



# Technical Note

332

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**CARBON DIOXIDE SPECTRAL LINE POSITIONS AND INTENSITIES  
CALCULATED FOR THE 2.05 AND 2.7 MICRON REGIONS**

**ROBERT F. CALFEE AND WILLIAM S. BENEDICT**



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**U. S. DEPARTMENT OF COMMERCE  
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\* Located at Boulder, Colorado 80301.

\*\* Located at 5285 Port Royal Road, Springfield, Virginia 22171.

# NATIONAL BUREAU OF STANDARDS

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Robert F. Calfee

Institute for Telecommunication Sciences and Aeronomy \*  
Environmental Science Services Administration  
Boulder, Colorado

and

William S. Benedict

Institute for Basic Standards  
National Bureau of Standards  
Washington, D.C.

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CARBON DIOXIDE SPECTRAL LINE  
POSITIONS AND INTENSITIES CALCULATED  
FOR THE 2.05 AND 2.7 MICRON REGIONS

Robert F. Calfee and William S. Benedict

The spectral line positions and intensities for the carbon dioxide bands occurring in the 2.05 and 2.7 micron regions of the infrared spectrum are listed. Lines with intensities down to  $10^{-7}$  cm<sup>-1</sup>/atm cm are listed for a temperature of 296°K.

Key words: 2.05μ, 2.7μ, carbon dioxide, intensities and line positions.

### 1. Introduction

A precise calculation of the infrared absorption by carbon dioxide depends upon a knowledge of the position and strength of the individual lines of the spectrum. The absorption spectrum of carbon dioxide has been obtained in considerable detail by Courtoy (1959). He not only presents spectra of the gas as its isotopes occur in natural abundance, but also includes results of enhancement by certain of the isotopic molecules. Lists of the identification and position of the absorption lines are also tabulated.

However, in order to make quantitative calculations, it is necessary to have values for the intensities of individual lines. Furthermore, in several instances Courtoy does not give an exact value for the position of lines. For these reasons it was necessary to calculate the intensities and positions of the CO<sub>2</sub> lines. This report concerns such calculations for those bands which give rise to absorption in the 2.05 and 2.7μ regions of carbon dioxide.

### 2. Frequencies

In this study centrifugal stretching effects are taken into account in calculating the frequencies and intensities of the spectral lines. The energy values for the upper and lower states are written in the following manner:

$$\text{Upper level: } \nu_{V'J'} = \nu_{V'} + J'(J'+1)B' - J'^2(J' \neq 1)D'$$

$$\text{Lower level: } \nu_{V''J''} = \nu_{V''} + J''(J''+1)B'' - J''^2(J''+1)D''$$



where V and J denote the vibrational and rotational quantum numbers respectively of a particular energy level. Here,  $\nu_V$  is the vibrational contribution; B and D are the usual rotational constants. If we let  $a = B' + B''$ ,  $b = B' - B''$ ,  $c = -2(D' + D'')$ ,  $d = D'' - D'$ , then for the P( $\Delta J = -1$ ) and R( $\Delta J = +1$ ) branches the frequency for a transition between energy levels is:

$$\nu(V'J' - V''J'') = \nu_0 + am + (b+d)m^2 + cm^3 + dm^4. \quad (1)$$

For the Q branch ( $\Delta J = 0$ ), the terms  $am$  and  $cm^3$  are replaced by  $bm$  and  $dm^3$ , respectively. The possible branches depend upon the type of transition ( $\Sigma - \Sigma, \Pi - \Pi, \Delta - \Delta$ , etc.). Values of  $m$  are determined by the branch:  $m = -J''$  for the P branch,  $m = J''$  in the Q branch, and  $m = J'' + 1$  in the R branch. The possible values of  $J$  depend upon the parity of the lower state; only even values of  $J$  are allowed for even parity and only odd values of  $J$  are permitted for odd parity. In the case of molecules with different isotopes of oxygen, the listing of both parities was included as an artificial means of forcing these bands through a computational program relying on an even - odd scheme. In (1)  $\nu_0$  (band origin) is the vibrational energy difference between the two states,  $(\nu_{V'} - \nu_{V''})$ . For a more thorough discussion of the behavior of linear polyatomic molecules, see Herzberg (1962).

### 3. Intensities

Line intensities are a combination of the vibrational and rotational contributions determined by use of the following formulas:

$$S = (\nu/\nu_0) S_V S_R / Q_R; \quad (2)$$

where

$$S_R = gL \exp(-E_R''/kT); \quad (3)$$

$$Q_R = \sum_J g(2J+1) \exp(-E_R''/kT); \quad (4)$$

$$E_R = B''J''(J''+1) - D''J''^2(J''+1)^2. \quad (5)$$

Here values of  $S_V$ , the vibrational band intensities, have been chosen on a semi-theoretical basis attempting to fit the total observed intensities. The abundance factor for the various isotopic species is taken into account in the values listed for  $S_V$ . Values of  $S_V$  for a temperature of 296°K used for each band are listed in the seventh column of tables 1 and 2.



Table 1.

## Molecular Parameters for Carbon Dioxide Bands in the 2.05 Micron Region

Band	Type	Molecular Isotopes	Parity for $J''$	$\nu_0$ (cm <sup>-1</sup> )	$E_{v-1}$ (cm <sup>-1</sup> )	$S_v^{296}$ cm <sup>-1</sup> /atm cm STP	B''	D''	a	b	c	d	$\zeta$
1	$\Sigma - \Pi$ PR	$C^{12}O_2$	o	5349.36	667.40	$6.80 \times 10^{-6}$	.39062	$1.35 \times 10^{-7}$	.78754	$-3.7 \times 10^{-3}$	$-5.02 \times 10^{-7}$	$1.9 \times 10^{-8}$	
2	$\Sigma - \Pi$ Q	$C^{12}O_2$	e	5349.36	667.40	6.80	.39124	1.35	-	-4.32	-	1.9	
3	$\Pi - \Sigma$ PR	$C^{12}O_2$	e	5315.70	0.00	$5.35 \times 10^{-4}$	.38021	1.35	.77475	-5.67	-5.40	0.0	
4	$\Pi - \Sigma$ Q	$C^{12}O_2$	e	5315.70	0.00	5.35	.38021	1.35	-	-5.07	-	0.0	
5	$\Delta - \Pi$ PR	$C^{12}O_2$	o	5291.12	667.40	$3.7 \times 10^{-5}$	.39062	1.35	.77619	-5.05	-5.36	$2.0 \times 10^{-9}$	
6	$\Delta - \Pi$ PR	$C^{12}O_2$	e	5291.12	667.40	3.7	.39124	1.35	.77681	-5.67	-5.40	0.0	
7	$\Delta - \Pi$ Q	$C^{12}O_2$	o	5291.12	667.40	3.7	.39062	1.35	-	-5.05	-	0.0	
8	$\Delta - \Pi$ Q	$C^{12}O_2$	e	5291.12	667.40	3.7	.39124	1.35	-	-5.07	-	2.0	
9	$\Sigma - \Pi$ PR	$C^{12}O_2$	o	5247.86	667.40	1.36	.39062	1.35	.77812	-3.12	-5.82	$-2.1 \times 10^{-8}$	
10	$\Sigma - \Pi$ Q	$C^{12}O_2$	e	5247.86	667.40	1.36	.39124	1.35	-	-3.74	-	-2.1	
11	$\Sigma - \Sigma$	$C^{12}O_2$	e	5217.63	1285.40	$4.86 \times 10^{-5}$	.39047	1.56	.77846	-2.48	-4.88	6.8	
12	$\Pi - \Sigma$ PR	$C^{13}O_2$	e	5168.60	0.00	$4.86 \times 10^{-6}$	.39025	1.37	.77447	-5.53	-5.48	0.0	
13	$\Pi - \Sigma$ Q	$C^{13}O_2$	e	5168.60	0.00	4.86	.39025	1.37	-	-4.93	-	0.0	
14	$\Delta - \Delta$	$C^{12}O_2$	e	5139.40	1335.16	$8.75 \times 10^{-4}$	.39164	1.33	.78025	-3.03	-4.58	3.7	
15	$\Delta - \Delta$	$C^{12}O_2$	o	5139.40	1335.16	8.75	.39164	1.35	.78025	-3.03	-4.88	2.6	
16	$\Pi - \Pi$	$C^{12}O_2$	e	5123.17	667.40	$2.14 \times 10^{-2}$	.39124	1.35	.77984	-2.64	-4.77	3.3	
17	$\Pi - \Pi$	$C^{12}O_2$	o	5123.17	667.40	2.14	.39062	1.35	.77801	-3.23	-4.94	2.3	
18	$\Sigma - \Sigma$	$C^{12}O_2$	e	5114.87	1388.17	$8.75 \times 10^{-4}$	.39018	1.16	.77817	-2.19	-4.03	2.8	
19	$\Sigma - \Sigma$	$C^{12}O_2$	e	5099.62	0.00	$3.50 \times 10^{-1}$	.39021	1.35	.77769	-2.73	-4.58	4.1	
20	$\Sigma - \Sigma$	$C^{12}O_2$	e	5062.39	1285.40	$5.8 \times 10^{-4}$	.39047	1.56	.77693	-4.01	-5.68	2.8	

Table 1 (Cont.).

Molecular Parameters for Carbon Dioxide Bands in the 2.05 Micron Region

Band	Type	Molecular Isotopes	Parity for J''	$\nu_{O_1}$ (cm <sup>-1</sup> )	$E_{v-1}$ (cm <sup>-1</sup> )	$S_{v-1}^{296}$ (cm <sup>-1</sup> /atm cm S.T.P.)	B''	D''	a	b	c	d	$\xi$
21	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sup>18</sup>	e	5042.54	0.00	$3.9 \times 10^{-4}$	.36820	$1.15 \times 10^{-7}$	.73438	$-2.02 \times 10^{-3}$	$-3.80 \times 10^{-7}$	$4.0 \times 10^{-8}$	
22	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sup>18</sup>	o	5042.54	0.00	3.9	.36820	1.15	.73438	-2.02	-3.80	4.0	
23	$\Pi$ - $\Pi$	C <sup>13</sup> O <sup>16</sup> O <sub>2</sub>	e	5013.73	648.52	2.0	.39126	1.37	.77923	-3.29	-4.82	3.3	
24	$\Pi$ - $\Pi$	C <sup>13</sup> O <sup>16</sup> O <sub>2</sub>	o	5013.73	648.52	2.0	.39064	1.37	.77753	-3.75	-5.02	2.3	
25	$\Sigma$ - $\Sigma$	C <sup>13</sup> O <sup>16</sup> O <sub>2</sub>	e	4991.31	0.00	$6.4 \times 10^{-3}$	.39025	1.37	.77697	-3.53	-4.70	3.9	
26	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4977.79	0.00	$9.6 \times 10^{-1}$	.39021	1.35	.77674	-3.63	-5.90	0.0	
27	$\Pi$ - $\Pi$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4965.34	667.40	$3.31 \times 10^{-2}$	.39124	1.35	.77936	-3.12	-5.32	$4.0 \times 10^{-9}$	
28	$\Pi$ - $\Pi$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	o	4965.34	667.40	3.31	.39062	1.35	.77763	-3.61	-5.56	-8.0	
29	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4959.63	1388.17	$2.53 \times 10^{-3}$	.39018	1.16	.77664	-3.72	-4.88	$-1.2 \times 10^{-8}$	
30	$\Delta$ - $\Delta$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4953.30	1335.16	1.56	.39164	1.33	.78010	-3.18	-5.36	$-2.0 \times 10^{-9}$	
31	$\Delta$ - $\Delta$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	o	4953.30	1335.16	1.56	.39164	1.35	.78010	-3.18	-5.48	-4.0	
32	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4942.48	1285.40	3.9	.39047	1.56	.77700	-3.94	-6.52	$-1.4 \times 10^{-8}$	
33	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sub>18</sub>	e	4904.82	0.00	1.9	.36820	1.15	.73309	-3.31	-4.20	-2.0	
34	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sub>18</sub>	o	4904.82	0.00	1.9	.36820	1.15	.73309	-3.31	-4.20	-2.0	
35	$\Sigma$ - $\Sigma$	C <sup>13</sup> O <sup>16</sup> O <sub>2</sub>	e	4887.35	0.00	6.8	.39025	1.37	.77710	-3.40	-5.74	-1.3	
36	$\Pi$ - $\Pi$	C <sup>13</sup> O <sup>16</sup> O <sub>2</sub>	e	4871.41	648.52	$2.4 \times 10^{-4}$	.39126	1.37	.77949	-3.63	-5.14	1.7	
37	$\Pi$ - $\Pi$	C <sup>13</sup> O <sup>16</sup> O <sub>2</sub>	o	4871.41	648.22	2.4	.39064	1.37	.77772	-3.56	-5.42	$3.0 \times 10^{-9}$	
38	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4853.58	0.00	$2.6 \times 10^{-1}$	.39021	1.35	.77839	-2.03	-6.28	$-4.4 \times 10^{-8}$	
39	$\Sigma$ - $\Sigma$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4839.70	1388.17	$4.4 \times 10^{-4}$	.39018	1.16	.77670	-3.66	-5.72	-5.4	
40	$\Pi$ - $\Pi$	C <sup>12</sup> O <sup>16</sup> O <sub>2</sub>	e	4807.65	667.40	$9.7 \times 10^{-3}$	.39124	1.35	.78972	-1.76	-5.82	-2.1	

Table 1 (Con't.).

## Molecular Parameters for Carbon Dioxide Bands in the 2.05 Micron Region

Band Type	Molecular Isotopes	Parity for J"	$\nu_0$ (cm <sup>-1</sup> )	$E_{v-1}$ (cm <sup>-1</sup> )	$S_v^{296}$ (cm <sup>-1</sup> /atm cm STP)	B"	D"	a	b	c	d	$\zeta$
41	$\Pi - \Pi$	$C^{12}O_2$	e	4807.65	667.40	$9.7 \times 10^{-3}$	.39062	$1.35 \times 10^{-7}$	.77877	$-2.47 \times 10^{-3}$	$-6.00 \times 10^{-7}$	$-3.0 \times 10^{-8}$
42	$\Sigma - \Sigma$	$C^{12}O_2$	e	4791.21	0.00	$6.32 \times 10^{-4}$	.36820	1.15	.73400	-2.40	-4.90	-1.5
43	$\Sigma - \Sigma$	$C^{12}O_2$	o	4791.21	0.00	6.32	.36820	1.15	.73406	-2.40	-4.9	-1.5
44	$\Sigma - \Sigma$	$C^{12}O_2$	e	4790.52	1285.40	2.58	.39047	1.56	.77866	-2.28	-7.1	-4.3
45	$\Delta - \Delta$	$C^{12}O_2$	e	4768.49	1335.16	3.89	.39164	1.33	.78103	-2.25	-5.46	-3.2
46	$\Delta - \Delta$	$C^{12}O_2$	o	4768.49	1335.16	3.89	.39164	1.35	.78103	-2.25	-6.12	-3.6
47	$\Sigma - \Sigma$	$C^{13}O_2$	e	4748.01	0.00	7.78	.39025	1.37	.77911	-1.39	-6.46	-4.9
48	$\Pi - \Pi$	$C^{13}O_2$	e	4708.48	648.52	$5.83 \times 10^{-5}$	.39126	1.37	.78149	-1.13	-6.04	-2.8
49	$\Pi - \Pi$	$C^{13}O_2$	o	4708.48	648.52	5.83	.39064	1.37	.79930	-1.98	-6.04	-4.3
50	$\Sigma - \Sigma$	$C^{13}O^{16}O^{18}$	e	4692.12	0.00	$3.50 \times 10^{-6}$	.36820	1.15	.73473	-1.67	-5.40	-4.0
51	$\Sigma - \Sigma$	$C^{13}O^{16}O^{18}$	o	4692.12	0.00	3.50	.36820	1.15	.73473	-1.67	-5.40	-4.0
52	$\Sigma - \Sigma$	$C^{12}O_2$	e	4687.75	1388.17	$1.16 \times 10^{-5}$	.39018	1.16	.77836	-2.00	-5.90	$-3.0 \times 10^{-9}$
53	$\Sigma - \Sigma$	$C^{13}O_2$	e	4685.71	1265.81	$4.86 \times 10^{-6}$	.39094	1.59	.78061	-1.27	-8.06	$-8.5 \times 10^{-8}$
54	$\Delta - \Delta$	$C^{13}O_2$	e	4673.64	1297.40	2.43	.39165	1.37	.78162	-1.68	-5.94	-2.3
55	$\Delta - \Delta$	$C^{13}O_2$	o	4673.64	1297.40	2.43	.39165	1.30	.78162	-1.68	-5.90	-3.5
56	$\Sigma - \Sigma$	$C^{12}O^{16}O^{17}$	e	4656.70	0.00	5.83	.37920	1.25	.75238	-6.01	-5.00	0.0
57	$\Sigma - \Sigma$	$C^{12}O^{16}O^{17}$	o	4656.70	0.00	5.83	.37920	1.25	.75238	-6.01	-5.00	0.0
58	$\Sigma - \Sigma$	$C^{12}O^{16}O^{18}$	e	4639.53	0.00	$1.75 \times 10^{-4}$	.36820	1.15	.73050	-5.90	-4.60	0.0
59	$\Sigma - \Sigma$	$C^{12}O^{16}O^{18}$	o	4639.53	0.00	1.75	.36820	1.15	.73050	-5.90	-4.60	0.0
60	$\Pi - \Sigma PR$	$C^{12}O_2$	e	4591.01	0.00	$4.86 \times 10^{-6}$	.39021	1.35	.78007	$-3.5 \times 10^{-4}$	-5.60	-1.0
61	$\Pi - \Sigma Q$	$C^{12}O_2$	e	4591.01	0.00	4.86	.39021	1.35	-	$+1.1 \times 10^{-3}$	-	-3.0

Table 2

Molecular Parameters for Carbon Dioxide Bands in the 2.7 Micron Region

Band	Type	Molecular Isotopes	Parity for $J''$	$\nu_0$ ( $\text{cm}^{-1}$ )	$E_v$ ( $\text{cm}^{-1}$ )	$S_V^{296}$ ( $\text{cm}^{-1}/\text{atm cm STP}$ )	B''	D''	a	b	c	d	$\zeta$
1	$\Delta - \Delta$	$\text{C}^{12}\text{O}_2$	e	3726.61	1335.16	0.0495	0.39164	$1.33 \times 10^{-7}$	0.78016	$-3.12 \times 10^{-3}$	$-5.46 \times 10^{-7}$	$-0.7 \times 10^{-8}$	
2	$\Delta - \Delta$	$\text{C}^{12}\text{O}_2$	o	3726.61	1335.16	0.0495	0.39164	1.35	0.78016	-3.12	-5.30	+0.5	
3	$\Pi - \Pi$	$\text{C}^{12}\text{O}_2$	e	3723.31	667.40	1.525	0.39124	1.35	0.77946	-3.02	-5.12	+1.4	
4	$\Pi - \Pi$	$\text{C}^{12}\text{O}_2$	o	3723.31	667.40	1.525	0.39062	1.35	0.77798	-3.26	-5.24	+0.8	
5	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3714.76	0.00	43.29	0.39021	1.35	0.77726	-3.16	-4.98	+2.1	
6	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3711.45	1388.17	0.0618	0.39018	1.16	0.77767	-2.69	-4.22	+2.1	
7	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3693.43	0.00	0.0152	0.37920	1.25	0.75552	-2.88	-4.60	+2.0	
8	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	o	3693.43	0.00	0.0152	0.37920	1.25	0.75552	-2.88	-4.60	+2.0	
9	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3692.29	1285.40	0.0813	0.39047	1.56	0.77699	-3.95	-5.82	+2.1	
10	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3675.11	0.00	0.0642	0.36820	1.15	0.73379	-2.61	-4.20	+2.0	
11	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	o	3675.11	0.00	0.0642	0.36820	1.15	0.73379	-2.61	-4.20	+2.0	
12	$\Pi - \Pi$	$\text{C}^{13}\text{O}_2$	e	3639.18	648.52	0.0204	0.39126	1.37	0.77925	-3.29	-5.32	+0.8	
13	$\Pi - \Pi$	$\text{C}^{13}\text{O}_2$	o	3639.18	648.52	0.0204	0.39064	1.37	0.77782	-3.46	-5.34	+0.7	
14	$\Sigma - \Sigma$	$\text{C}^{13}\text{O}_2$	e	3632.88	0.00	0.5922	0.39025	1.37	0.77700	-3.50	-5.24	+1.2	
15	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3612.81	0.00	34.52	0.39021	1.35	0.77770	-2.72	-5.88	-2.4	
16	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3591.36	0.00	0.0147	0.37920	1.25	0.73560	-2.80	-5.20	-1.0	
17	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	o	3591.36	0.00	0.0147	0.37920	1.25	0.73560	-2.80	-5.20	-1.0	
18	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3589.52	1388.17	0.0478	0.39018	1.16	0.77670	-3.66	-5.02	-1.9	
19	$\Pi - \Pi$	$\text{C}^{12}\text{O}_2$	e	3580.29	667.40	1.274	0.39124	1.35	0.77992	-2.56	-5.76	-1.6	
20	$\Pi - \Pi$	$\text{C}^{12}\text{O}_2$	o	3580.29	667.40	1.274	0.39062	1.35	0.77836	-2.88	-5.62	-1.1	
21	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	e	3571.11	0.00	0.0873	0.36820	1.15	0.73352	-2.88	-5.00	-2.0	
22	$\Sigma - \Sigma$	$\text{C}^{12}\text{O}_2$	o	3571.11	0.00	0.0873	0.36820	1.15	0.73352	-2.88	-5.00	-2.0	

Table 2 (Cont'd. ).  
Molecular Parameters for Carbon Dioxide Bands in the 2.7 Micron Region

Band	Type	Molecular Isotopes	Parity for J"	$\nu_0$ (cm <sup>-1</sup> )	$E_v$ (cm <sup>-1</sup> )	$S_v^{296}$ (cm <sup>-1</sup> /atm cm STP)	B"	D"	a	b	c	d	$\xi$
23	$\Sigma^- - \Sigma$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3568.22	1285.40	0.0953	0.39047	1.56 x 10 <sup>-7</sup>	0.77863	-2.29 x 10 <sup>-3</sup>	-6.70 x 10 <sup>-7</sup>	-2.3 x 10 <sup>-8</sup>	
24	$\Delta - \Delta$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3552.82	1335.16	0.0464	0.39164	1.33	0.78057	-2.71	-5.50	-0.9	
25	$\Delta - \Delta$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	o	3552.82	1335.16	0.0464	0.39164	1.35	0.78057	-2.71	-5.70	-1.5	
26	$\Sigma - \Sigma$	<sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3527.71	0.00	0.2165	0.39025	1.37	0.77830	-2.20	-5.94	-2.3	
27	$\Pi - \Pi$	<sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3498.72	648.52	9.83 x 10 <sup>-3</sup>	0.39126	1.37	0.78041	-2.51	-5.86	-1.9	
28	$\Pi - \Pi$	<sup>13</sup> O <sub>2</sub> <sup>16</sup>	o	3498.72	648.52	9.83	0.39064	1.37	0.77877	-2.51	-5.74	-1.3	
101	$\Sigma - \Sigma$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3814.22	1285.40	1.03	0.39047	1.56	0.77796	-2.98	-5.02	+6.1	
102	$\Phi - \Phi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3727.70	2003.28	1.74	0.39237	1.34	0.78164	-3.10	-5.36	0.0	
103	$\Phi - \Phi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	o	3727.70	2003.28	1.74	0.39237	1.34	0.78164	-3.10	-5.36	0.0	
104	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3713.68	2076.89	1.99	0.39131	1.19	0.77984	-2.72	-4.42	+1.7	
105	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	o	3713.68	2076.89	1.99	0.39038	1.28	0.77778	-2.99	-4.80	+1.6	
106	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3700.27	1932.48	3.24	0.39168	1.52	0.77978	-3.58	-5.84	+1.2	
107	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup>	o	3700.27	1932.48	3.24	0.39072	1.46	0.77772	-3.72	-5.68	+0.8	
108	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup> <sup>18</sup>	e	3684.05	662.29	2.61	0.36914	1.15	0.73590	-2.38	-4.28	+1.6	
109	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup> <sup>18</sup>	o	3684.05	662.29	2.61	0.36914	1.15	0.73590	-2.38	-4.28	+1.6	
110	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup> <sup>18</sup>	e	3684.05	662.29	2.61	0.36856	1.15	0.73440	-2.72	-4.40	+1.0	
111	$\Pi - \Pi$	<sup>12</sup> O <sub>2</sub> <sup>16</sup> <sup>18</sup>	o	3684.05	662.29	2.61	0.36856	1.15	0.73440	-2.72	-4.40	+1.0	
112	$\Delta - \Delta$	<sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3641.53	1297.40	8.46 x 10 <sup>-4</sup>	0.39165	1.37	0.77797	-3.33	-5.62	-0.7	
113	$\Delta - \Delta$	<sup>13</sup> O <sub>2</sub> <sup>16</sup>	o	3641.53	1297.40	8.46	0.39165	1.30	0.77797	-3.33	-5.34	-0.7	
114	$\Sigma - \Sigma$	<sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3621.53	1265.81	1.11 x 10 <sup>-3</sup>	0.39094	1.59	0.77779	-4.09	-6.18	+0.9	

Table 2 (Cont'd.)

## Molecular Parameters for Carbon Dioxide Bands in the 2.7 Micron Region

Band	Type	Molecular Isotopes	Parity for $J''$	$\nu_0$ (cm <sup>-1</sup> )	$E_v$ (cm <sup>-1</sup> )	$S_V^{296}$ (cm <sup>-1</sup> /atm cm STP)	B''	D''	a	b	c	d	$\zeta$
115	$\Sigma - \nu$	C <sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3621.26	1370.05	1.37 x 10 <sup>-3</sup>	0.38794	1.22 x 10 <sup>-7</sup>	0.77646	-3.02 x 10 <sup>-3</sup>	-4.40 x 10 <sup>-7</sup>	+2.4 x 10 <sup>-8</sup>	
116	$\Sigma - \Sigma$	C <sup>13</sup> O <sup>16</sup> O <sup>18</sup>	e	3587.51	0.00	9.45 x 10 <sup>-4</sup>	0.36820	1.15	0.73343	-2.97	-4.30	+1.5	
117	$\Sigma - \Sigma$	C <sup>13</sup> O <sup>16</sup> O <sup>18</sup>	o	3587.51	0.00	9.45	0.36820	1.15	0.73343	-2.97	-4.30	+1.5	
118	$\Pi - \Pi$	C <sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3555.86	2076.89	1.12 x 10 <sup>-3</sup>	0.39131	1.19	0.77941	-3.21	-5.18	-2.1	
119	$\Pi - \Pi$	C <sup>12</sup> O <sub>2</sub> <sup>16</sup>	o	3555.86	2076.89	1.12	0.39038	1.28	0.77738	-3.38	-5.32	-1.0	
120	$\Pi - \Pi$	C <sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3542.57	1932.48	4.23	0.39168	1.52	0.78105	-2.31	-6.34	-1.3	
121	$\Pi - \Pi$	C <sup>12</sup> O <sub>2</sub> <sup>16</sup>	o	3542.57	1932.48	4.23	0.39072	1.46	0.77877	-2.67	-6.02	-1.0	
122	$\Pi - \Pi$	C <sup>12</sup> O <sup>16</sup> O <sup>18</sup>	e	3538.95	662.29	2.99	0.36914	1.15	0.73546	-2.82	-4.88	-1.4	
123	$\Pi - \Pi$	C <sup>12</sup> O <sup>16</sup> O <sup>18</sup>	o	3538.95	662.29	2.99	0.36914	1.15	0.73546	-2.82	-4.88	-1.4	
124	$\Pi - \Pi$	C <sup>12</sup> O <sup>16</sup> O <sup>18</sup>	e	3538.95	662.29	2.99	0.36856	1.15	0.73406	-3.06	-4.78	-0.9	
125	$\Pi - \Pi$	C <sup>12</sup> O <sup>16</sup> O <sup>18</sup>	o	3538.95	662.29	2.99	0.36856	1.15	0.73406	-3.06	-4.78	-0.9	
126	$\Phi - \Phi$	C <sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3528.25	2003.28	1.74	0.39237	1.34	0.78192	-2.82	-5.76	-1.8	
127	$\Phi - \Phi$	C <sup>12</sup> O <sub>2</sub> <sup>16</sup>	o	3528.25	2003.28	1.74	0.39237	1.34	0.78192	-2.82	-5.76	-1.8	
128	$\Sigma - \Sigma$	C <sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3517.30	1370.05	4.60 x 10 <sup>-4</sup>	0.38974	1.22	0.77659	-2.89	-5.44	-2.8	
129	$\Pi - \Sigma$	C <sup>12</sup> O <sub>2</sub> <sup>16</sup>	e	3500.54	0.00	6.81 x 10 <sup>-3</sup>	0.39021	1.35	0.78077	+0.35	-4.90	+2.5	
130	$\Sigma - \Sigma$	C <sup>13</sup> O <sup>16</sup> O <sup>18</sup>	e	3490.35	0.00	6.22 x 10 <sup>-4</sup>	0.36820	1.15	0.73406	-2.34	-4.96	-1.8	
131	$\Sigma - \Sigma$	C <sup>13</sup> O <sup>16</sup> O <sup>18</sup>	o	3490.35	0.00	6.22	0.36820	1.15	0.73406	-2.34	-4.96	-1.8	
132	$\Sigma - \Sigma$	C <sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3482.20	1265.81	7.46	0.39094	1.59	0.77980	-2.08	-6.90	-2.7	
133	$\Delta - \Delta$	C <sup>13</sup> O <sub>2</sub> <sup>16</sup>	e	3473.68	1297.40	4.60	0.39165	1.37	0.78094	-2.36	-5.32	+0.8	
134	$\Delta - \Delta$	C <sup>13</sup> O <sub>2</sub> <sup>16</sup>	o	3473.68	1297.40	4.60	0.39165	1.30	0.78094	-2.36	-5.38	-0.9	

Table 2 (Cont'd).

