220.2	1.391	0.006	2277.1	1.603	0.056	2334.0	2.120	1.607	2390.9	0.495	0.006	2447.8	0.960	0.007	2504.7	1.057	0.005	2561.7	1.104	0.001
2127.6	1.300	0.006	2221.2	1.395	0.006	2278.1	1.599	0.076	2335.0	2.039	1.635	2391.9	0.527	0.008	2448.8	0.964	0.007	2505.7	1.057	0.005	2562.6	1.105	0.001
2129.6	1.301	0.006	2222.2	1.395	0.006	2279.1	1.589	0.092	2336.0	1.962	1.656	2392.9	0.553	0.010	2449.8	0.967	0.007	2506.7	1.056	0.005	2563.6	1.105	0.001
2131.5	1.303	0.006	2223.1	1.397	0.006	2280.0	1.575	0.101	2336.9	1.888	1.676	2393.8	0.575	0.011	2450.7	0.970	0.007	2507.6	1.060	0.000	2564.5	1.106	0.001
2133.4	1.304	0.006	2224.1	1.398	0.006	2281.0	1.560	0.102	2337.9	1.817	1.695	2394.8	0.595	0.012	2451.7	0.973	0.007	2508.6	1.063	0.005	2565.5	1.106	0.001
2135.4	1.305	0.006	2225.0	1.398	0.006	2282.0	1.542	0.100	2338.9	1.743	1.711	2395.8	0.612	0.013	2452.7	0.975	0.007	2509.6	1.061	0.005	2566.5	1.107	0.001
2137.3	1.307	0.006	2226.0	1.402	0.006	2282.9	1.529	0.084	2339.8	1.671	1.728	2396.7	0.626	0.013	2453.6	0.978	0.007	2510.5	1.060	0.005	2567.4	1.108	0.001
2139.2	1.308	0.006	2227.0	1.405	0.006	2283.9	1.522	0.065	2340.8	1.599	1.740	2397.7	0.645	0.005	2454.6	0.980	0.008	2511.5	1.063	0.000	2568.4	1.108	0.001
2141.1	1.309	0.006	2227.9	1.405	0.006	2284.8	1.526	0.041	2341.8	1.522	1.751	2398.7	0.662	0.006	2455.6	0.982	0.008	2512.5	1.062	0.000	2569.4	1.109	0.001
2143.1	1.309	0.006	2228.9	1.407	0.002	2285.8	1.538	0.024	2342.7	1.448	1.754	2399.6	0.678	0.007	2456.5	0.985	0.008	2513.4	1.065	0.000	2570.3	1.109	0.001
2145.0	1.314	0.006	2229.9	1.408	0.006	2286.8	1.552	0.016	2343.7	1.368	1.753	2400.6	0.691	0.008	2457.5	0.987	0.008	2514.4	1.066	0.000	2571.3	1.110	0.001
2146.9	1.315	0.006	2230.8	1.412	0.006	2287.7	1.566	0.008	2344.6	1.294	1.748	2401.5	0.704	0.009	2458.5	0.989	0.008	2515.4	1.068	0.000	2572.3	1.110	0.001
2148.9	1.315	0.006	2231.8	1.413	0.006	2288.7	1.580	0.008	2345.6	1.216	1.735	2402.5	0.716	0.009	2459.4	0.991	0.008	2516.3	1.069	0.000	2573.2	1.111	0.001
2150.8	1.318	0.006	2232.8	1.415	0.006	2289.7	1.591	0.004	2346.6	1.144	1.710	2403.5	0.727	0.010	2460.4	0.993	0.008	2517.3	1.070	0.000	2574.2	1.111	0.001
2152.7	1.319	0.006	2233.7	1.416	0.006	2290.6	1.604	0.007	2347.5	1.076	1.682	2404.4	0.738	0.010	2461.3	0.995	0.008	2518.2	1.071	0.000	2575.2	1.112	0.001
2154.6	1.320	0.006	2234.7	1.418	0.006	2291.6	1.615	0.003	2348.5	1.015	1.654	2405.4	0.748	0.011	2462.3	0.996	0.008	2519.2	1.072	0.000	2576.1	1.112	0.001

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TABLE 12A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2577.1	1.113	0.001	3017.4	1.183	0.003	3574.4	1.205	0.003	3688.2	1.215	0.003
2578.0	1.113	0.001	3028.9	1.183	0.003	3576.3	1.206	0.003	3690.1	1.217	0.003
2579.0	1.114	0.001	3040.5	1.182	0.003	3578.2	1.204	0.003	3692.0	1.219	0.003
2580.0	1.114	0.001	3052.1	1.186	0.003	3580.1	1.207	0.000	3693.9	1.222	0.003
2580.9	1.115	0.001	3063.7	1.185	0.003	3582.1	1.206	0.000	3695.9	1.228	0.004
2581.9	1.115	0.001	3075.2	1.185	0.003	3584.0	1.208	0.003	3697.8	1.237	0.010
2582.9	1.115	0.001	3086.8	1.187	0.000	3585.9	1.210	0.000	3699.7	1.241	0.024
2583.8	1.116	0.001	3098.4	1.186	0.000	3587.9	1.213	0.000	3701.7	1.236	0.047
2584.8	1.116	0.001	3110.0	1.185	0.003	3589.8	1.217	0.003	3703.6	1.220	0.059
2585.8	1.117	0.001	3121.5	1.187	0.000	3591.7	1.221	0.007	3705.5	1.200	0.059
2586.7	1.117	0.001	3133.1	1.188	0.000	3593.6	1.222	0.019	3707.5	1.184	0.053
2587.7	1.118	0.001	3144.7	1.189	0.003	3595.6	1.216	0.030	3709.4	1.175	0.035
2588.7	1.118	0.001	3156.3	1.189	0.003	3597.5	1.203	0.033	3711.3	1.176	0.020
2589.6	1.118	0.001	3167.8	1.189	0.000	3599.4	1.193	0.027	3713.2	1.183	0.014
2590.6	1.119	0.001	3179.4	1.189	0.003	3601.4	1.188	0.015	3715.2	1.187	0.011
2591.6	1.119	0.001	3191.0	1.189	0.003	3603.3	1.191	0.012	3717.1	1.188	0.011
2592.5	1.120	0.001	3202.1	1.187	0.004	3605.2	1.193	0.009	3719.0	1.191	0.008
2593.5	1.120	0.001	3213.6	1.184	0.000	3607.1	1.194	0.006	3721.0	1.192	0.008
2594.4	1.120	0.001	3225.2	1.185	0.003	3609.1	1.196	0.006	3722.9	1.193	0.008
2595.4	1.121	0.001	3236.8	1.185	0.000	3611.0	1.197	0.006	3724.8	1.193	0.008
2596.4	1.121	0.001	3248.4	1.185	0.003	3612.9	1.196	0.006	3726.7	1.194	0.008
2597.3	1.121	0.001	3259.9	1.185	0.000	3614.9	1.199	0.003	3728.7	1.195	0.005
2598.3	1.121	0.001	3271.5	1.186	0.003	3616.8	1.198	0.006	3730.6	1.196	0.006
2599.3	1.121	0.001	3283.1	1.187	0.003	3618.7	1.199	0.006	3732.5	1.196	0.006
2612.3	1.126	0.002	3294.7	1.186	0.000	3620.6	1.199	0.003	3734.5	1.197	0.006
2623.9	1.130	0.002	3306.2	1.187	0.003	3622.6	1.200	0.003	3736.4	1.197	0.006
2635.4	1.134	0.002	3317.8	1.188	0.000	3624.5	1.201	0.003	3738.3	1.197	0.006
2647.0	1.137	0.002	3329.4	1.190	0.000	3626.4	1.202	0.003	3740.2	1.197	0.006
2658.6	1.140	0.002	3340.9	1.191	0.003	3628.4	1.203	0.006	3742.2	1.197	0.003
2670.2	1.143	0.002	3352.5	1.190	0.003	3630.3	1.200	0.006	3744.1	1.199	0.003
2681.7	1.146	0.002	3364.1	1.192	0.003	3632.2	1.201	0.003	3746.0	1.200	0.006
2693.3	1.148	0.002	3375.7	1.191	0.003	3634.2	1.202	0.003	3748.0	1.199	0.003
2704.9	1.151	0.002	3387.2	1.191	0.003	3636.1	1.202	0.003	3749.9	1.198	0.003
2716.5	1.153	0.002	3398.8	1.192	0.003	3638.0	1.203	0.003	3759.5	1.201	0.003
2728.0	1.155	0.002	3410.4	1.193	0.003	3639.9	1.203	0.003	3769.2	1.203	0.003
2739.6	1.157	0.002	3422.0	1.194	0.000	3641.9	1.203	0.003	3778.8	1.204	0.003
2751.2	1.159	0.002	3433.5	1.194	0.003	3643.8	1.204	0.003	3788.5	1.205	0.003
2762.7	1.160	0.002	3445.1	1.194	0.003	3645.7	1.204	0.003	3798.1	1.204	0.003
2774.3	1.162	0.002	3456.7	1.195	0.003	3647.7	1.204	0.003	3807.8	1.207	0.000
2785.9	1.163	0.002	3468.3	1.196	0.003	3649.6	1.205	0.003	3817.4	1.207	0.000
2797.5	1.165	0.002	3479.8	1.197	0.003	3651.5	1.205	0.003	3827.0	1.208	0.003
2809.0	1.166	0.002	3491.4	1.197	0.003	3653.4	1.205	0.003	3836.7	1.208	0.003
2820.6	1.167	0.002	3503.0	1.198	0.000	3655.4	1.206	0.003	3846.3	1.209	0.003
2832.2	1.169	0.003	3514.6	1.199	0.003	3657.3	1.206	0.003	3856.0	1.209	0.003
2843.8	1.170	0.003	3526.1	1.198	0.003	3659.2	1.206	0.006	3865.6	1.209	0.003
2855.3	1.171	0.003	3537.7	1.200	0.003	3661.2	1.206	0.003	3875.3	1.212	0.000
2866.9	1.172	0.003	3549.3	1.200	0.003	3663.1	1.207	0.003	3884.9	1.211	0.003
2878.5	1.173	0.003	3551.2	1.201	0.000	3665.0	1.207	0.003	3894.6	1.213	0.000
2890.1	1.174	0.003	3553.1	1.203	0.003	3666.9	1.207	0.006	3904.2	1.212	0.003
2901.6	1.175	0.003	3555.1	1.202	0.003	3668.9	1.207	0.003	3913.9	1.212	0.000
2913.2	1.175	0.003	3557.0	1.202	0.003	3670.8	1.208	0.003	3923.5	1.214	0.003
2924.8	1.175	0.003	3558.9	1.202	0.003	3672.7	1.208	0.003	3933.1	1.213	0.003
2936.4	1.177	0.000	3560.9	1.201	0.003	3674.7	1.209	0.003	3942.8	1.215	0.003
2947.9	1.179	0.000	3562.8	1.201	0.003	3676.6	1.209	0.003	3952.4	1.215	0.000
2959.5	1.180	0.003	3564.7	1.200	0.003	3678.5	1.210	0.003	3962.1	1.215	0.003
2971.1	1.178	0.003	3566.6	1.201	0.000	3680.4	1.211	0.003	3971.7	1.216	0.003
2982.6	1.179	0.003	3568.6	1.203	0.000	3682.4	1.212	0.003	3981.4	1.215	0.003
2994.2	1.182	0.003	3570.5	1.204	0.000	3684.3	1.213	0.003	3991.0	1.215	0.003
3005.8	1.182	0.000	3572.4	1.205	0.000	3686.2	1.214	0.003			

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TABLE 12B

CO_2:OCS = 20:1 AT 30 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.414	0.078	582.1	1.410	0.000	639.0	1.832	0.092	695.9	0.850	0.018	752.8	1.111	0.015	905.2	1.207	0.012	1474.2	1.246	0.008	1969.0	1.303	0.007
503.0	1.374	0.040	583.0	1.420	0.000	639.9	1.829	0.080	696.8	0.857	0.018	753.7	1.112	0.015	914.8	1.209	0.000	1483.8	1.246	0.008	1970.9	1.304	0.001
504.9	1.379	0.000	584.0	1.423	0.017	640.9	1.843	0.056	697.8	0.866	0.018	754.7	1.114	0.015	924.5	1.207	0.012	1493.5	1.248	0.000	1972.8	1.304	0.001
506.8	1.372	0.060	585.0	1.418	0.017	641.9	1.878	0.031	698.8	0.872	0.018	755.7	1.115	0.015	934.1	1.213	0.000	1503.1	1.248	0.008	1974.8	1.308	0.007
508.8	1.387	0.039	585.9	1.421	0.000	642.8	1.921	0.030	699.7	0.888	0.000	756.6	1.116	0.015	943.7	1.211	0.012	1512.8	1.249	0.008	1976.7	1.309	0.007
510.7	1.388	0.058	586.9	1.432	0.000	643.8	1.966	0.028	700.7	0.901	0.017	757.6	1.118	0.015	953.4	1.213	0.012	1522.4	1.248	0.008	1978.6	1.312	0.001
512.6	1.394	0.077	587.9	1.436	0.017	644.8	2.016	0.026	701.7	0.912	0.000	758.6	1.119	0.015	963.0	1.211	0.012	1532.1	1.246	0.008	1980.6	1.312	0.007
514.6	1.363	0.098	588.8	1.434	0.017	645.7	2.074	0.024	702.6	0.924	0.017	759.5	1.120	0.015	972.7	1.217	0.012	1541.7	1.250	0.008	1982.5	1.312	0.007
516.5	1.359	0.059	589.8	1.433	0.017	646.7	2.146	0.021	703.6	0.935	0.000	760.5	1.121	0.015	982.3	1.215	0.011	1551.4	1.248	0.007	1984.4	1.313	0.007
518.4	1.349	0.099	590.7	1.431	0.017	647.7	2.232	0.027	704.6	0.948	0.017	761.5	1.122	0.015	992.0	1.212	0.011	1561.0	1.256	0.000	1986.3	1.314	0.007
520.3	1.353	0.059	591.7	1.437	0.000	648.6	2.340	0.031	705.5	0.951	0.017	762.4	1.123	0.015	1001.6	1.218	0.011	1570.7	1.253	0.007	1988.3	1.315	0.007
522.3	1.343	0.079	592.7	1.442	0.017	649.6	2.482	0.048	706.5	0.957	0.017	763.4	1.124	0.015	1011.3	1.219	0.011	1580.3	1.252	0.007	1990.2	1.316	0.007
524.2	1.333	0.040	593.6	1.446	0.000	650.5	2.661	0.108	707.4	0.963	0.017	764.4	1.125	0.015	1020.9	1.222	0.011	1589.9	1.253	0.007	1992.1	1.317	0.007
526.1	1.337	0.059	594.6	1.453	0.016	651.5	2.878	0.232	708.4	0.969	0.017	765.3	1.126	0.015	1030.5	1.223	0.011	1599.6	1.252	0.007	1994.1	1.319	0.007
528.1	1.339	0.020	595.6	1.454	0.016	652.5	3.128	0.475	709.4	0.975	0.017	766.3	1.127	0.015	1040.2	1.221	0.011	1609.2	1.253	0.007	1996.0	1.320	0.007
530.0	1.351	0.020	596.5	1.447	0.032	653.4	3.302	1.034	710.3	0.981	0.017	767.2	1.127	0.015	1049.8	1.222	0.000	1618.9	1.255	0.007	1997.9	1.322	0.007
531.9	1.339	0.039	597.5	1.446	0.000	654.4	3.048	2.021	711.3	0.986	0.017	768.2	1.125	0.015	1059.5	1.222	0.011	1628.5	1.254	0.007	1999.8	1.324	0.007
533.8	1.333	0.039	598.5	1.460	0.000	655.4	2.374	2.346	712.3	0.991	0.017	769.2	1.131	0.000	1069.1	1.226	0.010	1638.2	1.256	0.000	2001.8	1.327	0.007
535.8	1.338	0.020	599.4	1.463	0.016	656.3	1.936	1.738	713.2	0.996	0.017	770.1	1.136	0.015	1078.8	1.226	0.010	1647.8	1.254	0.007	2003.7	1.325	0.012
537.7	1.345	0.000	600.4	1.468	0.000	657.3	2.035	1.240	714.2	1.001	0.017	771.1	1.134	0.015	1088.4	1.230	0.010	1657.5	1.258	0.000	2005.6	1.327	0.007
539.6	1.358	0.038	601.4	1.475	0.016	658.3	2.390	1.293	715.2	1.006	0.017	772.1	1.131	0.015	1098.1	1.227	0.010	1667.1	1.256	0.000	2007.6	1.329	0.007
541.6	1.360	0.038	602.3	1.475	0.016	659.2	2.499	2.100	716.1	1.010	0.017	773.0	1.136	0.000	1107.7	1.226	0.010	1676.7	1.261	0.007	2009.5	1.332	0.002
543.5	1.359	0.000	603.3	1.477	0.016	660.2	2.002	2.961	717.1	1.013	0.017	774.0	1.142	0.015	1117.3	1.223	0.000	1686.4	1.261	0.000	2011.4	1.336	0.007
545.4	1.364	0.019	604.3	1.480	0.016	661.2	1.322	2.788	718.1	1.014	0.016	775.0	1.140	0.015	1127.0	1.225	0.010	1696.0	1.261	0.000	2013.3	1.339	0.007
547.3	1.368	0.000	605.2	1.483	0.016	662.1	0.918	2.431	719.0	1.025	0.000	775.9	1.139	0.015	1136.6	1.233	0.010	1705.7	1.261	0.007	2015.3	1.342	0.007
549.3	1.373	0.019	606.2	1.486	0.016	663.1	0.712	2.120	720.0	1.034	0.016	776.9	1.138	0.015	1146.3	1.236	0.010	1715.3	1.261	0.007	2017.2	1.345	0.007
550.2	1.374	0.019	607.1	1.488	0.016	664.0	0.602	1.899	721.0	1.035	0.016	777.9	1.136	0.015	1155.9	1.232	0.000	1725.0	1.264	0.007	2019.1	1.349	0.007
551.2	1.375	0.019	608.1	1.490	0.016	665.0	0.527	1.731	721.9	1.038	0.016	778.8	1.141	0.000	1165.6	1.230	0.010	1734.6	1.264	0.000	2021.1	1.354	0.007
552.2	1.379	0.018	609.1	1.498	0.000	666.0	0.474	1.577	722.9	1.041	0.016	779.8	1.145	0.015	1175.2	1.232	0.010	1744.3	1.262	0.007	2023.0	1.360	0.007
553.1	1.374	0.037	610.0	1.507	0.015	666.9	0.451	1.437	723.8	1.044	0.016	780.7	1.142	0.015	1184.9	1.233	0.000	1753.9	1.264	0.007	2024.9	1.368	0.007
554.1	1.370	0.019	611.0	1.509	0.015	667.9	0.428	1.371	724.8	1.047	0.016	781.7	1.138	0.015	1194.5	1.234	0.009	1763.5	1.266	0.007	2026.8	1.378	0.007
555.1	1.374	0.018	612.0	1.510	0.015	668.9	0.396	1.275	725.8	1.051	0.016	782.7	1.140	0.000	1204.2	1.235	0.000	1773.2	1.267	0.000	2028.8	1.388	0.016
556.0	1.379	0.018	612.9	1.520	0.000	669.8	0.368	1.206	726.7	1.054	0.016	783.6	1.148	0.000	1213.8	1.236	0.009	1782.8	1.268	0.000	2030.7	1.399	0.021
557.0	1.374	0.036	613.9	1.530	0.015	670.8	0.344	1.117	727.7	1.057	0.016	784.6	1.155	0.000	1223.4	1.236	0.009	1792.5	1.270	0.007	2032.6	1.410	0.031
558.0	1.369	0.018	614.9	1.535	0.015	671.8	0.327	1.052	728.7	1.059	0.016	785.6	1.156	0.014	1233.1	1.230	0.009	1802.1	1.272	0.007	2034.6	1.424	0.045
558.9	1.371	0.018	615.8	1.535	0.029	672.7	0.306	0.994	729.6	1.062	0.016	786.5	1.151	0.014	1242.7	1.238	0.009	1811.8	1.274	0.007	2036.5	1.430	0.073
559.9	1.381	0.000	616.8	1.536	0.015	673.7	0.281	0.935	730.6	1.065	0.016	787.5	1.155	0.000	1252.4	1.237	0.009	1821.4	1.270	0.000	2038.4	1.429	0.092
560.8	1.382	0.036	617.8	1.544	0.015	674.7	0.257	0.874	731.6	1.068	0.016	788.5	1.159	0.014	1262.0	1.237	0.009	1831.1	1.277	0.007	2040.4	1.427	0.112
561.8	1.372	0.018	618.7	1.551	0.015	675.6	0.254	0.798	732.5	1.070	0.016	789.4	1.157	0.014	1271.7	1.236	0.009	1840.7	1.275	0.007	2042.3	1.417	0.137
562.8	1.380	0.000	619.7	1.558	0.014	676.6	0.149	0.937	733.5	1.073	0.016	790.4	1.157	0.014	1281.3	1.236	0.000	1850.3	1.277	0.007	2044.2	1.407	0.143
563.7	1.387	0.018	620.6	1.565	0.014	677.6	0.033	0.644	734.5	1.075	0.016	791.4	1.156	0.014	1291.0	1.236	0.009	1860.0	1.278	0.007	2046.1	1.410	0.162
564.7	1.385	0.018	621.6	1.572	0.014	678.5	0.010	0.522	735.4	1.077	0.016	792.3	1.157	0.014	1300.6	1.232	0.009	1869.6	1.279	0.007	2048.1	1.402	0.188
565.7	1.385	0.018	622.6	1.580	0.014	679.5	0.027	0.267	736.4	1.080	0.016	793.3	1.157	0.014	1310.2	1.238	0.000	1879.3	1.280	0.007	2050.0	1.389	0.225
566.6	1.382	0.018	623.5	1.588	0.014	680.4	0.153	0.055	737.3	1.082	0.016	794.3	1.157	0.014	1319.9	1.243	0.000	1888.9	1.282	0.007	2051.9	1.367	0.255
567.6	1.386	0.000	624.5	1.594	0.014	681.4	0.296	0.031	738.3	1.084	0.016	795.2	1.157	0.014	1329.5	1.243	0.009	1898.6	1.283	0.007	2053.9	1.328	0.305
568.6	1.400	0.000	625.5	1.608	0.000	682.4	0.393	0.025	739.3	1.086	0.016	796.2	1.158	0.014	1339.2	1.241	0.008	1908.2	1.285	0.007	2055.8	1.241	0.353
569.5	1.396	0.035	626.4	1.622	0.013	683.3	0.463	0.023	740.2	1.088	0.016	797.1	1.158	0.014	1348.8	1.244	0.008	1917.9	1.285	0.007	2057.7	1.124	0.303
570.5	1.393	0.000	627.4	1.631	0.013	684.3	0.515	0.022	741.2	1.090	0.016	798.1	1.158	0.014	1358.5	1.242	0.008	1927.5	1.288	0.007	2059.6	1.088	0.189
571.5	1.401	0.018	628.4	1.641	0.013	685.3	0.573	0.000	742.2	1.092	0.016	799.1	1.159	0.014	1368.1	1.242	0.008	1937.2	1.295	0.007	2061.6	1.095	0.119
572.4	1.399	0.018	629.3	1.653	0.013	686.2	0.624	0.020	743.1	1.094	0.016	808.7	1.155	0.014	1377.8	1.241	0.008	1946.8	1.297	0.001	2063.5	1.113	0.075
573.4	1.397	0.018	630.3	1.665	0.013	687.2	0.653	0.020	744.1	1.096	0.016	818.4	1.174	0.000	1387.4	1.241	0.008	1951.6	1.298	0.001	2065.4	1.138	0.039
574.4	1.405	0.000	631.3	1.678	0.012	688.2	0.682	0.019	745.1	1.098	0.016	828.0	1.178	0.014	1397.0	1.243	0.000	1953.6	1.300	0.001	2067.4	1.164	0.016
575.3	1.414	0.017	632.2	1.698	0.000	689.1	0.707	0.019	746.0	1.100	0.015	837.7	1.187	0.000	1406.7	1.245	0.008	1955.5	1.300	0.007	2069.3	1.186	0.010
576.3	1.407	0.034	633.2	1.722	0.012	690.1	0.730	0.019	747.0	1.101	0.015	847.3	1.197	0.013	1416.3	1.244	0.008	1957.4	1.300	0.007	2071.2	1.202	0.005
577.2	1.402	0.017	634.1	1.738	0.024	691.1	0.751	0.019	748.0	1.103	0.015	856.9	1.192	0.013	1426.0	1.245	0.008	1959.3	1.300	0.007	2073.1	1.216	0.005
578.2	1.405	0.017	635.1	1.753	0.023	692.0	0.769	0.018	748.9	1.105	0.015	866.6	1.192	0.013	1435.6	1.241	0.008	1961.3	1.300	0.007	2075.1	1.227	0.006
579.2	1.408	0.017	636.1	1.774	0.023	693.0	0.781	0.018	749.9	1.106	0.015	876.2	1.198	0.013	1445.3	1.243	0.008	1963.2	1.300	0.001	2077.0	1.235	0.006
580.1	1.401	0.034	637.0	1.805	0.022	693.9	0.802	0.000	750.9	1.108	0.015	885.9	1.195	0.013	1454.9	1.245	0.008	1965.1	1.305	0.007	2078.9	1.241	0.006
581.1	1.398	0.000	638.0	1.830	0.057	694.9	0.832	0.000	751.8	1.109	0.015	895.5	1.206	0.013	1464.6	1.246	0.008	1967.1	1.303	0.007	2080.9	1.247	0.006

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TABLE 12B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2082.8	1.252	0.006	2196.6	1.360	0.006	2255.4	1.465	0.006	2312.3	1.833	0.008	2369.2	0.322	0.985	2426.1	0.871	0.009	2483.0	1.023	0.003	2945.0	1.177	0.003
2084.7	1.257	0.006	2198.5	1.365	0.002	2256.4	1.467	0.006	2313.3	1.851	0.007	2370.2	0.315	0.957	2427.1	0.877	0.003	2484.0	1.025	0.003	2955.6	1.178	0.003
2086.6	1.262	0.006	2200.5	1.367	0.006	2257.4	1.470	0.006	2314.3	1.871	0.009	2371.2	0.302	0.939	2428.1	0.883	0.010	2485.0	1.026	0.003	2966.3	1.178	0.003
2088.6	1.262	0.011	2201.4	1.366	0.006	2258.3	1.473	0.006	2315.2	1.892	0.007	2372.1	0.293	0.897	2429.0	0.885	0.010	2485.9	1.028	0.004	2976.9	1.181	0.000
2090.5	1.265	0.006	2202.4	1.369	0.002	2259.3	1.476	0.006	2316.2	1.914	0.009	2373.1	0.284	0.886	2430.0	0.891	0.004	2486.9	1.029	0.004	2987.5	1.180	0.003
2092.4	1.269	0.006	2203.3	1.371	0.006	2260.3	1.479	0.006	2317.2	1.939	0.007	2374.1	0.268	0.853	2431.0	0.895	0.010	2487.9	1.031	0.004	2998.1	1.180	0.003
2094.4	1.272	0.006	2204.3	1.371	0.006	2261.2	1.483	0.006	2318.1	1.966	0.008	2375.0	0.258	0.825	2431.9	0.899	0.004	2488.8	1.032	0.004	3008.7	1.182	0.003
2096.3	1.274	0.006	2205.3	1.372	0.006	2262.2	1.486	0.006	2319.1	1.995	0.009	2376.0	0.241	0.808	2432.9	0.905	0.004	2489.8	1.033	0.004	3019.3	1.182	0.003
2098.2	1.277	0.006	2206.2	1.372	0.006	2263.1	1.489	0.006	2320.1	2.027	0.009	2377.0	0.226	0.769	2433.9	0.910	0.005	2490.8	1.035	0.004	3029.9	1.182	0.003
2100.1	1.279	0.006	2207.2	1.372	0.006	2264.1	1.493	0.006	2321.0	2.064	0.008	2377.9	0.220	0.741	2434.8	0.916	0.005	2491.7	1.036	0.004	3040.5	1.182	0.003
2102.1	1.281	0.006	2208.2	1.374	0.002	2265.1	1.497	0.006	2322.0	2.104	0.013	2378.9	0.212	0.737	2435.8	0.920	0.011	2492.7	1.037	0.004	3051.1	1.182	0.000
2104.0	1.283	0.006	2209.1	1.378	0.002	2266.0	1.501	0.006	2322.9	2.150	0.014	2379.8	0.152	0.794	2436.8	0.920	0.011	2493.7	1.039	0.004	3061.7	1.185	0.000
2105.9	1.285	0.006	2210.1	1.379	0.006	2267.0	1.505	0.006	2323.9	2.204	0.021	2380.8	0.050	0.730	2437.7	0.925	0.005	2494.6	1.040	0.004	3072.3	1.184	0.000
2107.9	1.287	0.006	2211.1	1.379	0.006	2268.0	1.509	0.006	2324.9	2.264	0.038	2381.8	0.029	0.529	2438.7	0.929	0.011	2495.6	1.041	0.004	3083.0	1.185	0.000
2109.8	1.289	0.006	2212.0	1.380	0.006	2268.9	1.514	0.006	2325.8	2.327	0.070	2382.7	0.007	0.569	2439.6	0.931	0.011	2496.6	1.042	0.004	3093.6	1.185	0.003
2111.7	1.291	0.006	2213.0	1.380	0.006	2269.9	1.519	0.005	2326.8	2.381	0.125	2383.7	0.006	0.329	2440.6	0.932	0.011	2497.5	1.043	0.004	3104.2	1.186	0.003
2113.7	1.292	0.006	2214.0	1.381	0.002	2270.9	1.524	0.005	2327.8	2.424	0.170	2384.7	0.016	0.382	2441.6	0.936	0.006	2498.5	1.044	0.004	3114.8	1.186	0.003
2115.6	1.294	0.006	2214.9	1.384	0.002	2271.8	1.530	0.005	2328.7	2.470	0.205	2385.6	0.012	0.173	2442.5	0.943	0.006	2499.4	1.045	0.004	3125.4	1.187	0.003
2117.5	1.296	0.006	2215.9	1.387	0.002	2272.8	1.537	0.005	2329.7	2.520	0.252	2386.6	0.100	0.046	2443.5	0.946	0.012	2510.1	1.058	0.005	3136.0	1.187	0.003
2119.4	1.297	0.006	2216.9	1.389	0.006	2273.8	1.545	0.005	2330.7	2.569	0.298	2387.6	0.204	0.002	2444.5	0.948	0.012	2520.7	1.067	0.005	3146.6	1.187	0.000
2121.4	1.299	0.006	2217.8	1.389	0.006	2274.7	1.554	0.009	2331.6	2.622	0.343	2388.5	0.286	0.007	2445.4	0.950	0.012	2531.3	1.079	0.000	3157.2	1.189	0.003
2123.3	1.300	0.006	2218.8	1.388	0.006	2275.7	1.562	0.012	2332.6	2.682	0.389	2389.5	0.342	0.010	2446.4	0.952	0.012	2541.9	1.084	0.000	3167.8	1.187	0.003
2125.2	1.302	0.006	2219.7	1.390	0.002	2276.6	1.572	0.016	2333.6	2.753	0.441	2390.5	0.384	0.012	2447.4	0.955	0.012	2552.5	1.093	0.000	3178.4	1.187	0.003
2127.2	1.303	0.006	2220.7	1.394	0.002	2277.6	1.583	0.023	2334.5	2.835	0.502	2391.4	0.423	0.000	2448.3	0.957	0.012	2563.1	1.100	0.000	3189.0	1.188	0.000
2129.1	1.305	0.006	2221.7	1.396	0.006	2278.6	1.593	0.034	2335.5	2.932	0.579	2392.4	0.460	0.003	2449.3	0.959	0.012	2573.7	1.106	0.001	3199.7	1.189	0.000
2131.0	1.306	0.006	2222.6	1.395	0.006	2279.5	1.602	0.053	2336.4	3.043	0.680	2393.4	0.491	0.005	2450.3	0.962	0.012	2584.3	1.112	0.001	3209.8	1.184	0.000
2132.9	1.308	0.006	2223.6	1.397	0.002	2280.5	1.606	0.080	2337.4	3.168	0.818	2394.3	0.518	0.007	2451.2	0.964	0.013	2594.9	1.116	0.001	3220.4	1.185	0.000
2134.9	1.309	0.006	2224.6	1.398	0.006	2281.5	1.595	0.120	2338.4	3.302	1.009	2395.3	0.541	0.009	2452.2	0.966	0.013	2605.5	1.121	0.001	3231.0	1.183	0.003
2136.8	1.311	0.006	2225.5	1.400	0.002	2282.4	1.552	0.169	2339.3	3.426	1.289	2396.2	0.560	0.010	2453.1	0.968	0.013	2616.1	1.125	0.002	3241.6	1.183	0.000
2138.7	1.312	0.006	2226.5	1.403	0.002	2283.4	1.501	0.133	2340.3	3.503	1.683	2397.2	0.581	0.000	2454.1	0.970	0.013	2626.8	1.129	0.002	3252.2	1.186	0.003
2140.7	1.313	0.006	2227.5	1.406	0.002	2284.4	1.488	0.067	2341.3	3.456	2.220	2398.2	0.603	0.002	2455.1	0.972	0.013	2637.4	1.132	0.002	3262.8	1.186	0.000
2142.6	1.315	0.006	2228.4	1.408	0.006	2285.3	1.500	0.038	2342.2	3.199	2.807	2399.1	0.621	0.004	2456.0	0.974	0.013	2648.0	1.135	0.002	3273.4	1.187	0.003
2144.5	1.316	0.006	2229.4	1.408	0.006	2286.3	1.516	0.021	2343.2	2.742	3.230	2400.1	0.638	0.005	2457.0	0.976	0.013	2658.6	1.138	0.002	3284.0	1.187	0.003
2146.4	1.318	0.006	2230.4	1.409	0.006	2287.3	1.532	0.013	2344.2	2.208	3.368	2401.1	0.654	0.006	2458.0	0.978	0.013	2669.2	1.141	0.002	3294.7	1.187	0.000
2148.4	1.319	0.006	2231.3	1.410	0.006	2288.2	1.546	0.009	2345.1	1.724	3.277	2402.0	0.668	0.006	2458.9	0.979	0.013	2679.8	1.144	0.002	3305.3	1.190	0.003
2150.3	1.320	0.006	2232.3	1.413	0.002	2289.2	1.557	0.009	2346.1	1.352	3.075	2403.0	0.681	0.007	2459.9	0.980	0.013	2690.4	1.146	0.002	3315.9	1.189	0.003
2152.2	1.322	0.006	2233.2	1.415	0.006	2290.2	1.568	0.005	2347.1	1.089	2.844	2404.0	0.693	0.008	2460.9	0.982	0.013	2701.0	1.148	0.002	3326.5	1.188	0.003
2154.2	1.323	0.006	2234.2	1.416	0.006	2291.1	1.580	0.004	2348.0	0.906	2.634	2404.9	0.704	0.008	2461.8	0.982	0.013	2711.6	1.150	0.002	3337.1	1.189	0.000
2156.1	1.324	0.006	2235.2	1.418	0.006	2292.1	1.591	0.004	2349.0	0.776	2.446	2405.9	0.713	0.009	2462.8	0.984	0.007	2722.2	1.152	0.002	3347.7	1.189	0.003
2158.0	1.325	0.006	2236.1	1.419	0.006	2293.0	1.600	0.008	2349.9	0.683	2.283	2406.9	0.724	0.002	2463.8	0.987	0.008	2732.8	1.154	0.002	3358.3	1.191	0.000
2159.9	1.327	0.002	2237.1	1.420	0.006	2294.0	1.608	0.007	2350.9	0.612	2.139	2407.8	0.737	0.002	2464.7	0.990	0.008	2743.5	1.156	0.002	3368.9	1.191	0.003
2161.9	1.329	0.006	2238.1	1.423	0.002	2295.0	1.616	0.007	2351.9	0.560	2.011	2408.8	0.748	0.003	2465.7	0.992	0.008	2754.1	1.158	0.002	3379.5	1.189	0.003
2163.8	1.329	0.006	2239.0	1.426	0.006	2295.9	1.625	0.007	2352.8	0.521	1.902	2409.7	0.758	0.004	2466.7	0.994	0.008	2764.7	1.159	0.002	3390.1	1.190	0.003
2165.7	1.332	0.006	2240.0	1.427	0.006	2296.9	1.634	0.007	2353.8	0.487	1.801	2410.7	0.768	0.004	2467.6	0.996	0.008	2775.3	1.161	0.002	3400.7	1.191	0.003
2167.7	1.334	0.006	2241.0	1.428	0.006	2297.9	1.643	0.006	2354.8	0.463	1.713	2411.7	0.777	0.005	2468.6	0.998	0.008	2785.9	1.162	0.002	3411.4	1.187	0.003
2169.6	1.337	0.002	2241.9	1.430	0.006	2298.8	1.652	0.006	2355.7	0.441	1.633	2412.6	0.785	0.005	2469.5	1.000	0.008	2796.5	1.164	0.002	3422.0	1.193	0.003
2171.5	1.339	0.002	2242.9	1.433	0.002	2299.8	1.662	0.006	2356.7	0.424	1.558	2413.6	0.794	0.006	2470.5	1.002	0.008	2807.1	1.165	0.002	3432.6	1.193	0.003
2173.4	1.339	0.006	2243.9	1.436	0.006	2300.8	1.673	0.005	2357.7	0.412	1.492	2414.6	0.801	0.006	2471.5	1.003	0.008	2817.7	1.166	0.002	3443.2	1.193	0.003
2175.4	1.342	0.006	2244.8	1.436	0.006	2301.7	1.684	0.005	2358.6	0.399	1.432	2415.5	0.809	0.006	2472.4	1.005	0.008	2828.3	1.167	0.002	3453.8	1.193	0.000
2177.3	1.346	0.006	2245.8	1.439	0.002	2302.7	1.695	0.008	2359.6	0.390	1.374	2416.5	0.816	0.007	2473.4	1.006	0.008	2838.9	1.168	0.002	3464.4	1.196	0.000
2179.2	1.346	0.006	2246.8	1.442	0.006	2303.7	1.705	0.008	2360.6	0.380	1.325	2417.5	0.822	0.007	2474.4	1.007	0.008	2849.5	1.170	0.002	3475.0	1.199	0.000
2181.2	1.347	0.006	2247.7	1.445	0.002	2304.6	1.716	0.007	2361.5	0.371	1.275	2418.4	0.829	0.007	2475.3	1.008	0.008	2860.2	1.171	0.003	3485.6	1.198	0.000
2183.1	1.348	0.006	2248.7	1.448	0.006	2305.6	1.728	0.007	2362.5	0.365	1.227	2419.4	0.835	0.008	2476.3	1.008	0.008	2870.8	1.171	0.003	3496.2	1.198	0.000
2185.0	1.350	0.006	2249.6	1.450	0.006	2306.5	1.741	0.006	2363.5	0.360	1.187	2420.4	0.841	0.008	2477.3	1.010	0.003	2881.4	1.172	0.003	3506.8	1.199	0.000
2187.0	1.352	0.002	2250.6	1.452	0.006	2307.5	1.754	0.005	2364.4	0.354	1.149	2421.3	0.847	0.008	2478.2	1.013	0.003	2892.0	1.173	0.003	3517.4	1.200	0.003
2188.9	1.354	0.006	2251.6	1.454	0.006	2308.5	1.770	0.005	2365.4	0.346	1.114	2422.3	0.852	0.008	2479.2	1.015	0.003	2902.6	1.174	0.003	3528.1	1.200	0.000
2190.8	1.356	0.006	2252.5	1.457	0.006	2309.4	1.785	0.007	2366.3	0.340	1.075	2423.2	0.858	0.009	2480.2	1.018	0.003	2913.2	1.175	0.003	3538.7	1.201	0.003
2192.7	1.357	0.006	2253.5	1.459	0.006	2310.4	1.800	0.006	2367.3	0.335	1.042	2424.2	0.863	0.009	2481.1	1.019	0.003	2923.8	1.176	0.003	3549.3	1.200	0.003
2194.7	1.359	0.002	2254.5	1.462	0.006	2311.4	1.816	0.009	2368.3	0.329	1.013	2425.2	0.867	0.009	2482.1	1.021	0.003	2934.4	1.176	0.003	3550.2	1.201	0.000

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TABLE 12B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
3551.2	1.203	0.000	3608.1	1.193	0.003	3665.0	1.208	0.003	3721.9	1.190	0.008
3552.2	1.204	0.003	3609.1	1.195	0.003	3666.0	1.208	0.003	3722.9	1.190	0.008
3553.1	1.203	0.003	3610.0	1.196	0.003	3666.9	1.208	0.006	3723.8	1.190	0.008
3554.1	1.203	0.003	3611.0	1.197	0.003	3667.9	1.207	0.003	3724.8	1.191	0.005
3555.1	1.203	0.003	3612.0	1.197	0.003	3668.9	1.208	0.003	3725.8	1.192	0.005
3556.0	1.203	0.003	3612.9	1.198	0.003	3669.8	1.208	0.003	3726.7	1.193	0.005
3557.0	1.203	0.003	3613.9	1.198	0.003	3670.8	1.208	0.003	3727.7	1.194	0.006
3558.0	1.203	0.003	3614.9	1.199	0.003	3671.8	1.208	0.003	3728.7	1.194	0.006
3558.9	1.203	0.003	3615.8	1.199	0.003	3672.7	1.209	0.003	3729.6	1.195	0.006
3559.9	1.203	0.003	3616.8	1.199	0.003	3673.7	1.209	0.003	3730.6	1.195	0.006
3560.9	1.203	0.003	3617.8	1.200	0.003	3674.7	1.209	0.003	3731.6	1.196	0.006
3561.8	1.203	0.003	3618.7	1.200	0.003	3675.6	1.210	0.003	3732.5	1.196	0.006
3562.8	1.203	0.003	3619.7	1.200	0.003	3676.6	1.210	0.003	3733.5	1.196	0.006
3563.7	1.203	0.003	3620.6	1.201	0.003	3677.6	1.210	0.003	3734.5	1.196	0.006
3564.7	1.203	0.003	3621.6	1.201	0.003	3678.5	1.211	0.003	3735.4	1.197	0.006
3565.7	1.203	0.003	3622.6	1.201	0.003	3679.5	1.211	0.003	3736.4	1.197	0.006
3566.6	1.202	0.003	3623.5	1.201	0.003	3680.4	1.211	0.003	3737.4	1.197	0.006
3567.6	1.203	0.000	3624.5	1.201	0.003	3681.4	1.212	0.003	3738.3	1.197	0.006
3568.6	1.204	0.003	3625.5	1.202	0.003	3682.4	1.212	0.003	3739.3	1.197	0.006
3569.5	1.203	0.003	3626.4	1.202	0.003	3683.3	1.212	0.003	3740.2	1.197	0.006
3570.5	1.203	0.003	3627.4	1.202	0.003	3684.3	1.213	0.003	3741.2	1.197	0.006
3571.5	1.204	0.000	3628.4	1.202	0.003	3685.3	1.213	0.003	3742.2	1.196	0.006
3572.4	1.205	0.003	3629.3	1.202	0.003	3686.2	1.214	0.003	3743.1	1.196	0.003
3573.4	1.204	0.003	3630.3	1.203	0.003	3687.2	1.214	0.003	3744.1	1.198	0.003
3574.4	1.204	0.003	3631.3	1.203	0.003	3688.2	1.215	0.003	3745.1	1.199	0.003
3575.3	1.205	0.000	3632.2	1.203	0.003	3689.1	1.216	0.003	3746.0	1.199	0.006
3576.3	1.206	0.003	3633.2	1.203	0.003	3690.1	1.216	0.003	3747.0	1.198	0.006
3577.2	1.205	0.003	3634.2	1.203	0.003	3691.1	1.217	0.003	3748.0	1.197	0.003
3578.2	1.205	0.003	3635.1	1.203	0.003	3692.0	1.218	0.003	3748.9	1.198	0.003
3579.2	1.205	0.003	3636.1	1.203	0.003	3693.0	1.219	0.003	3749.9	1.199	0.003
3580.1	1.206	0.000	3637.0	1.204	0.003	3693.9	1.221	0.003	3759.5	1.201	0.003
3581.1	1.206	0.003	3638.0	1.204	0.003	3694.9	1.222	0.003	3769.2	1.204	0.003
3582.1	1.206	0.003	3639.0	1.204	0.003	3695.9	1.224	0.004	3778.8	1.204	0.003
3583.0	1.207	0.000	3639.9	1.204	0.003	3696.8	1.227	0.004	3788.5	1.205	0.003
3584.0	1.207	0.003	3640.9	1.204	0.003	3697.8	1.229	0.007	3798.1	1.204	0.003
3585.0	1.208	0.000	3641.9	1.204	0.003	3698.8	1.232	0.007	3807.8	1.206	0.000
3585.9	1.209	0.003	3642.8	1.204	0.003	3699.7	1.235	0.010	3817.4	1.206	0.000
3586.9	1.209	0.003	3643.8	1.205	0.003	3700.7	1.238	0.013	3827.0	1.207	0.003
3587.9	1.208	0.003	3644.8	1.205	0.003	3701.7	1.241	0.016	3836.7	1.209	0.003
3588.8	1.210	0.000	3645.7	1.205	0.003	3702.6	1.245	0.021	3846.3	1.209	0.003
3589.8	1.212	0.000	3646.7	1.205	0.003	3703.6	1.248	0.030	3856.0	1.210	0.003
3590.7	1.214	0.003	3647.7	1.205	0.003	3704.6	1.251	0.036	3865.6	1.210	0.003
3591.7	1.215	0.003	3648.6	1.205	0.003	3705.5	1.257	0.048	3875.3	1.211	0.003
3592.7	1.217	0.004	3649.6	1.206	0.003	3706.5	1.256	0.080	3884.9	1.211	0.000
3593.6	1.219	0.007	3650.5	1.206	0.003	3707.5	1.228	0.133	3894.6	1.210	0.000
3594.6	1.220	0.010	3651.5	1.207	0.003	3708.4	1.176	0.136	3904.2	1.212	0.000
3595.6	1.220	0.013	3652.5	1.206	0.006	3709.4	1.144	0.079	3913.9	1.213	0.003
3596.5	1.222	0.013	3653.4	1.205	0.003	3710.3	1.144	0.041	3923.5	1.214	0.003
3597.5	1.228	0.016	3654.4	1.206	0.003	3711.3	1.153	0.023	3933.1	1.214	0.000
3598.5	1.233	0.031	3655.4	1.206	0.003	3712.3	1.163	0.014	3942.8	1.214	0.003
3599.4	1.217	0.074	3656.3	1.206	0.003	3713.2	1.171	0.011	3952.4	1.215	0.000
3600.4	1.183	0.071	3657.3	1.207	0.003	3714.2	1.177	0.011	3962.1	1.215	0.000
3601.4	1.169	0.027	3658.3	1.208	0.003	3715.2	1.180	0.011	3971.7	1.214	0.003
3602.3	1.175	0.012	3659.2	1.207	0.006	3716.1	1.181	0.011	3981.4	1.214	0.003
3603.3	1.182	0.009	3660.2	1.206	0.006	3717.1	1.183	0.008	3991.0	1.215	0.003
3604.3	1.186	0.006	3661.2	1.205	0.003	3718.1	1.186	0.008			
3605.2	1.189	0.006	3662.1	1.206	0.003	3719.0	1.187	0.008			
3606.2	1.190	0.006	3663.1	1.207	0.003	3720.0	1.188	0.008			
3607.1	1.191	0.003	3664.1	1.207	0.003	3721.0	1.189	0.008			

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TABLE 12C

CO_2:OCS = 20:1 AT 70 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.1	1.383	0.060	582.1	1.426	0.000	639.0	1.845	0.138	695.9	0.831	0.000	752.8	1.103	0.000	905.2	1.199	0.012	1474.2	1.248	0.000	1969.0	1.305	0.001
503.0	1.367	0.020	583.0	1.432	0.017	639.9	1.817	0.093	696.8	0.846	0.018	753.7	1.112	0.000	914.8	1.213	0.012	1483.8	1.247	0.008	1970.9	1.307	0.001
504.9	1.372	0.040	584.0	1.423	0.034	640.9	1.835	0.044	697.8	0.861	0.000	754.7	1.119	0.000	924.5	1.212	0.012	1493.5	1.250	0.008	1972.8	1.306	0.007
506.8	1.384	0.000	585.0	1.414	0.017	641.9	1.877	0.020	698.8	0.877	0.018	755.7	1.119	0.015	934.1	1.207	0.012	1503.1	1.248	0.008	1974.8	1.308	0.007
508.8	1.371	0.020	585.9	1.420	0.000	642.8	1.924	0.018	699.7	0.882	0.018	756.6	1.118	0.000	943.7	1.214	0.012	1512.8	1.249	0.008	1976.7	1.311	0.007
510.7	1.380	0.059	586.9	1.430	0.000	643.8	1.972	0.017	700.7	0.887	0.017	757.6	1.128	0.000	953.4	1.211	0.012	1522.4	1.248	0.000	1978.6	1.310	0.001
512.6	1.383	0.058	587.9	1.439	0.000	644.8	2.025	0.015	701.7	0.901	0.000	758.6	1.131	0.015	963.0	1.215	0.000	1532.1	1.249	0.008	1980.6	1.314	0.007
514.6	1.377	0.078	588.8	1.443	0.017	645.7	2.083	0.023	702.6	0.913	0.017	759.5	1.128	0.015	972.7	1.215	0.012	1541.7	1.250	0.000	1982.5	1.314	0.007
516.5	1.345	0.040	589.8	1.440	0.017	646.7	2.149	0.021	703.6	0.924	0.000	760.5	1.128	0.015	982.3	1.216	0.011	1551.4	1.254	0.007	1984.4	1.314	0.007
518.4	1.351	0.059	590.7	1.438	0.017	647.7	2.229	0.027	704.6	0.937	0.017	761.5	1.128	0.015	992.0	1.214	0.011	1561.0	1.253	0.000	1986.3	1.315	0.007
520.3	1.345	0.040	591.7	1.444	0.000	648.6	2.324	0.032	705.5	0.941	0.017	762.4	1.128	0.015	1001.6	1.215	0.000	1570.7	1.255	0.007	1988.3	1.316	0.007
522.3	1.361	0.039	592.7	1.451	0.016	649.6	2.451	0.033	706.5	0.946	0.017	763.4	1.129	0.015	1011.3	1.218	0.011	1580.3	1.252	0.007	1990.2	1.317	0.007
524.2	1.340	0.039	593.6	1.450	0.016	650.5	2.617	0.063	707.4	0.951	0.017	764.4	1.130	0.015	1020.9	1.219	0.011	1589.9	1.253	0.007	1992.1	1.318	0.007
526.1	1.333	0.020	594.6	1.451	0.016	651.5	2.826	0.130	708.4	0.953	0.017	765.3	1.130	0.015	1030.5	1.222	0.000	1599.6	1.253	0.000	1994.1	1.320	0.007
528.1	1.357	0.020	595.6	1.453	0.016	652.5	3.136	0.214	709.4	0.965	0.000	766.3	1.131	0.015	1040.2	1.224	0.000	1609.2	1.252	0.007	1996.0	1.321	0.007
530.0	1.359	0.019	596.5	1.454	0.016	653.4	3.560	0.596	710.3	0.977	0.017	767.2	1.132	0.015	1049.8	1.220	0.011	1618.9	1.259	0.007	1997.9	1.323	0.007
531.9	1.350	0.058	597.5	1.455	0.016	654.4	3.496	2.075	711.3	0.978	0.017	768.2	1.133	0.015	1059.5	1.220	0.011	1628.5	1.256	0.007	1999.8	1.324	0.007
533.8	1.363	0.000	598.5	1.455	0.016	655.4	2.447	3.131	712.3	0.981	0.017	769.2	1.134	0.015	1069.1	1.226	0.010	1638.2	1.257	0.007	2001.8	1.326	0.007
535.8	1.358	0.000	599.4	1.459	0.000	656.3	1.668	1.731	713.2	0.982	0.017	770.1	1.134	0.015	1078.8	1.224	0.010	1647.8	1.256	0.007	2003.7	1.327	0.012
537.7	1.365	0.019	600.4	1.471	0.000	657.3	1.958	0.844	714.2	0.992	0.000	771.1	1.135	0.015	1088.4	1.231	0.010	1657.5	1.257	0.007	2005.6	1.329	0.007
539.6	1.355	0.038	601.4	1.474	0.016	658.3	2.669	0.805	715.2	1.002	0.017	772.1	1.136	0.015	1098.1	1.226	0.010	1667.1	1.255	0.007	2007.6	1.331	0.007
541.6	1.377	0.019	602.3	1.479	0.000	659.2	3.138	1.913	716.1	0.999	0.017	773.0	1.137	0.015	1107.7	1.228	0.010	1676.7	1.259	0.000	2009.5	1.334	0.002
543.5	1.372	0.019	603.3	1.486	0.016	660.2	2.414	3.924	717.1	1.007	0.000	774.0	1.137	0.015	1117.3	1.225	0.010	1686.4	1.258	0.007	2011.4	1.338	0.007
545.4	1.373	0.019	604.3	1.487	0.016	661.2	1.240	3.364	718.1	1.014	0.016	775.0	1.138	0.015	1127.0	1.225	0.010	1696.0	1.261	0.000	2013.3	1.341	0.007
547.3	1.374	0.019	605.2	1.489	0.016	662.1	0.719	2.716	719.0	1.020	0.000	775.9	1.138	0.015	1136.6	1.227	0.010	1705.7	1.260	0.007	2015.3	1.344	0.007
549.3	1.375	0.019	606.2	1.494	0.016	663.1	0.515	2.281	720.0	1.027	0.016	776.9	1.138	0.015	1146.3	1.236	0.010	1715.3	1.259	0.000	2017.2	1.349	0.007
550.2	1.375	0.019	607.1	1.492	0.031	664.0	0.418	1.996	721.0	1.024	0.016	777.9	1.136	0.015	1155.9	1.229	0.010	1725.0	1.263	0.000	2019.1	1.354	0.007
551.2	1.374	0.019	608.1	1.488	0.016	665.0	0.363	1.769	721.9	1.032	0.000	778.8	1.142	0.000	1165.6	1.228	0.010	1734.6	1.264	0.000	2021.1	1.361	0.007
552.2	1.382	0.000	609.1	1.499	0.000	666.0	0.332	1.590	722.9	1.040	0.016	779.8	1.147	0.015	1175.2	1.234	0.000	1744.3	1.264	0.007	2023.0	1.367	0.012
553.1	1.382	0.036	610.0	1.507	0.015	666.9	0.316	1.435	723.8	1.039	0.016	780.7	1.145	0.015	1184.9	1.234	0.010	1753.9	1.267	0.007	2024.9	1.376	0.017
554.1	1.371	0.019	611.0	1.507	0.015	667.9	0.325	1.291	724.8	1.040	0.016	781.7	1.145	0.015	1194.5	1.237	0.000	1763.5	1.267	0.007	2026.8	1.381	0.021
555.1	1.378	0.000	612.0	1.515	0.000	668.9	0.324	1.236	725.8	1.038	0.016	782.7	1.145	0.015	1204.2	1.236	0.009	1773.2	1.269	0.000	2028.8	1.386	0.031
556.0	1.393	0.000	612.9	1.523	0.015	669.8	0.330	1.104	726.7	1.043	0.000	783.6	1.145	0.015	1213.8	1.235	0.009	1782.8	1.267	0.007	2030.7	1.394	0.036
557.0	1.392	0.036	613.9	1.523	0.015	670.8	0.334	1.090	727.7	1.057	0.000	784.6	1.144	0.015	1223.4	1.235	0.009	1792.5	1.269	0.000	2032.6	1.401	0.045
558.0	1.384	0.018	614.9	1.532	0.000	671.8	0.324	1.004	728.7	1.062	0.016	785.6	1.141	0.015	1233.1	1.223	0.009	1802.1	1.273	0.007	2034.6	1.406	0.060
558.9	1.386	0.018	615.8	1.541	0.015	672.7	0.310	0.982	729.6	1.060	0.016	786.5	1.144	0.000	1242.7	1.238	0.009	1811.8	1.272	0.007	2036.5	1.407	0.079
559.9	1.387	0.018	616.8	1.541	0.015	673.7	0.293	0.902	730.6	1.058	0.016	787.5	1.155	0.000	1252.4	1.237	0.009	1821.4	1.269	0.000	2038.4	1.407	0.089
560.8	1.388	0.018	617.8	1.550	0.000	674.7	0.279	0.877	731.6	1.065	0.000	788.5	1.158	0.014	1262.0	1.237	0.009	1831.1	1.278	0.007	2040.4	1.405	0.114
561.8	1.389	0.018	618.7	1.560	0.014	675.6	0.240	0.844	732.5	1.072	0.016	789.4	1.155	0.014	1271.7	1.237	0.009	1840.7	1.275	0.007	2042.3	1.394	0.124
562.8	1.390	0.018	619.7	1.561	0.014	676.6	0.212	0.768	733.5	1.071	0.016	790.4	1.154	0.014	1281.3	1.236	0.009	1850.3	1.276	0.000	2044.2	1.392	0.129
563.7	1.392	0.018	620.6	1.569	0.000	677.6	0.092	0.867	734.5	1.072	0.016	791.4	1.154	0.014	1291.0	1.237	0.009	1860.0	1.278	0.007	2046.1	1.388	0.150
564.7	1.393	0.018	621.6	1.584	0.000	678.5	0.008	0.501	735.4	1.072	0.016	792.3	1.154	0.014	1300.6	1.236	0.009	1869.6	1.283	0.007	2048.1	1.383	0.160
565.7	1.394	0.018	622.6	1.594	0.014	679.5	0.014	0.428	736.4	1.071	0.016	793.3	1.154	0.014	1310.2	1.237	0.000	1879.3	1.283	0.007	2050.0	1.373	0.192
566.6	1.395	0.018	623.5	1.598	0.014	680.4	0.080	0.101	737.3	1.077	0.000	794.3	1.154	0.014	1319.9	1.239	0.000	1888.9	1.283	0.007	2051.9	1.364	0.208
567.6	1.396	0.018	624.5	1.602	0.014	681.4	0.235	0.038	738.3	1.083	0.016	795.2	1.155	0.014	1329.5	1.241	0.009	1898.6	1.284	0.007	2053.9	1.336	0.255
568.6	1.397	0.018	625.5	1.613	0.000	682.4	0.344	0.028	739.3	1.079	0.016	796.2	1.155	0.014	1339.2	1.237	0.008	1908.2	1.284	0.007	2055.8	1.274	0.322
569.5	1.399	0.018	626.4	1.631	0.000	683.3	0.417	0.024	740.2	1.085	0.000	797.1	1.155	0.014	1348.8	1.245	0.008	1917.9	1.284	0.000	2057.7	1.145	0.255
570.5	1.401	0.018	627.4	1.644	0.013	684.3	0.490	0.000	741.2	1.091	0.016	798.1	1.155	0.014	1358.5	1.242	0.008	1927.5	1.292	0.007	2059.6	1.148	0.151
571.5	1.404	0.018	628.4	1.652	0.013	685.3	0.551	0.021	742.2	1.086	0.016	799.1	1.155	0.014	1368.1	1.241	0.008	1937.2	1.293	0.007	2061.6	1.157	0.120
572.4	1.399	0.035	629.3	1.663	0.013	686.2	0.580	0.020	743.1	1.092	0.000	808.7	1.161	0.014	1377.8	1.239	0.008	1946.8	1.297	0.007	2063.5	1.171	0.096
573.4	1.392	0.018	630.3	1.676	0.012	687.2	0.619	0.000	744.1	1.098	0.016	818.4	1.178	0.000	1387.4	1.245	0.000	1951.6	1.296	0.007	2065.4	1.176	0.078
574.4	1.401	0.000	631.3	1.690	0.012	688.2	0.668	0.000	745.1	1.095	0.016	828.0	1.179	0.000	1397.0	1.245	0.008	1953.6	1.299	0.001	2067.4	1.181	0.067
575.3	1.408	0.017	632.2	1.705	0.012	689.1	0.695	0.019	746.0	1.092	0.016	837.7	1.181	0.000	1406.7	1.243	0.008	1955.5	1.302	0.007	2069.3	1.189	0.050
576.3	1.406	0.017	633.2	1.723	0.012	690.1	0.722	0.000	747.0	1.095	0.000	847.3	1.198	0.000	1416.3	1.243	0.008	1957.4	1.299	0.007	2071.2	1.196	0.038
577.2	1.404	0.017	634.1	1.744	0.011	691.1	0.749	0.019	748.0	1.106	0.000	856.9	1.192	0.013	1426.0	1.244	0.008	1959.3	1.301	0.007	2073.1	1.205	0.027
578.2	1.410	0.000	635.1	1.762	0.023	692.0	0.762	0.018	748.9	1.110	0.015	866.6	1.189	0.000	1435.6	1.240	0.008	1961.3	1.303	0.001	2075.1	1.214	0.022
579.2	1.415	0.017	636.1	1.785	0.010	693.0	0.774	0.018	749.9	1.106	0.015	876.2	1.192	0.013	1445.3	1.243	0.008	1963.2	1.304	0.001	2077.0	1.224	0.011
580.1	1.410	0.017	637.0	1.819	0.022	693.9	0.796	0.000	750.9	1.105	0.015	885.9	1.199	0.013	1454.9	1.245	0.008	1965.1	1.305	0.001	2078.9	1.234	0.011
581.1	1.414	0.000	638.0	1.854	0.044	694.9	0.814	0.018	751.8	1.101	0.015	895.5	1.207	0.013	1464.6	1.243	0.008	1967.1	1.305	0.007	2080.9	1.241	0.011

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TABLE 12C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2082.8	1.244	0.011	2196.6	1.363	0.006	2255.4	1.464	0.006	2312.3	1.809	0.009	2369.2	0.317	0.967	2426.1	0.868	0.009	2483.0	1.020	0.003	2945.0	1.178	0.003
2084.7	1.251	0.006	2198.5	1.363	0.006	2256.4	1.467	0.006	2313.3	1.826	0.012	2370.2	0.313	0.947	2427.1	0.873	0.009	2484.0	1.022	0.003	2955.6	1.178	0.003
2086.6	1.259	0.006	2200.5	1.367	0.006	2257.4	1.470	0.006	2314.3	1.843	0.010	2371.2	0.307	0.915	2428.1	0.878	0.009	2485.0	1.023	0.003	2966.3	1.177	0.003
2088.6	1.260	0.011	2201.4	1.367	0.006	2258.3	1.473	0.006	2315.2	1.862	0.013	2372.1	0.303	0.891	2429.0	0.883	0.010	2485.9	1.025	0.003	2976.9	1.181	0.000
2090.5	1.261	0.006	2202.4	1.368	0.002	2259.3	1.477	0.006	2316.2	1.881	0.011	2373.1	0.299	0.869	2430.0	0.887	0.010	2486.9	1.026	0.003	2987.5	1.182	0.003
2092.4	1.266	0.006	2203.3	1.371	0.002	2260.3	1.480	0.006	2317.2	1.902	0.013	2374.1	0.290	0.856	2431.0	0.891	0.010	2487.9	1.027	0.003	2998.1	1.181	0.003
2094.4	1.270	0.006	2204.3	1.374	0.002	2261.2	1.485	0.006	2318.1	1.924	0.011	2375.0	0.277	0.834	2431.9	0.895	0.010	2488.8	1.029	0.004	3008.7	1.182	0.003
2096.3	1.273	0.006	2205.3	1.376	0.007	2262.2	1.487	0.010	2319.1	1.949	0.012	2376.0	0.257	0.827	2432.9	0.899	0.010	2489.8	1.030	0.004	3019.3	1.180	0.003
2098.2	1.275	0.006	2206.2	1.376	0.007	2263.1	1.491	0.006	2320.1	1.975	0.013	2377.0	0.232	0.792	2433.9	0.903	0.010	2490.8	1.031	0.004	3029.9	1.183	0.003
2100.1	1.278	0.006	2207.2	1.376	0.006	2264.1	1.495	0.010	2321.0	2.003	0.014	2377.9	0.216	0.754	2434.8	0.907	0.011	2491.7	1.031	0.004	3040.5	1.183	0.003
2102.1	1.280	0.006	2208.2	1.377	0.006	2265.1	1.497	0.010	2322.0	2.033	0.014	2378.9	0.213	0.717	2435.8	0.909	0.011	2492.7	1.034	0.000	3051.1	1.184	0.003
2104.0	1.282	0.006	2209.1	1.378	0.006	2266.0	1.501	0.010	2322.9	2.067	0.014	2379.8	0.197	0.734	2436.8	0.915	0.005	2493.7	1.037	0.004	3061.7	1.184	0.003
2105.9	1.285	0.006	2210.1	1.379	0.006	2267.0	1.504	0.010	2323.9	2.106	0.016	2380.8	0.126	0.765	2437.7	0.920	0.011	2494.6	1.037	0.004	3072.3	1.182	0.000
2107.9	1.287	0.006	2211.1	1.380	0.006	2268.0	1.508	0.010	2324.9	2.148	0.019	2381.8	0.058	0.644	2438.7	0.923	0.011	2495.6	1.038	0.004	3083.0	1.184	0.000
2109.8	1.288	0.006	2212.0	1.381	0.006	2268.9	1.512	0.010	2325.8	2.195	0.025	2382.7	0.031	0.565	2439.6	0.926	0.011	2496.6	1.039	0.004	3093.6	1.185	0.000
2111.7	1.290	0.006	2213.0	1.382	0.006	2269.9	1.517	0.009	2326.8	2.239	0.050	2383.7	0.007	0.483	2440.6	0.929	0.011	2497.5	1.040	0.004	3104.2	1.185	0.003
2113.7	1.292	0.006	2214.0	1.383	0.006	2270.9	1.522	0.009	2327.8	2.276	0.061	2384.7	0.011	0.355	2441.6	0.932	0.011	2498.5	1.041	0.004	3114.8	1.187	0.003
2115.6	1.294	0.006	2214.9	1.385	0.002	2271.8	1.527	0.009	2328.7	2.329	0.042	2385.6	0.002	0.328	2442.5	0.935	0.012	2499.4	1.041	0.004	3125.4	1.188	0.000
2117.5	1.295	0.006	2215.9	1.388	0.006	2272.8	1.533	0.009	2329.7	2.402	0.049	2386.6	0.038	0.092	2443.5	0.938	0.012	2510.1	1.056	0.000	3136.0	1.187	0.003
2119.4	1.297	0.006	2216.9	1.389	0.006	2273.8	1.539	0.009	2330.7	2.478	0.069	2387.6	0.145	0.036	2444.5	0.941	0.012	2520.7	1.066	0.000	3146.6	1.187	0.000
2121.4	1.299	0.006	2217.8	1.390	0.006	2274.7	1.548	0.009	2331.6	2.560	0.092	2388.5	0.235	0.004	2445.4	0.944	0.012	2531.3	1.077	0.000	3157.2	1.189	0.000
2123.3	1.300	0.006	2218.8	1.391	0.006	2275.7	1.556	0.013	2332.6	2.648	0.122	2389.5	0.307	0.008	2446.4	0.946	0.012	2541.9	1.085	0.000	3167.8	1.188	0.000
2125.2	1.302	0.006	2219.7	1.392	0.006	2276.6	1.566	0.012	2333.6	2.747	0.155	2390.5	0.358	0.011	2447.4	0.949	0.012	2552.5	1.093	0.000	3178.4	1.189	0.003
2127.2	1.303	0.006	2220.7	1.394	0.006	2277.6	1.578	0.020	2334.5	2.860	0.198	2391.4	0.397	0.013	2448.3	0.952	0.012	2563.1	1.099	0.000	3189.0	1.191	0.003
2129.1	1.305	0.006	2221.7	1.395	0.006	2278.6	1.591	0.027	2335.5	2.989	0.253	2392.4	0.434	0.001	2449.3	0.954	0.012	2573.7	1.105	0.000	3199.7	1.188	0.002
2131.0	1.306	0.006	2222.6	1.396	0.006	2279.5	1.605	0.042	2336.4	3.141	0.324	2393.4	0.470	0.004	2450.3	0.956	0.012	2584.3	1.111	0.001	3209.8	1.184	0.000
2132.9	1.307	0.006	2223.6	1.398	0.006	2280.5	1.618	0.068	2337.4	3.321	0.423	2394.3	0.500	0.006	2451.2	0.959	0.012	2594.9	1.116	0.001	3220.4	1.185	0.004
2134.9	1.309	0.006	2224.6	1.399	0.006	2281.5	1.616	0.122	2338.4	3.536	0.568	2395.3	0.526	0.008	2452.2	0.961	0.012	2605.5	1.120	0.001	3231.0	1.185	0.004
2136.8	1.310	0.006	2225.5	1.401	0.006	2282.4	1.560	0.209	2339.3	3.787	0.795	2396.2	0.549	0.009	2453.1	0.963	0.012	2616.1	1.124	0.002	3241.6	1.185	0.003
2138.7	1.311	0.001	2226.5	1.402	0.006	2283.4	1.488	0.155	2340.3	4.055	1.176	2397.2	0.569	0.010	2454.1	0.966	0.013	2626.8	1.128	0.002	3252.2	1.185	0.003
2140.7	1.314	0.001	2227.5	1.404	0.006	2284.4	1.475	0.063	2341.3	4.255	1.820	2398.2	0.586	0.011	2455.1	0.968	0.013	2637.4	1.131	0.002	3262.8	1.185	0.000
2142.6	1.316	0.006	2228.4	1.405	0.006	2285.3	1.493	0.042	2342.2	4.173	2.824	2399.1	0.604	0.002	2456.0	0.970	0.013	2648.0	1.135	0.002	3273.4	1.186	0.003
2144.5	1.317	0.006	2229.4	1.407	0.006	2286.3	1.510	0.021	2343.2	3.608	3.855	2400.1	0.624	0.004	2457.0	0.972	0.013	2658.6	1.137	0.002	3284.0	1.186	0.003
2146.4	1.318	0.006	2230.4	1.409	0.006	2287.3	1.528	0.013	2344.2	2.707	4.295	2401.1	0.641	0.005	2458.0	0.973	0.013	2669.2	1.140	0.002	3294.7	1.187	0.000
2148.4	1.318	0.006	2231.3	1.410	0.006	2288.2	1.543	0.013	2345.1	1.873	4.080	2402.0	0.657	0.006	2458.9	0.975	0.013	2679.8	1.143	0.002	3305.3	1.186	0.003
2150.3	1.323	0.006	2232.3	1.412	0.006	2289.2	1.555	0.013	2346.1	1.312	3.670	2403.0	0.671	0.007	2459.9	0.977	0.013	2690.4	1.145	0.002	3315.9	1.188	0.000
2152.2	1.323	0.006	2233.2	1.414	0.006	2290.2	1.565	0.012	2347.1	0.973	3.276	2404.0	0.685	0.007	2460.9	0.978	0.013	2701.0	1.147	0.002	3326.5	1.187	0.003
2154.2	1.324	0.006	2234.2	1.415	0.006	2291.1	1.574	0.012	2348.0	0.767	2.959	2404.9	0.697	0.008	2461.8	0.980	0.013	2711.6	1.149	0.002	3337.1	1.190	0.003
2156.1	1.325	0.002	2235.2	1.417	0.006	2292.1	1.582	0.012	2349.0	0.632	2.700	2405.9	0.709	0.009	2462.8	0.981	0.013	2722.2	1.151	0.002	3347.7	1.187	0.003
2158.0	1.327	0.006	2236.1	1.419	0.006	2293.0	1.591	0.012	2349.9	0.541	2.485	2406.9	0.720	0.009	2463.8	0.981	0.013	2732.8	1.154	0.002	3358.3	1.191	0.003
2159.9	1.329	0.002	2237.1	1.421	0.006	2294.0	1.599	0.011	2350.9	0.475	2.303	2407.8	0.730	0.010	2464.7	0.983	0.007	2743.5	1.155	0.002	3368.9	1.189	0.003
2161.9	1.331	0.006	2238.1	1.423	0.006	2295.0	1.607	0.011	2351.9	0.427	2.147	2408.8	0.739	0.010	2465.7	0.986	0.007	2754.1	1.157	0.002	3379.5	1.194	0.007
2163.8	1.332	0.006	2239.0	1.425	0.006	2295.9	1.616	0.011	2352.8	0.392	2.009	2409.7	0.748	0.011	2466.7	0.989	0.008	2764.7	1.158	0.002	3390.1	1.191	0.003
2165.7	1.334	0.002	2240.0	1.427	0.006	2296.9	1.624	0.011	2353.8	0.364	1.889	2410.7	0.755	0.011	2467.6	0.991	0.008	2775.3	1.160	0.002	3400.7	1.188	0.003
2167.7	1.336	0.006	2241.0	1.429	0.006	2297.9	1.633	0.010	2354.8	0.343	1.781	2411.7	0.764	0.004	2468.6	0.993	0.008	2785.9	1.161	0.002	3411.4	1.185	0.003
2169.6	1.337	0.006	2241.9	1.431	0.006	2298.8	1.642	0.010	2355.7	0.330	1.679	2412.6	0.775	0.004	2469.5	0.994	0.008	2796.5	1.162	0.002	3422.0	1.193	0.003
2171.5	1.338	0.006	2242.9	1.433	0.006	2299.8	1.651	0.010	2356.7	0.319	1.597	2413.6	0.784	0.005	2470.5	0.996	0.008	2807.1	1.163	0.002	3432.6	1.192	0.003
2173.4	1.339	0.006	2243.9	1.435	0.006	2300.8	1.661	0.009	2357.7	0.313	1.508	2414.6	0.792	0.005	2471.5	0.997	0.008	2817.7	1.165	0.002	3443.2	1.192	0.003
2175.4	1.340	0.002	2244.8	1.437	0.006	2301.7	1.672	0.009	2358.6	0.311	1.441	2415.5	0.800	0.006	2472.4	0.997	0.008	2828.3	1.167	0.002	3453.8	1.192	0.000
2177.3	1.345	0.006	2245.8	1.439	0.006	2302.7	1.682	0.012	2359.6	0.307	1.375	2416.5	0.808	0.006	2473.4	0.999	0.002	2838.9	1.167	0.002	3464.4	1.198	0.000
2179.2	1.345	0.006	2246.8	1.441	0.006	2303.7	1.691	0.012	2360.6	0.309	1.307	2417.5	0.815	0.007	2474.4	1.003	0.003	2849.5	1.170	0.003	3475.0	1.200	0.000
2181.2	1.349	0.006	2247.7	1.444	0.006	2304.6	1.702	0.011	2361.5	0.314	1.255	2418.4	0.822	0.007	2475.3	1.005	0.003	2860.2	1.170	0.002	3485.6	1.199	0.000
2183.1	1.349	0.006	2248.7	1.446	0.006	2305.6	1.713	0.011	2362.5	0.316	1.210	2419.4	0.829	0.007	2476.3	1.007	0.003	2870.8	1.169	0.000	3496.2	1.199	0.000
2185.0	1.351	0.006	2249.6	1.448	0.006	2306.5	1.724	0.010	2363.5	0.320	1.161	2420.4	0.835	0.008	2477.3	1.010	0.003	2881.4	1.173	0.003	3506.8	1.199	0.003
2187.0	1.352	0.006	2250.6	1.451	0.006	2307.5	1.737	0.010	2364.4	0.322	1.128	2421.3	0.841	0.008	2478.2	1.011	0.003	2892.0	1.173	0.003	3517.4	1.199	0.003
2188.9	1.354	0.002	2251.6	1.453	0.006	2308.5	1.751	0.009	2365.4	0.322	1.086	2422.3	0.847	0.008	2479.2	1.013	0.003	2902.6	1.174	0.003	3528.1	1.199	0.000
2190.8	1.357	0.002	2252.5	1.456	0.006	2309.4	1.764	0.012	2366.3	0.324	1.054	2423.2	0.853	0.008	2480.2	1.015	0.003	2913.2	1.174	0.003	3538.7	1.202	0.003
2192.7	1.359	0.006	2253.5	1.459	0.006	2310.4	1.778	0.011	2367.3	0.325	1.023	2424.2	0.858	0.009	2481.1	1.017	0.003	2923.8	1.175	0.003	3549.3	1.202	0.003
2194.7	1.361	0.002	2254.5	1.461	0.006	2311.4	1.792	0.010	2368.3	0.322	1.002	2425.2	0.863	0.009	2482.1	1.018	0.003	2934.4	1.175	0.002	3550.2	1.202	0.003