Molecular Parameters for Carbon Dioxide Bands in the 2.7 Micron Region

Band	Type	Molecular Isotopes	Parity for J''	$\nu_0$ (cm <sup>-1</sup> )	$E_{v-1}$ (cm <sup>-1</sup> )	$S_V^{296}$ (cm <sup>-1</sup> /atm cm STF)	B''	D''	a	b	c	d	$\zeta$
135	$\Sigma - \Sigma$	<sup>12</sup> O <sub>2</sub>	e	3465.41	1388.17	$6.47 \times 10^{-4}$	0.39018	$1.16 \times 10^{-7}$	0.77836	$-2.00 \times 10^{-3}$	$-5.90 \times 10^{-7}$	$-6.3 \times 10^{-8}$	
136	$\Sigma - \Pi$ PR	<sup>12</sup> O <sub>2</sub>	o	3398.10	667.40	$2.49 \times 10^{-6}$	0.39062	1.35	0.78042	-0.82	-5.00	+2.0	0.30
137	$\Sigma - \Pi$ Q	<sup>12</sup> O <sub>2</sub>	o	3398.10	667.40	2.49	0.39124	1.35	-	-1.44	-	+2.0	
138	$\Pi - \Sigma$ PR	<sup>12</sup> O <sub>2</sub>	e	3393.00	0.00	1.24	0.39025	1.37	0.78038	-0.12	-4.82	+3.3	0.16
139	$\Pi - \Sigma$ Q	<sup>12</sup> O <sub>2</sub>	e	3393.00	0.00	1.24	0.39025	1.37	-	+0.96	-	+2.3	
140	$\Pi - \Sigma$ PR	<sup>12</sup> O <sub>2</sub>	e	3339.34	0.00	$3.98 \times 10^{-4}$	0.39021	1.35	0.78023	-0.19	-5.40	0.0	0.16
141	$\Pi - \Sigma$ Q	<sup>12</sup> O <sub>2</sub>	e	3339.34	0.00	3.98	0.39021	1.35	-	+0.94	-	0.0	
142	$\Sigma - \Pi$ PR	<sup>12</sup> O <sub>2</sub>	o	3275.10	667.40	$1.37 \times 10^{-5}$	0.39062	1.35	0.78032	-0.92	-5.40	0.0	0.02
143	$\Sigma - \Pi$ Q	<sup>12</sup> O <sub>2</sub>	o	3275.10	667.40	1.37	0.39124	1.35	-	-1.54	-	0.0	
144	$\Pi - \Sigma$ PR	<sup>12</sup> O <sub>2</sub>	e	3181.45	0.00	$2.86 \times 10^{-6}$	0.39021	1.35	0.78122	+0.80	-5.82	-2.1	0.40
145	$\Pi - \Sigma$ Q	<sup>12</sup> O <sub>2</sub>	e	3181.45	0.00	2.86	0.39021	1.35	-	+2.15	-	-2.1	
146	$\Delta - \Pi$ PR	<sup>12</sup> O <sub>2</sub>	e	3154.50	667.40	$4.98 \times 10^{-7}$	0.39124	1.35	0.78434	+1.86	-5.80	-2.0	0.40
147	$\Delta - \Pi$ PR	<sup>12</sup> O <sub>2</sub>	o	3154.50	667.40	4.98	0.39062	1.35	0.78248	+1.24	-6.00	-3.0	0.40
148	$\Delta - \Pi$ Q	<sup>12</sup> O <sub>2</sub>	e	3154.50	667.40	4.98	0.39124	1.35	-	+1.86	-	-2.0	
149	$\Delta - \Pi$ Q	<sup>12</sup> O <sub>2</sub>	o	3154.50	667.40	4.98	0.39062	1.35	-	+1.24	-	-3.0	
150	$\Sigma - \Pi$ PR	<sup>12</sup> O <sub>2</sub>	o	3125.30	667.40	$9.95 \times 10^{-8}$	0.39062	1.35	0.78237	+1.15	-6.00	-3.0	0.40
151	$\Sigma - \Pi$ Q	<sup>12</sup> O <sub>2</sub>	o	3125.30	667.40	9.95	0.39124	1.35	-	+0.53	-	-3.0	



Determination of the rotational contribution,  $S_r$ , depends upon a weighting factor  $g$ , based upon the parity; in the case of even parity  $g=1$  for even values of  $J$ , and  $g=0$  for odd values of  $J$ . Just the opposite is true for odd parity. The rotational partition functions,  $Q_r$ , have nearly the same values in all the bands of a particular molecular species. The values of  $Q_r$  for a temperature of 296°K are as follows:  $\text{CO}_2^{16}$ ,  $Q_r = 263$ ;  $\text{CO}^{16}\text{O}^{17}$ ,  $Q_r = 271$  and  $\text{CO}^{16}\text{O}^{18}$ ,  $Q_r = 279$ . For a linear molecule, the rotational partition function can be taken as directly proportional to the temperature (Herzberg, 1962). The rotational line strength factors,  $L$ , depend upon the type of band as well as the values of  $m$  which in turn depend upon  $J$ . The following table shows this dependence:

Table 3. Rotational Line Strength Factors

Band Type	Branch	L
$\Sigma - \Sigma$	P and R	$ m $
$\Pi - \Pi$	$\left\{ \begin{array}{l} \text{P and R} \\ \text{Q} \end{array} \right.$	$\left\{ \begin{array}{l}  m  - 1/ m  \\ (2m+1), m(m+1) \end{array} \right.$
$\Delta - \Delta$	$\left\{ \begin{array}{l} \text{P and R} \\ \text{Q} \end{array} \right.$	$\left\{ \begin{array}{l}  m  - 4/ m  \\ 4(2m+1)/m(m+1) \end{array} \right.$
$\Phi - \Phi$	$\left\{ \begin{array}{l} \text{P and R} \\ \text{Q} \end{array} \right.$	$\left\{ \begin{array}{l}  m  - 9/ m  \\ 9(2m+1)/m(m+1) \end{array} \right.$
$\Pi - \Sigma$	$\left\{ \begin{array}{l} \text{P} \\ \text{Q} \\ \text{R} \end{array} \right.$	$\left\{ \begin{array}{l}  m  - 1 \\ 2m+1 \\ m+1 \end{array} \right.$
$\Sigma - \Pi$	$\left\{ \begin{array}{l} \text{P} \\ \text{Q} \\ \text{R} \end{array} \right.$	$\left\{ \begin{array}{l}  m  + 1 \\ 2m+1 \\ m-1 \end{array} \right.$
$\Delta - \Pi$	$\left\{ \begin{array}{l} \text{P} \\ \text{Q} \\ \text{R} \end{array} \right.$	$\left\{ \begin{array}{l} ( m  - 1)( m  - 2)/ m  \\ (m+2)(m-1)(2m+1)/m(m+1) \\ (m+2)(m+1)/m \end{array} \right.$

It should be noted that in tables 1 and 2 each series of lines with a distinct frequency formula has been listed as a "separate band" for convenience of computational programming. Thus in a  $\Delta$ - $\Pi$  transition of an asymmetric molecule there would be four sub-bands listed separately: the P- and R- branches with odd  $J''$ , the P- and R- branches with even  $J''$ , and the corresponding odd and even Q branches. Each "band" has been normalized so that the sum of states is close to that for the most common case, that of the  $\Sigma$ - $\Sigma$  band in the symmetric molecule, with only even  $J''$ . The rotational line strength factors in table 3 reflect this unconventional definition of a "band".

The values used for the various other parameters for  $\text{CO}_2$  defined above and occurring in (1) through (5) are listed for each band in tables 1 and 2. The first column gives a band number used for identification purposes in this report, the second column shows the band type, and the isotopic species of the molecule is shown in the third column. The fourth column indicates the parity of  $J''$  (e for even, o for odd). The next three columns (fifth, sixth, and seventh), give the band origin  $\nu_0$  ( $\text{cm}^{-1}$ ), the vibrational energy of the lower state,  $E_v$  ( $\text{cm}^{-1}$ ), and the vibrational band strength determined for 296°K. The eighth through thirteenth columns give appropriate values of the molecular constants  $B''$ ,  $D''$ ,  $a$ ,  $b$ ,  $c$ , and  $d$ . Certain of the weaker bands ( $\Pi$ - $\Sigma$ ,  $\Sigma$ - $\Pi$ ) require the addition of a term,  $(1 + \zeta m)^2$  in calculating intensities to take into consideration the Coriolis vibration-rotation interaction. Values of the empirical constant,  $\zeta$ , depending on the Coriolis interaction and the vibrational transition involved, which provide a satisfactory fit with the experimental data are listed in the fourteenth column of tables 1 and 2.

Taking into account the values from tables 1 and 2, a program was developed for computing the rotational energies,  $E_r''$ , of the lower state, using values of  $J$  through 100, and at the same time determining the rotational partition function,  $Q_r$ , according to (4). The frequency and intensity are computed for all the lines in each of the branches again for values of  $J$  through 100, according to (1) and (3).

Table 4 shows a tabulation of the results of the computations made by an electronic computer using the appropriate data for the 61 bands of table 1 for the 2.05 $\mu$  region. The listing is according to increasing frequency, in  $\text{cm}^{-1}$ , in the first column. The second column gives the computed intensity of the line in  $\text{cm}^{-1}/(\text{atm}\cdot\text{cm})_{\text{STP}}$ . Note that all numbers listed are to be multiplied by  $10^{-3}$  as indicated by the -3 at the head of this column. The notation STP refers to the absorber concentration  $(\text{atm}\cdot\text{cm})_{\text{STP}}$  and not the temperature for which the values were computed. The energy ( $\text{cm}^{-1}$ ), of the lower state including both vibrational and rotational contributions, is found in the third column. Values of the rotational line strength factor, L, are listed in the fourth column. The fifth column gives the identification of the line in terms of the band number, the branch, and the value of J. Table 5 gives similar information for the 2.7 $\mu$  region based on the parameters listed in table 2.

#### 4. Discussion

Recently Burch, Gryvnaк and Patty (1964), have made extensive measurements of the absorption spectrum in the 2.05 $\mu$  region. Comparisons with these records have been used to arrive at values of  $S_v$ , the vibrational band intensities, used to determine the line intensities computed for table 4. For the 2.7 $\mu$  region, comparisons with the absorption spectra published by Burch, Gryvnaк and Williams (1960) have been used to assign the values of  $S_v$  for these bands. With the exception of regions of low absorption, where bands weaker than those included in the present computations may be expected to make a proportionately large contribution, the transmission calculated from the line strength listed here agrees with the measured values of Burch, Gryvnaк and Patty (1964) to within a few percent. The average Lorentz half-width parameter required to give the best agreement is approximately 0.080  $\text{cm}^{-1}/\text{atm}$  for nitrogen broadening and 0.104  $\text{cm}^{-1}/\text{atm}$  for self broadening.

In tables 4 and 5, the calculated line intensities for all lines having intensities of  $10^{-7} \text{cm}^{-1}/(\text{atm}\cdot\text{cm})_{\text{STP}}$  and greater have been listed. Since the experimental spectra with which comparisons were made were observed at a temperature of 296 $^\circ\text{K}$ , the intensity values were calculated and listed for this same temperature.

For extremely long optical paths, weaker lines due to higher J values and for other bands not treated here will appear. However, for absorption paths through the earth's atmosphere, all the significant carbon dioxide lines in the 2.05 and 2.7 $\mu$  regions of the spectrum will be found in the tables of this report.



TABLE 4

2.05 MU CARBON DIOXIDE LINE PARAMETERS  
T=296 DEG K

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
4546.23	0.0001	1244.17	55.0000	60 P 56	4591.47	0.0004	163.86	41.0000	61 Q 20
4547.87	0.0002	1157.73	53.0000	60 P 54	4591.56	0.0003	197.41	45.0000	61 Q 22
4549.51	0.0002	1074.39	51.0000	60 P 52	4591.66	0.0003	234.08	49.0000	61 Q 24
4551.14	0.0003	994.16	49.0000	60 P 48	4591.77	0.0003	273.86	53.0000	61 Q 26
4552.77	0.0004	917.03	47.0000	60 P 40	4591.88	0.0002	316.76	57.0000	61 Q 28
4554.40	0.0004	843.00	45.0000	60 P 46	4592.01	0.0002	362.78	61.0000	61 Q 30
4556.02	0.0005	772.09	43.0000	60 P 44	4592.14	0.0002	411.91	65.0000	61 Q 32
4557.64	0.0007	704.28	41.0000	60 P 42	4592.21	0.0005	830.07	47.0000	59 P 47
4559.26	0.0008	639.58	39.0000	60 P 40	4592.28	0.0001	464.16	69.0000	61 Q 34
4560.87	0.0009	577.99	37.0000	60 P 38	4592.42	0.0001	519.52	73.0000	61 Q 36
4562.48	0.0010	519.52	35.0000	60 P 36	4593.35	0.0002	2.34	4.0000	60 R 2
4564.09	0.0011	464.16	33.0000	60 P 34	4593.49	0.0006	795.51	46.0000	58 P 46
4565.70	0.0011	411.91	31.0000	60 P 32	4594.75	0.0007	761.68	45.0000	59 P 45
4567.30	0.0011	362.78	29.0000	60 P 30	4594.90	0.0003	7.80	6.0000	60 R 4
4568.90	0.0011	316.76	27.0000	60 P 28	4596.00	0.0008	728.59	44.0000	58 P 44
4570.50	0.0010	273.86	25.0000	60 P 26	4596.45	0.0006	16.39	8.0000	60 R 4
4572.09	0.0009	234.08	23.0000	60 P 24	4597.25	0.0009	696.22	43.0000	59 P 43
4573.68	0.0008	197.41	21.0000	60 P 22	4598.00	0.0009	28.09	10.0000	60 R 8
4575.27	0.0007	163.86	19.0000	60 P 20	4598.48	0.0010	664.59	42.0000	58 P 42
4576.86	0.0005	133.44	17.0000	60 P 18	4599.55	0.0012	42.92	12.0000	60 R 10
4578.44	0.0003	106.13	15.0000	60 P 16	4599.69	0.0011	633.70	41.0000	59 P 41
4580.02	0.0002	81.94	13.0000	60 P 14	4600.90	0.0013	603.54	40.0000	58 P 40
4580.20	0.0001	1174.12	56.0000	58 P 56	4601.09	0.0017	60.87	14.0000	60 R 12
4581.58	0.0001	1132.97	55.0000	59 P 55	4602.09	0.0015	574.11	39.0000	59 P 39
4581.60	0.0001	60.87	11.0000	60 P 12	4602.63	0.0021	81.94	16.0000	60 R 14
4582.95	0.0001	1092.54	54.0000	58 P 54	4603.28	0.0016	545.42	38.0000	58 P 38
4584.31	0.0002	1052.85	53.0000	59 P 53	4604.17	0.0025	106.13	18.0000	60 R 16
4585.65	0.0002	1013.89	52.0000	58 P 52	4604.45	0.0018	517.46	37.0000	59 P 37
4586.99	0.0003	975.66	51.0000	59 P 51	4605.61	0.0020	490.24	36.0000	58 P 36
4588.31	0.0003	938.16	50.0000	58 P 50	4605.70	0.0029	133.44	20.0000	60 R 18
4589.62	0.0004	901.40	49.0000	59 P 49	4606.75	0.0023	463.75	35.0000	59 P 35
4590.92	0.0004	865.37	48.0000	58 P 48	4607.23	0.0032	163.86	22.0000	60 R 20
4591.03	0.0002	7.80	9.0000	61 Q 4	4607.89	0.0025	438.00	34.0000	58 P 34
4591.06	0.0002	16.39	13.0000	61 Q 6	4608.76	0.0034	197.41	24.0000	60 R 22
4591.09	0.0003	28.09	17.0000	61 Q 8	4609.01	0.0028	412.98	33.0000	59 P 33
4591.13	0.0003	42.92	21.0000	61 Q 10	4610.13	0.0030	388.69	32.0000	58 P 32
4591.18	0.0004	60.87	25.0000	61 Q 12	4610.28	0.0035	234.08	26.0000	60 R 24
4591.24	0.0004	81.94	29.0000	61 Q 14	4611.23	0.0033	375.14	21.0000	59 P 31
4591.31	0.0004	106.13	33.0000	61 Q 16	4611.80	0.0035	273.86	28.0000	60 R 26
4591.38	0.0004	133.44	37.0000	61 Q 18	4612.32	0.0036	342.33	30.0000	58 P 30

4613.32	0.0035	316.76	30.0000	60 R 28	4636.51	0.0025	7.36	4.0000	58 P 4
4613.39	0.0039	320.25	29.0000	59 P 29	4637.03	0.0001	1426.36	62.0000	60 R 60
4614.46	0.0040	298.90	28.0000	58 P 28	4637.24	0.0002	191.84	22.0000	56 P 22
4614.83	0.0033	362.78	32.0000	60 R 30	4637.29	0.0018	4.42	3.0000	59 P 3
4615.51	0.0043	278.29	27.0000	59 P 27	4638.05	0.0012	2.21	2.0000	58 P 2
4616.34	0.0030	411.91	34.0000	60 R 32	4638.25	0.0002	175.16	21.0000	57 P 21
4616.56	0.0046	258.42	26.0000	58 P 26	4638.79	0.0007	0.74	1.0000	59 P 1
4617.59	0.0049	239.28	25.0000	59 P 25	4639.25	0.0002	159.24	20.0000	56 P 20
4617.84	0.0027	464.16	36.0000	60 R 34	4640.24	0.0002	144.08	19.0000	57 P 19
4618.61	0.0051	220.88	24.0000	58 P 24	4640.25	0.0007	0.00	1.0000	58 R 0
4619.35	0.0024	519.52	38.0000	60 R 36	4640.97	0.0012	0.74	2.0000	59 R 1
4619.61	0.0053	203.21	23.0000	59 P 23	4641.21	0.0002	129.67	18.0000	56 P 18
4620.61	0.0055	186.28	22.0000	58 P 22	4641.67	0.0019	2.21	3.0000	58 R 2
4620.84	0.0020	577.99	40.0000	60 R 38	4642.17	0.0002	116.02	17.0000	57 P 17
4621.59	0.0057	170.08	21.0000	59 P 21	4642.36	0.0025	4.42	4.0000	59 R 3
4622.34	0.0018	639.58	42.0000	60 R 40	4643.03	0.0030	7.36	5.0000	58 R 4
4622.56	0.0059	154.62	20.0000	58 P 20	4643.13	0.0002	103.13	16.0000	56 P 16
4623.52	0.0060	139.90	19.0000	59 P 19	4643.70	0.0036	11.05	6.0000	59 R 5
4623.83	0.0015	704.28	44.0000	60 R 42	4644.06	0.0002	91.00	15.0000	57 P 15
4624.47	0.0061	125.91	18.0000	58 P 18	4644.35	0.0041	15.46	7.0000	58 R 6
4625.31	0.0012	772.09	46.0000	60 R 44	4644.99	0.0002	79.63	14.0000	56 P 14
4625.41	0.0061	112.66	17.0000	59 P 17	4645.00	0.0045	20.62	8.0000	59 R 7
4626.33	0.0061	100.14	16.0000	58 P 16	4645.63	0.0049	26.51	9.0000	58 R 8
4626.79	0.0010	843.00	48.0000	60 R 46	4645.90	0.0002	69.01	13.0000	57 P 13
4627.25	0.0061	88.36	15.0000	59 P 15	4646.24	0.0053	33.14	10.0000	59 R 9
4627.62	0.0001	376.04	31.0000	57 P 31	4646.81	0.0002	59.15	12.0000	56 P 12
4628.15	0.0060	77.32	14.0000	58 P 14	4646.85	0.0057	40.50	11.0000	58 R 10
4628.27	0.0008	917.03	50.0000	60 R 48	4647.45	0.0059	48.60	12.0000	59 R 11
4628.73	0.0001	352.55	30.0000	56 P 30	4647.70	0.0002	50.05	11.0000	57 P 11
4629.04	0.0058	67.01	13.0000	59 P 13	4648.03	0.0062	57.44	13.0000	58 R 12
4629.74	0.0005	994.16	52.0000	60 R 50	4648.58	0.0002	41.71	10.0000	56 P 10
4629.84	0.0001	329.81	29.0000	57 P 29	4648.60	0.0063	67.01	14.0000	59 R 13
4629.92	0.0056	57.44	12.0000	58 P 12	4649.16	0.0065	77.32	15.0000	58 R 14
4630.78	0.0054	48.60	11.0000	59 P 11	4649.44	0.0002	34.13	9.0000	57 P 9
4630.93	0.0001	307.83	28.0000	56 P 28	4649.71	0.0065	88.36	16.0000	59 R 15
4631.21	0.0004	1074.39	54.0000	60 R 52	4650.24	0.0065	100.14	17.0000	58 R 16
4631.54	0.0051	40.50	10.0000	59 P 10	4650.30	0.0002	27.30	8.0000	56 P 9
4632.01	0.0001	286.60	27.0000	57 P 27	4650.76	0.0065	112.66	18.0000	59 R 17
4632.48	0.0047	33.14	9.0000	59 P 9	4651.14	0.0001	21.23	7.0000	57 P 7
4632.67	0.0003	1157.73	56.0000	60 R 54	4651.28	0.0064	125.91	19.0000	58 R 18
4633.08	0.0002	266.14	26.0000	56 P 26	4651.78	0.0064	139.90	20.0000	59 R 19
4633.31	0.0044	26.51	8.0000	58 P 8	4651.97	0.0001	15.93	6.0000	56 P 6
4634.13	0.0040	20.62	7.0000	59 P 7	4652.26	0.0062	154.62	21.0000	58 R 20
4634.13	0.0002	1244.17	58.0000	60 R 56	4652.74	0.0060	170.08	22.0000	59 R 21
4634.14	0.0002	246.43	25.0000	57 P 25	4652.79	0.0001	11.38	5.0000	57 P 5
4634.93	0.0035	15.46	6.0000	58 P 6	4653.20	0.0058	186.28	23.0000	58 R 22
4635.19	0.0002	227.47	24.0000	56 P 24	4653.66	0.0056	203.21	24.0000	59 R 23
4635.58	0.0001	1333.72	60.0000	60 R 58	4654.10	0.0054	220.88	25.0000	58 R 24
4635.73	0.0029	11.05	5.0000	59 P 5	4654.53	0.0051	239.28	26.0000	59 R 25
4636.22	0.0002	209.28	23.0000	57 P 23	4654.94	0.0048	258.42	27.0000	58 R 26



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
4655.35	0.0045	278.29	28.0000	59 R 27	4665.46	0.0002	59.15	13.0000	56 R 12	4665.46	0.0002	59.15	13.0000	56 R 12
4655.74	0.0042	298.90	29.0000	58 R 28	4666.05	0.0002	69.01	14.0000	57 R 13	4666.05	0.0002	69.01	14.0000	57 R 13
4656.12	0.0040	320.25	30.0000	59 R 29	4666.17	0.0004	1662.02	26.0000	52 P 26	4666.17	0.0004	1662.02	26.0000	52 P 26
4656.49	0.0037	342.33	31.0000	58 R 30	4666.23	0.0001	1500.32	24.0000	53 P 24	4666.23	0.0001	1500.32	24.0000	53 P 24
4656.85	0.0034	365.14	32.0000	59 R 31	4666.63	0.0002	79.63	15.0000	56 R 14	4666.63	0.0002	79.63	15.0000	56 R 14
4657.16	0.0001	1907.68	36.0000	52 P 36	4667.20	0.0002	91.00	16.0000	47 P 15	4667.20	0.0002	91.00	16.0000	47 P 15
4657.19	0.0031	388.69	33.0000	58 R 32	4667.33	0.0001	1529.11	46.9787	59 P 47	4667.33	0.0001	1529.11	46.9787	59 P 47
4657.53	0.0029	412.98	34.0000	59 R 33	4667.75	0.0002	103.13	17.0000	56 R 16	4667.75	0.0002	103.13	17.0000	56 R 16
4657.85	0.0026	438.00	35.0000	58 R 34	4667.91	0.0002	1463.58	22.0000	53 P 22	4667.91	0.0002	1463.58	22.0000	53 P 22
4658.16	0.0024	463.75	36.0000	59 R 35	4667.92	0.0004	1622.24	24.0000	52 P 24	4667.92	0.0004	1622.24	24.0000	52 P 24
4658.46	0.0021	490.24	37.0000	58 R 36	4668.28	0.0001	1568.01	47.9792	48 P 48	4668.28	0.0001	1568.01	47.9792	48 P 48
4658.74	0.0019	517.46	38.0000	59 R 37	4668.29	0.0002	116.02	18.0000	57 R 17	4668.29	0.0002	116.02	18.0000	57 R 17
4658.99	0.0002	1852.32	34.0000	52 P 34	4668.82	0.0002	129.67	19.0000	56 R 18	4668.82	0.0002	129.67	19.0000	56 R 18
4659.02	0.0017	545.42	39.0000	58 R 38	4669.28	0.0002	1456.56	44.9778	49 P 45	4669.28	0.0002	1456.56	44.9778	49 P 45
4659.28	0.0015	574.11	40.0000	59 R 39	4669.34	0.0002	144.08	20.0000	53 P 19	4669.34	0.0002	144.08	20.0000	53 P 19
4659.53	0.0013	603.54	41.0000	58 R 40	4669.58	0.0002	1429.98	20.0000	53 P 20	4669.58	0.0002	1429.98	20.0000	53 P 20
4659.77	0.0012	633.70	42.0000	59 R 41	4669.66	0.0005	1585.57	22.0000	52 P 22	4669.66	0.0005	1585.57	22.0000	52 P 22
4660.00	0.0010	664.59	43.0000	58 R 42	4669.84	0.0002	159.24	21.0000	56 R 20	4669.84	0.0002	159.24	21.0000	56 R 20
4660.21	0.0009	696.22	44.0000	59 R 43	4670.07	0.0002	1493.78	45.9783	48 P 46	4670.07	0.0002	1493.78	45.9783	48 P 46
4660.31	0.0001	7.58	5.0000	56 R 4	4670.34	0.0002	175.16	22.0000	57 R 21	4670.34	0.0002	175.16	22.0000	57 R 21
4660.41	0.0008	728.59	45.0000	58 R 44	4670.82	0.0002	191.84	23.0000	56 R 22	4670.82	0.0002	191.84	23.0000	56 R 22
4660.60	0.0007	761.68	46.0000	59 R 45	4671.21	0.0002	1387.12	42.9767	49 P 43	4671.21	0.0002	1387.12	42.9767	49 P 43
4660.78	0.0006	795.51	47.0000	58 R 46	4671.24	0.0002	1399.49	18.0000	53 P 18	4671.24	0.0002	1399.49	18.0000	53 P 18
4660.81	0.0002	1800.07	32.0000	52 P 32	4671.29	0.0002	209.28	24.0000	52 P 23	4671.29	0.0002	209.28	24.0000	52 P 23
4660.95	0.0005	830.07	48.0000	59 R 47	4671.39	0.0005	1552.03	20.0000	52 P 20	4671.39	0.0005	1552.03	20.0000	52 P 20
4661.00	0.0001	11.38	6.0000	57 R 5	4671.75	0.0002	227.47	25.0000	56 R 24	4671.75	0.0002	227.47	25.0000	56 R 24
4661.10	0.0004	865.37	49.0000	58 R 48	4671.85	0.0002	1422.68	43.9773	48 P 44	4671.85	0.0002	1422.68	43.9773	48 P 44
4661.25	0.0004	901.40	50.0000	59 R 49	4672.19	0.0002	246.43	26.0000	57 R 25	4672.19	0.0002	246.43	26.0000	57 R 25
4661.38	0.0003	938.16	51.0000	58 R 50	4672.62	0.0002	266.14	27.0000	56 R 26	4672.62	0.0002	266.14	27.0000	56 R 26
4661.50	0.0003	975.66	52.0000	59 R 51	4672.89	0.0002	1372.13	16.0000	53 P 16	4672.89	0.0002	1372.13	16.0000	53 P 16
4661.60	0.0002	1013.89	53.0000	58 R 52	4673.04	0.0002	286.60	28.0000	57 R 27	4673.04	0.0002	286.60	28.0000	57 R 27
4661.67	0.0001	15.93	7.0000	56 R 6	4673.09	0.0005	1521.60	18.0000	52 P 18	4673.09	0.0005	1521.60	18.0000	52 P 18
4661.70	0.0002	1052.85	54.0000	59 R 53	4673.12	0.0003	1320.80	40.9756	49 P 41	4673.12	0.0003	1320.80	40.9756	49 P 41
4661.78	0.0002	1092.54	55.0000	58 R 54	4673.45	0.0001	307.83	29.0000	56 R 28	4673.45	0.0001	307.83	29.0000	56 R 28
4661.85	0.0001	1132.97	56.0000	59 R 55	4673.52	0.0001	220.88	24.0000	50 P 24	4673.52	0.0001	220.88	24.0000	50 P 24
4661.91	0.0001	1174.12	57.0000	58 R 56	4673.62	0.0003	1354.69	41.9762	48 P 42	4673.62	0.0003	1354.69	41.9762	48 P 42
4662.33	0.0002	21.23	8.0000	57 R 7	4673.85	0.0001	329.81	30.0000	57 R 29	4673.85	0.0001	329.81	30.0000	57 R 29
4662.61	0.0002	1750.94	30.0000	52 P 30	4674.23	0.0001	352.55	31.0000	56 R 30	4674.23	0.0001	352.55	31.0000	56 R 30
4662.82	0.0001	1583.15	28.0000	53 P 28	4674.33	0.0001	203.21	23.0000	51 P 23	4674.33	0.0001	203.21	23.0000	51 P 23
4662.98	0.0002	27.30	9.0000	56 R 8	4674.53	0.0002	1347.90	14.0000	53 P 14	4674.53	0.0002	1347.90	14.0000	53 P 14
4663.62	0.0002	34.13	10.0000	57 R 9	4674.61	0.0001	376.04	32.0000	57 R 31	4674.61	0.0001	376.04	32.0000	57 R 31
4664.25	0.0002	41.71	11.0000	56 R 10	4674.79	0.0005	1494.29	16.0000	52 P 16	4674.79	0.0005	1494.29	16.0000	52 P 16
4664.40	0.0004	1704.92	28.0000	52 P 28	4674.97	0.0001	400.30	33.0000	56 R 32	4674.97	0.0001	400.30	33.0000	56 R 32
4664.53	0.0001	1540.17	26.0000	53 P 26	4675.01	0.0005	1257.50	38.9744	49 P 39	4675.01	0.0005	1257.50	38.9744	49 P 39
4664.86	0.0002	50.05	12.0000	57 R 11	4675.14	0.0001	186.28	22.0000	50 P 22	4675.14	0.0001	186.28	22.0000	50 P 22



4675.38	0.0005	1289.82	39.9750	48 P 40	4694.14	0.0002	1308.81	11.0000	53 R 10
4675.95	0.0001	170.08	21.0000	51 P 21	4694.59	0.0005	1416.26	9.0000	52 R 8
4676.16	0.0002	1326.79	12.0000	53 P 12	4694.66	0.0023	768.04	16.9412	49 P 17
4676.46	0.0005	1470.10	14.0000	52 P 14	4695.64	0.0002	1326.79	13.0000	53 R 12
4676.76	0.0001	154.62	20.0000	50 P 20	4695.69	0.0023	754.93	15.9375	48 P 16
4676.89	0.0007	1197.49	36.9730	49 P 37	4695.76	0.0001	1426.48	60.0000	47 P 60
4677.13	0.0006	1228.07	37.9737	48 P 38	4696.07	0.0005	1431.09	11.0000	52 R 10
4677.56	0.0001	139.90	19.0000	51 P 19	4696.34	0.0023	742.27	14.9333	49 P 15
4677.78	0.0002	1308.81	10.0000	53 P 10	4697.13	0.0002	1347.90	15.0000	53 R 14
4678.12	0.0005	1449.04	12.0000	52 P 12	4697.32	0.0023	730.68	13.9286	48 P 14
4678.35	0.0001	125.91	18.0000	50 P 18	4697.53	0.0005	1449.04	13.0000	52 R 12
4678.74	0.0008	34.9714	34.9714	49 P 35	4697.72	0.0001	1333.83	58.0000	47 P 58
4678.86	0.0007	1169.44	35.9722	48 P 36	4698.01	0.0022	719.61	12.9231	49 P 13
4679.15	0.0001	112.66	17.0000	51 P 17	4698.60	0.0001	26.51	9.0000	50 R 8
4679.38	0.0001	1293.96	8.0000	53 P 8	4698.60	0.0002	1372.13	17.0000	53 R 16
4679.77	0.0005	1431.09	10.0000	52 P 10	4698.94	0.0022	709.55	11.9167	48 P 12
4679.94	0.0001	100.14	16.0000	50 P 16	4698.97	0.0006	1470.10	15.0000	52 R 14
4680.58	0.0010	1086.65	32.9697	49 P 33	4699.30	0.0001	33.14	10.0000	51 R 9
4680.59	0.0009	1113.93	33.9706	48 P 34	4699.65	0.0002	1244.28	56.0000	47 P 56
4680.72	0.0001	88.36	15.0000	51 P 15	4699.67	0.0021	700.08	10.9091	49 P 11
4680.98	0.0001	1282.23	6.0000	53 P 6	4700.00	0.0001	40.50	11.0000	50 R 10
4681.40	0.0003	1416.26	8.0000	52 P 8	4700.07	0.0002	1399.49	19.0000	53 R 18
4681.51	0.0001	77.32	14.0000	50 P 14	4700.40	0.0006	1494.29	17.0000	52 R 16
4682.29	0.0001	67.01	13.0000	51 P 13	4700.55	0.0020	691.56	9.9000	48 P 10
4682.31	0.0010	1061.54	31.9688	48 P 32	4700.69	0.0001	48.60	12.0000	51 R 11
4682.40	0.0011	1035.90	30.9677	49 P 31	4701.31	0.0018	683.68	8.8889	49 P 9
4683.01	0.0003	1404.56	6.0000	52 P 6	4701.39	0.0001	57.44	13.0000	50 R 12
4683.06	0.0001	57.44	12.0000	50 P 12	4701.52	0.0002	1429.98	21.0000	53 R 20
4683.84	0.0001	48.60	11.0000	51 P 11	4701.57	0.0003	1157.83	54.0000	47 P 54
4684.01	0.0012	1012.27	29.9667	48 P 30	4701.81	0.0006	1521.60	19.0000	52 R 18
4684.20	0.0013	988.27	28.9655	49 P 29	4702.08	0.0001	67.01	14.0000	51 R 13
4684.60	0.0002	1395.97	4.0000	52 P 4	4702.16	0.0017	676.69	7.8750	48 P 8
4684.61	0.0001	40.50	10.0000	50 P 10	4702.76	0.0001	77.32	15.0000	50 R 14
4685.37	0.0001	33.14	9.0000	51 P 9	4702.93	0.0015	670.40	6.8571	49 P 7
4685.71	0.0014	966.13	27.9643	48 P 28	4702.96	0.0002	1463.58	23.0000	53 R 22
4685.98	0.0015	943.77	26.9630	49 P 27	4703.21	0.0005	1552.03	21.0000	52 R 20
4687.40	0.0016	923.12	25.9615	48 P 26	4703.44	0.0001	88.36	16.0000	51 R 15
4687.75	0.0017	902.38	24.9600	49 P 25	4703.47	0.0005	1074.49	52.0000	47 P 52
4689.07	0.0018	883.23	23.9583	48 P 24	4703.75	0.0013	664.95	5.8333	48 P 6
4689.50	0.0019	864.11	22.9565	49 P 23	4703.75	0.0013	100.14	17.0000	50 R 16
4690.07	0.0001	1390.51	3.0000	52 R 2	4704.39	0.0002	1500.32	25.0000	53 R 24
4690.74	0.0020	846.46	21.9545	48 P 22	4704.53	0.0011	660.24	4.8000	49 P 5
4691.11	0.0001	1282.23	7.0000	53 R 6	4704.59	0.0005	1585.57	23.0000	52 R 22
4691.24	0.0021	828.97	20.9524	49 P 21	4704.80	0.0001	112.66	18.0000	51 R 17
4691.59	0.0002	1395.97	5.0000	52 R 4	4705.34	0.0008	656.35	3.7500	48 P 4
4692.40	0.0022	812.83	19.9500	48 P 20	4705.35	0.0008	994.25	50.0000	47 P 50
4692.63	0.0002	1293.96	9.0000	53 R 8	4705.47	0.0001	125.91	19.0000	50 R 18
4692.96	0.0022	796.94	18.9474	49 P 19	4705.80	0.0001	1540.17	27.0000	53 R 26
4693.10	0.0003	1404.56	7.0000	52 R 6	4705.95	0.0005	1622.24	25.0000	52 R 24
4694.05	0.0023	782.31	17.9444	48 P 18	4706.12	0.0006	653.21	2.6667	49 P 3

LINE			L			BAND			E			L			BAND		
FREQ	INTENSITY		FREQ	INTENSITY		FREQ	INTENSITY		FREQ	INTENSITY		FREQ	INTENSITY		FREQ	INTENSITY	
-1	-1		-1	-1		-1	-1		-1	-1		-1	-1		-1	-1	
CM	CM	STP	CM	CM	STP	CM	CM	STP	CM	CM	STP	CM	CM	STP	CM	CM	STP
4706.14	0.0001		4706.80	0.0001		4719.87	0.0071	-3	4719.94	0.0024		34.0000			47 P 34		
4706.91	0.0003		4707.20	0.0011		4720.44	0.0024		4720.58	0.0003		14.9333			48 R 14		
4707.22	0.0011		4707.29	0.0004		4721.43	0.0024		4721.43	0.0024		15.9375			49 R 15		
4707.46	0.0001		4707.46	0.0001		4721.62	0.0086		4721.64	0.0004		52.9245			46 P 53		
4708.12	0.0001		4708.12	0.0001		4721.86	0.0024		4721.86	0.0024		16.9412			48 R 16		
4708.46	0.0001		4708.46	0.0001		4722.64	0.0004		4722.64	0.0004		32.0000			47 P 32		
4708.46	0.0001		4708.46	0.0001		4722.91	0.0024		4722.91	0.0024		51.9231			45 P 52		
4708.47	0.0002		4708.47	0.0002		4723.26	0.0023		4723.26	0.0023		17.9444			49 R 17		
4708.48	0.0003		4708.48	0.0003		4723.36	0.0103		4723.36	0.0103		50.9216			46 P 51		
4708.62	0.0004		4708.62	0.0004		4724.38	0.0023		4724.38	0.0023		18.9474			48 R 18		
4708.77	0.0015		4708.77	0.0015		4724.65	0.0022		4724.65	0.0022		19.9500			49 R 19		
4709.07	0.0001		4709.07	0.0001		4724.68	0.0005		4724.68	0.0005		30.0000			47 P 30		
4709.42	0.0001		4709.42	0.0001		4725.09	0.0120		4725.09	0.0120		49.9200			45 P 50		
4709.94	0.0002		4709.94	0.0002		4725.71	0.0006		4725.71	0.0006		20.9524			48 R 20		
4710.03	0.0003		4710.03	0.0003		4725.84	0.0021		4725.84	0.0021		21.9545			49 R 21		
4710.07	0.0001		4710.07	0.0001		4726.02	0.0020		4726.02	0.0020		48.9184			46 P 49		
4710.81	0.0006		4710.81	0.0006		4726.70	0.0008		4726.70	0.0008		28.0000			47 P 28		
4710.91	0.0021		4710.91	0.0021		4726.80	0.0137		4726.80	0.0137		22.9565			48 R 22		
4711.23	0.0002		4711.23	0.0002		4727.29	0.0019		4727.29	0.0019		23.9583			49 R 23		
4711.57	0.0009		4711.57	0.0009		4727.37	0.0018		4727.37	0.0018		46.9149			46 P 47		
4712.36	0.0011		4712.36	0.0011		4727.71	0.0009		4727.71	0.0009		26.0000			47 P 26		
4712.51	0.0002		4712.51	0.0002		4728.50	0.0153		4728.50	0.0153		24.9600			48 R 24		
4712.73	0.0027		4712.73	0.0027		4728.70	0.0010		4728.70	0.0010		25.9615			49 R 25		
4713.08	0.0013		4713.08	0.0013		4728.71	0.0016		4728.71	0.0016		45.9130			45 P 46		
4713.78	0.0001		4713.78	0.0001		4728.73	0.0017		4728.73	0.0017		24.0000			47 P 24		
4713.89	0.0016		4713.89	0.0016		4729.70	0.0013		4729.70	0.0013		44.9111			46 P 45		
4714.54	0.0036		4714.54	0.0036		4730.03	0.0014		4730.03	0.0014		27.9643			49 R 27		
4715.59	0.0018		4715.59	0.0018		4730.16	0.0015		4730.16	0.0015		26.9630			48 R 26		
4715.02	0.0001		4715.02	0.0001		4730.67	0.0015		4730.67	0.0015		43.9091			45 P 44		
4715.37	0.0001		4715.37	0.0001		4731.33	0.0012		4731.33	0.0012		29.9667			49 R 29		
4715.42	0.0019		4715.42	0.0019		4731.58	0.0013		4731.58	0.0013		28.9655			48 R 28		
4716.07	0.0020		4716.07	0.0020		4731.66	0.0016		4731.66	0.0016		22.0000			47 P 22		
4716.33	0.0045		4716.33	0.0045		4731.87	0.0181		4731.87	0.0181		42.9070			46 P 43		
4716.39	0.0001		4716.39	0.0001		4732.61	0.0010		4732.61	0.0010		31.9688			49 R 31		
4716.94	0.0022		4716.94	0.0022		4732.63	0.0019		4732.63	0.0019		30.9677			48 R 30		
4717.48	0.0001		4717.48	0.0001		4732.98	0.0011		4732.98	0.0011		41.9048			45 P 42		
4717.54	0.0023		4717.54	0.0023		4733.53	0.0188		4733.53	0.0188		20.0000			47 P 20		
4718.11	0.0058		4718.11	0.0058		4733.60	0.0021		4733.60	0.0021		163.88			49 R 33		
4718.45	0.0023		4718.45	0.0023		4733.87	0.0008		4733.87	0.0008		1086.65			33.9706		
4718.50	0.0001		4718.50	0.0001		4734.38	0.0009		4734.38	0.0009		2009.16			40.9024		
4719.00	0.0024		4719.00	0.0024		4732.98	0.0011		4732.98	0.0011		40.9024			46 P 41		
4719.57	0.0003		4719.57	0.0003		4733.53	0.0188		4733.53	0.0188		32.9697			48 R 32		
						4733.60	0.0021		4733.60	0.0021		18.0000			47 P 18		
						4733.87	0.0008		4733.87	0.0008		133.45			45 P 40		
						4734.38	0.0009		4734.38	0.0009		1977.09			49 R 35		
												1140.51			49 R 34		
												1113.93			48 R 33		



4734.56	0.0025	1945.79	38.8974	46 P 39	4745.71	0.0004	2280.08	50.0000	44 P 50
4735.11	0.0007	1197.49	37.9737	49 R 37	4745.75	0.0077	1631.16	26.8519	46 P 27
4735.19	0.0192	106.14	16.0000	47 P 16	4746.22	0.0005	2340.68	64.9846	41 P 65
4735.52	0.0027	1915.28	37.8947	45 P 38	4746.45	0.0040	2.34	2.0000	47 P 2
4735.76	0.0007	1169.44	36.9730	48 R 36	4746.51	0.0005	1013.89	52.0000	42 P 52
4736.34	0.0005	1257.58	39.9750	49 R 39	4746.66	0.0082	1610.03	25.8462	45 P 52
4736.37	0.0001	1436.43	62.0000	42 P 62	4747.49	0.0006	975.66	51.0000	43 P 51
4736.48	0.0031	1885.54	36.8919	46 P 37	4747.55	0.0089	1589.67	24.8400	46 P 25
4736.83	0.0188	81.95	14.0000	47 P 14	4747.63	0.0004	2394.82	65.9848	40 P 66
4737.14	0.0006	1228.07	38.9744	48 R 38	4747.74	0.0004	2202.92	48.0000	44 P 48
4737.41	0.0001	1390.89	61.0000	43 P 61	4748.45	0.0092	1570.10	23.8333	45 P 24
4737.43	0.0034	1856.59	35.8889	45 P 36	4748.46	0.0008	2240.19	62.9841	41 P 63
4737.54	0.0003	1320.80	41.9762	49 R 41	4748.48	0.0008	938.16	50.0000	42 P 50
4738.37	0.0039	1828.41	34.8857	46 P 35	4748.79	0.0020	0.00	1.0000	47 R 0
4738.44	0.0001	1346.07	60.0000	42 P 60	4749.33	0.0097	1551.30	22.8261	46 P 23
4738.46	0.0178	60.88	12.0000	47 P 12	4749.45	0.0010	901.40	49.0000	43 P 49
4738.50	0.0005	1289.82	40.9756	48 R 40	4749.70	0.0007	2292.62	63.9844	40 P 64
4738.72	0.0003	1387.12	43.9773	49 R 43	4749.75	0.0006	2128.87	46.0000	44 P 46
4739.31	0.0043	1801.02	33.8824	45 P 34	4750.22	0.0101	1533.30	21.8182	45 P 22
4739.36	0.0001	2660.72	70.9025	41 P 71	4750.33	0.0060	2.34	3.0000	47 R 2
4739.46	0.0001	1301.99	59.0000	43 P 59	4750.42	0.0011	865.37	48.0000	42 P 48
4739.47	0.0001	2530.19	56.0000	44 P 56	4750.67	0.0013	2142.79	60.9836	41 P 61
4739.85	0.0003	1354.69	42.9767	48 R 42	4751.09	0.0106	1516.07	20.8095	46 P 21
4739.89	0.0002	1456.56	45.9783	49 R 45	4751.39	0.0013	830.07	47.0000	43 P 47
4740.08	0.0163	42.93	10.0000	47 P 10	4751.74	0.0008	2057.92	44.0000	44 P 44
4740.24	0.0047	1774.41	32.8788	46 P 33	4751.75	0.0010	2193.52	61.9839	40 P 62
4740.49	0.0002	1258.63	58.0000	42 P 58	4751.87	0.0096	7.80	5.0000	47 R 4
4741.03	0.0001	1529.11	47.9792	49 R 47	4751.97	0.0108	1499.63	19.8000	45 P 20
4741.18	0.0052	1748.58	31.8750	45 P 32	4752.35	0.0015	795.51	46.0000	42 P 46
4741.19	0.0002	1422.68	44.9778	48 R 44	4752.84	0.0112	1483.96	18.7895	46 P 19
4741.50	0.0002	1216.01	57.0000	43 P 57	4752.86	0.0020	2048.50	58.9831	41 P 59
4741.57	0.0001	2443.72	54.0000	44 P 54	4753.30	0.0017	761.68	45.0000	43 P 45
4741.67	0.0001	2550.95	68.9855	41 P 69	4753.40	0.0130	16.39	7.0000	47 R 6
4741.69	0.0140	28.10	8.0000	47 P 8	4753.70	0.0113	1469.09	17.7778	45 P 18
4742.10	0.0058	1723.53	30.8710	46 P 31	4753.71	0.0011	1990.08	42.0000	44 P 42
4742.51	0.0002	1493.78	46.9787	48 R 46	4753.78	0.0015	2097.53	59.9833	40 P 60
4742.52	0.0003	1174.12	56.0000	42 P 56	4754.25	0.0019	728.59	44.0000	42 P 44
4743.02	0.0062	1699.27	29.8667	45 P 30	4754.56	0.0115	1454.99	16.7647	46 P 17
4743.29	0.0111	16.39	6.0000	47 P 6	4754.91	0.0157	28.10	9.0000	47 R 8
4743.44	0.0001	2608.53	69.9857	40 P 70	4755.03	0.0030	1957.31	56.9825	41 P 57
4743.52	0.0003	1132.97	55.0000	43 P 55	4755.20	0.0022	696.22	43.0000	43 P 43
4743.65	0.0001	2360.35	52.0000	44 P 52	4755.42	0.0114	1441.68	15.7500	45 P 16
4743.83	0.0001	1568.01	48.9796	48 R 48	4755.66	0.0015	1925.35	40.0000	44 P 40
4743.94	0.0068	1675.78	28.8621	46 P 29	4755.80	0.0024	2004.64	57.9828	40 P 58
4743.96	0.0004	2444.26	66.9851	41 P 67	4756.14	0.0026	664.59	42.0000	42 P 42
4744.53	0.0003	1092.54	54.0000	42 P 54	4756.27	0.0114	1429.15	14.7333	46 P 15
4744.85	0.0073	1653.08	27.8571	45 P 28	4756.41	0.0180	42.93	11.0000	47 R 10
4744.87	0.0078	7.80	4.0000	47 P 4	4757.07	0.0029	633.70	41.0000	43 P 41
4745.52	0.0004	1052.85	53.0000	43 P 53	4757.11	0.0112	1417.40	13.7143	45 P 14
4745.54	0.0003	2500.13	67.9853	40 P 68	4757.17	0.0043	1869.23	54.9818	41 P 55

LINE		L		E		BAND		L		E		BAND	
FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM
/ATM STP		/ATM STP		/ATM STP		/ATM STP		/ATM STP		/ATM STP		/ATM STP	
-3		-3		-3		-3		-3		-3		-3	
STP		STP		STP		STP		STP		STP		STP	
ID		ID		ID		ID		ID		ID		ID	
4757.59	0.0018	1863.73	38.0000	4767.01	0.0001	1589.67	0.3138	4767.01	0.0001	1589.67	0.3138	4767.01	0.0001
4757.80	0.0036	1914.86	55.9821	4767.03	0.0087	342.333	30.0000	4767.03	0.0087	342.333	30.0000	4767.03	0.0087
4757.90	0.0194	60.88	13.0000	4767.10	0.0001	1570.10	0.3267	4767.10	0.0001	1570.10	0.3267	4767.10	0.0001
4757.96	0.0109	1406.43	12.6923	4767.24	0.0001	1551.30	0.3406	4767.24	0.0001	1551.30	0.3406	4767.24	0.0001
4758.00	0.0032	603.54	40.0000	4767.34	0.0001	1533.30	0.3557	4767.34	0.0001	1533.30	0.3557	4767.34	0.0001
4758.79	0.0106	1396.25	11.6667	4767.44	0.0001	1516.07	0.3723	4767.44	0.0001	1516.07	0.3723	4767.44	0.0001
4758.93	0.0036	574.11	39.0000	4767.54	0.0242	1475.40	4.49778	4767.54	0.0242	1475.40	4.49778	4767.54	0.0242
4759.29	0.0063	1784.25	52.9811	4767.54	0.0002	1499.63	0.3905	4767.54	0.0002	1499.63	0.3905	4767.54	0.0002
4759.38	0.0203	81.95	15.0000	4767.56	0.0208	1512.63	45.9783	4767.56	0.0208	1512.63	45.9783	4767.56	0.0208
4759.49	0.0022	1805.23	36.0000	4767.63	0.0002	1483.96	0.4105	4767.63	0.0002	1483.96	0.4105	4767.63	0.0002
4759.63	0.0102	1386.85	10.6364	4767.72	0.0002	1469.09	0.4327	4767.72	0.0002	1469.09	0.4327	4767.72	0.0002
4759.79	0.0052	1828.19	53.9815	4767.80	0.0003	1454.99	0.4575	4767.80	0.0003	1454.99	0.4575	4767.80	0.0003
4759.85	0.0041	545.42	38.0000	4767.88	0.0003	1441.68	0.4853	4767.88	0.0003	1441.68	0.4853	4767.88	0.0003
4760.45	0.0094	1378.24	9.6000	4767.91	0.0094	320.25	29.0000	4767.91	0.0094	320.25	29.0000	4767.91	0.0094
4760.76	0.0046	517.46	37.0000	4767.95	0.0003	1429.15	0.5167	4767.95	0.0003	1429.15	0.5167	4767.95	0.0003
4760.85	0.0204	106.14	17.0000	4767.99	0.0143	273.89	27.0000	4767.99	0.0143	273.89	27.0000	4767.99	0.0143
4761.28	0.0088	1370.41	8.5556	4768.02	0.0005	1417.40	0.5524	4768.02	0.0005	1417.40	0.5524	4768.02	0.0005
4761.38	0.0091	1702.37	50.9804	4768.08	0.0006	1406.43	0.5934	4768.08	0.0006	1406.43	0.5934	4768.08	0.0006
4761.38	0.0028	1749.84	34.0000	4768.14	0.0006	1396.25	0.6410	4768.14	0.0006	1396.25	0.6410	4768.14	0.0006
4761.67	0.0051	490.24	36.0000	4768.19	0.0007	1386.85	0.6970	4768.19	0.0007	1386.85	0.6970	4768.19	0.0007
4761.75	0.0076	1744.63	51.9808	4768.24	0.0008	1378.24	0.7636	4768.24	0.0008	1378.24	0.7636	4768.24	0.0008
4762.10	0.0079	1363.36	7.5000	4768.29	0.0008	1370.41	0.8444	4768.29	0.0008	1370.41	0.8444	4768.29	0.0008
4762.30	0.0200	133.45	19.0000	4768.33	0.0010	1363.36	0.9444	4768.33	0.0010	1363.36	0.9444	4768.33	0.0010
4762.58	0.0056	463.75	35.0000	4768.36	0.0011	1357.09	1.0714	4768.36	0.0011	1357.09	1.0714	4768.36	0.0011
4762.91	0.0071	1357.09	6.4286	4768.40	0.0014	1351.61	1.2381	4768.40	0.0014	1351.61	1.2381	4768.40	0.0014
4763.25	0.0035	1697.56	32.0000	4768.42	0.0017	1346.91	1.4667	4768.42	0.0017	1346.91	1.4667	4768.42	0.0017
4763.46	0.0128	1623.61	48.9796	4768.44	0.0021	1342.99	1.8000	4768.44	0.0021	1342.99	1.8000	4768.44	0.0021
4763.48	0.0061	438.00	34.0000	4768.46	0.0029	1339.86	2.3333	4768.46	0.0029	1339.86	2.3333	4768.46	0.0029
4763.71	0.0109	1664.18	49.9800	4768.48	0.0040	1337.51	3.3333	4768.48	0.0040	1337.51	3.3333	4768.48	0.0040
4763.72	0.0059	1351.61	5.3333	4768.73	0.0054	1559.43	26.0000	4768.73	0.0054	1559.43	26.0000	4768.73	0.0054
4763.74	0.0190	163.88	21.0000	4768.78	0.0100	298.90	28.0000	4768.78	0.0100	298.90	28.0000	4768.78	0.0100
4764.37	0.0068	412.98	33.0000	4769.38	0.0125	316.79	29.0000	4769.38	0.0125	316.79	29.0000	4769.38	0.0125
4764.53	0.0049	1346.91	4.2000	4769.47	0.0281	1441.53	43.9773	4769.47	0.0281	1441.53	43.9773	4769.47	0.0281
4765.09	0.0040	1648.40	30.0000	4769.54	0.0324	1405.97	42.9767	4769.54	0.0324	1405.97	42.9767	4769.54	0.0324
4765.17	0.0178	197.43	23.0000	4769.64	0.0107	278.29	27.0000	4769.64	0.0107	278.29	27.0000	4769.64	0.0107
4765.26	0.0074	388.69	32.0000	4770.51	0.0114	258.42	26.0000	4770.51	0.0114	258.42	26.0000	4770.51	0.0114
4765.33	0.0035	1342.99	3.0000	4770.51	0.0061	1519.63	24.0000	4770.51	0.0061	1519.63	24.0000	4770.51	0.0061
4765.51	0.0177	1547.95	46.9787	4770.76	0.0107	362.81	31.0000	4770.76	0.0107	362.81	31.0000	4770.76	0.0107
4765.64	0.0151	1586.85	47.9792	4770.81	0.0021	1337.51	1.6667	4770.81	0.0021	1337.51	1.6667	4770.81	0.0021
4766.13	0.0021	1339.86	1.6667	4771.35	0.0373	1373.54	41.9762	4771.35	0.0373	1373.54	41.9762	4771.35	0.0373
4766.15	0.0081	365.14	31.0000	4771.36	0.0120	239.28	25.0000	4771.36	0.0120	239.28	25.0000	4771.36	0.0120
4766.59	0.0161	234.10	25.0000	4771.52	0.0427	1339.65	40.9756	4771.52	0.0427	1339.65	40.9756	4771.52	0.0427
4766.77	0.0001	1631.16	0.2910	4771.58	0.0035	1339.86	3.0000	4771.58	0.0035	1339.86	3.0000	4771.58	0.0035
4766.90	0.0001	1610.03	0.3020	4772.13	0.0090	411.95	33.0000	4772.13	0.0090	411.95	33.0000	4772.13	0.0090
4766.92	0.0047	1602.36	28.0000	4772.21	0.0126	220.88	24.0000	4772.21	0.0126	220.88	24.0000	4772.21	0.0126



4772.28	0.0066	1482.94	22.0000	44 P 22	4781.50	0.0008	2278.89	76.0000	38 P 76
4772.34	0.0050	1342.99	4.2000	45 R 4	4781.81	0.0123	1454.99	17.7778	46 R 17
4773.06	0.0131	203.21	23.0000	43 P 23	4781.84	0.0001	2722.01	58.0000	39 P 58
4773.09	0.0062	1346.91	5.3333	46 R 5	4782.06	0.0139	57.44	12.0000	42 P 12
4773.23	0.0488	1308.67	39.9750	40 P 40	4782.37	0.1412	1031.14	29.9667	40 P 30
4773.47	0.0075	464.20	35.0000	47 R 34	4782.49	0.0012	917.11	49.0000	47 R 48
4773.49	0.0554	1276.44	38.9744	41 P 39	4782.51	0.0065	1328.35	10.0000	44 P 10
4773.85	0.0072	1351.61	6.4286	45 R 6	4782.51	0.0121	1469.09	18.7895	45 R 18
4773.90	0.0137	186.28	22.0000	42 P 22	4782.85	0.0133	48.60	11.0000	43 P 11
4774.03	0.0072	1449.37	20.0000	44 P 20	4782.98	0.1524	1007.14	28.9655	41 P 29
4774.46	0.0001	2649.52	82.0000	38 P 82	4783.20	0.0117	1483.96	19.8000	46 R 19
4774.59	0.0083	1357.09	7.5000	46 R 7	4783.63	0.0126	40.50	10.0000	42 P 10
4774.74	0.0141	170.08	21.0000	43 P 21	4783.71	0.0008	994.25	51.0000	47 R 50
4774.81	0.0060	519.57	37.0000	47 R 36	4783.80	0.0014	2161.51	74.0000	38 P 74
4775.09	0.0626	1246.92	37.9737	40 P 38	4783.89	0.0114	1499.63	20.8095	45 R 20
4775.34	0.0092	1363.36	8.5556	45 R 8	4784.14	0.0056	1313.51	8.0000	44 P 8
4775.43	0.0703	1216.34	36.9730	41 P 37	4784.16	0.1648	985.00	27.9643	40 P 28
4775.57	0.0145	154.62	20.0000	42 P 20	4784.30	0.0001	2632.44	56.0000	39 P 56
4775.76	0.0075	1418.92	18.0000	44 P 18	4784.41	0.0118	33.14	9.0000	43 P 9
4776.07	0.0100	1370.41	9.6000	46 R 9	4784.57	0.0111	1516.07	21.8182	46 R 21
4776.13	0.0047	578.05	39.0000	47 R 38	4784.82	0.1762	962.63	26.9630	41 P 27
4776.40	0.0147	139.90	19.0000	43 P 19	4784.92	0.0005	1074.49	53.0000	47 R 52
4776.81	0.0105	1378.24	10.6364	45 R 10	4785.18	0.0108	26.51	8.0000	42 P 8
4776.84	0.0003	2522.89	80.0000	38 P 80	4785.25	0.0107	1533.30	22.8261	45 R 22
4776.93	0.0788	1188.29	35.9722	40 P 36	4785.77	0.0044	1301.80	6.0000	44 P 6
4777.22	0.0150	125.91	18.0000	42 P 18	4785.92	0.0103	1551.30	23.8333	46 R 23
4777.35	0.0877	1159.37	34.9714	41 P 35	4785.93	0.1886	941.98	25.9515	40 P 26
4777.43	0.0037	639.64	41.0000	47 R 40	4785.95	0.0098	20.62	7.0000	43 P 7
4777.48	0.0076	1391.66	16.0000	44 P 16	4786.06	0.0023	2047.21	72.0000	38 P 72
4777.54	0.0111	1386.85	11.6667	46 R 11	4786.10	0.0003	1157.83	55.0000	47 R 54
4778.04	0.0151	112.66	17.0000	43 P 17	4786.59	0.0097	1570.10	24.8400	45 R 24
4778.26	0.0115	1396.25	12.6923	45 R 12	4786.63	0.1995	921.25	24.9600	41 P 25
4778.72	0.0028	704.34	43.0000	47 R 42	4786.72	0.0003	2545.98	54.0000	39 P 54
4778.76	0.0976	1132.78	33.9706	40 P 34	4786.72	0.0086	15.46	6.0000	42 P 5
4778.85	0.0150	100.14	16.0000	42 P 16	4787.25	0.0092	1589.67	25.8462	46 R 25
4778.98	0.0120	1406.43	13.7143	46 P 13	4787.27	0.0003	1244.28	57.0000	47 R 56
4779.17	0.0074	1367.39	14.0000	44 P 14	4787.37	0.0031	1293.21	4.0000	44 P 4
4779.18	0.0004	2399.35	78.0000	38 P 78	4787.48	0.0073	11.05	5.0000	43 P 5
4779.25	0.1076	1105.51	32.9697	41 P 33	4787.68	0.2113	902.10	23.9583	40 P 24
4779.66	0.0150	88.36	15.0000	43 P 15	4787.91	0.0086	1610.03	26.8519	45 R 26
4779.70	0.0121	1417.40	14.7333	45 R 14	4788.24	0.0060	7.36	4.0000	42 P 4
4780.00	0.0021	772.16	45.0000	47 R 44	4788.30	0.0038	1936.01	70.0000	38 P 70
4780.41	0.0122	1429.15	15.7500	46 R 15	4788.41	0.0001	1333.83	59.0000	47 R 58
4780.46	0.0148	77.32	14.0000	42 P 14	4788.43	0.2211	882.98	22.9565	41 P 23
4780.57	0.1184	1080.40	31.9688	40 P 32	4788.56	0.0082	1631.16	27.8571	46 R 27
4780.85	0.0071	1346.31	12.0000	44 P 12	4788.95	0.0016	1287.74	2.0000	44 P 2
4781.11	0.0123	1441.68	16.7647	45 R 16	4788.99	0.0045	4.42	3.0000	43 P 3
4781.12	0.1292	1054.76	30.9677	41 P 31	4789.10	0.0004	2462.62	52.0000	39 P 52
4781.25	0.0016	843.08	47.0000	47 R 46	4789.21	0.0075	1653.08	28.8621	45 R 28
4781.26	0.0144	67.01	13.0000	43 P 13	4789.43	0.2317	865.33	21.9545	40 P 22