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TABLE 12C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
3551.2	1.202	0.003	3608.1	1.194	0.006	3665.0	1.205	0.003	3721.9	1.189	0.008
3552.2	1.202	0.003	3609.1	1.195	0.006	3666.0	1.205	0.003	3722.9	1.189	0.008
3553.1	1.202	0.003	3610.0	1.195	0.006	3666.9	1.206	0.003	3723.8	1.189	0.008
3554.1	1.202	0.003	3611.0	1.196	0.006	3667.9	1.207	0.003	3724.8	1.189	0.005
3555.1	1.202	0.003	3612.0	1.196	0.006	3668.9	1.206	0.006	3725.8	1.191	0.005
3556.0	1.202	0.003	3612.9	1.195	0.006	3669.8	1.205	0.003	3726.7	1.192	0.005
3557.0	1.201	0.003	3613.9	1.196	0.003	3670.8	1.206	0.003	3727.7	1.192	0.005
3558.0	1.202	0.000	3614.9	1.198	0.003	3671.8	1.206	0.003	3728.7	1.192	0.005
3558.9	1.203	0.003	3615.8	1.198	0.006	3672.7	1.207	0.003	3729.6	1.194	0.003
3559.9	1.203	0.003	3616.8	1.197	0.003	3673.7	1.207	0.003	3730.6	1.195	0.006
3560.9	1.203	0.003	3617.8	1.198	0.003	3674.7	1.207	0.003	3731.6	1.194	0.006
3561.8	1.203	0.003	3618.7	1.199	0.003	3675.6	1.207	0.003	3732.5	1.195	0.003
3562.8	1.202	0.003	3619.7	1.200	0.003	3676.6	1.208	0.000	3733.5	1.196	0.006
3563.7	1.202	0.003	3620.6	1.200	0.003	3677.6	1.209	0.003	3734.5	1.196	0.006
3564.7	1.202	0.000	3621.6	1.200	0.003	3678.5	1.209	0.003	3735.4	1.196	0.006
3565.7	1.204	0.000	3622.6	1.201	0.003	3679.5	1.209	0.003	3736.4	1.195	0.006
3566.6	1.204	0.003	3623.5	1.201	0.003	3680.4	1.209	0.003	3737.4	1.195	0.006
3567.6	1.204	0.000	3624.5	1.202	0.003	3681.4	1.210	0.003	3738.3	1.195	0.003
3568.6	1.205	0.000	3625.5	1.201	0.006	3682.4	1.210	0.003	3739.3	1.197	0.003
3569.5	1.206	0.003	3626.4	1.201	0.003	3683.3	1.210	0.003	3740.2	1.198	0.003
3570.5	1.205	0.003	3627.4	1.202	0.003	3684.3	1.211	0.000	3741.2	1.198	0.006
3571.5	1.204	0.003	3628.4	1.202	0.003	3685.3	1.212	0.003	3742.2	1.196	0.006
3572.4	1.205	0.000	3629.3	1.203	0.003	3686.2	1.212	0.000	3743.1	1.196	0.003
3573.4	1.206	0.003	3630.3	1.204	0.003	3687.2	1.214	0.003	3744.1	1.197	0.003
3574.4	1.205	0.003	3631.3	1.204	0.006	3688.2	1.213	0.003	3745.1	1.198	0.003
3575.3	1.205	0.003	3632.2	1.202	0.006	3689.1	1.214	0.000	3746.0	1.199	0.003
3576.3	1.206	0.000	3633.2	1.201	0.006	3690.1	1.216	0.003	3747.0	1.198	0.006
3577.2	1.207	0.003	3634.2	1.201	0.003	3691.1	1.216	0.003	3748.0	1.198	0.003
3578.2	1.207	0.003	3635.1	1.202	0.003	3692.0	1.216	0.003	3748.9	1.198	0.003
3579.2	1.207	0.003	3636.1	1.203	0.003	3693.0	1.217	0.000	3749.9	1.199	0.003
3580.1	1.207	0.003	3637.0	1.203	0.003	3693.9	1.219	0.003	3759.5	1.201	0.003
3581.1	1.207	0.003	3638.0	1.203	0.003	3694.9	1.219	0.003	3769.2	1.201	0.000
3582.1	1.207	0.003	3639.0	1.204	0.003	3695.9	1.221	0.000	3778.8	1.202	0.003
3583.0	1.208	0.003	3639.9	1.204	0.003	3696.8	1.225	0.000	3788.5	1.204	0.003
3584.0	1.208	0.003	3640.9	1.204	0.003	3697.8	1.227	0.004	3798.1	1.204	0.000
3585.0	1.208	0.003	3641.9	1.205	0.003	3698.8	1.230	0.004	3807.8	1.207	0.000
3585.9	1.209	0.003	3642.8	1.205	0.003	3699.7	1.232	0.007	3817.4	1.207	0.000
3586.9	1.209	0.003	3643.8	1.206	0.003	3700.7	1.235	0.007	3827.0	1.208	0.003
3587.9	1.210	0.003	3644.8	1.206	0.006	3701.7	1.239	0.010	3836.7	1.207	0.000
3588.8	1.210	0.003	3645.7	1.204	0.006	3702.6	1.245	0.010	3846.3	1.209	0.003
3589.8	1.211	0.003	3646.7	1.204	0.003	3703.6	1.251	0.019	3856.0	1.210	0.000
3590.7	1.212	0.003	3647.7	1.206	0.003	3704.6	1.257	0.025	3865.6	1.211	0.003
3591.7	1.213	0.003	3648.6	1.206	0.006	3705.5	1.270	0.030	3875.3	1.211	0.000
3592.7	1.215	0.004	3649.6	1.206	0.006	3706.5	1.283	0.065	3884.9	1.211	0.003
3593.6	1.217	0.004	3650.5	1.205	0.006	3707.5	1.262	0.150	3894.6	1.212	0.003
3594.6	1.219	0.007	3651.5	1.205	0.006	3708.4	1.178	0.209	3904.2	1.213	0.000
3595.6	1.221	0.007	3652.5	1.205	0.006	3709.4	1.119	0.090	3913.9	1.212	0.003
3596.5	1.225	0.007	3653.4	1.205	0.006	3710.3	1.128	0.032	3923.5	1.214	0.003
3597.5	1.233	0.010	3654.4	1.205	0.006	3711.3	1.147	0.016	3933.1	1.215	0.003
3598.5	1.244	0.019	3655.4	1.204	0.006	3712.3	1.161	0.011	3942.8	1.214	0.003
3599.4	1.239	0.071	3656.3	1.204	0.006	3713.2	1.170	0.011	3952.4	1.216	0.003
3600.4	1.190	0.117	3657.3	1.205	0.003	3714.2	1.174	0.011	3962.1	1.215	0.003
3601.4	1.158	0.034	3658.3	1.205	0.006	3715.2	1.178	0.008	3971.7	1.215	0.000
3602.3	1.169	0.011	3659.2	1.205	0.006	3716.1	1.181	0.011	3981.4	1.216	0.003
3603.3	1.179	0.006	3660.2	1.204	0.006	3717.1	1.183	0.008	3991.0	1.216	0.003
3604.3	1.186	0.006	3661.2	1.204	0.006	3718.1	1.185	0.008			
3605.2	1.189	0.006	3662.1	1.204	0.003	3719.0	1.186	0.008			
3606.2	1.191	0.006	3663.1	1.204	0.006	3720.0	1.188	0.008			
3607.1	1.193	0.006	3664.1	1.204	0.003	3721.0	1.188	0.008			

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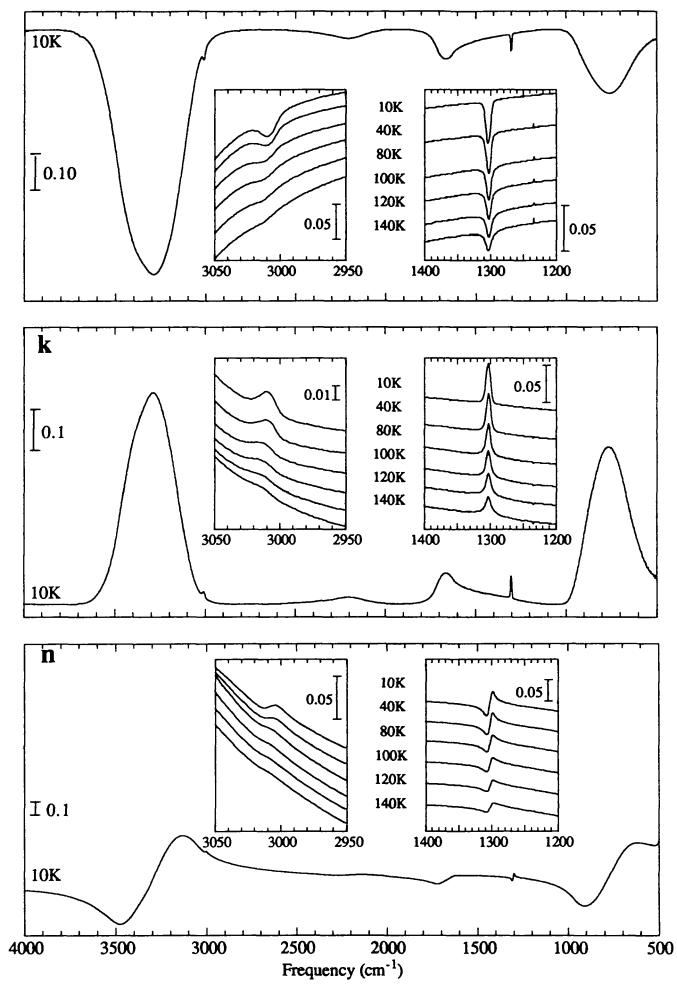

FIG. 13.—The 4000 to 500 cm^{-1} transmission spectrum and optical constants (n and k) of a $H_2O:CH_4$ = 20:1 ice mixture at 10 K. The insets show expansions of the CH_4 features in the 3050 to 2950 cm^{-1} and 1400 to 1200 cm^{-1} regions for the ice at temperatures of 10, 40, 80, 100, 120, and 140 K. The original ice was deposited at 10 K.

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TABLE 13A

$H_2O:CH_4$ = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
508.8	1.589	0.063	1020.9	1.241	0.000	1311.7	1.319	0.021	1693.6	1.301	0.064	2291.1	1.357	0.011	2858.2	1.441	0.000	3085.4	1.628	0.097	3542.5	1.039	0.072
517.4	1.582	0.072	1029.6	1.248	0.000	1314.6	1.325	0.018	1703.7	1.294	0.056	2301.2	1.357	0.011	2868.4	1.445	0.000	3088.3	1.631	0.103	3551.2	1.048	0.062
526.1	1.578	0.074	1038.3	1.256	0.000	1317.5	1.329	0.017	1713.9	1.291	0.047	2311.4	1.358	0.010	2878.5	1.449	0.000	3091.1	1.634	0.108	3559.9	1.058	0.053
534.8	1.579	0.077	1046.9	1.262	0.000	1320.4	1.331	0.017	1724.0	1.290	0.037	2321.5	1.359	0.009	2888.6	1.453	0.000	3094.0	1.637	0.115	3568.6	1.067	0.044
543.5	1.584	0.085	1055.6	1.268	0.000	1323.3	1.333	0.017	1734.1	1.292	0.027	2331.6	1.359	0.009	2898.7	1.458	0.001	3096.9	1.639	0.121	3577.2	1.076	0.037
552.2	1.585	0.091	1064.3	1.273	0.000	1326.2	1.334	0.017	1744.3	1.296	0.021	2341.8	1.360	0.009	2908.9	1.462	0.002	3099.8	1.642	0.128	3585.9	1.085	0.031
560.8	1.589	0.098	1073.0	1.278	0.000	1329.1	1.335	0.017	1754.4	1.300	0.016	2351.9	1.361	0.008	2919.0	1.467	0.002	3108.5	1.648	0.147	3594.6	1.094	0.025
569.5	1.591	0.108	1081.7	1.283	0.000	1331.9	1.337	0.017	1764.5	1.304	0.012	2362.0	1.361	0.007	2929.1	1.473	0.002	3117.2	1.652	0.169	3603.3	1.103	0.020
578.2	1.593	0.120	1090.3	1.287	0.000	1334.8	1.338	0.018	1774.6	1.308	0.009	2372.1	1.362	0.007	2939.2	1.479	0.003	3125.9	1.654	0.190	3612.0	1.111	0.016
586.9	1.596	0.130	1099.0	1.291	0.000	1337.7	1.338	0.018	1784.8	1.311	0.008	2382.3	1.363	0.007	2949.4	1.486	0.004	3134.6	1.655	0.214	3620.6	1.119	0.012
595.6	1.598	0.139	1107.7	1.295	0.000	1340.6	1.338	0.018	1794.9	1.314	0.006	2392.4	1.364	0.006	2952.3	1.488	0.004	3143.2	1.653	0.236	3629.3	1.127	0.010
604.3	1.598	0.153	1116.4	1.298	0.000	1343.5	1.339	0.018	1805.0	1.317	0.005	2402.5	1.364	0.005	2955.2	1.490	0.005	3151.9	1.650	0.260	3638.0	1.134	0.007
612.9	1.600	0.166	1125.1	1.301	0.000	1346.4	1.340	0.018	1815.1	1.320	0.004	2412.6	1.366	0.005	2958.1	1.492	0.005	3160.6	1.644	0.283	3646.7	1.141	0.006
621.6	1.600	0.182	1133.7	1.304	0.000	1349.3	1.341	0.019	1825.3	1.322	0.003	2422.8	1.366	0.005	2960.9	1.494	0.005	3169.3	1.636	0.306	3655.4	1.147	0.004
630.3	1.598	0.196	1142.4	1.307	0.002	1352.2	1.341	0.019	1835.4	1.325	0.002	2432.9	1.367	0.005	2963.8	1.496	0.006	3178.0	1.627	0.330	3664.1	1.153	0.003
639.0	1.596	0.209	1151.1	1.309	0.002	1355.1	1.341	0.019	1845.5	1.326	0.002	2443.0	1.368	0.004	2966.7	1.498	0.006	3186.6	1.615	0.352	3672.7	1.159	0.002
647.7	1.591	0.227	1159.8	1.312	0.002	1358.0	1.342	0.019	1855.7	1.329	0.002	2453.1	1.369	0.004	2969.6	1.501	0.007	3195.3	1.601	0.374	3681.4	1.165	0.002
656.3	1.584	0.243	1168.5	1.315	0.004	1360.9	1.342	0.019	1865.8	1.330	0.002	2463.3	1.370	0.004	2972.5	1.503	0.007	3204.0	1.585	0.394	3690.1	1.169	0.002
665.0	1.577	0.260	1177.1	1.317	0.004	1363.8	1.342	0.020	1875.9	1.332	0.001	2473.4	1.371	0.004	2975.4	1.506	0.008	3212.7	1.568	0.414	3698.8	1.173	0.002
673.7	1.567	0.276	1185.8	1.320	0.004	1366.7	1.343	0.020	1886.0	1.334	0.001	2483.5	1.372	0.004	2978.3	1.508	0.008	3221.4	1.548	0.433	3707.5	1.177	0.000
682.4	1.556	0.293	1194.5	1.322	0.005	1369.6	1.343	0.020	1896.2	1.335	0.001	2493.7	1.373	0.003	2981.2	1.511	0.009	3230.0	1.527	0.450	3716.1	1.181	0.000
691.1	1.542	0.306	1201.7	1.323	0.005	1372.5	1.344	0.021	1906.3	1.337	0.000	2503.8	1.374	0.003	2984.1	1.513	0.009	3238.7	1.504	0.465	3724.8	1.184	0.000
699.7	1.528	0.324	1204.6	1.324	0.005	1375.3	1.344	0.021	1916.4	1.338	0.000	2513.9	1.375	0.002	2987.0	1.516	0.010	3247.4	1.480	0.478	3733.5	1.189	0.000
708.4	1.510	0.336	1207.5	1.325	0.005	1378.2	1.344	0.021	1926.5	1.340	0.000	2524.0	1.377	0.002	2989.9	1.520	0.011	3256.1	1.456	0.489	3742.2	1.192	0.000
717.1	1.491	0.347	1210.4	1.326	0.005	1381.1	1.345	0.021	1936.7	1.341	0.000	2534.2	1.378	0.002	2992.8	1.523	0.012	3264.8	1.429	0.497	3750.9	1.196	0.000
725.8	1.473	0.359	1213.3	1.326	0.006	1384.0	1.345	0.022	1946.8	1.343	0.000	2544.3	1.379	0.002	2995.7	1.527	0.014	3273.4	1.402	0.505	3759.5	1.199	0.000
734.5	1.451	0.367	1216.2	1.327	0.006	1386.9	1.345	0.022	1956.9	1.344	0.001	2554.4	1.380	0.002	2998.6	1.531	0.016	3282.1	1.374	0.509	3768.2	1.202	0.000
743.1	1.429	0.375	1219.1	1.328	0.006	1389.8	1.345	0.022	1967.1	1.345	0.000	2564.5	1.381	0.002	3001.5	1.535	0.020	3290.8	1.346	0.509	3776.9	1.205	0.000
751.8	1.406	0.378	1222.0	1.329	0.006	1392.7	1.346	0.021	1977.2	1.346	0.002	2574.7	1.383	0.002	3004.3	1.537	0.025	3299.5	1.319	0.509	3785.6	1.207	0.000
760.5	1.383	0.379	1224.9	1.329	0.006	1395.6	1.346	0.022	1987.3	1.347	0.002	2584.8	1.384	0.001	3007.2	1.536	0.030	3308.2	1.293	0.505	3794.3	1.210	0.000
769.2	1.360	0.380	1227.8	1.330	0.007	1398.5	1.346	0.022	1997.4	1.349	0.002	2594.9	1.385	0.001	3010.1	1.535	0.032	3316.8	1.268	0.499	3802.9	1.212	0.000
777.9	1.336	0.376	1230.7	1.330	0.007	1410.1	1.347	0.023	2007.6	1.350	0.002	2605.1	1.387	0.000	3013.0	1.534	0.031	3325.5	1.244	0.491	3811.6	1.214	0.000
786.5	1.313	0.374	1233.6	1.331	0.007	1420.2	1.347	0.024	2017.7	1.351	0.002	2615.2	1.388	0.000	3015.9	1.535	0.028	3334.2	1.223	0.482	3820.3	1.217	0.000
795.2	1.291	0.365	1236.5	1.332	0.007	1430.3	1.348	0.025	2027.8	1.353	0.003	2625.3	1.390	0.000	3018.8	1.538	0.027	3342.9	1.202	0.474	3829.0	1.219	0.000
803.9	1.269	0.358	1239.4	1.333	0.009	1440.4	1.349	0.026	2037.9	1.354	0.004	2635.4	1.391	0.000	3021.7	1.541	0.026	3351.6	1.182	0.464	3837.7	1.221	0.000
812.6	1.249	0.346	1242.2	1.333	0.009	1450.6	1.349	0.027	2048.1	1.355	0.004	2645.6	1.393	0.000	3024.6	1.545	0.027	3360.2	1.162	0.455	3846.3	1.223	0.000
821.3	1.229	0.334	1245.1	1.334	0.009	1460.7	1.350	0.028	2058.2	1.356	0.004	2655.7	1.394	0.000	3027.5	1.549	0.027	3368.9	1.143	0.444	3855.0	1.225	0.000
829.9	1.212	0.322	1248.0	1.335	0.009	1470.8	1.351	0.028	2068.3	1.357	0.006	2665.8	1.396	0.000	3030.4	1.554	0.029	3377.6	1.125	0.433	3863.7	1.226	0.000
838.6	1.193	0.305	1250.9	1.336	0.010	1481.0	1.352	0.030	2078.4	1.358	0.006	2675.9	1.398	0.000	3033.3	1.558	0.031	3386.3	1.107	0.420	3872.4	1.228	0.000
847.3	1.178	0.290	1253.8	1.336	0.010	1491.1	1.352	0.031	2088.6	1.359	0.007	2686.1	1.400	0.000	3036.2	1.562	0.032	3395.0	1.088	0.407	3881.1	1.230	0.000
856.0	1.165	0.270	1256.7	1.336	0.010	1501.2	1.353	0.032	2098.7	1.360	0.008	2696.2	1.401	0.000	3039.1	1.566	0.034	3403.6	1.071	0.391	3889.7	1.231	0.000
864.7	1.154	0.252	1259.6	1.337	0.010	1511.3	1.354	0.033	2108.8	1.360	0.009	2706.3	1.403	0.000	3042.0	1.570	0.037	3412.3	1.054	0.374	3898.4	1.233	0.000
873.3	1.143	0.233	1262.5	1.338	0.010	1521.5	1.354	0.034	2119.0	1.361	0.010	2716.5	1.405	0.000	3044.9	1.574	0.039	3421.0	1.038	0.355	3907.1	1.234	0.000
882.0	1.135	0.211	1265.4	1.339	0.011	1531.6	1.354	0.036	2129.1	1.361	0.012	2726.6	1.407	0.000	3047.7	1.578	0.042	3429.7	1.024	0.335	3915.8	1.235	0.000
890.7	1.129	0.192	1268.3	1.340	0.011	1541.7	1.354	0.037	2139.2	1.361	0.012	2736.7	1.409	0.000	3050.6	1.582	0.045	3438.4	1.013	0.313	3924.5	1.237	0.000
899.4	1.125	0.171	1271.2	1.341	0.011	1551.8	1.355	0.038	2149.3	1.361	0.013	2746.8	1.411	0.000	3053.5	1.586	0.048	3447.0	1.002	0.291	3933.1	1.238	0.000
908.1	1.124	0.148	1274.1	1.342	0.012	1562.0	1.356	0.041	2159.5	1.361	0.015	2757.0	1.413	0.000	3056.4	1.590	0.051	3455.7	0.994	0.267	3941.8	1.239	0.000
916.7	1.125	0.128	1277.0	1.343	0.012	1572.1	1.355	0.043	2169.6	1.361	0.015	2767.1	1.415	0.000	3059.3	1.594	0.055	3464.4	0.989	0.243	3950.5	1.240	0.000
925.4	1.128	0.106	1279.9	1.344	0.012	1582.2	1.355	0.045	2179.7	1.360	0.016	2777.2	1.417	0.000	3062.2	1.598	0.058	3473.1	0.987	0.219	3959.2	1.242	0.000
934.1	1.134	0.086	1282.8	1.346	0.012	1592.4	1.355	0.048	2189.8	1.359	0.016	2787.3	1.420	0.000	3065.1	1.602	0.062	3481.8	0.987	0.195	3967.9	1.243	0.000
942.8	1.142	0.068	1285.6	1.347	0.013	1602.5	1.355	0.050	2200.0	1.359	0.017	2797.5	1.422	0.000	3068.0	1.606	0.067	3490.4	0.989	0.172	3976.5	1.244	0.000
951.5	1.152	0.051	1288.5	1.349	0.013	1612.6	1.355	0.055	2210.1	1.358	0.017	2807.6	1.425	0.000	3070.9	1.610	0.071	3499.1	0.995	0.151	3985.2	1.244	0.001
960.1	1.163	0.038	1291.4	1.353	0.014	1622.7	1.354	0.060	2220.2	1.357	0.017	2817.7	1.428	0.000	3073.8	1.614	0.076	3507.8	1.002	0.131	3993.9	1.245	0.000
968.8	1.176	0.026	1294.3	1.359	0.015	1632.9	1.350	0.066	2230.4	1.356	0.016	2827.8	1.431	0.000	3076.7	1.617	0.081	3516.5	1.010	0.114			
977.5	1.188	0.016	1297.2	1.368	0.024	1643.0	1.344	0.072	2240.5	1.356	0.015	2838.0	1.434	0.000	3079.6	1.621	0.086	3525.2	1.019	0.098			
986.2	1.201	0.010	1300.1	1.366	0.050	1653.1	1.335	0.073	2250.6	1.356	0.015	2848.1	1.437	0.000	3082.5	1.625	0.091	3533.8	1.028	0.084			
994.9	1.213	0.006	1303.0	1.344	0.068	1663.2	1.327	0.075	2260.7	1.356	0.014												
1003.5	1.224	0.003	1305.9	1.319	0.057	1673.4	1.318	0.074	2270.9	1.356	0.013												
1012.2	1.233	0.002	1308.8	1.313	0.033	1683.5	1.309	0.070	2281.0	1.356	0.012												

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TABLE 13B

$H_2O:CH_4$ = 20:1 AT 40 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
507.3	1.561	0.032	1019.5	1.238	0.000	1311.7	1.324	0.024	1693.6	1.307	0.063	2291.1	1.360	0.013	2858.2	1.450	0.000	3085.4	1.665	0.099	3542.5	1.038	0.054
516.0	1.562	0.038	1028.1	1.246	0.000	1314.6	1.329	0.020	1703.7	1.300	0.057	2301.2	1.360	0.012	2868.4	1.454	0.000	3088.3	1.669	0.106	3551.2	1.049	0.045
524.7	1.563	0.040	1036.8	1.254	0.000	1317.5	1.332	0.019	1713.9	1.296	0.048	2311.4	1.361	0.012	2878.5	1.458	0.000	3091.1	1.673	0.113	3559.9	1.060	0.038
533.4	1.567	0.044	1045.5	1.261	0.000	1320.4	1.335	0.019	1724.0	1.294	0.039	2321.5	1.362	0.011	2888.6	1.462	0.000	3094.0	1.677	0.121	3568.6	1.070	0.032
542.0	1.573	0.050	1054.2	1.268	0.000	1323.3	1.336	0.019	1734.1	1.295	0.029	2331.6	1.362	0.010	2898.7	1.467	0.000	3096.9	1.680	0.128	3577.2	1.079	0.026
550.7	1.577	0.056	1062.9	1.274	0.000	1326.2	1.338	0.019	1744.3	1.299	0.023	2341.8	1.363	0.010	2908.9	1.472	0.001	3099.8	1.684	0.136	3585.9	1.088	0.022
559.4	1.583	0.064	1071.5	1.278	0.000	1329.1	1.339	0.019	1754.4	1.302	0.017	2351.9	1.363	0.009	2919.0	1.478	0.001	3108.5	1.692	0.160	3594.6	1.097	0.017
568.1	1.587	0.072	1080.2	1.283	0.000	1331.9	1.340	0.019	1764.5	1.306	0.013	2362.0	1.364	0.009	2929.1	1.484	0.002	3117.2	1.697	0.186	3603.3	1.105	0.013
576.8	1.591	0.082	1088.9	1.287	0.000	1334.8	1.341	0.020	1774.6	1.310	0.011	2372.1	1.365	0.008	2939.2	1.491	0.002	3125.9	1.700	0.214	3612.0	1.113	0.011
585.4	1.596	0.089	1097.6	1.291	0.000	1337.7	1.341	0.020	1784.8	1.313	0.009	2382.3	1.366	0.007	2949.4	1.498	0.003	3134.6	1.700	0.242	3620.6	1.121	0.008
594.1	1.600	0.103	1106.3	1.295	0.000	1340.6	1.342	0.020	1794.9	1.316	0.007	2392.4	1.366	0.007	2952.3	1.500	0.004	3143.2	1.698	0.270	3629.3	1.128	0.006
602.8	1.605	0.112	1114.9	1.299	0.000	1343.5	1.343	0.020	1805.0	1.319	0.005	2402.5	1.368	0.007	2955.2	1.502	0.004	3151.9	1.692	0.298	3638.0	1.135	0.004
611.5	1.609	0.125	1123.6	1.302	0.002	1346.4	1.343	0.021	1815.1	1.322	0.005	2412.6	1.369	0.006	2958.1	1.504	0.004	3160.6	1.684	0.327	3646.7	1.142	0.003
620.2	1.612	0.136	1132.3	1.305	0.002	1349.3	1.344	0.021	1825.3	1.324	0.004	2422.8	1.370	0.006	2960.9	1.506	0.004	3169.3	1.674	0.354	3655.4	1.148	0.002
628.8	1.614	0.151	1141.0	1.308	0.002	1352.2	1.344	0.021	1835.4	1.326	0.003	2432.9	1.371	0.005	2963.8	1.509	0.005	3178.0	1.661	0.382	3664.1	1.153	0.001
637.5	1.616	0.168	1149.7	1.311	0.003	1355.1	1.345	0.022	1845.5	1.329	0.003	2443.0	1.372	0.005	2966.7	1.511	0.005	3186.6	1.645	0.408	3672.7	1.159	0.000
646.2	1.615	0.186	1158.3	1.314	0.004	1358.0	1.345	0.022	1855.7	1.331	0.002	2453.1	1.373	0.005	2969.6	1.513	0.006	3195.3	1.628	0.434	3681.4	1.164	0.000
654.9	1.615	0.203	1167.0	1.316	0.004	1360.9	1.345	0.022	1865.8	1.332	0.002	2463.3	1.373	0.005	2972.5	1.516	0.006	3204.0	1.608	0.457	3690.1	1.168	0.000
663.6	1.612	0.223	1175.7	1.320	0.004	1363.8	1.346	0.022	1875.9	1.334	0.001	2473.4	1.375	0.004	2975.4	1.519	0.007	3212.7	1.586	0.479	3698.8	1.172	0.000
672.2	1.605	0.241	1184.4	1.321	0.005	1366.7	1.346	0.023	1886.0	1.336	0.001	2483.5	1.376	0.004	2978.3	1.521	0.007	3221.4	1.562	0.501	3707.5	1.176	0.000
680.9	1.597	0.261	1193.1	1.324	0.005	1369.6	1.346	0.023	1896.2	1.338	0.001	2493.7	1.377	0.004	2981.2	1.524	0.008	3230.0	1.536	0.520	3716.1	1.180	0.000
689.6	1.588	0.279	1201.7	1.326	0.006	1372.5	1.347	0.023	1906.3	1.339	0.001	2503.8	1.378	0.003	2984.1	1.527	0.008	3238.7	1.507	0.538	3724.8	1.184	0.000
698.3	1.576	0.299	1204.6	1.327	0.006	1375.3	1.347	0.024	1916.4	1.340	0.000	2513.9	1.379	0.003	2987.0	1.530	0.009	3247.4	1.477	0.553	3733.5	1.187	0.000
707.0	1.562	0.318	1207.5	1.328	0.006	1378.2	1.347	0.024	1926.5	1.342	0.000	2524.0	1.380	0.003	2989.9	1.533	0.010	3256.1	1.444	0.566	3742.2	1.191	0.000
715.6	1.545	0.334	1210.4	1.329	0.006	1381.1	1.347	0.024	1936.7	1.344	0.002	2534.2	1.381	0.002	2992.8	1.537	0.011	3264.8	1.409	0.575	3750.9	1.194	0.000
724.3	1.526	0.350	1213.3	1.330	0.007	1384.0	1.347	0.024	1946.8	1.345	0.002	2544.3	1.383	0.002	2995.7	1.540	0.012	3273.4	1.374	0.580	3759.5	1.197	0.000
733.0	1.506	0.365	1216.2	1.330	0.007	1386.9	1.348	0.025	1956.9	1.346	0.002	2554.4	1.384	0.002	2998.6	1.545	0.014	3282.1	1.338	0.581	3768.2	1.200	0.000
741.7	1.483	0.375	1219.1	1.331	0.007	1389.8	1.348	0.025	1967.1	1.348	0.002	2564.5	1.385	0.002	3001.5	1.549	0.017	3290.8	1.303	0.578	3776.9	1.203	0.000
750.4	1.459	0.386	1222.0	1.331	0.007	1392.7	1.348	0.025	1977.2	1.349	0.002	2574.7	1.387	0.002	3004.3	1.551	0.021	3299.5	1.268	0.569	3785.6	1.205	0.000
759.0	1.432	0.392	1224.9	1.333	0.007	1395.6	1.349	0.026	1987.3	1.350	0.002	2584.8	1.388	0.002	3007.2	1.552	0.025	3308.2	1.238	0.559	3794.3	1.208	0.000
767.7	1.407	0.396	1227.8	1.333	0.009	1398.5	1.349	0.026	1997.4	1.351	0.002	2594.9	1.389	0.001	3010.1	1.552	0.026	3316.8	1.210	0.546	3802.9	1.210	0.000
776.4	1.381	0.398	1230.7	1.334	0.009	1410.1	1.349	0.026	2007.6	1.353	0.002	2605.1	1.391	0.000	3013.0	1.552	0.026	3325.5	1.184	0.531	3811.6	1.212	0.000
785.1	1.356	0.397	1233.6	1.334	0.010	1420.2	1.350	0.027	2017.7	1.354	0.002	2615.2	1.393	0.000	3015.9	1.554	0.026	3334.2	1.161	0.516	3820.3	1.214	0.000
793.8	1.331	0.394	1236.5	1.335	0.010	1430.3	1.351	0.028	2027.8	1.356	0.002	2625.3	1.394	0.000	3018.8	1.557	0.025	3342.9	1.140	0.501	3829.0	1.216	0.000
802.5	1.305	0.390	1239.4	1.335	0.010	1440.4	1.352	0.030	2037.9	1.357	0.003	2635.4	1.396	0.000	3021.7	1.560	0.025	3351.6	1.121	0.485	3837.7	1.218	0.000
811.1	1.280	0.382	1242.2	1.336	0.010	1450.6	1.351	0.030	2048.1	1.358	0.004	2645.6	1.398	0.000	3024.6	1.564	0.025	3360.2	1.102	0.470	3846.3	1.220	0.000
819.8	1.256	0.371	1245.1	1.337	0.010	1460.7	1.352	0.031	2058.2	1.359	0.004	2655.7	1.399	0.000	3027.5	1.569	0.025	3368.9	1.085	0.454	3855.0	1.222	0.000
828.5	1.233	0.357	1248.0	1.338	0.010	1470.8	1.352	0.032	2068.3	1.360	0.005	2665.8	1.401	0.000	3030.4	1.573	0.026	3377.6	1.067	0.439	3863.7	1.224	0.000
837.2	1.212	0.343	1250.9	1.338	0.011	1481.0	1.353	0.033	2078.4	1.361	0.006	2675.9	1.403	0.000	3033.3	1.578	0.028	3386.3	1.050	0.423	3872.4	1.226	0.000
845.9	1.193	0.328	1253.8	1.339	0.011	1491.1	1.353	0.034	2088.6	1.363	0.007	2686.1	1.405	0.000	3036.2	1.582	0.029	3395.0	1.033	0.404	3881.1	1.227	0.000
854.5	1.175	0.311	1256.7	1.340	0.011	1501.2	1.354	0.036	2098.7	1.363	0.008	2696.2	1.407	0.000	3039.1	1.587	0.031	3403.6	1.018	0.385	3889.7	1.229	0.000
863.2	1.159	0.289	1259.6	1.341	0.012	1511.3	1.354	0.036	2108.8	1.364	0.009	2706.3	1.409	0.000	3042.0	1.592	0.033	3412.3	1.002	0.364	3898.4	1.230	0.000
871.9	1.145	0.270	1262.5	1.341	0.012	1521.5	1.354	0.037	2119.0	1.365	0.010	2716.5	1.411	0.000	3044.9	1.597	0.036	3421.0	0.988	0.343	3907.1	1.232	0.000
880.6	1.133	0.246	1265.4	1.342	0.012	1531.6	1.354	0.040	2129.1	1.366	0.011	2726.6	1.413	0.000	3047.7	1.602	0.038	3429.7	0.976	0.319	3915.8	1.233	0.000
889.3	1.123	0.224	1268.3	1.343	0.012	1541.7	1.355	0.041	2139.2	1.366	0.012	2736.7	1.415	0.000	3050.6	1.607	0.041	3438.4	0.968	0.293	3924.5	1.234	0.000
897.9	1.117	0.200	1271.2	1.344	0.013	1551.8	1.354	0.042	2149.3	1.366	0.013	2746.8	1.417	0.000	3053.5	1.612	0.044	3447.0	0.961	0.267	3933.1	1.236	0.000
906.6	1.113	0.174	1274.1	1.345	0.013	1562.0	1.355	0.044	2159.5	1.366	0.015	2757.0	1.419	0.000	3056.4	1.617	0.048	3455.7	0.957	0.240	3941.8	1.237	0.000
915.3	1.111	0.149	1277.0	1.346	0.013	1572.1	1.354	0.045	2169.6	1.366	0.016	2767.1	1.422	0.000	3059.3	1.622	0.052	3464.4	0.957	0.213	3950.5	1.238	0.000
924.0	1.113	0.125	1279.9	1.347	0.014	1582.2	1.353	0.048	2179.7	1.365	0.017	2777.2	1.424	0.000	3062.2	1.627	0.056	3473.1	0.960	0.187	3959.2	1.239	0.000
932.7	1.118	0.101	1282.8	1.349	0.014	1592.4	1.352	0.050	2189.8	1.364	0.018	2787.3	1.427	0.000	3065.1	1.632	0.060	3481.8	0.965	0.163	3967.9	1.240	0.000
941.3	1.125	0.079	1285.6	1.350	0.015	1602.5	1.352	0.052	2200.0	1.364	0.018	2797.5	1.430	0.000	3068.0	1.637	0.064	3490.4	0.972	0.141	3976.5	1.241	0.000
950.0	1.136	0.059	1288.5	1.353	0.015	1612.6	1.350	0.055	2210.1	1.362	0.019	2807.6	1.433	0.000	3070.9	1.642	0.069	3499.1	0.982	0.121	3985.2	1.242	0.001
958.7	1.149	0.043	1291.4	1.356	0.018	1622.7	1.349	0.057	2220.2	1.361	0.019	2817.7	1.436	0.000	3073.8	1.647	0.075	3507.8	0.993	0.103	3993.9	1.243	0.001
967.4	1.164	0.029	1294.3	1.361	0.020	1632.9	1.347	0.061	2230.4	1.361	0.018	2827.8	1.439	0.000	3076.7	1.651	0.080	3516.5	1.005	0.088			
976.1	1.178	0.017	1297.2	1.368	0.028	1643.0	1.343	0.066	2240.5	1.360	0.017	2838.0	1.442	0.000	3079.6	1.656	0.086	3525.2	1.015	0.075			
984.7	1.193	0.011	1300.1	1.367	0.053	1653.1	1.336	0.067	2250.6	1.359	0.017	2848.1	1.446	0.000	3082.5	1.661	0.092	3533.8	1.027	0.063			
993.4	1.207	0.005	1303.0	1.343	0.068	1663.2	1.329	0.069	2260.7	1.359	0.016												
1002.1	1.219	0.003	1305.9	1.322	0.051	1673.4	1.322	0.069	2270.9	1.359	0.015												
1010.8	1.230	0.000	1308.8	1.319	0.033	1683.5	1.314	0.067	2281.0	1.359	0.014												

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TABLE 13C

$H_2O:CH_4$ = 20:1 AT 80 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
507.3	1.523	0.002	1019.5	1.236	0.000	1311.7	1.333	0.027	1693.6	1.315	0.057	2291.1	1.365	0.016	2858.2	1.465	0.000	3085.4	1.723	0.102	3542.5	1.044	0.031
516.0	1.534	0.007	1028.1	1.246	0.000	1314.6	1.337	0.024	1703.8	1.309	0.053	2301.2	1.365	0.015	2868.4	1.469	0.000	3088.3	1.729	0.110	3551.2	1.055	0.026
524.7	1.536	0.009	1036.8	1.255	0.000	1317.5	1.339	0.024	1713.9	1.305	0.047	2311.4	1.366	0.014	2878.5	1.474	0.000	3091.1	1.736	0.118	3559.9	1.066	0.021
533.4	1.541	0.016	1045.5	1.263	0.000	1320.4	1.341	0.023	1724.0	1.303	0.040	2321.5	1.367	0.014	2888.6	1.479	0.000	3094.0	1.742	0.128	3568.6	1.076	0.018
542.0	1.549	0.016	1054.2	1.269	0.000	1323.3	1.342	0.023	1734.1	1.303	0.032	2331.6	1.367	0.013	2898.7	1.485	0.001	3096.9	1.747	0.138	3577.2	1.085	0.014
550.7	1.554	0.022	1062.9	1.275	0.000	1326.2	1.344	0.023	1744.3	1.304	0.025	2341.8	1.368	0.012	2908.9	1.491	0.002	3099.8	1.752	0.148	3585.9	1.093	0.011
559.4	1.561	0.026	1071.5	1.280	0.001	1329.1	1.345	0.023	1754.4	1.307	0.020	2351.9	1.368	0.011	2919.0	1.497	0.002	3108.5	1.765	0.181	3594.6	1.101	0.009
568.1	1.566	0.032	1080.2	1.285	0.001	1331.9	1.345	0.022	1764.5	1.310	0.016	2362.0	1.369	0.010	2929.1	1.504	0.003	3117.2	1.774	0.217	3603.3	1.109	0.007
576.8	1.573	0.036	1088.9	1.289	0.003	1334.8	1.346	0.024	1774.6	1.313	0.013	2372.1	1.370	0.010	2939.2	1.511	0.004	3125.9	1.778	0.255	3612.0	1.117	0.005
585.4	1.580	0.044	1097.6	1.292	0.002	1337.7	1.347	0.023	1784.8	1.317	0.010	2382.3	1.371	0.009	2949.4	1.518	0.005	3134.6	1.778	0.293	3620.6	1.123	0.003
594.1	1.587	0.051	1106.3	1.296	0.003	1340.6	1.347	0.023	1794.9	1.320	0.009	2392.4	1.372	0.008	2952.3	1.521	0.005	3143.2	1.773	0.333	3629.3	1.130	0.002
602.8	1.593	0.059	1114.9	1.301	0.003	1343.5	1.348	0.023	1805.0	1.322	0.007	2402.5	1.373	0.008	2955.2	1.523	0.005	3151.9	1.763	0.372	3638.0	1.136	0.000
611.5	1.600	0.068	1123.6	1.304	0.003	1346.4	1.349	0.024	1815.1	1.325	0.006	2412.6	1.374	0.008	2958.1	1.526	0.005	3160.6	1.749	0.408	3646.7	1.142	0.000
620.2	1.608	0.079	1132.3	1.307	0.003	1349.3	1.349	0.024	1825.3	1.327	0.005	2422.8	1.375	0.007	2960.9	1.528	0.006	3169.3	1.733	0.445	3655.4	1.148	0.000
628.8	1.614	0.089	1141.0	1.310	0.003	1352.2	1.350	0.025	1835.4	1.330	0.004	2432.9	1.376	0.007	2963.8	1.531	0.006	3178.0	1.712	0.477	3664.1	1.153	0.000
637.5	1.622	0.102	1149.7	1.314	0.005	1355.1	1.350	0.025	1845.5	1.332	0.003	2443.0	1.377	0.006	2966.7	1.533	0.007	3186.6	1.690	0.508	3672.7	1.158	0.000
646.2	1.629	0.116	1158.3	1.316	0.005	1358.0	1.350	0.025	1855.7	1.334	0.003	2453.1	1.378	0.006	2969.6	1.536	0.007	3195.3	1.665	0.538	3681.4	1.163	0.000
654.9	1.633	0.132	1167.0	1.319	0.005	1360.9	1.350	0.026	1865.8	1.336	0.002	2463.3	1.379	0.006	2972.5	1.539	0.008	3204.0	1.639	0.567	3690.1	1.167	0.000
663.6	1.639	0.150	1175.7	1.323	0.005	1363.8	1.351	0.026	1875.9	1.338	0.002	2473.4	1.380	0.005	2975.4	1.542	0.009	3212.7	1.609	0.594	3698.8	1.171	0.000
672.2	1.640	0.171	1184.4	1.324	0.006	1366.7	1.351	0.026	1886.0	1.339	0.001	2483.5	1.381	0.005	2978.3	1.544	0.009	3221.4	1.577	0.621	3707.5	1.175	0.000
680.9	1.642	0.191	1193.1	1.328	0.008	1369.6	1.351	0.027	1896.2	1.341	0.001	2493.7	1.383	0.005	2981.2	1.547	0.009	3230.0	1.542	0.646	3716.1	1.178	0.000
689.6	1.641	0.214	1201.7	1.329	0.008	1372.5	1.351	0.027	1906.3	1.343	0.000	2503.8	1.384	0.004	2984.1	1.551	0.010	3238.7	1.503	0.671	3724.8	1.182	0.000
698.3	1.637	0.236	1204.6	1.330	0.008	1375.3	1.352	0.027	1916.4	1.344	0.000	2513.9	1.385	0.004	2987.0	1.554	0.011	3247.4	1.457	0.691	3733.5	1.185	0.000
707.0	1.630	0.262	1207.5	1.331	0.008	1378.2	1.352	0.028	1926.5	1.346	0.000	2524.0	1.387	0.003	2989.9	1.557	0.012	3256.1	1.409	0.706	3742.2	1.188	0.000
715.6	1.620	0.287	1210.4	1.332	0.009	1381.1	1.352	0.028	1936.7	1.348	0.000	2534.2	1.388	0.003	2992.8	1.561	0.012	3264.8	1.355	0.714	3750.9	1.191	0.000
724.3	1.607	0.310	1213.3	1.333	0.009	1384.0	1.353	0.028	1946.8	1.349	0.002	2544.3	1.389	0.003	2995.7	1.564	0.013	3273.4	1.300	0.714	3759.5	1.194	0.000
733.0	1.590	0.334	1216.2	1.333	0.009	1386.9	1.353	0.029	1956.9	1.351	0.002	2554.4	1.391	0.003	2998.6	1.568	0.015	3282.1	1.245	0.703	3768.2	1.197	0.000
741.7	1.570	0.355	1219.1	1.334	0.009	1389.8	1.353	0.029	1967.1	1.352	0.002	2564.5	1.392	0.002	3001.5	1.572	0.017	3290.8	1.194	0.684	3776.9	1.200	0.000
750.4	1.547	0.374	1222.0	1.335	0.009	1392.7	1.354	0.030	1977.2	1.353	0.002	2574.7	1.394	0.002	3004.3	1.576	0.019	3299.5	1.152	0.656	3785.6	1.202	0.000
759.0	1.523	0.392	1224.9	1.336	0.010	1395.6	1.353	0.030	1987.3	1.355	0.002	2584.8	1.395	0.002	3007.2	1.578	0.022	3308.2	1.117	0.626	3794.3	1.204	0.000
767.7	1.497	0.406	1227.8	1.336	0.010	1398.5	1.354	0.030	1997.4	1.356	0.002	2594.9	1.397	0.001	3010.1	1.581	0.024	3316.8	1.088	0.596	3802.9	1.207	0.000
776.4	1.467	0.415	1230.7	1.337	0.010	1410.1	1.354	0.032	2007.6	1.357	0.002	2605.1	1.399	0.001	3013.0	1.582	0.025	3325.5	1.065	0.565	3811.6	1.209	0.000
785.1	1.438	0.423	1233.6	1.338	0.010	1420.2	1.355	0.033	2017.7	1.359	0.002	2615.2	1.400	0.001	3015.9	1.584	0.026	3334.2	1.047	0.537	3820.3	1.211	0.000
793.8	1.407	0.428	1236.5	1.340	0.011	1430.3	1.355	0.034	2027.8	1.360	0.002	2625.3	1.402	0.001	3018.8	1.587	0.026	3342.9	1.032	0.513	3829.0	1.213	0.000
802.5	1.377	0.429	1239.4	1.340	0.011	1440.4	1.355	0.035	2037.9	1.362	0.003	2635.4	1.404	0.000	3021.7	1.591	0.026	3351.6	1.018	0.489	3837.7	1.215	0.000
811.1	1.346	0.427	1242.2	1.341	0.011	1450.6	1.355	0.036	2048.1	1.363	0.003	2645.6	1.406	0.000	3024.6	1.595	0.026	3360.2	1.005	0.467	3846.3	1.217	0.000
819.8	1.316	0.423	1245.1	1.342	0.012	1460.7	1.355	0.037	2058.2	1.364	0.004	2655.7	1.408	0.000	3027.5	1.599	0.027	3368.9	0.993	0.446	3855.0	1.219	0.000
828.5	1.286	0.416	1248.0	1.342	0.012	1470.8	1.355	0.037	2068.3	1.365	0.004	2665.8	1.410	0.000	3030.4	1.604	0.027	3377.6	0.980	0.426	3863.7	1.220	0.000
837.2	1.257	0.404	1250.9	1.342	0.012	1481.0	1.356	0.039	2078.4	1.367	0.005	2675.9	1.412	0.000	3033.3	1.609	0.028	3386.3	0.966	0.406	3872.4	1.222	0.000
845.9	1.230	0.391	1253.8	1.344	0.012	1491.1	1.355	0.040	2088.6	1.368	0.006	2686.1	1.414	0.000	3036.2	1.614	0.029	3395.0	0.952	0.383	3881.1	1.224	0.000
854.5	1.203	0.373	1256.7	1.344	0.013	1501.2	1.355	0.042	2098.7	1.369	0.007	2696.2	1.416	0.000	3039.1	1.620	0.031	3403.6	0.939	0.358	3889.7	1.225	0.000
863.2	1.178	0.355	1259.6	1.345	0.013	1511.3	1.355	0.042	2108.8	1.370	0.008	2706.3	1.419	0.000	3042.0	1.625	0.033	3412.3	0.928	0.332	3898.4	1.227	0.000
871.9	1.156	0.334	1262.5	1.346	0.013	1521.5	1.355	0.043	2119.0	1.371	0.009	2716.5	1.421	0.000	3044.9	1.631	0.035	3421.0	0.919	0.305	3907.1	1.228	0.000
880.6	1.136	0.308	1265.4	1.347	0.014	1531.6	1.354	0.045	2129.1	1.372	0.010	2726.6	1.423	0.000	3047.7	1.637	0.037	3429.7	0.912	0.275	3915.8	1.230	0.000
889.3	1.118	0.281	1268.3	1.348	0.014	1541.7	1.354	0.045	2139.2	1.373	0.012	2736.7	1.426	0.000	3050.6	1.643	0.040	3438.4	0.910	0.245	3924.5	1.231	0.000
897.9	1.105	0.252	1271.2	1.349	0.016	1551.8	1.353	0.047	2149.3	1.373	0.013	2746.8	1.428	0.000	3053.5	1.649	0.043	3447.0	0.910	0.215	3933.1	1.232	0.000
906.6	1.094	0.221	1274.1	1.349	0.016	1562.0	1.353	0.049	2159.5	1.374	0.015	2757.0	1.431	0.000	3056.4	1.655	0.046	3455.7	0.915	0.184	3941.8	1.233	0.000
915.3	1.088	0.191	1277.0	1.351	0.016	1572.1	1.352	0.050	2169.6	1.374	0.017	2767.1	1.433	0.000	3059.3	1.662	0.049	3464.4	0.924	0.158	3950.5	1.234	0.000
924.0	1.087	0.159	1279.9	1.352	0.017	1582.2	1.351	0.052	2179.7	1.373	0.018	2777.2	1.436	0.000	3062.2	1.668	0.054	3473.1	0.935	0.133	3959.2	1.236	0.000
932.7	1.091	0.128	1282.8	1.353	0.018	1592.4	1.349	0.053	2189.8	1.373	0.019	2787.3	1.439	0.000	3065.1	1.675	0.058	3481.8	0.948	0.111	3967.9	1.237	0.000
941.3	1.099	0.098	1285.6	1.355	0.018	1602.5	1.348	0.054	2200.0	1.372	0.021	2797.5	1.442	0.000	3068.0	1.682	0.063	3490.4	0.963	0.092	3976.5	1.238	0.000
950.0	1.112	0.072	1288.5	1.357	0.019	1612.6	1.346	0.056	2210.1	1.370	0.021	2807.6	1.446	0.000	3070.9	1.689	0.068	3499.1	0.977	0.077	3985.2	1.239	0.000
958.7	1.127	0.049	1291.4	1.359	0.021	1622.7	1.344	0.057	2220.2	1.369	0.022	2817.7	1.449	0.000	3073.8	1.696	0.073	3507.8	0.992	0.064	3993.9	1.239	0.000
967.4	1.145	0.031	1294.3	1.363	0.024	1632.9	1.341	0.059	2230.4	1.368	0.022	2827.8	1.452	0.000	3076.7	1.703	0.080	3516.5	1.006	0.053			
976.1	1.163	0.018	1297.2	1.367	0.030	1643.0	1.338	0.060	2240.5	1.366	0.021	2838.0	1.456	0.000	3079.6	1.710	0.087	3525.2	1.020	0.044			
984.7	1.181	0.011	1300.1	1.367	0.047	1653.1	1.334	0.061	2250.6	1.366	0.020	2848.1	1.460	0.000	3082.5	1.717	0.094	3533.8	1.032	0.037			
993.4	1.197	0.003	1303.0	1.349	0.062	1663.2	1.330	0.061	2260.7	1.365	0.020												
1002.1	1.213	0.000	1305.9	1.331	0.049	1673.4	1.326	0.062	2270.9	1.365	0.018												
1010.8	1.225	0.000	1308.8	1.329	0.033	1683.5	1.320	0.059	2281.0	1.365	0.017												

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TABLE 13D

$H_2O:CH_4$ = 20:1 AT 100 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
507.3	1.515	0.000	1019.5	1.236	0.000	1311.7	1.336	0.027	1693.6	1.316	0.056	2291.1	1.366	0.016	2858.2	1.469	0.000	3085.4	1.731	0.104	3542.5	1.046	0.027
516.0	1.523	0.005	1028.1	1.247	0.000	1314.6	1.339	0.025	1703.8	1.311	0.052	2301.2	1.366	0.016	2868.4	1.474	0.000	3088.3	1.737	0.112	3551.2	1.057	0.022
524.7	1.529	0.005	1036.8	1.255	0.000	1317.5	1.341	0.024	1713.9	1.307	0.046	2311.4	1.367	0.014	2878.5	1.479	0.000	3091.1	1.744	0.120	3559.9	1.067	0.018
533.4	1.534	0.004	1045.5	1.263	0.000	1320.4	1.343	0.024	1724.0	1.305	0.040	2321.5	1.367	0.014	2888.6	1.484	0.000	3094.0	1.751	0.129	3568.6	1.077	0.015
542.0	1.541	0.009	1054.2	1.270	0.000	1323.3	1.344	0.024	1734.1	1.304	0.032	2331.6	1.368	0.013	2898.7	1.490	0.001	3096.9	1.757	0.140	3577.2	1.086	0.012
550.7	1.546	0.013	1062.9	1.275	0.000	1326.2	1.345	0.024	1744.3	1.306	0.025	2341.8	1.369	0.012	2908.9	1.496	0.002	3099.8	1.762	0.150	3585.9	1.094	0.009
559.4	1.554	0.017	1071.5	1.281	0.001	1329.1	1.346	0.024	1754.4	1.308	0.020	2351.9	1.369	0.012	2919.0	1.503	0.002	3108.5	1.778	0.184	3594.6	1.102	0.007
568.1	1.562	0.021	1080.2	1.286	0.003	1331.9	1.347	0.024	1764.5	1.312	0.016	2362.0	1.370	0.010	2929.1	1.510	0.003	3117.2	1.788	0.222	3603.3	1.110	0.005
576.8	1.570	0.025	1088.9	1.290	0.003	1334.8	1.348	0.025	1774.6	1.315	0.014	2372.1	1.371	0.010	2939.2	1.517	0.005	3125.9	1.794	0.262	3612.0	1.117	0.004
585.4	1.575	0.035	1097.6	1.293	0.003	1337.7	1.348	0.025	1784.8	1.318	0.010	2382.3	1.372	0.009	2949.4	1.525	0.006	3134.6	1.794	0.304	3620.6	1.124	0.002
594.1	1.583	0.041	1106.3	1.297	0.003	1340.6	1.349	0.025	1794.9	1.321	0.009	2392.4	1.373	0.008	2952.3	1.527	0.006	3143.2	1.788	0.345	3629.3	1.130	0.000
602.8	1.590	0.048	1114.9	1.301	0.003	1343.5	1.349	0.025	1805.0	1.323	0.007	2402.5	1.374	0.008	2955.2	1.530	0.007	3151.9	1.778	0.386	3638.0	1.137	0.000
611.5	1.597	0.055	1123.6	1.305	0.005	1346.4	1.350	0.026	1815.1	1.326	0.006	2412.6	1.375	0.008	2958.1	1.532	0.007	3160.6	1.763	0.426	3646.7	1.142	0.000
620.2	1.605	0.064	1132.3	1.308	0.005	1349.3	1.350	0.025	1825.3	1.328	0.005	2422.8	1.376	0.008	2960.9	1.535	0.008	3169.3	1.744	0.464	3655.4	1.148	0.000
628.8	1.612	0.075	1141.0	1.311	0.005	1352.2	1.351	0.025	1835.4	1.331	0.004	2432.9	1.377	0.007	2963.8	1.537	0.008	3178.0	1.722	0.498	3664.1	1.153	0.000
637.5	1.621	0.087	1149.7	1.314	0.005	1355.1	1.351	0.026	1845.5	1.333	0.004	2443.0	1.378	0.007	2966.7	1.540	0.009	3186.6	1.698	0.531	3672.7	1.158	0.000
646.2	1.628	0.102	1158.3	1.317	0.005	1358.0	1.351	0.026	1855.7	1.335	0.003	2453.1	1.379	0.006	2969.6	1.543	0.009	3195.3	1.671	0.562	3681.4	1.163	0.000
654.9	1.636	0.116	1167.0	1.320	0.005	1360.9	1.352	0.026	1865.8	1.336	0.002	2463.3	1.380	0.006	2972.5	1.546	0.010	3204.0	1.643	0.591	3690.1	1.167	0.000
663.6	1.642	0.134	1175.7	1.323	0.006	1363.8	1.352	0.027	1875.9	1.339	0.002	2473.4	1.381	0.005	2975.4	1.548	0.011	3212.7	1.613	0.620	3698.8	1.170	0.000
672.2	1.645	0.154	1184.4	1.325	0.006	1366.7	1.352	0.027	1886.0	1.340	0.002	2483.5	1.383	0.005	2978.3	1.551	0.011	3221.4	1.580	0.648	3707.5	1.174	0.000
680.9	1.649	0.173	1193.1	1.328	0.008	1369.6	1.353	0.027	1896.2	1.342	0.001	2493.7	1.384	0.005	2981.2	1.554	0.012	3230.0	1.542	0.675	3716.1	1.178	0.000
689.6	1.650	0.195	1201.7	1.330	0.008	1372.5	1.353	0.028	1906.3	1.344	0.002	2503.8	1.385	0.004	2984.1	1.557	0.013	3238.7	1.500	0.699	3724.8	1.182	0.000
698.3	1.649	0.220	1204.6	1.332	0.008	1375.3	1.353	0.028	1916.4	1.345	0.002	2513.9	1.387	0.004	2987.0	1.560	0.013	3247.4	1.452	0.721	3733.5	1.185	0.000
707.0	1.645	0.247	1207.5	1.332	0.009	1378.2	1.354	0.029	1926.5	1.347	0.000	2524.0	1.388	0.003	2989.9	1.564	0.015	3256.1	1.398	0.739	3742.2	1.188	0.000
715.6	1.637	0.273	1210.4	1.333	0.009	1381.1	1.354	0.029	1936.7	1.349	0.002	2534.2	1.389	0.003	2992.8	1.567	0.016	3264.8	1.338	0.744	3750.9	1.191	0.000
724.3	1.625	0.298	1213.3	1.333	0.009	1384.0	1.354	0.029	1946.8	1.350	0.002	2544.3	1.391	0.003	2995.7	1.571	0.017	3273.4	1.279	0.742	3759.5	1.194	0.000
733.0	1.610	0.323	1216.2	1.334	0.009	1386.9	1.354	0.030	1956.9	1.351	0.002	2554.4	1.392	0.003	2998.6	1.574	0.018	3282.1	1.219	0.727	3768.2	1.197	0.000
741.7	1.591	0.346	1219.1	1.335	0.009	1389.8	1.354	0.030	1967.1	1.353	0.002	2564.5	1.393	0.002	3001.5	1.578	0.019	3290.8	1.166	0.702	3776.9	1.199	0.000
750.4	1.570	0.369	1222.0	1.336	0.009	1392.7	1.355	0.031	1977.2	1.354	0.002	2574.7	1.395	0.002	3004.3	1.582	0.022	3299.5	1.122	0.670	3785.6	1.202	0.000
759.0	1.546	0.389	1224.9	1.337	0.010	1395.6	1.355	0.031	1987.3	1.355	0.002	2584.8	1.397	0.002	3007.2	1.585	0.024	3308.2	1.087	0.636	3794.3	1.204	0.000
767.7	1.518	0.405	1227.8	1.337	0.010	1398.5	1.355	0.031	1997.4	1.357	0.002	2594.9	1.399	0.001	3010.1	1.587	0.027	3316.8	1.059	0.599	3802.9	1.206	0.000
776.4	1.489	0.419	1230.7	1.338	0.010	1410.1	1.355	0.033	2007.6	1.358	0.002	2605.1	1.400	0.001	3013.0	1.590	0.028	3325.5	1.039	0.566	3811.6	1.208	0.000
785.1	1.458	0.427	1233.6	1.339	0.010	1420.2	1.356	0.034	2017.7	1.360	0.002	2615.2	1.402	0.001	3015.9	1.592	0.029	3334.2	1.023	0.536	3820.3	1.210	0.000
793.8	1.427	0.435	1236.5	1.341	0.011	1430.3	1.355	0.035	2027.8	1.361	0.002	2625.3	1.404	0.000	3018.8	1.595	0.029	3342.9	1.010	0.510	3829.0	1.212	0.000
802.5	1.396	0.441	1239.4	1.341	0.011	1440.4	1.356	0.036	2037.9	1.362	0.003	2635.4	1.406	0.000	3021.7	1.598	0.030	3351.6	0.998	0.485	3837.7	1.214	0.000
811.1	1.362	0.440	1242.2	1.342	0.011	1450.6	1.356	0.037	2048.1	1.364	0.003	2645.6	1.408	0.000	3024.6	1.602	0.030	3360.2	0.987	0.462	3846.3	1.216	0.000
819.8	1.331	0.436	1245.1	1.342	0.012	1460.7	1.356	0.038	2058.2	1.365	0.004	2655.7	1.410	0.000	3027.5	1.607	0.030	3368.9	0.975	0.440	3855.0	1.218	0.000
828.5	1.300	0.429	1248.0	1.343	0.012	1470.8	1.356	0.039	2068.3	1.366	0.005	2665.8	1.412	0.000	3030.4	1.611	0.031	3377.6	0.964	0.420	3863.7	1.220	0.000
837.2	1.268	0.418	1250.9	1.344	0.012	1481.0	1.356	0.040	2078.4	1.368	0.005	2675.9	1.414	0.000	3033.3	1.616	0.033	3386.3	0.951	0.400	3872.4	1.222	0.000
845.9	1.239	0.406	1253.8	1.345	0.012	1491.1	1.356	0.041	2088.6	1.369	0.006	2686.1	1.416	0.000	3036.2	1.621	0.034	3395.0	0.938	0.376	3881.1	1.223	0.000
854.5	1.210	0.391	1256.7	1.346	0.013	1501.2	1.356	0.043	2098.7	1.370	0.007	2696.2	1.418	0.000	3039.1	1.626	0.036	3403.6	0.926	0.351	3889.7	1.225	0.000
863.2	1.183	0.371	1259.6	1.347	0.013	1511.3	1.355	0.043	2108.8	1.371	0.008	2706.3	1.420	0.000	3042.0	1.632	0.037	3412.3	0.915	0.323	3898.4	1.226	0.000
871.9	1.158	0.348	1262.5	1.347	0.014	1521.5	1.355	0.044	2119.0	1.372	0.009	2716.5	1.423	0.000	3044.9	1.637	0.040	3421.0	0.907	0.295	3907.1	1.228	0.000
880.6	1.135	0.324	1265.4	1.348	0.014	1531.6	1.354	0.046	2129.1	1.373	0.010	2726.6	1.425	0.000	3047.7	1.643	0.042	3429.7	0.902	0.266	3915.8	1.229	0.000
889.3	1.116	0.296	1268.3	1.349	0.014	1541.7	1.354	0.046	2139.2	1.374	0.012	2736.7	1.428	0.000	3050.6	1.649	0.045	3438.4	0.900	0.235	3924.5	1.230	0.000
897.9	1.100	0.265	1271.2	1.350	0.016	1551.8	1.353	0.048	2149.3	1.375	0.013	2746.8	1.430	0.000	3053.5	1.655	0.048	3447.0	0.903	0.203	3933.1	1.232	0.000
906.6	1.088	0.233	1274.1	1.351	0.017	1562.0	1.354	0.050	2159.5	1.375	0.015	2757.0	1.433	0.000	3056.4	1.661	0.051	3455.7	0.909	0.173	3941.8	1.233	0.000
915.3	1.082	0.198	1277.0	1.352	0.017	1572.1	1.352	0.051	2169.6	1.375	0.017	2767.1	1.436	0.000	3059.3	1.668	0.054	3464.4	0.919	0.146	3950.5	1.234	0.000
924.0	1.080	0.166	1279.9	1.352	0.018	1582.2	1.351	0.053	2179.7	1.375	0.018	2777.2	1.439	0.000	3062.2	1.674	0.058	3473.1	0.932	0.121	3959.2	1.235	0.000
932.7	1.084	0.132	1282.8	1.354	0.018	1592.4	1.349	0.054	2189.8	1.374	0.020	2787.3	1.442	0.000	3065.1	1.681	0.062	3481.8	0.947	0.101	3967.9	1.236	0.000
941.3	1.093	0.100	1285.6	1.355	0.019	1602.5	1.347	0.055	2200.0	1.374	0.021	2797.5	1.445	0.000	3068.0	1.688	0.066	3490.4	0.962	0.083	3976.5	1.237	0.000
950.0	1.106	0.072	1288.5	1.357	0.020	1612.6	1.345	0.057	2210.1	1.372	0.022	2807.6	1.449	0.000	3070.9	1.695	0.071	3499.1	0.978	0.069	3985.2	1.238	0.000
958.7	1.124	0.049	1291.4	1.359	0.022	1622.7	1.343	0.057	2220.2	1.371	0.023	2817.7	1.453	0.000	3073.8	1.702	0.076	3507.8	0.993	0.057	3993.9	1.239	0.000
967.4	1.142	0.031	1294.3	1.362	0.026	1632.9	1.340	0.059	2230.4	1.369	0.023	2827.8	1.456	0.000	3076.7	1.709	0.083	3516.5	1.007	0.047			
976.1	1.161	0.018	1297.2	1.365	0.031	1643.0	1.338	0.059	2240.5	1.368	0.022	2838.0	1.460	0.000	3079.6	1.716	0.089	3525.2	1.021	0.039			
984.7	1.180	0.009	1300.1	1.364	0.044	1653.1	1.334	0.058	2250.6	1.367	0.021	2848.1	1.464	0.000	3082.5	1.723	0.096	3533.8	1.034	0.032			
993.4	1.197	0.003	1303.0	1.351	0.056	1663.2	1.331	0.059	2260.7	1.366	0.020												
1002.1	1.211	0.000	1305.9	1.336	0.047	1673.4	1.326	0.060	2270.9	1.366	0.019												
1010.8	1.225	0.000	1308.8	1.333	0.034	1683.5	1.321	0.059	2281.0	1.366	0.018												