LINE			LINE			LINE			LINE		
FREQ	INTENSITY	E	FREQ	INTENSITY	E	FREQ	INTENSITY	E	FREQ	INTENSITY	E
CM	CM / ATM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
STP	STP	STP	STP	STP	STP	STP	STP	STP	STP	STP	STP
4789.54	0.0001	1426.48	4799.62	0.0122	26.51	4797.62	0.0122	26.51	4797.62	0.0122	26.51
4789.73	0.0030	2.21	4797.76	0.0018	2042.03	4797.76	0.0018	2042.03	4797.76	0.0018	2042.03
4789.85	0.0071	1675.78	4797.92	0.2450	728.43	4797.92	0.2450	728.43	4797.92	0.2450	728.43
4790.21	0.2395	847.84	4798.29	0.0014	2160.27	4798.29	0.0014	2160.27	4798.29	0.0014	2160.27
4790.47	0.0015	0.74	4798.31	0.0131	33.14	4798.31	0.0131	33.14	4798.31	0.0131	33.14
4790.49	0.0065	1699.27	4798.31	0.0015	2075.66	4798.31	0.0015	2075.66	4798.31	0.0015	2075.66
4790.52	0.0063	1827.89	4798.78	0.2336	718.96	4798.78	0.2336	718.96	4798.78	0.2336	718.96
4791.12	0.0060	1723.53	4798.81	0.0072	1328.35	4798.81	0.0072	1328.35	4798.81	0.0072	1328.35
4791.15	0.2481	831.70	4798.90	0.0013	2110.09	4798.90	0.0013	2110.09	4798.90	0.0013	2110.09
4791.30	0.0008	1285.40	4798.99	0.0139	40.50	4798.99	0.0139	40.50	4798.99	0.0139	40.50
4791.45	0.0005	2382.37	4799.13	0.0392	1426.36	4799.13	0.0392	1426.36	4799.13	0.0392	1426.36
4791.76	0.0054	1748.58	4799.44	0.0011	2145.28	4799.44	0.0011	2145.28	4799.44	0.0011	2145.28
4791.94	0.0015	0.00	4799.58	0.2222	710.43	4799.58	0.2222	710.43	4799.58	0.2222	710.43
4791.96	0.2532	815.82	4799.67	0.0146	48.60	4799.67	0.0146	48.60	4799.67	0.0146	48.60
4792.37	0.0050	1774.41	4800.02	0.0009	2181.26	4800.02	0.0009	2181.26	4800.02	0.0009	2181.26
4792.67	0.0031	0.74	4800.25	0.0076	1346.31	4800.25	0.0076	1346.31	4800.25	0.0076	1346.31
4792.71	0.0101	1722.87	4800.34	0.0151	57.44	4800.34	0.0151	57.44	4800.34	0.0151	57.44
4792.84	0.0024	1287.74	4800.44	0.2062	702.55	4800.44	0.2062	702.55	4800.44	0.2062	702.55
4792.87	0.2589	801.19	4800.50	0.0019	2092.46	4800.50	0.0019	2092.46	4800.50	0.0019	2092.46
4793.00	0.0045	1801.02	4800.54	0.0008	2218.01	4800.54	0.0008	2218.01	4800.54	0.0008	2218.01
4793.39	0.0045	2.21	4801.01	0.0155	67.01	4801.01	0.0155	67.01	4801.01	0.0155	67.01
4793.60	0.0040	1828.41	4801.11	0.0006	2255.56	4801.11	0.0006	2255.56	4801.11	0.0006	2255.56
4793.70	0.2605	786.92	4801.22	0.1901	695.57	4801.22	0.1901	695.57	4801.22	0.1901	695.57
4793.76	0.0008	2305.23	4801.23	0.0595	1333.72	4801.23	0.0595	1333.72	4801.23	0.0595	1333.72
4794.11	0.0060	4.42	4801.61	0.0007	2293.87	4801.61	0.0007	2293.87	4801.61	0.0007	2293.87
4794.22	0.0036	1856.59	4801.68	0.0159	77.32	4801.68	0.0159	77.32	4801.68	0.0159	77.32
4794.36	0.0039	1293.21	4801.68	0.0080	1367.39	4801.68	0.0080	1367.39	4801.68	0.0080	1367.39
4794.56	0.2627	773.81	4802.08	0.1698	689.27	4802.08	0.1698	689.27	4802.08	0.1698	689.27
4794.81	0.0032	1885.54	4802.18	0.0004	2332.98	4802.18	0.0004	2332.98	4802.18	0.0004	2332.98
4794.82	0.0074	7.36	4802.34	0.0161	88.36	4802.34	0.0161	88.36	4802.34	0.0161	88.36
4794.87	0.0162	1620.94	4802.67	0.0024	2027.75	4802.67	0.0024	2027.75	4802.67	0.0024	2027.75
4795.41	0.2604	761.14	4802.84	0.0004	2372.84	4802.84	0.0004	2372.84	4802.84	0.0004	2372.84
4795.42	0.0028	1915.28	4802.85	0.1491	683.83	4802.85	0.1491	683.83	4802.85	0.1491	683.83
4795.53	0.0088	11.05	4802.99	0.0161	100.14	4802.99	0.0161	100.14	4802.99	0.0161	100.14
4795.86	0.0052	1301.80	4803.09	0.0082	1391.60	4803.09	0.0082	1391.60	4803.09	0.0082	1391.60
4796.00	0.0025	1945.79	4803.23	0.0004	2413.51	4803.23	0.0004	2413.51	4803.23	0.0004	2413.51
4796.04	0.0010	2231.20	4803.30	0.0887	1244.17	4803.30	0.0887	1244.17	4803.30	0.0887	1244.17
4796.23	0.0100	15.46	4803.64	0.0161	112.66	4803.64	0.0161	112.66	4803.64	0.0161	112.66
4796.25	0.2584	749.55	4803.69	0.1249	679.12	4803.69	0.1249	679.12	4803.69	0.1249	679.12
4796.60	0.0022	1977.09	4803.70	0.0003	2454.93	4803.70	0.0003	2454.93	4803.70	0.0003	2454.93
4796.93	0.0112	20.62	4804.12	0.0001	1216.34	4804.12	0.0001	1216.34	4804.12	0.0001	1216.34
4797.02	0.0254	1522.10	4804.26	0.0003	2497.16	4804.26	0.0003	2497.16	4804.26	0.0003	2497.16
4797.11	0.2517	738.49	4804.28	0.0159	125.91	4804.28	0.0159	125.91	4804.28	0.0159	125.91
4797.17	0.0020	2009.16	4804.46	0.1000	675.22	4804.46	0.1000	675.22	4804.46	0.1000	675.22
4797.34	0.0062	1513.51	4804.48	0.0080	1418.92	4804.48	0.0080	1418.92	4804.48	0.0080	1418.92



4804.49	0.0001	1159.37	0.0563	41 Q 35	4807.61	0.0120	675.22	0.4500	40 Q 4
4804.71	0.0001	2540.13	55.9286	46 R 55	4807.62	0.0157	672.09	0.5833	41 Q 3
4804.82	0.0031	1966.16	38.0000	39 P 38	4807.64	0.0228	669.75	0.8333	40 Q 2
4804.84	0.0002	1105.51	0.0597	41 Q 33	4807.65	0.0412	668.18	1.5000	41 Q 1
4804.92	0.6156	139.90	20.0000	43 R 19	4808.05	0.0133	220.88	25.0000	42 R 24
4805.00	0.0001	1246.92	0.0520	40 Q 38	4808.53	0.0063	1519.63	25.0000	44 R 24
4805.17	0.0003	1054.76	0.0635	41 Q 31	4808.66	0.0126	239.28	26.0000	43 R 25
4805.26	0.0001	2583.92	56.9298	45 R 56	4809.01	0.0048	1852.32	34.0000	39 P 34
4805.27	0.0001	1188.29	0.0548	40 Q 36	4809.20	0.0412	668.18	1.5000	41 R 1
4805.29	0.0718	672.09	2.6667	41 P 3	4809.26	0.0119	258.42	27.0000	42 R 26
4805.35	0.1304	1157.73	54.0000	38 P 54	4809.39	0.2676	994.16	50.0000	38 P 50
4805.48	0.0003	1007.14	0.0678	41 Q 29	4809.84	0.0056	1559.43	27.0000	44 R 26
4805.53	0.0001	1132.78	0.0580	40 Q 34	4809.86	0.0112	278.29	28.0000	43 R 27
4805.56	0.0153	154.62	21.0000	42 R 20	4810.00	0.0732	669.75	2.6667	40 R 2
4805.69	0.0001	2628.45	57.9310	46 R 57	4810.45	0.0104	298.90	29.0000	42 R 28
4805.77	0.0002	1080.40	0.0616	40 Q 32	4810.73	0.1011	672.09	3.7500	41 R 3
4805.77	0.0004	962.63	0.0728	41 Q 27	4811.05	0.0098	320.25	30.0000	43 R 29
4805.85	0.0075	1449.37	21.0000	44 R 20	4811.06	0.0058	1800.07	32.0000	39 P 32
4806.00	0.0003	1031.14	0.0656	40 Q 30	4811.14	0.0050	1602.36	29.0000	44 R 28
4806.03	0.0006	921.25	0.0785	41 Q 25	4811.38	0.3738	917.06	48.0000	38 P 48
4806.06	0.0411	669.75	1.5000	40 P 2	4811.55	0.1283	675.22	4.8000	40 R 4
4806.19	0.0148	170.08	22.0000	43 R 21	4811.63	0.0090	342.33	31.0000	42 R 30
4806.21	0.0004	985.00	0.0702	40 Q 28	4812.21	0.0084	365.14	32.0000	43 R 31
4806.24	0.0001	2673.79	58.9322	45 R 58	4812.23	0.1520	679.12	5.8333	41 R 5
4806.28	0.0007	882.98	0.0851	41 Q 23	4812.41	0.0042	1648.40	31.0000	44 R 30
4806.40	0.0005	941.98	0.0755	40 Q 26	4812.78	0.0078	388.69	33.0000	42 R 32
4806.50	0.0011	847.84	0.0931	41 Q 21	4813.08	0.0070	1750.94	30.0000	39 P 30
4806.59	0.0008	902.10	0.0817	40 Q 24	4813.09	0.1757	683.83	6.8571	40 R 6
4806.71	0.0014	815.62	0.1026	41 Q 19	4813.34	0.5136	843.00	46.0000	38 P 46
4806.71	0.0010	865.33	0.0889	40 Q 22	4813.35	0.0071	412.98	34.0000	43 R 33
4806.81	0.0144	186.28	23.0000	42 R 22	4813.66	0.0036	1697.56	33.0000	44 R 32
4806.89	0.0018	786.92	0.1144	41 Q 17	4813.72	0.1954	689.27	7.8750	41 R 7
4806.91	0.0013	831.70	0.0976	40 Q 20	4813.92	0.0064	438.00	35.0000	42 R 34
4806.93	0.0040	1907.68	36.0000	39 P 36	4814.48	0.0058	463.75	36.0000	43 R 35
4807.05	0.0016	801.19	0.1082	40 Q 18	4814.61	0.2152	695.57	8.8889	40 R 8
4807.06	0.0023	761.14	0.1292	41 Q 15	4814.88	0.0030	1749.84	35.0000	44 R 34
4807.17	0.0020	773.81	0.1213	40 Q 16	4815.03	0.0053	490.24	37.0000	42 R 36
4807.20	0.0029	738.49	0.1484	41 Q 13	4815.06	0.0082	1704.92	28.0000	39 P 28
4807.20	0.0071	1482.94	23.0000	44 R 22	4815.19	0.2305	702.55	9.9000	41 R 9
4807.28	0.0026	749.55	0.1381	40 Q 14	4815.29	0.6937	772.09	44.0000	38 P 44
4807.32	0.0038	718.96	0.1742	41 Q 11	4815.58	0.0048	517.46	38.0000	43 R 37
4807.37	0.0032	728.43	0.1603	40 Q 12	4816.09	0.0024	1805.23	37.0000	44 R 36
4807.38	0.1884	1074.39	52.0000	38 P 52	4816.12	0.2458	710.43	10.9091	40 R 10
4807.43	0.0049	702.55	0.2111	41 Q 9	4816.18	0.0043	545.42	39.0000	42 R 38
4807.43	0.0138	203.21	24.0000	43 R 23	4816.18	0.0001	1936.16	70.0000	35 P 70
4807.46	0.0043	710.43	0.1909	40 Q 10	4816.65	0.0001	1896.03	55.9821	36 P 56
4807.51	0.0067	689.27	0.2679	41 Q 7	4816.64	0.2562	718.96	11.9167	41 R 11
4807.52	0.0056	695.57	0.2361	40 Q 8	4816.66	0.0036	574.11	40.0000	43 R 39
4807.56	0.0079	683.83	0.3095	40 Q 6	4817.02	0.0093	1662.02	26.0000	39 P 26
4807.56	0.0096	679.12	0.3667	41 Q 5	4817.19	0.0034	603.54	41.0000	42 R 40



LINE	FREQ	INTENSITY	E	L	BAND	LINE	FREQ	INTENSITY	E	L	BAND
-1	-1	-1	-1	-1	ID	-1	-1	-1	-1	-1	ID
CM	CM	CM	CM	CM		CM	CM	CM	CM	CM	
		STP				STP					
4817.22	704.28	0.9209		42.0000	38 P 42	4823.92	0.0004	2280.08	51.0000	44 R 50	
4817.28	1863.73	0.0018		39.0000	44 R 38	4824.10	0.0004	1092.54	55.0000	42 R 54	
4817.62	728.43	0.2668		12.9231	40 R 12	4824.53	0.0129	1521.60	18.0000	39 P 18	
4817.72	633.70	0.0030		42.0000	43 R 41	4824.56	0.0003	1132.97	56.0000	43 R 55	
4817.98	1850.39	0.0001		54.9818	37 P 55	4824.73	2.3984	464.16	34.0000	37 P 34	
4818.07	738.49	0.2724		13.9286	41 R 13	4824.84	0.0004	1604.77	48.9796	37 P 49	
4818.24	664.59	0.0026		43.0000	42 R 42	4824.87	0.2440	865.33	22.9565	40 R 22	
4818.44	1925.35	0.0015		41.0000	44 R 40	4824.90	0.2325	882.98	23.9583	41 R 23	
4818.69	1828.04	0.0001		68.0000	35 P 68	4824.94	0.0003	2360.35	53.0000	44 R 52	
4818.76	696.22	0.0023		44.0000	43 R 43	4825.00	0.0003	1174.12	57.0000	42 R 56	
4818.94	1622.24	0.0106		24.0000	39 P 24	4825.45	0.0002	1216.01	58.0000	43 R 57	
4818.96	1809.35	0.0001		53.9815	36 P 54	4825.78	0.0004	1568.01	47.9792	36 P 48	
4819.10	749.55	0.2783		14.9333	40 R 14	4825.88	0.0002	1258.63	59.0000	42 R 58	
4819.12	639.58	1.2016		40.0000	38 P 40	4825.94	0.0001	2443.72	55.0000	44 R 54	
4819.27	728.59	0.0020		45.0000	42 R 44	4826.04	0.0006	1522.23	62.0000	35 P 62	
4819.47	761.14	0.2793		15.9375	41 R 15	4826.20	0.2092	921.25	25.9615	41 R 25	
4819.58	1990.08	0.0011		43.0000	44 R 42	4826.28	0.2220	902.10	24.9600	40 R 24	
4819.78	761.68	0.0018		46.0000	43 R 45	4826.31	0.0001	1301.99	60.0000	43 R 59	
4820.28	795.51	0.0015		47.0000	42 R 46	4826.33	0.0130	1494.29	16.0000	39 P 16	
4820.30	1765.41	0.0001		52.9811	37 P 53	4826.57	2.9109	411.91	32.0000	38 P 32	
4820.56	773.81	0.2807		16.9412	40 R 16	4826.73	0.0001	1346.07	61.0000	42 R 60	
4820.70	2057.92	0.0009		45.0000	44 R 44	4826.91	0.0001	2530.19	57.0000	44 R 56	
4820.78	830.07	0.0013		48.0000	43 R 47	4827.06	0.0005	1529.11	46.9787	37 P 47	
4820.83	1585.57	0.0114		22.0000	39 P 22	4827.16	0.0001	1390.89	62.0000	43 R 61	
4820.86	786.92	0.2776		17.9444	41 R 17	4827.49	0.1844	962.63	27.9643	41 R 27	
4821.01	577.99	1.5404		38.0000	38 P 38	4827.57	0.0001	1436.43	63.0000	42 R 62	
4821.17	1723.01	0.0002		66.0000	35 P 66	4827.67	0.1976	941.98	26.9630	40 R 26	
4821.26	1725.79	0.0001		51.9808	36 P 52	4828.00	0.0006	1493.78	45.9783	36 P 46	
4821.27	865.37	0.0012		49.0000	42 R 48	4828.11	0.0129	1470.10	14.0000	39 P 14	
4821.76	901.40	0.0010		50.0000	43 R 49	4828.38	3.4662	362.78	30.0000	38 P 30	
4821.80	2128.87	0.0006		47.0000	44 R 46	4828.44	0.0010	1426.48	60.0000	35 P 60	
4822.01	801.19	0.2749		18.9474	40 R 18	4828.75	0.1592	1007.14	29.9667	41 R 29	
4822.23	815.82	0.2682		19.9500	41 R 19	4829.04	0.1724	985.00	28.9655	40 R 28	
4822.58	938.16	0.0008		51.0000	42 R 50	4829.27	0.0006	1456.56	44.9778	37 P 45	
4822.70	1683.53	0.0002		50.9804	37 P 51	4829.85	0.0123	1449.04	12.0000	39 P 12	
4822.71	1552.03	0.0123		20.0000	39 P 20	4829.99	0.1348	1054.76	31.9688	41 R 31	
4822.71	975.66	0.0008		52.0000	43 R 51	4830.18	4.0475	316.76	28.0000	38 P 28	
4822.87	2202.92	0.0004		49.0000	44 R 48	4830.19	0.0007	1422.68	43.9773	36 P 44	
4822.88	519.52	1.9398		36.0000	38 P 36	4830.40	0.1473	1031.14	30.9677	40 R 30	
4823.18	1013.89	0.0005		53.0000	42 R 52	4830.81	0.0016	1333.83	58.0000	35 P 58	
4823.45	831.70	0.2622		20.9524	40 R 20	4831.21	0.1120	1105.51	33.9706	41 R 33	
4823.53	1645.34	0.0002		49.9800	36 P 50	4831.44	0.0008	1387.12	42.9767	37 P 43	
4823.57	847.84	0.2527		21.9545	41 R 21	4831.57	0.0111	1431.09	10.0000	39 P 10	
4823.62	1621.07	0.0004		64.0000	35 P 64	4831.75	0.1234	1080.40	32.9697	40 R 32	
4823.65	1052.85	0.0005		54.0000	43 R 53	4831.96	4.6313	273.86	26.0000	38 P 26	

4832.36	0.0009	1354.69	41.9762	36 P 42	4843.13	0.0112	1664.18	50.9804	40 R 50
4832.41	0.0913	1159.37	35.9722	41 R 35	4843.49	0.0065	1395.97	5.0000	39 R 4
4833.08	0.1015	1132.78	34.9714	40 R 34	4843.90	0.0032	1035.90	30.9677	37 P 31
4833.14	0.0022	1244.28	56.0000	35 P 56	4843.95	6.0328	60.87	12.0000	38 P 12
4833.25	0.0096	1416.26	8.0000	39 P 8	4844.05	0.0031	1957.31	57.9828	41 R 57
4833.58	0.0011	1320.80	40.9756	37 P 41	4844.12	0.0002	1529.72	64.0000	33 P 64
4833.58	0.0731	1216.34	37.9737	41 R 37	4844.31	0.0078	1744.63	52.9811	40 R 52
4833.72	5.1888	234.08	24.0000	38 P 24	4844.41	0.0133	843.08	46.0000	35 P 46
4834.39	0.0820	1188.29	36.9730	40 R 36	4844.79	0.0035	1012.27	29.9667	36 P 30
4834.50	0.0012	1289.82	39.9750	36 P 40	4844.96	0.0089	1404.56	7.0000	39 R 6
4834.73	0.0575	1276.44	39.9750	41 R 39	4844.97	0.0020	2048.50	59.9833	41 R 59
4834.91	0.0076	1404.56	6.0000	39 P 6	4845.29	0.0002	1482.71	63.0000	34 P 63
4835.45	0.0034	1157.83	54.0000	35 P 54	4845.47	0.0055	1828.19	54.9818	40 R 54
4835.47	5.6862	197.41	22.0000	38 P 22	4845.59	5.4874	42.92	10.0000	38 P 10
4835.69	0.0649	1246.92	38.9744	40 R 38	4845.85	0.0013	2142.79	61.9839	41 R 61
4835.70	0.0014	1257.58	38.9744	37 P 39	4845.88	0.0038	988.27	28.9655	37 P 29
4835.86	0.0445	1339.65	41.9762	41 R 41	4846.39	0.0107	1416.26	9.0000	39 R 8
4836.53	0.0053	1395.97	4.0000	39 P 4	4846.45	0.0002	1436.43	62.0000	33 P 62
4836.61	0.0016	1228.07	37.9737	36 P 38	4846.58	0.0180	772.16	44.0000	35 P 44
4836.97	0.0506	1308.67	40.9756	40 R 40	4846.62	0.0037	1914.86	56.9825	40 R 56
4836.97	0.0337	1405.97	43.9773	41 R 43	4846.71	0.0009	2240.19	63.9844	41 R 63
4837.20	6.0867	163.86	20.0000	38 P 20	4846.76	0.0041	966.13	27.9643	36 P 28
4837.73	0.0048	1074.49	52.0000	35 P 52	4847.22	4.7195	28.09	8.0000	38 P 8
4837.79	0.0018	1197.49	36.9730	37 P 37	4847.55	0.0005	2340.68	65.9848	41 R 65
4838.05	0.0252	1475.40	45.9783	41 R 45	4847.60	0.0003	1390.89	61.0000	34 P 61
4838.13	0.0028	1390.51	2.0000	39 P 2	4847.74	0.0025	2004.64	58.9831	40 R 58
4838.24	0.0387	1373.54	42.9767	40 R 42	4847.80	0.0122	1431.09	11.0000	39 R 10
4838.70	0.0020	1169.44	35.9722	36 P 36	4847.83	0.0044	943.77	26.9630	37 P 27
4838.91	6.3533	133.44	18.0000	38 P 18	4848.35	0.0004	2444.26	67.9853	41 R 67
4839.11	0.0184	1547.95	47.9792	41 R 47	4848.71	0.0047	923.12	25.9615	36 P 26
4839.48	0.0291	1441.53	44.9778	40 R 44	4848.72	0.0239	704.34	42.0000	35 P 42
4839.86	0.0022	1140.51	34.9714	37 P 35	4848.75	0.0005	1346.07	60.0000	33 P 60
4839.99	0.0070	994.25	50.0000	35 P 50	4848.84	3.7480	16.39	6.0000	38 P 6
4840.15	0.0133	1623.61	49.9800	41 R 49	4848.85	0.0016	2097.53	60.9836	40 R 60
4840.47	0.0014	1388.17	1.0000	39 R 0	4849.13	0.0001	2550.95	69.9857	41 R 69
4840.57	0.0001	1675.13	67.0000	34 P 67	4849.18	0.0133	1449.04	13.0000	39 R 12
4840.72	6.4512	106.13	16.0000	38 P 16	4849.75	0.0049	902.38	24.9600	37 P 25
4840.75	0.0216	1512.63	46.9787	40 R 46	4849.89	0.0006	1301.99	59.0000	34 P 59
4840.75	0.0024	1113.93	33.9706	36 P 34	4849.89	0.0001	2660.72	71.9861	41 R 71
4841.16	0.0095	1702.37	51.9808	41 R 51	4849.94	0.0010	2193.52	62.9841	40 R 62
4841.76	0.0001	1625.93	66.0000	33 P 66	4850.43	2.6060	7.80	4.0000	38 P 4
4841.89	0.0028	1086.65	32.9697	37 P 33	4850.52	0.0138	1470.10	15.0000	39 R 14
4841.93	0.0157	1586.85	48.9796	40 R 48	4850.62	0.0052	883.23	23.9583	36 P 24
4842.00	0.0040	1390.51	3.0000	39 R 2	4850.83	0.0311	639.64	40.0000	35 P 40
4842.15	0.0066	1784.25	53.9815	41 R 53	4851.01	0.0007	2292.62	64.9846	40 R 64
4842.21	0.0097	917.11	48.0000	35 P 48	4851.02	0.0007	1258.63	58.0000	33 P 58
4842.28	6.3511	81.94	14.0000	38 P 14	4851.65	0.0055	864.11	22.9565	37 P 23
4842.78	0.0030	1061.54	31.9688	36 P 32	4851.84	0.0140	1494.29	17.0000	39 R 16
4842.94	0.0002	1577.46	65.0000	34 P 65	4852.01	1.3384	2.34	2.0000	38 P 2
4843.11	0.0045	1869.23	55.9821	41 R 55	4852.06	0.0004	2394.82	66.9851	40 R 66