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TABLE 13E

$H_2O:CH_4$ = 20:1 AT 120 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
507.3	1.512	0.000	1019.5	1.238	0.000	1311.7	1.339	0.028	1693.6	1.317	0.056	2291.1	1.366	0.016	2858.2	1.472	0.000	3085.4	1.727	0.107	3542.5	1.045	0.026
516.0	1.522	0.000	1028.1	1.248	0.000	1314.6	1.341	0.026	1703.8	1.312	0.052	2301.2	1.367	0.016	2868.4	1.477	0.000	3088.3	1.734	0.115	3551.2	1.056	0.021
524.7	1.525	0.002	1036.8	1.256	0.000	1317.5	1.343	0.025	1713.9	1.308	0.046	2311.4	1.367	0.015	2878.5	1.483	0.001	3091.1	1.742	0.122	3559.9	1.067	0.018
533.4	1.534	0.000	1045.5	1.264	0.000	1320.4	1.344	0.025	1724.0	1.305	0.040	2321.5	1.368	0.014	2888.6	1.488	0.002	3094.0	1.748	0.132	3568.6	1.076	0.014
542.0	1.542	0.007	1054.2	1.271	0.000	1323.3	1.345	0.025	1734.1	1.304	0.032	2331.6	1.369	0.013	2898.7	1.494	0.002	3096.9	1.755	0.141	3577.2	1.085	0.011
550.7	1.547	0.009	1062.9	1.277	0.001	1326.2	1.346	0.025	1744.3	1.306	0.025	2341.8	1.369	0.012	2908.9	1.500	0.003	3099.8	1.761	0.151	3585.9	1.094	0.009
559.4	1.553	0.013	1071.5	1.282	0.003	1329.1	1.347	0.025	1754.4	1.309	0.020	2351.9	1.370	0.012	2919.0	1.507	0.004	3108.5	1.777	0.184	3594.6	1.102	0.007
568.1	1.561	0.019	1080.2	1.286	0.003	1331.9	1.347	0.025	1764.5	1.312	0.016	2362.0	1.371	0.011	2929.1	1.514	0.006	3117.2	1.790	0.221	3603.3	1.110	0.005
576.8	1.567	0.023	1088.9	1.291	0.004	1334.8	1.348	0.025	1774.6	1.316	0.014	2372.1	1.372	0.010	2939.2	1.521	0.007	3125.9	1.797	0.262	3612.0	1.117	0.003
585.4	1.575	0.029	1097.6	1.293	0.003	1337.7	1.349	0.025	1784.8	1.318	0.011	2382.3	1.373	0.009	2949.4	1.529	0.008	3134.6	1.799	0.304	3620.6	1.124	0.002
594.1	1.581	0.036	1106.3	1.298	0.003	1340.6	1.349	0.026	1794.9	1.321	0.009	2392.4	1.374	0.008	2952.3	1.532	0.009	3143.2	1.795	0.348	3629.3	1.130	0.000
602.8	1.589	0.042	1114.9	1.302	0.005	1343.5	1.350	0.026	1805.0	1.324	0.007	2402.5	1.375	0.008	2955.2	1.534	0.009	3151.9	1.784	0.390	3638.0	1.136	0.000
611.5	1.596	0.051	1123.6	1.305	0.005	1346.4	1.350	0.026	1815.1	1.326	0.007	2412.6	1.376	0.008	2958.1	1.537	0.010	3160.6	1.769	0.432	3646.7	1.142	0.000
620.2	1.605	0.060	1132.3	1.308	0.005	1349.3	1.351	0.027	1825.3	1.329	0.005	2422.8	1.377	0.007	2960.9	1.539	0.011	3169.3	1.750	0.471	3655.4	1.147	0.000
628.8	1.611	0.069	1141.0	1.311	0.005	1352.2	1.351	0.027	1835.4	1.331	0.004	2432.9	1.378	0.007	2963.8	1.542	0.012	3178.0	1.727	0.508	3664.1	1.153	0.000
637.5	1.621	0.079	1149.7	1.314	0.005	1355.1	1.351	0.026	1845.5	1.333	0.004	2443.0	1.379	0.006	2966.7	1.544	0.012	3186.6	1.701	0.541	3672.7	1.157	0.000
646.2	1.630	0.093	1158.3	1.318	0.005	1358.0	1.352	0.028	1855.7	1.335	0.003	2453.1	1.380	0.006	2969.6	1.547	0.013	3195.3	1.674	0.572	3681.4	1.162	0.000
654.9	1.636	0.108	1167.0	1.321	0.006	1360.9	1.352	0.027	1865.8	1.337	0.003	2463.3	1.381	0.006	2972.5	1.550	0.014	3204.0	1.644	0.601	3690.1	1.166	0.000
663.6	1.644	0.125	1175.7	1.323	0.006	1363.8	1.352	0.027	1875.9	1.339	0.002	2473.4	1.383	0.005	2975.4	1.553	0.014	3212.7	1.612	0.631	3698.8	1.170	0.000
672.2	1.647	0.143	1184.4	1.326	0.006	1366.7	1.353	0.028	1886.0	1.341	0.002	2483.5	1.384	0.005	2978.3	1.556	0.016	3221.4	1.578	0.659	3707.5	1.174	0.000
680.9	1.654	0.164	1193.1	1.328	0.008	1369.6	1.353	0.028	1896.2	1.343	0.001	2493.7	1.385	0.005	2981.2	1.558	0.016	3230.0	1.540	0.686	3716.1	1.178	0.000
689.6	1.656	0.188	1201.7	1.331	0.008	1372.5	1.353	0.028	1906.3	1.344	0.002	2503.8	1.386	0.004	2984.1	1.562	0.017	3238.7	1.496	0.711	3724.8	1.181	0.000
698.3	1.656	0.212	1204.6	1.332	0.008	1375.3	1.354	0.029	1916.4	1.346	0.002	2513.9	1.388	0.004	2987.0	1.565	0.018	3247.4	1.447	0.733	3733.5	1.184	0.000
707.0	1.652	0.239	1207.5	1.333	0.009	1378.2	1.354	0.029	1926.5	1.348	0.002	2524.0	1.389	0.003	2989.9	1.568	0.019	3256.1	1.391	0.750	3742.2	1.187	0.000
715.6	1.645	0.265	1210.4	1.333	0.009	1381.1	1.354	0.029	1936.7	1.349	0.002	2534.2	1.391	0.003	2992.8	1.571	0.020	3264.8	1.330	0.757	3750.9	1.190	0.000
724.3	1.635	0.293	1213.3	1.334	0.009	1384.0	1.355	0.029	1946.8	1.350	0.002	2544.3	1.392	0.003	2995.7	1.575	0.021	3273.4	1.269	0.751	3759.5	1.193	0.000
733.0	1.620	0.319	1216.2	1.335	0.009	1386.9	1.355	0.030	1956.9	1.351	0.002	2554.4	1.394	0.003	2998.6	1.578	0.023	3282.1	1.208	0.735	3768.2	1.196	0.000
741.7	1.602	0.343	1219.1	1.336	0.009	1389.8	1.355	0.031	1967.1	1.353	0.002	2564.5	1.395	0.002	3001.5	1.581	0.025	3290.8	1.155	0.708	3776.9	1.199	0.000
750.4	1.581	0.366	1222.0	1.337	0.010	1392.7	1.355	0.031	1977.2	1.355	0.002	2574.7	1.397	0.002	3004.3	1.585	0.026	3299.5	1.110	0.675	3785.6	1.201	0.000
759.0	1.557	0.388	1224.9	1.337	0.010	1395.6	1.355	0.031	1987.3	1.356	0.001	2584.8	1.398	0.002	3007.2	1.588	0.029	3308.2	1.075	0.637	3794.3	1.203	0.000
767.7	1.530	0.407	1227.8	1.338	0.010	1398.5	1.356	0.032	1997.4	1.357	0.002	2594.9	1.400	0.001	3010.1	1.591	0.031	3316.8	1.048	0.600	3802.9	1.206	0.000
776.4	1.500	0.421	1230.7	1.339	0.010	1410.1	1.356	0.034	2007.6	1.359	0.002	2605.1	1.402	0.000	3013.0	1.593	0.033	3325.5	1.029	0.565	3811.6	1.208	0.000
785.1	1.469	0.434	1233.6	1.339	0.010	1420.2	1.356	0.034	2017.7	1.360	0.002	2615.2	1.404	0.001	3015.9	1.596	0.034	3334.2	1.014	0.533	3820.3	1.210	0.000
793.8	1.436	0.443	1236.5	1.341	0.011	1430.3	1.356	0.035	2027.8	1.361	0.002	2625.3	1.405	0.000	3018.8	1.599	0.035	3342.9	1.002	0.507	3829.0	1.212	0.000
802.5	1.404	0.446	1239.4	1.342	0.011	1440.4	1.356	0.036	2037.9	1.363	0.002	2635.4	1.407	0.000	3021.7	1.602	0.035	3351.6	0.991	0.481	3837.7	1.214	0.000
811.1	1.370	0.448	1242.2	1.342	0.011	1450.6	1.356	0.038	2048.1	1.364	0.003	2645.6	1.409	0.000	3024.6	1.606	0.036	3360.2	0.981	0.460	3846.3	1.216	0.000
819.8	1.335	0.445	1245.1	1.343	0.012	1460.7	1.356	0.039	2058.2	1.366	0.004	2655.7	1.411	0.000	3027.5	1.610	0.037	3368.9	0.970	0.438	3855.0	1.218	0.000
828.5	1.303	0.438	1248.0	1.344	0.012	1470.8	1.356	0.039	2068.3	1.367	0.005	2665.8	1.414	0.000	3030.4	1.614	0.038	3377.6	0.959	0.417	3863.7	1.219	0.000
837.2	1.269	0.430	1250.9	1.345	0.012	1481.0	1.356	0.040	2078.4	1.368	0.005	2675.9	1.416	0.000	3033.3	1.619	0.040	3386.3	0.947	0.397	3872.4	1.221	0.000
845.9	1.239	0.415	1253.8	1.345	0.013	1491.1	1.356	0.041	2088.6	1.370	0.006	2686.1	1.418	0.000	3036.2	1.624	0.041	3395.0	0.934	0.374	3881.1	1.223	0.000
854.5	1.208	0.399	1256.7	1.346	0.013	1501.2	1.355	0.043	2098.7	1.371	0.006	2696.2	1.420	0.000	3039.1	1.628	0.043	3403.6	0.922	0.349	3889.7	1.224	0.000
863.2	1.180	0.379	1259.6	1.347	0.015	1511.3	1.355	0.043	2108.8	1.372	0.008	2706.3	1.422	0.000	3042.0	1.634	0.045	3412.3	0.912	0.321	3898.4	1.226	0.000
871.9	1.154	0.356	1262.5	1.348	0.014	1521.5	1.355	0.044	2119.0	1.373	0.009	2716.5	1.425	0.000	3044.9	1.639	0.047	3421.0	0.905	0.294	3907.1	1.227	0.000
880.6	1.130	0.330	1265.4	1.349	0.016	1531.6	1.354	0.046	2129.1	1.374	0.010	2726.6	1.427	0.000	3047.7	1.644	0.049	3429.7	0.899	0.264	3915.8	1.228	0.000
889.3	1.109	0.302	1268.3	1.349	0.016	1541.7	1.354	0.047	2139.2	1.375	0.012	2736.7	1.430	0.000	3050.6	1.650	0.052	3438.4	0.897	0.232	3924.5	1.230	0.000
897.9	1.093	0.268	1271.2	1.350	0.017	1551.8	1.353	0.048	2149.3	1.376	0.013	2746.8	1.432	0.000	3053.5	1.655	0.055	3447.0	0.899	0.202	3933.1	1.231	0.000
906.6	1.081	0.234	1274.1	1.351	0.017	1562.0	1.353	0.050	2159.5	1.376	0.015	2757.0	1.435	0.000	3056.4	1.661	0.058	3455.7	0.906	0.171	3941.8	1.232	0.000
915.3	1.075	0.198	1277.0	1.352	0.018	1572.1	1.352	0.051	2169.6	1.376	0.017	2767.1	1.438	0.000	3059.3	1.667	0.061	3464.4	0.917	0.143	3950.5	1.233	0.000
924.0	1.075	0.161	1279.9	1.353	0.018	1582.2	1.351	0.053	2179.7	1.376	0.018	2777.2	1.441	0.000	3062.2	1.673	0.064	3473.1	0.930	0.120	3959.2	1.234	0.000
932.7	1.081	0.128	1282.8	1.354	0.019	1592.4	1.350	0.054	2189.8	1.376	0.020	2787.3	1.445	0.000	3065.1	1.680	0.068	3481.8	0.945	0.099	3967.9	1.236	0.000
941.3	1.090	0.096	1285.6	1.355	0.020	1602.5	1.348	0.055	2200.0	1.375	0.021	2797.5	1.448	0.000	3068.0	1.686	0.073	3490.4	0.961	0.081	3976.5	1.237	0.000
950.0	1.106	0.070	1288.5	1.357	0.021	1612.6	1.345	0.057	2210.1	1.374	0.023	2807.6	1.452	0.000	3070.9	1.693	0.077	3499.1	0.977	0.067	3985.2	1.237	0.001
958.7	1.124	0.045	1291.4	1.359	0.023	1622.7	1.343	0.057	2220.2	1.372	0.023	2817.7	1.455	0.000	3073.8	1.700	0.082	3507.8	0.992	0.055	3993.9	1.238	0.001
967.4	1.143	0.028	1294.3	1.361	0.026	1632.9	1.340	0.059	2230.4	1.370	0.023	2827.8	1.459	0.000	3076.7	1.706	0.088	3516.5	1.006	0.046			
976.1	1.163	0.016	1297.2	1.363	0.031	1643.0	1.338	0.059	2240.5	1.368	0.022	2838.0	1.463	0.000	3079.6	1.714	0.094	3525.2	1.020	0.038			
984.7	1.182	0.009	1300.1	1.361	0.041	1653.1	1.334	0.058	2250.6	1.368	0.022	2848.1	1.468	0.000	3082.5	1.721	0.100	3533.8	1.033	0.031			
993.4	1.198	0.002	1303.0	1.351	0.050	1663.2	1.331	0.059	2260.7	1.367	0.020												
1002.1	1.213	0.000	1305.9	1.339	0.043	1673.4	1.327	0.059	2270.9	1.366	0.020												
1010.8	1.227	0.000	1308.8	1.337	0.033	1683.5	1.322	0.058	2281.0	1.366	0.018												

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TABLE 13F

$H_2O:CH_4$ = 20:1 AT 140 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
507.3	1.508	0.000	1019.5	1.238	0.000	1311.7	1.341	0.027	1693.6	1.317	0.054	2291.1	1.367	0.016	2858.2	1.475	0.001	3085.4	1.723	0.117	3542.5	1.047	0.026
516.0	1.517	0.000	1028.1	1.248	0.000	1314.6	1.342	0.026	1703.8	1.313	0.050	2301.2	1.368	0.016	2868.4	1.481	0.001	3088.3	1.729	0.125	3551.2	1.058	0.022
524.7	1.524	0.002	1036.8	1.256	0.000	1317.5	1.344	0.025	1713.9	1.309	0.045	2311.4	1.368	0.015	2878.5	1.486	0.002	3091.2	1.736	0.132	3559.9	1.068	0.018
533.4	1.530	0.002	1045.5	1.264	0.000	1320.4	1.345	0.025	1724.0	1.307	0.038	2321.5	1.369	0.014	2888.6	1.492	0.003	3094.0	1.742	0.141	3568.6	1.078	0.014
542.0	1.538	0.004	1054.2	1.271	0.000	1323.3	1.345	0.024	1734.1	1.306	0.030	2331.6	1.369	0.013	2898.7	1.498	0.004	3096.9	1.748	0.150	3577.2	1.086	0.011
550.7	1.543	0.009	1062.9	1.276	0.001	1326.2	1.346	0.024	1744.3	1.309	0.025	2341.8	1.370	0.012	2908.9	1.504	0.005	3099.8	1.754	0.160	3585.9	1.095	0.009
559.4	1.552	0.013	1071.5	1.281	0.003	1329.1	1.348	0.024	1754.4	1.311	0.020	2351.9	1.371	0.012	2919.0	1.511	0.006	3108.5	1.770	0.192	3594.6	1.103	0.007
568.1	1.558	0.017	1080.2	1.286	0.003	1331.9	1.348	0.024	1764.5	1.314	0.016	2362.0	1.371	0.011	2929.1	1.518	0.008	3117.2	1.782	0.228	3603.3	1.110	0.005
576.8	1.566	0.023	1088.9	1.290	0.003	1334.8	1.349	0.025	1774.6	1.317	0.013	2372.1	1.372	0.010	2939.2	1.525	0.010	3125.9	1.789	0.269	3612.0	1.117	0.003
585.4	1.572	0.029	1097.6	1.294	0.003	1337.7	1.349	0.025	1784.8	1.319	0.010	2382.3	1.373	0.009	2949.4	1.533	0.012	3134.6	1.790	0.311	3620.6	1.124	0.002
594.1	1.579	0.037	1106.3	1.298	0.003	1340.6	1.349	0.025	1794.9	1.323	0.009	2392.4	1.374	0.008	2952.3	1.536	0.013	3143.2	1.786	0.353	3629.3	1.131	0.000
602.8	1.585	0.042	1114.9	1.301	0.003	1343.5	1.350	0.025	1805.0	1.325	0.007	2402.5	1.376	0.008	2955.2	1.538	0.013	3151.9	1.775	0.396	3638.0	1.137	0.000
611.5	1.593	0.049	1123.6	1.305	0.005	1346.4	1.351	0.026	1815.1	1.327	0.007	2412.6	1.377	0.008	2958.1	1.541	0.014	3160.6	1.760	0.435	3646.7	1.142	0.000
620.2	1.601	0.058	1132.3	1.308	0.003	1349.3	1.351	0.026	1825.3	1.330	0.005	2422.8	1.378	0.007	2960.9	1.543	0.015	3169.3	1.741	0.473	3655.4	1.148	0.000
628.8	1.610	0.067	1141.0	1.312	0.005	1352.2	1.352	0.027	1835.4	1.332	0.004	2432.9	1.379	0.007	2963.8	1.546	0.016	3178.0	1.718	0.509	3664.1	1.153	0.000
637.5	1.618	0.078	1149.7	1.314	0.005	1355.1	1.352	0.026	1845.5	1.334	0.004	2443.0	1.380	0.006	2966.7	1.549	0.017	3186.6	1.693	0.542	3672.7	1.158	0.000
646.2	1.626	0.092	1158.3	1.317	0.005	1358.0	1.352	0.026	1855.7	1.336	0.003	2453.1	1.381	0.006	2969.6	1.551	0.018	3195.3	1.665	0.573	3681.4	1.163	0.000
654.9	1.634	0.106	1167.0	1.320	0.005	1360.9	1.352	0.026	1865.8	1.337	0.002	2463.3	1.382	0.006	2972.5	1.554	0.018	3204.0	1.636	0.602	3690.1	1.167	0.000
663.6	1.641	0.121	1175.7	1.324	0.006	1363.8	1.353	0.026	1875.9	1.340	0.002	2473.4	1.383	0.005	2975.4	1.557	0.019	3212.7	1.605	0.632	3698.8	1.171	0.000
672.2	1.644	0.139	1184.4	1.326	0.006	1366.7	1.353	0.027	1886.0	1.341	0.001	2483.5	1.384	0.005	2978.3	1.560	0.020	3221.4	1.570	0.661	3707.5	1.174	0.000
680.9	1.651	0.161	1193.1	1.329	0.008	1369.6	1.354	0.027	1896.2	1.343	0.002	2493.7	1.386	0.005	2981.2	1.562	0.021	3230.0	1.530	0.687	3716.1	1.178	0.000
689.6	1.653	0.183	1201.7	1.331	0.008	1372.5	1.353	0.028	1906.3	1.345	0.002	2503.8	1.387	0.004	2984.1	1.565	0.023	3238.7	1.486	0.712	3724.8	1.182	0.000
698.3	1.654	0.207	1204.6	1.331	0.008	1375.3	1.354	0.028	1916.4	1.346	0.002	2513.9	1.388	0.004	2987.0	1.569	0.024	3247.4	1.435	0.732	3733.5	1.185	0.000
707.0	1.650	0.233	1207.5	1.333	0.008	1378.2	1.354	0.028	1926.5	1.348	0.000	2524.0	1.390	0.003	2989.9	1.571	0.025	3256.1	1.379	0.746	3742.2	1.188	0.000
715.6	1.645	0.260	1210.4	1.333	0.008	1381.1	1.354	0.029	1936.7	1.349	0.002	2534.2	1.391	0.003	2992.8	1.575	0.026	3264.8	1.319	0.752	3750.9	1.191	0.000
724.3	1.635	0.287	1213.3	1.334	0.009	1384.0	1.354	0.029	1946.8	1.351	0.002	2544.3	1.393	0.003	2995.7	1.578	0.028	3273.4	1.258	0.745	3759.5	1.194	0.000
733.0	1.622	0.314	1216.2	1.335	0.009	1386.9	1.355	0.030	1956.9	1.352	0.000	2554.4	1.394	0.003	2998.6	1.581	0.029	3282.1	1.199	0.727	3768.2	1.197	0.000
741.7	1.603	0.338	1219.1	1.335	0.009	1389.8	1.355	0.030	1967.1	1.354	0.001	2564.5	1.396	0.002	3001.5	1.585	0.031	3290.8	1.146	0.700	3776.9	1.199	0.000
750.4	1.583	0.361	1222.0	1.336	0.009	1392.7	1.355	0.030	1977.2	1.355	0.001	2574.7	1.397	0.002	3004.3	1.588	0.033	3299.5	1.103	0.666	3785.6	1.202	0.000
759.0	1.560	0.385	1224.9	1.338	0.009	1395.6	1.355	0.031	1987.3	1.356	0.001	2584.8	1.399	0.001	3007.2	1.591	0.035	3308.2	1.069	0.628	3794.3	1.204	0.000
767.7	1.533	0.404	1227.8	1.338	0.010	1398.5	1.355	0.031	1997.4	1.358	0.002	2594.9	1.401	0.001	3010.1	1.594	0.037	3316.8	1.044	0.592	3802.9	1.206	0.000
776.4	1.503	0.418	1230.7	1.339	0.010	1410.1	1.356	0.033	2007.6	1.359	0.002	2605.1	1.403	0.000	3013.0	1.597	0.039	3325.5	1.025	0.557	3811.6	1.208	0.000
785.1	1.473	0.431	1233.6	1.339	0.010	1420.2	1.356	0.033	2017.7	1.361	0.002	2615.2	1.405	0.000	3015.9	1.599	0.040	3334.2	1.012	0.525	3820.3	1.210	0.000
793.8	1.441	0.439	1236.5	1.342	0.011	1430.3	1.356	0.034	2027.8	1.362	0.002	2625.3	1.406	0.000	3018.8	1.602	0.042	3342.9	1.000	0.498	3829.0	1.212	0.000
802.5	1.407	0.445	1239.4	1.341	0.011	1440.4	1.356	0.036	2037.9	1.364	0.002	2635.4	1.408	0.000	3021.7	1.605	0.043	3351.6	0.990	0.473	3837.7	1.214	0.000
811.1	1.373	0.447	1242.2	1.342	0.011	1450.6	1.356	0.037	2048.1	1.365	0.003	2645.6	1.410	0.000	3024.6	1.609	0.044	3360.2	0.981	0.451	3846.3	1.216	0.000
819.8	1.339	0.444	1245.1	1.343	0.012	1460.7	1.356	0.038	2058.2	1.367	0.004	2655.7	1.412	0.000	3027.5	1.613	0.045	3368.9	0.970	0.431	3855.0	1.218	0.000
828.5	1.306	0.438	1248.0	1.343	0.012	1470.8	1.356	0.038	2068.3	1.368	0.005	2665.8	1.415	0.000	3030.4	1.617	0.047	3377.6	0.959	0.410	3863.7	1.220	0.000
837.2	1.274	0.429	1250.9	1.344	0.012	1481.0	1.356	0.040	2078.4	1.369	0.005	2675.9	1.417	0.000	3033.3	1.621	0.048	3386.3	0.948	0.390	3872.4	1.222	0.000
845.9	1.242	0.417	1253.8	1.345	0.012	1491.1	1.356	0.041	2088.6	1.370	0.006	2686.1	1.419	0.000	3036.2	1.626	0.050	3395.0	0.935	0.368	3881.1	1.223	0.000
854.5	1.211	0.400	1256.7	1.346	0.013	1501.2	1.356	0.043	2098.7	1.372	0.006	2696.2	1.421	0.000	3039.1	1.631	0.052	3403.6	0.924	0.342	3889.7	1.225	0.000
863.2	1.182	0.381	1259.6	1.347	0.013	1511.3	1.355	0.043	2108.8	1.373	0.008	2706.3	1.424	0.000	3042.0	1.635	0.054	3412.3	0.914	0.315	3898.4	1.226	0.000
871.9	1.155	0.358	1262.5	1.347	0.014	1521.5	1.355	0.042	2119.0	1.374	0.009	2716.5	1.426	0.000	3044.9	1.640	0.057	3421.0	0.908	0.288	3907.1	1.228	0.000
880.6	1.132	0.332	1265.4	1.348	0.014	1531.6	1.355	0.046	2129.1	1.375	0.010	2726.6	1.429	0.000	3047.7	1.645	0.059	3429.7	0.903	0.258	3915.8	1.229	0.000
889.3	1.110	0.301	1268.3	1.349	0.016	1541.7	1.355	0.046	2139.2	1.376	0.012	2736.7	1.431	0.000	3050.6	1.650	0.062	3438.4	0.901	0.228	3924.5	1.230	0.000
897.9	1.093	0.270	1271.2	1.350	0.016	1551.8	1.353	0.048	2149.3	1.376	0.013	2746.8	1.434	0.000	3053.5	1.656	0.065	3447.0	0.904	0.197	3933.1	1.231	0.000
906.6	1.082	0.234	1274.1	1.350	0.017	1562.0	1.355	0.050	2159.5	1.377	0.015	2757.0	1.437	0.000	3056.4	1.661	0.068	3455.7	0.911	0.167	3941.8	1.233	0.000
915.3	1.075	0.198	1277.0	1.352	0.017	1572.1	1.353	0.050	2169.6	1.377	0.017	2767.1	1.440	0.000	3059.3	1.667	0.072	3464.4	0.921	0.141	3950.5	1.234	0.000
924.0	1.075	0.161	1279.9	1.352	0.018	1582.2	1.352	0.052	2179.7	1.377	0.018	2777.2	1.443	0.000	3062.2	1.672	0.076	3473.1	0.935	0.118	3959.2	1.235	0.000
932.7	1.081	0.128	1282.8	1.354	0.019	1592.4	1.349	0.053	2189.8	1.376	0.020	2787.3	1.447	0.000	3065.1	1.679	0.080	3481.8	0.949	0.097	3967.9	1.236	0.000
941.3	1.091	0.096	1285.6	1.355	0.020	1602.5	1.347	0.055	2200.0	1.375	0.022	2797.5	1.450	0.000	3068.0	1.684	0.084	3490.4	0.965	0.080	3976.5	1.237	0.001
950.0	1.106	0.070	1288.5	1.356	0.021	1612.6	1.345	0.057	2210.1	1.374	0.023	2807.6	1.454	0.000	3070.9	1.691	0.088	3499.1	0.980	0.067	3985.2	1.238	0.001
958.7	1.125	0.047	1291.4	1.358	0.023	1622.7	1.343	0.057	2220.2	1.372	0.023	2817.7	1.458	0.000	3073.8	1.697	0.093	3507.8	0.995	0.055	3993.9	1.238	0.001
967.4	1.144	0.030	1294.3	1.359	0.026	1632.9	1.340	0.058	2230.4	1.371	0.023	2827.8	1.462	0.000	3076.7	1.703	0.099	3516.5	1.009	0.046			
976.1	1.162	0.018	1297.2	1.360	0.030	1643.0	1.337	0.058	2240.5	1.369	0.022	2838.0	1.466	0.000	3079.6	1.710	0.105	3525.2	1.023	0.038			
984.7	1.180	0.009	1300.1	1.359	0.038	1653.1	1.334	0.055	2250.6	1.368	0.022	2848.1	1.471	0.000	3082.5	1.716	0.111	3533.8	1.035	0.032			
993.4	1.197	0.003	1303.0	1.350	0.045	1663.2	1.331	0.057	2260.7	1.367	0.020												
1002.1	1.213	0.000	1305.9	1.341	0.039	1673.4	1.327	0.058	2270.9	1.367	0.019												
1010.8	1.226	0.000	1308.8	1.339	0.032	1683.5	1.322	0.056	2281.0	1.367	0.018												

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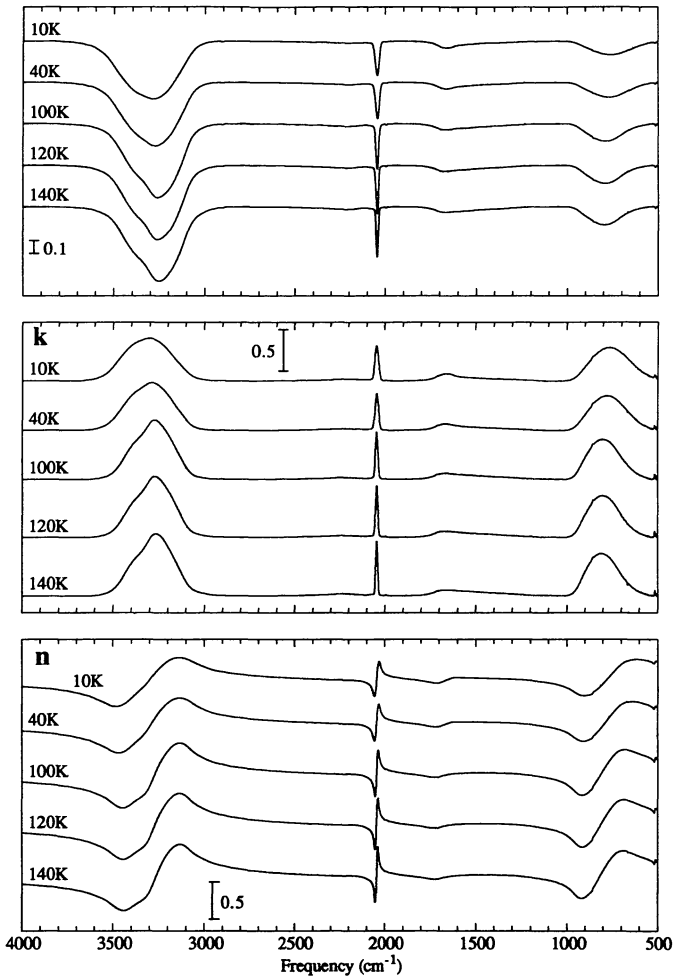

FIG. 14.—The 4000 to 500 cm^{-1} transmission spectra and optical constants (n and k) of an H_2O:OCS = 20:1 ice mixture at temperatures of 10, 40, 100, 120, and 140 K. The original ice was deposited at 10 K.

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TABLE 14A

H_2O:OCS = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.5	1.593	0.024	672.2	1.595	0.277	843.0	1.189	0.312	1013.7	1.242	0.004	1184.4	1.326	0.008	1517.1	1.365	0.039	1919.3	1.364	0.003	2090.0	1.281	0.016
504.4	1.597	0.028	675.1	1.590	0.281	845.9	1.186	0.307	1016.6	1.246	0.001	1187.3	1.327	0.008	1524.4	1.366	0.041	1922.2	1.365	0.003	2092.9	1.286	0.016
507.3	1.598	0.038	678.0	1.588	0.288	848.7	1.182	0.299	1019.5	1.249	0.001	1190.2	1.328	0.008	1531.6	1.365	0.042	1925.1	1.367	0.003	2095.8	1.290	0.016
510.2	1.601	0.042	680.9	1.583	0.296	851.6	1.179	0.298	1022.3	1.252	0.001	1193.1	1.329	0.008	1538.8	1.366	0.042	1928.0	1.368	0.003	2098.7	1.294	0.015
513.1	1.592	0.072	683.8	1.579	0.304	854.5	1.171	0.294	1025.2	1.255	0.001	1196.0	1.330	0.010	1546.1	1.367	0.044	1930.9	1.369	0.003	2101.6	1.298	0.015
516.0	1.576	0.072	686.7	1.573	0.308	857.4	1.163	0.295	1028.1	1.257	0.001	1198.8	1.331	0.010	1553.3	1.366	0.046	1933.8	1.370	0.003	2104.5	1.302	0.015
518.9	1.560	0.068	689.6	1.569	0.312	860.3	1.151	0.283	1031.0	1.260	0.002	1201.7	1.331	0.010	1560.5	1.369	0.043	1936.7	1.371	0.003	2107.4	1.305	0.015
521.8	1.565	0.053	692.5	1.564	0.316	863.2	1.144	0.271	1033.9	1.262	0.002	1204.6	1.331	0.010	1567.8	1.368	0.049	1939.6	1.372	0.003	2110.3	1.308	0.015
524.7	1.564	0.048	695.4	1.559	0.324	866.1	1.140	0.262	1036.8	1.263	0.002	1207.5	1.333	0.010	1575.0	1.367	0.051	1942.5	1.374	0.003	2113.2	1.310	0.015
527.6	1.572	0.037	698.3	1.555	0.327	869.0	1.140	0.252	1039.7	1.265	0.002	1210.4	1.333	0.010	1582.2	1.369	0.052	1945.4	1.375	0.003	2116.1	1.313	0.015
530.5	1.579	0.046	701.2	1.548	0.331	871.9	1.137	0.244	1042.6	1.267	0.002	1213.3	1.333	0.010	1589.5	1.369	0.054	1948.2	1.377	0.003	2119.0	1.315	0.015
533.4	1.581	0.046	704.1	1.543	0.339	874.8	1.135	0.235	1045.5	1.269	0.002	1216.2	1.334	0.010	1596.7	1.369	0.055	1951.1	1.378	0.003	2121.9	1.317	0.017
536.3	1.586	0.046	707.0	1.538	0.343	877.7	1.134	0.230	1048.4	1.271	0.002	1219.1	1.335	0.010	1603.9	1.369	0.059	1954.0	1.379	0.003	2124.7	1.318	0.017
539.1	1.588	0.054	709.9	1.530	0.348	880.6	1.130	0.221	1051.3	1.272	0.002	1222.0	1.336	0.010	1611.2	1.370	0.062	1956.9	1.381	0.001	2127.6	1.320	0.017
542.0	1.592	0.054	712.8	1.522	0.352	883.5	1.128	0.212	1054.2	1.276	0.002	1224.9	1.336	0.010	1618.4	1.371	0.068	1959.8	1.383	0.001	2130.5	1.321	0.017
544.9	1.595	0.058	715.6	1.517	0.356	886.4	1.128	0.203	1057.1	1.277	0.002	1227.8	1.336	0.012	1625.6	1.369	0.075	1962.7	1.386	0.003	2133.4	1.323	0.017
547.8	1.597	0.062	718.5	1.511	0.361	889.3	1.126	0.198	1060.0	1.278	0.002	1230.7	1.338	0.012	1632.9	1.364	0.080	1965.6	1.387	0.003	2136.3	1.324	0.017
550.7	1.601	0.066	721.4	1.504	0.365	892.1	1.124	0.190	1062.9	1.279	0.002	1233.6	1.337	0.012	1640.1	1.358	0.086	1968.5	1.389	0.001	2139.2	1.326	0.017
553.6	1.602	0.066	724.3	1.497	0.369	895.0	1.125	0.181	1065.7	1.282	0.002	1236.5	1.338	0.012	1647.3	1.350	0.087	1971.4	1.391	0.003	2142.1	1.326	0.018
556.5	1.608	0.074	727.2	1.490	0.370	897.9	1.123	0.176	1068.6	1.284	0.000	1239.4	1.338	0.012	1654.6	1.344	0.089	1974.3	1.394	0.003	2145.0	1.327	0.018
559.4	1.606	0.074	730.1	1.484	0.374	900.8	1.121	0.168	1071.5	1.285	0.002	1242.2	1.339	0.012	1661.8	1.335	0.089	1977.2	1.396	0.003	2147.9	1.328	0.018
562.3	1.605	0.078	733.0	1.475	0.379	903.7	1.121	0.159	1074.4	1.287	0.002	1245.1	1.340	0.012	1669.0	1.328	0.087	1980.1	1.399	0.003	2150.8	1.329	0.018
565.2	1.610	0.086	735.9	1.468	0.383	906.6	1.122	0.150	1077.3	1.288	0.002	1248.0	1.341	0.012	1676.3	1.320	0.085	1983.0	1.403	0.004	2153.7	1.330	0.018
568.1	1.609	0.090	738.8	1.458	0.384	909.5	1.123	0.146	1080.2	1.289	0.002	1256.7	1.342	0.014	1683.5	1.312	0.081	1985.9	1.406	0.006	2156.6	1.331	0.018
571.0	1.612	0.089	741.7	1.450	0.385	912.4	1.122	0.137	1083.1	1.291	0.002	1263.9	1.343	0.014	1690.7	1.306	0.077	1988.8	1.409	0.007	2159.5	1.331	0.019
573.9	1.613	0.093	744.6	1.445	0.385	915.3	1.123	0.129	1086.0	1.292	0.002	1271.2	1.345	0.014	1698.0	1.302	0.071	1991.6	1.412	0.008	2162.4	1.332	0.019
576.8	1.614	0.097	747.5	1.436	0.390	918.2	1.124	0.120	1088.9	1.293	0.002	1278.4	1.345	0.016	1705.2	1.297	0.064	1994.5	1.414	0.008	2165.3	1.332	0.019
579.7	1.617	0.105	750.4	1.428	0.390	921.1	1.127	0.112	1091.8	1.295	0.002	1285.6	1.346	0.016	1712.4	1.294	0.056	1997.4	1.417	0.008	2168.1	1.333	0.019
582.5	1.618	0.104	753.3	1.421	0.395	924.0	1.128	0.108	1094.7	1.296	0.002	1292.9	1.348	0.018	1719.7	1.293	0.045	2000.3	1.421	0.007	2171.0	1.333	0.019
585.4	1.619	0.112	756.2	1.413	0.395	926.9	1.130	0.099	1097.6	1.297	0.002	1300.1	1.348	0.018	1726.9	1.294	0.038	2003.2	1.427	0.006	2173.9	1.334	0.019
588.3	1.621	0.116	759.0	1.404	0.392	929.8	1.133	0.095	1100.5	1.298	0.002	1307.3	1.349	0.018	1734.1	1.296	0.031	2006.1	1.434	0.006	2176.8	1.335	0.021
591.2	1.623	0.124	761.9	1.396	0.397	932.7	1.136	0.087	1103.4	1.300	0.002	1314.6	1.350	0.020	1741.4	1.300	0.025	2009.0	1.442	0.005	2179.7	1.335	0.019
594.1	1.622	0.127	764.8	1.386	0.398	935.5	1.138	0.083	1106.3	1.301	0.002	1321.8	1.350	0.020	1748.6	1.304	0.022	2011.9	1.453	0.007	2182.6	1.335	0.020
597.0	1.622	0.131	767.7	1.378	0.394	938.4	1.141	0.075	1109.1	1.302	0.002	1329.1	1.352	0.020	1755.8	1.308	0.018	2014.8	1.465	0.008	2185.5	1.335	0.020
599.9	1.624	0.134	770.6	1.371	0.395	941.3	1.145	0.067	1112.0	1.304	0.002	1336.3	1.352	0.022	1763.1	1.311	0.015	2017.7	1.480	0.011	2188.4	1.336	0.020
602.8	1.624	0.138	773.5	1.363	0.396	944.2	1.147	0.063	1114.9	1.305	0.002	1343.5	1.352	0.022	1770.3	1.315	0.013	2020.6	1.498	0.017	2191.3	1.336	0.020
605.7	1.625	0.141	776.4	1.353	0.392	947.1	1.150	0.056	1117.8	1.306	0.005	1350.8	1.354	0.024	1777.5	1.318	0.012	2023.5	1.520	0.030	2194.2	1.336	0.020
608.6	1.625	0.145	779.3	1.347	0.392	950.0	1.155	0.052	1120.7	1.307	0.002	1358.0	1.353	0.024	1784.8	1.322	0.010	2026.4	1.544	0.048	2197.1	1.336	0.020
611.5	1.627	0.152	782.2	1.339	0.393	952.9	1.159	0.045	1123.6	1.308	0.002	1365.2	1.354	0.024	1792.0	1.324	0.008	2029.3	1.570	0.081	2207.2	1.337	0.020
614.4	1.626	0.160	785.1	1.328	0.390	955.8	1.164	0.041	1126.5	1.310	0.002	1372.5	1.355	0.026	1799.2	1.326	0.007	2032.2	1.589	0.129	2214.4	1.337	0.020
617.3	1.625	0.168	788.0	1.320	0.387	958.7	1.167	0.037	1129.4	1.312	0.002	1379.7	1.355	0.026	1806.5	1.329	0.007	2035.0	1.593	0.194	2221.7	1.337	0.020
620.2	1.627	0.167	790.9	1.314	0.387	961.6	1.171	0.034	1132.3	1.312	0.005	1386.9	1.356	0.026	1813.7	1.331	0.005	2037.9	1.575	0.266	2228.9	1.338	0.020
623.1	1.626	0.178	793.8	1.305	0.383	964.5	1.176	0.027	1135.2	1.313	0.005	1394.2	1.357	0.028	1820.9	1.335	0.005	2040.8	1.532	0.334	2236.1	1.339	0.019
626.0	1.626	0.182	796.7	1.297	0.380	967.4	1.181	0.027	1138.1	1.313	0.005	1401.4	1.357	0.028	1828.2	1.336	0.005	2043.7	1.465	0.389	2243.4	1.339	0.019
628.8	1.626	0.189	799.6	1.290	0.380	970.3	1.186	0.023	1141.0	1.314	0.005	1408.6	1.358	0.027	1835.4	1.339	0.004	2046.6	1.380	0.417	2250.6	1.340	0.017
631.7	1.623	0.193	802.5	1.283	0.376	973.2	1.191	0.020	1143.9	1.315	0.005	1415.9	1.358	0.029	1842.6	1.341	0.004	2049.5	1.289	0.412	2257.8	1.340	0.017
634.6	1.623	0.200	805.3	1.274	0.373	976.1	1.194	0.016	1146.8	1.316	0.005	1423.1	1.359	0.029	1849.9	1.344	0.004	2052.4	1.206	0.371	2265.1	1.341	0.017
637.5	1.621	0.204	808.2	1.265	0.370	978.9	1.198	0.017	1149.7	1.317	0.005	1430.3	1.359	0.029	1857.1	1.346	0.004	2055.3	1.146	0.302	2272.3	1.341	0.016
640.4	1.621	0.211	811.1	1.259	0.365	981.8	1.202	0.013	1152.6	1.318	0.005	1437.6	1.360	0.029	1864.3	1.347	0.004	2058.2	1.118	0.224	2279.5	1.342	0.016
643.3	1.619	0.218	814.0	1.252	0.361	984.7	1.208	0.010	1155.4	1.319	0.005	1444.8	1.360	0.031	1871.6	1.351	0.004	2061.1	1.115	0.153	2286.8	1.342	0.015
646.2	1.618	0.226	816.9	1.247	0.357	987.6	1.211	0.010	1158.3	1.320	0.005	1452.0	1.360	0.031	1878.8	1.352	0.004	2064.0	1.132	0.094	2294.0	1.343	0.015
649.1	1.616	0.229	819.8	1.238	0.354	990.5	1.216	0.007	1161.2	1.321	0.008	1459.3	1.361	0.032	1886.0	1.354	0.004	2066.9	1.160	0.055	2301.2	1.343	0.013
652.0	1.613	0.237	822.7	1.231	0.350	993.4	1.220	0.007	1164.1	1.322	0.005	1466.5	1.362	0.032	1893.3	1.355	0.004	2069.8	1.189	0.034	2308.5	1.345	0.013
654.9	1.612	0.244	825.6	1.225	0.341	996.3	1.225	0.007	1167.0	1.324	0.008	1473.7	1.362	0.032	1901.9	1.358	0.002	2072.7	1.213	0.024	2315.7	1.346	0.013
657.8	1.609	0.248	828.5	1.219	0.337	999.2	1.227	0.004	1169.9	1.323	0.008	1481.0	1.363	0.034	1904.8	1.359	0.002	2075.6	1.233	0.020	2322.9	1.346	0.013
660.7	1.606	0.251	831.4	1.212	0.333	1002.1	1.231	0.004	1172.8	1.324	0.008	1488.2	1.363	0.034	1907.7	1.360	0.002	2078.4	1.247	0.017	2330.2	1.347	0.012
663.6	1.602	0.259	834.3	1.209	0.328	1005.0	1.235	0.004	1175.7	1.324	0.008	1495.4	1.363	0.036	1910.6	1.361	0.002	2081.3	1.258	0.016	2337.4	1.348	0.012
666.5	1.598	0.267	837.2	1.200	0.325	1007.9	1.238	0.004	1178.6	1.325	0.008	1502.7	1.364	0.037	1913.5	1.362	0.003	2084.2	1.267	0.017	2344.6	1.348	0.012
669.4	1.599	0.269	840.1	1.195	0.316	1010.8	1.240	0.004	1181.5	1.326	0.008	1509.9	1.366	0.037	1916.4	1.363	0.003	2087.1	1.274	0.017	2351.9	1.349	0.011

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TABLE 14A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2359.1	1.350	0.011	2771.4	1.409	0.003	3183.7	1.620	0.328	3596.1	1.081	0.026
2366.3	1.351	0.011	2778.7	1.411	0.002	3191.0	1.611	0.347	3603.3	1.089	0.022
2373.6	1.351	0.011	2785.9	1.413	0.003	3198.2	1.600	0.365	3610.5	1.097	0.018
2380.8	1.352	0.009	2793.1	1.414	0.002	3205.4	1.588	0.382	3617.8	1.104	0.016
2388.0	1.353	0.009	2800.4	1.417	0.002	3212.7	1.575	0.399	3625.0	1.112	0.014
2395.3	1.354	0.009	2807.6	1.418	0.002	3219.9	1.560	0.414	3632.2	1.118	0.012
2402.5	1.355	0.009	2814.8	1.421	0.003	3227.1	1.544	0.428	3639.5	1.124	0.010
2409.7	1.355	0.009	2822.1	1.423	0.003	3234.4	1.528	0.443	3646.7	1.128	0.009
2417.0	1.356	0.008	2829.3	1.425	0.003	3241.6	1.510	0.455	3653.9	1.133	0.008
2424.2	1.357	0.008	2836.5	1.427	0.003	3248.8	1.491	0.467	3661.2	1.137	0.005
2431.4	1.358	0.008	2843.8	1.429	0.003	3256.1	1.472	0.476	3668.4	1.142	0.003
2438.7	1.359	0.008	2851.0	1.431	0.003	3263.3	1.451	0.486	3675.6	1.147	0.000
2445.9	1.359	0.008	2858.2	1.434	0.002	3270.5	1.430	0.494	3682.9	1.153	0.000
2453.1	1.360	0.007	2865.5	1.436	0.002	3277.8	1.408	0.500	3690.1	1.157	0.000
2460.4	1.361	0.007	2872.7	1.439	0.002	3285.0	1.387	0.505	3697.3	1.160	0.000
2467.6	1.362	0.007	2879.9	1.443	0.002	3292.2	1.364	0.508	3704.6	1.164	0.000
2474.8	1.363	0.007	2887.2	1.446	0.003	3299.5	1.342	0.509	3711.8	1.168	0.000
2482.1	1.363	0.007	2894.4	1.449	0.004	3306.7	1.320	0.507	3719.0	1.172	0.000
2489.3	1.364	0.007	2901.6	1.451	0.006	3313.9	1.299	0.505	3726.3	1.175	0.000
2496.6	1.365	0.006	2908.9	1.452	0.005	3321.2	1.278	0.502	3733.5	1.179	0.000
2503.8	1.366	0.006	2916.1	1.455	0.004	3328.4	1.259	0.498	3740.7	1.183	0.000
2511.0	1.367	0.006	2923.3	1.460	0.003	3335.6	1.240	0.492	3748.0	1.186	0.000
2518.2	1.368	0.006	2930.6	1.465	0.003	3342.9	1.222	0.485	3755.2	1.189	0.000
2525.5	1.368	0.006	2937.8	1.469	0.004	3350.1	1.204	0.480	3762.4	1.192	0.000
2532.7	1.369	0.005	2945.0	1.473	0.004	3357.3	1.187	0.474	3769.7	1.194	0.000
2540.0	1.370	0.005	2952.3	1.478	0.004	3364.6	1.169	0.467	3776.9	1.196	0.000
2547.2	1.371	0.005	2959.5	1.484	0.005	3371.8	1.153	0.459	3784.1	1.199	0.000
2554.4	1.372	0.005	2966.7	1.489	0.006	3379.0	1.136	0.450	3791.4	1.202	0.000
2561.7	1.373	0.005	2974.0	1.494	0.007	3386.3	1.119	0.442	3798.6	1.204	0.000
2568.9	1.374	0.005	2981.2	1.500	0.009	3393.5	1.103	0.431	3805.8	1.206	0.000
2576.1	1.375	0.005	2988.4	1.507	0.011	3400.7	1.086	0.419	3813.1	1.208	0.000
2583.4	1.376	0.004	2995.7	1.513	0.012	3408.0	1.070	0.406	3820.3	1.210	0.000
2590.6	1.377	0.004	3002.9	1.519	0.015	3415.2	1.054	0.392	3827.5	1.212	0.000
2597.8	1.378	0.004	3010.1	1.527	0.018	3422.4	1.040	0.377	3834.8	1.214	0.000
2605.1	1.379	0.004	3017.4	1.534	0.020	3429.7	1.026	0.360	3842.0	1.216	0.000
2612.3	1.380	0.004	3024.6	1.543	0.024	3436.9	1.014	0.343	3849.2	1.218	0.000
2619.5	1.381	0.004	3031.8	1.551	0.028	3444.1	1.004	0.324	3856.5	1.220	0.000
2626.8	1.382	0.003	3039.1	1.560	0.033	3451.4	0.995	0.304	3863.7	1.222	0.000
2634.0	1.383	0.003	3046.3	1.569	0.039	3458.6	0.987	0.284	3870.9	1.223	0.000
2641.2	1.384	0.003	3053.5	1.579	0.046	3465.9	0.981	0.263	3878.2	1.225	0.000
2648.5	1.386	0.003	3060.8	1.588	0.055	3473.1	0.978	0.242	3885.4	1.226	0.000
2655.7	1.387	0.003	3068.0	1.597	0.065	3480.3	0.976	0.221	3892.6	1.228	0.000
2662.9	1.388	0.003	3075.2	1.606	0.075	3487.6	0.977	0.201	3899.9	1.229	0.000
2670.2	1.390	0.003	3082.5	1.615	0.087	3494.8	0.978	0.182	3907.1	1.231	0.000
2677.4	1.391	0.003	3089.7	1.622	0.100	3502.0	0.982	0.163	3914.3	1.233	0.000
2684.6	1.392	0.003	3096.9	1.629	0.114	3509.3	0.987	0.146	3921.6	1.234	0.000
2691.9	1.394	0.003	3104.2	1.635	0.130	3516.5	0.992	0.130	3928.8	1.235	0.000
2699.1	1.395	0.003	3111.4	1.640	0.146	3523.7	1.000	0.115	3936.0	1.237	0.000
2706.3	1.396	0.003	3118.6	1.643	0.162	3531.0	1.008	0.101	3943.3	1.238	0.000
2713.6	1.398	0.003	3125.9	1.646	0.180	3538.2	1.016	0.089	3950.5	1.239	0.000
2720.8	1.399	0.003	3133.1	1.647	0.198	3545.4	1.024	0.078	3957.7	1.240	0.000
2728.0	1.400	0.003	3140.3	1.647	0.216	3552.7	1.033	0.067	3965.0	1.241	0.000
2735.3	1.402	0.003	3147.6	1.646	0.234	3559.9	1.041	0.059	3972.2	1.243	0.000
2742.5	1.403	0.003	3154.8	1.644	0.252	3567.1	1.049	0.051	3979.4	1.244	0.000
2749.7	1.405	0.003	3162.0	1.640	0.272	3574.4	1.057	0.044	3986.7	1.246	0.000
2757.0	1.406	0.003	3169.3	1.634	0.292	3581.6	1.066	0.038	3993.9	1.247	0.000
2764.2	1.408	0.003	3176.5	1.628	0.310	3588.8	1.074	0.032			

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TABLE 14B

H_2O:OCS = 20:1 AT 40 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.5	1.564	0.005	672.2	1.637	0.249	843.0	1.199	0.358	1013.7	1.239	0.001	1184.4	1.327	0.008	1517.1	1.365	0.043	1919.3	1.367	0.003	2090.0	1.285	0.016
504.4	1.570	0.009	675.1	1.633	0.257	845.9	1.193	0.349	1016.6	1.242	0.001	1187.3	1.328	0.008	1524.4	1.367	0.045	1922.2	1.368	0.003	2092.9	1.290	0.015
507.3	1.577	0.014	678.0	1.630	0.264	848.7	1.187	0.345	1019.5	1.245	0.001	1190.2	1.329	0.008	1531.6	1.366	0.046	1925.1	1.369	0.003	2095.8	1.295	0.015
510.2	1.586	0.023	680.9	1.627	0.272	851.6	1.181	0.337	1022.3	1.248	0.001	1193.1	1.331	0.008	1538.8	1.366	0.046	1928.0	1.370	0.003	2098.7	1.299	0.015
513.1	1.574	0.048	683.8	1.624	0.279	854.5	1.176	0.337	1025.2	1.251	0.001	1196.0	1.331	0.008	1546.1	1.366	0.048	1930.9	1.371	0.003	2101.6	1.303	0.015
516.0	1.560	0.053	686.7	1.619	0.287	857.4	1.163	0.334	1028.1	1.254	0.001	1198.8	1.333	0.010	1553.3	1.365	0.049	1933.8	1.372	0.003	2104.5	1.306	0.015
518.9	1.540	0.044	689.6	1.617	0.294	860.3	1.150	0.327	1031.0	1.256	0.001	1201.7	1.333	0.010	1560.5	1.368	0.047	1936.7	1.373	0.003	2107.4	1.309	0.015
521.8	1.543	0.029	692.5	1.612	0.298	863.2	1.140	0.311	1033.9	1.259	0.002	1204.6	1.333	0.010	1567.8	1.367	0.051	1939.6	1.375	0.003	2110.3	1.312	0.015
524.7	1.550	0.019	695.4	1.606	0.305	866.1	1.138	0.297	1036.8	1.261	0.002	1207.5	1.334	0.010	1575.0	1.366	0.054	1942.5	1.376	0.003	2113.2	1.314	0.015
527.6	1.559	0.014	698.3	1.603	0.313	869.0	1.135	0.288	1039.7	1.262	0.002	1210.4	1.334	0.010	1582.2	1.367	0.054	1945.4	1.377	0.001	2116.1	1.317	0.015
530.5	1.566	0.023	701.2	1.598	0.321	871.9	1.133	0.279	1042.6	1.264	0.002	1213.3	1.335	0.010	1589.5	1.366	0.058	1948.2	1.380	0.003	2119.0	1.319	0.015
533.4	1.574	0.018	704.1	1.592	0.329	874.8	1.129	0.270	1045.5	1.267	0.002	1216.2	1.336	0.010	1596.7	1.365	0.059	1951.1	1.381	0.003	2121.9	1.321	0.015
536.3	1.572	0.023	707.0	1.587	0.332	877.7	1.126	0.265	1048.4	1.268	0.002	1219.1	1.337	0.010	1603.9	1.365	0.061	1954.0	1.382	0.001	2124.7	1.323	0.015
539.1	1.578	0.018	709.9	1.582	0.340	880.6	1.121	0.256	1051.3	1.270	0.002	1222.0	1.337	0.010	1611.2	1.365	0.062	1956.9	1.384	0.003	2127.6	1.325	0.017
542.0	1.586	0.022	712.8	1.575	0.344	883.5	1.117	0.248	1054.2	1.273	0.002	1224.9	1.338	0.010	1618.4	1.365	0.066	1959.8	1.386	0.003	2130.5	1.326	0.017
544.9	1.587	0.031	715.6	1.568	0.357	886.4	1.117	0.238	1057.1	1.274	0.002	1227.8	1.339	0.012	1625.6	1.363	0.071	1962.7	1.388	0.003	2133.4	1.327	0.017
547.8	1.589	0.035	718.5	1.562	0.357	889.3	1.114	0.230	1060.0	1.277	0.002	1230.7	1.339	0.012	1632.9	1.360	0.075	1965.6	1.389	0.003	2136.3	1.329	0.017
550.7	1.594	0.035	721.4	1.555	0.361	892.1	1.111	0.221	1062.9	1.278	0.002	1233.6	1.338	0.012	1640.1	1.357	0.078	1968.5	1.392	0.001	2139.2	1.330	0.017
553.6	1.598	0.039	724.3	1.550	0.369	895.0	1.110	0.212	1065.7	1.281	0.002	1236.5	1.342	0.012	1647.3	1.351	0.082	1971.4	1.394	0.003	2142.1	1.332	0.018
556.5	1.601	0.043	727.2	1.541	0.373	897.9	1.109	0.203	1068.6	1.282	0.002	1239.4	1.342	0.012	1654.6	1.346	0.083	1974.3	1.396	0.003	2145.0	1.332	0.018
559.4	1.603	0.043	730.1	1.534	0.378	900.8	1.105	0.194	1071.5	1.283	0.002	1242.2	1.343	0.014	1661.8	1.338	0.085	1977.2	1.399	0.003	2147.9	1.333	0.018
562.3	1.603	0.051	733.0	1.526	0.382	903.7	1.105	0.185	1074.4	1.285	0.002	1245.1	1.343	0.014	1669.0	1.331	0.083	1980.1	1.403	0.003	2150.8	1.334	0.018
565.2	1.606	0.051	735.9	1.519	0.387	906.6	1.105	0.176	1077.3	1.286	0.002	1248.0	1.343	0.014	1676.3	1.325	0.081	1983.0	1.405	0.004	2153.7	1.335	0.018
568.1	1.607	0.059	738.8	1.511	0.392	909.5	1.105	0.167	1080.2	1.289	0.002	1256.7	1.344	0.014	1683.5	1.318	0.079	1985.9	1.409	0.006	2156.6	1.336	0.019
571.0	1.610	0.059	741.7	1.502	0.396	912.4	1.105	0.159	1083.1	1.290	0.002	1263.9	1.347	0.014	1690.7	1.313	0.075	1988.8	1.412	0.007	2159.5	1.336	0.019
573.9	1.614	0.063	744.6	1.495	0.401	915.3	1.105	0.150	1086.0	1.291	0.002	1271.2	1.347	0.016	1698.0	1.308	0.071	1991.6	1.414	0.008	2162.4	1.337	0.019
576.8	1.614	0.067	747.5	1.487	0.402	918.2	1.106	0.141	1088.9	1.292	0.002	1278.4	1.349	0.016	1705.2	1.304	0.064	1994.5	1.416	0.010	2165.3	1.338	0.019
579.7	1.617	0.070	750.4	1.479	0.406	921.1	1.107	0.133	1091.8	1.294	0.002	1285.6	1.349	0.019	1712.4	1.299	0.058	1997.4	1.418	0.008	2168.1	1.339	0.021
582.5	1.620	0.070	753.3	1.468	0.412	924.0	1.108	0.124	1094.7	1.295	0.002	1292.9	1.350	0.018	1719.7	1.298	0.049	2000.3	1.423	0.007	2171.0	1.339	0.021
585.4	1.624	0.078	756.2	1.459	0.413	926.9	1.110	0.116	1097.6	1.297	0.002	1300.1	1.351	0.021	1726.9	1.298	0.041	2003.2	1.430	0.006	2173.9	1.339	0.021
588.3	1.625	0.082	759.0	1.452	0.413	929.8	1.113	0.108	1100.5	1.298	0.002	1307.3	1.352	0.021	1734.1	1.300	0.032	2006.1	1.437	0.005	2176.8	1.339	0.021
591.2	1.625	0.085	761.9	1.442	0.418	932.7	1.115	0.099	1103.4	1.299	0.002	1314.6	1.354	0.020	1741.4	1.302	0.029	2009.0	1.445	0.007	2179.7	1.340	0.021
594.1	1.631	0.089	764.8	1.432	0.419	935.5	1.118	0.091	1106.3	1.301	0.002	1321.8	1.353	0.023	1748.6	1.306	0.023	2011.9	1.455	0.008	2182.6	1.341	0.022
597.0	1.630	0.097	767.7	1.423	0.420	938.4	1.122	0.087	1109.1	1.302	0.002	1329.1	1.354	0.025	1755.8	1.309	0.020	2014.8	1.466	0.009	2185.5	1.340	0.022
599.9	1.633	0.100	770.6	1.414	0.421	941.3	1.126	0.075	1112.0	1.303	0.002	1336.3	1.355	0.024	1763.1	1.313	0.017	2017.7	1.481	0.013	2188.4	1.341	0.022
602.8	1.633	0.104	773.5	1.405	0.422	944.2	1.129	0.071	1114.9	1.305	0.002	1343.5	1.355	0.024	1770.3	1.316	0.013	2020.6	1.498	0.019	2191.3	1.341	0.022
605.7	1.635	0.107	776.4	1.395	0.423	947.1	1.133	0.063	1117.8	1.306	0.002	1350.8	1.357	0.026	1777.5	1.320	0.012	2023.5	1.518	0.028	2194.2	1.341	0.022
608.6	1.639	0.114	779.3	1.386	0.420	950.0	1.137	0.059	1120.7	1.307	0.005	1358.0	1.356	0.026	1784.8	1.322	0.010	2026.4	1.542	0.044	2197.1	1.341	0.022
611.5	1.639	0.122	782.2	1.376	0.426	952.9	1.143	0.052	1123.6	1.308	0.002	1365.2	1.358	0.026	1792.0	1.325	0.008	2029.3	1.569	0.072	2207.2	1.342	0.022
614.4	1.637	0.122	785.1	1.366	0.423	955.8	1.148	0.044	1126.5	1.310	0.002	1372.5	1.358	0.028	1799.2	1.329	0.008	2032.2	1.594	0.116	2214.4	1.342	0.022
617.3	1.642	0.129	788.0	1.356	0.420	958.7	1.152	0.041	1129.4	1.312	0.005	1379.7	1.358	0.028	1806.5	1.331	0.007	2035.0	1.607	0.181	2221.7	1.343	0.022
620.2	1.643	0.136	790.9	1.349	0.420	961.6	1.157	0.037	1132.3	1.312	0.002	1386.9	1.360	0.028	1813.7	1.334	0.007	2037.9	1.596	0.262	2228.9	1.343	0.021
623.1	1.642	0.144	793.8	1.338	0.417	964.5	1.162	0.030	1135.2	1.313	0.005	1394.2	1.359	0.030	1820.9	1.336	0.005	2040.8	1.554	0.342	2236.1	1.343	0.021
626.0	1.643	0.143	796.7	1.329	0.418	967.4	1.168	0.026	1138.1	1.314	0.005	1401.4	1.361	0.032	1828.2	1.339	0.005	2043.7	1.482	0.410	2243.4	1.343	0.020
628.8	1.645	0.150	799.6	1.321	0.415	970.3	1.173	0.023	1141.0	1.315	0.005	1408.6	1.360	0.032	1835.4	1.341	0.005	2046.6	1.382	0.447	2250.6	1.343	0.020
631.7	1.644	0.157	802.5	1.311	0.412	973.2	1.178	0.020	1143.9	1.316	0.005	1415.9	1.360	0.031	1842.6	1.342	0.004	2049.5	1.275	0.436	2257.8	1.344	0.019
634.6	1.645	0.165	805.3	1.303	0.409	976.1	1.183	0.016	1146.8	1.317	0.005	1423.1	1.361	0.033	1849.9	1.345	0.004	2052.4	1.184	0.380	2265.1	1.345	0.019
637.5	1.646	0.172	808.2	1.294	0.409	978.9	1.188	0.016	1149.7	1.318	0.005	1430.3	1.361	0.033	1857.1	1.348	0.004	2055.3	1.126	0.294	2272.3	1.345	0.019
640.4	1.646	0.179	811.1	1.285	0.406	981.8	1.193	0.013	1152.6	1.319	0.005	1437.6	1.362	0.033	1864.3	1.350	0.004	2058.2	1.107	0.205	2279.5	1.346	0.017
643.3	1.645	0.186	814.0	1.276	0.403	984.7	1.197	0.010	1155.4	1.320	0.005	1444.8	1.362	0.035	1871.6	1.353	0.004	2061.1	1.115	0.134	2286.8	1.345	0.016
646.2	1.647	0.189	816.9	1.267	0.400	987.6	1.202	0.010	1158.3	1.321	0.008	1452.0	1.363	0.035	1878.8	1.354	0.004	2064.0	1.139	0.080	2294.0	1.347	0.016
649.1	1.646	0.196	819.8	1.259	0.392	990.5	1.208	0.007	1161.2	1.322	0.008	1459.3	1.363	0.036	1886.0	1.356	0.004	2066.9	1.169	0.047	2301.2	1.347	0.015
652.0	1.644	0.204	822.7	1.250	0.389	993.4	1.211	0.007	1164.1	1.323	0.008	1466.5	1.363	0.036	1893.3	1.358	0.004	2069.8	1.198	0.029	2308.5	1.349	0.015
654.9	1.642	0.211	825.6	1.244	0.384	996.3	1.217	0.004	1167.0	1.323	0.008	1473.7	1.364	0.036	1901.9	1.360	0.002	2072.7	1.221	0.023	2315.7	1.349	0.015
657.8	1.641	0.218	828.5	1.235	0.377	999.2	1.220	0.004	1169.9	1.324	0.008	1481.0	1.364	0.038	1904.8	1.362	0.002	2075.6	1.239	0.019	2322.9	1.350	0.014
660.7	1.640	0.225	831.4	1.228	0.377	1002.1	1.224	0.004	1172.8	1.324	0.008	1488.2	1.364	0.040	1907.7	1.363	0.003	2078.4	1.253	0.018	2330.2	1.351	0.013
663.6	1.638	0.229	834.3	1.220	0.369	1005.0	1.227	0.004	1175.7	1.325	0.008	1495.4	1.364	0.039	1910.6	1.364	0.003	2081.3	1.263	0.017	2337.4	1.352	0.013
666.5	1.630	0.237	837.2	1.214	0.365	1007.9	1.231	0.004	1178.6	1.326	0.008	1502.7	1.365	0.041	1913.5	1.365	0.003	2084.2	1.272	0.017	2344.6	1.352	0.013
669.4	1.640	0.242	840.1	1.208	0.361	1010.8	1.235	0.000	1181.5	1.327	0.008	1509.9	1.366	0.041	1916.4	1.366	0.003	2087.1	1.279	0.016	2351.9	1.352	0.012

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TABLE 14B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2359.1	1.354	0.012	2771.4	1.417	0.003	3183.7	1.654	0.382	3596.1	1.082	0.018
2366.3	1.354	0.012	2778.7	1.419	0.002	3191.0	1.641	0.403	3603.3	1.090	0.015
2373.6	1.354	0.012	2785.9	1.421	0.003	3198.2	1.628	0.424	3610.5	1.097	0.011
2380.8	1.356	0.011	2793.1	1.423	0.002	3205.4	1.613	0.444	3617.8	1.105	0.009
2388.0	1.357	0.011	2800.4	1.424	0.003	3212.7	1.595	0.464	3625.0	1.111	0.008
2395.3	1.358	0.011	2807.6	1.427	0.002	3219.9	1.578	0.481	3632.2	1.118	0.008
2402.5	1.358	0.009	2814.8	1.429	0.002	3227.1	1.558	0.497	3639.5	1.123	0.007
2409.7	1.359	0.011	2822.1	1.431	0.003	3234.4	1.537	0.514	3646.7	1.127	0.006
2417.0	1.360	0.009	2829.3	1.434	0.002	3241.6	1.515	0.530	3653.9	1.131	0.004
2424.2	1.361	0.009	2836.5	1.436	0.002	3248.8	1.491	0.543	3661.2	1.136	0.002
2431.4	1.361	0.009	2843.8	1.438	0.002	3256.1	1.466	0.554	3668.4	1.140	0.000
2438.7	1.362	0.009	2851.0	1.441	0.002	3263.3	1.439	0.564	3675.6	1.146	0.000
2445.9	1.363	0.008	2858.2	1.443	0.002	3270.5	1.411	0.571	3682.9	1.151	0.000
2453.1	1.364	0.008	2865.5	1.446	0.002	3277.8	1.384	0.575	3690.1	1.156	0.000
2460.4	1.365	0.008	2872.7	1.449	0.002	3285.0	1.356	0.578	3697.3	1.159	0.000
2467.6	1.366	0.008	2879.9	1.453	0.002	3292.2	1.326	0.578	3704.6	1.162	0.000
2474.8	1.366	0.007	2887.2	1.456	0.003	3299.5	1.299	0.575	3711.8	1.167	0.000
2482.1	1.367	0.007	2894.4	1.460	0.005	3306.7	1.273	0.568	3719.0	1.170	0.000
2489.3	1.368	0.007	2901.6	1.462	0.006	3313.9	1.248	0.561	3726.3	1.173	0.000
2496.6	1.369	0.007	2908.9	1.464	0.005	3321.2	1.224	0.554	3733.5	1.177	0.000
2503.8	1.369	0.007	2916.1	1.467	0.004	3328.4	1.203	0.544	3740.7	1.181	0.000
2511.0	1.371	0.006	2923.3	1.472	0.003	3335.6	1.183	0.532	3748.0	1.184	0.000
2518.2	1.372	0.006	2930.6	1.477	0.002	3342.9	1.163	0.522	3755.2	1.186	0.000
2525.5	1.373	0.006	2937.8	1.481	0.003	3350.1	1.145	0.510	3762.4	1.189	0.000
2532.7	1.374	0.006	2945.0	1.486	0.004	3357.3	1.128	0.500	3769.7	1.192	0.000
2540.0	1.375	0.006	2952.3	1.491	0.004	3364.6	1.111	0.489	3776.9	1.194	0.000
2547.2	1.375	0.005	2959.5	1.497	0.004	3371.8	1.094	0.477	3784.1	1.196	0.000
2554.4	1.377	0.005	2966.7	1.503	0.005	3379.0	1.078	0.466	3791.4	1.199	0.000
2561.7	1.378	0.005	2974.0	1.509	0.006	3386.3	1.061	0.452	3798.6	1.201	0.000
2568.9	1.379	0.005	2981.2	1.515	0.008	3393.5	1.045	0.438	3805.8	1.203	0.000
2576.1	1.380	0.005	2988.4	1.522	0.009	3400.7	1.030	0.424	3813.1	1.205	0.000
2583.4	1.381	0.005	2995.7	1.529	0.010	3408.0	1.015	0.408	3820.3	1.207	0.000
2590.6	1.381	0.005	3002.9	1.537	0.013	3415.2	1.000	0.391	3827.5	1.209	0.000
2597.8	1.383	0.004	3010.1	1.545	0.016	3422.4	0.987	0.371	3834.8	1.211	0.000
2605.1	1.384	0.004	3017.4	1.554	0.018	3429.7	0.974	0.350	3842.0	1.213	0.000
2612.3	1.386	0.004	3024.6	1.563	0.021	3436.9	0.964	0.330	3849.2	1.215	0.000
2619.5	1.387	0.004	3031.8	1.573	0.026	3444.1	0.956	0.307	3856.5	1.217	0.000
2626.8	1.388	0.004	3039.1	1.583	0.031	3451.4	0.948	0.285	3863.7	1.218	0.000
2634.0	1.389	0.004	3046.3	1.594	0.037	3458.6	0.945	0.260	3870.9	1.220	0.000
2641.2	1.390	0.003	3053.5	1.606	0.044	3465.9	0.943	0.237	3878.2	1.222	0.000
2648.5	1.391	0.003	3060.8	1.618	0.053	3473.1	0.944	0.215	3885.4	1.223	0.000
2655.7	1.393	0.003	3068.0	1.629	0.064	3480.3	0.946	0.193	3892.6	1.225	0.000
2662.9	1.394	0.003	3075.2	1.641	0.076	3487.6	0.950	0.172	3899.9	1.226	0.000
2670.2	1.396	0.003	3082.5	1.651	0.090	3494.8	0.956	0.152	3907.1	1.228	0.000
2677.4	1.397	0.003	3089.7	1.661	0.106	3502.0	0.964	0.134	3914.3	1.229	0.000
2684.6	1.398	0.003	3096.9	1.671	0.122	3509.3	0.972	0.117	3921.6	1.231	0.000
2691.9	1.400	0.003	3104.2	1.678	0.141	3516.5	0.981	0.103	3928.8	1.232	0.000
2699.1	1.401	0.003	3111.4	1.684	0.161	3523.7	0.990	0.089	3936.0	1.233	0.000
2706.3	1.403	0.003	3118.6	1.689	0.182	3531.0	1.001	0.077	3943.3	1.235	0.000
2713.6	1.404	0.003	3125.9	1.692	0.203	3538.2	1.010	0.068	3950.5	1.236	0.000
2720.8	1.406	0.003	3133.1	1.693	0.225	3545.4	1.021	0.059	3957.7	1.238	0.000
2728.0	1.407	0.003	3140.3	1.692	0.247	3552.7	1.030	0.050	3965.0	1.239	0.000
2735.3	1.409	0.003	3147.6	1.690	0.270	3559.9	1.039	0.043	3972.2	1.240	0.000
2742.5	1.410	0.003	3154.8	1.687	0.292	3567.1	1.049	0.037	3979.4	1.241	0.000
2749.7	1.412	0.003	3162.0	1.681	0.316	3574.4	1.057	0.031	3986.7	1.243	0.000
2757.0	1.414	0.003	3169.3	1.674	0.339	3581.6	1.066	0.027	3993.9	1.245	0.000
2764.2	1.415	0.003	3176.5	1.664	0.361	3588.8	1.074	0.022			

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TABLE 14C

H_2O:OCS = 20:1 AT 100 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.5	1.555	0.005	672.2	1.686	0.191	843.0	1.228	0.455	1013.7	1.223	0.000	1184.4	1.328	0.010	1517.1	1.366	0.052	1919.3	1.369	0.003	2090.0	1.292	0.016
504.4	1.559	0.000	675.1	1.687	0.198	845.9	1.218	0.447	1016.6	1.227	0.000	1187.3	1.329	0.010	1524.4	1.365	0.052	1922.2	1.370	0.003	2092.9	1.297	0.015
507.3	1.573	0.009	678.0	1.688	0.204	848.7	1.207	0.445	1019.5	1.231	0.000	1190.2	1.329	0.010	1531.6	1.365	0.054	1925.1	1.371	0.003	2095.8	1.301	0.015
510.2	1.581	0.024	680.9	1.688	0.215	851.6	1.197	0.438	1022.3	1.234	0.000	1193.1	1.330	0.010	1538.8	1.365	0.056	1928.0	1.372	0.003	2098.7	1.305	0.014
513.1	1.569	0.058	683.8	1.689	0.221	854.5	1.189	0.439	1025.2	1.238	0.000	1196.0	1.331	0.010	1546.1	1.364	0.055	1930.9	1.373	0.003	2101.6	1.310	0.014
516.0	1.540	0.064	686.7	1.688	0.232	857.4	1.174	0.437	1028.1	1.241	0.001	1198.8	1.331	0.010	1553.3	1.365	0.057	1933.8	1.374	0.001	2104.5	1.313	0.014
518.9	1.514	0.030	689.6	1.687	0.242	860.3	1.153	0.429	1031.0	1.244	0.001	1201.7	1.332	0.010	1560.5	1.361	0.063	1936.7	1.376	0.003	2107.4	1.316	0.014
521.8	1.528	0.015	692.5	1.685	0.249	863.2	1.140	0.409	1033.9	1.247	0.001	1204.6	1.333	0.010	1567.8	1.361	0.059	1939.6	1.378	0.003	2110.3	1.319	0.014
524.7	1.538	0.005	695.4	1.685	0.255	866.1	1.135	0.396	1036.8	1.250	0.004	1207.5	1.334	0.010	1575.0	1.363	0.060	1942.5	1.378	0.003	2113.2	1.322	0.014
527.6	1.544	0.005	698.3	1.684	0.266	869.0	1.127	0.383	1039.7	1.250	0.004	1210.4	1.335	0.010	1582.2	1.361	0.062	1945.4	1.380	0.003	2116.1	1.324	0.014
530.5	1.551	0.004	701.2	1.680	0.277	871.9	1.122	0.374	1042.6	1.253	0.001	1213.3	1.337	0.010	1589.5	1.360	0.062	1948.2	1.381	0.003	2119.0	1.326	0.014
533.4	1.558	0.004	704.1	1.678	0.287	874.8	1.116	0.365	1045.5	1.255	0.001	1216.2	1.337	0.012	1596.7	1.359	0.063	1951.1	1.383	0.001	2121.9	1.329	0.014
536.3	1.562	0.000	707.0	1.674	0.294	877.7	1.108	0.357	1048.4	1.259	0.001	1219.1	1.339	0.012	1603.9	1.358	0.065	1954.0	1.385	0.003	2124.7	1.331	0.015
539.1	1.569	0.004	709.9	1.672	0.305	880.6	1.100	0.345	1051.3	1.260	0.001	1222.0	1.339	0.012	1611.2	1.358	0.066	1956.9	1.386	0.003	2127.6	1.332	0.015
542.0	1.571	0.013	712.8	1.667	0.312	883.5	1.093	0.336	1054.2	1.265	0.000	1224.9	1.339	0.012	1618.4	1.354	0.066	1959.8	1.388	0.003	2130.5	1.334	0.015
544.9	1.572	0.013	715.6	1.665	0.323	886.4	1.089	0.323	1057.1	1.266	0.002	1227.8	1.341	0.012	1625.6	1.353	0.070	1962.7	1.390	0.003	2133.4	1.335	0.015
547.8	1.579	0.013	718.5	1.659	0.331	889.3	1.082	0.314	1060.0	1.267	0.002	1230.7	1.340	0.015	1632.9	1.353	0.071	1965.6	1.391	0.003	2136.3	1.337	0.015
550.7	1.582	0.017	721.4	1.656	0.341	892.1	1.078	0.300	1062.9	1.271	0.002	1233.6	1.339	0.012	1640.1	1.349	0.073	1968.5	1.393	0.003	2139.2	1.338	0.017
553.6	1.584	0.017	724.3	1.650	0.349	895.0	1.073	0.292	1065.7	1.274	0.002	1236.5	1.345	0.015	1647.3	1.346	0.074	1971.4	1.396	0.003	2142.1	1.339	0.017
556.5	1.590	0.017	727.2	1.645	0.360	897.9	1.069	0.278	1068.6	1.275	0.002	1239.4	1.343	0.015	1654.6	1.341	0.076	1974.3	1.398	0.003	2145.0	1.341	0.017
559.4	1.592	0.017	730.1	1.638	0.368	900.8	1.065	0.265	1071.5	1.277	0.002	1242.2	1.344	0.014	1661.8	1.339	0.076	1977.2	1.401	0.003	2147.9	1.342	0.018
562.3	1.594	0.021	733.0	1.631	0.376	903.7	1.062	0.256	1074.4	1.278	0.002	1245.1	1.344	0.014	1669.0	1.335	0.077	1980.1	1.404	0.003	2150.8	1.343	0.018
565.2	1.597	0.025	735.9	1.624	0.384	906.6	1.060	0.242	1077.3	1.280	0.002	1248.0	1.345	0.014	1676.3	1.330	0.077	1983.0	1.407	0.004	2153.7	1.344	0.018
568.1	1.600	0.029	738.8	1.617	0.392	909.5	1.057	0.228	1080.2	1.282	0.002	1256.7	1.347	0.017	1683.5	1.326	0.075	1985.9	1.411	0.004	2156.6	1.345	0.018
571.0	1.602	0.029	741.7	1.610	0.401	912.4	1.055	0.219	1083.1	1.284	0.002	1263.9	1.349	0.017	1690.7	1.320	0.073	1988.8	1.414	0.006	2159.5	1.345	0.019
573.9	1.606	0.033	744.6	1.602	0.409	915.3	1.054	0.206	1086.0	1.287	0.002	1271.2	1.350	0.019	1698.0	1.313	0.069	1991.6	1.418	0.010	2162.4	1.346	0.019
576.8	1.608	0.033	747.5	1.594	0.417	918.2	1.055	0.192	1088.9	1.287	0.002	1278.4	1.352	0.019	1705.2	1.310	0.065	1994.5	1.418	0.014	2165.3	1.347	0.021
579.7	1.613	0.041	750.4	1.584	0.422	921.1	1.055	0.179	1091.8	1.289	0.005	1285.6	1.353	0.021	1712.4	1.306	0.060	1997.4	1.417	0.013	2168.1	1.347	0.021
582.5	1.613	0.041	753.3	1.576	0.431	924.0	1.056	0.165	1094.7	1.291	0.002	1292.9	1.354	0.023	1719.7	1.302	0.052	2000.3	1.421	0.008	2171.0	1.348	0.021
585.4	1.617	0.044	756.2	1.566	0.436	926.9	1.060	0.156	1097.6	1.292	0.002	1300.1	1.355	0.023	1726.9	1.303	0.045	2003.2	1.427	0.007	2173.9	1.349	0.022
588.3	1.620	0.044	759.0	1.556	0.445	929.8	1.060	0.147	1100.5	1.292	0.005	1307.3	1.357	0.023	1734.1	1.304	0.039	2006.1	1.434	0.007	2176.8	1.349	0.022
591.2	1.623	0.048	761.9	1.547	0.450	932.7	1.063	0.130	1103.4	1.294	0.002	1314.6	1.356	0.025	1741.4	1.305	0.032	2009.0	1.441	0.008	2179.7	1.350	0.022
594.1	1.625	0.052	764.8	1.536	0.456	935.5	1.068	0.125	1106.3	1.296	0.002	1321.8	1.358	0.027	1748.6	1.308	0.027	2011.9	1.448	0.009	2182.6	1.350	0.023
597.0	1.628	0.051	767.7	1.524	0.461	938.4	1.070	0.112	1109.1	1.299	0.002	1329.1	1.358	0.027	1755.8	1.311	0.023	2014.8	1.457	0.009	2185.5	1.350	0.023
599.9	1.630	0.059	770.6	1.514	0.467	941.3	1.076	0.100	1112.0	1.299	0.002	1336.3	1.360	0.027	1763.1	1.314	0.020	2017.7	1.467	0.010	2188.4	1.350	0.023
602.8	1.633	0.063	773.5	1.504	0.468	944.2	1.081	0.091	1114.9	1.302	0.002	1343.5	1.360	0.026	1770.3	1.317	0.017	2020.6	1.481	0.011	2191.3	1.351	0.025
605.7	1.636	0.066	776.4	1.493	0.474	947.1	1.085	0.083	1117.8	1.303	0.005	1350.8	1.362	0.031	1777.5	1.320	0.015	2023.5	1.498	0.013	2194.2	1.350	0.025
608.6	1.640	0.070	779.3	1.482	0.480	950.0	1.092	0.075	1120.7	1.304	0.005	1358.0	1.361	0.031	1784.8	1.323	0.013	2026.4	1.520	0.018	2197.1	1.351	0.025
611.5	1.641	0.073	782.2	1.469	0.482	952.9	1.099	0.067	1123.6	1.305	0.005	1365.2	1.362	0.032	1792.0	1.327	0.012	2029.3	1.550	0.025	2207.2	1.351	0.026
614.4	1.644	0.073	785.1	1.458	0.484	955.8	1.103	0.055	1126.5	1.306	0.005	1372.5	1.363	0.032	1799.2	1.329	0.010	2032.2	1.592	0.044	2214.4	1.350	0.026
617.3	1.647	0.080	788.0	1.446	0.486	958.7	1.110	0.048	1129.4	1.307	0.005	1379.7	1.362	0.034	1806.5	1.331	0.008	2035.0	1.645	0.093	2221.7	1.350	0.026
620.2	1.649	0.083	790.9	1.435	0.487	961.6	1.117	0.044	1132.3	1.308	0.005	1386.9	1.363	0.034	1813.7	1.334	0.007	2037.9	1.683	0.194	2228.9	1.350	0.025
623.1	1.652	0.091	793.8	1.424	0.489	964.5	1.125	0.037	1135.2	1.309	0.005	1394.2	1.364	0.036	1820.9	1.337	0.007	2040.8	1.671	0.333	2236.1	1.350	0.025
626.0	1.655	0.094	796.7	1.412	0.491	967.4	1.131	0.033	1138.1	1.310	0.005	1401.4	1.363	0.036	1828.2	1.339	0.007	2043.7	1.589	0.477	2243.4	1.349	0.025
628.8	1.657	0.097	799.6	1.400	0.489	970.3	1.138	0.029	1141.0	1.312	0.005	1408.6	1.364	0.038	1835.4	1.341	0.005	2046.6	1.433	0.572	2250.6	1.350	0.024
631.7	1.659	0.104	802.5	1.387	0.492	973.2	1.145	0.022	1143.9	1.313	0.005	1415.9	1.366	0.038	1842.6	1.344	0.005	2049.5	1.251	0.556	2257.8	1.350	0.024
634.6	1.663	0.107	805.3	1.376	0.489	976.1	1.151	0.019	1146.8	1.314	0.005	1423.1	1.364	0.039	1849.9	1.346	0.004	2052.4	1.108	0.448	2265.1	1.350	0.023
637.5	1.664	0.115	808.2	1.363	0.492	978.9	1.158	0.015	1149.7	1.316	0.005	1430.3	1.365	0.041	1857.1	1.349	0.004	2055.3	1.041	0.291	2272.3	1.350	0.021
640.4	1.668	0.118	811.1	1.353	0.493	981.8	1.164	0.012	1152.6	1.317	0.005	1437.6	1.365	0.043	1864.3	1.351	0.004	2058.2	1.056	0.153	2279.5	1.351	0.021
643.3	1.669	0.125	814.0	1.339	0.487	984.7	1.170	0.012	1155.4	1.319	0.008	1444.8	1.366	0.041	1871.6	1.354	0.004	2061.1	1.107	0.076	2286.8	1.351	0.020
646.2	1.674	0.127	816.9	1.328	0.489	987.6	1.176	0.009	1158.3	1.318	0.008	1452.0	1.366	0.043	1878.8	1.356	0.004	2064.0	1.155	0.044	2294.0	1.352	0.018
649.1	1.674	0.138	819.8	1.316	0.483	990.5	1.183	0.006	1161.2	1.321	0.008	1459.3	1.366	0.044	1886.0	1.357	0.005	2066.9	1.191	0.031	2301.2	1.353	0.018
652.0	1.676	0.145	822.7	1.305	0.481	993.4	1.188	0.006	1164.1	1.321	0.008	1466.5	1.365	0.044	1893.3	1.358	0.004	2069.8	1.217	0.024	2308.5	1.353	0.017
654.9	1.677	0.148	825.6	1.293	0.478	996.3	1.195	0.003	1167.0	1.322	0.008	1473.7	1.364	0.048	1901.9	1.362	0.003	2072.7	1.237	0.020	2315.7	1.354	0.017
657.8	1.679	0.155	828.5	1.281	0.472	999.2	1.200	0.003	1169.9	1.323	0.008	1481.0	1.366	0.046	1904.8	1.363	0.003	2075.6	1.252	0.019	2322.9	1.355	0.016
660.7	1.683	0.161	831.4	1.271	0.473	1002.1	1.204	0.003	1172.8	1.323	0.008	1488.2	1.366	0.048	1907.7	1.365	0.003	2078.4	1.264	0.018	2330.2	1.356	0.016
663.6	1.683	0.168	834.3	1.260	0.467	1005.0	1.210	0.000	1175.7	1.325	0.008	1495.4	1.368	0.047	1910.6	1.366	0.003	2081.3	1.273	0.017	2337.4	1.356	0.014
666.5	1.685	0.174	837.2	1.248	0.465	1007.9	1.215	0.000	1178.6	1.326	0.008	1502.7	1.367	0.049	1913.5	1.367	0.003	2084.2	1.281	0.017	2344.6	1.358	0.014
669.4	1.687	0.185	840.1	1.237	0.458	1010.8	1.219	0.000	1181.5	1.327	0.008	1509.9	1.365	0.051	1916.4	1.368	0.003	2087.1	1.286	0.017	2351.9	1.358	0.014

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TABLE 14C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2359.1	1.359	0.013	2771.4	1.431	0.003	3183.7	1.711	0.497	3596.1	1.084	0.006
2366.3	1.360	0.013	2778.7	1.433	0.002	3191.0	1.691	0.524	3603.3	1.091	0.004
2373.6	1.361	0.013	2785.9	1.436	0.002	3198.2	1.671	0.549	3610.5	1.098	0.003
2380.8	1.361	0.012	2793.1	1.438	0.002	3205.4	1.648	0.574	3617.8	1.104	0.000
2388.0	1.363	0.012	2800.4	1.441	0.002	3212.7	1.625	0.597	3625.0	1.110	0.000
2395.3	1.364	0.012	2807.6	1.442	0.002	3219.9	1.599	0.621	3632.2	1.116	0.000
2402.5	1.365	0.011	2814.8	1.445	0.002	3227.1	1.571	0.642	3639.5	1.122	0.000
2409.7	1.365	0.012	2822.1	1.448	0.002	3234.4	1.540	0.664	3646.7	1.127	0.000
2417.0	1.366	0.011	2829.3	1.451	0.002	3241.6	1.506	0.683	3653.9	1.131	0.000
2424.2	1.367	0.011	2836.5	1.453	0.002	3248.8	1.470	0.700	3661.2	1.136	0.000
2431.4	1.368	0.011	2843.8	1.456	0.001	3256.1	1.430	0.715	3668.4	1.141	0.000
2438.7	1.369	0.011	2851.0	1.459	0.002	3263.3	1.386	0.724	3675.6	1.145	0.000
2445.9	1.370	0.009	2858.2	1.462	0.002	3270.5	1.341	0.728	3682.9	1.149	0.000
2453.1	1.371	0.009	2865.5	1.466	0.002	3277.8	1.297	0.723	3690.1	1.153	0.000
2460.4	1.372	0.009	2872.7	1.470	0.002	3285.0	1.254	0.716	3697.3	1.157	0.000
2467.6	1.372	0.009	2879.9	1.474	0.003	3292.2	1.213	0.702	3704.6	1.161	0.000
2474.8	1.373	0.008	2887.2	1.478	0.002	3299.5	1.176	0.685	3711.8	1.165	0.000
2482.1	1.374	0.008	2894.4	1.483	0.004	3306.7	1.143	0.663	3719.0	1.168	0.000
2489.3	1.375	0.008	2901.6	1.485	0.007	3313.9	1.115	0.640	3726.3	1.171	0.000
2496.6	1.376	0.007	2908.9	1.487	0.006	3321.2	1.091	0.616	3733.5	1.174	0.000
2503.8	1.377	0.007	2916.1	1.491	0.005	3328.4	1.070	0.594	3740.7	1.177	0.000
2511.0	1.378	0.007	2923.3	1.496	0.004	3335.6	1.054	0.571	3748.0	1.179	0.000
2518.2	1.379	0.007	2930.6	1.502	0.004	3342.9	1.037	0.550	3755.2	1.182	0.000
2525.5	1.380	0.007	2937.8	1.508	0.005	3350.1	1.023	0.531	3762.4	1.184	0.000
2532.7	1.381	0.006	2945.0	1.513	0.006	3357.3	1.010	0.513	3769.7	1.187	0.000
2540.0	1.383	0.006	2952.3	1.519	0.007	3364.6	0.997	0.496	3776.9	1.190	0.000
2547.2	1.384	0.006	2959.5	1.525	0.007	3371.8	0.983	0.479	3784.1	1.192	0.000
2554.4	1.385	0.006	2966.7	1.532	0.009	3379.0	0.971	0.461	3791.4	1.194	0.000
2561.7	1.386	0.005	2974.0	1.539	0.010	3386.3	0.959	0.444	3798.6	1.197	0.000
2568.9	1.387	0.005	2981.2	1.546	0.011	3393.5	0.943	0.426	3805.8	1.198	0.000
2576.1	1.388	0.005	2988.4	1.553	0.013	3400.7	0.930	0.405	3813.1	1.200	0.000
2583.4	1.390	0.005	2995.7	1.561	0.015	3408.0	0.918	0.383	3820.3	1.203	0.000
2590.6	1.391	0.005	3002.9	1.570	0.017	3415.2	0.908	0.359	3827.5	1.205	0.000
2597.8	1.391	0.004	3010.1	1.579	0.020	3422.4	0.899	0.336	3834.8	1.207	0.000
2605.1	1.393	0.004	3017.4	1.588	0.023	3429.7	0.890	0.310	3842.0	1.208	0.000
2612.3	1.395	0.004	3024.6	1.599	0.027	3436.9	0.885	0.284	3849.2	1.210	0.000
2619.5	1.396	0.004	3031.8	1.610	0.030	3444.1	0.882	0.256	3856.5	1.211	0.000
2626.8	1.397	0.004	3039.1	1.622	0.035	3451.4	0.882	0.227	3863.7	1.214	0.000
2634.0	1.399	0.004	3046.3	1.635	0.040	3458.6	0.887	0.199	3870.9	1.215	0.000
2641.2	1.400	0.003	3053.5	1.649	0.048	3465.9	0.894	0.174	3878.2	1.217	0.000
2648.5	1.401	0.003	3060.8	1.664	0.056	3473.1	0.903	0.151	3885.4	1.219	0.000
2655.7	1.403	0.003	3068.0	1.680	0.067	3480.3	0.913	0.131	3892.6	1.220	0.000
2662.9	1.405	0.003	3075.2	1.697	0.080	3487.6	0.925	0.112	3899.9	1.222	0.000
2670.2	1.406	0.003	3082.5	1.714	0.096	3494.8	0.939	0.096	3907.1	1.223	0.000
2677.4	1.408	0.003	3089.7	1.729	0.115	3502.0	0.951	0.081	3914.3	1.224	0.000
2684.6	1.409	0.003	3096.9	1.744	0.137	3509.3	0.965	0.069	3921.6	1.226	0.000
2691.9	1.411	0.003	3104.2	1.756	0.162	3516.5	0.978	0.058	3928.8	1.227	0.000
2699.1	1.412	0.003	3111.4	1.767	0.190	3523.7	0.990	0.049	3936.0	1.228	0.000
2706.3	1.414	0.003	3118.6	1.775	0.219	3531.0	1.002	0.042	3943.3	1.230	0.000
2713.6	1.416	0.003	3125.9	1.779	0.250	3538.2	1.013	0.036	3950.5	1.231	0.000
2720.8	1.417	0.002	3133.1	1.781	0.281	3545.4	1.023	0.031	3957.7	1.233	0.000
2728.0	1.419	0.002	3140.3	1.779	0.314	3552.7	1.033	0.026	3965.0	1.234	0.000
2735.3	1.422	0.002	3147.6	1.774	0.346	3559.9	1.043	0.021	3972.2	1.235	0.000
2742.5	1.423	0.003	3154.8	1.767	0.377	3567.1	1.053	0.018	3979.4	1.237	0.000
2749.7	1.425	0.002	3162.0	1.756	0.410	3574.4	1.061	0.014	3986.7	1.239	0.000
2757.0	1.427	0.003	3169.3	1.743	0.439	3581.6	1.069	0.011	3993.9	1.240	0.000
2764.2	1.430	0.003	3176.5	1.728	0.469	3588.8	1.076	0.008			

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TABLE 14D

H_2O:OCS = 20:1 AT 120 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.5	1.557	0.000	672.2	1.693	0.183	843.0	1.226	0.469	1013.7	1.222	0.000	1184.4	1.328	0.008	1517.1	1.367	0.052	1919.3	1.369	0.003	2090.0	1.293	0.016
504.4	1.563	0.009	675.1	1.693	0.190	845.9	1.214	0.462	1016.6	1.227	0.000	1187.3	1.329	0.010	1524.4	1.364	0.052	1922.2	1.370	0.003	2092.9	1.298	0.016
507.3	1.569	0.009	678.0	1.695	0.196	848.7	1.203	0.455	1019.5	1.230	0.000	1190.2	1.329	0.008	1531.6	1.365	0.052	1925.1	1.371	0.003	2095.8	1.303	0.015
510.2	1.579	0.019	680.9	1.695	0.206	851.6	1.195	0.452	1022.3	1.235	0.000	1193.1	1.331	0.010	1538.8	1.366	0.056	1928.0	1.371	0.001	2098.7	1.306	0.015
513.1	1.572	0.058	683.8	1.696	0.213	854.5	1.185	0.449	1025.2	1.238	0.000	1196.0	1.331	0.010	1546.1	1.364	0.055	1930.9	1.374	0.003	2101.6	1.310	0.014
516.0	1.535	0.075	686.7	1.696	0.227	857.4	1.168	0.453	1028.1	1.243	0.001	1198.8	1.332	0.010	1553.3	1.365	0.057	1933.8	1.374	0.001	2104.5	1.314	0.014
518.9	1.508	0.035	689.6	1.694	0.233	860.3	1.146	0.440	1031.0	1.244	0.001	1201.7	1.333	0.010	1560.5	1.361	0.063	1936.7	1.376	0.003	2107.4	1.317	0.014
521.8	1.525	0.010	692.5	1.694	0.240	863.2	1.133	0.420	1033.9	1.247	0.001	1204.6	1.333	0.010	1567.8	1.362	0.059	1939.6	1.377	0.001	2110.3	1.320	0.014
524.7	1.533	0.000	695.4	1.694	0.250	866.1	1.126	0.407	1036.8	1.250	0.001	1207.5	1.334	0.010	1575.0	1.363	0.060	1942.5	1.379	0.003	2113.2	1.322	0.014
527.6	1.542	0.000	698.3	1.693	0.260	869.0	1.121	0.394	1039.7	1.250	0.001	1210.4	1.335	0.010	1582.2	1.360	0.062	1945.4	1.380	0.001	2116.1	1.325	0.014
530.5	1.550	0.009	701.2	1.690	0.271	871.9	1.114	0.385	1042.6	1.253	0.001	1213.3	1.337	0.010	1589.5	1.360	0.062	1948.2	1.382	0.003	2119.0	1.327	0.014
533.4	1.553	0.000	704.1	1.688	0.282	874.8	1.105	0.373	1045.5	1.255	0.000	1216.2	1.338	0.012	1596.7	1.359	0.065	1951.1	1.383	0.003	2121.9	1.329	0.014
536.3	1.559	0.000	707.0	1.685	0.288	877.7	1.100	0.364	1048.4	1.260	0.001	1219.1	1.338	0.012	1603.9	1.358	0.065	1954.0	1.385	0.003	2124.7	1.332	0.014
539.1	1.564	0.004	709.9	1.682	0.299	880.6	1.091	0.356	1051.3	1.261	0.000	1222.0	1.338	0.012	1611.2	1.357	0.066	1956.9	1.386	0.003	2127.6	1.333	0.015
542.0	1.569	0.004	712.8	1.678	0.306	883.5	1.085	0.343	1054.2	1.266	0.000	1224.9	1.339	0.012	1618.4	1.353	0.066	1959.8	1.388	0.001	2130.5	1.335	0.015
544.9	1.576	0.008	715.6	1.675	0.321	886.4	1.077	0.330	1057.1	1.267	0.002	1227.8	1.340	0.012	1625.6	1.353	0.070	1962.7	1.390	0.003	2133.4	1.336	0.015
547.8	1.576	0.013	718.5	1.671	0.328	889.3	1.071	0.316	1060.0	1.269	0.002	1230.7	1.341	0.012	1632.9	1.351	0.069	1965.6	1.392	0.003	2136.3	1.338	0.015
550.7	1.577	0.017	721.4	1.667	0.339	892.1	1.067	0.307	1062.9	1.271	0.002	1233.6	1.341	0.012	1640.1	1.350	0.071	1968.5	1.394	0.003	2139.2	1.339	0.015
553.6	1.580	0.013	724.3	1.662	0.346	895.0	1.063	0.294	1065.7	1.273	0.002	1236.5	1.345	0.015	1647.3	1.347	0.074	1971.4	1.396	0.003	2142.1	1.340	0.017
556.5	1.589	0.017	727.2	1.656	0.358	897.9	1.057	0.280	1068.6	1.274	0.002	1239.4	1.344	0.015	1654.6	1.341	0.076	1974.3	1.398	0.003	2145.0	1.342	0.017
559.4	1.588	0.017	730.1	1.650	0.365	900.8	1.054	0.267	1071.5	1.276	0.002	1242.2	1.344	0.014	1661.8	1.340	0.076	1977.2	1.401	0.003	2147.9	1.343	0.018
562.3	1.591	0.021	733.0	1.643	0.373	903.7	1.051	0.257	1074.4	1.278	0.002	1245.1	1.345	0.014	1669.0	1.335	0.076	1980.1	1.404	0.003	2150.8	1.344	0.018
565.2	1.594	0.025	735.9	1.637	0.385	906.6	1.048	0.244	1077.3	1.280	0.002	1248.0	1.346	0.014	1676.3	1.331	0.075	1983.0	1.407	0.004	2153.7	1.345	0.018
568.1	1.595	0.021	738.8	1.629	0.393	909.5	1.046	0.230	1080.2	1.282	0.002	1256.7	1.347	0.017	1683.5	1.327	0.075	1985.9	1.411	0.004	2156.6	1.346	0.018
571.0	1.601	0.025	741.7	1.622	0.401	912.4	1.047	0.216	1083.1	1.284	0.002	1263.9	1.349	0.017	1690.7	1.321	0.073	1988.8	1.414	0.006	2159.5	1.346	0.019
573.9	1.603	0.029	744.6	1.615	0.409	915.3	1.045	0.203	1086.0	1.286	0.002	1271.2	1.351	0.019	1698.0	1.315	0.069	1991.6	1.419	0.010	2162.4	1.347	0.019
576.8	1.606	0.033	747.5	1.608	0.418	918.2	1.045	0.189	1088.9	1.286	0.002	1278.4	1.353	0.019	1705.2	1.311	0.065	1994.5	1.419	0.015	2165.3	1.348	0.021
579.7	1.610	0.037	750.4	1.597	0.427	921.1	1.046	0.175	1091.8	1.288	0.002	1285.6	1.353	0.021	1712.4	1.306	0.060	1997.4	1.417	0.014	2168.1	1.348	0.021
582.5	1.612	0.032	753.3	1.588	0.435	924.0	1.050	0.162	1094.7	1.290	0.002	1292.9	1.354	0.023	1719.7	1.302	0.052	2000.3	1.420	0.008	2171.0	1.349	0.021
585.4	1.614	0.040	756.2	1.577	0.441	926.9	1.051	0.153	1097.6	1.292	0.002	1300.1	1.355	0.023	1726.9	1.303	0.045	2003.2	1.426	0.007	2173.9	1.350	0.021
588.3	1.618	0.040	759.0	1.569	0.445	929.8	1.053	0.139	1100.5	1.292	0.002	1307.3	1.357	0.025	1734.1	1.304	0.041	2006.1	1.433	0.007	2176.8	1.350	0.022
591.2	1.621	0.048	761.9	1.558	0.455	932.7	1.057	0.126	1103.4	1.294	0.002	1314.6	1.357	0.025	1741.4	1.305	0.032	2009.0	1.440	0.008	2179.7	1.351	0.022
594.1	1.623	0.048	764.8	1.547	0.460	935.5	1.062	0.117	1106.3	1.296	0.002	1321.8	1.358	0.027	1748.6	1.309	0.027	2011.9	1.446	0.009	2182.6	1.351	0.023
597.0	1.625	0.047	767.7	1.537	0.466	938.4	1.065	0.109	1109.1	1.298	0.002	1329.1	1.359	0.027	1755.8	1.311	0.023	2014.8	1.454	0.009	2185.5	1.351	0.023
599.9	1.631	0.055	770.6	1.526	0.471	941.3	1.071	0.096	1112.0	1.300	0.002	1336.3	1.360	0.029	1763.1	1.315	0.020	2017.7	1.464	0.009	2188.4	1.352	0.025
602.8	1.630	0.059	773.5	1.514	0.477	944.2	1.076	0.088	1114.9	1.302	0.002	1343.5	1.360	0.026	1770.3	1.318	0.017	2020.6	1.477	0.010	2191.3	1.351	0.025
605.7	1.635	0.058	776.4	1.504	0.483	947.1	1.081	0.075	1117.8	1.303	0.005	1350.8	1.361	0.031	1777.5	1.321	0.015	2023.5	1.493	0.011	2194.2	1.352	0.025
608.6	1.637	0.062	779.3	1.493	0.485	950.0	1.088	0.067	1120.7	1.303	0.002	1358.0	1.362	0.030	1784.8	1.324	0.013	2026.4	1.514	0.013	2197.1	1.352	0.025
611.5	1.641	0.069	782.2	1.480	0.491	952.9	1.095	0.059	1123.6	1.304	0.005	1365.2	1.362	0.032	1792.0	1.326	0.012	2029.3	1.543	0.018	2207.2	1.352	0.026
614.4	1.642	0.069	785.1	1.468	0.493	955.8	1.102	0.052	1126.5	1.307	0.005	1372.5	1.363	0.032	1799.2	1.329	0.010	2032.2	1.586	0.029	2214.4	1.352	0.027
617.3	1.647	0.076	788.0	1.457	0.495	958.7	1.111	0.044	1129.4	1.307	0.005	1379.7	1.362	0.034	1806.5	1.332	0.008	2035.0	1.647	0.066	2221.7	1.351	0.027
620.2	1.649	0.076	790.9	1.443	0.497	961.6	1.117	0.040	1132.3	1.308	0.005	1386.9	1.364	0.034	1813.7	1.334	0.007	2037.9	1.705	0.165	2228.9	1.350	0.027
623.1	1.651	0.087	793.8	1.432	0.499	964.5	1.124	0.033	1135.2	1.309	0.005	1394.2	1.364	0.036	1820.9	1.337	0.007	2040.8	1.710	0.324	2236.1	1.350	0.025
626.0	1.653	0.086	796.7	1.420	0.501	967.4	1.130	0.029	1138.1	1.310	0.005	1401.4	1.364	0.036	1828.2	1.339	0.007	2043.7	1.626	0.502	2243.4	1.350	0.025
628.8	1.657	0.093	799.6	1.408	0.503	970.3	1.138	0.026	1141.0	1.312	0.005	1408.6	1.364	0.038	1835.4	1.342	0.005	2046.6	1.447	0.616	2250.6	1.350	0.024
631.7	1.660	0.096	802.5	1.395	0.502	973.2	1.145	0.022	1143.9	1.313	0.005	1415.9	1.366	0.040	1842.6	1.344	0.005	2049.5	1.238	0.599	2257.8	1.350	0.024
634.6	1.662	0.104	805.3	1.382	0.500	976.1	1.151	0.019	1146.8	1.314	0.005	1423.1	1.364	0.039	1849.9	1.345	0.004	2052.4	1.077	0.467	2265.1	1.351	0.023
637.5	1.665	0.107	808.2	1.370	0.502	978.9	1.158	0.012	1149.7	1.315	0.005	1430.3	1.365	0.041	1857.1	1.349	0.004	2055.3	1.010	0.284	2272.3	1.351	0.021
640.4	1.668	0.110	811.1	1.359	0.504	981.8	1.165	0.012	1152.6	1.317	0.005	1437.6	1.365	0.043	1864.3	1.351	0.004	2058.2	1.039	0.127	2279.5	1.351	0.021
643.3	1.670	0.117	814.0	1.345	0.503	984.7	1.170	0.009	1155.4	1.318	0.005	1444.8	1.366	0.041	1871.6	1.354	0.004	2061.1	1.107	0.055	2286.8	1.352	0.020
646.2	1.673	0.124	816.9	1.332	0.501	987.6	1.176	0.006	1158.3	1.319	0.008	1452.0	1.365	0.043	1878.8	1.356	0.004	2064.0	1.161	0.032	2294.0	1.352	0.018
649.1	1.674	0.127	819.8	1.318	0.500	990.5	1.183	0.006	1161.2	1.320	0.008	1459.3	1.365	0.044	1886.0	1.357	0.004	2066.9	1.198	0.025	2301.2	1.353	0.018
652.0	1.676	0.134	822.7	1.306	0.498	993.4	1.188	0.003	1164.1	1.322	0.008	1466.5	1.365	0.044	1893.3	1.358	0.004	2069.8	1.223	0.021	2308.5	1.354	0.017
654.9	1.678	0.140	825.6	1.294	0.491	996.3	1.194	0.003	1167.0	1.322	0.008	1473.7	1.365	0.048	1901.9	1.362	0.003	2072.7	1.242	0.020	2315.7	1.355	0.017
657.8	1.683	0.147	828.5	1.282	0.489	999.2	1.198	0.000	1169.9	1.323	0.008	1481.0	1.366	0.046	1904.8	1.363	0.003	2075.6	1.255	0.019	2322.9	1.356	0.016
660.7	1.683	0.153	831.4	1.271	0.487	1002.1	1.205	0.000	1172.8	1.324	0.008	1488.2	1.366	0.048	1907.7	1.365	0.003	2078.4	1.267	0.018	2330.2	1.357	0.016
663.6	1.685	0.160	834.3	1.260	0.480	1005.0	1.209	0.000	1175.7	1.325	0.008	1495.4	1.367	0.047	1910.6	1.366	0.003	2081.3	1.275	0.019	2337.4	1.357	0.014
666.5	1.683	0.167	837.2	1.247	0.478	1007.9	1.213	0.000	1178.6	1.326	0.008	1502.7	1.367	0.049	1913.5	1.367	0.003	2084.2	1.283	0.017	2344.6	1.358	0.014
669.4	1.695	0.172	840.1	1.236	0.472	1010.8	1.220	0.000	1181.5	1.327	0.008	1509.9	1.365	0.051	1916.4	1.368	0.003	2087.1	1.289	0.017	2351.9	1.359	0.014

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TABLE 14D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2359.1	1.360	0.013	2771.4	1.433	0.003	3183.7	1.715	0.504	3596.1	1.083	0.005
2366.3	1.361	0.013	2778.7	1.436	0.002	3191.0	1.695	0.532	3603.3	1.090	0.002
2373.6	1.362	0.013	2785.9	1.438	0.002	3198.2	1.674	0.558	3610.5	1.097	0.002
2380.8	1.362	0.012	2793.1	1.440	0.001	3205.4	1.650	0.584	3617.8	1.103	0.000
2388.0	1.364	0.012	2800.4	1.442	0.002	3212.7	1.625	0.608	3625.0	1.110	0.000
2395.3	1.364	0.012	2807.6	1.445	0.002	3219.9	1.599	0.630	3632.2	1.115	0.000
2402.5	1.365	0.012	2814.8	1.447	0.002	3227.1	1.570	0.654	3639.5	1.121	0.000
2409.7	1.366	0.012	2822.1	1.450	0.002	3234.4	1.538	0.673	3646.7	1.126	0.000
2417.0	1.367	0.011	2829.3	1.453	0.002	3241.6	1.504	0.695	3653.9	1.131	0.000
2424.2	1.368	0.011	2836.5	1.456	0.002	3248.8	1.466	0.711	3661.2	1.135	0.000
2431.4	1.369	0.011	2843.8	1.459	0.002	3256.1	1.425	0.725	3668.4	1.141	0.000
2438.7	1.369	0.011	2851.0	1.462	0.002	3263.3	1.381	0.732	3675.6	1.145	0.000
2445.9	1.371	0.009	2858.2	1.466	0.003	3270.5	1.335	0.736	3682.9	1.149	0.000
2453.1	1.372	0.009	2865.5	1.469	0.003	3277.8	1.290	0.734	3690.1	1.153	0.000
2460.4	1.372	0.009	2872.7	1.473	0.003	3285.0	1.245	0.725	3697.3	1.157	0.000
2467.6	1.372	0.008	2879.9	1.477	0.002	3292.2	1.203	0.709	3704.6	1.161	0.000
2474.8	1.374	0.008	2887.2	1.481	0.003	3299.5	1.165	0.690	3711.8	1.164	0.000
2482.1	1.375	0.008	2894.4	1.486	0.005	3306.7	1.133	0.668	3719.0	1.168	0.000
2489.3	1.376	0.008	2901.6	1.489	0.008	3313.9	1.104	0.642	3726.3	1.171	0.000
2496.6	1.377	0.007	2908.9	1.491	0.007	3321.2	1.080	0.619	3733.5	1.174	0.000
2503.8	1.378	0.007	2916.1	1.495	0.006	3328.4	1.061	0.594	3740.7	1.177	0.000
2511.0	1.379	0.007	2923.3	1.500	0.006	3335.6	1.043	0.571	3748.0	1.179	0.000
2518.2	1.380	0.007	2930.6	1.506	0.007	3342.9	1.029	0.550	3755.2	1.182	0.000
2525.5	1.380	0.006	2937.8	1.511	0.007	3350.1	1.015	0.529	3762.4	1.184	0.000
2532.7	1.382	0.006	2945.0	1.517	0.009	3357.3	1.003	0.511	3769.7	1.187	0.000
2540.0	1.384	0.006	2952.3	1.523	0.009	3364.6	0.990	0.493	3776.9	1.189	0.000
2547.2	1.385	0.006	2959.5	1.529	0.011	3371.8	0.977	0.476	3784.1	1.192	0.000
2554.4	1.385	0.005	2966.7	1.535	0.012	3379.0	0.965	0.459	3791.4	1.194	0.000
2561.7	1.387	0.005	2974.0	1.542	0.013	3386.3	0.954	0.441	3798.6	1.197	0.000
2568.9	1.388	0.005	2981.2	1.549	0.015	3393.5	0.940	0.423	3805.8	1.198	0.000
2576.1	1.389	0.005	2988.4	1.557	0.018	3400.7	0.925	0.403	3813.1	1.201	0.000
2583.4	1.391	0.005	2995.7	1.565	0.020	3408.0	0.914	0.382	3820.3	1.203	0.000
2590.6	1.392	0.005	3002.9	1.573	0.022	3415.2	0.904	0.358	3827.5	1.205	0.000
2597.8	1.393	0.004	3010.1	1.582	0.025	3422.4	0.895	0.334	3834.8	1.207	0.000
2605.1	1.394	0.004	3017.4	1.591	0.029	3429.7	0.886	0.307	3842.0	1.209	0.000
2612.3	1.396	0.004	3024.6	1.601	0.032	3436.9	0.880	0.281	3849.2	1.211	0.000
2619.5	1.397	0.004	3031.8	1.612	0.036	3444.1	0.878	0.254	3856.5	1.211	0.000
2626.8	1.398	0.003	3039.1	1.623	0.041	3451.4	0.878	0.225	3863.7	1.214	0.000
2634.0	1.400	0.003	3046.3	1.636	0.047	3458.6	0.883	0.196	3870.9	1.216	0.000
2641.2	1.401	0.003	3053.5	1.649	0.053	3465.9	0.890	0.172	3878.2	1.217	0.000
2648.5	1.403	0.003	3060.8	1.663	0.062	3473.1	0.900	0.148	3885.4	1.219	0.000
2655.7	1.405	0.003	3068.0	1.678	0.072	3480.3	0.910	0.126	3892.6	1.220	0.000
2662.9	1.406	0.003	3075.2	1.694	0.085	3487.6	0.923	0.109	3899.9	1.222	0.000
2670.2	1.407	0.003	3082.5	1.710	0.099	3494.8	0.936	0.092	3907.1	1.223	0.000
2677.4	1.409	0.003	3089.7	1.726	0.117	3502.0	0.950	0.078	3914.3	1.225	0.000
2684.6	1.411	0.003	3096.9	1.742	0.138	3509.3	0.963	0.066	3921.6	1.226	0.000
2691.9	1.412	0.003	3104.2	1.755	0.162	3516.5	0.976	0.056	3928.8	1.228	0.000
2699.1	1.414	0.002	3111.4	1.767	0.189	3523.7	0.988	0.047	3936.0	1.229	0.000
2706.3	1.416	0.003	3118.6	1.776	0.218	3531.0	1.000	0.040	3943.3	1.230	0.000
2713.6	1.418	0.002	3125.9	1.782	0.248	3538.2	1.012	0.033	3950.5	1.231	0.000
2720.8	1.419	0.002	3133.1	1.785	0.281	3545.4	1.022	0.028	3957.7	1.233	0.000
2728.0	1.422	0.002	3140.3	1.784	0.314	3552.7	1.033	0.023	3965.0	1.234	0.000
2735.3	1.424	0.003	3147.6	1.780	0.348	3559.9	1.042	0.019	3972.2	1.236	0.000
2742.5	1.425	0.003	3154.8	1.773	0.380	3567.1	1.051	0.016	3979.4	1.237	0.000
2749.7	1.427	0.003	3162.0	1.762	0.413	3574.4	1.060	0.012	3986.7	1.239	0.000
2757.0	1.429	0.003	3169.3	1.749	0.445	3581.6	1.068	0.009	3993.9	1.241	0.000
2764.2	1.431	0.003	3176.5	1.733	0.476	3588.8	1.076	0.007			

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TABLE 14E

H_2O:OCS = 20:1 AT 140 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
501.5	1.544	0.000	672.2	1.691	0.168	843.0	1.241	0.477	1013.7	1.220	0.000	1184.4	1.328	0.010	1517.1	1.365	0.053	1919.3	1.368	0.003	2090.0	1.299	0.016
504.4	1.548	0.000	675.1	1.692	0.175	845.9	1.228	0.471	1016.6	1.224	0.000	1187.3	1.328	0.010	1524.4	1.365	0.052	1922.2	1.369	0.003	2092.9	1.304	0.016
507.3	1.563	0.004	678.0	1.691	0.185	848.7	1.218	0.468	1019.5	1.228	0.000	1190.2	1.328	0.010	1531.6	1.363	0.054	1925.1	1.370	0.003	2095.8	1.308	0.015
510.2	1.573	0.009	680.9	1.692	0.188	851.6	1.206	0.462	1022.3	1.232	0.000	1193.1	1.329	0.010	1538.8	1.364	0.056	1928.0	1.372	0.003	2098.7	1.311	0.015
513.1	1.572	0.043	683.8	1.694	0.198	854.5	1.196	0.459	1025.2	1.236	0.000	1196.0	1.330	0.010	1546.1	1.363	0.055	1930.9	1.373	0.003	2101.6	1.315	0.014
516.0	1.533	0.065	686.7	1.694	0.208	857.4	1.180	0.458	1028.1	1.239	0.000	1198.8	1.331	0.010	1553.3	1.362	0.057	1933.8	1.373	0.003	2104.5	1.319	0.014
518.9	1.511	0.020	689.6	1.694	0.218	860.3	1.156	0.451	1031.0	1.242	0.001	1201.7	1.332	0.010	1560.5	1.362	0.059	1936.7	1.375	0.003	2107.4	1.321	0.014
521.8	1.528	0.005	692.5	1.693	0.225	863.2	1.144	0.426	1033.9	1.246	0.001	1204.6	1.333	0.010	1567.8	1.361	0.059	1939.6	1.376	0.003	2110.3	1.324	0.014
524.7	1.538	0.005	695.4	1.694	0.235	866.1	1.137	0.417	1036.8	1.249	0.004	1207.5	1.334	0.010	1575.0	1.361	0.060	1942.5	1.378	0.003	2113.2	1.327	0.014
527.6	1.544	0.005	698.3	1.693	0.242	869.0	1.131	0.404	1039.7	1.249	0.004	1210.4	1.335	0.010	1582.2	1.359	0.062	1945.4	1.379	0.003	2116.1	1.329	0.014
530.5	1.549	0.004	701.2	1.693	0.252	871.9	1.124	0.396	1042.6	1.252	0.001	1213.3	1.336	0.010	1589.5	1.359	0.063	1948.2	1.380	0.001	2119.0	1.331	0.014
533.4	1.554	0.000	704.1	1.691	0.262	874.8	1.115	0.388	1045.5	1.254	0.001	1216.2	1.337	0.010	1596.7	1.358	0.065	1951.1	1.382	0.003	2121.9	1.333	0.014
536.3	1.562	0.004	707.0	1.688	0.269	877.7	1.108	0.375	1048.4	1.256	0.001	1219.1	1.337	0.012	1603.9	1.356	0.065	1954.0	1.383	0.003	2124.7	1.335	0.014
539.1	1.562	0.009	709.9	1.687	0.283	880.6	1.099	0.367	1051.3	1.260	0.001	1222.0	1.338	0.012	1611.2	1.354	0.066	1956.9	1.385	0.003	2127.6	1.337	0.016
542.0	1.566	0.004	712.8	1.684	0.290	883.5	1.093	0.354	1054.2	1.264	0.002	1224.9	1.338	0.012	1618.4	1.352	0.066	1959.8	1.386	0.001	2130.5	1.338	0.016
544.9	1.566	0.013	715.6	1.680	0.301	886.4	1.085	0.341	1057.1	1.265	0.002	1227.8	1.339	0.012	1625.6	1.351	0.068	1962.7	1.388	0.003	2133.4	1.340	0.016
547.8	1.568	0.009	718.5	1.677	0.312	889.3	1.078	0.333	1060.0	1.267	0.002	1230.7	1.340	0.012	1632.9	1.349	0.069	1965.6	1.390	0.003	2136.3	1.341	0.016
550.7	1.576	0.013	721.4	1.673	0.319	892.1	1.072	0.320	1062.9	1.270	0.002	1233.6	1.339	0.010	1640.1	1.347	0.071	1968.5	1.392	0.003	2139.2	1.343	0.016
553.6	1.577	0.013	724.3	1.668	0.330	895.0	1.068	0.306	1065.7	1.272	0.002	1236.5	1.345	0.015	1647.3	1.344	0.071	1971.4	1.394	0.003	2142.1	1.344	0.017
556.5	1.584	0.017	727.2	1.665	0.337	897.9	1.063	0.293	1068.6	1.274	0.002	1239.4	1.343	0.015	1654.6	1.341	0.072	1974.3	1.396	0.003	2145.0	1.345	0.017
559.4	1.583	0.017	730.1	1.660	0.348	900.8	1.058	0.284	1071.5	1.276	0.002	1242.2	1.344	0.014	1661.8	1.338	0.072	1977.2	1.399	0.003	2147.9	1.346	0.017
562.3	1.584	0.017	733.0	1.653	0.359	903.7	1.054	0.270	1074.4	1.278	0.002	1245.1	1.344	0.014	1669.0	1.334	0.072	1980.1	1.402	0.003	2150.8	1.347	0.018
565.2	1.591	0.021	735.9	1.648	0.367	906.6	1.051	0.257	1077.3	1.280	0.002	1248.0	1.345	0.014	1676.3	1.331	0.072	1983.0	1.404	0.004	2153.7	1.348	0.018
568.1	1.588	0.021	738.8	1.641	0.375	909.5	1.049	0.243	1080.2	1.282	0.005	1256.7	1.348	0.017	1683.5	1.326	0.071	1985.9	1.408	0.004	2156.6	1.349	0.018
571.0	1.596	0.021	741.7	1.634	0.387	912.4	1.045	0.229	1083.1	1.284	0.002	1263.9	1.349	0.017	1690.7	1.321	0.069	1988.8	1.412	0.006	2159.5	1.350	0.020
573.9	1.597	0.029	744.6	1.626	0.395	915.3	1.045	0.216	1086.0	1.287	0.005	1271.2	1.350	0.019	1698.0	1.317	0.066	1991.6	1.416	0.010	2162.4	1.350	0.020
576.8	1.598	0.029	747.5	1.619	0.403	918.2	1.047	0.202	1088.9	1.287	0.005	1278.4	1.353	0.019	1705.2	1.312	0.062	1994.5	1.416	0.015	2165.3	1.351	0.021
579.7	1.602	0.033	750.4	1.611	0.411	921.1	1.046	0.188	1091.8	1.288	0.005	1285.6	1.353	0.021	1712.4	1.309	0.056	1997.4	1.413	0.014	2168.1	1.351	0.021
582.5	1.604	0.028	753.3	1.603	0.419	924.0	1.047	0.175	1094.7	1.289	0.005	1292.9	1.355	0.023	1719.7	1.306	0.050	2000.3	1.416	0.008	2171.0	1.352	0.021
585.4	1.610	0.036	756.2	1.595	0.428	926.9	1.049	0.161	1097.6	1.290	0.005	1300.1	1.355	0.023	1726.9	1.305	0.043	2003.2	1.422	0.007	2173.9	1.353	0.021
588.3	1.611	0.036	759.0	1.586	0.437	929.8	1.052	0.152	1100.5	1.291	0.005	1307.3	1.356	0.025	1734.1	1.307	0.038	2006.1	1.428	0.007	2176.8	1.353	0.022
591.2	1.614	0.044	761.9	1.575	0.442	932.7	1.055	0.139	1103.4	1.294	0.002	1314.6	1.357	0.025	1741.4	1.308	0.032	2009.0	1.435	0.008	2179.7	1.354	0.022
594.1	1.616	0.044	764.8	1.565	0.451	935.5	1.058	0.126	1106.3	1.297	0.005	1321.8	1.359	0.027	1748.6	1.311	0.027	2011.9	1.441	0.010	2182.6	1.354	0.023
597.0	1.618	0.043	767.7	1.555	0.456	938.4	1.062	0.117	1109.1	1.297	0.005	1329.1	1.358	0.027	1755.8	1.314	0.023	2014.8	1.447	0.009	2185.5	1.354	0.023
599.9	1.621	0.051	770.6	1.544	0.462	941.3	1.068	0.104	1112.0	1.297	0.005	1336.3	1.360	0.029	1763.1	1.316	0.020	2017.7	1.456	0.009	2188.4	1.355	0.025
602.8	1.623	0.051	773.5	1.533	0.467	944.2	1.072	0.096	1114.9	1.300	0.005	1343.5	1.360	0.029	1770.3	1.319	0.018	2020.6	1.468	0.009	2191.3	1.354	0.025
605.7	1.629	0.054	776.4	1.521	0.473	947.1	1.079	0.083	1117.8	1.301	0.005	1350.8	1.361	0.031	1777.5	1.322	0.015	2023.5	1.482	0.010	2194.2	1.355	0.025
608.6	1.632	0.054	779.3	1.513	0.478	950.0	1.085	0.075	1120.7	1.302	0.005	1358.0	1.362	0.030	1784.8	1.325	0.013	2026.4	1.500	0.012	2197.1	1.355	0.026
611.5	1.632	0.062	782.2	1.499	0.485	952.9	1.092	0.067	1123.6	1.304	0.005	1365.2	1.362	0.032	1792.0	1.328	0.012	2029.3	1.524	0.014	2207.2	1.355	0.026
614.4	1.634	0.065	785.1	1.486	0.487	955.8	1.098	0.059	1126.5	1.305	0.005	1372.5	1.363	0.034	1799.2	1.329	0.010	2032.2	1.562	0.017	2214.4	1.354	0.027
617.3	1.638	0.069	788.0	1.476	0.488	958.7	1.105	0.051	1129.4	1.306	0.005	1379.7	1.362	0.034	1806.5	1.332	0.008	2035.0	1.621	0.034	2221.7	1.354	0.027
620.2	1.641	0.072	790.9	1.464	0.495	961.6	1.112	0.044	1132.3	1.308	0.005	1386.9	1.363	0.034	1813.7	1.335	0.008	2037.9	1.701	0.104	2228.9	1.353	0.027
623.1	1.645	0.075	793.8	1.451	0.497	964.5	1.120	0.036	1135.2	1.309	0.008	1394.2	1.364	0.036	1820.9	1.337	0.008	2040.8	1.747	0.275	2236.1	1.353	0.027
626.0	1.647	0.079	796.7	1.439	0.499	967.4	1.127	0.033	1138.1	1.310	0.005	1401.4	1.364	0.038	1828.2	1.340	0.007	2043.7	1.671	0.509	2243.4	1.353	0.025
628.8	1.650	0.086	799.6	1.427	0.501	970.3	1.135	0.029	1141.0	1.311	0.005	1408.6	1.364	0.038	1835.4	1.341	0.005	2046.6	1.459	0.650	2250.6	1.353	0.025
631.7	1.652	0.089	802.5	1.415	0.504	973.2	1.142	0.026	1143.9	1.313	0.005	1415.9	1.364	0.040	1842.6	1.344	0.005	2049.5	1.222	0.616	2257.8	1.353	0.024
634.6	1.656	0.093	805.3	1.402	0.502	976.1	1.149	0.022	1146.8	1.314	0.005	1423.1	1.365	0.039	1849.9	1.346	0.005	2052.4	1.051	0.462	2265.1	1.352	0.024
637.5	1.658	0.096	808.2	1.388	0.505	978.9	1.155	0.019	1149.7	1.314	0.005	1430.3	1.364	0.041	1857.1	1.349	0.004	2055.3	0.994	0.248	2272.3	1.353	0.022
640.4	1.660	0.103	811.1	1.376	0.503	981.8	1.162	0.016	1152.6	1.317	0.008	1437.6	1.365	0.041	1864.3	1.351	0.004	2058.2	1.050	0.087	2279.5	1.353	0.021
643.3	1.664	0.106	814.0	1.365	0.505	984.7	1.167	0.012	1155.4	1.317	0.008	1444.8	1.365	0.043	1871.6	1.354	0.004	2061.1	1.129	0.035	2286.8	1.354	0.020
646.2	1.667	0.113	816.9	1.351	0.503	987.6	1.174	0.009	1158.3	1.318	0.008	1452.0	1.365	0.043	1878.8	1.357	0.004	2064.0	1.182	0.024	2294.0	1.354	0.020
649.1	1.668	0.116	819.8	1.338	0.502	990.5	1.180	0.009	1161.2	1.319	0.008	1459.3	1.365	0.044	1886.0	1.356	0.005	2066.9	1.215	0.021	2301.2	1.356	0.018
652.0	1.672	0.122	822.7	1.325	0.500	993.4	1.185	0.006	1164.1	1.320	0.008	1466.5	1.365	0.044	1893.3	1.358	0.004	2069.8	1.237	0.020	2308.5	1.356	0.018
654.9	1.675	0.129	825.6	1.311	0.498	996.3	1.191	0.006	1167.0	1.321	0.008	1473.7	1.365	0.046	1901.9	1.362	0.003	2072.7	1.254	0.019	2315.7	1.357	0.017
657.8	1.676	0.136	828.5	1.300	0.496	999.2	1.196	0.003	1169.9	1.322	0.008	1481.0	1.366	0.046	1904.8	1.363	0.003	2075.6	1.265	0.020	2322.9	1.358	0.017
660.7	1.677	0.143	831.4	1.288	0.494	1002.1	1.202	0.003	1172.8	1.323	0.008	1488.2	1.365	0.048	1907.7	1.364	0.003	2078.4	1.275	0.019	2330.2	1.358	0.016
663.6	1.677	0.146	834.3	1.276	0.488	1005.0	1.207	0.003	1175.7	1.324	0.008	1495.4	1.365	0.049	1910.6	1.365	0.003	2081.3	1.283	0.019	2337.4	1.359	0.016
666.5	1.672	0.153	837.2	1.263	0.486	1007.9	1.210	0.003	1178.6	1.325	0.008	1502.7	1.366	0.049	1913.5	1.366	0.003	2084.2	1.289	0.018	2344.6	1.360	0.016
669.4	1.696	0.157	840.1	1.251	0.480	1010.8	1.215	0.000	1181.5	1.327	0.008	1509.9	1.365	0.051	1916.4	1.367	0.003	2087.1	1.295	0.018	2351.9	1.361	0.014

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TABLE 14E—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2359.1	1.362	0.014	2771.4	1.436	0.002	3183.7	1.706	0.522	3596.1	1.086	0.005
2366.3	1.362	0.014	2778.7	1.439	0.001	3191.0	1.687	0.548	3603.3	1.093	0.003
2373.6	1.363	0.013	2785.9	1.442	0.001	3198.2	1.665	0.576	3610.5	1.100	0.000
2380.8	1.364	0.013	2793.1	1.444	0.001	3205.4	1.641	0.602	3617.8	1.106	0.000
2388.0	1.365	0.012	2800.4	1.446	0.002	3212.7	1.615	0.628	3625.0	1.112	0.000
2395.3	1.366	0.012	2807.6	1.449	0.002	3219.9	1.586	0.654	3632.2	1.117	0.000
2402.5	1.367	0.012	2814.8	1.452	0.002	3227.1	1.554	0.677	3639.5	1.123	0.000
2409.7	1.367	0.012	2822.1	1.454	0.002	3234.4	1.516	0.697	3646.7	1.128	0.000
2417.0	1.368	0.011	2829.3	1.457	0.002	3241.6	1.477	0.714	3653.9	1.133	0.000
2424.2	1.370	0.011	2836.5	1.461	0.002	3248.8	1.435	0.728	3661.2	1.138	0.000
2431.4	1.370	0.011	2843.8	1.464	0.003	3256.1	1.392	0.735	3668.4	1.142	0.000
2438.7	1.371	0.011	2851.0	1.467	0.003	3263.3	1.348	0.741	3675.6	1.147	0.000
2445.9	1.372	0.009	2858.2	1.471	0.004	3270.5	1.302	0.739	3682.9	1.150	0.000
2453.1	1.373	0.009	2865.5	1.474	0.003	3277.8	1.257	0.732	3690.1	1.154	0.000
2460.4	1.374	0.009	2872.7	1.478	0.003	3285.0	1.214	0.720	3697.3	1.158	0.000
2467.6	1.375	0.009	2879.9	1.483	0.004	3292.2	1.175	0.702	3704.6	1.162	0.000
2474.8	1.376	0.008	2887.2	1.487	0.005	3299.5	1.138	0.680	3711.8	1.165	0.000
2482.1	1.377	0.008	2894.4	1.492	0.006	3306.7	1.108	0.655	3719.0	1.168	0.000
2489.3	1.378	0.008	2901.6	1.496	0.010	3313.9	1.082	0.630	3726.3	1.171	0.000
2496.6	1.379	0.007	2908.9	1.497	0.010	3321.2	1.060	0.604	3733.5	1.174	0.000
2503.8	1.380	0.007	2916.1	1.502	0.009	3328.4	1.042	0.579	3740.7	1.177	0.000
2511.0	1.381	0.007	2923.3	1.507	0.008	3335.6	1.028	0.555	3748.0	1.180	0.000
2518.2	1.382	0.007	2930.6	1.513	0.009	3342.9	1.014	0.534	3755.2	1.183	0.000
2525.5	1.383	0.006	2937.8	1.518	0.011	3350.1	1.002	0.514	3762.4	1.185	0.000
2532.7	1.384	0.006	2945.0	1.524	0.012	3357.3	0.992	0.494	3769.7	1.187	0.000
2540.0	1.385	0.006	2952.3	1.530	0.013	3364.6	0.980	0.479	3776.9	1.190	0.000
2547.2	1.386	0.006	2959.5	1.537	0.015	3371.8	0.967	0.462	3784.1	1.192	0.000
2554.4	1.387	0.006	2966.7	1.543	0.017	3379.0	0.956	0.444	3791.4	1.194	0.000
2561.7	1.388	0.005	2974.0	1.550	0.019	3386.3	0.946	0.427	3798.6	1.197	0.000
2568.9	1.390	0.005	2981.2	1.557	0.021	3393.5	0.932	0.408	3805.8	1.199	0.000
2576.1	1.391	0.005	2988.4	1.565	0.024	3400.7	0.920	0.386	3813.1	1.201	0.000
2583.4	1.392	0.005	2995.7	1.573	0.027	3408.0	0.909	0.364	3820.3	1.203	0.000
2590.6	1.393	0.005	3002.9	1.581	0.030	3415.2	0.900	0.342	3827.5	1.205	0.000
2597.8	1.395	0.004	3010.1	1.590	0.033	3422.4	0.892	0.316	3834.8	1.207	0.000
2605.1	1.396	0.004	3017.4	1.599	0.037	3429.7	0.886	0.291	3842.0	1.209	0.000
2612.3	1.398	0.004	3024.6	1.609	0.041	3436.9	0.882	0.265	3849.2	1.211	0.000
2619.5	1.399	0.004	3031.8	1.619	0.046	3444.1	0.881	0.237	3856.5	1.212	0.000
2626.8	1.401	0.004	3039.1	1.630	0.051	3451.4	0.883	0.210	3863.7	1.214	0.000
2634.0	1.401	0.004	3046.3	1.643	0.058	3458.6	0.889	0.183	3870.9	1.216	0.000
2641.2	1.403	0.003	3053.5	1.655	0.065	3465.9	0.897	0.160	3878.2	1.218	0.000
2648.5	1.405	0.003	3060.8	1.669	0.074	3473.1	0.907	0.138	3885.4	1.219	0.000
2655.7	1.407	0.003	3068.0	1.684	0.085	3480.3	0.918	0.118	3892.6	1.220	0.000
2662.9	1.408	0.003	3075.2	1.699	0.097	3487.6	0.931	0.100	3899.9	1.222	0.000
2670.2	1.410	0.003	3082.5	1.715	0.112	3494.8	0.944	0.086	3907.1	1.223	0.000
2677.4	1.412	0.003	3089.7	1.731	0.131	3502.0	0.958	0.073	3914.3	1.225	0.000
2684.6	1.413	0.003	3096.9	1.746	0.153	3509.3	0.970	0.062	3921.6	1.226	0.000
2691.9	1.415	0.003	3104.2	1.760	0.177	3516.5	0.983	0.052	3928.8	1.227	0.000
2699.1	1.417	0.003	3111.4	1.771	0.205	3523.7	0.995	0.045	3936.0	1.229	0.000
2706.3	1.418	0.003	3118.6	1.779	0.236	3531.0	1.007	0.037	3943.3	1.230	0.000
2713.6	1.420	0.003	3125.9	1.783	0.268	3538.2	1.018	0.032	3950.5	1.232	0.000
2720.8	1.422	0.003	3133.1	1.784	0.301	3545.4	1.028	0.027	3957.7	1.233	0.000
2728.0	1.423	0.002	3140.3	1.782	0.335	3552.7	1.037	0.022	3965.0	1.234	0.000
2735.3	1.425	0.003	3147.6	1.776	0.369	3559.9	1.047	0.018	3972.2	1.236	0.000
2742.5	1.428	0.003	3154.8	1.767	0.401	3567.1	1.055	0.015	3979.4	1.237	0.000
2749.7	1.430	0.002	3162.0	1.755	0.434	3574.4	1.063	0.011	3986.7	1.238	0.000
2757.0	1.432	0.002	3169.3	1.740	0.463	3581.6	1.072	0.010	3993.9	1.241	0.000
2764.2	1.435	0.002	3176.5	1.724	0.493	3588.8	1.079	0.007			

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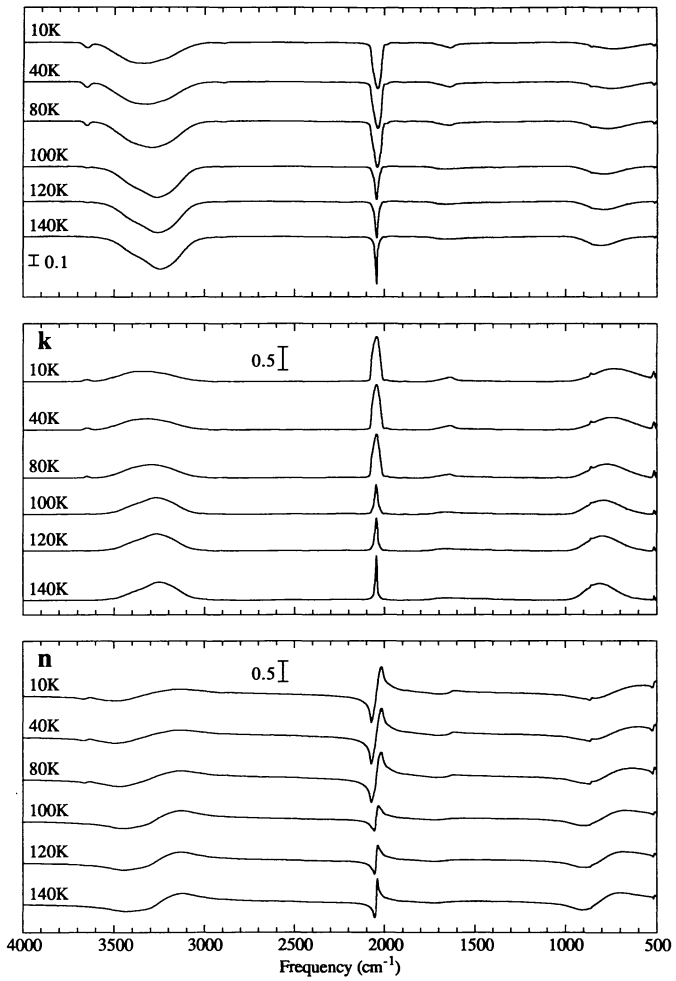

FIG. 15.—The 4000 to 500 cm^{-1} transmission spectra and optical constants (n and k) of an H_2O:OCS = 2:1 ice mixture at temperatures of 10, 40, 80, 100, 120, and 140 K. The original ice was deposited at 10 K.