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
4852.15	0.0008	1216.01	57.0000	34 P 57	4862.93	0.1049	316.79	28.0000	35 P 28	4862.93	0.1049	316.79	28.0000	35 P 28
4852.51	0.0057	846.46	21.9545	36 P 22	4863.00	0.0045	830.07	47.0000	34 P 47	4863.00	0.0045	830.07	47.0000	34 P 47
4852.91	0.0400	578.05	38.0000	35 P 38	4863.25	0.0055	691.56	9.9000	36 P 10	4863.25	0.0055	691.56	9.9000	36 P 10
4853.09	0.0003	250.13	68.9855	40 R 68	4863.30	0.0041	1907.68	37.0000	39 R 36	4863.30	0.0041	1907.68	37.0000	39 R 36
4853.12	0.0137	1521.60	19.0000	39 R 18	4863.35	6.5617	60.87	13.0000	38 R 12	4863.35	6.5617	60.87	13.0000	38 R 12
4853.26	0.0010	1174.12	56.0000	33 P 56	4864.05	0.0053	795.51	46.0000	33 P 46	4864.05	0.0053	795.51	46.0000	33 P 46
4853.51	0.0060	828.97	20.9524	37 P 21	4864.12	0.0052	683.68	8.8889	37 P 9	4864.12	0.0052	683.68	8.8889	37 P 9
4854.11	0.0001	2608.53	70.9859	40 R 70	4864.27	0.0032	1966.16	39.0000	39 R 38	4864.27	0.0032	1966.16	39.0000	39 R 38
4854.36	0.6772	0.00	1.0000	38 R 0	4864.79	6.8364	81.94	15.0000	38 R 14	4864.79	6.8364	81.94	15.0000	38 R 14
4854.37	0.0012	1132.97	55.0000	34 P 55	4864.85	0.1201	273.89	26.0000	35 P 26	4864.85	0.1201	273.89	26.0000	35 P 26
4854.37	0.0062	812.83	19.9500	36 P 20	4864.94	0.0048	676.69	7.8750	36 P 8	4864.94	0.0048	676.69	7.8750	36 P 8
4854.38	0.0130	1552.03	21.0000	39 R 20	4865.02	0.0060	761.68	45.0000	34 P 45	4865.02	0.0060	761.68	45.0000	34 P 45
4854.97	0.0502	519.57	36.0000	35 P 36	4865.20	0.0025	2027.75	41.0000	39 R 40	4865.20	0.0025	2027.75	41.0000	39 R 40
4855.10	0.0001	2720.02	72.9863	40 R 72	4865.79	0.0043	670.40	6.8571	37 P 7	4865.79	0.0043	670.40	6.8571	37 P 7
4855.35	0.0063	796.94	18.9474	37 P 19	4866.10	0.0019	2092.46	43.0000	39 R 42	4866.10	0.0019	2092.46	43.0000	39 R 42
4855.48	0.0014	1092.54	54.0000	33 P 54	4866.12	0.0069	728.59	44.0000	33 P 44	4866.12	0.0069	728.59	44.0000	33 P 44
4855.61	0.0122	1585.57	23.0000	39 R 22	4866.22	6.8907	106.13	17.0000	38 R 16	4866.22	6.8907	106.13	17.0000	38 R 16
4855.90	2.0094	2.34	3.0000	38 R 2	4866.60	0.0037	664.95	5.8333	36 P 6	4866.60	0.0037	664.95	5.8333	36 P 6
4856.21	0.0064	782.31	17.9444	36 P 18	4866.74	0.1345	234.10	24.0000	35 P 24	4866.74	0.1345	234.10	24.0000	35 P 24
4856.57	0.0018	1052.85	53.0000	34 P 53	4866.97	0.0015	2160.27	45.0000	39 R 44	4866.97	0.0015	2160.27	45.0000	39 R 44
4856.80	0.0110	1622.24	25.0000	39 R 24	4867.14	0.0079	696.22	43.0000	34 P 43	4867.14	0.0079	696.22	43.0000	34 P 43
4857.00	0.0521	464.20	34.0000	35 P 34	4867.43	0.0031	660.24	4.8000	37 P 5	4867.43	0.0031	660.24	4.8000	37 P 5
4857.16	0.0065	768.04	16.9412	37 P 17	4867.63	6.7461	133.44	19.0000	38 R 18	4867.63	6.7461	133.44	19.0000	38 R 18
4857.42	3.2522	7.80	5.0000	38 R 4	4867.80	0.0010	2231.20	47.0000	39 R 46	4867.80	0.0010	2231.20	47.0000	39 R 46
4857.66	0.0021	1013.89	52.0000	33 P 52	4868.16	0.0090	664.59	42.0000	33 P 42	4868.16	0.0090	664.59	42.0000	33 P 42
4857.96	0.0098	1662.02	27.0000	39 R 26	4868.23	0.0025	656.35	3.7500	36 P 4	4868.23	0.0025	656.35	3.7500	36 P 4
4858.01	0.0066	754.93	15.9375	36 P 16	4868.59	0.0008	2305.23	49.0000	39 R 48	4868.59	0.0008	2305.23	49.0000	39 R 48
4858.74	0.0024	975.66	51.0000	34 P 51	4868.61	0.1474	197.43	22.0000	35 P 22	4868.61	0.1474	197.43	22.0000	35 P 22
4858.93	4.3819	16.39	7.0000	38 R 6	4869.02	6.8331	163.86	21.0000	38 R 20	4869.02	6.8331	163.86	21.0000	38 R 20
4858.95	0.0065	742.27	14.9333	37 P 15	4869.04	0.0018	653.21	2.6667	37 P 3	4869.04	0.0018	653.21	2.6667	37 P 3
4859.01	0.0755	411.95	32.0000	35 P 32	4869.17	0.0102	633.70	41.0000	34 P 41	4869.17	0.0102	633.70	41.0000	34 P 41
4859.09	0.0086	1704.92	29.0000	39 R 28	4869.35	0.0005	2382.37	51.0000	39 R 50	4869.35	0.0005	2382.37	51.0000	39 R 50
4859.79	0.0064	730.68	13.9286	36 P 14	4869.84	0.0010	650.87	1.5000	36 P 2	4869.84	0.0010	650.87	1.5000	36 P 2
4859.82	0.0028	938.16	50.0000	33 P 50	4870.07	0.0004	2462.62	53.0000	39 R 52	4870.07	0.0004	2462.62	53.0000	39 R 52
4860.19	0.0074	1750.94	31.0000	39 R 30	4870.18	0.0115	603.54	40.0000	33 P 40	4870.18	0.0115	603.54	40.0000	33 P 40
4860.42	5.3238	28.09	9.0000	38 R 8	4870.39	5.9876	197.41	23.0000	38 R 22	4870.39	5.9876	197.41	23.0000	38 R 22
4860.70	0.0063	719.61	12.9231	37 P 13	4870.45	0.1578	163.88	20.0000	35 P 20	4870.45	0.1578	163.88	20.0000	35 P 20
4860.89	0.0033	901.40	49.0000	34 P 49	4870.76	0.0001	719.61	0.1484	37 Q 13	4870.76	0.0001	719.61	0.1484	37 Q 13
4860.98	0.0899	362.81	30.0000	35 P 30	4870.76	0.0003	2545.98	55.0000	39 R 54	4870.76	0.0003	2545.98	55.0000	39 R 54
4861.26	0.0051	1800.07	33.0000	39 R 32	4870.84	0.0001	709.55	0.1603	36 Q 12	4870.84	0.0001	709.55	0.1603	36 Q 12
4861.53	0.0062	709.55	11.9167	36 P 12	4870.94	0.0001	700.08	0.1742	37 Q 11	4870.94	0.0001	700.08	0.1742	37 Q 11
4861.90	6.0565	42.92	11.0000	38 R 10	4871.01	0.0001	691.56	0.1909	36 Q 10	4871.01	0.0001	691.56	0.1909	36 Q 10
4861.95	0.0038	865.37	48.0000	33 P 48	4871.09	0.0001	683.68	0.2111	37 Q 9	4871.09	0.0001	683.68	0.2111	37 Q 9
4862.30	0.0051	1852.32	35.0000	39 R 34	4871.15	0.0001	676.69	0.2361	36 Q 8	4871.15	0.0001	676.69	0.2361	36 Q 8
4862.42	0.0058	700.08	10.9091	37 P 11	4871.17	0.0130	574.11	39.0000	34 P 39	4871.17	0.0130	574.11	39.0000	34 P 39

4871.21	0.0001	670.40	0.2679	37 Q 7	4881.64	0.0008	2712.43	60.0000	32 P 60
4871.26	0.0002	664.95	0.3095	36 Q 6	4881.70	0.0357	298.90	28.0000	33 P 28
4871.30	0.0002	660.24	0.3667	37 Q 5	4881.91	1.2477	639.58	41.0000	38 R 40
4871.33	0.0001	3114.05	68.0000	32 P 68	4882.28	0.0069	730.68	14.9333	36 R 14
4871.34	0.0003	656.35	0.4500	36 Q 4	4882.56	0.0971	16.39	6.0000	35 P 6
4871.37	0.0004	653.21	0.5833	37 Q 3	4882.61	0.0380	278.29	27.0000	34 P 27
4871.39	0.0005	650.87	0.8333	36 Q 2	4882.94	0.0070	742.27	15.9375	37 R 15
4871.40	0.0010	649.30	1.5000	37 Q 1	4883.10	0.9558	704.28	43.0000	38 R 42
4871.40	0.0001	2632.44	57.0000	39 R 56	4883.52	0.0403	258.42	26.0000	33 P 26
4871.74	5.4475	234.08	25.0000	38 R 24	4883.61	0.0070	754.93	16.9412	36 R 16
4872.01	0.0001	2722.01	59.0000	39 R 58	4884.13	0.0014	2619.76	58.0000	32 P 58
4872.16	0.0146	545.42	38.0000	33 P 38	4884.19	0.0675	7.80	4.0000	35 P 4
4872.26	0.1647	133.45	18.0000	35 P 18	4884.25	0.0069	768.04	17.9444	37 R 17
4872.95	0.0010	649.30	1.5000	37 R 1	4884.26	0.7196	772.09	45.0000	38 R 44
4873.08	4.8504	273.86	27.0000	38 R 26	4884.42	0.0425	239.28	25.0000	34 P 25
4873.15	0.0163	517.46	37.0000	34 P 37	4884.52	0.0003	2911.99	86.0000	26 P 86
4873.72	0.0019	650.87	2.6667	36 R 2	4884.91	0.0069	782.31	18.9474	36 R 18
4873.96	0.0003	3009.01	66.0000	32 P 66	4885.32	0.0446	220.88	24.0000	33 P 24
4874.05	0.1672	106.14	16.0000	35 P 16	4885.40	0.5326	843.00	47.0000	38 R 46
4874.12	0.0180	490.24	36.0000	33 P 36	4885.54	0.0067	796.94	19.9500	37 R 19
4874.40	4.2304	316.76	29.0000	38 R 28	4885.78	0.0347	2.34	2.0000	35 P 2
4874.46	0.0026	653.21	3.7500	37 R 3	4886.18	0.0066	812.83	20.9524	36 R 20
4875.09	0.0200	463.75	35.0000	34 P 35	4886.21	0.0466	203.21	23.0000	34 P 23
4875.22	0.0032	656.35	4.8000	36 R 4	4886.52	0.3875	917.03	49.0000	38 R 48
4875.70	3.6169	362.78	31.0000	38 R 30	4886.59	0.0020	2530.19	56.0000	32 P 56
4875.81	0.1647	81.95	14.0000	35 P 14	4886.69	0.0001	2889.55	74.9867	28 P 75
4875.95	0.0038	660.24	5.8333	37 R 5	4886.79	0.0063	828.97	21.9545	37 R 21
4876.06	0.0220	438.00	34.0000	33 P 34	4887.09	0.0484	186.28	22.0000	33 P 22
4876.55	0.0004	2907.06	64.0000	32 P 64	4887.28	0.0004	2779.22	84.0000	26 P 84
4876.69	0.0044	664.95	6.8571	36 R 6	4887.42	0.0061	846.46	22.9565	36 R 22
4876.98	3.0333	411.91	33.0000	38 R 32	4887.62	0.2774	994.16	51.0000	38 R 50
4877.01	0.0241	412.98	33.0000	34 P 33	4887.97	0.0500	170.08	21.0000	34 P 21
4877.40	0.0049	670.40	7.8750	37 R 7	4888.02	0.0058	864.11	23.9583	37 R 23
4877.54	0.1565	60.88	12.0000	35 P 12	4888.12	0.0176	0.00	1.0000	35 R 0
4877.96	0.0262	388.69	32.0000	33 P 32	4888.45	0.0001	2952.31	75.9868	27 P 76
4878.13	0.0054	676.69	8.8889	36 R 8	4888.63	0.0056	883.23	24.9600	36 R 24
4878.24	2.4963	464.16	35.0000	38 R 34	4888.69	0.1952	1074.39	53.0000	38 R 52
4878.83	0.0057	883.68	9.9000	37 R 9	4888.83	0.0514	154.62	20.0000	33 P 20
4878.91	0.0285	365.14	31.0000	34 P 31	4889.02	0.0029	2443.72	54.0000	32 P 54
4879.11	0.0006	2808.20	62.0000	32 P 62	4889.22	0.0051	902.38	25.9615	37 R 25
4879.24	0.1423	42.93	10.0000	35 P 10	4889.32	0.0004	2773.59	72.9863	28 P 73
4879.49	2.0170	519.52	37.0000	38 R 36	4889.65	0.0522	2.34	3.0000	35 R 2
4879.54	0.0061	691.56	10.9091	36 R 10	4889.70	0.0524	139.90	19.0000	34 P 19
4879.84	0.0309	342.33	30.0000	33 P 30	4889.74	0.1351	1157.73	55.0000	38 R 54
4880.23	0.0064	700.08	11.9167	37 R 11	4889.81	0.0049	923.12	26.9630	36 R 26
4880.71	1.6005	577.99	39.0000	38 R 38	4890.01	0.0005	2649.52	82.0000	26 P 82
4880.77	0.0332	320.25	29.0000	34 P 29	4890.38	0.0046	943.77	27.9646	37 R 27
4880.92	0.1223	28.10	8.0000	35 P 8	4890.46	0.0001	2962.08	63.9375	30 P 64
4880.93	0.0067	709.55	12.9231	36 R 12	4890.55	0.0002	125.91	18.0000	33 P 18
4881.60	0.0068	719.61	13.9286	37 R 13	4890.77	0.0021	1244.17	57.0000	38 R 56



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
4890.92	0.0003	2834.62	73.9865	27 P 74	4896.80	0.0015	1257.58	39.9750	37 R 39	4896.80	0.0015	1257.58	39.9750	37 R 39
4890.96	0.0042	966.13	28.9655	36 R 28	4896.88	0.1702	60.88	13.0000	35 R 12	4896.88	0.1702	60.88	13.0000	35 R 12
4891.15	0.0845	7.80	5.0000	35 R 4	4897.04	0.0015	2444.26	66.9851	28 P 67	4897.04	0.0015	2444.26	66.9851	28 P 67
4891.40	0.0536	112.66	17.0000	34 P 17	4897.12	0.0048	2910.44	62.0000	29 P 62	4897.12	0.0048	2910.44	62.0000	29 P 62
4891.41	0.0043	2360.35	52.0000	32 P 52	4897.16	0.0448	40.50	10.0000	33 P 10	4897.16	0.0448	40.50	10.0000	33 P 10
4891.53	0.0040	988.27	29.9667	37 R 29	4897.27	0.0040	1936.01	71.0000	38 R 70	4897.27	0.0040	1936.01	71.0000	38 R 70
4891.61	0.0001	2912.06	62.9365	31 P 63	4897.28	0.0012	1289.82	40.9756	36 R 40	4897.28	0.0012	1289.82	40.9756	36 R 40
4891.78	0.0616	1333.72	59.0000	28 R 58	4897.44	0.0005	2673.79	57.9310	30 P 58	4897.44	0.0005	2673.79	57.9310	30 P 58
4891.93	0.0005	2660.72	70.9859	38 P 71	4897.76	0.0011	1320.80	41.9762	37 R 41	4897.76	0.0011	1320.80	41.9762	37 R 41
4892.08	0.0001	3111.28	66.0000	29 P 66	4897.95	0.0418	33.14	9.0000	34 P 9	4897.95	0.0418	33.14	9.0000	34 P 9
4892.09	0.0036	1012.27	30.9677	36 R 30	4898.05	0.0036	2278.89	76.0000	26 P 76	4898.05	0.0036	2278.89	76.0000	26 P 76
4892.24	0.0537	100.14	16.0000	33 P 16	4898.09	0.0024	2047.21	73.0000	38 R 72	4898.09	0.0024	2047.21	73.0000	38 R 72
4892.62	0.1136	16.39	7.0000	35 R 6	4898.17	0.0011	2500.13	67.9853	27 P 68	4898.17	0.0011	2500.13	67.9853	27 P 68
4892.64	0.0034	1035.90	31.9688	37 R 31	4898.23	0.0009	1354.69	42.9767	36 R 42	4898.23	0.0009	1354.69	42.9767	36 R 42
4892.72	0.0012	2522.89	80.0000	26 P 80	4898.24	0.1772	81.95	15.0000	35 R 14	4898.24	0.1772	81.95	15.0000	35 R 14
4892.76	0.0406	1426.36	61.0000	38 R 60	4898.40	0.0118	2128.87	46.0000	32 P 46	4898.40	0.0118	2128.87	46.0000	32 P 46
4892.81	0.0003	2862.88	61.9355	30 P 62	4898.56	0.0007	2628.45	56.9298	31 P 57	4898.56	0.0007	2628.45	56.9298	31 P 57
4893.08	0.0532	88.36	15.0000	34 P 15	4898.70	0.0008	1387.12	43.9773	37 R 43	4898.70	0.0008	1387.12	43.9773	37 R 43
4893.18	0.0031	1061.54	32.9697	36 R 32	4898.74	0.0384	26.51	8.0000	33 P 8	4898.74	0.0384	26.51	8.0000	33 P 8
4893.36	0.0004	2720.03	71.9861	27 P 72	4898.88	0.0014	2161.51	75.0000	38 R 74	4898.88	0.0014	2161.51	75.0000	38 R 74
4893.71	0.0263	1522.10	63.0000	38 R 62	4899.16	0.0007	1422.68	44.9778	36 R 44	4899.16	0.0007	1422.68	44.9778	36 R 44
4893.72	0.0028	1086.65	33.9706	37 R 33	4899.53	0.0346	20.62	7.0000	34 P 7	4899.53	0.0346	20.62	7.0000	34 P 7
4893.77	0.0061	2280.08	50.0000	32 P 50	4899.55	0.0024	2340.68	64.9846	28 P 65	4899.55	0.0024	2340.68	64.9846	28 P 65
4893.91	0.0524	77.32	14.0000	33 P 14	4899.57	0.1786	106.14	17.0000	35 R 16	4899.57	0.1786	106.14	17.0000	35 R 16
4893.95	0.0003	2814.41	60.9344	31 P 61	4899.59	0.0006	2814.67	60.0000	29 P 60	4899.59	0.0006	2814.67	60.0000	29 P 60
4894.07	0.1380	28.10	9.0000	35 R 8	4899.61	0.0006	1456.66	45.9783	37 R 45	4899.61	0.0006	1456.66	45.9783	37 R 45
4894.25	0.0025	1113.93	34.9714	36 R 34	4899.65	0.0008	2278.89	77.0000	38 R 76	4899.65	0.0008	2278.89	77.0000	38 R 76
4894.50	0.0008	2550.95	68.9855	28 P 69	4899.72	0.0008	2583.92	55.9286	30 P 56	4899.72	0.0008	2583.92	55.9286	30 P 56
4894.61	0.0003	3009.31	64.0000	29 P 64	4900.06	0.0006	1493.78	46.9787	36 R 46	4900.06	0.0006	1493.78	46.9787	36 R 46
4894.64	0.0168	1620.94	65.0000	38 R 64	4900.30	0.0304	15.46	6.0000	33 P 6	4900.30	0.0304	15.46	6.0000	33 P 6
4894.73	0.0512	67.01	13.0000	34 P 13	4900.38	0.0004	2399.35	79.0000	38 R 78	4900.38	0.0004	2399.35	79.0000	38 R 78
4894.77	0.0022	1140.51	35.9722	37 P 35	4900.49	0.0005	1529.11	47.9792	37 R 47	4900.49	0.0005	1529.11	47.9792	37 R 47
4895.14	0.0004	2766.78	59.9333	30 P 60	4900.54	0.0017	2394.82	65.9848	27 P 66	4900.54	0.0017	2394.82	65.9848	27 P 66
4895.29	0.0020	1169.44	36.9730	36 R 36	4900.67	0.0065	2161.51	74.0000	26 P 74	4900.67	0.0065	2161.51	74.0000	26 P 74
4895.40	0.0021	2399.35	78.0000	36 P 78	4900.67	0.0160	2057.92	44.0000	32 P 44	4900.67	0.0160	2057.92	44.0000	32 P 44
4895.49	0.1570	42.93	11.0000	25 P 10	4900.83	0.0009	2540.13	54.9273	31 P 55	4900.83	0.0009	2540.13	54.9273	31 P 55
4895.54	0.0106	1722.87	67.0000	38 R 66	4900.88	0.1749	133.45	19.0000	35 R 18	4900.88	0.1749	133.45	19.0000	35 R 18
4895.55	0.0495	57.44	12.0000	33 P 12	4900.93	0.0004	1568.01	48.9796	36 R 48	4900.93	0.0004	1568.01	48.9796	36 R 48
4895.78	0.0007	2608.53	69.9857	27 P 70	4901.07	0.0259	11.05	5.0000	34 P 5	4901.07	0.0259	11.05	5.0000	34 P 5
4895.80	0.0018	1197.49	37.9737	37 R 37	4901.08	0.0003	2522.89	81.0000	38 R 80	4901.08	0.0003	2522.89	81.0000	38 R 80
4896.10	0.0087	2202.92	48.0000	32 P 48	4901.35	0.0004	1604.77	49.9800	37 R 49	4901.35	0.0004	1604.77	49.9800	37 R 49
4896.27	0.0006	2719.87	58.9322	31 P 59	4901.75	0.0001	2649.52	83.0000	38 R 82	4901.75	0.0001	2649.52	83.0000	38 R 82
4896.30	0.0016	1228.07	38.9744	36 R 38	4901.77	0.0002	1645.34	50.9804	36 R 50	4901.77	0.0002	1645.34	50.9804	36 R 50
4896.36	0.0474	48.60	11.0000	34 P 11	4901.83	0.0210	7.36	4.0000	33 P 4	4901.83	0.0210	7.36	4.0000	33 P 4
4896.42	0.0066	1827.89	69.0000	38 R 68	4901.97	0.0012	2497.16	53.9259	30 P 54	4901.97	0.0012	2497.16	53.9259	30 P 54

4902.03	0.0036	2240.19	62.9841	28 P 63	4910.47	0.0396	20.62	8.0000	34 R 7
4902.03	0.0008	2722.01	58.0000	29 P 58	4910.73	0.0047	2181.26	45.9130	30 P 46
4902.16	0.1668	163.88	21.0000	35 R 20	4910.88	0.0488	1722.87	66.0000	26 P 66
4902.17	0.0002	1683.53	51.9808	37 R 51	4911.15	0.0433	26.51	9.0000	33 R 8
4902.58	0.0001	1725.79	52.9811	36 R 52	4911.39	0.0522	519.57	37.0000	35 R 36
4902.59	0.0161	4.42	3.0000	34 P 3	4911.48	0.0041	2382.37	50.0000	29 P 50
4902.89	0.0029	2292.62	63.9844	27 P 64	4911.51	0.0555	1749.84	34.0000	32 P 34
4902.90	0.0214	1990.08	42.0000	32 P 42	4911.67	0.0194	1869.23	54.9818	28 P 55
4902.97	0.0001	1765.41	53.9815	37 R 53	4911.79	0.0056	2145.28	44.9111	31 P 45
4903.07	0.0015	2454.93	52.9245	31 P 53	4911.82	0.0465	33.14	10.0000	34 R 9
4903.27	0.0110	2047.21	72.0000	26 P 72	4912.04	0.0158	1914.86	55.9821	27 P 56
4903.34	0.0108	2.21	2.0000	33 P 2	4912.42	0.0415	578.05	39.0000	35 R 38
4903.37	0.0001	1809.35	54.9818	36 R 54	4912.48	0.0494	40.50	11.0000	33 R 10
4903.41	0.1552	197.43	23.0000	35 R 22	4912.86	0.0065	2110.09	43.9091	30 P 44
4903.73	0.0001	1850.39	55.9821	37 R 55	4913.14	0.0518	48.60	12.0000	34 R 11
4904.08	0.0054	0.74	1.0000	34 P 1	4913.36	0.0778	1620.94	64.0000	26 P 64
4904.13	0.0001	1896.03	56.9825	36 R 56	4913.42	0.0323	639.64	41.0000	35 R 40
4904.20	0.0017	2413.51	51.9231	30 P 52	4913.59	0.0674	1697.56	32.0000	32 P 32
4904.44	0.0014	2632.44	56.0000	29 P 56	4913.77	0.0057	2305.23	48.0000	29 P 48
4904.49	0.0056	2142.79	60.9836	28 P 61	4913.79	0.0538	57.44	13.0000	33 R 12
4904.64	0.1412	234.10	25.0000	35 R 24	4913.91	0.0075	2075.66	42.9070	31 P 43
4905.10	0.0278	1925.35	40.0000	32 P 40	4914.00	0.0281	1784.25	52.9811	28 P 53
4905.21	0.0046	2193.52	61.9839	27 P 62	4914.27	0.0233	1828.19	53.9815	27 P 54
4905.29	0.0021	2372.84	50.9216	31 P 51	4914.39	0.0248	704.34	43.0000	35 R 42
4905.55	0.0055	0.00	1.0000	33 R 0	4914.43	0.0553	67.01	14.0000	34 R 13
4905.83	0.0183	1936.01	70.0000	26 P 70	4914.96	0.0086	2042.03	41.9048	30 P 42
4905.83	0.1257	273.89	27.0000	35 R 26	4915.07	0.0563	77.32	15.0000	33 R 14
4906.27	0.0110	0.74	2.0000	34 R 1	4915.33	0.0186	772.16	45.0000	35 R 44
4906.40	0.0025	2332.98	49.9200	30 P 50	4915.63	0.0804	1648.40	30.0000	32 P 30
4906.82	0.0020	2545.98	54.0000	29 P 54	4915.70	0.0570	88.36	16.0000	34 R 15
4906.91	0.0087	2048.50	58.9831	28 P 59	4915.82	0.1217	1522.10	62.0000	26 P 62
4906.99	0.0162	2.21	3.0000	33 R 2	4916.00	0.0098	2009.16	40.9024	31 P 41
4907.00	0.1096	316.79	29.0000	35 R 28	4916.03	0.0079	2231.20	46.0000	29 P 46
4907.27	0.0357	1863.73	38.0000	32 P 38	4916.24	0.0138	843.08	47.0000	35 R 46
4907.48	0.0029	2293.87	48.9184	31 P 49	4916.31	0.0404	1702.37	50.9804	28 P 51
4907.51	0.0070	2097.53	59.9833	27 P 60	4916.32	0.0572	100.14	17.0000	33 R 16
4907.70	0.0214	4.42	4.0000	34 R 3	4916.63	0.0337	1744.63	51.9808	27 P 52
4908.14	0.0937	362.81	31.0000	35 R 30	4916.94	0.0570	112.66	18.0000	34 R 17
4908.37	0.0302	1827.89	68.0000	26 P 68	4917.04	0.0111	1977.09	39.9000	30 P 40
4908.40	0.0264	7.36	5.0000	33 R 4	4917.12	0.0100	917.11	49.0000	35 R 48
4908.58	0.0035	2255.56	47.9167	30 P 48	4917.55	0.0564	125.91	19.0000	33 R 18
4909.10	0.0311	11.05	6.0000	34 R 5	4917.64	0.0938	1602.36	28.0000	32 P 28
4909.17	0.0028	2462.62	52.0000	29 P 52	4917.97	0.0072	994.25	51.0000	35 R 50
4909.26	0.0786	411.95	33.0000	35 R 32	4918.06	0.0127	1945.79	38.8974	31 P 39
4909.30	0.0131	1957.31	56.9825	28 P 57	4918.15	0.0555	139.90	20.0000	20.0000
4909.41	0.0449	1805.23	36.0000	32 P 36	4918.24	0.1879	1426.36	60.0000	26 P 60
4909.65	0.0041	2218.01	46.9149	31 P 47	4918.25	0.0106	2160.27	44.0000	29 P 44
4909.79	0.0106	2004.64	57.9828	27 P 58	4918.59	0.0571	1623.61	48.9796	28 P 49
4909.79	0.0355	15.46	7.0000	33 R 6	4918.66	0.0480	1664.18	49.9800	27 P 50
4910.34	0.0647	464.20	35.0000	35 R 34	4918.75	0.0543	154.62	21.0000	33 R 20



LINE		INTENSITY		E		L		BAND	
FREQ	INTENSITY	FREQ	INTENSITY	CM	-1	CM	-1	ID	ID
CM	CM / ATM CM	CM	CM / ATM CM	CM	STP	CM	STP		
-1	-3	-1	-3						
4918.80	0.0051	1074.49	53.0000	35 R 52	4925.37	0.1411	1449.37	20.0000	32 P 20
4919.09	0.0143	1915.28	37.8947	30 P 38	4925.37	0.0273	388.69	33.0000	33 R 32
4919.34	0.0527	170.08	22.0000	34 R 21	4925.53	0.0004	1723.01	66.0000	25 P 66
4919.59	0.0034	1157.83	55.0000	35 R 54	4925.88	0.0251	412.98	34.0000	34 R 31
4919.62	0.1073	1559.43	26.0000	32 P 26	4926.07	0.0298	1723.53	30.8710	31 P 31
4919.92	0.0510	186.28	23.0000	33 R 22	4926.38	0.0228	438.00	35.0000	33 R 34
4920.10	0.0162	1885.54	36.8919	31 P 37	4926.85	0.0296	1907.68	36.0000	29 P 36
4920.35	0.0024	1244.28	57.0000	35 R 56	4926.87	0.0208	463.75	36.0000	34 R 35
4920.45	0.0141	2092.46	42.0000	29 P 42	4927.05	0.0323	1699.27	29.8667	30 P 30
4920.49	0.0490	203.21	24.0000	34 R 23	4927.15	0.1659	1373.54	41.9762	27 P 42
4920.64	0.2849	1333.72	58.0000	26 P 58	4927.22	0.1473	1418.92	18.0000	32 P 18
4920.72	0.0001	1936.16	70.0000	25 P 70	4927.35	0.0187	490.24	37.0000	33 R 36
4920.82	0.0672	1586.85	47.9792	27 P 48	4927.40	0.1899	1339.65	40.9756	28 P 41
4920.84	0.0790	1547.95	46.9787	28 P 47	4927.67	0.9021	1074.39	52.0000	26 P 52
4921.06	0.0469	220.88	25.0000	33 R 24	4927.83	0.0169	517.46	38.0000	34 R 37
4921.09	0.0016	1333.83	59.0000	35 R 58	4927.90	0.0005	1621.07	64.0000	25 P 64
4921.12	0.0180	1856.59	35.8899	30 P 36	4928.01	0.0353	1675.78	28.8621	31 P 29
4921.57	0.1203	1519.63	24.0000	32 P 24	4928.30	0.0152	545.42	39.0000	33 R 38
4921.63	0.0445	239.28	26.0000	34 R 25	4928.77	0.0135	574.11	40.0000	34 R 39
4921.79	0.0010	1426.48	61.0000	35 R 60	4928.93	0.0366	1852.32	34.0000	29 P 34
4922.12	0.0203	1828.41	34.8857	31 P 35	4928.97	0.0376	1653.08	27.8571	30 P 28
4922.18	0.0422	258.42	27.0000	33 R 26	4929.04	0.1496	1391.60	16.0000	32 P 16
4922.46	0.0007	1522.23	63.0000	35 R 62	4929.22	0.2166	1308.67	39.9750	27 P 40
4922.61	0.0183	2027.75	40.0000	29 P 40	4929.23	0.0119	603.54	41.0000	33 R 40
4922.73	0.0397	278.29	28.0000	34 R 27	4929.54	0.2456	1276.44	38.9744	28 P 39
4922.96	0.0923	1512.63	45.9783	27 P 46	4929.68	0.0106	633.70	42.0000	34 R 41
4923.01	0.4253	1244.17	56.0000	26 P 56	4929.93	0.0407	1631.16	26.8519	31 P 27
4923.05	0.1076	1475.40	44.9778	28 P 45	4929.95	1.2815	994.16	50.0000	26 P 50
4923.11	0.0004	1621.07	65.0000	35 R 64	4930.12	0.0093	664.59	43.0000	33 R 42
4923.12	0.0223	1801.02	33.8824	30 P 34	4930.26	0.0008	1522.23	62.0000	25 P 62
4923.13	0.0002	1828.04	68.0000	25 P 68	4930.56	0.0082	696.22	44.0000	34 R 43
4923.27	0.0371	298.90	29.0000	33 R 28	4930.83	0.1473	1367.39	14.0000	32 P 14
4923.48	0.1318	1482.94	22.0000	32 P 22	4930.88	0.0431	1610.03	25.8462	30 P 26
4923.72	0.0002	1723.01	67.0000	35 R 66	4930.97	0.0445	1800.07	32.0000	29 P 32
4923.81	0.0347	320.25	30.0000	34 R 29	4930.99	0.0071	728.59	45.0000	33 R 44
4924.11	0.0248	1774.41	32.8788	31 P 33	4931.26	0.2779	1246.92	37.9737	27 P 37
4924.30	0.0001	1828.04	69.0000	35 R 68	4931.41	0.0062	761.68	46.0000	34 R 45
4924.33	0.0322	342.33	31.0000	33 R 30	4931.64	0.3123	1216.34	36.9730	28 P 37
4924.75	0.0236	1966.16	38.0000	29 P 38	4931.82	0.0462	1589.67	24.8400	31 P 25
4924.85	0.0297	365.14	32.0000	34 R 31	4931.82	0.0054	795.51	47.0000	33 R 46
4924.85	0.0001	1936.16	71.0000	35 R 70	4932.21	1.7906	917.03	48.0000	26 P 48
4925.07	0.1249	1441.53	43.9773	27 P 44	4932.23	0.0047	830.07	48.0000	34 R 47
4925.10	0.0270	1748.58	31.8750	30 P 32	4932.59	0.0013	1426.48	60.0000	25 P 60
4925.24	0.1442	1405.97	42.9767	28 P 43	4932.59	0.1399	1346.31	12.0000	32 P 12
4925.35	0.6244	1157.73	54.0000	26 P 54	4932.63	0.0041	965.37	49.0000	33 R 48