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TABLE 15A

H_2O:OCS = 2:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.620	0.096	816.4	1.228	0.195	992.0	1.272	0.005	1333.4	1.350	0.011	1674.8	1.326	0.061	1940.0	1.465	0.004	2053.9	1.054	0.852	2167.7	1.216	0.006
510.7	1.620	0.154	818.4	1.226	0.195	997.8	1.277	0.005	1339.2	1.350	0.011	1680.6	1.324	0.057	1942.0	1.468	0.004	2055.8	1.002	0.824	2169.6	1.218	0.006
516.5	1.536	0.208	820.3	1.225	0.190	1003.5	1.280	0.005	1345.0	1.351	0.011	1686.4	1.324	0.051	1943.9	1.471	0.004	2057.7	0.954	0.791	2171.5	1.220	0.006
522.3	1.470	0.146	822.2	1.223	0.186	1009.3	1.284	0.005	1350.8	1.352	0.011	1692.2	1.322	0.046	1945.8	1.475	0.005	2059.6	0.907	0.758	2173.4	1.221	0.006
528.1	1.479	0.097	824.2	1.222	0.186	1015.1	1.287	0.005	1356.5	1.353	0.011	1698.0	1.323	0.040	1947.8	1.478	0.005	2061.6	0.863	0.720	2175.4	1.223	0.006
533.8	1.498	0.079	826.1	1.221	0.181	1020.9	1.290	0.005	1362.3	1.353	0.011	1703.7	1.324	0.038	1949.7	1.481	0.005	2063.5	0.821	0.680	2177.3	1.224	0.007
539.6	1.514	0.092	828.0	1.219	0.177	1026.7	1.294	0.005	1368.1	1.354	0.013	1709.5	1.324	0.033	1951.6	1.485	0.005	2065.4	0.778	0.637	2179.2	1.226	0.007
545.4	1.520	0.101	829.9	1.219	0.172	1032.5	1.296	0.008	1373.9	1.354	0.011	1715.3	1.323	0.028	1953.6	1.489	0.005	2067.4	0.737	0.588	2181.2	1.227	0.007
551.2	1.519	0.104	831.9	1.218	0.172	1038.3	1.296	0.011	1379.7	1.354	0.013	1721.1	1.326	0.022	1955.5	1.494	0.005	2069.3	0.697	0.531	2183.1	1.229	0.005
557.0	1.524	0.108	833.8	1.219	0.167	1044.0	1.293	0.014	1385.5	1.355	0.013	1726.9	1.328	0.019	1957.4	1.498	0.006	2071.2	0.660	0.460	2185.0	1.231	0.005
562.8	1.527	0.116	835.7	1.218	0.163	1049.8	1.291	0.008	1391.3	1.355	0.013	1732.7	1.330	0.014	1959.3	1.502	0.006	2073.1	0.634	0.374	2187.0	1.232	0.006
568.6	1.529	0.119	837.7	1.220	0.163	1055.6	1.295	0.005	1397.0	1.356	0.013	1738.5	1.336	0.012	1961.3	1.507	0.005	2075.1	0.629	0.273	2188.9	1.234	0.006
574.4	1.526	0.128	839.6	1.219	0.158	1061.4	1.298	0.002	1402.8	1.357	0.013	1744.3	1.339	0.009	1963.2	1.512	0.007	2077.0	0.659	0.171	2190.8	1.235	0.006
580.1	1.527	0.131	841.5	1.221	0.154	1067.2	1.301	0.002	1408.6	1.358	0.013	1750.0	1.343	0.007	1965.1	1.518	0.006	2078.9	0.715	0.092	2192.7	1.237	0.006
585.9	1.530	0.134	843.4	1.221	0.157	1073.0	1.304	0.002	1414.4	1.359	0.015	1755.8	1.346	0.007	1967.1	1.524	0.007	2080.9	0.778	0.051	2194.7	1.238	0.006
591.7	1.525	0.147	845.4	1.223	0.153	1078.8	1.306	0.000	1420.2	1.359	0.013	1761.6	1.350	0.006	1969.0	1.530	0.009	2082.8	0.833	0.031	2196.6	1.239	0.006
597.5	1.524	0.154	847.3	1.226	0.152	1084.6	1.308	0.003	1426.0	1.359	0.015	1767.4	1.352	0.004	1970.9	1.536	0.011	2084.7	0.877	0.024	2198.5	1.241	0.006
603.3	1.521	0.158	849.2	1.227	0.156	1090.3	1.310	0.000	1431.8	1.359	0.015	1773.2	1.356	0.002	1972.8	1.543	0.012	2086.6	0.913	0.020	2206.2	1.245	0.006
609.1	1.518	0.166	851.2	1.230	0.159	1096.1	1.312	0.003	1437.6	1.361	0.013	1779.0	1.359	0.004	1974.8	1.549	0.014	2088.6	0.940	0.019	2213.0	1.248	0.006
614.9	1.516	0.173	853.1	1.228	0.167	1101.9	1.312	0.003	1443.3	1.361	0.015	1784.8	1.361	0.004	1976.7	1.556	0.016	2090.5	0.964	0.016	2219.7	1.252	0.005
620.6	1.515	0.181	855.0	1.222	0.175	1107.7	1.315	0.003	1449.1	1.362	0.017	1790.6	1.364	0.003	1978.6	1.562	0.019	2092.4	0.985	0.015	2226.5	1.255	0.005
626.4	1.507	0.189	856.9	1.209	0.184	1113.5	1.317	0.003	1454.9	1.361	0.015	1796.3	1.367	0.003	1980.6	1.569	0.021	2094.4	1.003	0.013	2233.2	1.258	0.005
632.2	1.505	0.196	858.9	1.193	0.181	1119.3	1.318	0.003	1460.7	1.364	0.017	1802.1	1.370	0.003	1982.5	1.576	0.023	2096.3	1.019	0.013	2240.0	1.261	0.005
638.0	1.501	0.204	860.8	1.180	0.166	1125.1	1.320	0.003	1466.5	1.365	0.016	1807.9	1.372	0.003	1984.4	1.583	0.025	2098.2	1.033	0.012	2246.8	1.264	0.006
643.8	1.496	0.211	862.7	1.172	0.154	1130.8	1.321	0.003	1472.3	1.364	0.014	1813.7	1.375	0.003	1986.3	1.590	0.026	2100.1	1.046	0.012	2253.5	1.265	0.006
649.6	1.490	0.215	864.7	1.170	0.138	1136.6	1.322	0.003	1478.1	1.366	0.016	1819.5	1.377	0.003	1988.3	1.597	0.027	2102.1	1.058	0.010	2260.3	1.268	0.004
655.4	1.482	0.223	866.6	1.171	0.125	1142.4	1.324	0.003	1483.8	1.366	0.016	1825.3	1.380	0.003	1990.2	1.607	0.027	2104.0	1.069	0.011	2267.0	1.271	0.004
661.2	1.476	0.230	868.5	1.175	0.117	1148.2	1.326	0.003	1489.6	1.367	0.016	1831.1	1.384	0.001	1992.1	1.617	0.025	2105.9	1.079	0.010	2273.8	1.273	0.005
666.9	1.463	0.235	870.4	1.180	0.112	1154.0	1.326	0.005	1495.4	1.368	0.018	1836.8	1.386	0.003	1994.1	1.630	0.024	2107.9	1.087	0.009	2280.5	1.275	0.005
672.7	1.462	0.241	872.4	1.183	0.108	1159.8	1.327	0.005	1501.2	1.369	0.018	1842.6	1.389	0.003	1996.0	1.645	0.022	2109.8	1.096	0.008	2287.3	1.276	0.005
678.5	1.455	0.245	874.3	1.185	0.104	1165.6	1.328	0.005	1507.0	1.371	0.016	1848.4	1.392	0.003	1997.9	1.664	0.021	2111.7	1.103	0.009	2294.0	1.278	0.003
684.3	1.445	0.249	876.2	1.189	0.099	1171.4	1.329	0.005	1512.8	1.371	0.020	1854.2	1.395	0.003	1999.8	1.686	0.021	2113.7	1.111	0.008	2300.8	1.280	0.004
690.1	1.436	0.252	878.2	1.190	0.099	1177.1	1.330	0.005	1518.6	1.372	0.020	1860.0	1.398	0.003	2001.8	1.712	0.023	2115.6	1.118	0.008	2307.5	1.282	0.004
695.9	1.427	0.256	880.1	1.191	0.095	1182.9	1.331	0.005	1524.4	1.373	0.020	1865.8	1.402	0.003	2003.7	1.742	0.028	2117.5	1.124	0.007	2314.3	1.284	0.004
701.7	1.416	0.260	882.0	1.194	0.091	1188.7	1.332	0.005	1530.1	1.374	0.022	1871.6	1.406	0.004	2005.6	1.778	0.036	2119.4	1.130	0.006	2321.0	1.286	0.004
707.4	1.406	0.264	883.9	1.194	0.090	1194.5	1.333	0.005	1535.9	1.374	0.021	1877.4	1.410	0.006	2007.6	1.819	0.055	2121.4	1.137	0.007	2327.8	1.287	0.004
713.2	1.399	0.268	885.9	1.196	0.086	1200.3	1.334	0.005	1541.7	1.377	0.021	1883.1	1.413	0.007	2009.5	1.863	0.084	2123.3	1.142	0.007	2334.5	1.288	0.004
719.0	1.387	0.268	887.8	1.196	0.082	1206.1	1.335	0.005	1547.5	1.378	0.023	1888.9	1.414	0.009	2011.4	1.905	0.128	2125.2	1.147	0.008	2341.3	1.290	0.004
724.8	1.378	0.272	889.7	1.197	0.082	1211.9	1.336	0.005	1553.3	1.378	0.023	1894.7	1.417	0.009	2013.3	1.938	0.187	2127.2	1.152	0.008	2348.0	1.290	0.004
730.6	1.366	0.272	891.7	1.199	0.078	1217.7	1.337	0.005	1559.1	1.380	0.021	1901.5	1.420	0.007	2015.3	1.960	0.253	2129.1	1.156	0.007	2354.8	1.292	0.003
736.4	1.355	0.272	893.6	1.200	0.074	1223.4	1.338	0.005	1564.9	1.382	0.025	1903.4	1.422	0.006	2017.2	1.971	0.321	2131.0	1.160	0.007	2361.5	1.293	0.003
742.2	1.344	0.271	895.5	1.202	0.074	1229.2	1.339	0.005	1570.7	1.385	0.025	1905.3	1.423	0.006	2019.1	1.970	0.393	2132.9	1.164	0.006	2368.3	1.295	0.003
748.0	1.334	0.267	897.5	1.202	0.070	1235.0	1.338	0.007	1576.4	1.387	0.023	1907.3	1.425	0.004	2021.1	1.959	0.461	2134.9	1.169	0.006	2375.0	1.296	0.003
753.7	1.322	0.267	899.4	1.203	0.070	1240.8	1.340	0.007	1582.2	1.390	0.028	1909.2	1.427	0.004	2023.0	1.939	0.529	2136.8	1.172	0.006	2381.8	1.297	0.003
759.5	1.311	0.263	905.2	1.208	0.062	1246.6	1.340	0.007	1588.0	1.393	0.031	1911.1	1.429	0.004	2024.9	1.912	0.593	2138.7	1.176	0.007	2388.5	1.298	0.003
765.3	1.298	0.259	911.0	1.210	0.054	1252.4	1.341	0.007	1593.8	1.397	0.035	1913.0	1.431	0.004	2026.8	1.877	0.653	2140.7	1.179	0.005	2395.3	1.299	0.003
771.1	1.289	0.254	916.7	1.215	0.050	1258.2	1.342	0.007	1599.6	1.399	0.042	1915.0	1.433	0.004	2028.8	1.835	0.709	2142.6	1.182	0.005	2402.0	1.300	0.003
776.9	1.281	0.249	922.5	1.219	0.043	1263.9	1.343	0.007	1605.4	1.401	0.047	1916.9	1.434	0.004	2030.7	1.787	0.760	2144.5	1.186	0.006	2408.8	1.301	0.002
782.7	1.272	0.244	928.3	1.223	0.036	1269.7	1.346	0.010	1611.2	1.403	0.056	1918.8	1.437	0.003	2032.6	1.733	0.803	2146.4	1.189	0.006	2415.5	1.303	0.003
788.5	1.262	0.236	934.1	1.227	0.032	1275.5	1.345	0.010	1616.9	1.404	0.063	1920.8	1.440	0.003	2034.6	1.678	0.840	2148.4	1.192	0.006	2422.3	1.303	0.003
794.3	1.253	0.227	939.9	1.232	0.028	1281.3	1.345	0.010	1622.7	1.400	0.079	1922.7	1.443	0.004	2036.5	1.618	0.872	2150.3	1.195	0.006	2429.0	1.304	0.002
801.0	1.243	0.222	945.7	1.236	0.025	1287.1	1.345	0.009	1628.5	1.390	0.090	1924.6	1.444	0.004	2038.4	1.554	0.897	2152.2	1.197	0.006	2435.8	1.305	0.002
802.9	1.240	0.218	951.5	1.241	0.018	1292.9	1.346	0.009	1634.3	1.374	0.096	1926.5	1.447	0.004	2040.4	1.489	0.915	2154.2	1.199	0.005	2442.5	1.306	0.002
804.9	1.239	0.213	957.2	1.247	0.018	1298.7	1.347	0.009	1640.1	1.360	0.097	1928.5	1.449	0.004	2042.3	1.423	0.925	2156.1	1.202	0.005	2449.3	1.307	0.002
806.8	1.240	0.213	963.0	1.251	0.015	1304.5	1.348	0.009	1645.9	1.347	0.091	1930.4	1.451	0.004	2044.2	1.357	0.930	2158.0	1.205	0.005	2456.0	1.308	0.002
808.7	1.235	0.209	968.8	1.255	0.011	1310.2	1.348	0.009	1651.7	1.337	0.086	1932.3	1.454	0.004	2046.1	1.291	0.926	2159.9	1.207	0.006	2462.8	1.309	0.002
810.6	1.232	0.209	974.6	1.259	0.011	1316.0	1.349	0.012	1657.5	1.335	0.078	1934.3	1.456	0.004	2048.1	1.228	0.916	2161.9	1.210	0.006	2469.5	1.310	0.002
812.6	1.230	0.200	980.4	1.264	0.008	1321.8	1.349	0.012	1663.2	1.331	0.070	1936.2	1.459	0.004	2050.0	1.167	0.899	2163.8	1.212	0.006	2476.3	1.311	0.002
814.5	1.230	0.199	986.2	1.268	0.008	1327.6	1.349	0.011	1669.0	1.327	0.067	1938.1	1.462	0.004	2051.9	1.109	0.877	2165.7	1.214	0.006	2483.0	1.312	0.002

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TABLE 15A—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2489.8	1.312	0.002	2874.6	1.366	0.005	3259.5	1.381	0.187	3644.3	1.233	0.041
2496.6	1.313	0.002	2881.4	1.366	0.009	3266.2	1.377	0.191	3651.0	1.223	0.041
2503.3	1.314	0.002	2888.1	1.365	0.011	3273.0	1.371	0.194	3657.8	1.215	0.036
2510.1	1.315	0.002	2894.9	1.363	0.011	3279.7	1.365	0.199	3664.5	1.210	0.028
2516.8	1.316	0.002	2901.6	1.363	0.010	3286.5	1.359	0.204	3671.3	1.209	0.017
2523.6	1.316	0.002	2908.4	1.363	0.008	3293.2	1.351	0.207	3678.0	1.212	0.010
2530.3	1.317	0.001	2915.1	1.364	0.007	3300.0	1.343	0.210	3684.8	1.216	0.004
2537.1	1.317	0.001	2921.9	1.366	0.005	3306.7	1.336	0.212	3691.5	1.222	0.000
2543.8	1.319	0.001	2928.6	1.368	0.004	3313.5	1.328	0.213	3698.3	1.227	0.000
2550.6	1.319	0.001	2935.4	1.370	0.004	3320.2	1.320	0.215	3705.0	1.231	0.000
2557.3	1.319	0.001	2942.1	1.374	0.003	3327.0	1.312	0.215	3711.8	1.234	0.000
2564.1	1.321	0.001	2948.9	1.376	0.004	3333.7	1.304	0.216	3718.5	1.237	0.000
2570.8	1.322	0.001	2955.6	1.378	0.004	3340.5	1.297	0.216	3725.3	1.240	0.000
2577.6	1.322	0.001	2962.4	1.381	0.005	3347.2	1.289	0.215	3732.0	1.242	0.000
2584.3	1.323	0.001	2969.1	1.383	0.006	3354.0	1.282	0.215	3738.8	1.245	0.000
2591.1	1.324	0.001	2975.9	1.386	0.007	3360.7	1.274	0.213	3745.5	1.247	0.000
2597.8	1.325	0.001	2982.6	1.388	0.008	3367.5	1.266	0.213	3752.3	1.248	0.000
2604.6	1.325	0.001	2989.4	1.391	0.009	3374.2	1.258	0.212	3759.1	1.250	0.000
2611.3	1.326	0.001	2996.1	1.394	0.010	3381.0	1.250	0.210	3765.8	1.252	0.000
2618.1	1.327	0.001	3002.9	1.396	0.012	3387.7	1.242	0.207	3772.6	1.253	0.000
2624.8	1.328	0.001	3009.7	1.399	0.014	3394.5	1.233	0.205	3779.3	1.255	0.000
2631.6	1.328	0.001	3016.4	1.402	0.015	3401.2	1.225	0.200	3786.1	1.256	0.000
2638.3	1.329	0.001	3023.2	1.405	0.017	3408.0	1.216	0.196	3792.8	1.257	0.000
2645.1	1.330	0.001	3029.9	1.407	0.019	3414.7	1.209	0.190	3799.6	1.258	0.000
2651.8	1.331	0.001	3036.7	1.410	0.022	3421.5	1.201	0.184	3806.3	1.259	0.000
2658.6	1.331	0.001	3043.4	1.414	0.025	3428.2	1.194	0.177	3813.1	1.260	0.000
2665.3	1.332	0.001	3050.2	1.416	0.027	3435.0	1.188	0.170	3819.8	1.262	0.000
2672.1	1.333	0.002	3056.9	1.419	0.030	3441.7	1.183	0.162	3826.6	1.262	0.000
2678.8	1.334	0.002	3063.7	1.422	0.033	3448.5	1.178	0.154	3833.3	1.263	0.000
2685.6	1.334	0.000	3070.4	1.425	0.037	3455.2	1.174	0.146	3840.1	1.265	0.000
2692.3	1.335	0.002	3077.2	1.427	0.042	3462.0	1.171	0.138	3846.8	1.265	0.000
2699.1	1.336	0.002	3083.9	1.430	0.045	3468.7	1.168	0.130	3853.6	1.266	0.000
2705.8	1.337	0.002	3090.7	1.432	0.050	3475.5	1.166	0.122	3860.3	1.267	0.000
2712.6	1.337	0.002	3097.4	1.434	0.054	3482.2	1.164	0.114	3867.1	1.268	0.000
2719.3	1.338	0.002	3104.2	1.436	0.060	3489.0	1.164	0.106	3873.8	1.269	0.000
2726.1	1.339	0.002	3110.9	1.437	0.065	3495.7	1.163	0.098	3880.6	1.269	0.000
2732.8	1.340	0.002	3117.7	1.439	0.071	3502.5	1.163	0.091	3887.3	1.270	0.000
2739.6	1.340	0.002	3124.4	1.440	0.077	3509.3	1.163	0.083	3894.1	1.271	0.000
2746.4	1.341	0.002	3131.2	1.441	0.082	3516.0	1.163	0.076	3900.8	1.272	0.000
2753.1	1.342	0.002	3137.9	1.441	0.089	3522.8	1.164	0.068	3907.6	1.272	0.000
2759.9	1.343	0.002	3144.7	1.441	0.095	3529.5	1.165	0.060	3914.3	1.273	0.000
2766.6	1.344	0.002	3151.4	1.441	0.101	3536.3	1.167	0.053	3921.1	1.273	0.000
2773.4	1.345	0.002	3158.2	1.440	0.108	3543.0	1.171	0.046	3927.8	1.274	0.000
2780.1	1.345	0.002	3164.9	1.439	0.114	3549.8	1.175	0.038	3934.6	1.275	0.000
2786.9	1.347	0.002	3171.7	1.437	0.121	3556.5	1.179	0.032	3941.3	1.275	0.000
2793.6	1.348	0.002	3178.4	1.435	0.128	3563.3	1.184	0.027	3948.1	1.276	0.000
2800.4	1.349	0.000	3185.2	1.432	0.135	3570.0	1.190	0.023	3954.8	1.276	0.000
2807.1	1.350	0.000	3191.9	1.429	0.142	3576.8	1.195	0.019	3961.6	1.277	0.000
2813.9	1.351	0.002	3198.7	1.425	0.148	3583.5	1.200	0.016	3968.3	1.278	0.000
2820.6	1.352	0.002	3205.4	1.421	0.155	3590.3	1.207	0.013	3975.1	1.278	0.000
2827.4	1.353	0.002	3212.2	1.415	0.160	3597.0	1.212	0.011	3981.8	1.279	0.000
2834.1	1.355	0.001	3218.9	1.410	0.165	3603.8	1.218	0.010	3988.6	1.279	0.000
2840.9	1.356	0.002	3225.7	1.404	0.169	3610.5	1.225	0.010	3995.3	1.280	0.000
2847.6	1.357	0.001	3232.4	1.399	0.172	3617.3	1.231	0.012			
2854.4	1.358	0.001	3239.2	1.394	0.176	3624.0	1.238	0.017			
2861.1	1.362	0.002	3245.9	1.390	0.179	3630.8	1.242	0.024			
2867.9	1.364	0.003	3252.7	1.385	0.182	3637.5	1.240	0.035			

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TABLE 15B

H_2O:OCS = 2:1 AT 40 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.570	0.044	816.4	1.244	0.201	992.0	1.281	0.002	1333.4	1.356	0.011	1674.8	1.330	0.063	1940.0	1.468	0.005	2053.9	1.038	0.843	2167.7	1.219	0.006
510.7	1.576	0.113	818.4	1.240	0.197	997.8	1.286	0.002	1339.2	1.355	0.014	1680.6	1.328	0.057	1942.0	1.471	0.004	2055.8	0.988	0.810	2169.6	1.221	0.006
516.5	1.487	0.162	820.3	1.239	0.193	1003.5	1.289	0.002	1345.0	1.357	0.014	1686.4	1.330	0.053	1943.9	1.474	0.005	2057.7	0.943	0.776	2171.5	1.223	0.006
522.3	1.424	0.096	822.2	1.238	0.192	1009.3	1.292	0.002	1350.8	1.356	0.013	1692.2	1.326	0.048	1945.8	1.477	0.005	2059.6	0.900	0.741	2173.4	1.224	0.007
528.1	1.447	0.042	824.2	1.235	0.188	1015.1	1.296	0.002	1356.5	1.356	0.013	1698.0	1.327	0.044	1947.8	1.481	0.005	2061.6	0.858	0.701	2175.4	1.225	0.007
533.8	1.478	0.030	826.1	1.233	0.184	1020.9	1.300	0.003	1362.3	1.357	0.013	1703.7	1.328	0.040	1949.7	1.484	0.005	2063.5	0.818	0.664	2177.3	1.228	0.005
539.6	1.492	0.039	828.0	1.232	0.184	1026.7	1.303	0.005	1368.1	1.357	0.013	1709.5	1.327	0.037	1951.6	1.488	0.006	2065.4	0.777	0.619	2179.2	1.230	0.007
545.4	1.501	0.043	829.9	1.232	0.179	1032.5	1.306	0.008	1373.9	1.358	0.013	1715.3	1.326	0.029	1953.6	1.492	0.006	2067.4	0.737	0.570	2181.2	1.230	0.007
551.2	1.506	0.052	831.9	1.230	0.175	1038.3	1.304	0.011	1379.7	1.358	0.015	1721.1	1.328	0.026	1955.5	1.496	0.006	2069.3	0.698	0.515	2183.1	1.232	0.006
557.0	1.511	0.047	833.8	1.229	0.175	1044.0	1.302	0.011	1385.5	1.359	0.013	1726.9	1.330	0.021	1957.4	1.501	0.006	2071.2	0.663	0.443	2185.0	1.234	0.006
562.8	1.517	0.060	835.7	1.228	0.170	1049.8	1.300	0.008	1391.3	1.360	0.015	1732.7	1.332	0.015	1959.3	1.505	0.005	2073.1	0.639	0.354	2187.0	1.236	0.006
568.6	1.523	0.064	837.7	1.229	0.166	1055.6	1.303	0.002	1397.0	1.361	0.015	1738.5	1.337	0.014	1961.3	1.510	0.007	2075.1	0.641	0.252	2188.9	1.237	0.007
574.4	1.525	0.072	839.6	1.228	0.165	1061.4	1.307	0.003	1402.8	1.361	0.015	1744.3	1.342	0.011	1963.2	1.516	0.008	2077.0	0.674	0.153	2190.8	1.238	0.006
580.1	1.526	0.081	841.5	1.229	0.161	1067.2	1.310	0.003	1408.6	1.361	0.015	1750.0	1.345	0.009	1965.1	1.521	0.008	2078.9	0.733	0.083	2192.7	1.240	0.006
585.9	1.527	0.089	843.4	1.229	0.160	1073.0	1.313	0.003	1414.4	1.361	0.015	1755.8	1.348	0.007	1967.1	1.527	0.009	2080.9	0.795	0.048	2194.7	1.241	0.006
591.7	1.528	0.097	845.4	1.231	0.156	1078.8	1.314	0.003	1420.2	1.363	0.013	1761.6	1.351	0.006	1969.0	1.533	0.010	2082.8	0.848	0.031	2196.6	1.242	0.006
597.5	1.529	0.105	847.3	1.232	0.155	1084.6	1.315	0.000	1426.0	1.364	0.017	1767.4	1.354	0.006	1970.9	1.540	0.011	2084.7	0.889	0.025	2198.5	1.244	0.006
603.3	1.528	0.112	849.2	1.235	0.155	1090.3	1.317	0.003	1431.8	1.363	0.017	1773.2	1.357	0.002	1972.8	1.546	0.014	2086.6	0.922	0.021	2206.2	1.248	0.006
609.1	1.527	0.125	851.2	1.237	0.158	1096.1	1.318	0.003	1437.6	1.364	0.015	1779.0	1.361	0.004	1974.8	1.553	0.015	2088.6	0.949	0.018	2213.0	1.252	0.006
614.9	1.528	0.128	853.1	1.238	0.169	1101.9	1.319	0.003	1443.3	1.364	0.017	1784.8	1.363	0.004	1976.7	1.560	0.019	2090.5	0.972	0.017	2219.7	1.255	0.007
620.6	1.526	0.140	855.0	1.230	0.178	1107.7	1.322	0.003	1449.1	1.365	0.017	1790.6	1.365	0.004	1978.6	1.566	0.021	2092.4	0.991	0.015	2226.5	1.258	0.005
626.4	1.523	0.143	856.9	1.217	0.183	1113.5	1.324	0.003	1454.9	1.365	0.017	1796.3	1.368	0.004	1980.6	1.573	0.024	2094.4	1.009	0.013	2233.2	1.261	0.005
632.2	1.520	0.155	858.9	1.201	0.184	1119.3	1.325	0.000	1460.7	1.367	0.019	1802.1	1.371	0.003	1982.5	1.579	0.027	2096.3	1.025	0.013	2240.0	1.264	0.006
638.0	1.521	0.162	860.8	1.185	0.174	1125.1	1.326	0.003	1466.5	1.368	0.016	1807.9	1.374	0.003	1984.4	1.585	0.029	2098.2	1.038	0.013	2246.8	1.267	0.006
643.8	1.515	0.174	862.7	1.177	0.154	1130.8	1.328	0.003	1472.3	1.367	0.014	1813.7	1.377	0.003	1986.3	1.591	0.030	2100.1	1.051	0.011	2253.5	1.269	0.006
649.6	1.510	0.182	864.7	1.176	0.141	1136.6	1.329	0.003	1478.1	1.369	0.018	1819.5	1.380	0.003	1988.3	1.599	0.029	2102.1	1.062	0.010	2260.3	1.270	0.006
655.4	1.505	0.189	866.6	1.177	0.125	1142.4	1.331	0.003	1483.8	1.369	0.018	1825.3	1.382	0.003	1990.2	1.608	0.030	2104.0	1.073	0.009	2267.0	1.273	0.005
661.2	1.497	0.197	868.5	1.182	0.116	1148.2	1.333	0.003	1489.6	1.370	0.018	1831.1	1.386	0.001	1992.1	1.619	0.027	2105.9	1.083	0.009	2273.8	1.276	0.005
666.9	1.486	0.201	870.4	1.187	0.112	1154.0	1.334	0.005	1495.4	1.369	0.020	1836.8	1.388	0.003	1994.1	1.632	0.026	2107.9	1.092	0.009	2280.5	1.278	0.005
672.7	1.487	0.212	872.4	1.191	0.107	1159.8	1.333	0.005	1501.2	1.372	0.020	1842.6	1.390	0.003	1996.0	1.647	0.025	2109.8	1.100	0.009	2287.3	1.279	0.005
678.5	1.481	0.215	874.3	1.192	0.103	1165.6	1.334	0.005	1507.0	1.373	0.016	1848.4	1.394	0.003	1997.9	1.666	0.023	2111.7	1.108	0.008	2294.0	1.281	0.005
684.3	1.472	0.223	876.2	1.194	0.099	1171.4	1.335	0.005	1512.8	1.374	0.020	1854.2	1.397	0.003	1999.8	1.688	0.024	2113.7	1.115	0.007	2300.8	1.283	0.004
690.1	1.464	0.231	878.2	1.196	0.099	1177.1	1.336	0.005	1518.6	1.374	0.022	1860.0	1.401	0.003	2001.8	1.714	0.026	2115.6	1.122	0.007	2307.5	1.285	0.004
695.9	1.454	0.235	880.1	1.198	0.095	1182.9	1.337	0.005	1524.4	1.375	0.022	1865.8	1.404	0.003	2003.7	1.744	0.030	2117.5	1.128	0.006	2314.3	1.287	0.004
701.7	1.447	0.238	882.0	1.198	0.090	1188.7	1.338	0.005	1530.1	1.376	0.023	1871.6	1.409	0.004	2005.6	1.780	0.039	2119.4	1.135	0.007	2321.0	1.288	0.004
707.4	1.439	0.246	883.9	1.200	0.086	1194.5	1.339	0.005	1535.9	1.376	0.023	1877.4	1.413	0.006	2007.6	1.822	0.055	2121.4	1.141	0.007	2327.8	1.290	0.004
713.2	1.427	0.250	885.9	1.202	0.086	1200.3	1.341	0.008	1541.7	1.379	0.023	1883.1	1.415	0.009	2009.5	1.868	0.085	2123.3	1.145	0.007	2334.5	1.291	0.004
719.0	1.416	0.254	887.8	1.204	0.086	1206.1	1.341	0.008	1547.5	1.380	0.025	1888.9	1.417	0.010	2011.4	1.910	0.133	2125.2	1.151	0.006	2341.3	1.292	0.004
724.8	1.407	0.254	889.7	1.203	0.082	1211.9	1.340	0.005	1553.3	1.380	0.025	1894.7	1.419	0.009	2013.3	1.944	0.193	2127.2	1.155	0.007	2348.0	1.293	0.004
730.6	1.395	0.262	891.7	1.205	0.078	1217.7	1.343	0.008	1559.1	1.381	0.021	1901.5	1.422	0.007	2015.3	1.963	0.262	2129.1	1.160	0.005	2354.8	1.294	0.003
736.4	1.383	0.262	893.6	1.205	0.074	1223.4	1.343	0.008	1564.9	1.384	0.027	1903.4	1.424	0.006	2017.2	1.971	0.331	2131.0	1.165	0.006	2361.5	1.296	0.003
742.2	1.372	0.262	895.5	1.206	0.074	1229.2	1.343	0.008	1570.7	1.385	0.026	1905.3	1.426	0.006	2019.1	1.969	0.402	2132.9	1.169	0.006	2368.3	1.297	0.003
748.0	1.361	0.262	897.5	1.208	0.070	1235.0	1.346	0.003	1576.4	1.387	0.024	1907.3	1.427	0.004	2021.1	1.956	0.470	2134.9	1.172	0.006	2375.0	1.299	0.003
753.7	1.349	0.262	899.4	1.209	0.066	1240.8	1.346	0.007	1582.2	1.390	0.030	1909.2	1.430	0.004	2023.0	1.935	0.535	2136.8	1.176	0.005	2381.8	1.300	0.003
759.5	1.335	0.263	905.2	1.211	0.058	1246.6	1.346	0.007	1588.0	1.392	0.033	1911.1	1.432	0.004	2024.9	1.907	0.599	2138.7	1.180	0.005	2388.5	1.301	0.003
765.3	1.326	0.258	911.0	1.217	0.054	1252.4	1.348	0.007	1593.8	1.395	0.035	1913.0	1.434	0.004	2026.8	1.872	0.657	2140.7	1.184	0.006	2395.3	1.302	0.003
771.1	1.312	0.254	916.7	1.220	0.047	1258.2	1.349	0.010	1599.6	1.397	0.040	1915.0	1.436	0.004	2028.8	1.832	0.713	2142.6	1.187	0.006	2402.0	1.303	0.003
776.9	1.303	0.250	922.5	1.223	0.039	1263.9	1.348	0.010	1605.4	1.400	0.045	1916.9	1.438	0.004	2030.7	1.784	0.763	2144.5	1.190	0.006	2408.8	1.304	0.003
782.7	1.293	0.245	928.3	1.227	0.036	1269.7	1.348	0.010	1611.2	1.404	0.052	1918.8	1.440	0.003	2032.6	1.731	0.807	2146.4	1.193	0.006	2415.5	1.305	0.003
788.5	1.281	0.241	934.1	1.234	0.028	1275.5	1.349	0.010	1616.9	1.404	0.057	1920.8	1.442	0.004	2034.6	1.675	0.847	2148.4	1.196	0.006	2422.3	1.305	0.002
794.3	1.273	0.232	939.9	1.238	0.025	1281.3	1.350	0.010	1622.7	1.401	0.074	1922.7	1.444	0.004	2036.5	1.612	0.880	2150.3	1.198	0.007	2429.0	1.307	0.002
801.0	1.261	0.224	945.7	1.242	0.018	1287.1	1.351	0.010	1628.5	1.392	0.085	1924.6	1.447	0.004	2038.4	1.548	0.905	2152.2	1.200	0.005	2435.8	1.308	0.002
802.9	1.260	0.219	951.5	1.248	0.015	1292.9	1.353	0.010	1634.3	1.378	0.092	1926.5	1.449	0.004	2040.4	1.481	0.921	2154.2	1.203	0.005	2442.5	1.309	0.002
804.9	1.256	0.219	957.2	1.254	0.011	1298.7	1.352	0.012	1640.1	1.366	0.095	1928.5	1.451	0.004	2042.3	1.414	0.932	2156.1	1.206	0.006	2449.3	1.310	0.002
806.8	1.254	0.215	963.0	1.257	0.011	1304.5	1.352	0.012	1645.9	1.353	0.089	1930.4	1.454	0.004	2044.2	1.345	0.935	2158.0	1.209	0.006	2456.0	1.311	0.002
808.7	1.251	0.211	968.8	1.263	0.008	1310.2	1.352	0.012	1651.7	1.342	0.084	1932.3	1.456	0.004	2046.1	1.277	0.930	2159.9	1.211	0.006	2462.8	1.312	0.002
810.6	1.249	0.210	974.6	1.268	0.005	1316.0	1.353	0.012	1657.5	1.340	0.078	1934.3	1.459	0.004	2048.1	1.212	0.915	2161.9	1.213	0.006	2469.5	1.313	0.002
812.6	1.247	0.206	980.4	1.272	0.005	1321.8	1.353	0.012	1663.2	1.337	0.070	1936.2	1.462	0.004	2050.0	1.149	0.897	2163.8	1.215	0.006	2476.3	1.314	0.002
814.5	1.245	0.202	986.2	1.278	0.002	1327.6	1.355	0.012	1669.0	1.333	0.066	1938.1	1.465	0.004	2051.9	1.092	0.870	2165.7	1.217	0.006	2483.0	1.314	0.002

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TABLE 15B—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2489.8	1.315	0.002	2874.6	1.371	0.006	3259.5	1.381	0.210	3644.3	1.230	0.042
2496.6	1.317	0.002	2881.4	1.372	0.009	3266.2	1.375	0.214	3651.0	1.218	0.042
2503.3	1.317	0.002	2888.1	1.370	0.011	3273.0	1.368	0.218	3657.8	1.209	0.033
2510.1	1.318	0.002	2894.9	1.369	0.011	3279.7	1.361	0.223	3664.5	1.205	0.023
2516.8	1.318	0.002	2901.6	1.368	0.010	3286.5	1.353	0.227	3671.3	1.206	0.012
2523.6	1.319	0.001	2908.4	1.369	0.008	3293.2	1.344	0.230	3678.0	1.211	0.005
2530.3	1.320	0.002	2915.1	1.370	0.007	3300.0	1.335	0.232	3684.8	1.216	0.000
2537.1	1.321	0.001	2921.9	1.372	0.006	3306.7	1.325	0.233	3691.5	1.223	0.000
2543.8	1.322	0.001	2928.6	1.374	0.005	3313.5	1.316	0.233	3698.3	1.227	0.000
2550.6	1.322	0.001	2935.4	1.377	0.004	3320.2	1.307	0.234	3705.0	1.231	0.000
2557.3	1.323	0.001	2942.1	1.379	0.004	3327.0	1.299	0.234	3711.8	1.234	0.000
2564.1	1.324	0.001	2948.9	1.382	0.004	3333.7	1.290	0.232	3718.5	1.238	0.000
2570.8	1.325	0.001	2955.6	1.385	0.005	3340.5	1.282	0.231	3725.3	1.240	0.000
2577.6	1.326	0.001	2962.4	1.388	0.005	3347.2	1.274	0.230	3732.0	1.241	0.000
2584.3	1.326	0.001	2969.1	1.391	0.006	3354.0	1.266	0.229	3738.8	1.244	0.000
2591.1	1.327	0.001	2975.9	1.393	0.008	3360.7	1.258	0.226	3745.5	1.245	0.000
2597.8	1.328	0.001	2982.6	1.396	0.009	3367.5	1.250	0.225	3752.3	1.247	0.000
2604.6	1.329	0.001	2989.4	1.399	0.010	3374.2	1.241	0.223	3759.1	1.249	0.000
2611.3	1.330	0.001	2996.1	1.402	0.011	3381.0	1.232	0.220	3765.8	1.250	0.000
2618.1	1.330	0.001	3002.9	1.404	0.013	3387.7	1.224	0.216	3772.6	1.252	0.000
2624.8	1.331	0.001	3009.7	1.408	0.015	3394.5	1.216	0.212	3779.3	1.253	0.000
2631.6	1.332	0.001	3016.4	1.411	0.016	3401.2	1.207	0.207	3786.1	1.255	0.000
2638.3	1.333	0.002	3023.2	1.414	0.018	3408.0	1.199	0.202	3792.8	1.256	0.000
2645.1	1.333	0.002	3029.9	1.417	0.021	3414.7	1.192	0.195	3799.6	1.257	0.000
2651.8	1.334	0.002	3036.7	1.421	0.024	3421.5	1.184	0.187	3806.3	1.258	0.000
2658.6	1.335	0.002	3043.4	1.424	0.026	3428.2	1.178	0.181	3813.1	1.259	0.000
2665.3	1.336	0.002	3050.2	1.428	0.030	3435.0	1.171	0.172	3819.8	1.260	0.000
2672.1	1.337	0.002	3056.9	1.431	0.033	3441.7	1.166	0.164	3826.6	1.261	0.000
2678.8	1.337	0.002	3063.7	1.434	0.037	3448.5	1.161	0.154	3833.3	1.262	0.000
2685.6	1.338	0.000	3070.4	1.437	0.040	3455.2	1.158	0.145	3840.1	1.264	0.000
2692.3	1.339	0.002	3077.2	1.440	0.045	3462.0	1.156	0.136	3846.8	1.264	0.000
2699.1	1.339	0.002	3083.9	1.443	0.050	3468.7	1.153	0.127	3853.6	1.264	0.000
2705.8	1.340	0.002	3090.7	1.445	0.056	3475.5	1.152	0.119	3860.3	1.266	0.000
2712.6	1.341	0.002	3097.4	1.447	0.060	3482.2	1.151	0.110	3867.1	1.267	0.000
2719.3	1.342	0.002	3104.2	1.450	0.067	3489.0	1.151	0.102	3873.8	1.267	0.000
2726.1	1.342	0.002	3110.9	1.452	0.073	3495.7	1.151	0.095	3880.6	1.268	0.000
2732.8	1.344	0.002	3117.7	1.453	0.080	3502.5	1.151	0.086	3887.3	1.269	0.000
2739.6	1.344	0.002	3124.4	1.454	0.086	3509.3	1.151	0.078	3894.1	1.270	0.000
2746.4	1.345	0.002	3131.2	1.454	0.093	3516.0	1.153	0.070	3900.8	1.270	0.000
2753.1	1.346	0.000	3137.9	1.455	0.100	3522.8	1.154	0.062	3907.6	1.271	0.000
2759.9	1.347	0.000	3144.7	1.454	0.108	3529.5	1.157	0.053	3914.3	1.271	0.000
2766.6	1.348	0.002	3151.4	1.454	0.115	3536.3	1.160	0.046	3921.1	1.272	0.000
2773.4	1.349	0.002	3158.2	1.453	0.123	3543.0	1.165	0.038	3927.8	1.273	0.000
2780.1	1.350	0.000	3164.9	1.451	0.130	3549.8	1.170	0.032	3934.6	1.273	0.000
2786.9	1.351	0.000	3171.7	1.449	0.138	3556.5	1.175	0.026	3941.3	1.274	0.000
2793.6	1.353	0.002	3178.4	1.445	0.146	3563.3	1.181	0.021	3948.1	1.274	0.000
2800.4	1.354	0.002	3185.2	1.442	0.153	3570.0	1.187	0.017	3954.8	1.275	0.000
2807.1	1.355	0.002	3191.9	1.438	0.161	3576.8	1.192	0.014	3961.6	1.276	0.000
2813.9	1.356	0.002	3198.7	1.433	0.167	3583.5	1.198	0.012	3968.3	1.276	0.000
2820.6	1.357	0.002	3205.4	1.428	0.174	3590.3	1.204	0.010	3975.1	1.277	0.000
2827.4	1.358	0.002	3212.2	1.422	0.180	3597.0	1.210	0.008	3981.8	1.277	0.000
2834.1	1.359	0.002	3218.9	1.415	0.185	3603.8	1.216	0.007	3988.6	1.278	0.000
2840.9	1.361	0.002	3225.7	1.409	0.189	3610.5	1.222	0.007	3995.3	1.279	0.000
2847.6	1.362	0.002	3232.4	1.403	0.193	3617.3	1.229	0.009			
2854.4	1.364	0.002	3239.2	1.398	0.197	3624.0	1.236	0.014			
2861.1	1.366	0.002	3245.9	1.392	0.200	3630.8	1.241	0.021			
2867.9	1.369	0.003	3252.7	1.387	0.205	3637.5	1.239	0.034			

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TABLE 15C

H_2O:OCS = 2:1 AT 80 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.533	0.020	816.4	1.268	0.255	992.0	1.270	0.002	1333.4	1.354	0.014	1674.8	1.337	0.059	1940.0	1.460	0.004	2053.9	1.034	0.784	2167.7	1.232	0.007
510.7	1.566	0.074	818.4	1.264	0.255	997.8	1.273	0.002	1339.2	1.354	0.014	1680.6	1.335	0.057	1942.0	1.463	0.004	2055.8	0.992	0.740	2169.6	1.233	0.007
516.5	1.467	0.143	820.3	1.261	0.251	1003.5	1.278	0.002	1345.0	1.357	0.014	1686.4	1.336	0.051	1943.9	1.466	0.005	2057.7	0.958	0.700	2171.5	1.235	0.007
522.3	1.404	0.054	822.2	1.259	0.252	1009.3	1.282	0.002	1350.8	1.356	0.016	1692.2	1.331	0.049	1945.8	1.469	0.005	2059.6	0.927	0.662	2173.4	1.237	0.007
528.1	1.438	0.011	824.2	1.254	0.247	1015.1	1.286	0.002	1356.5	1.356	0.016	1698.0	1.331	0.044	1947.8	1.472	0.005	2061.6	0.897	0.626	2175.4	1.238	0.007
533.8	1.460	0.005	826.1	1.252	0.243	1020.9	1.291	0.002	1362.3	1.356	0.015	1703.7	1.332	0.042	1949.7	1.476	0.005	2063.5	0.868	0.592	2177.3	1.240	0.007
539.6	1.480	0.005	828.0	1.248	0.239	1026.7	1.295	0.005	1368.1	1.356	0.015	1709.5	1.330	0.040	1951.6	1.479	0.006	2065.4	0.837	0.555	2179.2	1.241	0.008
545.4	1.488	0.010	829.9	1.245	0.234	1032.5	1.298	0.008	1373.9	1.357	0.015	1715.3	1.327	0.033	1953.6	1.482	0.006	2067.4	0.807	0.514	2181.2	1.243	0.008
551.2	1.493	0.019	831.9	1.243	0.234	1038.3	1.297	0.011	1379.7	1.357	0.017	1721.1	1.329	0.028	1955.5	1.486	0.006	2069.3	0.775	0.467	2183.1	1.244	0.008
557.0	1.505	0.019	833.8	1.241	0.230	1044.0	1.293	0.011	1385.5	1.359	0.015	1726.9	1.330	0.022	1957.4	1.490	0.007	2071.2	0.747	0.408	2185.0	1.246	0.008
562.8	1.509	0.028	835.7	1.238	0.226	1049.8	1.293	0.005	1391.3	1.359	0.017	1732.7	1.331	0.017	1959.3	1.494	0.007	2073.1	0.727	0.340	2187.0	1.247	0.008
568.6	1.513	0.032	837.7	1.236	0.225	1055.6	1.298	0.002	1397.0	1.359	0.017	1738.5	1.337	0.016	1961.3	1.498	0.007	2075.1	0.723	0.257	2188.9	1.248	0.008
574.4	1.518	0.036	839.6	1.235	0.221	1061.4	1.300	0.002	1402.8	1.360	0.017	1744.3	1.340	0.012	1963.2	1.504	0.008	2077.0	0.743	0.176	2190.8	1.249	0.008
580.1	1.522	0.045	841.5	1.232	0.217	1067.2	1.304	0.002	1408.6	1.360	0.017	1750.0	1.342	0.010	1965.1	1.509	0.008	2078.9	0.784	0.111	2192.7	1.251	0.008
585.9	1.527	0.048	843.4	1.231	0.212	1073.0	1.308	0.003	1414.4	1.360	0.019	1755.8	1.347	0.009	1967.1	1.514	0.009	2080.9	0.832	0.068	2194.7	1.252	0.008
591.7	1.531	0.061	845.4	1.232	0.212	1078.8	1.309	0.000	1420.2	1.361	0.015	1761.6	1.349	0.007	1969.0	1.520	0.010	2082.8	0.878	0.048	2196.6	1.253	0.008
597.5	1.531	0.065	847.3	1.230	0.212	1084.6	1.311	0.000	1426.0	1.362	0.019	1767.4	1.351	0.007	1970.9	1.526	0.011	2084.7	0.917	0.035	2198.5	1.254	0.008
603.3	1.535	0.073	849.2	1.232	0.207	1090.3	1.313	0.003	1431.8	1.362	0.019	1773.2	1.355	0.002	1972.8	1.532	0.014	2086.6	0.948	0.030	2206.2	1.258	0.008
609.1	1.535	0.076	851.2	1.234	0.210	1096.1	1.314	0.003	1437.6	1.364	0.017	1779.0	1.358	0.006	1974.8	1.538	0.016	2088.6	0.974	0.025	2213.0	1.261	0.008
614.9	1.540	0.084	853.1	1.236	0.217	1101.9	1.315	0.003	1443.3	1.362	0.019	1784.8	1.360	0.004	1976.7	1.544	0.018	2090.5	0.995	0.023	2219.7	1.264	0.008
620.6	1.542	0.091	855.0	1.231	0.226	1107.7	1.317	0.003	1449.1	1.363	0.021	1790.6	1.363	0.004	1978.6	1.551	0.022	2092.4	1.014	0.020	2226.5	1.267	0.007
626.4	1.541	0.099	856.9	1.216	0.240	1113.5	1.319	0.003	1454.9	1.362	0.021	1796.3	1.365	0.004	1980.6	1.556	0.026	2094.4	1.031	0.018	2233.2	1.270	0.007
632.2	1.542	0.110	858.9	1.193	0.238	1119.3	1.322	0.003	1460.7	1.365	0.020	1802.1	1.368	0.003	1982.5	1.561	0.028	2096.3	1.046	0.017	2240.0	1.272	0.007
638.0	1.543	0.118	860.8	1.174	0.224	1125.1	1.323	0.003	1466.5	1.365	0.020	1807.9	1.371	0.003	1984.4	1.565	0.030	2098.2	1.058	0.015	2246.8	1.274	0.007
643.8	1.542	0.125	862.7	1.164	0.204	1130.8	1.324	0.003	1472.3	1.365	0.018	1813.7	1.374	0.003	1986.3	1.571	0.031	2100.1	1.070	0.013	2253.5	1.276	0.006
649.6	1.542	0.140	864.7	1.164	0.183	1136.6	1.326	0.003	1478.1	1.368	0.022	1819.5	1.376	0.003	1988.3	1.578	0.031	2102.1	1.081	0.012	2260.3	1.279	0.006
655.4	1.539	0.147	866.6	1.166	0.170	1142.4	1.327	0.003	1483.8	1.366	0.022	1825.3	1.379	0.001	1990.2	1.586	0.031	2104.0	1.092	0.011	2267.0	1.281	0.006
661.2	1.538	0.154	868.5	1.170	0.165	1148.2	1.329	0.005	1489.6	1.367	0.022	1831.1	1.382	0.001	1992.1	1.595	0.029	2105.9	1.101	0.010	2273.8	1.283	0.006
666.9	1.528	0.162	870.4	1.174	0.157	1154.0	1.331	0.003	1495.4	1.367	0.022	1836.8	1.384	0.003	1994.1	1.607	0.028	2107.9	1.110	0.010	2280.5	1.284	0.006
672.7	1.532	0.173	872.4	1.177	0.152	1159.8	1.330	0.005	1501.2	1.368	0.024	1842.6	1.386	0.001	1996.0	1.620	0.027	2109.8	1.117	0.009	2287.3	1.286	0.006
678.5	1.529	0.184	874.3	1.177	0.148	1165.6	1.333	0.003	1507.0	1.369	0.020	1848.4	1.391	0.001	1997.9	1.636	0.027	2111.7	1.125	0.008	2294.0	1.288	0.005
684.3	1.524	0.195	876.2	1.180	0.143	1171.4	1.333	0.005	1512.8	1.370	0.024	1854.2	1.394	0.003	1999.8	1.654	0.027	2113.7	1.132	0.008	2300.8	1.290	0.005
690.1	1.520	0.202	878.2	1.180	0.139	1177.1	1.334	0.005	1518.6	1.369	0.025	1860.0	1.397	0.003	2001.8	1.677	0.028	2115.6	1.139	0.007	2307.5	1.292	0.005
695.9	1.513	0.213	880.1	1.180	0.134	1182.9	1.335	0.005	1524.4	1.372	0.025	1865.8	1.400	0.003	2003.7	1.704	0.034	2117.5	1.145	0.008	2314.3	1.293	0.005
701.7	1.505	0.221	882.0	1.181	0.130	1188.7	1.336	0.005	1530.1	1.372	0.027	1871.6	1.405	0.004	2005.6	1.731	0.048	2119.4	1.151	0.006	2321.0	1.294	0.005
707.4	1.497	0.232	883.9	1.182	0.130	1194.5	1.338	0.005	1535.9	1.371	0.027	1877.4	1.408	0.006	2007.6	1.759	0.057	2121.4	1.157	0.007	2327.8	1.296	0.004
713.2	1.489	0.240	885.9	1.182	0.126	1200.3	1.339	0.008	1541.7	1.374	0.027	1883.1	1.410	0.009	2009.5	1.796	0.071	2123.3	1.161	0.007	2334.5	1.297	0.004
719.0	1.480	0.247	887.8	1.183	0.121	1206.1	1.339	0.008	1547.5	1.374	0.029	1888.9	1.411	0.009	2011.4	1.838	0.102	2125.2	1.166	0.006	2341.3	1.299	0.004
724.8	1.471	0.255	889.7	1.181	0.117	1211.9	1.341	0.008	1553.3	1.373	0.029	1894.7	1.413	0.007	2013.3	1.876	0.150	2127.2	1.171	0.006	2348.0	1.300	0.004
730.6	1.460	0.263	891.7	1.184	0.113	1217.7	1.341	0.008	1559.1	1.374	0.023	1901.5	1.417	0.004	2015.3	1.901	0.211	2129.1	1.175	0.007	2354.8	1.301	0.004
736.4	1.447	0.267	893.6	1.183	0.109	1223.4	1.341	0.008	1564.9	1.377	0.030	1903.4	1.419	0.004	2017.2	1.913	0.274	2131.0	1.180	0.005	2361.5	1.302	0.004
742.2	1.436	0.271	895.5	1.184	0.105	1229.2	1.342	0.008	1570.7	1.377	0.030	1905.3	1.420	0.004	2019.1	1.914	0.335	2132.9	1.184	0.006	2368.3	1.304	0.004
748.0	1.423	0.280	897.5	1.185	0.101	1235.0	1.347	0.003	1576.4	1.378	0.026	1907.3	1.422	0.004	2021.1	1.908	0.394	2134.9	1.188	0.006	2375.0	1.304	0.004
753.7	1.412	0.280	899.4	1.186	0.100	1240.8	1.345	0.007	1582.2	1.379	0.034	1909.2	1.423	0.003	2023.0	1.896	0.451	2136.8	1.191	0.006	2381.8	1.305	0.003
759.5	1.397	0.285	905.2	1.187	0.088	1246.6	1.345	0.007	1588.0	1.380	0.035	1911.1	1.426	0.003	2024.9	1.878	0.509	2138.7	1.194	0.006	2388.5	1.307	0.003
765.3	1.382	0.285	911.0	1.191	0.077	1252.4	1.347	0.010	1593.8	1.382	0.037	1913.0	1.428	0.003	2026.8	1.857	0.562	2140.7	1.197	0.007	2395.3	1.308	0.003
771.1	1.368	0.286	916.7	1.194	0.069	1258.2	1.347	0.010	1599.6	1.383	0.039	1915.0	1.430	0.003	2028.8	1.829	0.618	2142.6	1.200	0.005	2402.0	1.309	0.003
776.9	1.355	0.286	922.5	1.197	0.057	1263.9	1.347	0.010	1605.4	1.385	0.040	1916.9	1.432	0.003	2030.7	1.795	0.672	2144.5	1.203	0.005	2408.8	1.310	0.003
782.7	1.341	0.287	928.3	1.204	0.050	1269.7	1.348	0.010	1611.2	1.387	0.045	1918.8	1.434	0.003	2032.6	1.754	0.723	2146.4	1.207	0.006	2415.5	1.311	0.003
788.5	1.329	0.283	934.1	1.207	0.042	1275.5	1.350	0.010	1616.9	1.387	0.045	1920.8	1.436	0.003	2034.6	1.706	0.773	2148.4	1.209	0.006	2422.3	1.312	0.003
794.3	1.316	0.279	939.9	1.213	0.035	1281.3	1.350	0.010	1622.7	1.387	0.060	1922.7	1.438	0.003	2036.5	1.650	0.818	2150.3	1.212	0.006	2429.0	1.313	0.003
801.0	1.299	0.276	945.7	1.220	0.028	1287.1	1.350	0.012	1628.5	1.384	0.067	1924.6	1.441	0.004	2038.4	1.586	0.856	2152.2	1.215	0.006	2435.8	1.313	0.003
802.9	1.296	0.271	951.5	1.226	0.021	1292.9	1.350	0.012	1634.3	1.375	0.074	1926.5	1.443	0.003	2040.4	1.516	0.883	2154.2	1.217	0.006	2442.5	1.314	0.002
804.9	1.292	0.272	957.2	1.233	0.018	1298.7	1.351	0.012	1640.1	1.367	0.076	1928.5	1.445	0.004	2042.3	1.442	0.902	2156.1	1.220	0.006	2449.3	1.315	0.002
806.8	1.288	0.272	963.0	1.238	0.014	1304.5	1.353	0.012	1645.9	1.357	0.074	1930.4	1.447	0.003	2044.2	1.365	0.912	2158.0	1.222	0.007	2456.0	1.317	0.002
808.7	1.282	0.268	968.8	1.245	0.011	1310.2	1.353	0.014	1651.7	1.349	0.072	1932.3	1.450	0.004	2046.1	1.287	0.905	2159.9	1.224	0.007	2462.8	1.317	0.002
810.6	1.278	0.264	974.6	1.252	0.008	1316.0	1.352	0.014	1657.5	1.349	0.068	1934.3	1.452	0.004	2048.1	1.214	0.890	2161.9	1.226	0.007	2469.5	1.319	0.002
812.6	1.276	0.259	980.4	1.258	0.005	1321.8	1.353	0.014	1663.2	1.344	0.063	1936.2	1.454	0.004	2050.0	1.145	0.861	2163.8	1.228	0.007	2476.3	1.319	0.002
814.5	1.273	0.259	986.2	1.263	0.005	1327.6	1.353	0.014	1669.0	1.340	0.063	1938.1	1.457	0.004	2051.9	1.085	0.824	2165.7	1.230	0.007	2483.0	1.320	0.002

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TABLE 15C—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2489.8	1.321	0.002	2874.6	1.381	0.005	3259.5	1.373	0.266	3644.3	1.228	0.030
2496.6	1.322	0.002	2881.4	1.382	0.009	3266.2	1.362	0.270	3651.0	1.215	0.032
2503.3	1.323	0.002	2888.1	1.381	0.010	3273.0	1.352	0.274	3657.8	1.206	0.022
2510.1	1.323	0.002	2894.9	1.380	0.010	3279.7	1.340	0.277	3664.5	1.206	0.010
2516.8	1.324	0.002	2901.6	1.380	0.010	3286.5	1.328	0.279	3671.3	1.211	0.000
2523.6	1.325	0.002	2908.4	1.380	0.008	3293.2	1.316	0.279	3678.0	1.217	0.000
2530.3	1.326	0.001	2915.1	1.382	0.007	3300.0	1.304	0.278	3684.8	1.221	0.000
2537.1	1.327	0.001	2921.9	1.384	0.006	3306.7	1.292	0.278	3691.5	1.226	0.000
2543.8	1.328	0.001	2928.6	1.387	0.005	3313.5	1.280	0.274	3698.3	1.230	0.000
2550.6	1.328	0.001	2935.4	1.389	0.004	3320.2	1.270	0.272	3705.0	1.233	0.000
2557.3	1.329	0.001	2942.1	1.393	0.004	3327.0	1.260	0.268	3711.8	1.235	0.000
2564.1	1.330	0.001	2948.9	1.396	0.005	3333.7	1.250	0.263	3718.5	1.238	0.000
2570.8	1.331	0.001	2955.6	1.399	0.005	3340.5	1.241	0.260	3725.3	1.240	0.000
2577.6	1.332	0.002	2962.4	1.401	0.006	3347.2	1.232	0.255	3732.0	1.241	0.000
2584.3	1.333	0.002	2969.1	1.405	0.007	3354.0	1.224	0.251	3738.8	1.244	0.000
2591.1	1.333	0.002	2975.9	1.408	0.008	3360.7	1.216	0.246	3745.5	1.245	0.000
2597.8	1.334	0.002	2982.6	1.411	0.010	3367.5	1.208	0.242	3752.3	1.247	0.000
2604.6	1.335	0.002	2989.4	1.414	0.011	3374.2	1.198	0.237	3759.1	1.248	0.000
2611.3	1.336	0.002	2996.1	1.418	0.013	3381.0	1.190	0.232	3765.8	1.249	0.000
2618.1	1.337	0.002	3002.9	1.422	0.014	3387.7	1.184	0.226	3772.6	1.251	0.000
2624.8	1.337	0.002	3009.7	1.425	0.015	3394.5	1.175	0.220	3779.3	1.252	0.000
2631.6	1.338	0.002	3016.4	1.429	0.017	3401.2	1.166	0.212	3786.1	1.253	0.000
2638.3	1.339	0.002	3023.2	1.433	0.020	3408.0	1.159	0.204	3792.8	1.254	0.000
2645.1	1.340	0.002	3029.9	1.437	0.022	3414.7	1.154	0.195	3799.6	1.255	0.000
2651.8	1.340	0.000	3036.7	1.441	0.025	3421.5	1.147	0.186	3806.3	1.256	0.000
2658.6	1.342	0.002	3043.4	1.446	0.028	3428.2	1.141	0.178	3813.1	1.257	0.000
2665.3	1.342	0.002	3050.2	1.450	0.033	3435.0	1.136	0.168	3819.8	1.258	0.000
2672.1	1.344	0.002	3056.9	1.455	0.036	3441.7	1.131	0.156	3826.6	1.259	0.000
2678.8	1.345	0.002	3063.7	1.459	0.042	3448.5	1.128	0.145	3833.3	1.260	0.000
2685.6	1.345	0.000	3070.4	1.463	0.047	3455.2	1.126	0.134	3840.1	1.262	0.000
2692.3	1.346	0.000	3077.2	1.468	0.052	3462.0	1.126	0.124	3846.8	1.262	0.000
2699.1	1.347	0.002	3083.9	1.472	0.059	3468.7	1.125	0.114	3853.6	1.262	0.000
2705.8	1.348	0.002	3090.7	1.475	0.066	3475.5	1.126	0.104	3860.3	1.264	0.000
2712.6	1.349	0.002	3097.4	1.479	0.073	3482.2	1.127	0.095	3867.1	1.265	0.000
2719.3	1.350	0.002	3104.2	1.481	0.082	3489.0	1.128	0.086	3873.8	1.265	0.000
2726.1	1.350	0.002	3110.9	1.483	0.090	3495.7	1.130	0.077	3880.6	1.266	0.000
2732.8	1.352	0.002	3117.7	1.485	0.099	3502.5	1.133	0.068	3887.3	1.267	0.000
2739.6	1.352	0.002	3124.4	1.486	0.108	3509.3	1.136	0.060	3894.1	1.267	0.000
2746.4	1.353	0.002	3131.2	1.487	0.117	3516.0	1.139	0.052	3900.8	1.268	0.000
2753.1	1.354	0.001	3137.9	1.486	0.127	3522.8	1.143	0.045	3907.6	1.269	0.000
2759.9	1.355	0.002	3144.7	1.485	0.137	3529.5	1.147	0.036	3914.3	1.270	0.000
2766.6	1.356	0.002	3151.4	1.483	0.147	3536.3	1.153	0.030	3921.1	1.270	0.000
2773.4	1.357	0.002	3158.2	1.481	0.157	3543.0	1.159	0.025	3927.8	1.271	0.000
2780.1	1.358	0.001	3164.9	1.477	0.167	3549.8	1.165	0.020	3934.6	1.272	0.000
2786.9	1.360	0.001	3171.7	1.473	0.176	3556.5	1.171	0.016	3941.3	1.272	0.000
2793.6	1.361	0.002	3178.4	1.469	0.186	3563.3	1.177	0.013	3948.1	1.272	0.000
2800.4	1.362	0.002	3185.2	1.463	0.195	3570.0	1.183	0.010	3954.8	1.273	0.000
2807.1	1.364	0.002	3191.9	1.457	0.204	3576.8	1.188	0.007	3961.6	1.274	0.000
2813.9	1.364	0.002	3198.7	1.450	0.212	3583.5	1.193	0.006	3968.3	1.275	0.000
2820.6	1.366	0.002	3205.4	1.443	0.220	3590.3	1.198	0.004	3975.1	1.275	0.000
2827.4	1.367	0.002	3212.2	1.435	0.228	3597.0	1.203	0.004	3981.8	1.276	0.000
2834.1	1.368	0.002	3218.9	1.427	0.234	3603.8	1.208	0.002	3988.6	1.277	0.000
2840.9	1.370	0.002	3225.7	1.418	0.241	3610.5	1.214	0.001	3995.3	1.277	0.000
2847.6	1.372	0.001	3232.4	1.410	0.246	3617.3	1.219	0.002			
2854.4	1.373	0.002	3239.2	1.401	0.251	3624.0	1.226	0.005			
2861.1	1.375	0.002	3245.9	1.392	0.257	3630.8	1.233	0.009			
2867.9	1.378	0.003	3252.7	1.383	0.261	3637.5	1.235	0.020			

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TABLE 15D

H_2O:OCS = 2:1 AT 100 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.474	0.016	816.4	1.297	0.283	992.0	1.251	0.005	1333.4	1.344	0.016	1674.8	1.327	0.050	1940.0	1.381	0.003	2053.9	1.053	0.380	2167.7	1.302	0.012
510.7	1.502	0.036	818.4	1.292	0.283	997.8	1.256	0.002	1339.2	1.344	0.016	1680.6	1.325	0.050	1942.0	1.382	0.003	2055.8	1.039	0.312	2169.6	1.303	0.012
516.5	1.438	0.075	820.3	1.289	0.279	1003.5	1.262	0.002	1345.0	1.347	0.016	1686.4	1.327	0.048	1943.9	1.384	0.003	2057.7	1.043	0.254	2171.5	1.304	0.012
522.3	1.429	0.006	822.2	1.284	0.279	1009.3	1.267	0.002	1350.8	1.345	0.018	1692.2	1.320	0.046	1945.8	1.385	0.003	2059.6	1.056	0.208	2173.4	1.304	0.012
528.1	1.455	0.000	824.2	1.278	0.276	1015.1	1.271	0.002	1356.5	1.345	0.018	1698.0	1.319	0.042	1947.8	1.386	0.003	2061.6	1.070	0.179	2175.4	1.305	0.013
533.8	1.456	0.000	826.1	1.274	0.272	1020.9	1.275	0.002	1362.3	1.346	0.018	1703.7	1.318	0.042	1949.7	1.387	0.003	2063.5	1.083	0.155	2177.3	1.306	0.013
539.6	1.467	0.005	828.0	1.270	0.272	1026.7	1.279	0.002	1368.1	1.346	0.020	1709.5	1.316	0.038	1951.6	1.389	0.003	2065.4	1.092	0.138	2179.2	1.306	0.013
545.4	1.472	0.010	829.9	1.268	0.267	1032.5	1.283	0.005	1373.9	1.346	0.020	1715.3	1.312	0.033	1953.6	1.390	0.003	2067.4	1.100	0.121	2181.2	1.306	0.013
551.2	1.474	0.010	831.9	1.264	0.267	1038.3	1.284	0.005	1379.7	1.346	0.019	1721.1	1.314	0.029	1955.5	1.392	0.003	2069.3	1.106	0.102	2183.1	1.307	0.013
557.0	1.483	0.015	833.8	1.259	0.264	1044.0	1.285	0.005	1385.5	1.347	0.019	1726.9	1.313	0.026	1957.4	1.393	0.003	2071.2	1.114	0.085	2185.0	1.307	0.013
562.8	1.484	0.019	835.7	1.256	0.259	1049.8	1.288	0.002	1391.3	1.347	0.019	1732.7	1.312	0.022	1959.3	1.395	0.003	2073.1	1.123	0.067	2187.0	1.307	0.013
568.6	1.495	0.019	837.7	1.252	0.260	1055.6	1.290	0.002	1397.0	1.348	0.021	1738.5	1.316	0.019	1961.3	1.397	0.003	2075.1	1.135	0.051	2188.9	1.308	0.013
574.4	1.494	0.028	839.6	1.247	0.260	1061.4	1.294	0.002	1402.8	1.347	0.021	1744.3	1.318	0.017	1963.2	1.399	0.003	2077.0	1.149	0.038	2190.8	1.308	0.013
580.1	1.497	0.027	841.5	1.244	0.252	1067.2	1.295	0.002	1408.6	1.347	0.021	1750.0	1.320	0.013	1965.1	1.401	0.003	2078.9	1.164	0.030	2192.7	1.309	0.013
585.9	1.502	0.027	843.4	1.240	0.252	1073.0	1.298	0.002	1414.4	1.348	0.021	1755.8	1.322	0.013	1967.1	1.403	0.003	2080.9	1.176	0.025	2194.7	1.309	0.013
591.7	1.505	0.035	845.4	1.237	0.248	1078.8	1.300	0.002	1420.2	1.349	0.019	1761.6	1.323	0.010	1969.0	1.406	0.004	2082.8	1.187	0.022	2196.6	1.309	0.013
597.5	1.508	0.035	847.3	1.235	0.247	1084.6	1.301	0.002	1426.0	1.348	0.023	1767.4	1.325	0.010	1970.9	1.408	0.004	2084.7	1.197	0.020	2198.5	1.310	0.013
603.3	1.512	0.043	849.2	1.231	0.243	1090.3	1.303	0.002	1431.8	1.348	0.023	1773.2	1.328	0.005	1972.8	1.410	0.004	2086.6	1.205	0.018	2206.2	1.311	0.013
609.1	1.514	0.051	851.2	1.229	0.243	1096.1	1.305	0.002	1437.6	1.349	0.021	1779.0	1.329	0.008	1974.8	1.412	0.006	2088.6	1.213	0.017	2213.0	1.312	0.013
614.9	1.518	0.051	853.1	1.226	0.243	1101.9	1.307	0.002	1443.3	1.349	0.023	1784.8	1.331	0.007	1976.7	1.415	0.006	2090.5	1.218	0.016	2219.7	1.313	0.013
620.6	1.523	0.059	855.0	1.222	0.247	1107.7	1.308	0.002	1449.1	1.349	0.025	1790.6	1.332	0.007	1978.6	1.417	0.007	2092.4	1.224	0.015	2226.5	1.314	0.013
626.4	1.523	0.066	856.9	1.213	0.248	1113.5	1.310	0.002	1454.9	1.347	0.025	1796.3	1.335	0.005	1980.6	1.420	0.007	2094.4	1.229	0.013	2233.2	1.315	0.013
632.2	1.527	0.074	858.9	1.200	0.245	1119.3	1.312	0.002	1460.7	1.349	0.024	1802.1	1.336	0.005	1982.5	1.423	0.008	2096.3	1.234	0.014	2240.0	1.315	0.013
638.0	1.529	0.081	860.8	1.188	0.234	1125.1	1.313	0.002	1466.5	1.350	0.024	1807.9	1.338	0.005	1984.4	1.426	0.008	2098.2	1.239	0.012	2246.8	1.315	0.013
643.8	1.532	0.089	862.7	1.186	0.218	1130.8	1.315	0.003	1472.3	1.349	0.022	1813.7	1.338	0.004	1986.3	1.429	0.010	2100.1	1.242	0.013	2253.5	1.316	0.012
649.6	1.535	0.096	864.7	1.183	0.213	1136.6	1.316	0.003	1478.1	1.351	0.026	1819.5	1.341	0.004	1988.3	1.432	0.012	2102.1	1.247	0.011	2260.3	1.317	0.012
655.4	1.533	0.103	866.6	1.185	0.205	1142.4	1.318	0.003	1483.8	1.350	0.026	1825.3	1.342	0.004	1990.2	1.435	0.014	2104.0	1.250	0.011	2267.0	1.318	0.012
661.2	1.535	0.114	868.5	1.184	0.200	1148.2	1.319	0.005	1489.6	1.350	0.026	1831.1	1.345	0.002	1992.1	1.437	0.015	2105.9	1.253	0.010	2273.8	1.318	0.010
666.9	1.530	0.118	870.4	1.184	0.191	1154.0	1.322	0.005	1495.4	1.348	0.028	1836.8	1.345	0.004	1994.1	1.439	0.016	2107.9	1.257	0.010	2280.5	1.319	0.010
672.7	1.539	0.132	872.4	1.184	0.191	1159.8	1.322	0.005	1501.2	1.350	0.028	1842.6	1.346	0.002	1996.0	1.441	0.015	2109.8	1.260	0.010	2287.3	1.320	0.010
678.5	1.536	0.139	874.3	1.183	0.187	1165.6	1.323	0.005	1507.0	1.352	0.024	1848.4	1.349	0.002	1997.9	1.444	0.014	2111.7	1.262	0.010	2294.0	1.320	0.010
684.3	1.535	0.150	876.2	1.182	0.182	1171.4	1.324	0.005	1512.8	1.351	0.028	1854.2	1.350	0.002	1999.8	1.450	0.011	2113.7	1.264	0.011	2300.8	1.321	0.009
690.1	1.534	0.164	878.2	1.181	0.178	1177.1	1.325	0.005	1518.6	1.351	0.029	1860.0	1.352	0.002	2001.8	1.457	0.011	2115.6	1.267	0.011	2307.5	1.322	0.009
695.9	1.530	0.171	880.1	1.178	0.174	1182.9	1.326	0.005	1524.4	1.351	0.029	1865.8	1.354	0.002	2003.7	1.465	0.012	2117.5	1.269	0.009	2314.3	1.323	0.008
701.7	1.525	0.182	882.0	1.177	0.170	1188.7	1.328	0.005	1530.1	1.351	0.031	1871.6	1.357	0.004	2005.6	1.474	0.012	2119.4	1.272	0.009	2321.0	1.324	0.008
707.4	1.520	0.193	883.9	1.176	0.165	1194.5	1.330	0.008	1535.9	1.351	0.031	1877.4	1.358	0.004	2007.6	1.484	0.014	2121.4	1.274	0.009	2327.8	1.325	0.008
713.2	1.517	0.204	885.9	1.176	0.161	1200.3	1.330	0.008	1541.7	1.353	0.031	1883.1	1.359	0.005	2009.5	1.495	0.016	2123.3	1.276	0.010	2334.5	1.326	0.008
719.0	1.510	0.215	887.8	1.176	0.157	1206.1	1.330	0.007	1547.5	1.352	0.033	1888.9	1.359	0.004	2011.4	1.507	0.021	2125.2	1.278	0.010	2341.3	1.326	0.008
724.8	1.503	0.226	889.7	1.172	0.153	1211.9	1.331	0.007	1553.3	1.350	0.032	1894.7	1.360	0.004	2013.3	1.520	0.028	2127.2	1.279	0.010	2348.0	1.327	0.008
730.6	1.494	0.233	891.7	1.172	0.149	1217.7	1.331	0.007	1559.1	1.352	0.025	1901.5	1.363	0.003	2015.3	1.533	0.038	2129.1	1.281	0.010	2354.8	1.327	0.008
736.4	1.485	0.245	893.6	1.171	0.140	1223.4	1.333	0.007	1564.9	1.353	0.034	1903.4	1.364	0.003	2017.2	1.546	0.051	2131.0	1.283	0.010	2361.5	1.328	0.008
742.2	1.476	0.252	895.5	1.172	0.136	1229.2	1.333	0.007	1570.7	1.353	0.034	1905.3	1.365	0.003	2019.1	1.556	0.066	2132.9	1.284	0.010	2368.3	1.328	0.006
748.0	1.464	0.260	897.5	1.172	0.132	1235.0	1.338	0.003	1576.4	1.352	0.026	1907.3	1.366	0.003	2021.1	1.566	0.080	2134.9	1.285	0.010	2375.0	1.329	0.006
753.7	1.454	0.268	899.4	1.171	0.132	1240.8	1.336	0.010	1582.2	1.353	0.036	1909.2	1.366	0.003	2023.0	1.576	0.096	2136.8	1.287	0.010	2381.8	1.330	0.006
759.5	1.440	0.276	905.2	1.171	0.116	1246.6	1.336	0.010	1588.0	1.352	0.037	1911.1	1.367	0.003	2024.9	1.587	0.113	2138.7	1.288	0.010	2388.5	1.331	0.006
765.3	1.425	0.281	911.0	1.171	0.103	1252.4	1.337	0.010	1593.8	1.352	0.037	1913.0	1.367	0.003	2026.8	1.599	0.133	2140.7	1.289	0.010	2395.3	1.331	0.006
771.1	1.411	0.286	916.7	1.175	0.091	1258.2	1.339	0.012	1599.6	1.351	0.039	1915.0	1.369	0.001	2028.8	1.612	0.156	2142.6	1.290	0.010	2402.0	1.332	0.006
776.9	1.398	0.290	922.5	1.175	0.079	1263.9	1.339	0.012	1605.4	1.351	0.039	1916.9	1.369	0.003	2030.7	1.627	0.185	2144.5	1.292	0.010	2408.8	1.332	0.005
782.7	1.383	0.291	928.3	1.180	0.068	1269.7	1.339	0.012	1611.2	1.351	0.041	1918.8	1.371	0.001	2032.6	1.641	0.224	2146.4	1.293	0.010	2415.5	1.333	0.006
788.5	1.367	0.296	934.1	1.184	0.057	1275.5	1.339	0.012	1616.9	1.350	0.035	1920.8	1.372	0.003	2034.6	1.650	0.277	2148.4	1.294	0.010	2422.3	1.333	0.005
794.3	1.353	0.292	939.9	1.190	0.045	1281.3	1.340	0.012	1622.7	1.350	0.044	1922.7	1.372	0.003	2036.5	1.647	0.342	2150.3	1.295	0.010	2429.0	1.334	0.005
801.0	1.336	0.293	945.7	1.197	0.038	1287.1	1.341	0.012	1628.5	1.350	0.046	1924.6	1.373	0.003	2038.4	1.625	0.416	2152.2	1.296	0.010	2435.8	1.335	0.005
802.9	1.332	0.293	951.5	1.203	0.031	1292.9	1.341	0.014	1634.3	1.346	0.049	1926.5	1.375	0.003	2040.4	1.579	0.491	2154.2	1.297	0.010	2442.5	1.335	0.005
804.9	1.327	0.290	957.2	1.212	0.024	1298.7	1.341	0.014	1640.1	1.345	0.051	1928.5	1.375	0.003	2042.3	1.507	0.556	2156.1	1.298	0.010	2449.3	1.336	0.005
806.8	1.323	0.290	963.0	1.218	0.017	1304.5	1.342	0.014	1645.9	1.340	0.051	1930.4	1.376	0.003	2044.2	1.413	0.595	2158.0	1.299	0.012	2456.0	1.336	0.005
808.7	1.318	0.290	968.8	1.226	0.014	1310.2	1.342	0.014	1651.7	1.335	0.052	1932.3	1.377	0.003	2046.1	1.311	0.598	2159.9	1.300	0.010	2462.8	1.337	0.005
810.6	1.312	0.290	974.6	1.233	0.011	1316.0	1.344	0.016	1657.5	1.338	0.052	1934.3	1.379	0.003	2048.1	1.218	0.569	2161.9	1.301	0.012	2469.5	1.337	0.005
812.6	1.308	0.286	980.4	1.239	0.008	1321.8	1.343	0.016	1663.2	1.334	0.050	1936.2	1.379	0.003	2050.0	1.142	0.517	2163.8	1.301	0.012	2476.3	1.338	0.004
814.5	1.303	0.287	986.2	1.246	0.005	1327.6	1.343	0.016	1669.0	1.330	0.050	1938.1	1.380	0.003	2051.9	1.087	0.450	2165.7	1.302	0.012	2483.0	1.339	0.004

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TABLE 15D—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2489.8	1.339	0.004	2874.6	1.392	0.003	3259.5	1.349	0.342	3644.3	1.222	0.007
2496.6	1.340	0.004	2881.4	1.394	0.004	3266.2	1.331	0.344	3651.0	1.221	0.006
2503.3	1.341	0.004	2888.1	1.396	0.005	3273.0	1.312	0.342	3657.8	1.221	0.003
2510.1	1.341	0.004	2894.9	1.398	0.006	3279.7	1.295	0.341	3664.5	1.223	0.000
2516.8	1.342	0.004	2901.6	1.398	0.007	3286.5	1.277	0.336	3671.3	1.226	0.000
2523.6	1.342	0.004	2908.4	1.398	0.006	3293.2	1.261	0.332	3678.0	1.230	0.000
2530.3	1.343	0.003	2915.1	1.400	0.005	3300.0	1.246	0.324	3684.8	1.231	0.000
2537.1	1.343	0.003	2921.9	1.403	0.005	3306.7	1.231	0.315	3691.5	1.234	0.000
2543.8	1.344	0.003	2928.6	1.405	0.004	3313.5	1.219	0.306	3698.3	1.236	0.000
2550.6	1.345	0.003	2935.4	1.408	0.004	3320.2	1.208	0.296	3705.0	1.238	0.000
2557.3	1.346	0.003	2942.1	1.411	0.004	3327.0	1.198	0.287	3711.8	1.239	0.000
2564.1	1.346	0.003	2948.9	1.414	0.004	3333.7	1.190	0.276	3718.5	1.241	0.000
2570.8	1.347	0.003	2955.6	1.417	0.005	3340.5	1.182	0.268	3725.3	1.243	0.000
2577.6	1.348	0.003	2962.4	1.420	0.006	3347.2	1.176	0.260	3732.0	1.244	0.000
2584.3	1.348	0.003	2969.1	1.423	0.007	3354.0	1.169	0.250	3738.8	1.246	0.000
2591.1	1.349	0.003	2975.9	1.427	0.008	3360.7	1.163	0.242	3745.5	1.247	0.000
2597.8	1.349	0.003	2982.6	1.430	0.009	3367.5	1.157	0.234	3752.3	1.248	0.000
2604.6	1.350	0.002	2989.4	1.434	0.010	3374.2	1.150	0.226	3759.1	1.250	0.000
2611.3	1.350	0.002	2996.1	1.438	0.011	3381.0	1.145	0.218	3765.8	1.251	0.000
2618.1	1.351	0.002	3002.9	1.442	0.012	3387.7	1.141	0.211	3772.6	1.253	0.000
2624.8	1.352	0.002	3009.7	1.446	0.014	3394.5	1.135	0.201	3779.3	1.253	0.000
2631.6	1.353	0.002	3016.4	1.451	0.015	3401.2	1.130	0.191	3786.1	1.255	0.000
2638.3	1.354	0.002	3023.2	1.455	0.017	3408.0	1.126	0.181	3792.8	1.255	0.000
2645.1	1.355	0.002	3029.9	1.461	0.019	3414.7	1.122	0.171	3799.6	1.256	0.000
2651.8	1.355	0.002	3036.7	1.466	0.022	3421.5	1.119	0.161	3806.3	1.258	0.000
2658.6	1.356	0.002	3043.4	1.472	0.026	3428.2	1.116	0.151	3813.1	1.259	0.000
2665.3	1.357	0.002	3050.2	1.478	0.029	3435.0	1.113	0.140	3819.8	1.259	0.000
2672.1	1.358	0.002	3056.9	1.485	0.033	3441.7	1.112	0.128	3826.6	1.261	0.000
2678.8	1.359	0.002	3063.7	1.491	0.038	3448.5	1.112	0.117	3833.3	1.262	0.000
2685.6	1.359	0.002	3070.4	1.498	0.044	3455.2	1.113	0.105	3840.1	1.263	0.000
2692.3	1.360	0.002	3077.2	1.505	0.051	3462.0	1.116	0.096	3846.8	1.264	0.000
2699.1	1.362	0.002	3083.9	1.512	0.059	3468.7	1.118	0.086	3853.6	1.264	0.000
2705.8	1.362	0.002	3090.7	1.518	0.069	3475.5	1.122	0.077	3860.3	1.266	0.000
2712.6	1.363	0.002	3097.4	1.523	0.079	3482.2	1.125	0.068	3867.1	1.266	0.000
2719.3	1.363	0.002	3104.2	1.528	0.091	3489.0	1.130	0.060	3873.8	1.267	0.000
2726.1	1.365	0.002	3110.9	1.532	0.103	3495.7	1.134	0.053	3880.6	1.267	0.000
2732.8	1.365	0.002	3117.7	1.535	0.116	3502.5	1.139	0.047	3887.3	1.269	0.000
2739.6	1.366	0.002	3124.4	1.537	0.129	3509.3	1.144	0.041	3894.1	1.269	0.000
2746.4	1.367	0.002	3131.2	1.537	0.143	3516.0	1.149	0.036	3900.8	1.269	0.000
2753.1	1.368	0.002	3137.9	1.536	0.158	3522.8	1.154	0.030	3907.6	1.270	0.000
2759.9	1.369	0.002	3144.7	1.534	0.172	3529.5	1.159	0.026	3914.3	1.271	0.000
2766.6	1.370	0.002	3151.4	1.530	0.186	3536.3	1.164	0.023	3921.1	1.272	0.000
2773.4	1.371	0.002	3158.2	1.526	0.200	3543.0	1.169	0.019	3927.8	1.272	0.000
2780.1	1.372	0.002	3164.9	1.520	0.214	3549.8	1.173	0.016	3934.6	1.273	0.000
2786.9	1.373	0.002	3171.7	1.513	0.228	3556.5	1.178	0.014	3941.3	1.273	0.000
2793.6	1.375	0.002	3178.4	1.505	0.240	3563.3	1.183	0.011	3948.1	1.274	0.000
2800.4	1.376	0.002	3185.2	1.496	0.253	3570.0	1.187	0.010	3954.8	1.274	0.000
2807.1	1.377	0.002	3191.9	1.487	0.265	3576.8	1.191	0.009	3961.6	1.275	0.000
2813.9	1.378	0.002	3198.7	1.476	0.276	3583.5	1.195	0.006	3968.3	1.275	0.000
2820.6	1.379	0.002	3205.4	1.465	0.287	3590.3	1.199	0.006	3975.1	1.276	0.000
2827.4	1.380	0.003	3212.2	1.453	0.295	3597.0	1.202	0.004	3981.8	1.276	0.000
2834.1	1.382	0.003	3218.9	1.440	0.306	3603.8	1.206	0.004	3988.6	1.277	0.000
2840.9	1.383	0.003	3225.7	1.427	0.313	3610.5	1.209	0.002	3995.3	1.278	0.000
2847.6	1.385	0.003	3232.4	1.413	0.321	3617.3	1.213	0.002			
2854.4	1.387	0.003	3239.2	1.398	0.328	3624.0	1.216	0.002			
2861.1	1.389	0.003	3245.9	1.382	0.334	3630.8	1.220	0.002			
2867.9	1.390	0.003	3252.7	1.366	0.338	3637.5	1.222	0.005			

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TABLE 15E

H_2O:OCS = 2:1 AT 120 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.481	0.011	816.4	1.300	0.299	992.0	1.250	0.005	1333.4	1.345	0.018	1674.8	1.327	0.050	1940.0	1.380	0.003	2053.9	1.016	0.390	2167.7	1.303	0.012
510.7	1.499	0.041	818.4	1.296	0.299	997.8	1.254	0.002	1339.2	1.343	0.016	1680.6	1.325	0.050	1942.0	1.381	0.003	2055.8	1.005	0.310	2169.6	1.304	0.012
516.5	1.426	0.076	820.3	1.289	0.296	1003.5	1.260	0.002	1345.0	1.345	0.016	1686.4	1.327	0.048	1943.9	1.383	0.003	2057.7	1.012	0.241	2171.5	1.305	0.012
522.3	1.426	0.006	822.2	1.284	0.296	1009.3	1.265	0.002	1350.8	1.345	0.018	1692.2	1.320	0.048	1945.8	1.384	0.003	2059.6	1.032	0.191	2173.4	1.305	0.012
528.1	1.448	0.006	824.2	1.280	0.292	1015.1	1.269	0.002	1356.5	1.346	0.018	1698.0	1.319	0.044	1947.8	1.385	0.003	2061.6	1.054	0.156	2175.4	1.306	0.013
533.8	1.455	0.000	826.1	1.275	0.288	1020.9	1.273	0.002	1362.3	1.345	0.018	1703.7	1.318	0.042	1949.7	1.386	0.003	2063.5	1.073	0.132	2177.3	1.307	0.013
539.6	1.465	0.005	828.0	1.272	0.288	1026.7	1.277	0.002	1368.1	1.345	0.020	1709.5	1.315	0.040	1951.6	1.388	0.003	2065.4	1.090	0.115	2179.2	1.307	0.013
545.4	1.470	0.005	829.9	1.266	0.284	1032.5	1.280	0.005	1373.9	1.345	0.020	1715.3	1.312	0.033	1953.6	1.389	0.003	2067.4	1.102	0.101	2181.2	1.307	0.013
551.2	1.476	0.010	831.9	1.261	0.284	1038.3	1.281	0.005	1379.7	1.346	0.019	1721.1	1.313	0.031	1955.5	1.391	0.003	2069.3	1.112	0.086	2183.1	1.308	0.013
557.0	1.481	0.010	833.8	1.258	0.280	1044.0	1.283	0.005	1385.5	1.346	0.019	1726.9	1.312	0.027	1957.4	1.392	0.003	2071.2	1.123	0.071	2185.0	1.308	0.013
562.8	1.489	0.014	835.7	1.253	0.277	1049.8	1.285	0.002	1391.3	1.347	0.019	1732.7	1.311	0.022	1959.3	1.394	0.003	2073.1	1.135	0.057	2187.0	1.308	0.013
568.6	1.490	0.014	837.7	1.248	0.277	1055.6	1.289	0.002	1397.0	1.348	0.021	1738.5	1.315	0.020	1961.3	1.396	0.003	2075.1	1.146	0.046	2188.9	1.309	0.013
574.4	1.493	0.019	839.6	1.245	0.273	1061.4	1.292	0.002	1402.8	1.348	0.021	1744.3	1.317	0.017	1963.2	1.397	0.003	2077.0	1.159	0.037	2190.8	1.309	0.013
580.1	1.499	0.023	841.5	1.240	0.269	1067.2	1.294	0.002	1408.6	1.347	0.023	1750.0	1.319	0.015	1965.1	1.400	0.003	2078.9	1.171	0.031	2192.7	1.310	0.013
585.9	1.503	0.027	843.4	1.236	0.269	1073.0	1.297	0.002	1414.4	1.347	0.023	1755.8	1.321	0.013	1967.1	1.402	0.004	2080.9	1.183	0.027	2194.7	1.310	0.014
591.7	1.506	0.031	845.4	1.233	0.265	1078.8	1.298	0.002	1420.2	1.348	0.019	1761.6	1.322	0.012	1969.0	1.404	0.004	2082.8	1.192	0.022	2196.6	1.311	0.013
597.5	1.509	0.039	847.3	1.229	0.261	1084.6	1.300	0.002	1426.0	1.348	0.023	1767.4	1.325	0.010	1970.9	1.406	0.004	2084.7	1.201	0.021	2198.5	1.311	0.014
603.3	1.511	0.039	849.2	1.225	0.261	1090.3	1.302	0.002	1431.8	1.348	0.023	1773.2	1.327	0.003	1972.8	1.408	0.004	2086.6	1.208	0.020	2206.2	1.312	0.014
609.1	1.514	0.047	851.2	1.223	0.256	1096.1	1.303	0.002	1437.6	1.350	0.019	1779.0	1.329	0.008	1974.8	1.411	0.006	2088.6	1.215	0.019	2213.0	1.312	0.014
614.9	1.520	0.046	853.1	1.220	0.256	1101.9	1.305	0.002	1443.3	1.348	0.025	1784.8	1.330	0.007	1976.7	1.413	0.006	2090.5	1.221	0.018	2219.7	1.313	0.014
620.6	1.523	0.054	855.0	1.216	0.260	1107.7	1.308	0.002	1449.1	1.348	0.025	1790.6	1.331	0.007	1978.6	1.416	0.006	2092.4	1.226	0.016	2226.5	1.314	0.014
626.4	1.525	0.062	856.9	1.206	0.262	1113.5	1.309	0.002	1454.9	1.347	0.025	1796.3	1.333	0.007	1980.6	1.418	0.007	2094.4	1.231	0.015	2233.2	1.315	0.013
632.2	1.529	0.065	858.9	1.192	0.259	1119.3	1.311	0.002	1460.7	1.351	0.024	1802.1	1.336	0.005	1982.5	1.421	0.007	2096.3	1.236	0.014	2240.0	1.316	0.013
638.0	1.533	0.073	860.8	1.179	0.248	1125.1	1.312	0.002	1466.5	1.350	0.026	1807.9	1.337	0.005	1984.4	1.424	0.008	2098.2	1.240	0.012	2246.8	1.316	0.013
643.8	1.536	0.080	862.7	1.173	0.232	1130.8	1.314	0.002	1472.3	1.348	0.022	1813.7	1.338	0.005	1986.3	1.427	0.010	2100.1	1.244	0.013	2253.5	1.316	0.013
649.6	1.538	0.091	864.7	1.174	0.219	1136.6	1.315	0.003	1478.1	1.350	0.026	1819.5	1.340	0.004	1988.3	1.431	0.011	2102.1	1.248	0.011	2260.3	1.317	0.012
655.4	1.540	0.099	866.6	1.176	0.214	1142.4	1.317	0.003	1483.8	1.351	0.028	1825.3	1.342	0.004	1990.2	1.434	0.014	2104.0	1.251	0.012	2267.0	1.318	0.012
661.2	1.541	0.106	868.5	1.176	0.209	1148.2	1.319	0.005	1489.6	1.348	0.026	1831.1	1.344	0.002	1992.1	1.436	0.017	2105.9	1.254	0.010	2273.8	1.319	0.010
666.9	1.537	0.113	870.4	1.176	0.205	1154.0	1.321	0.003	1495.4	1.347	0.028	1836.8	1.345	0.004	1994.1	1.437	0.018	2107.9	1.258	0.010	2280.5	1.319	0.010
672.7	1.546	0.123	872.4	1.174	0.200	1159.8	1.322	0.005	1501.2	1.350	0.028	1842.6	1.345	0.004	1996.0	1.438	0.018	2109.8	1.261	0.010	2287.3	1.320	0.010
678.5	1.545	0.134	874.3	1.173	0.196	1165.6	1.323	0.005	1507.0	1.351	0.022	1848.4	1.348	0.002	1997.9	1.440	0.015	2111.7	1.264	0.011	2294.0	1.321	0.010
684.3	1.545	0.145	876.2	1.171	0.192	1171.4	1.323	0.005	1512.8	1.351	0.028	1854.2	1.350	0.002	1999.8	1.445	0.012	2113.7	1.266	0.011	2300.8	1.322	0.009
690.1	1.542	0.159	878.2	1.169	0.183	1177.1	1.325	0.005	1518.6	1.351	0.029	1860.0	1.352	0.002	2001.8	1.452	0.011	2115.6	1.268	0.011	2307.5	1.323	0.009
695.9	1.540	0.166	880.1	1.168	0.179	1182.9	1.325	0.005	1524.4	1.352	0.031	1865.8	1.353	0.002	2003.7	1.459	0.012	2117.5	1.270	0.011	2314.3	1.324	0.009
701.7	1.537	0.181	882.0	1.169	0.174	1188.7	1.327	0.005	1530.1	1.350	0.031	1871.6	1.357	0.004	2005.6	1.467	0.012	2119.4	1.273	0.009	2321.0	1.324	0.009
707.4	1.532	0.187	883.9	1.167	0.170	1194.5	1.329	0.005	1535.9	1.350	0.031	1877.4	1.357	0.004	2007.6	1.476	0.014	2121.4	1.275	0.010	2327.8	1.324	0.009
713.2	1.528	0.202	885.9	1.165	0.166	1200.3	1.329	0.008	1541.7	1.353	0.031	1883.1	1.358	0.005	2009.5	1.485	0.017	2123.3	1.277	0.010	2334.5	1.325	0.008
719.0	1.522	0.213	887.8	1.166	0.162	1206.1	1.329	0.007	1547.5	1.352	0.033	1888.9	1.358	0.004	2011.4	1.496	0.019	2125.2	1.279	0.010	2341.3	1.326	0.008
724.8	1.516	0.224	889.7	1.163	0.158	1211.9	1.330	0.007	1553.3	1.349	0.032	1894.7	1.359	0.002	2013.3	1.507	0.024	2127.2	1.280	0.010	2348.0	1.327	0.008
730.6	1.508	0.235	891.7	1.163	0.153	1217.7	1.331	0.007	1559.1	1.351	0.025	1901.5	1.363	0.003	2015.3	1.520	0.031	2129.1	1.282	0.010	2354.8	1.328	0.008
736.4	1.498	0.247	893.6	1.162	0.149	1223.4	1.332	0.007	1564.9	1.353	0.034	1903.4	1.364	0.003	2017.2	1.533	0.038	2131.0	1.284	0.010	2361.5	1.328	0.008
742.2	1.489	0.254	895.5	1.162	0.141	1229.2	1.333	0.007	1570.7	1.353	0.034	1905.3	1.364	0.003	2019.1	1.546	0.051	2132.9	1.285	0.010	2368.3	1.328	0.006
748.0	1.477	0.266	897.5	1.162	0.137	1235.0	1.338	0.003	1576.4	1.352	0.026	1907.3	1.365	0.003	2021.1	1.557	0.063	2134.9	1.287	0.010	2375.0	1.329	0.006
753.7	1.467	0.278	899.4	1.161	0.132	1240.8	1.336	0.010	1582.2	1.352	0.037	1909.2	1.366	0.003	2023.0	1.569	0.077	2136.8	1.288	0.010	2381.8	1.330	0.006
759.5	1.453	0.282	905.2	1.163	0.120	1246.6	1.336	0.010	1588.0	1.352	0.037	1911.1	1.367	0.003	2024.9	1.582	0.091	2138.7	1.289	0.010	2388.5	1.331	0.006
765.3	1.437	0.291	911.0	1.162	0.108	1252.4	1.337	0.010	1593.8	1.350	0.039	1913.0	1.367	0.003	2026.8	1.596	0.106	2140.7	1.290	0.010	2395.3	1.332	0.006
771.1	1.423	0.295	916.7	1.166	0.092	1258.2	1.339	0.010	1599.6	1.350	0.039	1915.0	1.368	0.003	2028.8	1.613	0.125	2142.6	1.292	0.010	2402.0	1.332	0.006
776.9	1.408	0.300	922.5	1.168	0.076	1263.9	1.338	0.012	1605.4	1.350	0.041	1916.9	1.368	0.003	2030.7	1.635	0.149	2144.5	1.293	0.010	2408.8	1.333	0.006
782.7	1.393	0.305	928.3	1.174	0.068	1269.7	1.338	0.012	1611.2	1.350	0.041	1918.8	1.370	0.001	2032.6	1.660	0.184	2146.4	1.294	0.010	2415.5	1.333	0.006
788.5	1.377	0.306	934.1	1.179	0.053	1275.5	1.339	0.012	1616.9	1.348	0.035	1920.8	1.371	0.003	2034.6	1.684	0.236	2148.4	1.295	0.010	2422.3	1.333	0.006
794.3	1.364	0.307	939.9	1.187	0.045	1281.3	1.340	0.012	1622.7	1.349	0.044	1922.7	1.371	0.003	2036.5	1.698	0.310	2150.3	1.296	0.010	2429.0	1.334	0.005
801.0	1.343	0.308	945.7	1.193	0.038	1287.1	1.342	0.014	1628.5	1.349	0.046	1924.6	1.373	0.001	2038.4	1.692	0.404	2152.2	1.297	0.010	2435.8	1.335	0.005
802.9	1.336	0.309	951.5	1.200	0.028	1292.9	1.341	0.014	1634.3	1.345	0.047	1926.5	1.374	0.003	2040.4	1.649	0.513	2154.2	1.299	0.010	2442.5	1.336	0.005
804.9	1.332	0.305	957.2	1.208	0.024	1298.7	1.341	0.014	1640.1	1.345	0.051	1928.5	1.374	0.003	2042.3	1.562	0.611	2156.1	1.299	0.010	2449.3	1.336	0.005
806.8	1.328	0.305	963.0	1.215	0.017	1304.5	1.342	0.014	1645.9	1.340	0.049	1930.4	1.375	0.003	2044.2	1.439	0.665	2158.0	1.300	0.012	2456.0	1.337	0.005
808.7	1.322	0.306	968.8	1.224	0.014	1310.2	1.344	0.014	1651.7	1.335	0.052	1932.3	1.376	0.003	2046.1	1.310	0.665	2159.9	1.300	0.012	2462.8	1.337	0.005
810.6	1.316	0.302	974.6	1.231	0.011	1316.0	1.343	0.016	1657.5	1.339	0.052	1934.3	1.378	0.003	2048.1	1.198	0.622	2161.9	1.301	0.012	2469.5	1.338	0.005
812.6	1.312	0.302	980.4	1.238	0.008	1321.8	1.343	0.016	1663.2	1.335	0.048	1936.2	1.378	0.003	2050.0	1.111	0.555	2163.8	1.302	0.012	2476.3	1.338	0.005
814.5	1.307	0.302	986.2	1.243	0.004	1327.6	1.343	0.016	1669.0	1.330	0.050	1938.1	1.379	0.003	2051.9	1.050	0.473	2165.7	1.302	0.012	2483.0	1.339	0.004

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TABLE 15E—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2489.8	1.340	0.004	2874.6	1.394	0.004	3259.5	1.341	0.347	3644.3	1.222	0.004
2496.6	1.340	0.004	2881.4	1.396	0.004	3266.2	1.322	0.349	3651.0	1.222	0.003
2503.3	1.341	0.004	2888.1	1.398	0.005	3273.0	1.304	0.348	3657.8	1.223	0.001
2510.1	1.342	0.004	2894.9	1.400	0.006	3279.7	1.286	0.343	3664.5	1.225	0.000
2516.8	1.342	0.004	2901.6	1.400	0.008	3286.5	1.269	0.339	3671.3	1.227	0.000
2523.6	1.343	0.004	2908.4	1.400	0.007	3293.2	1.252	0.333	3678.0	1.231	0.000
2530.3	1.343	0.004	2915.1	1.402	0.006	3300.0	1.237	0.324	3684.8	1.232	0.000
2537.1	1.344	0.004	2921.9	1.405	0.005	3306.7	1.222	0.315	3691.5	1.235	0.000
2543.8	1.344	0.003	2928.6	1.407	0.005	3313.5	1.211	0.305	3698.3	1.236	0.000
2550.6	1.345	0.003	2935.4	1.410	0.005	3320.2	1.199	0.294	3705.0	1.238	0.000
2557.3	1.346	0.003	2942.1	1.413	0.005	3327.0	1.191	0.285	3711.8	1.240	0.000
2564.1	1.347	0.003	2948.9	1.416	0.006	3333.7	1.182	0.274	3718.5	1.242	0.000
2570.8	1.347	0.003	2955.6	1.419	0.006	3340.5	1.177	0.266	3725.3	1.243	0.000
2577.6	1.348	0.003	2962.4	1.423	0.008	3347.2	1.169	0.255	3732.0	1.243	0.000
2584.3	1.349	0.003	2969.1	1.425	0.008	3354.0	1.163	0.247	3738.8	1.246	0.000
2591.1	1.349	0.003	2975.9	1.429	0.010	3360.7	1.158	0.238	3745.5	1.248	0.000
2597.8	1.350	0.003	2982.6	1.432	0.011	3367.5	1.153	0.230	3752.3	1.249	0.000
2604.6	1.350	0.002	2989.4	1.436	0.012	3374.2	1.146	0.221	3759.1	1.250	0.000
2611.3	1.350	0.003	2996.1	1.440	0.013	3381.0	1.142	0.213	3765.8	1.251	0.000
2618.1	1.352	0.002	3002.9	1.444	0.014	3387.7	1.138	0.205	3772.6	1.253	0.000
2624.8	1.353	0.002	3009.7	1.448	0.017	3394.5	1.133	0.197	3779.3	1.253	0.000
2631.6	1.354	0.002	3016.4	1.452	0.018	3401.2	1.128	0.186	3786.1	1.254	0.000
2638.3	1.354	0.002	3023.2	1.457	0.020	3408.0	1.125	0.177	3792.8	1.255	0.000
2645.1	1.355	0.002	3029.9	1.462	0.022	3414.7	1.122	0.166	3799.6	1.256	0.000
2651.8	1.356	0.002	3036.7	1.467	0.025	3421.5	1.118	0.156	3806.3	1.257	0.000
2658.6	1.357	0.002	3043.4	1.473	0.028	3428.2	1.115	0.147	3813.1	1.258	0.000
2665.3	1.358	0.002	3050.2	1.479	0.032	3435.0	1.114	0.136	3819.8	1.260	0.000
2672.1	1.358	0.002	3056.9	1.485	0.036	3441.7	1.112	0.126	3826.6	1.260	0.000
2678.8	1.359	0.002	3063.7	1.492	0.042	3448.5	1.112	0.114	3833.3	1.261	0.000
2685.6	1.360	0.002	3070.4	1.498	0.047	3455.2	1.114	0.103	3840.1	1.263	0.000
2692.3	1.361	0.002	3077.2	1.505	0.054	3462.0	1.116	0.093	3846.8	1.263	0.000
2699.1	1.362	0.002	3083.9	1.511	0.062	3468.7	1.118	0.083	3853.6	1.263	0.000
2705.8	1.362	0.002	3090.7	1.518	0.071	3475.5	1.122	0.074	3860.3	1.265	0.000
2712.6	1.363	0.002	3097.4	1.523	0.080	3482.2	1.126	0.065	3867.1	1.266	0.000
2719.3	1.364	0.002	3104.2	1.529	0.092	3489.0	1.130	0.058	3873.8	1.266	0.000
2726.1	1.365	0.002	3110.9	1.533	0.105	3495.7	1.135	0.050	3880.6	1.267	0.000
2732.8	1.366	0.002	3117.7	1.536	0.117	3502.5	1.140	0.045	3887.3	1.269	0.000
2739.6	1.367	0.002	3124.4	1.538	0.131	3509.3	1.145	0.039	3894.1	1.269	0.000
2746.4	1.368	0.002	3131.2	1.539	0.145	3516.0	1.150	0.035	3900.8	1.269	0.000
2753.1	1.369	0.001	3137.9	1.538	0.160	3522.8	1.155	0.029	3907.6	1.270	0.000
2759.9	1.369	0.002	3144.7	1.536	0.175	3529.5	1.160	0.024	3914.3	1.271	0.000
2766.6	1.371	0.001	3151.4	1.533	0.190	3536.3	1.165	0.022	3921.1	1.271	0.000
2773.4	1.372	0.001	3158.2	1.528	0.204	3543.0	1.170	0.019	3927.8	1.272	0.000
2780.1	1.373	0.001	3164.9	1.522	0.219	3549.8	1.174	0.016	3934.6	1.273	0.000
2786.9	1.374	0.001	3171.7	1.515	0.233	3556.5	1.179	0.014	3941.3	1.273	0.000
2793.6	1.376	0.002	3178.4	1.507	0.247	3563.3	1.183	0.012	3948.1	1.274	0.000
2800.4	1.377	0.001	3185.2	1.498	0.259	3570.0	1.187	0.009	3954.8	1.274	0.000
2807.1	1.379	0.002	3191.9	1.488	0.272	3576.8	1.191	0.008	3961.6	1.275	0.000
2813.9	1.379	0.002	3198.7	1.476	0.283	3583.5	1.195	0.006	3968.3	1.275	0.000
2820.6	1.381	0.003	3205.4	1.464	0.295	3590.3	1.199	0.005	3975.1	1.276	0.000
2827.4	1.382	0.003	3212.2	1.452	0.303	3597.0	1.203	0.004	3981.8	1.276	0.000
2834.1	1.383	0.003	3218.9	1.438	0.313	3603.8	1.205	0.004	3988.6	1.277	0.000
2840.9	1.385	0.003	3225.7	1.424	0.322	3610.5	1.209	0.002	3995.3	1.278	0.000
2847.6	1.386	0.003	3232.4	1.409	0.329	3617.3	1.212	0.002			
2854.4	1.388	0.003	3239.2	1.393	0.336	3624.0	1.215	0.002			
2861.1	1.390	0.003	3245.9	1.376	0.341	3630.8	1.219	0.000			
2867.9	1.392	0.003	3252.7	1.359	0.346	3637.5	1.221	0.003			

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TABLE 15F

H_2O:OCS = 2:1 AT 140 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
504.9	1.472	0.000	816.4	1.335	0.336	992.0	1.236	0.004	1333.4	1.344	0.016	1674.8	1.326	0.048	1940.0	1.378	0.003	2053.9	0.952	0.365	2167.7	1.305	0.012
510.7	1.498	0.026	818.4	1.329	0.337	997.8	1.241	0.004	1339.2	1.344	0.016	1680.6	1.325	0.046	1942.0	1.379	0.001	2055.8	0.957	0.274	2169.6	1.306	0.012
516.5	1.425	0.070	820.3	1.321	0.334	1003.5	1.248	0.004	1345.0	1.348	0.016	1686.4	1.327	0.046	1943.9	1.381	0.003	2057.7	0.982	0.198	2171.5	1.307	0.012
522.3	1.436	0.000	822.2	1.316	0.334	1009.3	1.254	0.002	1350.8	1.346	0.018	1692.2	1.321	0.044	1945.8	1.382	0.003	2059.6	1.016	0.147	2173.4	1.308	0.012
528.1	1.458	0.005	824.2	1.309	0.331	1015.1	1.259	0.002	1356.5	1.347	0.020	1698.0	1.320	0.042	1947.8	1.383	0.003	2061.6	1.049	0.119	2175.4	1.309	0.013
533.8	1.459	0.010	826.1	1.305	0.331	1020.9	1.264	0.002	1362.3	1.346	0.020	1703.7	1.319	0.040	1949.7	1.384	0.003	2063.5	1.075	0.099	2177.3	1.308	0.013
539.6	1.466	0.010	828.0	1.298	0.332	1026.7	1.268	0.002	1368.1	1.346	0.020	1709.5	1.317	0.038	1951.6	1.385	0.003	2065.4	1.097	0.084	2179.2	1.309	0.013
545.4	1.468	0.010	829.9	1.293	0.328	1032.5	1.273	0.005	1373.9	1.346	0.020	1715.3	1.314	0.033	1953.6	1.386	0.003	2067.4	1.114	0.074	2181.2	1.309	0.013
551.2	1.472	0.005	831.9	1.286	0.329	1038.3	1.272	0.008	1379.7	1.347	0.019	1721.1	1.314	0.031	1955.5	1.388	0.003	2069.3	1.129	0.064	2183.1	1.310	0.013
557.0	1.478	0.010	833.8	1.281	0.325	1044.0	1.275	0.002	1385.5	1.348	0.019	1726.9	1.313	0.027	1957.4	1.389	0.003	2071.2	1.142	0.056	2185.0	1.310	0.013
562.8	1.479	0.019	835.7	1.274	0.322	1049.8	1.278	0.002	1391.3	1.348	0.021	1732.7	1.311	0.024	1959.3	1.391	0.003	2073.1	1.153	0.048	2187.0	1.311	0.013
568.6	1.484	0.014	837.7	1.270	0.322	1055.6	1.283	0.002	1397.0	1.348	0.021	1738.5	1.316	0.022	1961.3	1.392	0.003	2075.1	1.164	0.042	2188.9	1.311	0.014
574.4	1.486	0.019	839.6	1.262	0.323	1061.4	1.286	0.002	1402.8	1.349	0.023	1744.3	1.317	0.019	1963.2	1.394	0.003	2077.0	1.175	0.036	2190.8	1.311	0.013
580.1	1.490	0.023	841.5	1.256	0.315	1067.2	1.288	0.002	1408.6	1.348	0.023	1750.0	1.318	0.017	1965.1	1.396	0.003	2078.9	1.184	0.032	2192.7	1.312	0.013
585.9	1.494	0.023	843.4	1.252	0.315	1073.0	1.291	0.000	1414.4	1.348	0.023	1755.8	1.321	0.015	1967.1	1.398	0.003	2080.9	1.193	0.029	2194.7	1.312	0.014
591.7	1.497	0.027	845.4	1.246	0.312	1078.8	1.293	0.002	1420.2	1.349	0.021	1761.6	1.322	0.013	1969.0	1.400	0.003	2082.8	1.201	0.026	2196.6	1.312	0.013
597.5	1.500	0.031	847.3	1.240	0.312	1084.6	1.295	0.002	1426.0	1.350	0.025	1767.4	1.323	0.012	1970.9	1.403	0.004	2084.7	1.208	0.025	2198.5	1.313	0.014
603.3	1.503	0.031	849.2	1.235	0.308	1090.3	1.297	0.002	1431.8	1.349	0.025	1773.2	1.326	0.007	1972.8	1.404	0.004	2086.6	1.214	0.022	2206.2	1.313	0.014
609.1	1.505	0.035	851.2	1.228	0.305	1096.1	1.298	0.002	1437.6	1.350	0.021	1779.0	1.327	0.010	1974.8	1.406	0.004	2088.6	1.219	0.021	2213.0	1.314	0.014
614.9	1.511	0.038	853.1	1.224	0.305	1101.9	1.300	0.002	1443.3	1.350	0.025	1784.8	1.329	0.008	1976.7	1.409	0.004	2090.5	1.225	0.018	2219.7	1.315	0.014
620.6	1.514	0.042	855.0	1.216	0.306	1107.7	1.302	0.002	1449.1	1.350	0.027	1790.6	1.329	0.008	1978.6	1.411	0.004	2092.4	1.230	0.017	2226.5	1.316	0.014
626.4	1.517	0.046	856.9	1.204	0.308	1113.5	1.304	0.002	1454.9	1.348	0.027	1796.3	1.332	0.007	1980.6	1.414	0.006	2094.4	1.235	0.015	2233.2	1.316	0.014
632.2	1.524	0.049	858.9	1.188	0.302	1119.3	1.306	0.002	1460.7	1.351	0.026	1802.1	1.334	0.007	1982.5	1.417	0.006	2096.3	1.239	0.014	2240.0	1.316	0.014
638.0	1.526	0.053	860.8	1.175	0.283	1125.1	1.307	0.002	1466.5	1.351	0.028	1807.9	1.334	0.007	1984.4	1.420	0.007	2098.2	1.243	0.014	2246.8	1.317	0.013
643.8	1.533	0.060	862.7	1.175	0.265	1130.8	1.309	0.002	1472.3	1.349	0.024	1813.7	1.336	0.005	1986.3	1.423	0.007	2100.1	1.247	0.013	2253.5	1.318	0.013
649.6	1.539	0.067	864.7	1.175	0.256	1136.6	1.310	0.002	1478.1	1.351	0.028	1819.5	1.338	0.005	1988.3	1.427	0.008	2102.1	1.251	0.011	2260.3	1.318	0.013
655.4	1.540	0.074	866.6	1.176	0.251	1142.4	1.312	0.002	1483.8	1.351	0.030	1825.3	1.339	0.004	1990.2	1.432	0.011	2104.0	1.254	0.012	2267.0	1.319	0.012
661.2	1.543	0.082	868.5	1.178	0.246	1148.2	1.314	0.002	1489.6	1.349	0.030	1831.1	1.341	0.004	1992.1	1.434	0.017	2105.9	1.258	0.010	2273.8	1.320	0.012
666.9	1.542	0.089	870.4	1.176	0.242	1154.0	1.315	0.002	1495.4	1.349	0.030	1836.8	1.343	0.004	1994.1	1.433	0.021	2107.9	1.260	0.010	2280.5	1.320	0.010
672.7	1.550	0.099	872.4	1.174	0.242	1159.8	1.317	0.002	1501.2	1.350	0.032	1842.6	1.344	0.004	1996.0	1.432	0.019	2109.8	1.264	0.011	2287.3	1.321	0.010
678.5	1.553	0.110	874.3	1.171	0.237	1165.6	1.318	0.002	1507.0	1.351	0.026	1848.4	1.346	0.004	1997.9	1.433	0.017	2111.7	1.266	0.011	2294.0	1.322	0.010
684.3	1.555	0.120	876.2	1.167	0.233	1171.4	1.320	0.003	1512.8	1.352	0.031	1854.2	1.347	0.004	1999.8	1.438	0.012	2113.7	1.269	0.011	2300.8	1.323	0.010
690.1	1.555	0.131	878.2	1.163	0.225	1177.1	1.321	0.003	1518.6	1.351	0.033	1860.0	1.349	0.002	2001.8	1.444	0.012	2115.6	1.271	0.011	2307.5	1.323	0.009
695.9	1.557	0.141	880.1	1.162	0.221	1182.9	1.323	0.003	1524.4	1.351	0.033	1865.8	1.351	0.002	2003.7	1.451	0.012	2117.5	1.273	0.009	2314.3	1.325	0.009
701.7	1.555	0.151	882.0	1.160	0.216	1188.7	1.324	0.005	1530.1	1.351	0.035	1871.6	1.354	0.004	2005.6	1.458	0.012	2119.4	1.275	0.010	2321.0	1.325	0.009
707.4	1.556	0.161	883.9	1.158	0.212	1194.5	1.325	0.005	1535.9	1.349	0.035	1877.4	1.355	0.004	2007.6	1.466	0.014	2121.4	1.278	0.010	2327.8	1.326	0.009
713.2	1.555	0.175	885.9	1.155	0.204	1200.3	1.326	0.005	1541.7	1.352	0.033	1883.1	1.356	0.005	2009.5	1.474	0.016	2123.3	1.279	0.010	2334.5	1.326	0.009
719.0	1.552	0.189	887.8	1.152	0.200	1206.1	1.327	0.005	1547.5	1.352	0.036	1888.9	1.355	0.004	2011.4	1.482	0.019	2125.2	1.281	0.010	2341.3	1.327	0.009
724.8	1.549	0.200	889.7	1.152	0.195	1211.9	1.328	0.005	1553.3	1.349	0.036	1894.7	1.357	0.002	2013.3	1.490	0.022	2127.2	1.283	0.010	2348.0	1.328	0.008
730.6	1.543	0.214	891.7	1.149	0.191	1217.7	1.329	0.005	1559.1	1.350	0.029	1901.5	1.361	0.002	2015.3	1.500	0.025	2129.1	1.284	0.010	2354.8	1.328	0.008
736.4	1.535	0.229	893.6	1.146	0.183	1223.4	1.331	0.005	1564.9	1.352	0.038	1903.4	1.361	0.002	2017.2	1.512	0.029	2131.0	1.286	0.010	2361.5	1.329	0.008
742.2	1.530	0.243	895.5	1.146	0.178	1229.2	1.331	0.007	1570.7	1.351	0.036	1905.3	1.362	0.002	2019.1	1.524	0.036	2132.9	1.287	0.010	2368.3	1.330	0.008
748.0	1.521	0.254	897.5	1.145	0.170	1235.0	1.336	0.000	1576.4	1.350	0.030	1907.3	1.363	0.003	2021.1	1.536	0.043	2134.9	1.289	0.010	2375.0	1.330	0.008
753.7	1.511	0.269	899.4	1.143	0.166	1240.8	1.334	0.007	1582.2	1.350	0.039	1909.2	1.363	0.003	2023.0	1.548	0.053	2136.8	1.290	0.010	2381.8	1.330	0.006
759.5	1.499	0.281	905.2	1.144	0.149	1246.6	1.335	0.007	1588.0	1.349	0.041	1911.1	1.364	0.003	2024.9	1.562	0.062	2138.7	1.291	0.010	2388.5	1.331	0.006
765.3	1.487	0.293	911.0	1.140	0.132	1252.4	1.336	0.007	1593.8	1.348	0.043	1913.0	1.364	0.003	2026.8	1.578	0.072	2140.7	1.292	0.010	2395.3	1.332	0.006
771.1	1.471	0.302	916.7	1.144	0.116	1258.2	1.338	0.010	1599.6	1.347	0.043	1915.0	1.366	0.003	2028.8	1.596	0.083	2142.6	1.294	0.010	2402.0	1.333	0.006
776.9	1.458	0.310	922.5	1.146	0.099	1263.9	1.337	0.010	1605.4	1.346	0.043	1916.9	1.366	0.003	2030.7	1.620	0.094	2144.5	1.295	0.010	2408.8	1.334	0.006
782.7	1.439	0.319	928.3	1.152	0.083	1269.7	1.338	0.010	1611.2	1.346	0.044	1918.8	1.368	0.001	2032.6	1.654	0.109	2146.4	1.296	0.010	2415.5	1.334	0.006
788.5	1.423	0.324	934.1	1.157	0.072	1275.5	1.339	0.010	1616.9	1.343	0.037	1920.8	1.369	0.001	2034.6	1.700	0.134	2148.4	1.297	0.010	2422.3	1.334	0.006
794.3	1.408	0.329	939.9	1.164	0.056	1281.3	1.340	0.009	1622.7	1.344	0.046	1922.7	1.369	0.003	2036.5	1.763	0.178	2150.3	1.298	0.010	2429.0	1.335	0.006
801.0	1.385	0.336	945.7	1.173	0.049	1287.1	1.340	0.012	1628.5	1.343	0.046	1924.6	1.370	0.003	2038.4	1.847	0.276	2152.2	1.299	0.010	2435.8	1.336	0.005
802.9	1.379	0.336	951.5	1.180	0.038	1292.9	1.341	0.012	1634.3	1.339	0.047	1926.5	1.372	0.003	2040.4	1.892	0.515	2154.2	1.300	0.010	2442.5	1.337	0.005
804.9	1.371	0.337	957.2	1.189	0.031	1298.7	1.341	0.014	1640.1	1.340	0.049	1928.5	1.372	0.003	2042.3	1.739	0.813	2156.1	1.301	0.010	2449.3	1.337	0.005
806.8	1.368	0.337	963.0	1.196	0.024	1304.5	1.342	0.014	1645.9	1.336	0.047	1930.4	1.373	0.003	2044.2	1.466	0.901	2158.0	1.302	0.012	2456.0	1.338	0.005
808.7	1.360	0.338	968.8	1.205	0.017	1310.2	1.342	0.014	1651.7	1.332	0.051	1932.3	1.373	0.001	2046.1	1.242	0.829	2159.9	1.303	0.012	2462.8	1.338	0.005
810.6	1.352	0.339	974.6	1.214	0.014	1316.0	1.344	0.014	1657.5	1.336	0.050	1934.3	1.375	0.003	2048.1	1.096	0.707	2161.9	1.303	0.012	2469.5	1.339	0.005
812.6	1.347	0.335	980.4	1.222	0.010	1321.8	1.343	0.016	1663.2	1.332	0.047	1936.2	1.376	0.003	2050.0	1.011	0.580	2163.8	1.304	0.012	2476.3	1.339	0.004
814.5	1.343	0.335	986.2	1.229	0.007	1327.6	1.343	0.016	1669.0	1.329	0.048	1938.1	1.377	0.001	2051.9	0.968	0.466	2165.7	1.304	0.012	2483.0	1.340	0.004

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TABLE 15F—*Continued*

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2489.8	1.341	0.004	2874.6	1.399	0.005	3259.5	1.298	0.365	3644.3	1.224	0.001
2496.6	1.341	0.004	2881.4	1.401	0.005	3266.2	1.277	0.361	3651.0	1.226	0.000
2503.3	1.342	0.004	2888.1	1.403	0.005	3273.0	1.258	0.355	3657.8	1.227	0.000
2510.1	1.343	0.004	2894.9	1.406	0.006	3279.7	1.239	0.347	3664.5	1.228	0.000
2516.8	1.343	0.004	2901.6	1.407	0.010	3286.5	1.223	0.337	3671.3	1.231	0.000
2523.6	1.344	0.004	2908.4	1.407	0.009	3293.2	1.208	0.326	3678.0	1.234	0.000
2530.3	1.345	0.004	2915.1	1.408	0.008	3300.0	1.194	0.314	3684.8	1.235	0.000
2537.1	1.345	0.004	2921.9	1.411	0.007	3306.7	1.183	0.300	3691.5	1.238	0.000
2543.8	1.346	0.004	2928.6	1.414	0.007	3313.5	1.174	0.288	3698.3	1.239	0.000
2550.6	1.346	0.003	2935.4	1.417	0.007	3320.2	1.166	0.275	3705.0	1.241	0.000
2557.3	1.347	0.003	2942.1	1.420	0.008	3327.0	1.160	0.264	3711.8	1.242	0.000
2564.1	1.348	0.003	2948.9	1.423	0.009	3333.7	1.155	0.251	3718.5	1.244	0.000
2570.8	1.349	0.003	2955.6	1.426	0.010	3340.5	1.151	0.242	3725.3	1.245	0.000
2577.6	1.349	0.003	2962.4	1.430	0.011	3347.2	1.147	0.232	3732.0	1.245	0.000
2584.3	1.350	0.003	2969.1	1.434	0.013	3354.0	1.143	0.223	3738.8	1.248	0.000
2591.1	1.351	0.003	2975.9	1.437	0.013	3360.7	1.140	0.214	3745.5	1.249	0.000
2597.8	1.351	0.003	2982.6	1.441	0.015	3367.5	1.137	0.206	3752.3	1.250	0.000
2604.6	1.352	0.003	2989.4	1.445	0.016	3374.2	1.131	0.197	3759.1	1.252	0.000
2611.3	1.353	0.003	2996.1	1.449	0.019	3381.0	1.128	0.189	3765.8	1.253	0.000
2618.1	1.353	0.002	3002.9	1.453	0.020	3387.7	1.127	0.181	3772.6	1.254	0.000
2624.8	1.354	0.002	3009.7	1.457	0.022	3394.5	1.123	0.172	3779.3	1.255	0.000
2631.6	1.355	0.002	3016.4	1.462	0.024	3401.2	1.119	0.162	3786.1	1.256	0.000
2638.3	1.356	0.002	3023.2	1.467	0.027	3408.0	1.117	0.152	3792.8	1.257	0.000
2645.1	1.357	0.002	3029.9	1.473	0.029	3414.7	1.116	0.142	3799.6	1.258	0.000
2651.8	1.358	0.002	3036.7	1.478	0.033	3421.5	1.115	0.133	3806.3	1.258	0.000
2658.6	1.359	0.002	3043.4	1.484	0.037	3428.2	1.114	0.123	3813.1	1.260	0.000
2665.3	1.359	0.002	3050.2	1.490	0.041	3435.0	1.114	0.112	3819.8	1.261	0.000
2672.1	1.360	0.002	3056.9	1.497	0.046	3441.7	1.114	0.103	3826.6	1.262	0.000
2678.8	1.361	0.002	3063.7	1.504	0.053	3448.5	1.116	0.093	3833.3	1.262	0.000
2685.6	1.362	0.002	3070.4	1.510	0.060	3455.2	1.118	0.082	3840.1	1.264	0.000
2692.3	1.363	0.002	3077.2	1.517	0.068	3462.0	1.122	0.074	3846.8	1.264	0.000
2699.1	1.363	0.002	3083.9	1.524	0.077	3468.7	1.126	0.066	3853.6	1.264	0.000
2705.8	1.364	0.002	3090.7	1.530	0.088	3475.5	1.130	0.059	3860.3	1.266	0.000
2712.6	1.365	0.002	3097.4	1.535	0.100	3482.2	1.135	0.052	3867.1	1.267	0.000
2719.3	1.366	0.002	3104.2	1.540	0.112	3489.0	1.140	0.045	3873.8	1.268	0.000
2726.1	1.367	0.002	3110.9	1.543	0.127	3495.7	1.144	0.039	3880.6	1.268	0.000
2732.8	1.368	0.001	3117.7	1.545	0.142	3502.5	1.149	0.035	3887.3	1.269	0.000
2739.6	1.369	0.002	3124.4	1.546	0.157	3509.3	1.155	0.031	3894.1	1.269	0.000
2746.4	1.371	0.002	3131.2	1.545	0.173	3516.0	1.159	0.027	3900.8	1.270	0.000
2753.1	1.372	0.001	3137.9	1.542	0.189	3522.8	1.163	0.023	3907.6	1.271	0.000
2759.9	1.372	0.002	3144.7	1.538	0.204	3529.5	1.168	0.019	3914.3	1.271	0.000
2766.6	1.374	0.001	3151.4	1.533	0.221	3536.3	1.173	0.017	3921.1	1.272	0.000
2773.4	1.375	0.002	3158.2	1.526	0.235	3543.0	1.177	0.015	3927.8	1.273	0.000
2780.1	1.376	0.001	3164.9	1.518	0.250	3549.8	1.182	0.012	3934.6	1.273	0.000
2786.9	1.378	0.001	3171.7	1.508	0.265	3556.5	1.185	0.011	3941.3	1.274	0.000
2793.6	1.378	0.002	3178.4	1.498	0.278	3563.3	1.189	0.009	3948.1	1.274	0.000
2800.4	1.381	0.002	3185.2	1.487	0.291	3570.0	1.193	0.007	3954.8	1.275	0.000
2807.1	1.382	0.003	3191.9	1.475	0.302	3576.8	1.196	0.007	3961.6	1.275	0.000
2813.9	1.383	0.003	3198.7	1.461	0.314	3583.5	1.199	0.005	3968.3	1.276	0.000
2820.6	1.385	0.003	3205.4	1.448	0.325	3590.3	1.203	0.004	3975.1	1.276	0.000
2827.4	1.386	0.003	3212.2	1.432	0.334	3597.0	1.206	0.003	3981.8	1.277	0.000
2834.1	1.387	0.003	3218.9	1.416	0.344	3603.8	1.209	0.002	3988.6	1.278	0.000
2840.9	1.389	0.003	3225.7	1.398	0.353	3610.5	1.212	0.000	3995.3	1.278	0.000
2847.6	1.392	0.003	3232.4	1.380	0.359	3617.3	1.215	0.000			
2854.4	1.393	0.003	3239.2	1.359	0.364	3624.0	1.218	0.000			
2861.1	1.395	0.004	3245.9	1.339	0.366	3630.8	1.221	0.000			
2867.9	1.397	0.004	3252.7	1.318	0.367	3637.5	1.223	0.001			

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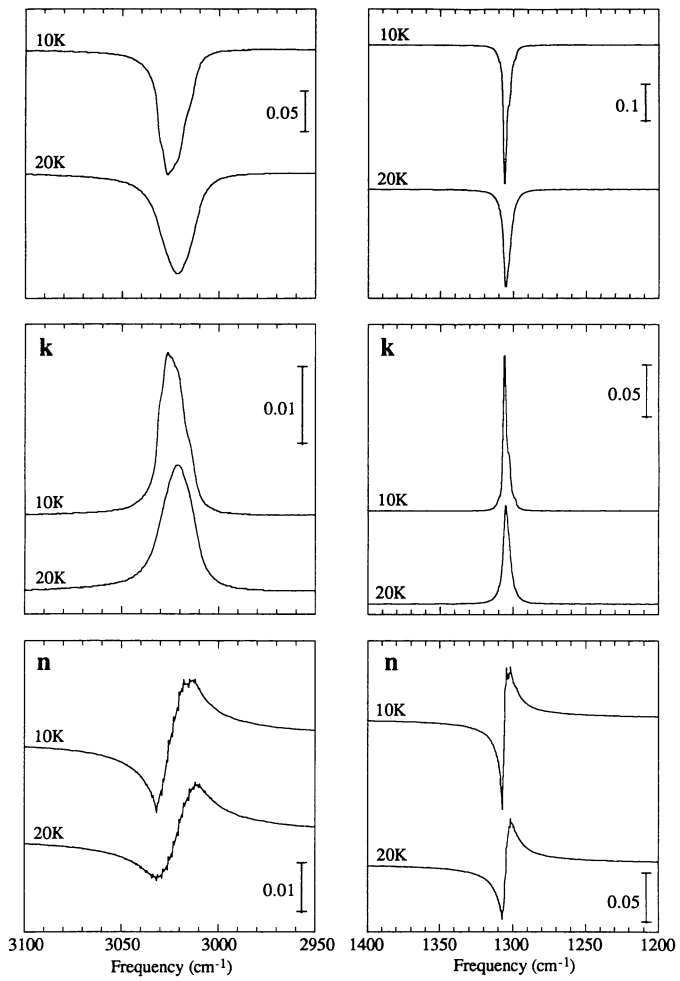

FIG. 16.—The 3100 to 2950 cm^{-1} and 1400 to 1200 cm^{-1} transmission spectra and optical constants (n and k) of an N_2:CH_4 = 20:1 ice mixture at temperatures of 10 and 20 K. The original ice was deposited at 10 K.

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TABLE 16A

N_2:CH_4 = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1018.5	1.221	0.000	1248.0	1.224	0.000	1304.9	1.256	0.094	1361.8	1.216	0.000	1792.0	1.220	0.000	2911.8	1.221	0.000	3004.8	1.227	0.001	3060.8	1.217	0.000
1037.8	1.221	0.000	1249.0	1.224	0.000	1305.9	1.218	0.150	1362.8	1.216	0.000	1811.3	1.220	0.000	2931.0	1.221	0.000	3005.8	1.228	0.001	3061.7	1.217	0.000
1057.1	1.221	0.000	1250.0	1.224	0.000	1306.9	1.148	0.107	1363.8	1.216	0.000	1830.6	1.220	0.000	2950.8	1.222	0.000	3006.8	1.228	0.001	3062.7	1.217	0.000
1076.4	1.221	0.000	1250.9	1.224	0.000	1307.8	1.140	0.038	1364.7	1.217	0.000	1849.9	1.220	0.000	2951.8	1.222	0.000	3007.7	1.229	0.002	3063.7	1.217	0.000
1095.6	1.221	0.000	1251.9	1.224	0.000	1308.8	1.162	0.017	1365.7	1.217	0.000	1869.2	1.220	0.000	2952.7	1.222	0.000	3008.7	1.229	0.002	3064.6	1.217	0.000
1119.3	1.221	0.000	1252.9	1.224	0.000	1309.8	1.175	0.013	1366.7	1.217	0.000	1888.4	1.220	0.000	2953.7	1.222	0.000	3009.7	1.230	0.003	3065.6	1.217	0.000
1138.6	1.222	0.000	1253.8	1.225	0.000	1310.7	1.180	0.010	1367.6	1.217	0.000	1907.7	1.220	0.000	2954.7	1.222	0.000	3010.6	1.231	0.003	3066.6	1.217	0.000
1157.9	1.222	0.000	1254.8	1.225	0.000	1311.7	1.185	0.006	1368.6	1.217	0.000	1927.0	1.220	0.000	2955.6	1.222	0.000	3011.6	1.231	0.004	3067.5	1.217	0.000
1177.1	1.222	0.000	1255.8	1.225	0.000	1312.7	1.190	0.004	1369.6	1.217	0.000	1946.3	1.220	0.000	2956.6	1.222	0.000	3012.5	1.231	0.006	3068.5	1.217	0.000
1196.4	1.222	0.000	1256.7	1.225	0.000	1313.6	1.193	0.003	1370.5	1.217	0.000	1965.6	1.220	0.000	2957.6	1.222	0.000	3013.5	1.232	0.007	3069.4	1.217	0.000
1200.8	1.222	0.000	1257.7	1.225	0.000	1314.6	1.196	0.002	1371.5	1.217	0.000	1984.9	1.220	0.000	2958.5	1.222	0.000	3014.5	1.232	0.009	3070.4	1.217	0.000
1201.7	1.222	0.000	1258.6	1.225	0.000	1315.5	1.198	0.002	1372.5	1.217	0.000	2004.2	1.220	0.000	2959.5	1.222	0.000	3015.4	1.231	0.010	3071.4	1.217	0.000
1202.7	1.222	0.000	1259.6	1.225	0.000	1316.5	1.200	0.001	1373.4	1.217	0.000	2023.5	1.220	0.000	2960.5	1.222	0.000	3016.4	1.231	0.011	3072.3	1.217	0.000
1203.7	1.222	0.000	1260.6	1.225	0.000	1317.5	1.202	0.001	1374.4	1.217	0.000	2042.8	1.220	0.000	2961.4	1.222	0.000	3017.4	1.231	0.012	3073.3	1.217	0.000
1204.6	1.222	0.000	1261.5	1.225	0.000	1318.4	1.203	0.000	1375.3	1.217	0.000	2062.1	1.220	0.000	2962.4	1.222	0.000	3018.3	1.230	0.014	3074.3	1.217	0.000
1205.6	1.222	0.000	1262.5	1.225	0.000	1319.4	1.204	0.000	1376.3	1.217	0.000	2081.3	1.220	0.000	2963.4	1.222	0.000	3019.3	1.230	0.016	3075.2	1.217	0.000
1206.6	1.222	0.000	1263.5	1.225	0.000	1320.4	1.206	0.000	1377.3	1.217	0.000	2100.6	1.220	0.000	2964.3	1.222	0.000	3020.3	1.230	0.018	3076.2	1.217	0.000
1207.5	1.223	0.000	1264.4	1.225	0.000	1321.3	1.206	0.000	1378.2	1.217	0.000	2119.9	1.220	0.000	2965.3	1.222	0.000	3021.2	1.226	0.019	3077.2	1.218	0.000
1208.5	1.222	0.000	1265.4	1.226	0.000	1322.3	1.207	0.000	1379.2	1.217	0.000	2139.2	1.220	0.000	2966.3	1.222	0.000	3022.2	1.224	0.019	3078.1	1.218	0.000
1209.5	1.222	0.000	1266.4	1.226	0.000	1323.3	1.208	0.000	1380.2	1.217	0.000	2158.5	1.220	0.000	2967.2	1.222	0.000	3023.2	1.224	0.020	3079.1	1.218	0.000
1210.4	1.222	0.000	1267.3	1.226	0.000	1324.2	1.208	0.000	1381.1	1.218	0.000	2177.8	1.220	0.000	2968.2	1.222	0.000	3024.1	1.221	0.020	3080.1	1.218	0.000
1211.4	1.222	0.000	1268.3	1.226	0.000	1325.2	1.209	0.000	1382.1	1.217	0.000	2197.1	1.220	0.000	2969.1	1.222	0.000	3025.1	1.219	0.021	3081.0	1.218	0.000
1212.3	1.223	0.000	1269.3	1.226	0.000	1326.2	1.210	0.000	1383.1	1.217	0.000	2216.4	1.220	0.000	2970.1	1.222	0.000	3026.0	1.215	0.021	3082.0	1.218	0.000
1213.3	1.223	0.000	1270.2	1.226	0.000	1327.1	1.210	0.000	1384.0	1.217	0.000	2235.7	1.220	0.000	2971.1	1.222	0.000	3027.0	1.214	0.021	3083.0	1.218	0.000
1214.3	1.223	0.000	1271.2	1.227	0.000	1328.1	1.210	0.000	1385.0	1.217	0.000	2254.9	1.220	0.000	2972.0	1.222	0.000	3028.0	1.211	0.019	3083.9	1.218	0.000
1215.2	1.223	0.000	1272.1	1.227	0.000	1329.1	1.211	0.000	1386.0	1.217	0.000	2274.2	1.220	0.000	2973.0	1.222	0.000	3028.9	1.208	0.017	3084.9	1.218	0.000
1216.2	1.223	0.000	1273.1	1.227	0.000	1330.0	1.211	0.000	1386.9	1.217	0.000	2293.5	1.220	0.000	2974.0	1.223	0.000	3029.9	1.209	0.015	3085.8	1.218	0.000
1217.2	1.223	0.000	1274.1	1.227	0.000	1331.0	1.212	0.000	1387.9	1.217	0.000	2312.8	1.220	0.000	2974.9	1.223	0.000	3030.9	1.207	0.014	3086.8	1.218	0.000
1218.1	1.223	0.000	1275.0	1.228	0.000	1331.9	1.212	0.000	1388.8	1.218	0.000	2332.1	1.220	0.000	2975.9	1.223	0.000	3031.8	1.205	0.010	3087.8	1.218	0.000
1219.1	1.223	0.000	1276.0	1.228	0.000	1332.9	1.212	0.000	1389.8	1.218	0.000	2351.4	1.220	0.000	2976.9	1.223	0.000	3032.8	1.207	0.007	3088.7	1.218	0.000
1220.1	1.223	0.000	1277.0	1.228	0.000	1333.9	1.213	0.000	1390.8	1.218	0.000	2370.7	1.220	0.000	2977.8	1.223	0.000	3033.8	1.208	0.006	3089.7	1.218	0.000
1221.0	1.223	0.000	1277.9	1.228	0.000	1334.8	1.213	0.000	1391.7	1.218	0.000	2390.0	1.220	0.000	2978.8	1.223	0.000	3034.7	1.209	0.005	3090.7	1.218	0.000
1222.0	1.223	0.000	1278.9	1.228	0.000	1335.8	1.213	0.000	1392.7	1.218	0.000	2409.3	1.220	0.000	2979.8	1.223	0.000	3035.7	1.210	0.004	3091.6	1.218	0.000
1223.0	1.223	0.000	1279.9	1.229	0.000	1336.8	1.213	0.000	1393.7	1.218	0.000	2428.6	1.220	0.000	2980.7	1.223	0.000	3036.7	1.211	0.003	3092.6	1.218	0.000
1223.9	1.223	0.000	1280.8	1.229	0.000	1337.7	1.213	0.000	1394.6	1.218	0.000	2447.8	1.220	0.000	2981.7	1.223	0.000	3037.6	1.211	0.003	3093.6	1.218	0.000
1224.9	1.223	0.000	1281.8	1.230	0.000	1338.7	1.214	0.000	1395.6	1.218	0.000	2467.1	1.220	0.000	2982.6	1.223	0.000	3038.6	1.211	0.003	3094.5	1.218	0.000
1225.9	1.223	0.000	1282.8	1.230	0.000	1339.7	1.214	0.000	1396.6	1.218	0.000	2486.4	1.220	0.000	2983.6	1.223	0.000	3039.6	1.212	0.002	3095.5	1.218	0.000
1226.8	1.223	0.000	1283.7	1.230	0.000	1340.6	1.214	0.000	1397.5	1.218	0.000	2505.7	1.220	0.000	2984.6	1.223	0.000	3040.5	1.212	0.002	3096.5	1.218	0.000
1227.8	1.223	0.000	1284.7	1.231	0.000	1341.6	1.214	0.000	1398.5	1.218	0.000	2525.0	1.220	0.000	2985.5	1.223	0.000	3041.5	1.213	0.002	3097.4	1.218	0.000
1228.7	1.223	0.000	1285.6	1.232	0.000	1342.6	1.214	0.000	1399.5	1.218	0.000	2544.3	1.220	0.000	2986.5	1.223	0.000	3042.4	1.213	0.002	3098.4	1.218	0.000
1229.7	1.223	0.000	1286.6	1.232	0.000	1343.5	1.214	0.000	1419.2	1.218	0.000	2563.6	1.220	0.000	2987.5	1.224	0.000	3043.4	1.213	0.001	3099.3	1.218	0.000
1230.7	1.223	0.000	1287.6	1.233	0.000	1344.5	1.215	0.000	1438.5	1.219	0.000	2582.9	1.220	0.000	2988.4	1.224	0.000	3044.4	1.214	0.001	3119.1	1.219	0.000
1231.6	1.223	0.000	1288.5	1.234	0.000	1345.4	1.215	0.000	1457.8	1.219	0.000	2602.2	1.220	0.000	2989.4	1.224	0.000	3045.3	1.214	0.001	3138.4	1.219	0.000
1232.6	1.223	0.000	1289.5	1.235	0.000	1346.4	1.215	0.000	1477.1	1.219	0.000	2621.4	1.220	0.000	2990.4	1.224	0.000	3046.3	1.214	0.001	3157.7	1.219	0.000
1233.6	1.223	0.000	1290.5	1.236	0.000	1347.4	1.215	0.000	1496.4	1.219	0.000	2640.7	1.220	0.000	2991.3	1.224	0.000	3047.3	1.215	0.000	3177.0	1.219	0.000
1234.5	1.223	0.000	1291.4	1.237	0.001	1348.3	1.215	0.000	1515.7	1.219	0.000	2660.0	1.220	0.000	2992.3	1.224	0.000	3048.2	1.215	0.000	3196.3	1.219	0.000
1235.5	1.223	0.000	1292.4	1.238	0.000	1349.3	1.215	0.000	1535.0	1.219	0.000	2679.3	1.220	0.000	2993.3	1.224	0.000	3049.2	1.215	0.000	3215.6	1.219	0.000
1236.5	1.223	0.000	1293.4	1.240	0.002	1350.3	1.215	0.000	1554.3	1.219	0.000	2698.6	1.220	0.000	2994.2	1.224	0.000	3050.2	1.215	0.000	3234.9	1.219	0.000
1237.4	1.223	0.000	1294.3	1.242	0.002	1351.2	1.216	0.000	1573.5	1.219	0.000	2718.9	1.220	0.000	2995.2	1.225	0.000	3051.1	1.215	0.000	3254.1	1.219	0.000
1238.4	1.224	0.000	1295.3	1.244	0.003	1352.2	1.216	0.000	1592.8	1.219	0.000	2738.2	1.221	0.000	2996.1	1.225	0.000	3052.1	1.215	0.000	3273.4	1.220	0.000
1239.4	1.224	0.000	1296.3	1.248	0.004	1353.2	1.216	0.000	1618.4	1.220	0.000	2757.4	1.221	0.000	2997.1	1.225	0.000	3053.1	1.216	0.000	3292.7	1.220	0.000
1240.3	1.224	0.000	1297.2	1.251	0.006	1354.1	1.216	0.000	1637.7	1.220	0.000	2776.7	1.221	0.000	2998.1	1.225	0.000	3054.0	1.216	0.000	3312.0	1.220	0.000
1241.3	1.224	0.000	1298.2	1.254	0.011	1355.1	1.216	0.000	1657.0	1.220	0.000	2796.0	1.221	0.000	2999.0	1.225	0.000	3055.0	1.216	0.000	3331.3	1.220	0.000
1242.2	1.224	0.000	1299.2	1.257	0.013	1356.1	1.216	0.000	1676.3	1.220	0.000	2815.3	1.221	0.000	3000.0	1.226	0.000	3055.9	1.216	0.000	3350.6	1.220	0.000
1243.2	1.224	0.000	1300.1	1.261	0.017	1357.0	1.216	0.000	1695.6	1.220	0.000	2834.6	1.220	0.000	3001.0	1.226	0.000	3056.9	1.216	0.000	3369.9	1.220	0.000
1244.2	1.224	0.000	1301.1	1.268	0.025	1358.0	1.216	0.000	1714.8	1.220	0.000	2853.9	1.221	0.000	3001.9	1.226	0.000	3057.9	1.216	0.000	3389.2	1.220	0.000
1245.1	1.224	0.000	1302.0	1.267	0.043	1358.9	1.216	0.000	1734.1	1.220	0.000	2873.2	1.221	0.000	3002.9	1.227	0.000	3058.8	1.216	0.000			
1246.1	1.224	0.000	1303.0	1.263	0.056	1359.9	1.216	0.000	1753.4	1.220	0.000	2892.5	1.221	0.000	3003.9	1.227	0.000	3059.8	1.216	0.000			
1247.1	1.224	0.000	1304.0	1.262	0.062	1360.9	1.216	0.000	1772.7	1.220	0.000												

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1993ApJS...86..713H

TABLE 16B

N_2:CH_4 = 20:1 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1018.5	1.221	0.000	1248.0	1.224	0.000	1304.9	1.210	0.095	1361.8	1.216	0.000	1792.0	1.220	0.000	2911.8	1.221	0.000	3004.8	1.228	0.002	3060.8	1.217	0.000
1037.8	1.221	0.000	1249.0	1.224	0.000	1305.9	1.185	0.087	1362.8	1.216	0.000	1811.3	1.220	0.000	2931.0	1.221	0.000	3005.8	1.228	0.003	3061.7	1.217	0.000
1057.1	1.221	0.000	1250.0	1.224	0.000	1306.9	1.171	0.056	1363.8	1.216	0.000	1830.6	1.220	0.000	2950.8	1.222	0.000	3006.8	1.229	0.003	3062.7	1.217	0.000
1076.4	1.221	0.000	1250.9	1.224	0.000	1307.8	1.170	0.032	1364.7	1.217	0.000	1849.9	1.220	0.000	2951.8	1.222	0.000	3007.7	1.229	0.004	3063.7	1.217	0.000
1095.6	1.221	0.000	1251.9	1.224	0.000	1308.8	1.177	0.021	1365.7	1.217	0.000	1869.2	1.220	0.000	2952.7	1.222	0.000	3008.7	1.230	0.005	3064.6	1.217	0.000
1119.3	1.221	0.000	1252.9	1.224	0.000	1309.8	1.184	0.015	1366.7	1.216	0.000	1888.4	1.220	0.000	2953.7	1.222	0.000	3009.7	1.231	0.006	3065.6	1.217	0.000
1138.6	1.221	0.000	1253.8	1.225	0.000	1310.7	1.187	0.011	1367.6	1.217	0.000	1907.7	1.220	0.000	2954.7	1.222	0.000	3010.6	1.230	0.007	3066.6	1.217	0.000
1157.9	1.222	0.000	1254.8	1.225	0.000	1311.7	1.190	0.009	1368.6	1.217	0.000	1927.0	1.220	0.000	2955.6	1.222	0.000	3011.6	1.230	0.008	3067.5	1.217	0.000
1177.1	1.222	0.000	1255.8	1.225	0.000	1312.7	1.194	0.006	1369.6	1.217	0.000	1946.3	1.220	0.000	2956.6	1.222	0.000	3012.5	1.229	0.009	3068.5	1.217	0.000
1196.4	1.222	0.000	1256.7	1.225	0.000	1313.6	1.196	0.005	1370.5	1.217	0.000	1965.6	1.220	0.000	2957.6	1.222	0.000	3013.5	1.230	0.011	3069.4	1.217	0.000
1200.8	1.222	0.000	1257.7	1.225	0.000	1314.6	1.198	0.004	1371.5	1.217	0.000	1984.9	1.220	0.000	2958.5	1.222	0.000	3014.5	1.229	0.012	3070.4	1.217	0.000
1201.7	1.222	0.000	1258.6	1.225	0.000	1315.5	1.199	0.003	1372.5	1.217	0.000	2004.2	1.220	0.000	2959.5	1.222	0.000	3015.4	1.227	0.013	3071.4	1.217	0.000
1202.7	1.222	0.000	1259.6	1.225	0.000	1316.5	1.201	0.003	1373.4	1.217	0.000	2023.5	1.220	0.000	2960.5	1.222	0.000	3016.4	1.227	0.014	3072.3	1.217	0.000
1203.7	1.222	0.000	1260.6	1.225	0.000	1317.5	1.203	0.002	1374.4	1.217	0.000	2042.8	1.220	0.000	2961.4	1.222	0.000	3017.4	1.226	0.015	3073.3	1.217	0.000
1204.6	1.222	0.000	1261.5	1.225	0.000	1318.4	1.204	0.002	1375.3	1.217	0.000	2062.1	1.220	0.000	2962.4	1.222	0.000	3018.3	1.224	0.015	3074.3	1.217	0.000
1205.6	1.222	0.000	1262.5	1.225	0.000	1319.4	1.205	0.002	1376.3	1.217	0.000	2081.3	1.220	0.000	2963.4	1.222	0.000	3019.3	1.223	0.016	3075.2	1.217	0.000
1206.6	1.223	0.000	1263.5	1.226	0.000	1320.4	1.206	0.001	1377.3	1.217	0.000	2100.6	1.220	0.000	2964.3	1.222	0.000	3020.3	1.223	0.017	3076.2	1.217	0.000
1207.5	1.222	0.000	1264.4	1.226	0.000	1321.3	1.207	0.001	1378.2	1.217	0.000	2119.9	1.220	0.000	2965.3	1.222	0.000	3021.2	1.221	0.017	3077.2	1.218	0.000
1208.5	1.222	0.000	1265.4	1.226	0.000	1322.3	1.207	0.001	1379.2	1.217	0.000	2139.2	1.220	0.000	2966.3	1.222	0.000	3022.2	1.219	0.017	3078.1	1.218	0.000
1209.5	1.222	0.000	1266.4	1.226	0.000	1323.3	1.208	0.000	1380.2	1.217	0.000	2158.5	1.220	0.000	2967.2	1.222	0.000	3023.2	1.219	0.016	3079.1	1.218	0.000
1210.4	1.222	0.000	1267.3	1.226	0.000	1324.2	1.209	0.000	1381.1	1.217	0.000	2177.8	1.220	0.000	2968.2	1.222	0.000	3024.1	1.216	0.015	3080.1	1.218	0.000
1211.4	1.222	0.000	1268.3	1.226	0.000	1325.2	1.209	0.000	1382.1	1.217	0.000	2197.1	1.220	0.000	2969.1	1.222	0.000	3025.1	1.215	0.015	3081.0	1.218	0.000
1212.3	1.223	0.000	1269.3	1.227	0.000	1326.2	1.210	0.000	1383.1	1.217	0.000	2216.4	1.220	0.000	2970.1	1.222	0.000	3026.0	1.213	0.014	3082.0	1.218	0.000
1213.3	1.223	0.000	1270.2	1.227	0.000	1327.1	1.210	0.000	1384.0	1.218	0.000	2235.7	1.220	0.000	2971.1	1.223	0.000	3027.0	1.213	0.013	3083.0	1.218	0.000
1214.3	1.223	0.000	1271.2	1.227	0.000	1328.1	1.211	0.000	1385.0	1.218	0.000	2254.9	1.220	0.000	2972.0	1.223	0.000	3028.0	1.212	0.012	3083.9	1.218	0.000
1215.2	1.223	0.000	1272.1	1.227	0.000	1329.1	1.211	0.000	1386.0	1.217	0.000	2274.2	1.220	0.000	2973.0	1.223	0.000	3028.9	1.211	0.011	3084.9	1.218	0.000
1216.2	1.223	0.000	1273.1	1.227	0.000	1330.0	1.211	0.000	1386.9	1.217	0.000	2293.5	1.220	0.000	2974.0	1.223	0.000	3029.9	1.212	0.010	3085.8	1.218	0.000
1217.2	1.223	0.000	1274.1	1.228	0.000	1331.0	1.212	0.000	1387.9	1.218	0.000	2312.8	1.220	0.000	2974.9	1.223	0.000	3030.9	1.211	0.009	3086.8	1.218	0.000
1218.1	1.223	0.000	1275.0	1.228	0.000	1331.9	1.212	0.000	1388.8	1.218	0.000	2332.1	1.220	0.000	2975.9	1.223	0.000	3031.8	1.211	0.008	3087.8	1.218	0.000
1219.1	1.223	0.000	1276.0	1.228	0.000	1332.9	1.212	0.000	1389.8	1.218	0.000	2351.4	1.220	0.000	2976.9	1.223	0.000	3032.8	1.211	0.007	3088.7	1.218	0.000
1220.1	1.223	0.000	1277.0	1.228	0.000	1333.9	1.212	0.000	1390.8	1.218	0.000	2370.7	1.220	0.000	2977.8	1.223	0.000	3033.8	1.212	0.006	3089.7	1.218	0.000
1221.0	1.223	0.000	1277.9	1.229	0.000	1334.8	1.212	0.000	1391.7	1.218	0.000	2390.0	1.220	0.000	2978.8	1.223	0.000	3034.7	1.212	0.005	3090.7	1.218	0.000
1222.0	1.223	0.000	1278.9	1.229	0.000	1335.8	1.213	0.000	1392.7	1.218	0.000	2409.3	1.220	0.000	2979.8	1.223	0.000	3035.7	1.212	0.004	3091.6	1.218	0.000
1223.0	1.223	0.000	1279.9	1.229	0.000	1336.8	1.213	0.000	1393.7	1.218	0.000	2428.6	1.220	0.000	2980.7	1.223	0.000	3036.7	1.213	0.004	3092.6	1.218	0.000
1223.9	1.223	0.000	1280.8	1.230	0.000	1337.7	1.213	0.000	1394.6	1.218	0.000	2447.8	1.220	0.000	2981.7	1.223	0.000	3037.6	1.213	0.003	3093.6	1.218	0.000
1224.9	1.223	0.000	1281.8	1.230	0.000	1338.7	1.213	0.000	1395.6	1.218	0.000	2467.1	1.220	0.000	2982.6	1.223	0.000	3038.6	1.213	0.003	3094.5	1.218	0.000
1225.9	1.223	0.000	1282.8	1.231	0.000	1339.7	1.214	0.000	1396.6	1.218	0.000	2486.4	1.220	0.000	2983.6	1.223	0.000	3039.6	1.213	0.003	3095.5	1.218	0.000
1226.8	1.223	0.000	1283.7	1.231	0.000	1340.6	1.214	0.000	1397.5	1.218	0.000	2505.7	1.220	0.000	2984.6	1.224	0.000	3040.5	1.214	0.002	3096.5	1.218	0.000
1227.8	1.223	0.000	1284.7	1.232	0.000	1341.6	1.214	0.000	1398.5	1.218	0.000	2525.0	1.220	0.000	2985.5	1.224	0.000	3041.5	1.214	0.002	3097.4	1.218	0.000
1228.7	1.223	0.000	1285.6	1.232	0.000	1342.6	1.214	0.000	1399.5	1.218	0.000	2544.3	1.220	0.000	2986.5	1.224	0.000	3042.4	1.214	0.002	3098.4	1.218	0.000
1229.7	1.223	0.000	1286.6	1.233	0.000	1343.5	1.214	0.000	1419.2	1.218	0.000	2563.6	1.220	0.000	2987.5	1.224	0.000	3043.4	1.214	0.002	3099.3	1.218	0.000
1230.7	1.223	0.000	1287.6	1.234	0.001	1344.5	1.215	0.000	1438.5	1.219	0.000	2582.9	1.220	0.000	2988.4	1.224	0.000	3044.4	1.214	0.002	3119.1	1.219	0.000
1231.6	1.223	0.000	1288.5	1.235	0.001	1345.4	1.215	0.000	1457.8	1.219	0.000	2602.2	1.220	0.000	2989.4	1.224	0.000	3045.3	1.215	0.002	3138.4	1.219	0.000
1232.6	1.223	0.000	1289.5	1.236	0.002	1346.4	1.215	0.000	1477.1	1.219	0.000	2621.4	1.220	0.000	2990.4	1.224	0.000	3046.3	1.215	0.002	3157.7	1.219	0.000
1233.6	1.223	0.000	1290.5	1.237	0.002	1347.4	1.215	0.000	1496.4	1.219	0.000	2640.7	1.220	0.000	2991.3	1.224	0.000	3047.3	1.215	0.001	3177.0	1.219	0.000
1234.5	1.223	0.000	1291.4	1.238	0.002	1348.3	1.215	0.000	1515.7	1.219	0.000	2660.0	1.220	0.000	2992.3	1.225	0.000	3048.2	1.215	0.001	3196.3	1.219	0.000
1235.5	1.224	0.000	1292.4	1.239	0.003	1349.3	1.215	0.000	1535.0	1.219	0.000	2679.3	1.220	0.000	2993.3	1.225	0.000	3049.2	1.215	0.001	3215.6	1.219	0.000
1236.5	1.223	0.000	1293.4	1.242	0.003	1350.3	1.215	0.000	1554.3	1.219	0.000	2698.6	1.220	0.000	2994.2	1.225	0.000	3050.2	1.216	0.001	3234.9	1.219	0.000
1237.4	1.224	0.000	1294.3	1.243	0.004	1351.2	1.215	0.000	1573.5	1.219	0.000	2718.9	1.220	0.000	2995.2	1.225	0.000	3051.1	1.216	0.001	3254.1	1.220	0.000
1238.4	1.224	0.000	1295.3	1.245	0.006	1352.2	1.215	0.000	1592.8	1.219	0.000	2738.2	1.221	0.000	2996.1	1.225	0.000	3052.1	1.216	0.000	3273.4	1.220	0.000
1239.4	1.224	0.000	1296.3	1.249	0.008	1353.2	1.215	0.000	1618.4	1.220	0.000	2757.4	1.221	0.000	2997.1	1.225	0.000	3053.1	1.216	0.000	3292.7	1.220	0.000
1240.3	1.224	0.000	1297.2	1.251	0.010	1354.1	1.216	0.000	1637.7	1.220	0.000	2776.7	1.221	0.000	2998.1	1.226	0.000	3054.0	1.216	0.000	3312.0	1.220	0.000
1241.3	1.224	0.000	1298.2	1.254	0.013	1355.1	1.216	0.000	1657.0	1.220	0.000	2796.0	1.221	0.000	2999.0	1.226	0.000	3055.0	1.216	0.000	3331.3	1.220	0.000
1242.2	1.224	0.000	1299.2	1.259	0.018	1356.1	1.216	0.000	1676.3	1.220	0.000	2815.3	1.221	0.000	3000.0	1.226	0.001	3055.9	1.216	0.000	3350.6	1.220	0.000
1243.2	1.224	0.000	1300.1	1.261	0.026	1357.0	1.216	0.000	1695.6	1.220	0.000	2834.6	1.221	0.000	3001.0	1.227	0.001	3056.9	1.216	0.000	3369.9	1.220	0.000
1244.2	1.224	0.000	1301.1	1.263	0.037	1358.0	1.216	0.000	1714.8	1.220	0.000	2853.9	1.221	0.000	3001.9	1.227	0.001	3057.9	1.216	0.000	3389.2	1.220	0.000
1245.1	1.224	0.000	1302.0	1.258	0.051	1358.9	1.216	0.000	1734.1	1.220	0.000	2873.2	1.221	0.000	3002.9	1.227	0.002	3058.8	1.216	0.000			
1246.1	1.224	0.000	1303.0	1.254	0.067	1359.9	1.216	0.000	1753.4	1.220	0.000	2892.5	1.221	0.000	3003.9	1.228	0.002	3059.8	1.217	0.000			
1247.1	1.224	0.000	1304.0	1.239	0.082	1360.9	1.216	0.000	1772.7	1.220	0.000												

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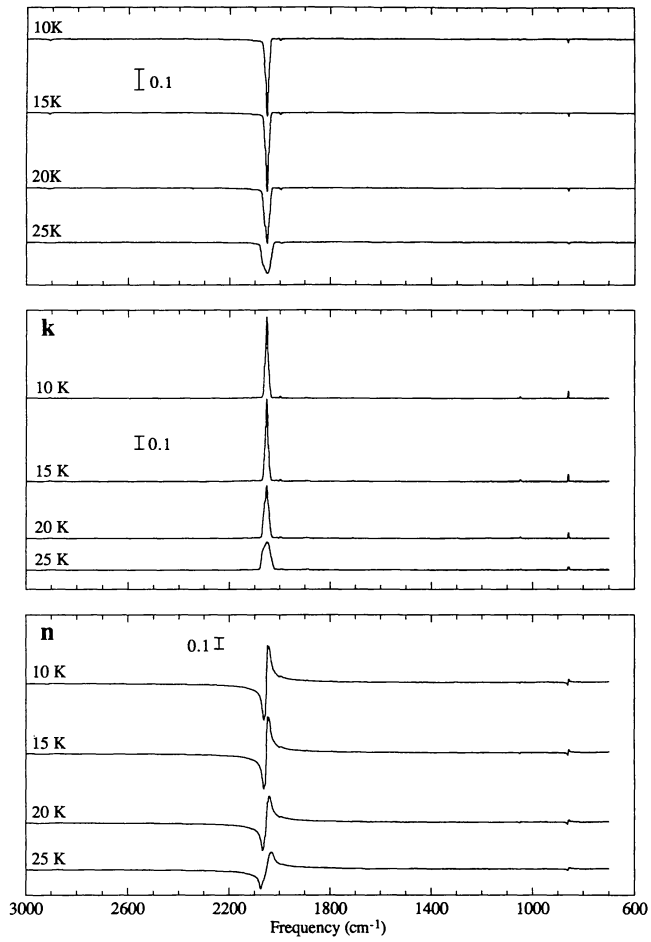

FIG. 17.—The 3000 to 600 cm^{-1} transmission spectra and optical constants (n and k) of an N_2:OCS = 20:1 ice mixture at temperatures of 10, 15, 20, and 25 K. The original ice was deposited at 10 K.