4932.75	0.0483	1570.10	23.8333	30 P 24	4940.75	0.0870	1585.57	22.0000	29 P 22
4932.99	0.0530	1750.94	30.0000	29 P 30	4940.88	0.0598	1429.15	14.7333	31 P 15
4933.02	0.0034	901.40	50.0000	34 R 49	4940.91	0.0310	1287.74	2.0000	32 P 4
4933.27	0.3502	1188.29	35.9722	27 P 36	4940.95	5.7563	639.58	40.0000	26 P 40
4933.41	0.0030	938.16	51.0000	33 R 50	4941.09	0.7324	985.00	27.9643	27 P 28
4933.68	0.0511	1551.30	22.8261	31 P 23	4941.71	0.0060	1074.49	52.0000	25 P 52
4933.71	0.3898	1159.37	34.9714	34 R 35	4941.72	0.7829	962.63	26.9630	28 P 27
4933.79	0.0025	975.66	52.0000	28 P 51	4941.76	0.0584	1417.40	13.7143	30 P 14
4934.16	0.0022	1013.89	53.0000	33 R 52	4942.61	0.0930	1552.03	20.0000	29 P 20
4934.32	0.1274	1328.35	10.0000	32 P 10	4942.62	0.0575	1406.43	12.6923	31 P 13
4934.44	2.4600	843.00	46.0000	26 P 46	4942.98	0.8383	941.98	25.9615	27 P 26
4934.52	0.0019	1052.85	54.0000	34 R 53	4943.06	7.3796	577.99	38.0000	26 P 38
4934.60	0.0528	1533.30	21.8182	30 P 22	4943.25	0.0157	1285.40	1.0000	32 R 0
4934.87	0.0014	1092.54	55.0000	33 R 54	4943.48	0.0552	1396.25	11.6667	30 P 12
4934.90	0.0019	1333.83	58.0000	25 P 58	4943.65	0.8867	921.25	24.9600	28 P 25
4934.97	0.0618	1704.92	28.0000	29 P 28	4943.94	0.0085	994.25	50.0000	25 P 50
4935.22	0.0012	1132.97	56.0000	34 R 55	4944.33	0.0530	1386.85	10.6364	31 P 11
4935.26	0.4332	1132.78	33.9706	27 P 34	4944.45	0.0971	1521.60	18.0000	29 P 18
4935.52	0.0553	1516.07	20.8095	31 P 21	4944.78	0.0466	1287.74	3.0000	32 R 2
4935.56	0.0010	1174.12	57.0000	33 R 56	4944.85	0.9394	902.10	23.9583	27 P 24
4935.76	0.4776	1105.51	32.9697	28 P 33	4945.15	9.2930	519.52	36.0000	26 P 36
4935.90	0.0009	1216.01	58.0000	34 R 57	4945.18	0.0496	1378.24	9.6000	30 P 10
4936.01	0.1095	1313.51	8.0000	32 P 8	4945.55	0.9824	882.98	22.9565	28 P 23
4936.22	0.0007	1258.63	59.0000	33 R 58	4946.02	0.0463	1370.41	8.5556	31 P 9
4936.43	0.0565	1499.63	19.8000	30 P 20	4946.14	0.0119	917.11	48.0000	25 P 48
4936.54	0.9365	1301.99	60.0000	34 R 59	4946.25	0.0986	1494.29	16.0000	29 P 16
4936.64	3.3227	772.09	44.0000	26 P 44	4946.27	0.0757	1293.21	5.0000	32 R 4
4936.85	0.0005	1346.07	61.0000	33 R 60	4946.69	1.0296	865.33	21.9545	27 P 22
4936.93	0.0708	1662.02	26.0000	29 P 26	4946.86	0.0416	1363.36	7.5000	30 P 8
4937.15	0.0003	1390.89	62.0000	34 R 61	4947.21	11.4909	464.16	34.0000	26 P 34
4937.20	0.0028	1244.28	56.0000	25 P 56	4947.42	1.0641	847.84	20.9524	28 P 21
4937.23	0.5261	1080.40	31.9688	27 P 32	4947.68	0.0370	1357.09	6.4286	31 P 7
4937.33	0.0584	1483.96	18.7995	31 P 19	4947.73	0.1016	1301.80	7.0000	32 R 6
4937.45	0.0003	1436.43	63.0000	33 R 62	4948.03	0.0972	1470.10	14.0000	29 P 14
4937.68	0.0870	1301.80	6.0000	32 P 6	4948.32	0.0164	843.08	46.0000	25 P 46
4937.73	0.0002	1482.71	64.0000	34 R 63	4948.50	0.0313	1351.61	5.3333	30 P 6
4937.77	0.5742	1054.76	30.9677	28 P 31	4948.51	1.1021	831.70	19.9500	27 P 20
4938.01	0.0002	1529.72	65.0000	33 R 64	4949.06	0.0001	1856.59	0.2192	30 Q 36
4938.23	0.0589	1469.09	17.7778	30 P 18	4949.15	0.1236	1313.51	9.0000	32 R 8
4938.29	0.0002	1577.46	66.0000	34 R 65	4949.24	13.9467	411.91	32.0000	26 P 32
4938.55	0.0001	1625.93	67.0000	33 R 66	4949.26	1.1247	815.82	18.9474	28 P 19
4938.80	0.0001	1675.13	68.0000	34 R 67	4949.29	0.0001	1828.41	0.2254	31 Q 35
4938.81	4.4116	704.28	42.0000	26 P 42	4949.32	0.0254	1346.91	4.2000	31 P 5
4938.85	0.0793	1622.24	24.0000	29 P 24	4949.51	0.0001	1801.02	0.2319	30 Q 34
4939.12	0.0600	1454.99	16.7647	31 P 17	4949.73	0.0002	1774.41	0.2389	31 Q 33
4939.17	0.6269	1031.14	29.9667	27 P 30	4949.78	0.0923	1449.04	12.0000	29 P 12
4939.31	0.0605	1293.21	4.0000	32 P 4	4949.94	0.0002	1748.58	0.2462	30 Q 32
4939.47	0.0041	1157.83	54.0000	25 P 54	4950.13	0.0184	1342.99	3.0000	30 P 4
4939.76	0.6773	1007.14	28.9655	28 P 29	4950.14	0.0002	1723.53	0.2540	31 Q 31
4940.01	0.0597	1441.68	15.7500	30 P 16	4950.30	1.1502	801.19	17.9444	27 P 18

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
4950.34	0.0004	1699.27	0.2624	30 Q 30	4954.71	0.0383	639.64	40.0000	25 P 40
4950.48	0.0221	772.16	44.0000	25 P 44	4954.84	0.0573	1404.56	6.0000	29 P 6
4950.53	0.0004	1675.78	0.2713	31 Q 29	4955.15	22.1911	273.86	26.0000	26 P 26
4950.55	0.1405	1328.35	11.0000	32 R 10	4955.54	1.0890	728.43	11.9167	27 P 12
4950.72	0.0005	1653.08	0.2808	30 Q 28	4955.61	0.0106	1337.51	1.6667	30 R 2
4950.89	0.0005	1631.16	0.2910	31 Q 27	4955.81	0.1564	1418.92	19.0000	32 R 18
4950.93	0.0105	1339.86	1.6667	31 P 3	4956.35	1.0382	718.96	10.9091	28 P 11
4951.07	0.0005	1610.03	0.3020	30 Q 26	4956.37	0.0189	1339.86	3.0000	31 R 3
4951.08	1.1577	786.92	16.9412	28 P 17	4956.46	0.0399	1395.97	4.0000	29 P 4
4951.23	0.0006	1589.67	0.3138	31 Q 25	4956.79	0.0493	578.05	38.0000	25 P 38
4951.24	16.6080	362.78	30.0000	26 P 30	4957.05	0.1492	1449.37	21.0000	32 R 20
4951.39	0.0006	1570.10	0.3267	30 Q 24	4957.07	24.8628	234.08	24.0000	26 P 24
4951.49	0.0838	1431.09	10.0000	29 P 10	4957.12	0.0258	1342.99	4.2000	30 R 4
4951.54	0.0007	1551.30	0.3406	31 Q 23	4957.23	0.9876	710.43	9.9000	27 P 10
4951.69	0.0008	1533.30	0.3557	30 Q 22	4957.83	0.0001	1475.40	0.0440	28 Q 45
4951.83	0.0011	1516.07	0.3723	31 Q 21	4957.87	0.0324	1346.91	5.3333	31 R 5
4951.91	0.1522	1346.31	13.0000	32 R 12	4958.05	0.9165	702.55	8.8889	28 P 9
4951.96	0.0012	1499.63	0.3905	30 Q 20	4958.06	0.0204	1390.51	2.0000	29 P 2
4952.07	1.1674	773.81	15.9375	27 P 16	4958.25	0.1388	1482.94	23.0000	32 R 22
4952.09	0.0013	1483.96	0.4105	31 Q 19	4958.48	0.0002	1405.97	0.0460	28 Q 43
4952.21	0.0014	1469.09	0.4327	30 Q 18	4958.60	0.0379	1351.61	6.4286	30 R 6
4952.33	0.0016	1454.99	0.4575	31 Q 17	4958.85	0.0620	519.57	36.0000	25 P 36
4952.43	0.0019	1441.68	0.4853	30 Q 16	4958.91	0.8448	695.57	7.8750	27 P 8
4952.54	0.0021	1429.15	0.5167	31 Q 15	4958.95	27.2464	197.41	22.0000	26 P 22
4952.61	0.0294	704.34	42.0000	25 P 42	4959.10	0.0002	1339.65	0.0482	28 Q 41
4952.63	0.0023	1417.40	0.5524	30 Q 14	4959.18	0.0001	1441.53	0.0449	27 Q 44
4952.72	0.0026	1406.43	0.5934	31 Q 13	4959.34	0.0433	1357.09	7.5000	31 R 7
4952.80	0.0031	1396.25	0.6410	30 Q 12	4959.43	0.1263	1519.63	25.0000	32 R 24
4952.86	1.1571	761.14	14.9333	28 P 15	4959.69	0.0003	1276.44	0.0506	28 Q 39
4952.88	0.0034	1386.85	0.6970	31 Q 11	4959.72	0.0002	1373.54	0.0471	27 Q 42
4952.95	0.0040	1378.24	0.7636	30 Q 10	4959.72	0.7544	689.27	6.8571	28 P 7
4953.01	0.0046	1370.41	0.8444	31 Q 9	4959.92	0.0001	1850.39	54.9818	24 P 55
4953.07	0.0053	1363.36	0.9444	30 Q 8	4960.06	0.0477	1363.36	8.5556	30 R 8
4953.12	0.0062	1357.09	1.0714	31 Q 7	4960.23	0.0003	1308.67	0.0494	27 Q 40
4953.17	0.0073	1351.61	1.2381	30 Q 6	4960.25	0.0004	1216.34	0.0533	28 Q 37
4953.18	0.0722	1416.26	8.0000	29 P 8	4960.40	0.0103	1388.17	1.0000	29 R 0
4953.20	0.0089	1346.91	1.4667	31 Q 5	4960.55	0.6627	683.83	5.8333	27 P 6
4953.21	19.3932	316.76	28.0000	26 P 28	4960.57	0.1124	1559.43	27.0000	32 R 26
4953.24	0.0111	1342.99	1.8000	30 Q 4	4960.72	0.0005	1246.92	0.0520	27 Q 38
4953.25	0.1586	1367.39	15.0000	32 R 14	4960.78	0.0006	1159.37	0.0563	28 Q 35
4953.26	0.0146	1339.86	2.3333	31 Q 3	4960.78	0.0521	1370.41	9.6000	31 R 9
4953.28	0.0210	1337.51	3.3333	30 Q 2	4960.81	29.1665	163.86	20.0000	26 P 20
4953.82	1.1483	749.55	13.9286	27 P 14	4960.88	0.0766	464.20	34.0000	25 P 34
4954.55	0.1597	1391.60	17.0000	32 R 16	4961.19	0.0004	1188.29	0.0548	27 Q 36
4954.62	1.1182	738.49	12.9231	28 P 13	4961.28	0.0009	1105.51	0.0597	28 Q 33



4961.36	679.12	4.8000	28 P 5	4965.12	0.0254	695.57	0.2361	27 Q 8
4961.50	1378.24	10.6364	30 R 10	4965.14	0.0296	689.27	0.2679	28 Q 7
4961.63	1132.78	0.0580	27 Q 34	4965.21	0.0351	683.83	0.3095	27 Q 6
4961.67	1602.36	29.0000	32 R 28	4965.23	0.0425	679.12	0.3667	28 Q 5
4961.75	1054.76	0.0635	28 Q 31	4965.28	0.0534	675.22	0.4500	27 Q 4
4961.93	1390.51	3.0000	29 R 2	4965.30	0.0699	672.09	0.5833	28 Q 3
4962.05	1080.40	0.0616	27 Q 32	4965.32	0.1015	669.75	0.8333	27 Q 2
4962.17	675.22	3.7500	27 P 4	4965.33	0.1830	668.18	1.5000	28 Q 1
4962.19	1007.14	0.0678	28 Q 29	4965.64	0.0638	1441.68	16.7647	30 R 16
4962.20	1386.85	11.6667	31 R 11	4965.78	0.0467	1805.23	37.0000	32 R 36
4962.24	1765.41	52.9811	24 P 53	4966.21	30.4344	81.94	14.0000	26 P 14
4962.41	1809.35	53.9815	23 P 54	4966.31	0.0640	1454.99	17.7778	31 R 17
4962.44	1031.14	0.0656	27 Q 30	4966.32	0.0815	1416.26	9.0000	29 R 8
4962.61	962.63	0.0728	28 Q 27	4966.72	0.0371	1863.73	39.0000	23 R 38
4962.64	133.44	18.0000	26 P 18	4966.81	0.0004	1645.34	49.9800	32 P 50
4962.75	1648.40	31.0000	32 R 30	4966.82	0.0002	1604.77	48.9796	24 P 49
4962.81	985.00	0.0702	27 Q 28	4966.82	0.1293	316.79	28.0000	25 P 28
4962.89	411.95	32.0000	25 P 32	4966.88	0.1831	668.18	1.5000	28 R 1
4962.90	1396.25	12.6923	30 R 12	4966.97	0.0626	1469.09	18.7895	30 R 18
4962.97	672.09	2.6667	28 P 3	4967.62	0.0619	1483.96	19.8000	31 R 19
4962.99	921.25	0.0785	28 Q 25	4967.63	0.0288	1925.35	41.0000	32 R 40
4963.15	941.98	0.0755	27 Q 26	4967.65	0.3249	669.75	2.6667	27 R 2
4963.34	882.98	0.0851	28 Q 23	4967.72	0.0926	1431.09	11.0000	29 R 10
4963.42	1395.97	5.0000	29 R 4	4967.95	28.9092	60.87	12.0000	26 P 12
4963.47	902.10	0.0817	27 Q 24	4968.27	0.0598	1499.63	20.8095	30 R 20
4963.60	1406.43	13.7143	31 R 13	4968.39	0.4493	672.09	3.7500	28 R 3
4963.67	847.84	0.0931	28 Q 21	4968.51	0.0221	1990.08	43.0000	32 R 42
4963.76	865.33	0.0889	27 Q 22	4968.75	0.1479	273.89	26.0000	25 P 26
4963.77	669.75	1.5000	27 P 2	4968.92	0.0583	1516.07	21.8182	31 R 21
4963.79	1697.56	33.0000	32 R 32	4968.98	0.0005	1568.01	47.9792	23 P 48
4963.97	815.82	0.1026	28 Q 19	4969.07	0.0005	1529.11	46.9787	24 P 47
4964.03	831.70	0.0976	27 Q 20	4969.10	0.1004	1449.04	13.0000	29 R 12
4964.23	786.92	0.1144	28 Q 17	4969.16	0.5696	675.22	4.8000	27 R 4
4964.27	801.19	0.1082	27 Q 18	4969.35	0.0166	2057.92	45.0000	32 R 44
4964.28	1417.40	14.7333	30 R 14	4969.55	0.0556	1533.30	22.8261	30 R 22
4964.44	106.13	16.0000	26 P 16	4969.66	26.2957	42.92	10.0000	26 P 10
4964.47	761.14	0.1292	28 Q 15	4969.88	0.6756	679.12	5.8333	28 R 5
4964.49	773.81	0.1213	27 Q 16	4970.16	0.0124	2128.87	47.0000	32 R 46
4964.54	1683.53	50.9804	24 P 51	4970.18	0.0537	1551.30	23.8333	31 R 23
4964.62	1725.79	51.9808	23 P 52	4970.44	0.1045	1470.10	15.0000	29 R 14
4964.68	749.55	0.1381	27 Q 14	4970.64	0.7807	683.83	6.8571	27 R 6
4964.68	738.49	0.1484	28 Q 13	4970.65	0.1658	234.10	24.0000	25 P 24
4964.80	1749.84	35.0000	32 R 34	4970.81	0.0507	1570.10	24.8400	30 R 24
4964.85	728.43	0.1603	27 Q 12	4970.94	0.0089	2202.92	49.0000	32 R 48
4964.86	718.96	0.1742	28 Q 11	4971.12	0.0006	1493.78	45.9783	23 P 46
4964.87	362.81	30.0000	25 P 30	4971.29	0.0006	1456.56	44.9778	24 P 45
4964.88	1404.56	7.0000	29 R 6	4971.33	0.8685	689.27	7.8750	28 R 7
4964.96	1429.15	15.7500	31 R 15	4971.34	22.6160	28.09	8.0000	26 P 8
4965.00	710.43	0.1909	27 Q 10	4971.42	0.0483	1589.67	25.8462	31 R 25
4965.01	702.55	0.2111	28 Q 9	4971.68	0.0064	2280.08	51.0000	32 R 50

LINE INTENSITY		E		L		BAND		LINE INTENSITY		E		L		BAND	
-1		-1		-1		ID		-1		-1		-1		ID	
CM		CM		CM				CM		CM		CM			
/ATM		/ATM		/ATM				/ATM		/ATM		/ATM			
STP		STP		STP				STP		STP		STP			
-3		-3		-3				-3		-3		-3			
4971.75	0.1053	1494.29	17.0000	29 R 16	4977.79	0.0014	38.9744	24 P 39							
4972.03	0.0452	1610.03	26.8519	30 R 26	4977.87	0.0741	27.0000	29 R 26							
4972.10	0.9561	695.57	8.8889	27 R 8	4977.98	0.2061	106.14	25 P 16							
4972.39	0.0046	2360.35	53.0000	32 R 52	4978.16	1.2329	17.9444	28 R 17							
4972.52	0.1816	197.43	22.0000	25 P 22	4978.31	0.0169	37.8947	31 R 37							
4972.64	0.0426	1631.16	27.8571	31 R 27	4978.56	3.2453	1.0000	26 R 0							
4972.75	1.0238	702.55	9.9000	28 R 9	4978.85	0.0148	38.8974	30 R 38							
4973.00	17.9609	16.39	6.0000	26 P 6	4979.00	0.0646	29.0000	29 R 28							
4973.04	0.1031	1521.60	19.0000	29 R 18	4979.02	1.2215	18.9474	27 R 18							
4973.06	0.0031	2443.72	55.0000	32 R 54	4979.37	0.0133	39.9000	31 R 39							
4973.23	0.0394	1653.08	28.8621	30 R 28	4979.44	1.1914	19.9500	28 R 19							
4973.24	0.0008	1422.68	43.9773	23 P 44	4979.46	0.0019	37.9737	23 P 38							
4973.48	0.0008	1387.12	42.9767	24 P 43	4979.74	0.2030	14.0000	25 P 14							
4973.53	1.0920	710.43	10.9091	27 R 10	4979.90	0.0018	36.9730	24 P 37							
4973.70	0.0022	2530.19	57.0000	32 R 56	4979.90	0.0116	40.9024	30 R 40							
4973.82	0.0368	1675.78	29.8667	31 R 29	4980.09	9.6286	3.0000	26 R 2							
4974.15	1.1383	718.96	11.9167	28 R 11	4980.11	0.0552	31.0000	29 R 30							
4974.29	0.0983	1552.03	21.0000	29 R 20	4980.33	1.1650	20.9524	27 R 20							
4974.30	0.0015	2619.76	59.0000	32 R 58	4980.40	0.0103	41.9048	31 R 41							
4974.37	0.1944	163.88	20.0000	25 P 20	4980.69	1.1225	21.9545	28 R 21							
4974.41	0.0337	1699.27	30.8710	30 R 30	4980.91	0.0088	42.9070	30 R 42							
4974.62	12.4881	7.80	4.0000	26 P 4	4981.18	0.0463	33.0000	29 R 32							
4974.87	0.0010	2712.43	61.0000	32 R 60	4981.41	0.0077	43.9091	31 R 43							
4974.94	1.1856	728.43	12.9231	27 R 12	4981.48	0.1928	12.0000	25 P 12							
4974.98	0.0312	1723.53	31.8750	31 R 31	4981.49	0.0024	35.9722	23 P 36							
4975.34	0.0011	1354.69	41.9762	23 P 42	4981.58	15.6319	5.0000	26 R 4							
4975.41	0.0006	2808.20	63.0000	32 R 62	4981.61	1.0842	22.9565	27 R 22							
4975.52	1.2103	738.49	13.9286	28 R 13	4981.91	1.0329	23.9583	28 R 23							
4975.52	0.0916	1585.57	23.0000	29 R 22	4981.91	0.0067	44.9111	30 R 44							
4975.56	0.0283	1748.58	32.8788	30 R 32	4981.98	0.0022	34.9714	24 P 35							
4975.65	0.0011	1320.80	40.9756	24 P 41	4982.22	0.0381	35.0000	29 R 34							
4975.91	0.0004	2907.06	65.0000	32 R 64	4982.38	0.0057	45.9130	31 R 45							
4976.12	0.0259	1774.41	33.8824	31 R 33	4982.87	0.9861	24.9600	27 R 24							
4976.19	0.2029	133.45	18.0000	25 P 18	4982.87	0.0049	46.9149	30 R 46							
4976.22	6.4141	2.34	2.0000	26 P 2	4983.05	20.9967	7.0000	26 R 6							
4976.33	1.2366	749.55	14.9333	27 R 14	4983.10	0.9295	25.9615	28 R 25							
4976.37	0.0003	3009.01	67.0000	32 R 66	4983.19	0.1754	10.0000	25 P 10							
4976.68	0.0231	1801.02	34.8857	30 R 34	4983.23	0.0309	37.0000	29 R 36							
4976.71	0.0833	1622.24	25.0000	29 R 24	4983.34	0.0043	47.9167	31 R 47							
4976.80	0.0001	3114.05	69.0000	32 R 68	4983.50	0.0030	33.9706	23 P 34							
4976.85	1.2409	761.14	15.9375	28 R 15	4983.82	0.0036	48.9184	30 R 48							
4977.23	0.0211	1828.41	35.8889	31 R 35	4984.03	0.0028	32.9697	24 P 33							
4977.41	0.0015	1289.82	39.9750	23 P 40	4984.10	0.8778	26.9630	27 R 26							
4977.68	1.2473	773.81	16.9412	27 R 16	4984.20	0.0245	39.0000	29 R 38							
4977.78	0.0188	1856.59	36.8919	30 R 36	4984.26	0.0030	49.9200	31 R 49							



4984.27	0.8191	962.63	27.9643	28 R 27	4990.97	0.2887	1246.92	38.9744	27 R 38
4984.49	25.5102	28.09	9.0000	26 R 8	4991.23	32.3210	133.44	19.0000	26 R 18
4984.73	0.0026	2332.98	50.9216	30 R 50	4991.27	0.0058	923.12	25.9615	23 P 26
4984.87	0.1508	28.10	8.0000	25 P 8	4991.57	0.1970	1339.65	41.9762	28 R 41
4985.15	0.0191	2027.75	41.0000	29 R 40	4991.59	0.0015	2632.44	57.0000	29 R 56
4985.16	0.0021	2372.84	51.9231	31 R 51	4991.81	0.0001	1346.07	60.0000	21 P 60
4985.31	0.7653	985.00	28.9655	27 R 28	4991.96	0.0050	902.38	24.9600	24 P 25
4985.40	0.7071	1007.14	29.9667	28 R 29	4992.02	0.2249	1308.67	40.9756	27 R 40
4985.48	0.0036	1061.54	31.9688	23 P 32	4992.08	0.0216	0.00	1.0000	25 R 0
4985.62	0.0017	2413.51	52.9245	30 R 52	4992.26	0.0010	2722.01	59.0000	29 R 58
4985.89	29.0198	42.92	11.0000	26 R 10	4992.49	0.1496	1405.97	43.9773	28 R 43
4986.03	0.0016	2454.93	53.9259	31 R 53	4992.50	30.8204	163.86	21.0000	26 R 20
4986.06	0.0033	1035.90	30.9677	24 P 31	4992.74	0.0001	1301.99	59.0000	22 P 59
4986.07	0.0146	2092.46	43.0000	29 R 42	4992.89	0.0006	2814.67	61.0000	29 R 60
4986.48	0.0012	2497.16	54.9273	30 R 54	4993.05	0.1720	1373.54	42.9767	27 R 42
4986.49	0.6540	1031.14	30.9677	27 R 30	4993.15	0.0065	883.23	23.9583	23 P 24
4986.50	0.5986	1054.76	31.9688	28 R 31	4993.38	0.1117	1475.40	45.9783	28 R 45
4986.52	0.1198	16.39	6.0000	25 P 6	4993.48	0.0004	2910.44	63.0000	29 R 62
4986.88	0.0011	2540.13	55.9286	31 R 55	4993.61	0.0642	2.34	3.0000	25 R 2
4986.95	0.0110	2160.27	45.0000	29 R 44	4993.68	0.0002	1258.63	58.0000	21 P 58
4987.27	31.4402	60.87	13.0000	26 R 12	4993.73	28.6847	197.41	23.0000	26 R 22
4987.31	0.0008	2583.92	56.9298	30 R 56	4993.88	0.0057	864.11	22.9565	24 P 23
4987.43	0.0044	1012.27	29.9667	23 P 30	4994.05	0.0003	3009.31	65.0000	29 R 64
4987.57	0.4972	1105.51	33.9706	28 R 33	4994.06	0.1295	1441.53	44.9778	27 R 44
4987.65	0.5482	1080.40	32.9697	27 R 32	4994.24	0.0819	1547.95	47.9792	28 R 47
4987.70	0.0007	2628.45	57.9310	31 R 57	4994.58	0.0001	3111.28	67.0000	29 R 66
4987.81	0.0081	2231.20	47.0000	29 R 46	4994.61	0.0002	1216.01	57.0000	22 P 57
4988.06	0.0039	988.27	28.9655	24 P 29	4994.93	26.0965	234.08	25.0000	26 R 24
4988.12	0.0005	2673.79	58.9322	30 R 58	4995.01	0.0071	846.46	21.9545	23 P 22
4988.15	0.0832	7.80	4.0000	25 P 4	4995.04	0.0958	1512.63	46.9787	27 R 46
4988.49	0.0006	2719.87	59.9333	31 R 59	4995.08	0.0591	1623.61	49.9800	28 R 49
4988.62	32.7555	81.94	15.0000	26 R 14	4995.11	0.1042	7.80	5.0000	25 R 4
4988.62	0.4053	1159.37	35.9722	28 R 35	4995.54	0.0002	1174.12	56.0000	21 P 56
4988.63	0.0059	2305.23	49.0000	29 R 48	4995.76	0.0060	828.97	20.9524	24 P 21
4988.78	0.4509	1132.78	34.9714	27 R 34	4995.88	0.0420	1702.37	51.9808	28 R 51
4988.90	0.0004	2766.78	60.9344	30 R 60	4996.00	0.0696	1586.85	48.9796	27 R 48
4989.25	0.0003	2814.41	61.9355	31 R 61	4996.10	23.2349	273.86	27.0000	26 R 26
4989.36	0.0051	966.13	27.9643	23 P 28	4996.47	0.0002	1132.97	55.0000	22 P 55
4989.42	0.0042	2382.37	51.0000	29 R 50	4996.58	0.1399	16.39	7.0000	25 R 6
4989.63	0.3245	1216.34	37.9737	28 R 37	4996.65	0.0292	1784.25	53.9815	28 R 53
4989.66	0.0003	2862.88	62.9365	30 R 62	4996.84	0.0076	812.83	19.9500	23 P 20
4989.74	0.0427	2.34	2.0000	25 P 2	4996.93	0.0498	1664.18	50.9804	27 R 50
4989.89	0.3641	1188.29	36.9730	27 R 36	4997.25	20.2642	316.76	29.0000	26 R 28
4989.94	33.0145	106.13	17.0000	26 R 16	4997.39	0.0002	1092.54	54.0000	21 P 54
4989.99	0.0003	2912.06	63.9375	31 R 63	4997.39	0.0201	1869.23	55.9821	28 R 55
4990.02	0.0045	943.77	26.9630	24 P 27	4997.61	0.0065	796.94	18.9474	24 P 19
4990.17	0.0029	2462.62	53.0000	29 R 52	4997.83	0.0350	1744.63	52.9811	27 R 52
4990.39	0.0001	2962.08	64.9385	30 R 64	4998.02	0.1701	28.10	9.0000	25 R 8
4990.61	0.2551	1276.44	39.9750	28 R 39	4998.10	0.0136	1957.31	57.9828	28 R 57
4990.90	0.0020	2545.98	55.0000	29 R 54	4998.32	0.0003	1052.85	53.0000	22 P 53

FREQ CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID
4998.36	17.3248	362.78	31.0000	26 R 30	5004.80	0.2154	133.45	19.0000	25 R 18	5004.80	0.2154	133.45	19.0000	25 R 18
4998.64	0.0080	782.31	17.9444	27 R 18	5004.86	0.0007	2608.53	70.9859	27 R 70	5004.86	0.0007	2608.53	70.9859	27 R 70
4998.71	0.0242	1828.19	54.9818	27 R 54	5005.34	3.4456	772.09	45.0000	26 R 44	5005.34	3.4456	772.09	45.0000	26 R 44
4998.78	0.0089	2048.50	59.9833	28 R 59	5005.51	0.0004	2720.03	72.9863	27 R 72	5005.51	0.0004	2720.03	72.9863	27 R 72
4999.24	0.0004	1013.89	52.0000	21 P 52	5005.60	0.0013	761.68	45.0000	22 P 45	5005.60	0.0013	761.68	45.0000	22 P 45
4999.43	0.0066	768.04	16.9412	24 P 17	5005.61	0.0069	691.56	9.9000	23 P 10	5005.61	0.0069	691.56	9.9000	23 P 10
4999.43	0.1934	42.993	11.0000	25 R 10	5006.07	0.2054	163.88	21.0000	25 R 20	5006.07	0.2054	163.88	21.0000	25 R 20
4999.43	0.0059	2142.79	61.9839	28 R 61	5006.14	0.0003	2834.62	74.9867	27 R 74	5006.14	0.0003	2834.62	74.9867	27 R 74
4999.45	14.5284	411.91	33.0000	26 R 31	5006.22	2.5501	843.00	47.0000	26 R 46	5006.22	2.5501	843.00	47.0000	26 R 46
4999.57	0.0164	1914.86	56.9825	27 R 52	5006.43	0.0053	683.68	8.8889	24 P 9	5006.43	0.0053	683.68	8.8889	24 P 9
5000.04	0.0038	2240.19	63.9844	28 R 63	5006.50	0.0014	728.59	44.0000	21 P 44	5006.50	0.0014	728.59	44.0000	21 P 44
5000.15	0.0005	975.66	51.0000	22 P 51	5006.68	0.0003	2530.19	56.0000	20 P 56	5006.68	0.0003	2530.19	56.0000	20 P 56
5000.40	0.0110	2004.64	58.9831	27 R 58	5006.75	0.0001	2952.31	76.9870	27 R 76	5006.75	0.0001	2952.31	76.9870	27 R 76
5000.42	0.0081	754.93	15.9375	23 P 16	5007.07	1.8555	917.03	49.0000	26 R 48	5007.07	1.8555	917.03	49.0000	26 R 48
5000.50	11.9563	464.16	35.0000	26 R 34	5007.29	0.0058	676.69	7.8750	23 P 8	5007.29	0.0058	676.69	7.8750	23 P 8
5000.63	0.0025	2340.68	65.9848	28 R 65	5007.32	0.1912	197.43	23.0000	23 R 22	5007.32	0.1912	197.43	23.0000	23 R 22
5000.81	0.2096	60.88	13.0000	25 R 12	5007.39	0.0016	696.22	43.0000	22 P 43	5007.39	0.0016	696.22	43.0000	22 P 43
5001.07	0.0005	938.16	50.0000	21 P 50	5007.88	1.3278	994.16	51.0000	26 R 50	5007.88	1.3278	994.16	51.0000	26 R 50
5001.18	0.0016	2444.26	67.9853	28 R 67	5008.10	0.0044	670.40	6.8571	24 P 7	5008.10	0.0044	670.40	6.8571	24 P 7
5001.21	0.0072	2097.53	60.9836	27 R 60	5008.29	0.0018	664.59	42.0000	21 P 42	5008.29	0.0018	664.59	42.0000	21 P 42
5001.23	0.0066	742.27	14.9333	24 P 15	5008.54	0.1740	234.10	25.0000	25 R 24	5008.54	0.1740	234.10	25.0000	25 R 24
5001.53	9.6599	519.52	37.0000	26 R 36	5008.67	0.9345	1074.39	53.0000	26 R 52	5008.67	0.9345	1074.39	53.0000	26 R 52
5001.70	0.0009	2550.95	69.9857	28 R 69	5008.94	0.0046	664.95	5.8333	23 P 6	5008.94	0.0046	664.95	5.8333	23 P 6
5001.82	0.0001	2712.43	60.0000	20 P 60	5009.07	0.0004	2443.72	54.0000	20 P 54	5009.07	0.0004	2443.72	54.0000	20 P 54
5001.98	0.0006	901.40	49.0000	22 P 49	5009.17	0.0020	633.70	41.0000	22 P 41	5009.17	0.0020	633.70	41.0000	22 P 41
5001.99	0.0046	2193.52	62.9841	27 R 62	5009.43	0.6469	1157.73	55.0000	26 R 54	5009.43	0.6469	1157.73	55.0000	26 R 54
5002.17	0.2185	81.995	15.0000	25 R 14	5009.73	0.1549	273.89	27.0000	27 R 26	5009.73	0.1549	273.89	27.0000	27 R 26
5002.18	0.0080	730.68	13.9286	23 P 14	5009.75	0.0032	660.24	4.8000	24 P 5	5009.75	0.0032	660.24	4.8000	24 P 5
5002.19	0.0005	2660.72	71.9861	28 R 71	5010.06	0.0024	603.54	40.0000	21 P 40	5010.06	0.0024	603.54	40.0000	21 P 40
5002.53	7.6650	577.99	39.0000	26 R 38	5010.16	0.4405	1244.17	57.0000	26 R 56	5010.16	0.4405	1244.17	57.0000	26 R 56
5002.65	0.0004	2773.59	73.9865	28 R 73	5010.56	0.0031	656.35	3.7500	23 P 4	5010.56	0.0031	656.35	3.7500	23 P 4
5002.74	0.0030	2292.62	64.9846	27 R 64	5010.86	0.2951	1333.72	59.0000	26 R 58	5010.86	0.2951	1333.72	59.0000	26 R 58
5002.89	0.0007	865.37	48.0000	21 P 48	5010.89	0.1351	316.79	29.0000	25 R 28	5010.89	0.1351	316.79	29.0000	25 R 28
5002.99	0.0065	719.61	12.9231	24 P 13	5010.94	0.0026	574.11	39.0000	22 P 39	5010.94	0.0026	574.11	39.0000	22 P 39
5003.08	0.0003	2889.55	75.9868	28 R 75	5011.36	0.0018	653.21	2.6667	24 P 3	5011.36	0.0018	653.21	2.6667	24 P 3
5003.47	0.0019	2394.82	66.9851	27 R 66	5011.43	0.0007	2360.35	52.0000	20 P 52	5011.43	0.0007	2360.35	52.0000	20 P 52
5003.49	5.9749	639.58	41.0000	26 R 40	5011.53	0.1946	1426.36	61.0000	26 R 60	5011.53	0.1946	1426.36	61.0000	26 R 60
5003.50	0.2201	106.14	17.0000	25 R 16	5011.82	0.0029	545.42	38.0000	21 P 38	5011.82	0.0029	545.42	38.0000	21 P 38
5003.80	0.0010	830.07	47.0000	22 P 47	5012.03	0.1154	362.81	31.0000	25 R 30	5012.03	0.1154	362.81	31.0000	25 R 30
5003.91	0.0075	709.55	11.9167	23 P 12	5012.16	0.0012	650.87	1.5000	23 P 2	5012.16	0.0012	650.87	1.5000	23 P 2
5004.18	0.0012	2500.13	68.9855	27 R 68	5012.17	0.1262	1522.10	63.0000	26 R 62	5012.17	0.1262	1522.10	63.0000	26 R 62
5004.27	0.0003	2619.76	58.0000	20 P 58	5012.70	0.0033	517.46	37.0000	22 P 37	5012.70	0.0033	517.46	37.0000	22 P 37
5004.43	4.5767	704.28	43.0000	26 R 42	5012.78	0.0805	1620.94	65.0000	26 R 64	5012.78	0.0805	1620.94	65.0000	26 R 64
5004.70	0.0011	795.51	46.0000	21 P 46	5013.14	0.0968	411.95	33.0000	25 R 32	5013.14	0.0968	411.95	33.0000	25 R 32
5004.72	0.0059	700.08	10.9091	24 P 11	5013.24	0.0001	700.08	0.1742	24 Q 11	5013.24	0.0001	700.08	0.1742	24 Q 11



5013.36	0.0506	1722.87	67.0000	26 R 66	5020.59	0.0020	2057.92	44.0000	20 P 44
5013.37	0.0001	691.56	0.1909	23 Q 10	5021.08	0.0124	917.11	49.0000	25 R 48
5013.39	0.0001	683.68	0.2111	23 Q 9	5021.13	0.0059	683.68	9.9000	24 R 9
5013.49	0.0002	676.69	0.2361	24 Q 8	5021.27	0.0075	278.29	27.0000	22 P 27
5013.52	0.0002	670.40	0.2679	24 Q 7	5021.85	0.0004	2522.89	80.0000	19 P 80
5013.57	0.0035	490.24	36.0000	21 P 36	5021.90	0.0076	691.56	10.9091	23 R 10
5013.59	0.0002	664.95	0.3095	23 Q 6	5021.96	0.0089	994.25	51.0000	25 R 50
5013.62	0.0002	660.24	0.3667	24 Q 5	5022.11	0.0079	258.42	26.0000	21 P 26
5013.66	0.0004	656.35	0.4500	23 Q 4	5022.52	0.0066	700.08	11.9167	24 R 11
5013.68	0.0004	653.21	0.5833	24 Q 3	5022.81	0.0029	1990.08	42.0000	20 P 42
5013.71	0.0007	650.87	0.8333	23 Q 2	5022.81	0.0063	1074.49	53.0000	25 R 52
5013.72	0.0010	649.30	1.5000	24 Q 1	5022.94	0.0084	239.28	25.0000	22 P 25
5013.76	0.0008	2280.08	50.0000	20 P 50	5023.30	0.0082	709.55	12.9231	23 R 12
5013.91	0.0313	1827.89	69.0000	26 R 68	5023.64	0.0043	1157.83	55.0000	25 R 54
5014.22	0.0797	464.20	35.0000	25 R 34	5023.77	0.0089	220.88	24.0000	21 P 24
5014.43	0.0191	1936.01	71.0000	26 R 70	5023.88	0.0070	719.61	13.9286	24 R 13
5014.44	0.0039	463.75	35.0000	22 P 35	5024.09	0.0007	2399.35	78.0000	19 R 78
5014.92	0.0115	2047.21	73.0000	26 R 72	5024.45	0.0029	1244.28	57.0000	25 R 56
5015.27	0.0010	649.30	1.5000	24 R 1	5024.60	0.0092	203.21	23.0000	22 P 23
5015.27	0.0644	519.57	37.0000	25 R 36	5024.68	0.0086	730.68	14.9333	23 R 14
5015.30	0.0043	438.00	34.0000	21 P 34	5025.00	0.0036	1925.35	40.0000	20 P 40
5015.38	0.0068	2161.51	75.0000	26 R 74	5025.21	0.0071	742.27	15.9375	24 R 15
5015.81	0.0039	2278.89	77.0000	26 R 76	5025.24	0.0019	1333.83	59.0000	25 R 58
5016.04	0.0023	650.87	2.6667	23 R 2	5025.42	0.0096	186.28	22.0000	21 P 22
5016.07	0.0012	2202.92	48.0000	20 P 48	5026.00	0.0014	1426.48	61.0000	25 R 60
5016.17	0.0047	412.98	33.0000	22 P 33	5026.03	0.0086	754.93	16.9412	23 R 16
5016.21	0.0022	2399.35	79.0000	26 R 78	5026.24	0.0099	170.08	21.0000	22 P 21
5016.30	0.0510	578.05	39.0000	25 R 38	5026.32	0.0012	2278.89	76.0000	19 P 76
5016.58	0.0012	2522.89	81.0000	26 R 80	5026.51	0.0070	768.04	17.9444	24 R 17
5016.78	0.0026	653.21	3.7500	24 R 3	5026.75	0.0008	1522.23	63.0000	25 R 62
5016.91	0.0007	2649.52	83.0000	26 R 82	5027.05	0.0101	154.62	20.0000	21 P 20
5017.03	0.0052	388.69	32.0000	21 P 32	5027.17	0.0047	1863.73	38.0000	20 P 38
5017.22	0.0004	2779.22	85.0000	26 R 84	5027.35	0.0084	782.31	18.9474	23 R 18
5017.31	0.0398	639.64	41.0000	25 R 40	5027.47	0.0005	1621.07	65.0000	25 R 64
5017.34	0.0001	2779.22	84.0000	19 P 84	5027.78	0.0069	796.94	19.9500	24 R 19
5017.50	0.0003	2911.99	87.0000	26 R 86	5027.87	0.0103	139.90	19.0000	22 P 19
5017.54	0.0039	656.35	4.8000	23 R 4	5028.17	0.0004	1723.01	67.0000	25 R 66
5017.88	0.0057	365.14	31.0000	22 P 31	5028.54	0.0020	2161.51	74.0000	19 P 74
5018.26	0.0038	660.24	5.8333	24 R 5	5028.64	0.0080	812.83	20.9524	23 R 20
5018.29	0.0306	704.34	43.0000	25 R 42	5028.67	0.0105	125.91	18.0000	21 P 18
5018.35	0.0015	2128.87	46.0000	20 P 46	5028.84	0.0002	1828.04	69.0000	25 R 68
5018.73	0.0060	342.33	30.0000	21 P 30	5029.02	0.0065	828.97	21.9545	24 R 21
5019.02	0.0054	664.95	6.8571	23 R 6	5029.30	0.0058	1805.23	36.0000	20 P 36
5019.24	0.0230	772.16	45.0000	25 R 44	5029.48	0.0106	112.66	17.0000	22 P 17
5019.58	0.0066	320.25	29.0000	22 P 29	5029.50	0.0001	1936.16	71.0000	25 R 70
5019.60	0.0003	2649.52	82.0000	19 P 82	5029.92	0.0076	846.46	22.9565	23 R 23
5019.71	0.0050	670.40	7.8750	24 R 7	5030.23	0.0060	864.11	23.9583	24 R 24
5020.17	0.0170	843.08	47.0000	25 R 46	5030.28	0.0105	100.14	16.0000	21 P 16
5020.43	0.0070	298.90	28.0000	21 P 28	5030.75	0.0035	2047.21	72.0000	19 P 72
5020.48	0.0066	676.69	8.8889	23 R 8	5031.07	0.0105	88.36	15.0000	22 P 15

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
5031.16	0.0068	883.23	24.9600	23 R 24	5041.80	0.0011	0.74	1.0000	22 P 1	5041.80	0.0011	0.74	1.0000	22 P 1
5031.40	0.0074	1749.84	34.0000	20 P 34	5042.22	0.0009	1422.68	44.9778	23 R 44	5042.22	0.0009	1422.68	44.9778	23 R 44
5031.41	0.0054	902.38	25.9615	24 R 25	5042.48	0.0005	1529.11	47.9792	24 R 47	5042.48	0.0005	1529.11	47.9792	24 R 47
5031.87	0.0104	77.32	14.0000	21 P 14	5043.20	0.0007	1493.78	46.9787	23 R 46	5043.20	0.0007	1493.78	46.9787	23 R 46
5032.38	0.0060	923.12	26.9630	23 R 26	5043.27	0.0011	0.00	1.0000	21 R 0	5043.27	0.0011	0.00	1.0000	21 R 0
5032.56	0.0047	943.77	27.9643	24 R 27	5043.31	0.0002	1604.77	49.9800	24 R 49	5043.31	0.0002	1604.77	49.9800	24 R 49
5032.65	0.0101	67.01	13.0000	22 P 13	5043.37	0.0172	1482.94	22.0000	20 P 22	5043.37	0.0172	1482.94	22.0000	20 P 22
5032.95	0.0058	1936.01	70.0000	19 P 70	5043.76	0.0597	1426.36	60.0000	19 P 60	5043.76	0.0597	1426.36	60.0000	19 P 60
5033.44	0.0097	57.44	12.0000	21 P 12	5044.00	0.0022	0.74	2.0000	22 R 1	5044.00	0.0022	0.74	2.0000	22 R 1
5033.47	0.0089	1697.56	32.0000	20 P 32	5044.12	0.0002	1693.53	51.9808	24 R 51	5044.12	0.0002	1693.53	51.9808	24 R 51
5033.57	0.0053	966.13	28.9655	23 R 28	5044.15	0.0005	1568.01	48.9796	23 R 48	5044.15	0.0005	1568.01	48.9796	23 R 48
5033.69	0.0040	988.27	29.9667	24 R 29	5044.72	0.0032	2.21	3.0000	21 R 2	5044.72	0.0032	2.21	3.0000	21 R 2
5034.22	0.0094	48.60	11.0000	22 P 11	5044.90	0.0002	1765.41	53.9815	24 R 53	5044.90	0.0002	1765.41	53.9815	24 R 53
5034.74	0.0046	1012.27	30.9677	23 R 30	5045.07	0.0004	1645.34	50.9804	23 R 50	5045.07	0.0004	1645.34	50.9804	23 R 50
5034.78	0.0035	1035.90	31.9688	24 R 31	5045.26	0.0184	1449.37	20.0000	20 P 20	5045.26	0.0184	1449.37	20.0000	20 P 20
5034.99	0.0088	40.50	10.0000	21 P 10	5045.45	0.0043	4.42	4.0000	22 R 3	5045.45	0.0043	4.42	4.0000	22 R 3
5035.13	0.0095	1827.89	68.0000	19 P 68	5045.65	0.0001	1850.39	55.9821	24 R 55	5045.65	0.0001	1850.39	55.9821	24 R 55
5035.15	0.0105	1648.40	30.0000	20 P 30	5045.88	0.0904	1333.72	58.0000	19 P 58	5045.88	0.0904	1333.72	58.0000	19 P 58
5035.77	0.0083	33.14	9.0000	22 P 9	5045.98	0.0002	1725.79	52.9811	23 R 52	5045.98	0.0002	1725.79	52.9811	23 R 52
5035.84	0.0029	1086.65	33.9706	24 R 33	5046.16	0.0052	7.36	5.0000	21 R 4	5046.16	0.0052	7.36	5.0000	21 R 4
5035.88	0.0038	1061.54	32.9697	23 R 32	5046.86	0.0001	1809.35	54.9818	23 R 54	5046.86	0.0001	1809.35	54.9818	23 R 54
5036.54	0.0076	26.51	8.0000	21 P 8	5046.87	0.0062	11.05	6.0000	22 R 5	5046.87	0.0062	11.05	6.0000	22 R 5
5036.88	0.0023	1140.51	35.9722	24 R 35	5047.11	0.0193	1418.92	18.0000	20 P 18	5047.11	0.0193	1418.92	18.0000	20 P 18
5037.00	0.0031	1113.93	34.9714	23 R 34	5047.58	0.0070	15.46	7.0000	21 R 6	5047.58	0.0070	15.46	7.0000	21 R 6
5037.30	0.0068	20.62	7.0000	22 P 7	5047.99	0.1350	1244.17	56.0000	19 P 56	5047.99	0.1350	1244.17	56.0000	19 P 56
5037.31	0.0155	1722.87	66.0000	19 P 66	5048.29	0.0078	20.62	8.0000	22 R 7	5048.29	0.0078	20.62	8.0000	22 R 7
5037.52	0.0123	1602.36	28.0000	20 P 28	5048.94	0.0196	1391.60	16.0000	20 P 16	5048.94	0.0196	1391.60	16.0000	20 P 16
5037.88	0.0019	1197.49	37.9737	24 R 37	5048.99	0.0085	26.51	9.0000	21 R 8	5048.99	0.0085	26.51	9.0000	21 R 8
5038.06	0.0061	15.46	6.0000	21 P 6	5049.68	0.0092	33.14	10.0000	22 R 9	5049.68	0.0092	33.14	10.0000	22 R 9
5038.09	0.0026	1169.44	36.9730	23 R 36	5050.01	0.0003	2773.59	72.9863	17 P 73	5050.01	0.0003	2773.59	72.9863	17 P 73
5038.82	0.0051	11.05	5.0000	22 P 5	5050.08	0.1981	1157.73	54.0000	19 P 54	5050.08	0.1981	1157.73	54.0000	19 P 54
5038.86	0.0015	1257.58	39.9750	24 R 39	5050.37	0.0097	40.50	11.0000	21 R 10	5050.37	0.0097	40.50	11.0000	21 R 10
5039.16	0.0020	1228.07	38.9744	23 R 38	5050.73	0.0192	1367.39	14.0000	20 P 14	5050.73	0.0192	1367.39	14.0000	20 P 14
5039.47	0.0247	1620.94	64.0000	19 P 64	5051.06	0.0103	48.60	12.0000	22 R 11	5051.06	0.0103	48.60	12.0000	22 R 11
5039.50	0.0141	1559.43	26.0000	20 P 26	5051.75	0.0107	57.44	13.0000	21 R 12	5051.75	0.0107	57.44	13.0000	21 R 12
5039.57	0.0042	7.36	4.0000	21 P 4	5052.16	0.2862	1074.39	52.0000	19 P 52	5052.16	0.2862	1074.39	52.0000	19 P 52
5039.81	0.0011	1320.80	41.9762	24 R 41	5052.19	0.0001	2834.62	73.9865	16 P 74	5052.19	0.0001	2834.62	73.9865	16 P 74
5040.21	0.0016	1289.82	40.9756	23 R 40	5052.41	0.0003	2660.72	70.9859	17 P 71	5052.41	0.0003	2660.72	70.9859	17 P 71
5040.32	0.0031	4.42	3.0000	22 P 3	5052.43	0.0110	67.01	14.0000	22 R 13	5052.43	0.0110	67.01	14.0000	22 R 13
5040.72	0.0008	1387.12	43.9773	24 R 43	5052.49	0.0184	1346.31	12.0000	20 P 12	5052.49	0.0184	1346.31	12.0000	20 P 12
5041.06	0.0022	2.21	2.0000	21 P 2	5053.10	0.0111	77.32	15.0000	21 R 14	5053.10	0.0111	77.32	15.0000	21 R 14
5041.23	0.0011	1354.69	42.9767	23 R 42	5053.77	0.0113	88.36	16.0000	22 R 15	5053.77	0.0113	88.36	16.0000	22 R 15
5041.45	0.0157	1519.63	24.0000	20 P 24	5054.22	0.4066	994.16	50.0000	19 P 50	5054.22	0.4066	994.16	50.0000	19 P 50
5041.62	0.0387	1522.10	62.0000	19 P 62	5054.22	0.0167	1328.35	10.0000	20 P 10	5054.22	0.0167	1328.35	10.0000	20 P 10
5041.62	0.0007	1456.56	45.9783	24 R 45	5054.40	0.0003	2720.03	71.9861	16 P 72	5054.40	0.0003	2720.03	71.9861	16 P 72



5054.44	0.0113	100.14	17.0000	21 R 16	5067.41	0.0039	2097.53	59.9833	16 P 60
5054.79	0.0005	2550.95	68.9855	27 P 69	5067.59	0.0034	517.46	38.0000	22 R 37
5055.11	0.0112	112.66	18.0000	22 R 17	5067.63	0.0133	1301.80	7.0000	20 R 6
5055.77	0.0112	125.91	19.0000	21 R 18	5068.18	2.9475	519.52	36.0000	19 P 36
5055.92	0.0143	1313.51	8.0000	20 P 8	5068.18	0.0030	545.42	39.0000	21 R 38
5056.27	0.5681	917.03	48.0000	19 P 48	5068.66	0.0075	1957.31	56.9825	17 P 57
5056.42	0.0110	139.90	20.0000	22 R 19	5068.74	0.0008	2462.62	52.0000	18 P 52
5056.60	0.0004	2608.53	69.9857	16 P 70	5068.76	0.0027	574.11	40.0000	22 R 39
5057.08	0.0107	154.62	21.0000	21 R 20	5069.06	0.0161	1313.51	9.0000	20 R 8
5057.16	0.0008	2444.26	66.9851	17 P 67	5069.34	0.0024	603.54	41.0000	21 R 40
5057.58	0.0113	1301.80	6.0000	20 P 6	5069.52	0.0060	2004.64	57.9828	16 P 58
5057.72	0.0104	170.08	22.0000	22 R 21	5069.92	0.0021	633.70	42.0000	22 R 41
5058.00	0.7804	843.00	46.0000	19 P 46	5070.10	3.6446	464.16	34.0000	19 P 34
5058.37	0.0101	186.28	23.0000	21 R 22	5070.45	0.0183	1328.35	11.0000	20 R 10
5058.71	0.0001	2910.44	62.0000	18 P 62	5070.49	0.0019	664.59	43.0000	21 R 42
5058.79	0.0007	2500.13	67.9853	16 P 68	5070.71	0.0012	2382.37	50.0000	18 P 42
5059.01	0.0096	203.21	24.0000	22 R 23	5070.90	0.0109	1869.23	54.9818	17 P 55
5059.22	0.0079	1293.21	4.0000	20 P 4	5071.06	0.0017	696.22	44.0000	22 R 43
5059.50	0.0013	2340.68	64.9846	17 P 65	5071.63	0.0090	1914.86	55.9821	16 P 56
5059.65	0.0093	220.88	25.0000	21 R 24	5071.63	0.0014	728.59	45.0000	21 R 44
5060.28	0.0088	239.28	26.0000	22 R 25	5071.81	0.0200	1346.31	13.0000	20 R 12
5060.31	1.0541	772.09	44.0000	19 P 44	5072.00	4.4233	411.91	32.0000	19 P 32
5060.75	0.0003	2814.67	60.0000	18 P 60	5072.19	0.0013	761.68	46.0000	22 R 45
5060.82	0.0041	1287.74	2.0000	20 P 2	5072.67	0.0017	2305.23	48.0000	18 P 48
5060.91	0.0083	258.42	27.0000	21 R 26	5072.75	0.0011	795.51	47.0000	21 R 46
5060.96	0.0011	2394.82	65.9848	16 P 66	5073.12	0.0159	1784.25	52.9811	17 P 53
5061.54	0.0079	278.29	28.0000	22 R 27	5073.14	0.0207	1367.39	15.0000	20 R 14
5061.82	0.0021	2240.19	62.9841	17 P 63	5073.31	0.0010	830.07	48.0000	22 R 47
5062.16	0.0073	298.90	29.0000	21 R 28	5073.72	0.0132	1828.19	53.9815	16 P 54
5062.30	1.3994	704.28	42.0000	19 P 42	5073.86	0.0009	865.37	49.0000	21 R 48
5062.76	0.0003	2722.01	58.0000	18 P 58	5073.88	5.2672	362.78	30.0000	19 P 30
5062.78	0.0068	320.25	30.0000	22 R 29	5074.41	0.0006	901.40	50.0000	22 R 49
5063.13	0.0016	2292.62	63.9844	16 P 64	5074.44	0.0209	1391.60	17.0000	20 R 16
5063.16	0.0020	1285.40	1.0000	20 R 0	5074.60	0.0025	2231.20	46.0000	18 P 46
5063.39	0.0063	342.33	31.0000	21 R 30	5074.96	0.0005	938.16	51.0000	21 R 50
5064.00	0.0059	365.14	32.0000	22 R 31	5075.31	0.0228	1702.37	50.9804	17 P 51
5064.12	0.0032	2142.79	60.9836	17 P 61	5075.50	0.0005	975.66	52.0000	22 R 51
5064.28	1.8260	639.58	40.0000	19 P 40	5075.70	0.0205	1418.92	19.0000	20 R 18
5064.61	0.0054	388.69	33.0000	21 R 32	5075.74	6.1503	316.76	28.0000	19 P 28
5064.68	0.0061	1287.74	3.0000	20 R 2	5075.79	0.0191	1744.63	51.9808	16 P 52
5064.77	0.0004	2632.44	56.0000	18 P 56	5076.05	0.0004	1013.89	53.0000	21 R 52
5065.21	0.0050	412.98	34.0000	22 R 33	5076.53	0.0032	2160.27	44.0000	18 P 44
5065.27	0.0026	2193.52	61.9839	16 P 62	5076.59	0.0003	1052.85	54.0000	22 R 53
5065.81	0.0045	438.00	35.0000	21 R 34	5076.94	0.0194	1449.37	21.0000	20 R 20
5066.17	0.0100	1293.21	5.0000	20 R 4	5077.12	0.0002	1092.54	55.0000	21 R 54
5066.24	2.3408	577.99	38.0000	19 P 38	5077.48	0.0323	1623.61	48.9796	17 P 49
5066.40	0.0049	2048.50	58.9831	17 P 59	5077.58	7.0374	273.86	26.0000	19 P 26
5066.41	0.0040	463.75	36.0000	22 R 35	5077.66	0.0002	1132.97	56.0000	22 R 55
5066.76	0.0007	2545.98	54.0000	18 P 54	5077.84	0.0271	1664.18	49.9800	16 P 50
5067.00	0.0036	490.24	37.0000	21 R 36	5078.14	0.0181	1482.94	23.0000	20 R 22