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TABLE 17A

N_2:OCS = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
703.1	1.230	0.004	865.1	1.214	0.003	1216.2	1.224	0.000	1671.4	1.230	0.002	1957.9	1.252	0.002	2069.8	1.001	0.024	2181.6	1.194	0.002	2578.0	1.215	0.000
707.0	1.225	0.004	867.1	1.217	0.000	1223.9	1.226	0.000	1679.2	1.229	0.002	1959.8	1.254	0.003	2071.7	1.033	0.012	2183.6	1.195	0.002	2585.8	1.214	0.000
710.8	1.226	0.004	869.0	1.219	0.000	1231.6	1.225	0.000	1686.9	1.230	0.002	1961.7	1.254	0.003	2073.6	1.058	0.009	2185.5	1.195	0.002	2593.5	1.214	0.000
714.7	1.227	0.000	870.9	1.220	0.000	1239.4	1.225	0.003	1694.6	1.230	0.002	1963.7	1.255	0.003	2075.6	1.076	0.007	2187.4	1.195	0.002	2601.2	1.214	0.000
718.5	1.228	0.000	872.9	1.221	0.000	1247.1	1.226	0.003	1702.3	1.231	0.002	1965.6	1.255	0.004	2077.5	1.090	0.007	2189.4	1.195	0.002	2608.9	1.215	0.000
722.4	1.229	0.000	874.8	1.222	0.000	1254.8	1.225	0.000	1710.0	1.231	0.006	1967.5	1.257	0.004	2079.4	1.101	0.007	2191.3	1.195	0.002	2616.6	1.215	0.000
726.3	1.228	0.000	876.7	1.222	0.000	1262.5	1.226	0.003	1717.7	1.229	0.002	1969.5	1.257	0.004	2081.3	1.110	0.006	2193.2	1.195	0.002	2624.3	1.215	0.000
730.1	1.227	0.004	878.6	1.223	0.000	1270.2	1.226	0.000	1725.4	1.230	0.002	1971.4	1.258	0.002	2083.3	1.119	0.007	2195.2	1.196	0.002	2632.1	1.215	0.000
734.0	1.228	0.004	880.6	1.224	0.000	1277.9	1.226	0.003	1733.2	1.230	0.002	1973.3	1.259	0.004	2085.2	1.125	0.008	2197.1	1.197	0.000	2639.8	1.214	0.000
737.8	1.228	0.004	882.5	1.225	0.000	1285.6	1.227	0.000	1740.9	1.230	0.002	1975.3	1.260	0.004	2087.1	1.131	0.007	2199.0	1.197	0.002	2647.5	1.215	0.000
741.7	1.226	0.004	884.4	1.223	0.000	1293.4	1.226	0.002	1748.6	1.231	0.002	1977.2	1.262	0.002	2089.1	1.136	0.007	2207.7	1.198	0.000	2655.2	1.216	0.000
745.5	1.227	0.000	886.4	1.224	0.000	1301.1	1.226	0.002	1756.3	1.231	0.002	1979.1	1.263	0.003	2091.0	1.140	0.007	2215.4	1.199	0.000	2662.9	1.215	0.000
749.4	1.229	0.004	888.3	1.225	0.000	1308.8	1.226	0.002	1764.0	1.232	0.002	1981.0	1.264	0.003	2092.9	1.144	0.006	2223.1	1.200	0.001	2670.6	1.215	0.000
753.3	1.226	0.004	890.2	1.225	0.003	1316.5	1.226	0.002	1771.7	1.231	0.000	1983.0	1.265	0.004	2094.8	1.148	0.007	2230.8	1.201	0.001	2678.4	1.215	0.000
757.1	1.225	0.000	892.1	1.223	0.000	1324.2	1.226	0.002	1779.5	1.233	0.002	1984.9	1.266	0.004	2096.8	1.151	0.007	2238.6	1.201	0.001	2686.1	1.215	0.000
761.0	1.225	0.000	894.1	1.224	0.000	1331.9	1.225	0.002	1787.2	1.232	0.002	1986.8	1.268	0.003	2098.7	1.154	0.007	2246.3	1.202	0.000	2693.8	1.215	0.000
764.8	1.226	0.000	896.0	1.225	0.000	1339.7	1.225	0.002	1794.9	1.233	0.002	1988.8	1.270	0.004	2100.6	1.156	0.007	2254.0	1.203	0.000	2701.5	1.216	0.000
768.7	1.225	0.000	897.9	1.225	0.000	1347.4	1.226	0.002	1802.6	1.233	0.002	1990.7	1.272	0.004	2102.6	1.158	0.008	2261.7	1.204	0.000	2709.2	1.215	0.000
772.6	1.226	0.004	899.9	1.226	0.000	1355.1	1.225	0.002	1810.3	1.234	0.002	1992.6	1.275	0.004	2104.5	1.160	0.008	2269.4	1.205	0.000	2716.9	1.215	0.000
776.4	1.227	0.004	907.6	1.226	0.000	1362.8	1.225	0.002	1818.0	1.233	0.002	1994.5	1.278	0.007	2106.4	1.162	0.008	2277.1	1.205	0.000	2724.6	1.215	0.000
780.3	1.227	0.004	915.3	1.226	0.000	1370.5	1.225	0.002	1825.8	1.235	0.000	1996.5	1.279	0.011	2108.3	1.163	0.008	2284.8	1.206	0.000	2732.4	1.216	0.000
784.1	1.226	0.000	923.0	1.226	0.003	1378.2	1.225	0.002	1833.5	1.234	0.000	1998.4	1.277	0.016	2110.3	1.164	0.008	2292.6	1.207	0.000	2740.1	1.215	0.000
788.0	1.225	0.000	930.7	1.227	0.003	1386.0	1.226	0.000	1841.2	1.235	0.000	2000.3	1.273	0.015	2112.2	1.165	0.007	2300.3	1.207	0.000	2747.8	1.215	0.000
791.8	1.226	0.000	938.4	1.226	0.000	1393.7	1.226	0.000	1848.9	1.236	0.000	2002.3	1.272	0.010	2114.1	1.167	0.005	2308.0	1.207	0.000	2755.5	1.216	0.000
795.7	1.227	0.000	946.2	1.227	0.003	1401.4	1.226	0.002	1856.6	1.237	0.001	2004.2	1.275	0.006	2116.1	1.169	0.006	2315.7	1.208	0.000	2763.2	1.215	0.000
799.6	1.227	0.000	953.9	1.227	0.003	1409.1	1.227	0.002	1864.3	1.238	0.003	2006.1	1.280	0.003	2118.0	1.171	0.004	2323.4	1.208	0.000	2770.9	1.216	0.000
801.5	1.226	0.004	961.6	1.227	0.003	1416.8	1.226	0.000	1872.1	1.239	0.003	2008.0	1.284	0.004	2119.9	1.172	0.004	2331.1	1.208	0.000	2778.7	1.216	0.000
803.4	1.224	0.004	969.3	1.226	0.003	1424.5	1.226	0.002	1879.8	1.240	0.003	2010.0	1.288	0.005	2121.9	1.174	0.005	2338.9	1.209	0.000	2786.4	1.216	0.000
805.3	1.225	0.000	977.0	1.226	0.003	1432.3	1.226	0.002	1887.5	1.241	0.003	2011.9	1.291	0.005	2123.8	1.175	0.005	2346.6	1.209	0.000	2794.1	1.216	0.000
807.3	1.226	0.000	984.7	1.226	0.003	1440.0	1.226	0.000	1895.2	1.239	0.007	2013.8	1.295	0.005	2125.7	1.176	0.005	2354.3	1.209	0.000	2801.8	1.216	0.000
809.2	1.227	0.000	992.5	1.225	0.003	1447.7	1.226	0.002	1901.9	1.240	0.003	2015.8	1.299	0.007	2127.6	1.177	0.005	2362.0	1.209	0.000	2809.5	1.216	0.000
811.1	1.227	0.004	1000.2	1.225	0.003	1455.4	1.225	0.002	1903.9	1.240	0.001	2017.7	1.302	0.007	2129.6	1.177	0.003	2369.7	1.210	0.000	2817.2	1.216	0.000
813.1	1.227	0.000	1007.9	1.225	0.003	1463.1	1.226	0.000	1905.8	1.241	0.003	2019.6	1.308	0.006	2131.5	1.179	0.004	2377.4	1.210	0.000	2825.0	1.217	0.000
815.0	1.226	0.000	1015.6	1.225	0.003	1470.8	1.226	0.000	1907.7	1.241	0.003	2021.5	1.314	0.006	2133.4	1.180	0.004	2385.2	1.211	0.000	2832.7	1.216	0.000
816.9	1.225	0.000	1023.3	1.224	0.003	1478.5	1.227	0.000	1909.7	1.242	0.003	2023.5	1.320	0.006	2135.4	1.181	0.004	2392.9	1.211	0.000	2840.4	1.216	0.000
818.8	1.227	0.000	1031.0	1.225	0.000	1486.3	1.227	0.000	1911.6	1.242	0.003	2025.4	1.327	0.006	2137.3	1.182	0.004	2400.6	1.211	0.000	2848.1	1.217	0.000
820.8	1.225	0.000	1038.7	1.228	0.000	1494.0	1.227	0.002	1913.5	1.242	0.001	2027.3	1.336	0.005	2139.2	1.182	0.004	2408.3	1.211	0.000	2855.8	1.216	0.000
822.7	1.226	0.000	1046.5	1.230	0.009	1501.7	1.227	0.002	1915.5	1.243	0.003	2029.3	1.348	0.006	2141.1	1.183	0.004	2416.0	1.211	0.000	2863.5	1.217	0.000
824.6	1.227	0.000	1054.2	1.221	0.003	1509.4	1.228	0.000	1917.4	1.243	0.003	2031.2	1.362	0.006	2143.1	1.183	0.004	2423.7	1.211	0.000	2871.2	1.217	0.000
826.6	1.227	0.000	1061.9	1.224	0.003	1517.1	1.227	0.000	1919.3	1.243	0.003	2033.1	1.380	0.007	2145.0	1.184	0.004	2431.4	1.212	0.000	2879.0	1.218	0.000
828.5	1.227	0.000	1069.6	1.225	0.003	1524.8	1.228	0.002	1921.2	1.243	0.003	2035.0	1.404	0.012	2146.9	1.185	0.003	2439.2	1.212	0.000	2886.7	1.218	0.000
830.4	1.228	0.000	1077.3	1.224	0.003	1532.6	1.226	0.002	1923.2	1.243	0.003	2037.0	1.434	0.023	2148.9	1.186	0.003	2446.9	1.212	0.000	2894.4	1.218	0.000
832.3	1.228	0.000	1085.0	1.225	0.003	1540.3	1.227	0.000	1925.1	1.244	0.001	2038.9	1.467	0.049	2150.8	1.187	0.003	2454.6	1.212	0.000	2902.1	1.219	0.003
834.3	1.229	0.000	1092.8	1.224	0.003	1548.0	1.228	0.002	1927.0	1.245	0.003	2040.8	1.498	0.089	2152.7	1.187	0.003	2462.3	1.212	0.000	2909.8	1.215	0.006
836.2	1.228	0.004	1100.5	1.223	0.000	1555.7	1.227	0.002	1929.0	1.246	0.002	2042.8	1.525	0.146	2154.6	1.188	0.003	2470.0	1.212	0.000	2917.5	1.214	0.001
838.1	1.228	0.000	1108.2	1.223	0.000	1563.4	1.228	0.002	1930.9	1.246	0.002	2044.7	1.522	0.230	2156.6	1.188	0.003	2477.7	1.213	0.000	2925.3	1.215	0.000
840.1	1.229	0.000	1115.9	1.224	0.000	1571.1	1.227	0.002	1932.8	1.247	0.003	2046.6	1.514	0.263	2158.5	1.189	0.003	2485.5	1.213	0.000	2933.0	1.215	0.000
842.0	1.230	0.000	1123.6	1.225	0.000	1578.8	1.228	0.002	1934.7	1.247	0.002	2048.6	1.537	0.356	2160.4	1.189	0.003	2493.2	1.213	0.000	2940.7	1.215	0.000
843.9	1.231	0.000	1131.3	1.227	0.003	1586.6	1.227	0.002	1936.7	1.247	0.003	2050.5	1.476	0.532	2162.4	1.189	0.003	2500.9	1.213	0.000	2948.4	1.216	0.000
845.9	1.232	0.004	1139.0	1.225	0.000	1594.3	1.228	0.002	1938.6	1.248	0.003	2052.4	1.309	0.641	2164.3	1.190	0.003	2508.6	1.214	0.000	2956.1	1.216	0.000
847.8	1.231	0.004	1146.8	1.225	0.003	1602.0	1.229	0.002	1940.5	1.248	0.003	2054.3	1.122	0.618	2166.2	1.190	0.003	2516.3	1.213	0.000	2963.8	1.216	0.000
849.7	1.231	0.000	1154.5	1.226	0.000	1609.7	1.228	0.002	1942.5	1.248	0.003	2056.3	0.992	0.502	2168.1	1.191	0.002	2524.0	1.214	0.000	2971.6	1.216	0.000
851.6	1.232	0.000	1162.2	1.226	0.003	1617.4	1.227	0.000	1944.4	1.249	0.003	2058.2	0.943	0.375	2170.1	1.192	0.002	2531.8	1.214	0.000	2979.3	1.217	0.000
853.6	1.237	0.000	1169.9	1.225	0.003	1625.1	1.230	0.000	1946.3	1.249	0.002	2060.1	0.938	0.298	2172.0	1.192	0.002	2539.5	1.214	0.000	2987.0	1.217	0.000
855.5	1.244	0.004	1177.6	1.225	0.003	1632.9	1.229	0.002	1948.2	1.250	0.003	2062.1	0.922	0.254	2173.9	1.193	0.002	2547.2	1.214	0.000	2994.7	1.216	0.000
857.4	1.253	0.024	1185.3	1.225	0.003	1640.6	1.229	0.002	1950.2	1.250	0.003	2064.0	0.904	0.175	2175.9	1.193	0.002	2554.9	1.214	0.000			
859.4	1.222	0.058	1193.1	1.224	0.003	1648.3	1.229	0.002	1952.1	1.251	0.003	2065.9	0.926	0.095	2177.8	1.193	0.002	2562.6	1.214	0.000			
861.3	1.198	0.020	1200.8	1.225	0.003	1656.0	1.230	0.002	1954.0	1.252	0.003	2067.8	0.963	0.049	2179.7	1.194	0.002	2570.3	1.214	0.000			
863.2	1.207	0.003	1208.5	1.224	0.003	1663.7	1.230	0.002	1956.0	1.252	0.003												

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TABLE 17B

N_2:OCS = 20:1 AT 15 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
703.1	1.229	0.004	865.1	1.213	0.000	1216.2	1.224	0.000	1671.4	1.229	0.002	1957.9	1.252	0.002	2069.8	1.003	0.024	2181.6	1.194	0.003	2578.0	1.214	0.000
707.0	1.227	0.004	867.1	1.217	0.000	1223.9	1.226	0.003	1679.2	1.230	0.000	1959.8	1.253	0.003	2071.7	1.035	0.012	2183.6	1.195	0.003	2585.8	1.214	0.000
710.8	1.228	0.000	869.0	1.220	0.000	1231.6	1.225	0.003	1686.9	1.231	0.002	1961.7	1.254	0.002	2073.6	1.059	0.009	2185.5	1.195	0.002	2593.5	1.215	0.000
714.7	1.228	0.000	870.9	1.222	0.003	1239.4	1.227	0.000	1694.6	1.229	0.002	1963.7	1.254	0.002	2075.6	1.077	0.008	2187.4	1.195	0.003	2601.2	1.214	0.000
718.5	1.228	0.004	872.9	1.221	0.000	1247.1	1.225	0.003	1702.3	1.232	0.002	1965.6	1.256	0.002	2077.5	1.091	0.007	2189.4	1.195	0.003	2608.9	1.214	0.000
722.4	1.228	0.000	874.8	1.223	0.003	1254.8	1.225	0.002	1710.0	1.231	0.006	1967.5	1.257	0.004	2079.4	1.102	0.007	2191.3	1.196	0.002	2616.6	1.215	0.000
726.3	1.228	0.004	876.7	1.221	0.000	1262.5	1.226	0.000	1717.7	1.229	0.000	1969.5	1.257	0.004	2081.3	1.111	0.006	2193.2	1.196	0.002	2624.3	1.214	0.000
730.1	1.228	0.004	878.6	1.223	0.003	1270.2	1.225	0.002	1725.4	1.230	0.002	1971.4	1.258	0.002	2083.3	1.119	0.007	2195.2	1.197	0.002	2632.1	1.215	0.000
734.0	1.226	0.000	880.6	1.224	0.003	1277.9	1.226	0.000	1733.2	1.229	0.002	1973.3	1.259	0.002	2085.2	1.125	0.006	2197.1	1.197	0.002	2639.8	1.215	0.000
737.8	1.228	0.000	882.5	1.223	0.003	1285.6	1.226	0.002	1740.9	1.230	0.002	1975.3	1.261	0.002	2087.1	1.132	0.007	2199.0	1.197	0.002	2647.5	1.216	0.000
741.7	1.225	0.000	884.4	1.221	0.003	1293.4	1.226	0.002	1748.6	1.230	0.000	1977.2	1.262	0.003	2089.1	1.136	0.007	2207.7	1.199	0.002	2655.2	1.215	0.000
745.5	1.228	0.000	886.4	1.222	0.000	1301.1	1.226	0.002	1756.3	1.231	0.000	1979.1	1.263	0.004	2091.0	1.141	0.006	2215.4	1.199	0.002	2662.9	1.215	0.000
749.4	1.225	0.004	888.3	1.224	0.000	1308.8	1.226	0.002	1764.0	1.232	0.000	1981.0	1.264	0.003	2092.9	1.145	0.007	2223.1	1.200	0.002	2670.6	1.215	0.000
753.3	1.228	0.004	890.2	1.224	0.003	1316.5	1.226	0.002	1771.7	1.232	0.000	1983.0	1.266	0.003	2094.8	1.149	0.007	2230.8	1.201	0.001	2678.4	1.215	0.000
757.1	1.226	0.000	892.1	1.223	0.000	1324.2	1.226	0.002	1779.5	1.232	0.002	1984.9	1.267	0.004	2096.8	1.152	0.007	2238.6	1.201	0.001	2686.1	1.216	0.000
761.0	1.225	0.004	894.1	1.223	0.003	1331.9	1.226	0.002	1787.2	1.232	0.000	1986.8	1.268	0.004	2098.7	1.155	0.007	2246.3	1.202	0.001	2693.8	1.215	0.000
764.8	1.227	0.000	896.0	1.223	0.000	1339.7	1.226	0.002	1794.9	1.233	0.002	1988.8	1.270	0.004	2100.6	1.157	0.008	2254.0	1.203	0.001	2701.5	1.215	0.000
768.7	1.227	0.004	897.9	1.224	0.000	1347.4	1.226	0.002	1802.6	1.233	0.000	1990.7	1.272	0.004	2102.6	1.159	0.008	2261.7	1.204	0.001	2709.2	1.215	0.000
772.6	1.228	0.000	899.9	1.225	0.000	1355.1	1.226	0.002	1810.3	1.233	0.002	1992.6	1.275	0.005	2104.5	1.161	0.008	2269.4	1.204	0.001	2716.9	1.215	0.000
776.4	1.227	0.004	907.6	1.224	0.000	1362.8	1.226	0.002	1818.0	1.235	0.002	1994.5	1.278	0.007	2106.4	1.163	0.008	2277.1	1.204	0.001	2724.6	1.215	0.000
780.3	1.224	0.004	915.3	1.225	0.000	1370.5	1.226	0.002	1825.8	1.235	0.000	1996.5	1.279	0.012	2108.3	1.164	0.008	2284.8	1.205	0.001	2732.4	1.215	0.000
784.1	1.228	0.000	923.0	1.226	0.003	1378.2	1.226	0.002	1833.5	1.235	0.000	1998.4	1.277	0.016	2110.3	1.165	0.008	2292.6	1.206	0.000	2740.1	1.216	0.000
788.0	1.227	0.004	930.7	1.225	0.003	1386.0	1.226	0.002	1841.2	1.236	0.000	2000.3	1.273	0.015	2112.2	1.166	0.007	2300.3	1.206	0.000	2747.8	1.216	0.000
791.8	1.226	0.004	938.4	1.226	0.000	1393.7	1.226	0.002	1848.9	1.236	0.002	2002.3	1.272	0.010	2114.1	1.168	0.006	2308.0	1.206	0.000	2755.5	1.216	0.000
795.7	1.227	0.004	946.2	1.225	0.003	1401.4	1.226	0.002	1856.6	1.238	0.003	2004.2	1.276	0.006	2116.1	1.170	0.006	2315.7	1.207	0.000	2763.2	1.216	0.000
799.6	1.227	0.004	953.9	1.225	0.003	1409.1	1.226	0.002	1864.3	1.238	0.003	2006.1	1.280	0.005	2118.0	1.172	0.006	2323.4	1.207	0.000	2770.9	1.216	0.000
801.5	1.225	0.004	961.6	1.225	0.003	1416.8	1.225	0.002	1872.1	1.239	0.003	2008.0	1.284	0.005	2119.9	1.173	0.005	2331.1	1.208	0.000	2778.7	1.216	0.000
803.4	1.228	0.000	969.3	1.225	0.003	1424.5	1.226	0.002	1879.8	1.240	0.003	2010.0	1.288	0.005	2121.9	1.175	0.005	2338.9	1.208	0.000	2786.4	1.216	0.000
805.3	1.227	0.004	977.0	1.225	0.000	1432.3	1.225	0.002	1887.5	1.241	0.003	2011.9	1.292	0.005	2123.8	1.176	0.005	2346.6	1.208	0.000	2794.1	1.217	0.000
807.3	1.226	0.004	984.7	1.224	0.000	1440.0	1.226	0.000	1895.2	1.239	0.007	2013.8	1.295	0.007	2125.7	1.177	0.005	2354.3	1.209	0.000	2801.8	1.216	0.000
809.2	1.225	0.000	992.5	1.226	0.000	1447.7	1.226	0.002	1901.9	1.240	0.003	2015.8	1.299	0.008	2127.6	1.178	0.005	2362.0	1.209	0.000	2809.5	1.216	0.000
811.1	1.225	0.000	1000.2	1.225	0.003	1455.4	1.225	0.002	1903.9	1.241	0.003	2017.7	1.302	0.007	2129.6	1.179	0.005	2369.7	1.209	0.000	2817.2	1.216	0.000
813.1	1.227	0.000	1007.9	1.227	0.000	1463.1	1.225	0.000	1905.8	1.241	0.003	2019.6	1.306	0.006	2131.5	1.179	0.005	2377.4	1.210	0.000	2825.0	1.217	0.000
815.0	1.227	0.004	1015.6	1.226	0.003	1470.8	1.225	0.000	1907.7	1.241	0.003	2021.5	1.312	0.006	2133.4	1.180	0.004	2385.2	1.210	0.000	2832.7	1.216	0.000
816.9	1.227	0.004	1023.3	1.226	0.003	1478.5	1.227	0.000	1909.7	1.242	0.003	2023.5	1.320	0.006	2135.4	1.181	0.004	2392.9	1.211	0.000	2840.4	1.216	0.000
818.8	1.228	0.000	1031.0	1.225	0.003	1486.3	1.226	0.002	1911.6	1.242	0.003	2025.4	1.327	0.005	2137.3	1.183	0.004	2400.6	1.211	0.000	2848.1	1.217	0.000
820.8	1.226	0.000	1038.7	1.226	0.000	1494.0	1.227	0.002	1913.5	1.243	0.003	2027.3	1.336	0.005	2139.2	1.183	0.004	2408.3	1.211	0.000	2855.8	1.217	0.000
822.7	1.228	0.004	1046.5	1.230	0.006	1501.7	1.227	0.002	1915.5	1.243	0.003	2029.3	1.348	0.006	2141.1	1.184	0.004	2416.0	1.211	0.000	2863.5	1.216	0.000
824.6	1.228	0.004	1054.2	1.220	0.003	1509.4	1.228	0.002	1917.4	1.243	0.003	2031.2	1.362	0.006	2143.1	1.185	0.004	2423.7	1.211	0.000	2871.2	1.217	0.000
826.6	1.226	0.004	1061.9	1.222	0.003	1517.1	1.227	0.000	1919.3	1.243	0.003	2033.1	1.380	0.007	2145.0	1.186	0.004	2431.4	1.212	0.000	2879.0	1.217	0.000
828.5	1.228	0.000	1069.6	1.223	0.003	1524.8	1.227	0.002	1921.2	1.244	0.003	2035.0	1.404	0.012	2146.9	1.186	0.004	2439.2	1.212	0.000	2886.7	1.217	0.000
830.4	1.227	0.000	1077.3	1.225	0.000	1532.6	1.226	0.002	1923.2	1.244	0.003	2037.0	1.433	0.024	2148.9	1.187	0.004	2446.9	1.212	0.000	2894.4	1.218	0.000
832.3	1.226	0.004	1085.0	1.224	0.000	1540.3	1.227	0.000	1925.1	1.244	0.003	2038.9	1.466	0.051	2150.8	1.187	0.004	2454.6	1.212	0.000	2902.1	1.218	0.003
834.3	1.227	0.000	1092.8	1.225	0.000	1548.0	1.227	0.002	1927.0	1.245	0.003	2040.8	1.496	0.091	2152.7	1.187	0.003	2462.3	1.212	0.000	2909.8	1.214	0.006
836.2	1.228	0.000	1100.5	1.223	0.000	1555.7	1.228	0.002	1929.0	1.245	0.003	2042.8	1.523	0.147	2154.6	1.188	0.003	2470.0	1.213	0.000	2917.5	1.214	0.001
838.1	1.229	0.000	1108.2	1.224	0.000	1563.4	1.228	0.002	1930.9	1.246	0.003	2044.7	1.519	0.233	2156.6	1.189	0.003	2477.7	1.213	0.000	2925.3	1.215	0.000
840.1	1.229	0.004	1115.9	1.225	0.000	1571.1	1.227	0.002	1932.8	1.246	0.003	2046.6	1.508	0.261	2158.5	1.190	0.003	2485.5	1.213	0.000	2933.0	1.215	0.000
842.0	1.230	0.000	1123.6	1.225	0.003	1578.8	1.228	0.002	1934.7	1.246	0.003	2048.6	1.534	0.350	2160.4	1.190	0.003	2493.2	1.213	0.000	2940.7	1.216	0.000
843.9	1.230	0.000	1131.3	1.226	0.000	1586.6	1.227	0.002	1936.7	1.247	0.003	2050.5	1.477	0.527	2162.4	1.191	0.003	2500.9	1.213	0.000	2948.4	1.216	0.000
845.9	1.232	0.004	1139.0	1.225	0.000	1594.3	1.228	0.000	1938.6	1.247	0.003	2052.4	1.309	0.641	2164.3	1.191	0.003	2508.6	1.214	0.000	2956.1	1.216	0.000
847.8	1.231	0.004	1146.8	1.227	0.003	1602.0	1.228	0.002	1940.5	1.247	0.003	2054.3	1.118	0.614	2166.2	1.192	0.003	2516.3	1.213	0.000	2963.8	1.216	0.000
849.7	1.230	0.004	1154.5	1.225	0.000	1609.7	1.228	0.002	1942.5	1.248	0.003	2056.3	0.990	0.493	2168.1	1.192	0.003	2524.0	1.214	0.000	2971.6	1.216	0.000
851.6	1.234	0.000	1162.2	1.225	0.003	1617.4	1.228	0.000	1944.4	1.248	0.003	2058.2	0.947	0.367	2170.1	1.193	0.003	2531.8	1.214	0.000	2979.3	1.217	0.000
853.6	1.237	0.000	1169.9	1.225	0.003	1625.1	1.229	0.002	1946.3	1.248	0.003	2060.1	0.944	0.295	2172.0	1.193	0.003	2539.5	1.214	0.000	2987.0	1.216	0.000
855.5	1.243	0.004	1177.6	1.225	0.003	1632.9	1.228	0.002	1948.2	1.249	0.002	2062.1	0.925	0.254	2173.9	1.193	0.003	2547.2	1.214	0.000	2994.7	1.217	0.000
857.4	1.252	0.024	1185.3	1.226	0.003	1640.6	1.228	0.002	1950.2	1.249	0.002	2064.0	0.907	0.173	2175.9	1.194	0.003	2554.9	1.214	0.000			
859.4	1.222	0.058	1193.1	1.225	0.003	1648.3	1.228	0.002	1952.1	1.251	0.002	2065.9	0.929	0.095	2177.8	1.194	0.003	2562.6	1.214	0.000			
861.3	1.199	0.016	1200.8	1.225	0.000	1656.0	1.229	0.002	1954.0	1.251	0.003	2067.8	0.966	0.050	2179.7	1.194	0.003	2570.3	1.214	0.000			
863.2	1.207	0.003	1208.5	1.225	0.003	1663.7	1.228	0.000	1956.0	1.252	0.003												

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1993ApJS...86..713H

TABLE 17C

N_2:OCS = 20:1 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
703.1	1.227	0.004	865.1	1.213	0.000	1216.2	1.224	0.000	1671.4	1.229	0.000	1957.9	1.251	0.002	2069.8	0.985	0.083	2181.6	1.196	0.000	2578.0	1.215	0.000
707.0	1.227	0.000	867.1	1.217	0.000	1223.9	1.223	0.002	1679.2	1.228	0.002	1959.8	1.252	0.003	2071.7	1.010	0.041	2183.6	1.196	0.000	2585.8	1.215	0.000
710.8	1.229	0.000	869.0	1.219	0.000	1231.6	1.225	0.003	1686.9	1.230	0.002	1961.7	1.252	0.003	2073.6	1.040	0.020	2185.5	1.197	0.000	2593.5	1.215	0.000
714.7	1.227	0.000	870.9	1.221	0.000	1239.4	1.225	0.003	1694.6	1.228	0.000	1963.7	1.252	0.003	2075.6	1.065	0.011	2187.4	1.197	0.000	2601.2	1.215	0.000
718.5	1.228	0.000	872.9	1.223	0.000	1247.1	1.225	0.000	1702.3	1.232	0.002	1965.6	1.253	0.002	2077.5	1.084	0.008	2189.4	1.197	0.000	2608.9	1.215	0.000
722.4	1.227	0.000	874.8	1.222	0.003	1254.8	1.226	0.000	1710.0	1.230	0.004	1967.5	1.255	0.002	2079.4	1.098	0.007	2191.3	1.197	0.000	2616.6	1.215	0.000
726.3	1.227	0.004	876.7	1.222	0.003	1262.5	1.226	0.000	1717.7	1.228	0.000	1969.5	1.255	0.003	2081.3	1.109	0.006	2193.2	1.198	0.000	2624.3	1.215	0.000
730.1	1.228	0.004	878.6	1.223	0.003	1270.2	1.225	0.000	1725.4	1.229	0.002	1971.4	1.256	0.002	2083.3	1.118	0.007	2195.2	1.198	0.000	2632.1	1.215	0.000
734.0	1.227	0.004	880.6	1.224	0.003	1277.9	1.225	0.000	1733.2	1.229	0.000	1973.3	1.257	0.004	2085.2	1.126	0.006	2197.1	1.198	0.000	2639.8	1.215	0.000
737.8	1.229	0.004	882.5	1.222	0.003	1285.6	1.226	0.000	1740.9	1.230	0.000	1975.3	1.258	0.004	2087.1	1.132	0.005	2199.0	1.198	0.000	2647.5	1.216	0.000
741.7	1.225	0.004	884.4	1.223	0.003	1293.4	1.227	0.003	1748.6	1.230	0.000	1977.2	1.258	0.004	2089.1	1.138	0.006	2207.7	1.200	0.001	2655.2	1.215	0.000
745.5	1.226	0.000	886.4	1.223	0.003	1301.1	1.225	0.002	1756.3	1.230	0.000	1979.1	1.259	0.004	2091.0	1.142	0.006	2215.4	1.200	0.000	2662.9	1.215	0.000
749.4	1.228	0.004	888.3	1.222	0.000	1308.8	1.225	0.002	1764.0	1.232	0.002	1981.0	1.261	0.002	2092.9	1.146	0.007	2223.1	1.202	0.000	2670.6	1.216	0.000
753.3	1.226	0.004	890.2	1.223	0.003	1316.5	1.226	0.002	1771.7	1.231	0.000	1983.0	1.262	0.002	2094.8	1.149	0.007	2230.8	1.203	0.000	2678.4	1.216	0.000
757.1	1.225	0.000	892.1	1.223	0.000	1324.2	1.225	0.000	1779.5	1.232	0.002	1984.9	1.264	0.004	2096.8	1.152	0.006	2238.6	1.203	0.000	2686.1	1.216	0.000
761.0	1.227	0.004	894.1	1.225	0.000	1331.9	1.225	0.002	1787.2	1.232	0.002	1986.8	1.265	0.004	2098.7	1.156	0.006	2246.3	1.204	0.000	2693.8	1.216	0.000
764.8	1.224	0.000	896.0	1.224	0.000	1339.7	1.224	0.002	1794.9	1.233	0.002	1988.8	1.267	0.004	2100.6	1.158	0.006	2254.0	1.205	0.000	2701.5	1.216	0.000
768.7	1.228	0.004	897.9	1.223	0.000	1347.4	1.225	0.002	1802.6	1.232	0.002	1990.7	1.269	0.004	2102.6	1.161	0.006	2261.7	1.206	0.000	2709.2	1.216	0.000
772.6	1.228	0.004	899.9	1.225	0.003	1355.1	1.225	0.000	1810.3	1.233	0.002	1992.6	1.271	0.007	2104.5	1.162	0.007	2269.4	1.206	0.000	2716.9	1.216	0.000
776.4	1.227	0.004	907.6	1.224	0.000	1362.8	1.225	0.002	1818.0	1.233	0.000	1994.5	1.273	0.010	2106.4	1.164	0.007	2277.1	1.206	0.000	2724.6	1.216	0.000
780.3	1.225	0.004	915.3	1.224	0.003	1370.5	1.225	0.002	1825.8	1.233	0.000	1996.5	1.272	0.013	2108.3	1.165	0.007	2284.8	1.206	0.000	2732.4	1.216	0.000
784.1	1.228	0.000	923.0	1.225	0.003	1378.2	1.225	0.002	1833.5	1.234	0.002	1998.4	1.270	0.014	2110.3	1.167	0.005	2292.6	1.208	0.000	2740.1	1.216	0.000
788.0	1.226	0.004	930.7	1.223	0.003	1386.0	1.226	0.000	1841.2	1.234	0.002	2000.3	1.268	0.011	2112.2	1.168	0.006	2300.3	1.208	0.000	2747.8	1.216	0.000
791.8	1.227	0.004	938.4	1.225	0.000	1393.7	1.225	0.002	1848.9	1.235	0.002	2002.3	1.269	0.007	2114.1	1.170	0.004	2308.0	1.209	0.000	2755.5	1.216	0.000
795.7	1.227	0.004	946.2	1.224	0.003	1401.4	1.226	0.002	1856.6	1.236	0.002	2004.2	1.273	0.006	2116.1	1.171	0.004	2315.7	1.209	0.000	2763.2	1.216	0.000
799.6	1.226	0.000	953.9	1.225	0.000	1409.1	1.227	0.002	1864.3	1.236	0.002	2006.1	1.277	0.005	2118.0	1.173	0.005	2323.4	1.209	0.000	2770.9	1.216	0.000
801.5	1.226	0.004	961.6	1.225	0.000	1416.8	1.226	0.000	1872.1	1.237	0.003	2008.0	1.280	0.005	2119.9	1.174	0.003	2331.1	1.209	0.000	2778.7	1.216	0.000
803.4	1.224	0.004	969.3	1.225	0.003	1424.5	1.226	0.002	1879.8	1.238	0.003	2010.0	1.284	0.005	2121.9	1.176	0.003	2338.9	1.210	0.000	2786.4	1.216	0.000
805.3	1.225	0.004	977.0	1.225	0.000	1432.3	1.226	0.002	1887.5	1.239	0.003	2011.9	1.287	0.006	2123.8	1.177	0.003	2346.6	1.210	0.004	2794.1	1.217	0.000
807.3	1.226	0.000	984.7	1.224	0.000	1440.0	1.225	0.002	1895.2	1.238	0.005	2013.8	1.290	0.006	2125.7	1.178	0.004	2354.3	1.210	0.000	2801.8	1.216	0.000
809.2	1.227	0.000	992.5	1.224	0.003	1447.7	1.225	0.002	1901.9	1.238	0.003	2015.8	1.293	0.007	2127.6	1.179	0.004	2362.0	1.210	0.000	2809.5	1.216	0.000
811.1	1.225	0.004	1000.2	1.224	0.003	1455.4	1.224	0.000	1903.9	1.239	0.003	2017.7	1.297	0.007	2129.6	1.180	0.004	2369.7	1.210	0.000	2817.2	1.216	0.000
813.1	1.227	0.000	1007.9	1.225	0.000	1463.1	1.226	0.002	1905.8	1.239	0.003	2019.6	1.302	0.006	2131.5	1.180	0.002	2377.4	1.210	0.000	2825.0	1.217	0.000
815.0	1.225	0.004	1015.6	1.225	0.000	1470.8	1.225	0.002	1907.7	1.239	0.003	2021.5	1.308	0.006	2133.4	1.182	0.002	2385.2	1.211	0.000	2832.7	1.217	0.000
816.9	1.226	0.000	1023.3	1.225	0.003	1478.5	1.226	0.002	1909.7	1.240	0.001	2023.5	1.315	0.006	2135.4	1.183	0.003	2392.9	1.211	0.000	2840.4	1.217	0.000
818.8	1.228	0.000	1031.0	1.226	0.000	1486.3	1.225	0.002	1911.6	1.240	0.003	2025.4	1.323	0.005	2137.3	1.184	0.003	2400.6	1.212	0.000	2848.1	1.217	0.000
820.8	1.227	0.000	1038.7	1.226	0.003	1494.0	1.225	0.002	1913.5	1.240	0.003	2027.3	1.333	0.005	2139.2	1.185	0.003	2408.3	1.212	0.000	2855.8	1.218	0.000
822.7	1.226	0.004	1046.5	1.229	0.009	1501.7	1.226	0.002	1915.5	1.240	0.001	2029.3	1.345	0.007	2141.1	1.185	0.003	2416.0	1.212	0.000	2863.5	1.217	0.000
824.6	1.228	0.004	1054.2	1.221	0.003	1509.4	1.227	0.000	1917.4	1.241	0.003	2031.2	1.362	0.010	2143.1	1.186	0.003	2423.7	1.212	0.000	2871.2	1.218	0.000
826.6	1.225	0.004	1061.9	1.224	0.003	1517.1	1.226	0.000	1919.3	1.241	0.003	2033.1	1.383	0.017	2145.0	1.186	0.003	2431.4	1.212	0.000	2879.0	1.218	0.000
828.5	1.227	0.000	1069.6	1.224	0.003	1524.8	1.227	0.002	1921.2	1.242	0.003	2035.0	1.406	0.034	2146.9	1.186	0.003	2439.2	1.212	0.000	2886.7	1.218	0.000
830.4	1.226	0.004	1077.3	1.224	0.003	1532.6	1.225	0.002	1923.2	1.241	0.001	2037.0	1.427	0.061	2148.9	1.187	0.001	2446.9	1.213	0.000	2894.4	1.219	0.002
832.3	1.226	0.004	1085.0	1.224	0.003	1540.3	1.227	0.000	1925.1	1.243	0.001	2038.9	1.440	0.097	2150.8	1.188	0.002	2454.6	1.213	0.000	2902.1	1.218	0.004
834.3	1.227	0.000	1092.8	1.225	0.000	1548.0	1.227	0.002	1927.0	1.243	0.003	2040.8	1.446	0.136	2152.7	1.189	0.002	2462.3	1.212	0.000	2909.8	1.215	0.004
836.2	1.226	0.000	1100.5	1.224	0.000	1555.7	1.226	0.002	1929.0	1.244	0.003	2042.8	1.448	0.180	2154.6	1.190	0.002	2470.0	1.213	0.000	2917.5	1.215	0.001
838.1	1.228	0.000	1108.2	1.225	0.000	1563.4	1.227	0.002	1930.9	1.244	0.001	2044.7	1.428	0.237	2156.6	1.190	0.002	2477.7	1.214	0.000	2925.3	1.215	0.000
840.1	1.229	0.000	1115.9	1.224	0.003	1571.1	1.227	0.002	1932.8	1.244	0.001	2046.6	1.402	0.257	2158.5	1.191	0.002	2485.5	1.214	0.000	2933.0	1.216	0.000
842.0	1.230	0.000	1123.6	1.224	0.003	1578.8	1.228	0.002	1934.7	1.244	0.001	2048.6	1.393	0.300	2160.4	1.191	0.002	2493.2	1.214	0.000	2940.7	1.216	0.000
843.9	1.229	0.000	1131.3	1.225	0.003	1586.6	1.226	0.002	1936.7	1.245	0.002	2050.5	1.352	0.371	2162.4	1.192	0.002	2500.9	1.214	0.000	2948.4	1.216	0.000
845.9	1.232	0.004	1139.0	1.225	0.000	1594.3	1.228	0.000	1938.6	1.245	0.003	2052.4	1.267	0.417	2164.3	1.192	0.002	2508.6	1.214	0.000	2956.1	1.216	0.000
847.8	1.231	0.004	1146.8	1.224	0.003	1602.0	1.228	0.002	1940.5	1.245	0.003	2054.3	1.175	0.397	2166.2	1.193	0.002	2516.3	1.214	0.000	2963.8	1.217	0.000
849.7	1.231	0.004	1154.5	1.224	0.003	1609.7	1.227	0.002	1942.5	1.246	0.002	2056.3	1.122	0.342	2168.1	1.193	0.002	2524.0	1.214	0.000	2971.6	1.217	0.000
851.6	1.233	0.000	1162.2	1.225	0.003	1617.4	1.228	0.000	1944.4	1.246	0.003	2058.2	1.100	0.300	2170.1	1.193	0.002	2531.8	1.214	0.000	2979.3	1.216	0.000
853.6	1.236	0.004	1169.9	1.224	0.003	1625.1	1.227	0.002	1946.3	1.247	0.003	2060.1	1.082	0.288	2172.0	1.193	0.000	2539.5	1.215	0.000	2987.0	1.217	0.000
855.5	1.242	0.007	1177.6	1.224	0.003	1632.9	1.227	0.002	1948.2	1.247	0.003	2062.1	1.046	0.276	2173.9	1.193	0.002	2547.2	1.215	0.000	2994.7	1.217	0.000
857.4	1.245	0.027	1185.3	1.223	0.003	1640.6	1.228	0.002	1950.2	1.248	0.002	2064.0	1.011	0.234	2175.9	1.194	0.000	2554.9	1.214	0.000			
859.4	1.217	0.047	1193.1	1.224	0.003	1648.3	1.228	0.000	1952.1	1.249	0.002	2065.9	0.991	0.190	2177.8	1.195	0.000	2562.6	1.214	0.000			
861.3	1.202	0.016	1200.8	1.223	0.003	1656.0	1.230	0.002	1954.0	1.250	0.002	2067.8	0.978	0.139	2179.7	1.195	0.000	2570.3	1.215	0.000			
863.2	1.209	0.003	1208.5	1.223	0.002	1663.7	1.228	0.000	1956.0	1.250	0.003												

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TABLE 17D

N_2:OCS = 20:1 AT 25 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
703.1	1.228	0.004	865.1	1.214	0.000	1216.2	1.224	0.000	1671.4	1.227	0.000	1957.9	1.248	0.003	2069.8	1.088	0.146	2181.6	1.199	0.001	2578.0	1.215	0.000
707.0	1.227	0.000	867.1	1.218	0.000	1223.9	1.224	0.003	1679.2	1.227	0.000	1959.8	1.249	0.003	2071.7	1.071	0.131	2183.6	1.199	0.001	2585.8	1.215	0.000
710.8	1.225	0.000	869.0	1.218	0.000	1231.6	1.225	0.003	1686.9	1.228	0.000	1961.7	1.250	0.003	2073.6	1.057	0.103	2185.5	1.200	0.001	2593.5	1.215	0.000
714.7	1.228	0.000	870.9	1.220	0.000	1239.4	1.225	0.003	1694.6	1.228	0.000	1963.7	1.250	0.003	2075.6	1.054	0.068	2187.4	1.200	0.001	2601.2	1.215	0.000
718.5	1.229	0.000	872.9	1.221	0.000	1247.1	1.224	0.002	1702.3	1.228	0.000	1965.6	1.251	0.003	2077.5	1.065	0.036	2189.4	1.200	0.001	2608.9	1.216	0.000
722.4	1.227	0.000	874.8	1.220	0.000	1254.8	1.224	0.002	1710.0	1.228	0.000	1967.5	1.252	0.003	2079.4	1.084	0.018	2191.3	1.200	0.001	2616.6	1.215	0.000
726.3	1.227	0.000	876.7	1.221	0.000	1262.5	1.224	0.002	1717.7	1.229	0.000	1969.5	1.252	0.003	2081.3	1.102	0.010	2193.2	1.201	0.001	2624.3	1.216	0.000
730.1	1.227	0.004	878.6	1.222	0.000	1270.2	1.224	0.002	1725.4	1.229	0.000	1971.4	1.253	0.002	2083.3	1.116	0.008	2195.2	1.201	0.001	2632.1	1.216	0.000
734.0	1.226	0.004	880.6	1.222	0.000	1277.9	1.224	0.000	1733.2	1.229	0.000	1973.3	1.254	0.003	2085.2	1.126	0.006	2197.1	1.201	0.001	2639.8	1.215	0.000
737.8	1.228	0.004	882.5	1.223	0.000	1285.6	1.225	0.002	1740.9	1.229	0.000	1975.3	1.255	0.003	2087.1	1.133	0.007	2199.0	1.201	0.001	2647.5	1.216	0.000
741.7	1.227	0.000	884.4	1.222	0.000	1293.4	1.225	0.000	1748.6	1.230	0.000	1977.2	1.256	0.004	2089.1	1.140	0.006	2207.7	1.202	0.001	2655.2	1.216	0.000
745.5	1.227	0.000	886.4	1.223	0.000	1301.1	1.224	0.000	1756.3	1.230	0.000	1979.1	1.257	0.004	2091.0	1.144	0.007	2215.4	1.203	0.001	2662.9	1.216	0.000
749.4	1.228	0.004	888.3	1.223	0.000	1308.8	1.225	0.000	1764.0	1.230	0.000	1981.0	1.258	0.004	2092.9	1.149	0.006	2223.1	1.204	0.001	2670.6	1.216	0.000
753.3	1.226	0.004	890.2	1.224	0.003	1316.5	1.225	0.002	1771.7	1.231	0.000	1983.0	1.259	0.004	2094.8	1.153	0.006	2230.8	1.205	0.000	2678.4	1.216	0.000
757.1	1.226	0.004	892.1	1.222	0.000	1324.2	1.224	0.000	1779.5	1.231	0.000	1984.9	1.261	0.004	2096.8	1.156	0.006	2238.6	1.206	0.000	2686.1	1.215	0.000
761.0	1.225	0.004	894.1	1.223	0.003	1331.9	1.225	0.002	1787.2	1.231	0.000	1986.8	1.263	0.005	2098.7	1.158	0.006	2246.3	1.206	0.000	2693.8	1.216	0.000
764.8	1.225	0.000	896.0	1.223	0.000	1339.7	1.224	0.002	1794.9	1.232	0.000	1988.8	1.263	0.007	2100.6	1.161	0.005	2254.0	1.207	0.000	2701.5	1.216	0.000
768.7	1.225	0.004	897.9	1.223	0.000	1347.4	1.224	0.002	1802.6	1.232	0.000	1990.7	1.264	0.008	2102.6	1.164	0.005	2261.7	1.207	0.000	2709.2	1.216	0.000
772.6	1.227	0.004	899.9	1.224	0.000	1355.1	1.224	0.000	1810.3	1.232	0.002	1992.6	1.265	0.008	2104.5	1.165	0.005	2269.4	1.208	0.000	2716.9	1.216	0.000
776.4	1.226	0.004	907.6	1.223	0.000	1362.8	1.225	0.002	1818.0	1.232	0.002	1994.5	1.264	0.009	2106.4	1.167	0.004	2277.1	1.208	0.000	2724.6	1.216	0.000
780.3	1.225	0.004	915.3	1.224	0.000	1370.5	1.225	0.002	1825.8	1.233	0.000	1996.5	1.265	0.008	2108.3	1.169	0.003	2284.8	1.209	0.000	2732.4	1.216	0.000
784.1	1.226	0.004	923.0	1.225	0.003	1378.2	1.224	0.002	1833.5	1.233	0.002	1998.4	1.265	0.007	2110.3	1.171	0.003	2292.6	1.209	0.000	2740.1	1.216	0.000
788.0	1.225	0.000	930.7	1.224	0.003	1386.0	1.225	0.000	1841.2	1.234	0.002	2000.3	1.268	0.005	2112.2	1.173	0.003	2300.3	1.210	0.000	2747.8	1.216	0.000
791.8	1.225	0.004	938.4	1.224	0.000	1393.7	1.224	0.002	1848.9	1.234	0.000	2002.3	1.270	0.004	2114.1	1.174	0.003	2308.0	1.210	0.000	2755.5	1.217	0.000
795.7	1.226	0.004	946.2	1.224	0.000	1401.4	1.224	0.002	1856.6	1.236	0.000	2004.2	1.273	0.004	2116.1	1.176	0.002	2315.7	1.210	0.000	2763.2	1.216	0.000
799.6	1.225	0.004	953.9	1.225	0.003	1409.1	1.225	0.000	1864.3	1.235	0.002	2006.1	1.276	0.005	2118.0	1.178	0.002	2323.4	1.210	0.000	2770.9	1.216	0.000
801.5	1.226	0.004	961.6	1.224	0.003	1416.8	1.225	0.000	1872.1	1.237	0.003	2008.0	1.279	0.005	2119.9	1.179	0.002	2331.1	1.211	0.000	2778.7	1.217	0.000
803.4	1.225	0.004	969.3	1.224	0.003	1424.5	1.225	0.000	1879.8	1.237	0.003	2010.0	1.282	0.005	2121.9	1.180	0.002	2338.9	1.211	0.000	2786.4	1.217	0.000
805.3	1.224	0.004	977.0	1.225	0.000	1432.3	1.225	0.000	1887.5	1.237	0.004	2011.9	1.286	0.005	2123.8	1.182	0.002	2346.6	1.211	0.000	2794.1	1.217	0.000
807.3	1.224	0.000	984.7	1.223	0.003	1440.0	1.226	0.000	1895.2	1.236	0.004	2013.8	1.289	0.005	2125.7	1.182	0.003	2354.3	1.211	0.000	2801.8	1.217	0.000
809.2	1.225	0.000	992.5	1.223	0.003	1447.7	1.226	0.000	1901.9	1.238	0.003	2015.8	1.294	0.004	2127.6	1.183	0.003	2362.0	1.212	0.000	2809.5	1.216	0.000
811.1	1.224	0.004	1000.2	1.224	0.000	1455.4	1.227	0.002	1903.9	1.238	0.003	2017.7	1.301	0.006	2129.6	1.184	0.001	2369.7	1.212	0.000	2817.2	1.217	0.000
813.1	1.226	0.000	1007.9	1.225	0.003	1463.1	1.227	0.000	1905.8	1.238	0.003	2019.6	1.308	0.006	2131.5	1.186	0.001	2377.4	1.212	0.000	2825.0	1.217	0.000
815.0	1.226	0.000	1015.6	1.223	0.003	1470.8	1.228	0.000	1907.7	1.239	0.003	2021.5	1.317	0.007	2133.4	1.186	0.001	2385.2	1.212	0.000	2832.7	1.217	0.000
816.9	1.225	0.004	1023.3	1.224	0.003	1478.5	1.227	0.002	1909.7	1.239	0.003	2023.5	1.329	0.010	2135.4	1.187	0.001	2392.9	1.212	0.000	2840.4	1.217	0.000
818.8	1.226	0.004	1031.0	1.226	0.000	1486.3	1.227	0.002	1911.6	1.239	0.003	2025.4	1.341	0.020	2137.3	1.188	0.002	2400.6	1.213	0.000	2848.1	1.217	0.000
820.8	1.226	0.000	1038.7	1.225	0.003	1494.0	1.226	0.002	1913.5	1.239	0.003	2027.3	1.352	0.033	2139.2	1.189	0.002	2408.3	1.213	0.000	2855.8	1.218	0.000
822.7	1.226	0.004	1046.5	1.223	0.008	1501.7	1.226	0.002	1915.5	1.239	0.003	2029.3	1.359	0.050	2141.1	1.189	0.002	2416.0	1.213	0.000	2863.5	1.217	0.000
824.6	1.225	0.004	1054.2	1.222	0.000	1509.4	1.226	0.002	1917.4	1.239	0.003	2031.2	1.363	0.069	2143.1	1.190	0.002	2423.7	1.213	0.000	2871.2	1.218	0.000
826.6	1.224	0.004	1061.9	1.224	0.000	1517.1	1.226	0.002	1919.3	1.240	0.003	2033.1	1.364	0.088	2145.0	1.191	0.002	2431.4	1.214	0.000	2879.0	1.218	0.000
828.5	1.226	0.000	1069.6	1.224	0.000	1524.8	1.226	0.002	1921.2	1.241	0.003	2035.0	1.362	0.106	2146.9	1.191	0.002	2439.2	1.213	0.000	2886.7	1.218	0.002
830.4	1.226	0.000	1077.3	1.223	0.000	1532.6	1.226	0.002	1923.2	1.241	0.003	2037.0	1.358	0.124	2148.9	1.192	0.002	2446.9	1.214	0.000	2894.4	1.217	0.003
832.3	1.226	0.004	1085.0	1.223	0.000	1540.3	1.226	0.002	1925.1	1.241	0.003	2038.9	1.351	0.143	2150.8	1.192	0.002	2454.6	1.214	0.000	2902.1	1.217	0.003
834.3	1.226	0.000	1092.8	1.224	0.000	1548.0	1.226	0.002	1927.0	1.241	0.003	2040.8	1.341	0.163	2152.7	1.192	0.002	2462.3	1.213	0.000	2909.8	1.216	0.002
836.2	1.225	0.004	1100.5	1.222	0.000	1555.7	1.226	0.002	1929.0	1.241	0.003	2042.8	1.327	0.181	2154.6	1.193	0.002	2470.0	1.214	0.000	2917.5	1.216	0.002
838.1	1.227	0.000	1108.2	1.223	0.000	1563.4	1.226	0.002	1930.9	1.242	0.001	2044.7	1.309	0.197	2156.6	1.193	0.002	2477.7	1.214	0.000	2925.3	1.216	0.000
840.1	1.226	0.004	1115.9	1.224	0.000	1571.1	1.226	0.002	1932.8	1.243	0.001	2046.6	1.289	0.209	2158.5	1.193	0.002	2485.5	1.214	0.000	2933.0	1.216	0.000
842.0	1.228	0.000	1123.6	1.224	0.000	1578.8	1.226	0.002	1934.7	1.243	0.003	2048.6	1.267	0.215	2160.4	1.194	0.000	2493.2	1.214	0.000	2940.7	1.216	0.000
843.9	1.228	0.004	1131.3	1.225	0.000	1586.6	1.226	0.002	1936.7	1.243	0.003	2050.5	1.246	0.220	2162.4	1.195	0.000	2500.9	1.214	0.000	2948.4	1.217	0.000
845.9	1.228	0.004	1139.0	1.225	0.000	1594.3	1.227	0.002	1938.6	1.243	0.003	2052.4	1.224	0.220	2164.3	1.196	0.000	2508.6	1.214	0.000	2956.1	1.216	0.000
847.8	1.227	0.004	1146.8	1.225	0.003	1602.0	1.226	0.002	1940.5	1.243	0.003	2054.3	1.203	0.216	2166.2	1.196	0.000	2516.3	1.215	0.000	2963.8	1.217	0.000
849.7	1.230	0.004	1154.5	1.225	0.000	1609.7	1.226	0.002	1942.5	1.245	0.003	2056.3	1.185	0.209	2168.1	1.197	0.000	2524.0	1.215	0.000	2971.6	1.217	0.000
851.6	1.231	0.004	1162.2	1.225	0.000	1617.4	1.226	0.002	1944.4	1.244	0.003	2058.2	1.169	0.201	2170.1	1.197	0.000	2531.8	1.215	0.000	2979.3	1.217	0.000
853.6	1.234	0.007	1169.9	1.225	0.003	1625.1	1.226	0.002	1946.3	1.245	0.003	2060.1	1.155	0.195	2172.0	1.197	0.000	2539.5	1.215	0.000	2987.0	1.217	0.000
855.5	1.235	0.014	1177.6	1.225	0.000	1632.9	1.226	0.002	1948.2	1.246	0.003	2062.1	1.141	0.187	2173.9	1.198	0.000	2547.2	1.215	0.000	2994.7	1.217	0.000
857.4	1.227	0.024	1185.3	1.224	0.003	1640.6	1.226	0.002	1950.2	1.246	0.002	2064.0	1.127	0.177	2175.9	1.198	0.000	2554.9	1.215	0.000			
859.4	1.217	0.023	1193.1	1.224	0.003	1648.3	1.225	0.000	1952.1	1.247	0.002	2065.9	1.115	0.167	2177.8	1.198	0.000	2562.6	1.215	0.000			
861.3	1.210	0.013	1200.8	1.224	0.003	1656.0	1.226	0.000	1954.0	1.248	0.003	2067.8	1.102	0.158	2179.7	1.199	0.001	2570.3	1.215	0.000			
863.2	1.210	0.003	1208.5	1.223	0.003	1663.7	1.227	0.000	1956.0	1.248	0.003												

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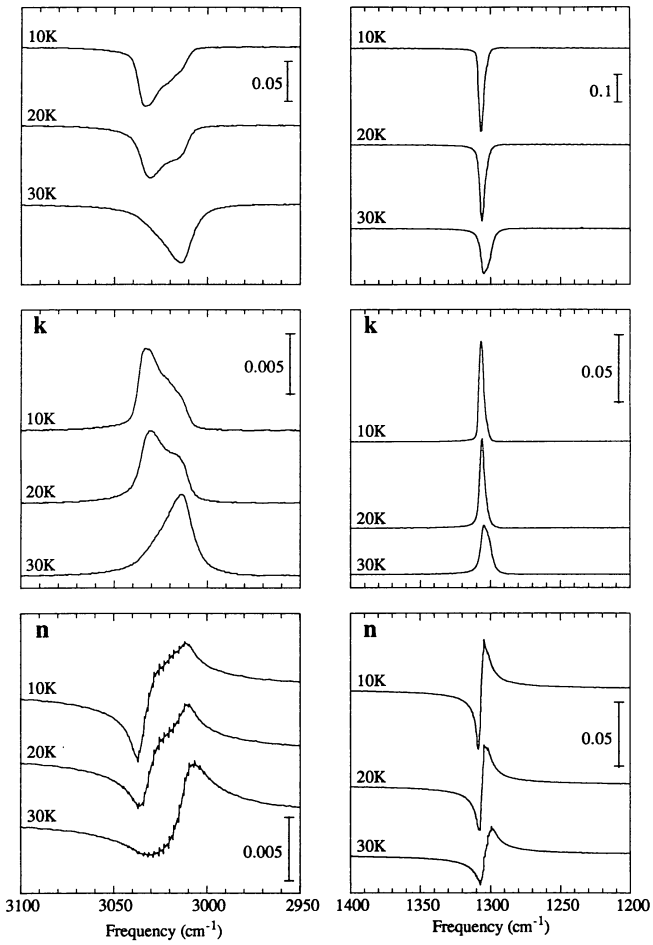

FIG. 18.—The 3100 to 2950 cm^{-1} and 1400 to 1200 cm^{-1} transmission spectra and optical constants (n and k) of an O_2:CH_4 = 20:1 ice mixture at temperatures of 10, 20, and 30 K. The original ice was deposited at 10 K.

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TABLE 18A

O_2:CH_4 = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1018.5	1.251	0.000	1248.0	1.252	0.000	1304.9	1.281	0.048	1361.8	1.248	0.000	1792.0	1.250	0.000	2911.8	1.250	0.000	3004.8	1.253	0.000	3060.8	1.249	0.000
1037.8	1.251	0.000	1249.0	1.252	0.000	1305.9	1.268	0.069	1362.8	1.248	0.000	1811.3	1.250	0.000	2931.0	1.251	0.000	3005.8	1.253	0.000	3061.7	1.249	0.000
1057.1	1.251	0.000	1250.0	1.252	0.000	1306.9	1.245	0.076	1363.8	1.248	0.000	1830.6	1.250	0.000	2950.8	1.251	0.000	3006.8	1.253	0.000	3062.7	1.249	0.000
1076.4	1.251	0.000	1250.9	1.252	0.000	1307.8	1.215	0.060	1364.7	1.248	0.000	1849.9	1.250	0.000	2951.8	1.251	0.000	3007.7	1.253	0.000	3063.7	1.249	0.000
1095.6	1.251	0.000	1251.9	1.252	0.000	1308.8	1.203	0.030	1365.7	1.248	0.000	1869.2	1.250	0.000	2952.7	1.251	0.000	3008.7	1.253	0.000	3064.6	1.249	0.000
1119.3	1.251	0.000	1252.9	1.252	0.000	1309.8	1.213	0.008	1366.7	1.248	0.000	1888.4	1.250	0.000	2953.7	1.251	0.000	3009.7	1.254	0.001	3065.6	1.249	0.000
1138.6	1.251	0.000	1253.8	1.252	0.000	1310.7	1.222	0.004	1367.6	1.248	0.000	1907.7	1.250	0.000	2954.7	1.251	0.000	3010.6	1.254	0.001	3066.6	1.249	0.000
1157.9	1.251	0.000	1254.8	1.252	0.000	1311.7	1.228	0.003	1368.6	1.248	0.000	1927.0	1.250	0.000	2955.6	1.251	0.000	3011.6	1.254	0.002	3067.5	1.249	0.000
1177.1	1.251	0.000	1255.8	1.252	0.000	1312.7	1.232	0.002	1369.6	1.248	0.000	1946.3	1.250	0.000	2956.6	1.251	0.000	3012.5	1.253	0.002	3068.5	1.249	0.000
1196.4	1.251	0.000	1256.7	1.252	0.000	1313.6	1.234	0.002	1370.5	1.248	0.000	1965.6	1.250	0.000	2957.6	1.251	0.000	3013.5	1.254	0.003	3069.4	1.249	0.000
1200.8	1.251	0.000	1257.7	1.252	0.000	1314.6	1.236	0.002	1371.5	1.248	0.000	1984.9	1.250	0.000	2958.5	1.251	0.000	3014.5	1.253	0.003	3070.4	1.249	0.000
1201.7	1.251	0.000	1258.6	1.252	0.000	1315.5	1.237	0.001	1372.5	1.248	0.000	2004.2	1.250	0.000	2959.5	1.251	0.000	3015.4	1.253	0.003	3071.4	1.249	0.000
1202.7	1.251	0.000	1259.6	1.253	0.000	1316.5	1.239	0.000	1373.4	1.248	0.000	2023.5	1.250	0.000	2960.5	1.251	0.000	3016.4	1.253	0.003	3072.3	1.249	0.000
1203.7	1.251	0.000	1260.6	1.253	0.000	1317.5	1.240	0.000	1374.4	1.248	0.000	2042.8	1.250	0.000	2961.4	1.251	0.000	3017.4	1.253	0.003	3073.3	1.249	0.000
1204.6	1.251	0.000	1261.5	1.253	0.000	1318.4	1.240	0.000	1375.3	1.248	0.000	2062.1	1.250	0.000	2962.4	1.251	0.000	3018.3	1.253	0.004	3074.3	1.249	0.000
1205.6	1.251	0.000	1262.5	1.253	0.000	1319.4	1.241	0.000	1376.3	1.248	0.000	2081.3	1.250	0.000	2963.4	1.251	0.000	3019.3	1.253	0.004	3075.2	1.249	0.000
1206.6	1.251	0.000	1263.5	1.253	0.000	1320.4	1.242	0.000	1377.3	1.248	0.000	2100.6	1.250	0.000	2964.3	1.251	0.000	3020.3	1.253	0.004	3076.2	1.249	0.000
1207.5	1.251	0.000	1264.4	1.253	0.000	1321.3	1.242	0.000	1378.2	1.248	0.000	2119.9	1.250	0.000	2965.3	1.251	0.000	3021.2	1.252	0.004	3077.2	1.249	0.000
1208.5	1.251	0.000	1265.4	1.253	0.000	1322.3	1.243	0.000	1379.2	1.248	0.000	2139.2	1.250	0.000	2966.3	1.251	0.000	3022.2	1.252	0.004	3078.1	1.249	0.000
1209.5	1.251	0.000	1266.4	1.253	0.000	1323.3	1.243	0.000	1380.2	1.248	0.000	2158.5	1.250	0.000	2967.2	1.251	0.000	3023.2	1.252	0.005	3079.1	1.249	0.000
1210.4	1.251	0.000	1267.3	1.253	0.000	1324.2	1.243	0.000	1381.1	1.248	0.000	2177.8	1.250	0.000	2968.2	1.251	0.000	3024.1	1.252	0.005	3080.1	1.249	0.000
1211.4	1.251	0.000	1268.3	1.253	0.000	1325.2	1.244	0.000	1382.1	1.249	0.000	2197.1	1.250	0.000	2969.1	1.251	0.000	3025.1	1.252	0.005	3081.0	1.249	0.000
1212.3	1.251	0.000	1269.3	1.253	0.000	1326.2	1.244	0.000	1383.1	1.249	0.000	2216.4	1.250	0.000	2970.1	1.251	0.000	3026.0	1.251	0.005	3082.0	1.249	0.000
1213.3	1.251	0.000	1270.2	1.253	0.000	1327.1	1.244	0.000	1384.0	1.249	0.000	2235.7	1.250	0.000	2971.1	1.251	0.000	3027.0	1.251	0.005	3083.0	1.249	0.000
1214.3	1.251	0.000	1271.2	1.253	0.000	1328.1	1.245	0.000	1385.0	1.248	0.000	2254.9	1.250	0.000	2972.0	1.251	0.000	3028.0	1.251	0.006	3083.9	1.249	0.000
1215.2	1.251	0.000	1272.1	1.254	0.000	1329.1	1.245	0.000	1386.0	1.249	0.000	2274.2	1.250	0.000	2973.0	1.251	0.000	3028.9	1.250	0.006	3084.9	1.249	0.000
1216.2	1.251	0.000	1273.1	1.254	0.000	1330.0	1.245	0.000	1386.9	1.249	0.000	2293.5	1.250	0.000	2974.0	1.251	0.000	3029.9	1.250	0.006	3085.8	1.249	0.000
1217.2	1.251	0.000	1274.1	1.254	0.000	1331.0	1.245	0.000	1387.9	1.249	0.000	2312.8	1.250	0.000	2974.9	1.251	0.000	3030.9	1.250	0.007	3086.8	1.249	0.000
1218.1	1.251	0.000	1275.0	1.254	0.000	1331.9	1.245	0.000	1388.8	1.249	0.000	2332.1	1.250	0.000	2975.9	1.251	0.000	3031.8	1.248	0.007	3087.8	1.249	0.000
1219.1	1.251	0.000	1276.0	1.254	0.000	1332.9	1.245	0.000	1389.8	1.249	0.000	2351.4	1.250	0.000	2976.9	1.251	0.000	3032.8	1.248	0.007	3088.7	1.249	0.000
1220.1	1.251	0.000	1277.0	1.254	0.000	1333.9	1.246	0.000	1390.8	1.249	0.000	2370.7	1.250	0.000	2977.8	1.251	0.000	3033.8	1.248	0.007	3089.7	1.249	0.000
1221.0	1.251	0.000	1277.9	1.254	0.000	1334.8	1.246	0.000	1391.7	1.249	0.000	2390.0	1.250	0.000	2978.8	1.251	0.000	3034.7	1.247	0.007	3090.7	1.249	0.000
1222.0	1.251	0.000	1278.9	1.254	0.000	1335.8	1.246	0.000	1392.7	1.249	0.000	2409.3	1.250	0.000	2979.8	1.251	0.000	3035.7	1.246	0.006	3091.6	1.249	0.000
1223.0	1.251	0.000	1279.9	1.255	0.000	1336.8	1.246	0.000	1393.7	1.249	0.000	2428.6	1.250	0.000	2980.7	1.251	0.000	3036.7	1.245	0.005	3092.6	1.249	0.000
1223.9	1.252	0.000	1280.8	1.255	0.000	1337.7	1.246	0.000	1394.6	1.249	0.000	2447.8	1.250	0.000	2981.7	1.251	0.000	3037.6	1.245	0.003	3093.6	1.249	0.000
1224.9	1.251	0.000	1281.8	1.255	0.000	1338.7	1.246	0.000	1395.6	1.249	0.000	2467.1	1.250	0.000	2982.6	1.251	0.000	3038.6	1.245	0.002	3094.5	1.249	0.000
1225.9	1.251	0.000	1282.8	1.255	0.000	1339.7	1.246	0.000	1396.6	1.249	0.000	2486.4	1.250	0.000	2983.6	1.251	0.000	3039.6	1.245	0.002	3095.5	1.249	0.000
1226.8	1.252	0.000	1283.7	1.255	0.000	1340.6	1.247	0.000	1397.5	1.249	0.000	2505.7	1.250	0.000	2984.6	1.251	0.000	3040.5	1.246	0.001	3096.5	1.249	0.000
1227.8	1.252	0.000	1284.7	1.256	0.000	1341.6	1.247	0.000	1398.5	1.249	0.000	2525.0	1.250	0.000	2985.5	1.251	0.000	3041.5	1.246	0.001	3097.4	1.249	0.000
1228.7	1.252	0.000	1285.6	1.256	0.000	1342.6	1.247	0.000	1399.5	1.249	0.000	2544.3	1.250	0.000	2986.5	1.251	0.000	3042.4	1.246	0.000	3098.4	1.249	0.000
1229.7	1.252	0.000	1286.6	1.256	0.000	1343.5	1.247	0.000	1419.2	1.249	0.000	2563.6	1.250	0.000	2987.5	1.251	0.000	3043.4	1.247	0.000	3099.3	1.249	0.000
1230.7	1.252	0.000	1287.6	1.256	0.000	1344.5	1.247	0.000	1438.5	1.249	0.000	2582.9	1.250	0.000	2988.4	1.251	0.000	3044.4	1.247	0.000	3119.1	1.249	0.000
1231.6	1.252	0.000	1288.5	1.257	0.000	1345.4	1.247	0.000	1457.8	1.249	0.000	2602.2	1.250	0.000	2989.4	1.251	0.000	3045.3	1.247	0.000	3138.4	1.250	0.000
1232.6	1.252	0.000	1289.5	1.257	0.000	1346.4	1.247	0.000	1477.1	1.249	0.000	2621.4	1.250	0.000	2990.4	1.251	0.000	3046.3	1.247	0.000	3157.7	1.250	0.000
1233.6	1.252	0.000	1290.5	1.258	0.000	1347.4	1.247	0.000	1496.4	1.249	0.000	2640.7	1.250	0.000	2991.3	1.251	0.000	3047.3	1.248	0.000	3177.0	1.250	0.000
1234.5	1.252	0.000	1291.4	1.258	0.000	1348.3	1.247	0.000	1515.7	1.250	0.000	2660.0	1.250	0.000	2992.3	1.252	0.000	3048.2	1.248	0.000	3196.3	1.250	0.000
1235.5	1.252	0.000	1292.4	1.259	0.000	1349.3	1.247	0.000	1535.0	1.250	0.000	2679.3	1.250	0.000	2993.3	1.252	0.000	3049.2	1.248	0.000	3215.6	1.250	0.000
1236.5	1.252	0.000	1293.4	1.260	0.000	1350.3	1.247	0.000	1554.3	1.250	0.000	2698.6	1.250	0.000	2994.2	1.252	0.000	3050.2	1.248	0.000	3234.9	1.250	0.000
1237.4	1.252	0.000	1294.3	1.261	0.000	1351.2	1.247	0.000	1573.5	1.250	0.000	2718.9	1.250	0.000	2995.2	1.252	0.000	3051.1	1.248	0.000	3254.1	1.250	0.000
1238.4	1.252	0.000	1295.3	1.262	0.000	1352.2	1.247	0.000	1592.8	1.250	0.000	2738.2	1.250	0.000	2996.1	1.252	0.000	3052.1	1.248	0.000	3273.4	1.250	0.000
1239.4	1.252	0.000	1296.3	1.263	0.000	1353.2	1.247	0.000	1618.4	1.250	0.000	2757.4	1.250	0.000	2997.1	1.252	0.000	3053.1	1.248	0.000	3292.7	1.250	0.000
1240.3	1.252	0.000	1297.2	1.265	0.000	1354.1	1.247	0.000	1637.7	1.250	0.000	2776.7	1.250	0.000	2998.1	1.252	0.000	3054.0	1.248	0.000	3318.8	1.250	0.000
1241.3	1.252	0.000	1298.2	1.267	0.000	1355.1	1.248	0.000	1657.0	1.250	0.000	2796.0	1.250	0.000	2999.0	1.252	0.000	3055.0	1.248	0.000	3338.1	1.250	0.000
1242.2	1.252	0.000	1299.2	1.270	0.002	1356.1	1.248	0.000	1676.3	1.250	0.000	2815.3	1.250	0.000	3000.0	1.252	0.000	3055.9	1.248	0.000	3357.3	1.250	0.000
1243.2	1.252	0.000	1300.1	1.273	0.003	1357.0	1.248	0.000	1695.6	1.250	0.000	2834.6	1.250	0.000	3001.0	1.252	0.000	3056.9	1.248	0.000	3376.6	1.250	0.000
1244.2	1.252	0.000	1301.1	1.277	0.007	1358.0	1.248	0.000	1714.8	1.250	0.000	2853.9	1.250	0.000	3001.9	1.252	0.000	3057.9	1.248	0.000	3395.9	1.250	0.000
1245.1	1.252	0.000	1302.0	1.278	0.013	1358.9	1.248	0.000	1734.1	1.250	0.000	2873.2	1.250	0.000	3002.9	1.252	0.000	3058.8	1.248	0.000			
1246.1	1.252	0.000	1303.0	1.282	0.018	1359.9	1.248	0.000	1753.4	1.250	0.000	2892.5	1.250	0.000	3003.9	1.252	0.000	3059.8	1.248	0.000			
1247.1	1.252	0.000	1304.0	1.285	0.029	1360.9	1.248	0.000	1772.7	1.250	0.000												

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1993ApJS...86..713H

TABLE 18B

O_2:CH_4 = 20:1 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1018.5	1.251	0.000	1248.0	1.252	0.000	1304.9	1.269	0.054	1361.8	1.248	0.000	1792.0	1.250	0.000	2911.8	1.250	0.000	3004.8	1.253	0.000	3060.8	1.249	0.000
1037.8	1.251	0.000	1249.0	1.252	0.000	1305.9	1.251	0.067	1362.8	1.248	0.000	1811.3	1.250	0.000	2931.0	1.251	0.000	3005.8	1.253	0.000	3061.7	1.249	0.000
1057.1	1.251	0.000	1250.0	1.252	0.000	1306.9	1.230	0.058	1363.8	1.248	0.000	1830.6	1.250	0.000	2950.8	1.251	0.000	3006.8	1.253	0.000	3062.7	1.249	0.000
1076.4	1.251	0.000	1250.9	1.252	0.000	1307.8	1.215	0.037	1364.7	1.248	0.000	1849.9	1.250	0.000	2951.8	1.251	0.000	3007.7	1.253	0.000	3063.7	1.249	0.000
1095.6	1.251	0.000	1251.9	1.252	0.000	1308.8	1.217	0.019	1365.7	1.248	0.000	1869.2	1.250	0.000	2952.7	1.251	0.000	3008.7	1.254	0.001	3064.6	1.249	0.000
1119.3	1.251	0.000	1252.9	1.252	0.000	1309.8	1.223	0.010	1366.7	1.248	0.000	1888.4	1.250	0.000	2953.7	1.251	0.000	3009.7	1.254	0.002	3065.6	1.249	0.000
1138.6	1.251	0.000	1253.8	1.252	0.000	1310.7	1.227	0.007	1367.6	1.248	0.000	1907.7	1.250	0.000	2954.7	1.251	0.000	3010.6	1.254	0.002	3066.6	1.249	0.000
1157.9	1.251	0.000	1254.8	1.252	0.000	1311.7	1.231	0.005	1368.6	1.248	0.000	1927.0	1.250	0.000	2955.6	1.251	0.000	3011.6	1.254	0.003	3067.5	1.249	0.000
1177.1	1.251	0.000	1255.8	1.252	0.000	1312.7	1.234	0.003	1369.6	1.248	0.000	1946.3	1.250	0.000	2956.6	1.251	0.000	3012.5	1.253	0.003	3068.5	1.249	0.000
1196.4	1.251	0.000	1256.7	1.252	0.000	1313.6	1.235	0.003	1370.5	1.248	0.000	1965.6	1.250	0.000	2957.6	1.251	0.000	3013.5	1.253	0.003	3069.4	1.249	0.000
1200.8	1.251	0.000	1257.7	1.253	0.000	1314.6	1.237	0.002	1371.5	1.248	0.000	1984.9	1.250	0.000	2958.5	1.251	0.000	3014.5	1.253	0.004	3070.4	1.249	0.000
1201.7	1.251	0.000	1258.6	1.253	0.000	1315.5	1.238	0.002	1372.5	1.248	0.000	2004.2	1.250	0.000	2959.5	1.251	0.000	3015.4	1.252	0.004	3071.4	1.249	0.000
1202.7	1.251	0.000	1259.6	1.253	0.000	1316.5	1.239	0.002	1373.4	1.248	0.000	2023.5	1.250	0.000	2960.5	1.251	0.000	3016.4	1.252	0.004	3072.3	1.249	0.000
1203.7	1.251	0.000	1260.6	1.253	0.000	1317.5	1.240	0.002	1374.4	1.248	0.000	2042.8	1.250	0.000	2961.4	1.251	0.000	3017.4	1.252	0.004	3073.3	1.249	0.000
1204.6	1.251	0.000	1261.5	1.253	0.000	1318.4	1.241	0.001	1375.3	1.248	0.000	2062.1	1.250	0.000	2962.4	1.251	0.000	3018.3	1.252	0.004	3074.3	1.249	0.000
1205.6	1.251	0.000	1262.5	1.253	0.000	1319.4	1.241	0.001	1376.3	1.248	0.000	2081.3	1.250	0.000	2963.4	1.251	0.000	3019.3	1.252	0.004	3075.2	1.249	0.000
1206.6	1.251	0.000	1263.5	1.253	0.000	1320.4	1.242	0.001	1377.3	1.248	0.000	2100.6	1.250	0.000	2964.3	1.251	0.000	3020.3	1.252	0.004	3076.2	1.249	0.000
1207.5	1.251	0.000	1264.4	1.253	0.000	1321.3	1.242	0.001	1378.2	1.248	0.000	2119.9	1.250	0.000	2965.3	1.251	0.000	3021.2	1.252	0.004	3077.2	1.249	0.000
1208.5	1.251	0.000	1265.4	1.253	0.000	1322.3	1.243	0.000	1379.2	1.248	0.000	2139.2	1.250	0.000	2966.3	1.251	0.000	3022.2	1.251	0.004	3078.1	1.249	0.000
1209.5	1.251	0.000	1266.4	1.253	0.000	1323.3	1.243	0.000	1380.2	1.248	0.000	2158.5	1.250	0.000	2967.2	1.251	0.000	3023.2	1.252	0.005	3079.1	1.249	0.000
1210.4	1.251	0.000	1267.3	1.253	0.000	1324.2	1.244	0.000	1381.1	1.248	0.000	2177.8	1.250	0.000	2968.2	1.251	0.000	3024.1	1.251	0.005	3080.1	1.249	0.000
1211.4	1.251	0.000	1268.3	1.253	0.000	1325.2	1.244	0.000	1382.1	1.248	0.000	2197.1	1.250	0.000	2969.1	1.251	0.000	3025.1	1.251	0.005	3081.0	1.249	0.000
1212.3	1.251	0.000	1269.3	1.253	0.000	1326.2	1.244	0.000	1383.1	1.248	0.000	2216.4	1.250	0.000	2970.1	1.251	0.000	3026.0	1.250	0.005	3082.0	1.249	0.000
1213.3	1.251	0.000	1270.2	1.253	0.000	1327.1	1.244	0.000	1384.0	1.248	0.000	2235.7	1.250	0.000	2971.1	1.251	0.000	3027.0	1.251	0.005	3083.0	1.249	0.000
1214.3	1.251	0.000	1271.2	1.254	0.000	1328.1	1.245	0.000	1385.0	1.249	0.000	2254.9	1.250	0.000	2972.0	1.251	0.000	3028.0	1.250	0.006	3083.9	1.249	0.000
1215.2	1.251	0.000	1272.1	1.254	0.000	1329.1	1.245	0.000	1386.0	1.249	0.000	2274.2	1.250	0.000	2973.0	1.251	0.000	3028.9	1.249	0.006	3084.9	1.249	0.000
1216.2	1.251	0.000	1273.1	1.254	0.000	1330.0	1.245	0.000	1386.9	1.249	0.000	2293.5	1.250	0.000	2974.0	1.251	0.000	3029.9	1.249	0.006	3085.8	1.249	0.000
1217.2	1.251	0.000	1274.1	1.254	0.000	1331.0	1.245	0.000	1387.9	1.249	0.000	2312.8	1.250	0.000	2974.9	1.251	0.000	3030.9	1.248	0.006	3086.8	1.249	0.000
1218.1	1.251	0.000	1275.0	1.254	0.000	1331.9	1.245	0.000	1388.8	1.249	0.000	2332.1	1.250	0.000	2975.9	1.251	0.000	3031.8	1.247	0.006	3087.8	1.249	0.000
1219.1	1.251	0.000	1276.0	1.254	0.000	1332.9	1.246	0.000	1389.8	1.249	0.000	2351.4	1.250	0.000	2976.9	1.251	0.000	3032.8	1.247	0.006	3088.7	1.249	0.000
1220.1	1.251	0.000	1277.0	1.254	0.000	1333.9	1.246	0.000	1390.8	1.249	0.000	2370.7	1.250	0.000	2977.8	1.251	0.000	3033.8	1.247	0.005	3089.7	1.249	0.000
1221.0	1.251	0.000	1277.9	1.254	0.000	1334.8	1.246	0.000	1391.7	1.249	0.000	2390.0	1.250	0.000	2978.8	1.251	0.000	3034.7	1.246	0.004	3090.7	1.249	0.000
1222.0	1.252	0.000	1278.9	1.254	0.000	1335.8	1.246	0.000	1392.7	1.249	0.000	2409.3	1.250	0.000	2979.8	1.251	0.000	3035.7	1.246	0.004	3091.6	1.249	0.000
1223.0	1.251	0.000	1279.9	1.255	0.000	1336.8	1.246	0.000	1393.7	1.249	0.000	2428.6	1.250	0.000	2980.7	1.251	0.000	3036.7	1.246	0.003	3092.6	1.249	0.000
1223.9	1.252	0.000	1280.8	1.255	0.000	1337.7	1.246	0.000	1394.6	1.249	0.000	2447.8	1.250	0.000	2981.7	1.251	0.000	3037.6	1.246	0.002	3093.6	1.249	0.000
1224.9	1.252	0.000	1281.8	1.255	0.000	1338.7	1.246	0.000	1395.6	1.249	0.000	2467.1	1.250	0.000	2982.6	1.251	0.000	3038.6	1.246	0.002	3094.5	1.249	0.000
1225.9	1.252	0.000	1282.8	1.255	0.000	1339.7	1.246	0.000	1396.6	1.249	0.000	2486.4	1.250	0.000	2983.6	1.251	0.000	3039.6	1.247	0.002	3095.5	1.249	0.000
1226.8	1.252	0.000	1283.7	1.255	0.000	1340.6	1.246	0.000	1397.5	1.249	0.000	2505.7	1.250	0.000	2984.6	1.251	0.000	3040.5	1.247	0.001	3096.5	1.249	0.000
1227.8	1.252	0.000	1284.7	1.256	0.000	1341.6	1.247	0.000	1398.5	1.249	0.000	2525.0	1.250	0.000	2985.5	1.251	0.000	3041.5	1.247	0.001	3097.4	1.249	0.000
1228.7	1.252	0.000	1285.6	1.256	0.000	1342.6	1.247	0.000	1399.5	1.249	0.000	2544.3	1.250	0.000	2986.5	1.251	0.000	3042.4	1.247	0.001	3098.4	1.249	0.000
1229.7	1.252	0.000	1286.6	1.256	0.000	1343.5	1.247	0.000	1419.2	1.249	0.000	2563.6	1.250	0.000	2987.5	1.251	0.000	3043.4	1.247	0.000	3099.3	1.249	0.000
1230.7	1.252	0.000	1287.6	1.257	0.000	1344.5	1.247	0.000	1438.5	1.249	0.000	2582.9	1.250	0.000	2988.4	1.251	0.000	3044.4	1.247	0.000	3119.1	1.249	0.000
1231.6	1.252	0.000	1288.5	1.257	0.000	1345.4	1.247	0.000	1457.8	1.249	0.000	2602.2	1.250	0.000	2989.4	1.251	0.000	3045.3	1.247	0.000	3138.4	1.250	0.000
1232.6	1.252	0.000	1289.5	1.258	0.000	1346.4	1.247	0.000	1477.1	1.250	0.000	2621.4	1.250	0.000	2990.4	1.251	0.000	3046.3	1.248	0.000	3157.7	1.250	0.000
1233.6	1.252	0.000	1290.5	1.258	0.000	1347.4	1.247	0.000	1496.4	1.249	0.000	2640.7	1.250	0.000	2991.3	1.252	0.000	3047.3	1.248	0.000	3177.0	1.250	0.000
1234.5	1.252	0.000	1291.4	1.259	0.000	1348.3	1.247	0.000	1515.7	1.250	0.000	2660.0	1.250	0.000	2992.3	1.252	0.000	3048.2	1.248	0.000	3196.3	1.250	0.000
1235.5	1.252	0.000	1292.4	1.259	0.000	1349.3	1.247	0.000	1535.0	1.250	0.000	2679.3	1.250	0.000	2993.3	1.252	0.000	3049.2	1.248	0.000	3215.6	1.250	0.000
1236.5	1.252	0.000	1293.4	1.260	0.000	1350.3	1.247	0.000	1554.3	1.250	0.000	2698.6	1.250	0.000	2994.2	1.252	0.000	3050.2	1.248	0.000	3234.9	1.250	0.000
1237.4	1.252	0.000	1294.3	1.261	0.000	1351.2	1.247	0.000	1573.5	1.250	0.000	2718.9	1.250	0.000	2995.2	1.252	0.000	3051.1	1.248	0.000	3254.1	1.250	0.000
1238.4	1.252	0.000	1295.3	1.263	0.000	1352.2	1.247	0.000	1592.8	1.250	0.000	2738.2	1.250	0.000	2996.1	1.252	0.000	3052.1	1.248	0.000	3273.4	1.250	0.000
1239.4	1.252	0.000	1296.3	1.264	0.000	1353.2	1.247	0.000	1618.4	1.250	0.000	2757.4	1.250	0.000	2997.1	1.252	0.000	3053.1	1.248	0.000	3292.7	1.250	0.000
1240.3	1.252	0.000	1297.2	1.265	0.002	1354.1	1.247	0.000	1637.7	1.250	0.000	2776.7	1.250	0.000	2998.1	1.252	0.000	3054.0	1.248	0.000	3318.8	1.250	0.000
1241.3	1.252	0.000	1298.2	1.267	0.002	1355.1	1.247	0.000	1657.0	1.250	0.000	2796.0	1.250	0.000	2999.0	1.252	0.000	3055.0	1.248	0.000	3338.1	1.250	0.000
1242.2	1.252	0.000	1299.2	1.271	0.004	1356.1	1.248	0.000	1676.3	1.250	0.000	2815.3	1.250	0.000	3000.0	1.252	0.000	3055.9	1.248	0.000	3357.3	1.250	0.000
1243.2	1.252	0.000	1300.1	1.273	0.006	1357.0	1.248	0.000	1695.6	1.250	0.000	2834.6	1.250	0.000	3001.0	1.252	0.000	3056.9	1.248	0.000	3376.6	1.250	0.000
1244.2	1.252	0.000	1301.1	1.276	0.010	1358.0	1.248	0.000	1714.8	1.250	0.000	2853.9	1.250	0.000	3001.9	1.252	0.000	3057.9	1.248	0.000	3395.9	1.250	0.000
1245.1	1.252	0.000	1302.0	1.277	0.017	1358.9	1.248	0.000	1734.1	1.250	0.000	2873.2	1.250	0.000	3002.9	1.253	0.000	3058.8	1.248	0.000			
1246.1	1.252	0.000	1303.0	1.280	0.024	1359.9	1.248	0.000	1753.4	1.250	0.000	2892.5	1.250	0.000	3003.9	1.253	0.000	3059.8	1.248	0.000			
1247.1	1.252	0.000	1304.0	1.280	0.036	1360.9	1.248	0.000	1772.7	1.250	0.000												

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TABLE 18C

O_2:CH_4 = 20:1 AT 30 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
1018.5	1.251	0.000	1248.0	1.252	0.000	1304.9	1.238	0.037	1361.8	1.248	0.000	1792.0	1.250	0.000	2911.8	1.250	0.000	3004.8	1.254	0.002	3060.8	1.249	0.000
1037.8	1.251	0.000	1249.0	1.252	0.000	1305.9	1.233	0.031	1362.8	1.248	0.000	1811.3	1.250	0.000	2931.0	1.251	0.000	3005.8	1.254	0.003	3061.7	1.249	0.000
1057.1	1.251	0.000	1250.0	1.252	0.000	1306.9	1.230	0.022	1363.8	1.248	0.000	1830.6	1.250	0.000	2950.8	1.251	0.000	3006.8	1.255	0.003	3062.7	1.249	0.000
1076.4	1.251	0.000	1250.9	1.252	0.000	1307.8	1.229	0.015	1364.7	1.248	0.000	1849.9	1.250	0.000	2951.8	1.251	0.000	3007.7	1.254	0.004	3063.7	1.249	0.000
1095.6	1.251	0.000	1251.9	1.252	0.000	1308.8	1.231	0.010	1365.7	1.248	0.000	1869.2	1.250	0.000	2952.7	1.251	0.000	3008.7	1.254	0.004	3064.6	1.249	0.000
1119.3	1.251	0.000	1252.9	1.252	0.000	1309.8	1.233	0.007	1366.7	1.248	0.000	1888.4	1.250	0.000	2953.7	1.251	0.000	3009.7	1.254	0.005	3065.6	1.249	0.000
1138.6	1.251	0.000	1253.8	1.252	0.000	1310.7	1.235	0.005	1367.6	1.248	0.000	1907.7	1.250	0.000	2954.7	1.251	0.000	3010.6	1.254	0.006	3066.6	1.249	0.000
1157.9	1.251	0.000	1254.8	1.252	0.000	1311.7	1.236	0.004	1368.6	1.248	0.000	1927.0	1.250	0.000	2955.6	1.251	0.000	3011.6	1.253	0.006	3067.5	1.249	0.000
1177.1	1.251	0.000	1255.8	1.252	0.000	1312.7	1.238	0.003	1369.6	1.248	0.000	1946.3	1.250	0.000	2956.6	1.251	0.000	3012.5	1.252	0.007	3068.5	1.249	0.000
1196.4	1.251	0.000	1256.7	1.252	0.000	1313.6	1.239	0.003	1370.5	1.248	0.000	1965.6	1.250	0.000	2957.6	1.251	0.000	3013.5	1.252	0.007	3069.4	1.249	0.000
1200.8	1.251	0.000	1257.7	1.253	0.000	1314.6	1.240	0.002	1371.5	1.248	0.000	1984.9	1.250	0.000	2958.5	1.251	0.000	3014.5	1.251	0.007	3070.4	1.249	0.000
1201.7	1.251	0.000	1258.6	1.253	0.000	1315.5	1.240	0.002	1372.5	1.248	0.000	2004.2	1.250	0.000	2959.5	1.251	0.000	3015.4	1.250	0.007	3071.4	1.249	0.000
1202.7	1.251	0.000	1259.6	1.253	0.000	1316.5	1.241	0.002	1373.4	1.248	0.000	2023.5	1.250	0.000	2960.5	1.251	0.000	3016.4	1.250	0.006	3072.3	1.249	0.000
1203.7	1.251	0.000	1260.6	1.253	0.000	1317.5	1.242	0.002	1374.4	1.248	0.000	2042.8	1.250	0.000	2961.4	1.251	0.000	3017.4	1.249	0.006	3073.3	1.249	0.000
1204.6	1.251	0.000	1261.5	1.253	0.000	1318.4	1.242	0.001	1375.3	1.248	0.000	2062.1	1.250	0.000	2962.4	1.251	0.000	3018.3	1.248	0.006	3074.3	1.249	0.000
1205.6	1.251	0.000	1262.5	1.253	0.000	1319.4	1.243	0.001	1376.3	1.248	0.000	2081.3	1.250	0.000	2963.4	1.251	0.000	3019.3	1.248	0.006	3075.2	1.249	0.000
1206.6	1.251	0.000	1263.5	1.253	0.000	1320.4	1.243	0.001	1377.3	1.248	0.000	2100.6	1.250	0.000	2964.3	1.251	0.000	3020.3	1.249	0.005	3076.2	1.249	0.000
1207.5	1.251	0.000	1264.4	1.253	0.000	1321.3	1.243	0.000	1378.2	1.248	0.000	2119.9	1.250	0.000	2965.3	1.251	0.000	3021.2	1.248	0.005	3077.2	1.249	0.000
1208.5	1.251	0.000	1265.4	1.253	0.000	1322.3	1.244	0.001	1379.2	1.248	0.000	2139.2	1.250	0.000	2966.3	1.251	0.000	3022.2	1.248	0.005	3078.1	1.249	0.000
1209.5	1.251	0.000	1266.4	1.253	0.000	1323.3	1.244	0.000	1380.2	1.248	0.000	2158.5	1.250	0.000	2967.2	1.251	0.000	3023.2	1.248	0.004	3079.1	1.249	0.000
1210.4	1.251	0.000	1267.3	1.253	0.000	1324.2	1.244	0.000	1381.1	1.248	0.000	2177.8	1.250	0.000	2968.2	1.251	0.000	3024.1	1.248	0.004	3080.1	1.249	0.000
1211.4	1.251	0.000	1268.3	1.253	0.000	1325.2	1.245	0.000	1382.1	1.248	0.000	2197.1	1.250	0.000	2969.1	1.251	0.000	3025.1	1.247	0.004	3081.0	1.249	0.000
1212.3	1.251	0.000	1269.3	1.253	0.000	1326.2	1.245	0.000	1383.1	1.248	0.000	2216.4	1.250	0.000	2970.1	1.251	0.000	3026.0	1.247	0.004	3082.0	1.249	0.000
1213.3	1.251	0.000	1270.2	1.254	0.000	1327.1	1.245	0.000	1384.0	1.249	0.000	2235.7	1.250	0.000	2971.1	1.251	0.000	3027.0	1.247	0.003	3083.0	1.249	0.000
1214.3	1.251	0.000	1271.2	1.254	0.000	1328.1	1.245	0.000	1385.0	1.249	0.000	2254.9	1.250	0.000	2972.0	1.251	0.000	3028.0	1.247	0.003	3083.9	1.249	0.000
1215.2	1.251	0.000	1272.1	1.254	0.000	1329.1	1.245	0.000	1386.0	1.249	0.000	2274.2	1.250	0.000	2973.0	1.251	0.000	3028.9	1.247	0.003	3084.9	1.249	0.000
1216.2	1.251	0.000	1273.1	1.254	0.000	1330.0	1.246	0.000	1386.9	1.249	0.000	2293.5	1.250	0.000	2974.0	1.251	0.000	3029.9	1.247	0.003	3085.8	1.249	0.000
1217.2	1.251	0.000	1274.1	1.254	0.000	1331.0	1.246	0.000	1387.9	1.249	0.000	2312.8	1.250	0.000	2974.9	1.251	0.000	3030.9	1.247	0.002	3086.8	1.249	0.000
1218.1	1.251	0.000	1275.0	1.254	0.000	1331.9	1.246	0.000	1388.8	1.249	0.000	2332.1	1.250	0.000	2975.9	1.251	0.000	3031.8	1.247	0.002	3087.8	1.249	0.000
1219.1	1.251	0.000	1276.0	1.254	0.000	1332.9	1.246	0.000	1389.8	1.249	0.000	2351.4	1.250	0.000	2976.9	1.251	0.000	3032.8	1.247	0.002	3088.7	1.249	0.000
1220.1	1.251	0.000	1277.0	1.255	0.000	1333.9	1.246	0.000	1390.8	1.249	0.000	2370.7	1.250	0.000	2977.8	1.251	0.000	3033.8	1.247	0.002	3089.7	1.249	0.000
1221.0	1.251	0.000	1277.9	1.255	0.000	1334.8	1.246	0.000	1391.7	1.249	0.000	2390.0	1.250	0.000	2978.8	1.251	0.000	3034.7	1.247	0.002	3090.7	1.249	0.000
1222.0	1.251	0.000	1278.9	1.255	0.000	1335.8	1.246	0.000	1392.7	1.249	0.000	2409.3	1.250	0.000	2979.8	1.252	0.000	3035.7	1.247	0.002	3091.6	1.249	0.000
1223.0	1.252	0.000	1279.9	1.255	0.000	1336.8	1.246	0.000	1393.7	1.249	0.000	2428.6	1.250	0.000	2980.7	1.252	0.000	3036.7	1.247	0.001	3092.6	1.249	0.000
1223.9	1.252	0.000	1280.8	1.255	0.000	1337.7	1.247	0.000	1394.6	1.249	0.000	2447.8	1.250	0.000	2981.7	1.252	0.000	3037.6	1.247	0.001	3093.6	1.249	0.000
1224.9	1.252	0.000	1281.8	1.256	0.000	1338.7	1.247	0.000	1395.6	1.249	0.000	2467.1	1.250	0.000	2982.6	1.252	0.000	3038.6	1.247	0.001	3094.5	1.249	0.000
1225.9	1.251	0.000	1282.8	1.256	0.000	1339.7	1.247	0.000	1396.6	1.249	0.000	2486.4	1.250	0.000	2983.6	1.252	0.000	3039.6	1.248	0.001	3095.5	1.249	0.000
1226.8	1.252	0.000	1283.7	1.256	0.000	1340.6	1.247	0.000	1397.5	1.249	0.000	2505.7	1.250	0.000	2984.6	1.252	0.000	3040.5	1.248	0.000	3096.5	1.249	0.000
1227.8	1.252	0.000	1284.7	1.257	0.000	1341.6	1.247	0.000	1398.5	1.249	0.000	2525.0	1.250	0.000	2985.5	1.252	0.000	3041.5	1.248	0.000	3097.4	1.249	0.000
1228.7	1.252	0.000	1285.6	1.257	0.000	1342.6	1.247	0.000	1399.5	1.249	0.000	2544.3	1.250	0.000	2986.5	1.252	0.000	3042.4	1.248	0.000	3098.4	1.249	0.000
1229.7	1.252	0.000	1286.6	1.257	0.000	1343.5	1.247	0.000	1419.2	1.249	0.000	2563.6	1.250	0.000	2987.5	1.252	0.000	3043.4	1.248	0.000	3099.3	1.249	0.000
1230.7	1.252	0.000	1287.6	1.258	0.000	1344.5	1.247	0.000	1438.5	1.249	0.000	2582.9	1.250	0.000	2988.4	1.252	0.000	3044.4	1.248	0.000	3119.1	1.249	0.000
1231.6	1.252	0.000	1288.5	1.258	0.000	1345.4	1.247	0.000	1457.8	1.249	0.000	2602.2	1.250	0.000	2989.4	1.252	0.000	3045.3	1.248	0.000	3138.4	1.250	0.000
1232.6	1.252	0.000	1289.5	1.259	0.000	1346.4	1.247	0.000	1477.1	1.249	0.000	2621.4	1.250	0.000	2990.4	1.252	0.000	3046.3	1.248	0.000	3157.7	1.250	0.000
1233.6	1.251	0.000	1290.5	1.260	0.000	1347.4	1.247	0.000	1496.4	1.249	0.000	2640.7	1.250	0.000	2991.3	1.252	0.000	3047.3	1.248	0.000	3177.0	1.250	0.000
1234.5	1.252	0.000	1291.4	1.260	0.001	1348.3	1.247	0.000	1515.7	1.250	0.000	2660.0	1.250	0.000	2992.3	1.252	0.000	3048.2	1.248	0.000	3196.3	1.250	0.000
1235.5	1.252	0.000	1292.4	1.262	0.002	1349.3	1.247	0.000	1535.0	1.250	0.000	2679.3	1.250	0.000	2993.3	1.252	0.000	3049.2	1.248	0.000	3215.6	1.250	0.000
1236.5	1.252	0.000	1293.4	1.263	0.002	1350.3	1.247	0.000	1554.3	1.250	0.000	2698.6	1.250	0.000	2994.2	1.252	0.000	3050.2	1.248	0.000	3234.9	1.250	0.000
1237.4	1.252	0.000	1294.3	1.264	0.003	1351.2	1.247	0.000	1573.5	1.250	0.000	2718.9	1.250	0.000	2995.2	1.253	0.000	3051.1	1.248	0.000	3254.1	1.250	0.000
1238.4	1.252	0.000	1295.3	1.265	0.004	1352.2	1.248	0.000	1592.8	1.250	0.000	2738.2	1.250	0.000	2996.1	1.253	0.000	3052.1	1.248	0.000	3273.4	1.250	0.000
1239.4	1.252	0.000	1296.3	1.268	0.005	1353.2	1.248	0.000	1618.4	1.250	0.000	2757.4	1.250	0.000	2997.1	1.253	0.000	3053.1	1.248	0.000	3292.7	1.250	0.000
1240.3	1.252	0.000	1297.2	1.269	0.008	1354.1	1.248	0.000	1637.7	1.250	0.000	2776.7	1.250	0.000	2998.1	1.253	0.000	3054.0	1.248	0.000	3318.8	1.250	0.000
1241.3	1.252	0.000	1298.2	1.271	0.012	1355.1	1.248	0.000	1657.0	1.250	0.000	2796.0	1.250	0.000	2999.0	1.253	0.000	3055.0	1.248	0.000	3338.1	1.250	0.000
1242.2	1.252	0.000	1299.2	1.273	0.017	1356.1	1.248	0.000	1676.3	1.250	0.000	2815.3	1.250	0.000	3000.0	1.253	0.001	3055.9	1.248	0.000	3357.3	1.250	0.000
1243.2	1.252	0.000	1300.1	1.269	0.023	1357.0	1.248	0.000	1695.6	1.250	0.000	2834.6	1.250	0.000	3001.0	1.253	0.001	3056.9	1.249	0.000	3376.6	1.250	0.000
1244.2	1.252	0.000	1301.1	1.265	0.028	1358.0	1.248	0.000	1714.8	1.250	0.000	2853.9	1.250	0.000	3001.9	1.253	0.001	3057.9	1.249	0.000	3395.9	1.250	0.000
1245.1	1.252	0.000	1302.0	1.258	0.032	1358.9	1.248	0.000	1734.1	1.250	0.000	2873.2	1.250	0.000	3002.9	1.254	0.002	3058.8	1.249	0.000			
1246.1	1.252	0.000	1303.0	1.255	0.034	1359.9	1.248	0.000	1753.4	1.250	0.000	2892.5	1.250	0.000	3003.9	1.254	0.002	3059.8	1.249	0.000			
1247.1	1.252	0.000	1304.0	1.249	0.036	1360.9	1.248	0.000	1772.7	1.250	0.000												

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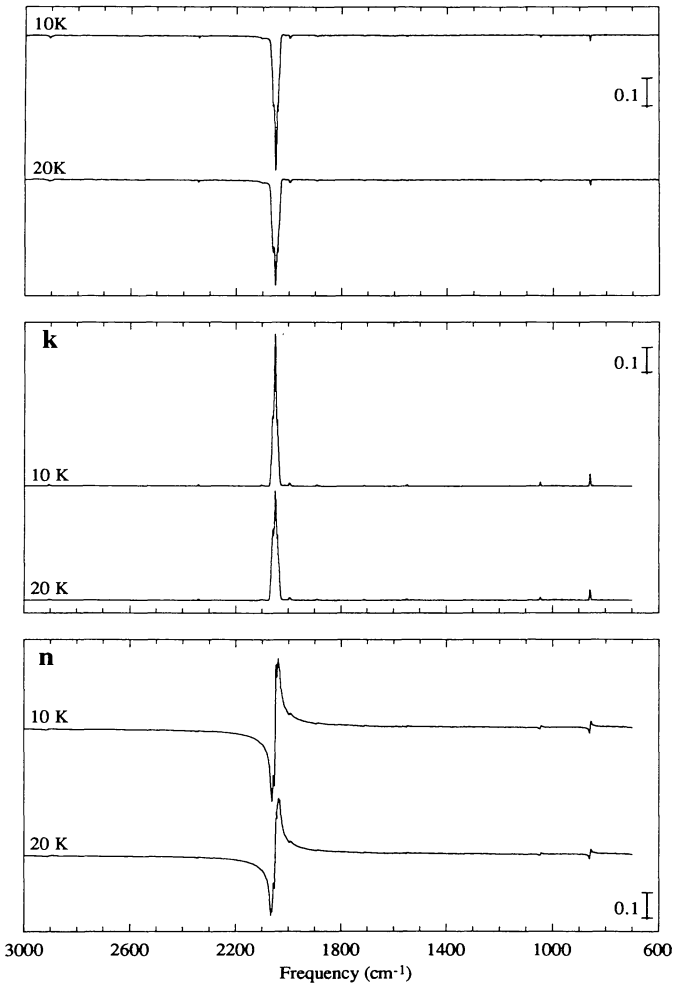

FIG. 19.—The 3000 to 600 cm^{-1} transmission spectra and optical constants (n and k) of an O_2:OCS = 20:1 ice mixture at temperatures of 10 and 20 K. The original ice was deposited at 10 K.

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TABLE 19A

O_2:OCS = 20:1 AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
703.1	1.253	0.000	865.1	1.240	0.001	1216.2	1.255	0.000	1671.4	1.258	0.000	1957.9	1.284	0.001	2069.8	1.034	0.029	2181.6	1.227	0.000	2578.0	1.245	0.000
707.0	1.254	0.000	867.1	1.246	0.000	1223.9	1.255	0.000	1679.2	1.259	0.000	1959.8	1.284	0.001	2071.7	1.062	0.010	2183.6	1.227	0.000	2585.8	1.245	0.000
710.8	1.253	0.000	869.0	1.248	0.002	1231.6	1.254	0.000	1686.9	1.259	0.000	1961.7	1.285	0.001	2073.6	1.086	0.001	2185.5	1.228	0.000	2593.5	1.245	0.000
714.7	1.254	0.000	870.9	1.249	0.002	1239.4	1.255	0.000	1694.6	1.259	0.000	1963.7	1.286	0.001	2075.6	1.107	0.000	2187.4	1.228	0.000	2601.2	1.245	0.000
718.5	1.254	0.000	872.9	1.250	0.000	1247.1	1.255	0.000	1702.3	1.260	0.000	1965.6	1.286	0.000	2077.5	1.122	0.000	2189.4	1.228	0.000	2608.9	1.245	0.000
722.4	1.255	0.000	874.8	1.251	0.000	1254.8	1.255	0.000	1710.0	1.261	0.002	1967.5	1.287	0.002	2079.4	1.134	0.000	2191.3	1.228	0.000	2616.6	1.245	0.000
726.3	1.255	0.000	876.7	1.252	0.000	1262.5	1.254	0.000	1717.7	1.258	0.001	1969.5	1.288	0.000	2081.3	1.143	0.000	2193.2	1.229	0.000	2624.3	1.245	0.000
730.1	1.255	0.000	878.6	1.252	0.000	1270.2	1.255	0.000	1725.4	1.259	0.000	1971.4	1.289	0.000	2083.3	1.151	0.000	2195.2	1.229	0.000	2632.1	1.245	0.000
734.0	1.255	0.000	880.6	1.252	0.000	1277.9	1.256	0.000	1733.2	1.260	0.000	1973.3	1.291	0.001	2085.2	1.158	0.000	2197.1	1.230	0.000	2639.8	1.245	0.000
737.8	1.256	0.000	882.5	1.252	0.001	1285.6	1.255	0.000	1740.9	1.261	0.000	1975.3	1.292	0.001	2087.1	1.163	0.000	2199.0	1.230	0.000	2647.5	1.245	0.000
741.7	1.254	0.000	884.4	1.252	0.001	1293.4	1.255	0.000	1748.6	1.261	0.000	1977.2	1.293	0.001	2089.1	1.169	0.000	2207.7	1.231	0.000	2655.2	1.245	0.000
745.5	1.254	0.000	886.4	1.252	0.001	1301.1	1.255	0.001	1756.3	1.261	0.000	1979.1	1.294	0.001	2091.0	1.173	0.001	2215.4	1.232	0.000	2662.9	1.245	0.000
749.4	1.256	0.000	888.3	1.253	0.002	1308.8	1.255	0.000	1764.0	1.262	0.000	1981.0	1.295	0.001	2092.9	1.177	0.002	2223.1	1.233	0.000	2670.6	1.246	0.000
753.3	1.256	0.000	890.2	1.252	0.000	1316.5	1.255	0.000	1771.7	1.262	0.000	1983.0	1.297	0.002	2094.8	1.180	0.002	2230.8	1.234	0.000	2678.4	1.245	0.000
757.1	1.256	0.000	892.1	1.253	0.002	1324.2	1.255	0.001	1779.5	1.262	0.000	1984.9	1.298	0.002	2096.8	1.184	0.002	2238.6	1.234	0.000	2686.1	1.245	0.000
761.0	1.256	0.000	894.1	1.253	0.002	1331.9	1.255	0.000	1787.2	1.263	0.000	1986.8	1.301	0.002	2098.7	1.186	0.003	2246.3	1.235	0.000	2693.8	1.246	0.000
764.8	1.256	0.000	896.0	1.254	0.000	1339.7	1.256	0.000	1794.9	1.263	0.001	1988.8	1.303	0.002	2100.6	1.189	0.003	2254.0	1.236	0.000	2701.5	1.246	0.000
768.7	1.256	0.000	897.9	1.254	0.002	1347.4	1.256	0.000	1802.6	1.264	0.000	1990.7	1.306	0.003	2102.6	1.190	0.004	2261.7	1.236	0.000	2709.2	1.246	0.000
772.6	1.256	0.000	899.9	1.253	0.000	1355.1	1.255	0.001	1810.3	1.264	0.000	1992.6	1.308	0.006	2104.5	1.191	0.004	2269.4	1.236	0.000	2716.9	1.246	0.000
776.4	1.255	0.000	907.6	1.254	0.001	1362.8	1.255	0.000	1818.0	1.264	0.000	1994.5	1.308	0.010	2106.4	1.192	0.003	2277.1	1.237	0.000	2724.6	1.246	0.000
780.3	1.256	0.000	915.3	1.254	0.002	1370.5	1.255	0.000	1825.8	1.265	0.000	1996.5	1.307	0.013	2108.3	1.194	0.001	2284.8	1.238	0.000	2732.4	1.246	0.000
784.1	1.256	0.002	923.0	1.255	0.000	1378.2	1.255	0.000	1833.5	1.265	0.000	1998.4	1.303	0.012	2110.3	1.196	0.000	2292.6	1.238	0.000	2740.1	1.246	0.000
788.0	1.256	0.000	930.7	1.255	0.000	1386.0	1.256	0.000	1841.2	1.266	0.000	2000.3	1.303	0.006	2112.2	1.198	0.000	2300.3	1.238	0.000	2747.8	1.246	0.000
791.8	1.257	0.000	938.4	1.255	0.001	1393.7	1.256	0.000	1848.9	1.266	0.000	2002.3	1.307	0.003	2114.1	1.200	0.000	2308.0	1.239	0.000	2755.5	1.246	0.000
795.7	1.256	0.000	946.2	1.255	0.002	1401.4	1.256	0.000	1856.6	1.267	0.000	2004.2	1.312	0.002	2116.1	1.202	0.000	2315.7	1.240	0.000	2763.2	1.246	0.000
799.6	1.256	0.000	953.9	1.254	0.000	1409.1	1.256	0.000	1864.3	1.268	0.000	2006.1	1.315	0.002	2118.0	1.203	0.000	2323.4	1.240	0.000	2770.9	1.246	0.000
801.5	1.256	0.000	961.6	1.254	0.001	1416.8	1.256	0.000	1872.1	1.269	0.001	2008.0	1.319	0.002	2119.9	1.204	0.000	2331.1	1.240	0.000	2778.7	1.246	0.000
803.4	1.255	0.001	969.3	1.255	0.002	1424.5	1.256	0.000	1879.8	1.269	0.000	2010.0	1.323	0.003	2121.9	1.206	0.000	2338.9	1.242	0.000	2786.4	1.246	0.000
805.3	1.256	0.001	977.0	1.254	0.002	1432.2	1.256	0.000	1887.5	1.271	0.003	2011.9	1.327	0.004	2123.8	1.207	0.000	2346.6	1.238	0.000	2794.1	1.246	0.000
807.3	1.256	0.000	984.7	1.253	0.000	1440.0	1.256	0.000	1895.2	1.268	0.004	2013.8	1.330	0.004	2125.7	1.208	0.000	2354.3	1.240	0.000	2801.8	1.246	0.000
809.2	1.256	0.002	992.5	1.254	0.003	1447.7	1.256	0.000	1901.9	1.269	0.000	2015.8	1.335	0.004	2127.6	1.209	0.000	2362.0	1.240	0.001	2809.5	1.246	0.000
811.1	1.256	0.000	1000.2	1.254	0.002	1455.4	1.256	0.000	1903.9	1.270	0.001	2017.7	1.340	0.003	2129.6	1.211	0.000	2369.7	1.240	0.000	2817.2	1.246	0.000
813.1	1.257	0.000	1007.9	1.253	0.002	1463.1	1.256	0.000	1905.8	1.271	0.000	2019.6	1.347	0.002	2131.5	1.212	0.000	2377.4	1.241	0.000	2825.0	1.246	0.000
815.0	1.257	0.000	1015.6	1.254	0.000	1470.8	1.257	0.000	1907.7	1.271	0.000	2021.5	1.355	0.002	2133.4	1.213	0.000	2385.2	1.241	0.000	2832.7	1.247	0.000
816.9	1.257	0.000	1023.3	1.254	0.001	1478.5	1.257	0.000	1909.7	1.272	0.000	2023.5	1.364	0.003	2135.4	1.214	0.000	2392.9	1.241	0.000	2840.4	1.247	0.000
818.8	1.257	0.000	1031.0	1.254	0.000	1486.3	1.257	0.000	1911.6	1.272	0.000	2025.4	1.375	0.003	2137.3	1.214	0.000	2400.6	1.242	0.000	2848.1	1.247	0.000
820.8	1.256	0.000	1038.7	1.256	0.000	1494.0	1.257	0.000	1913.5	1.272	0.000	2027.3	1.388	0.004	2139.2	1.215	0.000	2408.3	1.242	0.000	2855.8	1.247	0.000
822.7	1.258	0.000	1046.5	1.253	0.016	1501.7	1.257	0.000	1915.5	1.273	0.000	2029.3	1.407	0.005	2141.1	1.216	0.000	2416.0	1.242	0.000	2863.5	1.247	0.000
824.6	1.257	0.000	1054.2	1.250	0.000	1509.4	1.257	0.000	1917.4	1.273	0.000	2031.2	1.430	0.012	2143.1	1.217	0.000	2423.7	1.242	0.000	2871.2	1.247	0.000
826.6	1.257	0.000	1061.9	1.253	0.000	1517.1	1.257	0.000	1919.3	1.273	0.001	2033.1	1.456	0.028	2145.0	1.218	0.000	2431.4	1.242	0.000	2879.0	1.248	0.000
828.5	1.256	0.000	1069.6	1.253	0.000	1524.8	1.257	0.001	1921.2	1.274	0.001	2035.0	1.481	0.060	2146.9	1.218	0.000	2439.2	1.243	0.000	2886.7	1.248	0.000
830.4	1.258	0.000	1077.3	1.253	0.001	1532.6	1.257	0.000	1923.2	1.274	0.001	2037.0	1.504	0.100	2148.9	1.219	0.000	2446.9	1.243	0.000	2894.4	1.249	0.000
832.3	1.257	0.000	1085.0	1.253	0.000	1540.3	1.258	0.000	1925.1	1.274	0.000	2038.9	1.508	0.137	2150.8	1.219	0.000	2454.6	1.242	0.000	2902.1	1.248	0.002
834.3	1.258	0.000	1092.8	1.253	0.000	1548.0	1.260	0.005	1927.0	1.275	0.000	2040.8	1.513	0.201	2152.7	1.220	0.000	2462.3	1.243	0.000	2909.8	1.244	0.003
836.2	1.259	0.000	1100.5	1.253	0.000	1555.7	1.256	0.001	1929.0	1.275	0.000	2042.8	1.485	0.266	2154.6	1.220	0.000	2470.0	1.243	0.000	2917.5	1.245	0.000
838.1	1.259	0.000	1108.2	1.253	0.000	1563.4	1.257	0.000	1930.9	1.276	0.000	2044.7	1.470	0.243	2156.6	1.221	0.000	2477.7	1.243	0.000	2925.3	1.246	0.000
840.1	1.259	0.000	1115.9	1.254	0.000	1571.1	1.257	0.000	1932.8	1.276	0.000	2046.6	1.490	0.316	2158.5	1.222	0.000	2485.5	1.243	0.000	2933.0	1.246	0.000
842.0	1.260	0.000	1123.6	1.254	0.000	1578.8	1.257	0.001	1934.7	1.277	0.000	2048.6	1.495	0.459	2160.4	1.222	0.000	2493.2	1.243	0.000	2940.7	1.247	0.000
843.9	1.260	0.000	1131.3	1.253	0.000	1586.6	1.257	0.000	1936.7	1.277	0.000	2050.5	1.346	0.596	2162.4	1.223	0.000	2500.9	1.243	0.000	2948.4	1.247	0.000
845.9	1.261	0.000	1139.0	1.254	0.000	1594.3	1.258	0.002	1938.6	1.278	0.001	2052.4	1.128	0.552	2164.3	1.223	0.000	2508.6	1.244	0.000	2956.1	1.247	0.000
847.8	1.262	0.000	1146.8	1.254	0.000	1602.0	1.257	0.002	1940.5	1.278	0.001	2054.3	1.021	0.403	2166.2	1.224	0.000	2516.3	1.244	0.000	2963.8	1.248	0.000
849.7	1.262	0.003	1154.5	1.254	0.000	1609.7	1.257	0.001	1942.5	1.279	0.001	2056.3	1.051	0.297	2168.1	1.224	0.000	2524.0	1.244	0.000	2971.6	1.248	0.000
851.6	1.263	0.001	1162.2	1.254	0.001	1617.4	1.257	0.000	1944.4	1.279	0.001	2058.2	1.056	0.268	2170.1	1.224	0.000	2531.8	1.244	0.000	2979.3	1.248	0.000
853.6	1.266	0.001	1169.9	1.254	0.000	1625.1	1.257	0.000	1946.3	1.280	0.000	2060.1	1.028	0.279	2172.0	1.225	0.000	2539.5	1.244	0.000	2987.0	1.248	0.000
855.5	1.273	0.004	1177.6	1.254	0.000	1632.9	1.258	0.001	1948.2	1.280	0.001	2062.1	0.991	0.239	2173.9	1.226	0.000	2547.2	1.244	0.000	2994.7	1.248	0.000
857.4	1.278	0.018	1185.3	1.254	0.000	1640.6	1.257	0.001	1950.2	1.281	0.000	2064.0	0.980	0.152	2175.9	1.226	0.000	2554.9	1.244	0.000			
859.4	1.264	0.047	1193.1	1.255	0.000	1648.3	1.257	0.000	1952.1	1.281	0.000	2065.9	0.991	0.105	2177.8	1.226	0.000	2562.6	1.244	0.000			
861.3	1.234	0.033	1200.8	1.254	0.000	1656.0	1.257	0.000	1954.0	1.282	0.000	2067.8	1.003	0.063	2179.7	1.227	0.000	2570.3	1.244	0.000			
863.2	1.234	0.008	1208.5	1.254	0.000	1663.7	1.258	0.000	1956.0	1.283	0.000												

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TABLE 19B

O_2:OCS = 20:1 AT 20 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
703.1	1.252	0.000	865.1	1.242	0.000	1216.2	1.254	0.000	1671.4	1.258	0.000	1957.9	1.282	0.000	2069.8	1.031	0.062	2181.6	1.228	0.000	2578.0	1.244	0.000
707.0	1.253	0.000	867.1	1.246	0.001	1223.9	1.254	0.000	1679.2	1.258	0.000	1959.8	1.282	0.000	2071.7	1.052	0.028	2183.6	1.229	0.000	2585.8	1.245	0.000
710.8	1.254	0.000	869.0	1.248	0.001	1231.6	1.254	0.000	1686.9	1.259	0.000	1961.7	1.283	0.001	2073.6	1.079	0.008	2185.5	1.229	0.000	2593.5	1.245	0.000
714.7	1.253	0.000	870.9	1.249	0.000	1239.4	1.255	0.000	1694.6	1.259	0.000	1963.7	1.284	0.001	2075.6	1.104	0.003	2187.4	1.229	0.000	2601.2	1.245	0.000
718.5	1.255	0.000	872.9	1.251	0.000	1247.1	1.255	0.000	1702.3	1.260	0.000	1965.6	1.284	0.001	2077.5	1.121	0.000	2189.4	1.229	0.000	2608.9	1.245	0.000
722.4	1.254	0.000	874.8	1.251	0.000	1254.8	1.255	0.000	1710.0	1.260	0.002	1967.5	1.285	0.001	2079.4	1.134	0.000	2191.3	1.229	0.000	2616.6	1.245	0.000
726.3	1.255	0.000	876.7	1.251	0.002	1262.5	1.255	0.000	1717.7	1.258	0.000	1969.5	1.286	0.000	2081.3	1.144	0.000	2193.2	1.230	0.000	2624.3	1.245	0.000
730.1	1.256	0.000	878.6	1.252	0.000	1270.2	1.255	0.000	1725.4	1.258	0.000	1971.4	1.287	0.000	2083.3	1.153	0.000	2195.1	1.230	0.000	2632.1	1.245	0.000
734.0	1.255	0.000	880.6	1.252	0.000	1277.9	1.255	0.000	1733.2	1.259	0.000	1973.3	1.288	0.000	2085.2	1.160	0.001	2197.1	1.231	0.000	2639.8	1.245	0.000
737.8	1.255	0.000	882.5	1.253	0.000	1285.6	1.255	0.000	1740.9	1.260	0.000	1975.3	1.290	0.000	2087.1	1.166	0.001	2199.0	1.231	0.000	2647.5	1.245	0.000
741.7	1.256	0.000	884.4	1.253	0.000	1293.4	1.255	0.000	1748.6	1.260	0.000	1977.2	1.291	0.001	2089.1	1.171	0.002	2207.7	1.232	0.000	2655.2	1.245	0.000
745.5	1.256	0.000	886.4	1.253	0.000	1301.1	1.254	0.000	1756.3	1.261	0.000	1979.1	1.292	0.001	2091.0	1.175	0.002	2215.4	1.233	0.000	2662.9	1.246	0.000
749.4	1.255	0.000	888.3	1.253	0.000	1308.8	1.255	0.000	1764.0	1.261	0.000	1981.0	1.293	0.001	2092.9	1.179	0.002	2223.1	1.234	0.000	2670.6	1.246	0.000
753.3	1.255	0.000	890.2	1.253	0.001	1316.5	1.255	0.000	1771.7	1.262	0.000	1983.0	1.295	0.001	2094.8	1.183	0.002	2230.8	1.235	0.000	2678.4	1.246	0.000
757.1	1.255	0.000	892.1	1.253	0.001	1324.2	1.255	0.000	1779.5	1.262	0.000	1984.9	1.296	0.002	2096.8	1.186	0.003	2238.6	1.235	0.000	2686.1	1.246	0.000
761.0	1.257	0.000	894.1	1.253	0.001	1331.9	1.255	0.000	1787.2	1.262	0.000	1986.8	1.298	0.002	2098.7	1.188	0.003	2246.3	1.236	0.000	2693.8	1.246	0.000
764.8	1.256	0.000	896.0	1.253	0.002	1339.7	1.255	0.000	1794.9	1.262	0.000	1988.8	1.301	0.003	2100.6	1.191	0.004	2254.0	1.237	0.000	2701.5	1.246	0.000
768.7	1.256	0.000	897.9	1.253	0.002	1347.4	1.255	0.000	1802.6	1.263	0.000	1990.7	1.303	0.005	2102.6	1.192	0.004	2261.7	1.237	0.000	2709.2	1.246	0.000
772.6	1.256	0.000	899.9	1.253	0.000	1355.1	1.255	0.000	1810.3	1.263	0.000	1992.6	1.304	0.007	2104.5	1.193	0.004	2269.4	1.237	0.000	2716.9	1.246	0.000
776.4	1.256	0.000	907.6	1.254	0.000	1362.8	1.255	0.000	1818.0	1.263	0.000	1994.5	1.303	0.010	2106.4	1.194	0.002	2277.1	1.238	0.000	2724.6	1.246	0.000
780.3	1.255	0.000	915.3	1.254	0.000	1370.5	1.255	0.000	1825.8	1.264	0.001	1996.5	1.302	0.011	2108.3	1.197	0.001	2284.8	1.238	0.000	2732.4	1.246	0.000
784.1	1.256	0.000	923.0	1.254	0.002	1378.2	1.255	0.000	1833.5	1.264	0.000	1998.4	1.300	0.009	2110.3	1.199	0.000	2292.6	1.239	0.000	2740.1	1.246	0.000
788.0	1.255	0.001	930.7	1.254	0.000	1386.0	1.255	0.000	1841.2	1.265	0.000	2000.3	1.301	0.005	2112.2	1.201	0.000	2300.3	1.239	0.000	2747.8	1.246	0.000
791.8	1.255	0.000	938.4	1.254	0.000	1393.7	1.256	0.000	1848.9	1.265	0.000	2002.3	1.305	0.002	2114.1	1.202	0.001	2308.0	1.240	0.000	2755.5	1.246	0.000
795.7	1.256	0.000	946.2	1.254	0.001	1401.4	1.256	0.000	1856.6	1.265	0.000	2004.2	1.309	0.002	2116.1	1.204	0.000	2315.7	1.240	0.000	2763.2	1.246	0.000
799.6	1.256	0.000	953.9	1.255	0.002	1409.1	1.255	0.000	1864.3	1.267	0.000	2006.1	1.313	0.002	2118.0	1.205	0.000	2323.4	1.240	0.000	2770.9	1.246	0.000
801.5	1.256	0.000	961.6	1.254	0.002	1416.8	1.256	0.000	1872.1	1.268	0.000	2008.0	1.316	0.002	2119.9	1.207	0.000	2331.1	1.241	0.000	2778.7	1.246	0.000
803.4	1.256	0.000	969.3	1.253	0.001	1424.5	1.256	0.000	1879.8	1.269	0.001	2010.0	1.320	0.003	2121.9	1.208	0.000	2338.9	1.242	0.000	2786.4	1.246	0.000
805.3	1.256	0.000	977.0	1.254	0.002	1432.2	1.256	0.000	1887.5	1.270	0.002	2011.9	1.324	0.004	2123.8	1.209	0.000	2346.6	1.239	0.000	2794.1	1.246	0.000
807.3	1.255	0.000	984.7	1.254	0.002	1440.0	1.255	0.000	1895.2	1.267	0.004	2013.8	1.327	0.004	2125.7	1.210	0.000	2354.3	1.240	0.000	2801.8	1.247	0.000
809.2	1.257	0.000	992.5	1.253	0.000	1447.7	1.256	0.000	1901.9	1.269	0.001	2015.8	1.332	0.003	2127.6	1.211	0.000	2362.0	1.241	0.001	2809.5	1.247	0.000
811.1	1.255	0.000	1000.2	1.253	0.001	1455.4	1.256	0.000	1903.9	1.269	0.001	2017.7	1.337	0.002	2129.6	1.212	0.000	2369.7	1.241	0.000	2817.2	1.247	0.000
813.1	1.256	0.001	1007.9	1.253	0.002	1463.1	1.256	0.000	1905.8	1.269	0.001	2019.6	1.344	0.003	2131.5	1.214	0.000	2377.4	1.241	0.000	2825.0	1.246	0.000
815.0	1.256	0.000	1015.6	1.253	0.000	1470.8	1.257	0.000	1907.7	1.269	0.001	2021.5	1.352	0.003	2133.4	1.215	0.000	2385.2	1.241	0.000	2832.7	1.247	0.000
816.9	1.256	0.002	1023.3	1.254	0.001	1478.5	1.257	0.000	1909.7	1.270	0.000	2023.5	1.362	0.003	2135.4	1.215	0.000	2392.9	1.241	0.000	2840.4	1.247	0.000
818.8	1.256	0.000	1031.0	1.253	0.002	1486.3	1.257	0.000	1911.6	1.271	0.000	2025.4	1.373	0.004	2137.3	1.216	0.000	2400.6	1.242	0.000	2848.1	1.247	0.000
820.8	1.257	0.000	1038.7	1.255	0.002	1494.0	1.256	0.000	1913.5	1.271	0.000	2027.3	1.388	0.006	2139.2	1.216	0.000	2408.3	1.242	0.000	2855.8	1.247	0.000
822.7	1.257	0.000	1046.5	1.251	0.012	1501.7	1.257	0.001	1915.5	1.272	0.000	2029.3	1.409	0.011	2141.1	1.217	0.000	2416.0	1.242	0.000	2863.5	1.247	0.000
824.6	1.257	0.000	1054.2	1.251	0.000	1509.4	1.257	0.000	1917.4	1.272	0.000	2031.2	1.433	0.025	2143.1	1.218	0.000	2423.7	1.242	0.000	2871.2	1.247	0.000
826.6	1.257	0.000	1061.9	1.252	0.000	1517.1	1.257	0.000	1919.3	1.272	0.000	2033.1	1.453	0.053	2145.0	1.219	0.000	2431.4	1.243	0.000	2879.0	1.248	0.000
828.5	1.257	0.000	1069.6	1.253	0.000	1524.8	1.257	0.001	1921.2	1.272	0.000	2035.0	1.464	0.093	2146.9	1.220	0.000	2439.2	1.243	0.000	2886.7	1.248	0.000
830.4	1.257	0.000	1077.3	1.253	0.000	1532.6	1.257	0.000	1923.2	1.273	0.001	2037.0	1.473	0.132	2148.9	1.220	0.000	2446.9	1.243	0.000	2894.4	1.249	0.001
832.3	1.257	0.000	1085.0	1.253	0.000	1540.3	1.257	0.000	1925.1	1.273	0.001	2038.9	1.462	0.163	2150.8	1.221	0.000	2454.6	1.243	0.000	2902.1	1.248	0.002
834.3	1.258	0.000	1092.8	1.253	0.000	1548.0	1.259	0.003	1927.0	1.273	0.001	2040.8	1.453	0.207	2152.7	1.221	0.000	2462.3	1.243	0.000	2909.8	1.245	0.002
836.2	1.257	0.001	1100.5	1.253	0.000	1555.7	1.256	0.001	1929.0	1.273	0.000	2042.8	1.430	0.257	2154.6	1.222	0.000	2470.0	1.243	0.000	2917.5	1.246	0.000
838.1	1.259	0.000	1108.2	1.253	0.000	1563.4	1.256	0.001	1930.9	1.274	0.000	2044.7	1.403	0.243	2156.6	1.223	0.000	2477.7	1.244	0.000	2925.3	1.246	0.000
840.1	1.258	0.001	1115.9	1.253	0.000	1571.1	1.257	0.000	1932.8	1.275	0.000	2046.6	1.393	0.290	2158.5	1.223	0.000	2485.5	1.244	0.000	2933.0	1.247	0.000
842.0	1.260	0.000	1123.6	1.253	0.000	1578.8	1.257	0.000	1934.7	1.275	0.000	2048.6	1.391	0.348	2160.4	1.224	0.000	2493.2	1.244	0.000	2940.7	1.247	0.000
843.9	1.259	0.002	1131.3	1.254	0.000	1586.6	1.257	0.001	1936.7	1.276	0.000	2050.5	1.310	0.426	2162.4	1.224	0.000	2500.9	1.244	0.000	2948.4	1.247	0.000
845.9	1.260	0.002	1139.0	1.254	0.000	1594.3	1.257	0.002	1938.6	1.276	0.000	2052.4	1.179	0.398	2164.3	1.225	0.000	2508.6	1.244	0.000	2956.1	1.247	0.000
847.8	1.260	0.002	1146.8	1.254	0.000	1602.0	1.257	0.002	1940.5	1.277	0.000	2054.3	1.118	0.310	2166.2	1.225	0.000	2516.3	1.244	0.000	2963.8	1.248	0.000
849.7	1.260	0.000	1154.5	1.254	0.000	1609.7	1.257	0.001	1942.5	1.277	0.000	2056.3	1.141	0.262	2168.1	1.225	0.000	2524.0	1.244	0.000	2971.6	1.248	0.000
851.6	1.263	0.000	1162.2	1.253	0.001	1617.4	1.257	0.001	1944.4	1.278	0.001	2058.2	1.134	0.254	2170.1	1.226	0.000	2531.8	1.244	0.000	2979.3	1.248	0.000
853.6	1.266	0.000	1169.9	1.254	0.000	1625.1	1.257	0.002	1946.3	1.278	0.001	2060.1	1.099	0.279	2172.0	1.226	0.000	2539.5	1.244	0.000	2987.0	1.248	0.000
855.5	1.271	0.005	1177.6	1.254	0.000	1632.9	1.257	0.000	1948.2	1.278	0.001	2062.1	1.058	0.249	2173.9	1.227	0.000	2547.2	1.245	0.000	2994.7	1.248	0.000
857.4	1.274	0.019	1185.3	1.253	0.000	1640.6	1.257	0.001	1950.2	1.279	0.001	2064.0	1.040	0.184	2175.9	1.227	0.000	2554.9	1.245	0.000			
859.4	1.259	0.040	1193.1	1.254	0.000	1648.3	1.257	0.001	1952.1	1.279	0.000	2065.9	1.028	0.156	2177.8	1.228	0.000	2562.6	1.245	0.000			
861.3	1.238	0.028	1200.8	1.254	0.000	1656.0	1.257	0.000	1954.0	1.280	0.000	2067.8	1.013	0.112	2179.7	1.228	0.000	2570.3	1.245	0.000			
863.2	1.236	0.007	1208.5	1.254	0.000	1663.7	1.257	0.000	1956.0	1.281	0.000												

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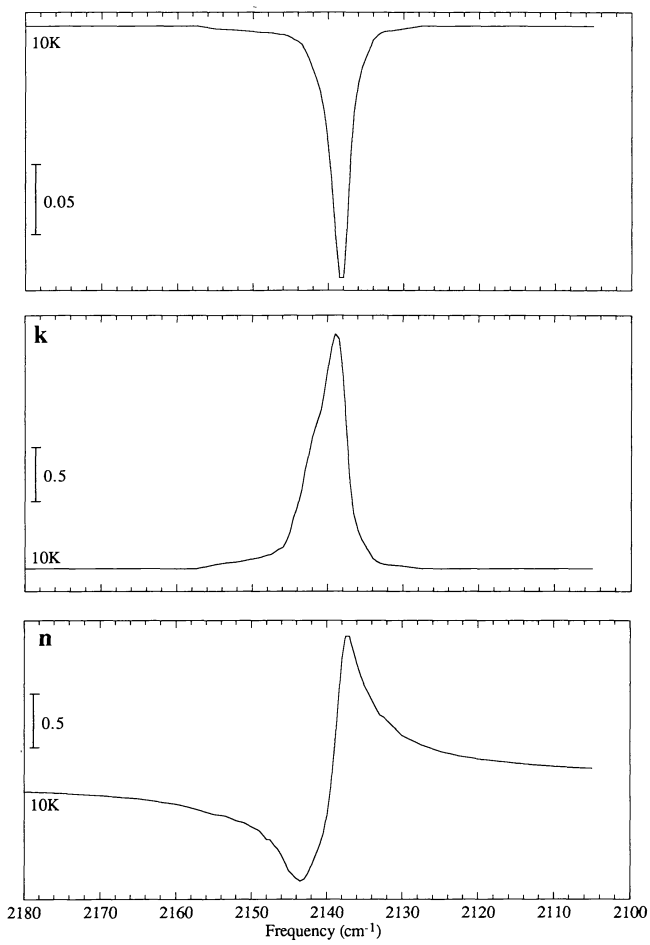

FIG. 20.—The 2180 to 2100 cm^{-1} transmission spectra and optical constants (n and k) of a pure CO ice at a temperature of 10 K.

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TABLE 20

PURE CO AT 10 K

ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k	ν (cm^{-1})	n	k
2105.0	1.415	0.000	2135.5	2.277	0.264	2142.5	0.441	1.034	2151.0	0.908	0.074
2110.0	1.434	0.000	2136.0	2.391	0.347	2143.0	0.386	0.893	2152.0	0.927	0.062
2115.0	1.461	0.000	2136.5	2.526	0.500	2143.5	0.366	0.702	2153.5	0.971	0.051
2120.0	1.502	0.000	2137.0	2.651	0.771	2144.0	0.392	0.553	2155.0	0.988	0.038
2122.5	1.532	0.000	2137.5	2.656	1.255	2144.5	0.423	0.459	2157.5	1.039	0.000
2125.0	1.573	0.000	2138.0	2.444	1.759	2145.0	0.467	0.327	2159.0	1.067	0.000
2127.5	1.634	0.000	2138.5	2.051	2.087	2145.5	0.533	0.250	2160.0	1.083	0.000
2130.0	1.721	0.023	2139.0	1.612	2.135	2146.0	0.602	0.190	2165.0	1.132	0.000
2132.5	1.895	0.040	2139.5	1.239	2.011	2146.5	0.660	0.174	2170.0	1.162	0.000
2133.0	1.912	0.050	2140.0	0.971	1.800	2147.0	0.705	0.150	2175.0	1.183	0.000
2133.5	1.981	0.068	2140.5	0.801	1.593	2147.5	0.751	0.128	2180.0	1.199	0.000
2134.0	2.054	0.094	2141.0	0.698	1.413	2148.0	0.753	0.122	2185.0	1.210	0.000
2134.5	2.123	0.158	2141.5	0.613	1.311	2149.0	0.835	0.101			
2135.0	2.191	0.209	2142.0	0.517	1.193	2150.0	0.875	0.088			

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