5100.37	0.0037	2075.66	42.9070	15 P 43	5115.11	0.5573	710.43	9.9000	16 P 10
5100.39	1.0290	0.00	1.0000	19 R 0	5115.21	0.0185	1653.08	27.8571	14 P 28
5101.13	0.4731	941.98	25.9615	16 P 26	5115.65	0.0531	1388.17	1.0000	18 P 0
5101.43	0.0042	2042.03	41.9048	14 P 42	5115.91	0.5171	702.55	8.8889	17 P 9
5101.72	0.5003	921.25	24.9600	17 P 25	5116.07	9.0950	197.44	23.0000	19 R 22
5101.86	0.0297	1494.29	16.0000	18 P 16	5116.15	0.0200	1631.16	26.8519	15 P 27
5101.93	3.0528	2.34	3.0000	19 R 2	5116.76	0.4767	695.57	7.8750	16 P 8
5102.42	0.0049	2009.16	40.9024	15 P 41	5117.09	0.0211	1610.03	25.8462	14 P 26
5102.95	0.5301	902.10	23.9583	16 P 24	5117.18	0.0093	1390.51	3.0000	18 R 2
5103.44	4.9562	7.80	5.0000	19 R 4	5117.36	8.2745	234.08	25.0000	19 R 24
5103.47	0.0055	1977.09	39.9000	14 P 40	5117.57	0.4256	689.27	6.8571	17 P 7
5103.55	0.0293	1470.10	14.0000	18 P 14	5117.67	0.0001	1339.65	0.0482	17 Q 41
5103.58	0.5543	882.98	22.9565	17 P 23	5118.02	0.0227	1589.67	24.8400	15 P 25
5104.45	0.0062	1945.79	38.8974	15 P 39	5118.19	0.0002	1276.44	0.0506	17 Q 39
5104.75	0.5810	865.33	21.9545	16 P 22	5118.40	0.3739	683.83	5.8333	16 P 6
5104.93	6.6571	16.39	7.0000	19 R 6	5118.51	0.0001	1373.54	0.0471	16 Q 42
5105.22	0.0279	1449.04	12.0000	18 P 12	5118.64	7.3672	273.86	27.0000	19 R 26
5105.42	0.6004	847.84	20.9524	17 P 21	5118.67	0.0002	1216.34	0.0533	17 Q 37
5105.48	0.0070	1915.28	37.8947	14 P 38	5118.71	0.0151	1395.97	5.0000	18 R 4
5106.40	8.0882	28.09	9.0000	19 R 8	5118.93	0.0002	1308.67	0.0494	16 Q 40
5106.46	0.0079	1885.54	36.8919	15 P 37	5118.95	0.0237	1570.10	23.8333	14 P 24
5106.53	0.6219	831.70	19.9500	16 P 20	5119.14	0.0003	1159.37	0.0563	17 Q 35
5106.87	0.0254	1431.09	10.0000	18 P 10	5119.20	0.3131	679.12	4.8000	17 P 5
5107.23	0.6346	815.82	18.9474	17 P 19	5119.33	0.0002	1246.92	0.0520	16 Q 38
5107.47	0.0088	1856.59	35.8889	14 P 36	5119.57	0.0006	1105.51	0.0597	17 Q 33
5107.84	9.2008	42.92	11.0000	19 R 10	5119.71	0.0002	1188.29	0.0548	16 Q 36
5108.28	0.6490	801.19	17.9444	16 P 18	5119.86	0.0250	1551.30	22.8261	15 P 23
5108.44	0.0099	1828.41	34.8857	15 P 35	5119.89	6.4254	316.76	29.0000	19 R 28
5108.50	0.0218	1416.26	8.0000	18 P 8	5119.99	0.0007	1054.76	0.0635	17 Q 31
5109.01	0.6532	786.92	16.9412	17 P 17	5120.01	0.2507	675.22	3.7500	16 P 4
5109.27	9.9682	60.87	13.0000	19 R 12	5120.07	0.0004	1132.78	0.0580	16 Q 34
5109.44	0.0109	1801.02	33.8824	14 P 34	5120.21	0.0201	1404.56	7.0000	18 R 6
5110.02	0.6587	773.81	15.9375	16 P 16	5120.38	0.0010	1007.14	0.0678	17 Q 29
5110.17	0.0174	1404.56	6.0000	18 P 6	5120.42	0.0005	1080.40	0.0616	16 Q 32
5110.40	0.0122	1774.41	32.8788	15 P 33	5120.74	0.0008	1031.14	0.0656	16 Q 30
5110.67	10.3854	81.94	15.0000	19 R 14	5120.74	0.0012	962.63	0.0728	17 Q 27
5110.78	0.6529	761.14	14.9333	17 P 15	5120.78	0.0259	1533.30	21.8182	14 P 22
5111.38	0.0133	1748.58	31.8750	14 P 32	5120.81	0.1800	672.09	2.6667	17 P 3
5111.72	0.0121	1395.97	4.0000	18 P 4	5121.05	0.0010	985.00	0.0702	16 Q 28
5111.74	0.6479	749.55	13.9286	16 P 14	5121.08	0.0016	921.25	0.0785	17 Q 25
5112.05	10.4675	106.13	17.0000	19 R 16	5121.13	5.4934	362.78	31.0000	19 R 30
5112.34	0.0147	1723.53	30.8710	15 P 31	5121.33	0.0014	941.98	0.0755	16 Q 26
5112.51	0.6310	738.49	12.9231	17 P 13	5121.39	0.0020	882.98	0.0851	17 Q 23
5113.30	0.0062	1390.51	2.0000	18 P 2	5121.60	0.0018	902.10	0.0817	16 Q 24
5113.31	0.0158	1699.27	29.8667	14 P 30	5121.60	0.1030	669.75	1.5000	16 P 2
5113.41	10.2476	133.44	19.0000	19 R 18	5121.68	0.0027	847.84	0.0931	17 Q 21
5113.43	0.6144	728.43	11.9167	16 P 12	5121.69	0.0271	1516.07	20.8095	15 P 21
5114.22	0.5859	718.96	10.9091	17 P 11	5121.70	0.0245	1416.26	9.0000	18 R 8
5114.25	0.0172	1675.78	28.8621	15 P 29	5121.84	0.0025	865.33	0.0889	16 Q 22
5114.75	9.7720	163.86	21.0000	19 R 20	5121.95	0.0035	815.82	0.1026	17 Q 19

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
5122.07	0.0031	831.70	0.0976	16 Q 20	5129.21	1.0928	772.09	45.0000	19 R 44	5130.25	0.0297	1552.03	21.0000	18 R 20
5122.18	0.0044	786.92	0.1144	17 Q 17	5129.60	0.0270	1396.25	11.6667	14 P 12	5130.29	0.8087	843.00	47.0000	19 Q 46
5122.27	0.0039	801.19	0.1082	16 Q 18	5129.97	0.5394	695.57	8.8889	14 P 8	5130.43	0.0260	1386.85	10.6364	15 P 11
5122.34	4.6069	411.91	33.0000	19 R 32	5130.25	0.0297	1552.03	21.0000	18 R 20	5130.63	0.5777	9.9000	9.9000	17 R 9
5122.40	0.0057	761.14	0.1292	17 Q 15	5130.29	0.8087	843.00	47.0000	19 Q 46	5131.30	0.0243	1378.24	9.6000	14 P 10
5122.45	0.0051	773.81	0.1213	16 Q 16	5130.45	0.0260	1386.85	10.6364	15 P 11	5131.35	0.5885	917.03	49.0000	19 Q 48
5122.58	0.0072	738.49	0.1484	17 Q 13	5130.63	0.5777	9.9000	9.9000	17 R 9	5131.43	0.6160	710.43	10.9091	16 R 10
5122.59	0.0277	1499.63	19.8000	14 P 20	5131.30	0.0243	1378.24	9.6000	14 P 10	5132.04	0.6421	1585.57	23.0000	18 R 22
5122.62	0.0064	749.55	0.1381	16 Q 14	5131.35	0.5885	917.03	49.0000	19 Q 48	5132.40	0.4212	994.16	51.0000	15 P 9
5122.74	0.0094	718.96	0.1742	17 Q 11	5131.43	0.6160	710.43	10.9091	16 R 10	5132.86	0.6688	728.43	12.9231	16 R 12
5122.76	0.0083	728.43	0.1603	16 Q 12	5131.61	0.0276	1585.57	23.0000	18 R 22	5132.96	0.0204	1363.36	7.5000	14 P 8
5122.88	0.0107	710.43	0.1909	16 Q 10	5132.04	0.6421	1585.57	23.0000	18 R 22	5132.96	0.0251	1622.24	25.0000	18 R 24
5122.88	0.0123	702.55	0.2111	17 Q 9	5132.40	0.4212	994.16	51.0000	15 P 9	5133.42	0.2964	1074.39	53.0000	19 R 52
5122.98	0.0143	695.57	0.2361	16 Q 8	5132.86	0.6688	728.43	12.9231	16 R 12	5133.43	0.6827	738.49	13.9286	17 R 13
5122.99	0.0166	689.27	0.2679	17 Q 7	5132.96	0.0204	1363.36	7.5000	14 P 8	5133.79	0.0182	1357.09	6.4286	15 P 7
5123.06	0.0199	683.83	0.3095	16 Q 6	5132.96	0.0251	1622.24	25.0000	18 R 24	5134.27	0.6977	749.55	14.9333	16 R 14
5123.07	0.0239	679.12	0.3667	17 Q 5	5132.96	0.0251	1622.24	25.0000	18 R 24	5134.29	0.0224	1662.02	27.0000	18 R 26
5123.12	0.0301	675.22	0.4500	16 Q 4	5133.42	0.2964	1074.39	53.0000	19 R 52	5134.43	0.2053	1157.73	55.0000	19 R 54
5123.13	0.0393	672.09	0.5833	17 Q 3	5133.43	0.6827	738.49	13.9286	17 R 13	5135.42	0.7001	761.14	15.9375	17 R 15
5123.15	0.0573	669.75	0.8333	16 Q 2	5133.79	0.0182	1357.09	6.4286	15 P 7	5135.42	0.0124	1346.91	4.2000	15 P 5
5123.16	0.1033	668.18	1.5000	17 Q 1	5134.27	0.6977	749.55	14.9333	16 R 14	5135.60	0.0196	1704.92	29.0000	19 R 28
5123.16	0.0279	1431.09	11.0000	18 R 10	5134.29	0.0224	1662.02	27.0000	18 R 26	5135.66	0.7036	773.81	16.9412	16 R 16
5123.49	0.0286	1483.96	18.7895	15 P 19	5134.43	0.2053	1157.73	55.0000	19 R 54	5136.13	0.6955	786.92	17.9444	17 R 17
5123.54	3.7913	464.16	35.0000	19 R 34	5134.61	0.0153	1351.61	5.3333	14 P 6	5136.23	0.0090	1342.99	3.0000	14 P 4
5124.38	0.0289	1469.09	17.7778	14 P 18	5134.79	0.7001	761.14	15.9375	17 R 15	5136.24	0.0001	1748.58	0.2462	14 Q 32
5124.62	0.0303	1449.04	13.0000	18 R 12	5135.42	0.0124	1346.91	4.2000	15 P 5	5136.40	0.0936	1333.72	59.0000	19 R 58
5124.71	0.1033	668.18	1.5000	17 R 1	5135.42	0.0124	1346.91	4.2000	15 P 5	5136.42	0.0001	1723.53	0.2540	15 Q 31
5124.71	3.0632	519.52	37.0000	19 R 36	5135.60	0.0196	1704.92	29.0000	19 R 28	5136.61	0.0002	1699.27	0.2624	14 Q 30
5125.26	0.0294	1454.99	16.7647	15 P 17	5135.66	0.7036	773.81	16.9412	16 R 16	5136.78	0.0002	1675.78	0.2713	15 Q 29
5125.49	0.1833	669.75	2.6667	16 R 2	5136.13	0.6955	786.92	17.9444	17 R 17	5136.94	0.0167	1750.94	31.0000	18 R 30
5125.87	2.4306	577.99	39.0000	19 R 38	5136.23	0.0090	1342.99	3.0000	14 P 4	5136.96	0.0002	1653.94	0.2808	14 Q 28
5126.05	0.0316	1470.10	15.0000	18 R 14	5136.24	0.0001	1748.58	0.2462	14 Q 32	5137.03	0.0051	1339.86	1.6667	15 P 3
5126.14	0.0293	1441.68	15.7500	14 P 16	5136.40	0.0936	1333.72	59.0000	19 R 58	5137.44	0.0002	1589.67	0.3138	15 Q 25
5126.23	0.2535	672.09	3.7500	17 R 3	5136.42	0.0001	1723.53	0.2540	15 Q 31	5137.44	0.0002	1589.67	0.3138	15 Q 25
5127.00	0.3214	675.22	4.8000	16 R 4	5136.61	0.0002	1699.27	0.2624	14 Q 30	5137.44	0.0002	1589.67	0.3138	15 Q 25
5127.00	1.8948	639.58	41.0000	19 R 40	5136.78	0.0002	1675.78	0.2713	15 Q 29	5137.44	0.0002	1589.67	0.3138	15 Q 25
5127.02	0.0293	1429.15	14.7333	15 P 15	5136.94	0.0167	1750.94	31.0000	18 R 30	5137.44	0.0002	1589.67	0.3138	15 Q 25
5127.47	0.0318	1494.29	17.0000	18 R 16	5136.96	0.0002	1653.94	0.2808	14 Q 28	5137.44	0.0002	1589.67	0.3138	15 Q 25
5127.72	0.3811	679.12	5.8333	17 R 5	5137.03	0.0051	1339.86	1.6667	15 P 3	5137.44	0.0002	1589.67	0.3138	15 Q 25
5127.89	0.0287	1417.40	13.7143	14 P 14	5137.03	0.0051	1339.86	1.6667	15 P 3	5137.44	0.0002	1589.67	0.3138	15 Q 25
5128.12	1.4514	704.28	43.0000	19 R 42	5137.12	0.0002	1631.16	0.2910	15 Q 27	5137.44	0.0002	1589.67	0.3138	15 Q 25
5128.50	0.4404	683.83	6.8571	16 R 6	5137.29	0.0002	1610.03	0.3020	14 Q 26	5137.44	0.0002	1589.67	0.3138	15 Q 25
5128.75	0.0282	1406.43	12.6923	15 P 13	5137.36	0.0617	1426.36	61.0000	19 R 60	5137.44	0.0002	1589.67	0.3138	15 Q 25
5128.87	0.0311	1521.60	19.0000	18 R 18	5137.44	0.0002	1589.67	0.3138	15 Q 25	5137.44	0.0002	1589.67	0.3138	15 Q 25
5129.19	0.4899	689.27	7.8750	17 R 7	5137.44	0.0002	1589.67	0.3138	15 Q 25	5137.44	0.0002	1589.67	0.3138	15 Q 25



5137.59	0.0004	1570.10	0.3267	14 Q 24	5144.35	0.0044	2092.46	43.0000	18 R 42
5137.73	0.0004	1551.30	0.3406	15 Q 23	5144.55	0.0012	2278.89	77.0000	19 R 76
5137.88	0.0005	1533.30	0.3557	14 Q 22	5144.71	0.0186	1351.61	6.4286	14 R 6
5138.01	0.0005	1516.07	0.3723	15 Q 21	5144.74	0.0001	273.89	25.0000	12 P 26
5138.13	0.0006	1499.63	0.3905	14 Q 20	5144.77	0.3377	1054.76	31.9688	17 R 31
5138.18	0.0140	1800.07	33.0000	18 R 32	5144.82	0.3689	1031.14	30.9677	16 R 30
5138.25	0.0006	1483.96	0.4105	15 Q 19	5145.39	0.0007	2399.35	79.0000	19 R 78
5138.31	0.0400	1522.10	63.0000	19 R 62	5145.45	0.0213	1357.09	7.5000	15 R 7
5138.37	0.0007	1469.09	0.4327	14 Q 18	5145.53	0.0033	2160.27	45.0000	18 R 44
5138.38	0.6572	831.70	20.9524	16 R 20	5145.90	0.2805	1105.51	33.9706	17 R 33
5138.48	0.0008	1454.99	0.4575	15 Q 17	5146.05	0.3092	1080.40	32.9697	16 R 32
5138.58	0.0009	1441.68	0.4853	14 Q 16	5146.18	0.0233	1363.36	8.5556	14 R 8
5138.67	0.0010	1429.15	0.5167	15 Q 15	5146.22	0.0004	2522.89	81.0000	19 R 80
5138.72	0.6332	847.84	21.9545	17 R 21	5146.70	0.0025	2231.20	47.0000	18 R 46
5138.77	0.0012	1417.40	0.5524	14 Q 14	5146.83	0.0001	234.10	23.0000	12 P 24
5138.85	0.0014	1406.43	0.5934	15 Q 13	5146.90	0.0255	1370.41	9.6000	15 R 9
5138.93	0.0015	1396.25	0.6410	14 Q 12	5147.01	0.2286	1159.37	35.9722	17 R 35
5139.00	0.0017	1386.85	0.6970	15 Q 11	5147.05	0.0003	2649.52	83.0000	19 R 82
5139.07	0.0019	1378.24	0.7636	14 Q 10	5147.26	0.2544	1132.78	34.9714	16 R 34
5139.13	0.0022	1370.41	0.8444	15 Q 9	5147.62	0.0270	1378.24	10.6364	14 R 10
5139.18	0.0026	1363.36	0.9444	14 Q 8	5147.86	0.0018	2305.23	49.0000	18 R 48
5139.23	0.0030	1357.09	1.0714	15 Q 7	5147.86	0.0001	2779.22	85.0000	19 R 84
5139.24	0.0256	1620.94	65.0000	19 R 64	5148.09	0.1830	1216.34	37.9737	17 R 37
5139.27	0.0035	1351.61	1.2381	14 Q 6	5148.33	0.0287	1386.85	11.6667	15 R 11
5139.31	0.0043	1346.91	1.4667	15 Q 5	5148.45	0.2055	1188.29	36.9730	16 R 36
5139.34	0.0054	1342.99	1.8000	14 Q 4	5148.89	0.0002	197.43	21.0000	12 P 22
5139.36	0.0072	1339.86	2.3333	15 Q 3	5149.00	0.0012	2382.37	51.0000	18 R 50
5139.38	0.0103	1337.51	3.3333	14 Q 2	5149.03	0.0295	1396.25	12.6923	14 R 12
5139.45	0.0115	1852.32	35.0000	18 R 34	5149.15	0.1438	1276.44	39.9750	17 R 39
5139.71	0.6117	865.33	22.9565	16 R 22	5149.62	0.1628	1246.92	38.9744	16 R 38
5139.98	0.5827	882.98	23.9583	17 R 23	5149.73	0.0306	1406.43	13.7143	15 R 13
5140.16	0.0160	1722.87	67.0000	19 R 66	5150.12	0.0009	2462.62	53.0000	18 R 52
5140.70	0.0093	1907.68	37.0000	18 R 36	5150.18	0.1111	1339.65	41.9762	17 R 41
5141.02	0.5563	902.10	24.9600	16 R 24	5150.42	0.0309	1417.40	14.7333	14 R 14
5141.06	0.0099	1827.89	69.0000	19 R 68	5150.77	0.1268	1308.67	40.9756	16 R 40
5141.22	0.5244	921.25	25.9615	17 R 25	5150.90	0.0002	163.88	19.0000	12 P 20
5141.71	0.0051	1337.51	1.6667	14 R 2	5151.11	0.0315	1429.15	15.7500	15 R 15
5141.93	0.0073	1966.16	39.0000	18 R 38	5151.19	0.0843	1405.97	43.9773	17 R 43
5141.95	0.0061	1936.01	71.0000	19 R 70	5151.23	0.0007	2545.98	55.0000	18 R 54
5142.31	0.4952	941.98	26.9630	16 R 26	5151.79	0.0313	1441.68	16.7647	14 R 16
5142.43	0.4620	962.63	27.9643	17 R 27	5151.90	0.0971	1373.54	42.9767	16 R 42
5142.47	0.0092	1339.86	3.0000	15 R 3	5152.18	0.0630	1475.40	45.9783	17 R 45
5142.59	0.0001	316.79	27.0000	12 P 28	5152.33	0.0004	2632.44	57.0000	18 R 56
5142.83	0.0037	2047.21	73.0000	19 R 72	5152.46	0.0314	1454.99	17.7778	15 R 17
5143.14	0.0058	2027.75	41.0000	18 R 40	5152.87	0.0002	133.45	17.0000	12 P 18
5143.23	0.0127	1342.99	4.2000	14 R 4	5153.01	0.0731	1441.53	44.9778	16 R 44
5143.58	0.4318	985.00	28.9655	16 R 28	5153.13	0.0308	1469.09	18.7895	14 R 47
5143.61	0.3990	1007.14	29.9667	17 R 29	5153.14	0.0461	1547.95	47.9792	17 R 47
5143.69	0.0020	2161.51	75.0000	19 R 74	5153.41	0.0003	2722.01	59.0000	18 R 58
5143.97	0.0159	1346.91	5.3333	15 R 5	5153.79	0.0304	1483.96	19.8000	15 R 19

FREQ CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
5154.08	0.0333	1623.61	49.9800	17 R 49	5163.16	0.0017	2292.62	64.9846	16 R 64	5163.16	0.0017	2292.62	64.9846	16 R 64
5154.10	0.0540	1512.63	46.9787	16 R 46	5163.39	0.0002	411.95	65.0000	13 Q 32	5163.39	0.0002	411.95	65.0000	13 Q 32
5154.45	0.0293	1499.63	20.8095	14 R 20	5163.54	0.0003	2773.59	73.9865	17 R 73	5163.54	0.0003	2773.59	73.9865	17 R 73
5154.49	0.0003	2814.67	61.0000	18 R 60	5164.02	0.0002	1828.41	35.8889	15 R 35	5164.02	0.0002	1828.41	35.8889	15 R 35
5154.79	0.0002	106.14	15.0000	12 P 16	5164.09	0.0011	362.81	61.0000	13 Q 30	5164.09	0.0011	362.81	61.0000	13 Q 30
5154.99	0.0236	1702.37	51.9808	17 R 51	5164.17	0.0092	2394.82	66.9851	16 R 66	5164.17	0.0092	2394.82	66.9851	16 R 66
5155.10	0.0286	1516.07	21.8182	15 R 21	5164.60	0.0002	1856.59	36.8919	14 R 36	5164.60	0.0002	1856.59	36.8919	14 R 36
5155.18	0.0393	1586.85	48.9796	16 R 48	5164.70	0.0084	316.79	57.0000	13 Q 28	5164.70	0.0084	316.79	57.0000	13 Q 28
5155.54	0.0001	2910.44	63.0000	18 R 62	5165.00	0.0007	1885.54	37.8947	15 R 37	5165.00	0.0007	1885.54	37.8947	15 R 37
5155.75	0.0274	1533.30	22.8261	14 R 22	5165.14	0.0002	2500.13	68.9855	16 R 68	5165.14	0.0002	2500.13	68.9855	16 R 68
5155.88	0.0165	1784.25	53.9815	17 R 53	5165.28	0.0073	273.89	53.0000	13 Q 26	5165.28	0.0073	273.89	53.0000	13 Q 26
5156.23	0.0280	1664.18	50.9804	16 R 50	5165.64	0.0002	1915.28	38.8974	14 R 38	5165.64	0.0002	1915.28	38.8974	14 R 38
5156.38	0.0263	1551.30	23.8333	15 R 23	5165.80	0.0065	234.10	49.0000	13 Q 24	5165.80	0.0065	234.10	49.0000	13 Q 24
5156.67	0.0002	81.95	13.0000	12 P 14	5165.90	0.0004	1945.79	39.9000	15 R 39	5165.90	0.0004	1945.79	39.9000	15 R 39
5156.75	0.0113	1869.23	55.9821	17 R 55	5165.11	0.0002	2608.53	70.9859	16 R 70	5165.11	0.0002	2608.53	70.9859	16 R 70
5157.02	0.0248	1570.10	24.8400	14 R 24	5165.37	0.0057	197.43	45.0000	13 Q 22	5165.37	0.0057	197.43	45.0000	13 Q 22
5157.28	0.0198	1744.63	52.9811	16 R 52	5166.53	0.0003	1977.09	40.9024	14 R 40	5166.53	0.0003	1977.09	40.9024	14 R 40
5157.59	0.0076	1957.31	57.9828	17 R 57	5166.78	0.0003	163.88	41.0000	13 Q 20	5166.78	0.0003	163.88	41.0000	13 Q 20
5157.64	0.0237	1589.67	25.8462	15 R 25	5166.87	0.0050	2720.03	72.9863	16 R 72	5166.87	0.0050	2720.03	72.9863	16 R 72
5158.27	0.0221	1610.03	26.8519	14 R 26	5166.91	0.0003	2009.16	41.9048	15 R 41	5166.91	0.0003	2009.16	41.9048	15 R 41
5158.30	0.0137	1828.19	54.9818	16 R 54	5167.26	0.0003	133.45	37.0000	13 Q 18	5167.26	0.0003	133.45	37.0000	13 Q 18
5158.41	0.0050	2048.50	59.9833	17 R 59	5167.44	0.0043	106.14	33.0000	13 Q 16	5167.44	0.0043	106.14	33.0000	13 Q 16
5158.51	0.0002	60.88	11.0000	12 P 12	5167.56	0.0003	2042.03	42.9070	14 R 42	5167.56	0.0003	2042.03	42.9070	14 R 42
5158.88	0.0209	1631.16	27.8571	15 R 27	5167.65	0.0001	81.95	29.0000	13 Q 14	5167.65	0.0001	81.95	29.0000	13 Q 14
5159.21	0.0033	2142.79	61.9839	17 R 61	5167.83	0.0003	2834.62	74.9867	16 R 74	5167.83	0.0003	2834.62	74.9867	16 R 74
5159.30	0.0093	1914.86	56.9825	16 R 56	5167.92	0.0038	60.88	25.0000	13 Q 12	5167.92	0.0038	60.88	25.0000	13 Q 12
5159.49	0.0193	1653.08	28.8621	14 R 28	5168.06	0.0002	2075.66	43.9091	15 R 43	5168.06	0.0002	2075.66	43.9091	15 R 43
5159.99	0.0021	2240.19	63.9844	17 R 63	5168.24	0.0002	42.93	21.0000	13 Q 10	5168.24	0.0002	42.93	21.0000	13 Q 10
5160.09	0.0180	1675.78	29.8667	15 R 29	5168.39	0.0002	28.10	17.0000	13 Q 8	5168.39	0.0002	28.10	17.0000	13 Q 8
5160.29	0.0063	2004.64	58.9861	16 R 58	5168.49	0.0033	16.39	13.0000	13 Q 6	5168.49	0.0033	16.39	13.0000	13 Q 6
5160.30	0.0001	42.93	9.0000	12 P 10	5168.50	0.0002	2110.09	44.9111	14 R 44	5168.50	0.0002	2110.09	44.9111	14 R 44
5160.70	0.0164	1699.27	30.8710	14 R 30	5168.95	0.0029	7.80	9.0000	13 Q 4	5168.95	0.0029	7.80	9.0000	13 Q 4
5160.74	0.0013	2340.68	65.9848	17 R 65	5169.51	0.0024	2145.28	45.9130	15 R 45	5169.51	0.0024	2145.28	45.9130	15 R 45
5161.27	0.0042	2097.53	60.9836	16 R 60	5170.52	0.0017	2181.26	46.9149	14 R 46	5170.52	0.0017	2181.26	46.9149	14 R 46
5161.28	0.0153	1723.53	31.8750	15 R 31	5170.94	0.0016	2255.56	47.9167	15 R 47	5170.94	0.0016	2255.56	47.9167	15 R 47
5161.48	0.0008	2444.26	67.9853	17 R 67	5171.50	0.0012	48.9184	48.9184	14 R 48	5171.50	0.0012	48.9184	48.9184	14 R 48
5161.88	0.0139	1748.58	32.8788	14 R 32	5171.90	0.0011	2293.87	49.9206	15 R 49	5171.90	0.0011	2293.87	49.9206	15 R 49
5162.03	0.0001	519.57	73.0000	13 Q 36	5172.84	0.0001	2332.98	50.9216	14 R 50	5172.84	0.0001	2332.98	50.9216	14 R 50
5162.05	0.0001	28.10	7.0000	12 P 8	5172.84	0.0001	7.80	51.9231	15 R 51	5172.84	0.0001	7.80	51.9231	15 R 51
5162.19	0.0005	2550.95	69.9857	17 R 69	5172.33	0.0001	16.39	6.0000	12 R 4	5172.33	0.0001	16.39	6.0000	12 R 4
5162.22	0.0027	2193.52	62.9841	16 R 62	5172.47	0.0009	2413.51	52.9245	14 R 52	5172.47	0.0009	2413.51	52.9245	14 R 52
5162.44	0.0127	1774.41	33.8824	15 R 33	5172.84	0.0007	2454.93	53.9259	15 R 53	5172.84	0.0007	2454.93	53.9259	15 R 53
5162.73	0.0001	464.20	69.0000	13 Q 34	5173.75	0.0001	2497.16	54.9273	14 R 54	5173.75	0.0001	2497.16	54.9273	14 R 54
5162.88	0.0003	2660.72	71.9861	17 R 71	5173.75	0.0001	16.39	8.0000	12 R 6	5173.75	0.0001	16.39	8.0000	12 R 6
5163.03	0.0114	1801.02	34.8857	14 R 34	5173.76	0.0005	2540.13	55.9286	15 R 55	5173.76	0.0005	2540.13	55.9286	15 R 55



5174.34	0.0004	2583.92	56.9298	14 R 56	5222.67	0.0003	1007.14	30.0000	9 P 29
5174.66	0.0003	2628.45	57.9310	15 R 57	5222.96	0.0015	1301.80	7.0000	11 R 8
5175.12	0.0002	28.10	10.0000	12 R 8	5224.44	0.0017	1313.51	9.0000	11 R 6
5175.24	0.0003	2673.79	58.9322	14 R 58	5224.58	0.0003	962.63	28.0000	9 P 27
5175.54	0.0003	2719.87	59.9333	15 R 59	5225.89	0.0019	1328.35	11.0000	11 R 10
5176.13	0.0003	2766.78	60.9344	14 R 60	5226.46	0.0004	921.25	26.0000	9 P 25
5176.40	0.0001	2814.41	61.9355	15 R 61	5227.33	0.0022	1346.31	13.0000	11 R 12
5176.45	0.0002	42.93	12.0000	12 R 10	5228.31	0.0004	882.98	24.0000	9 P 23
5176.92	0.0001	2128.87	46.0000	11 P 46	5228.75	0.0022	1367.39	15.0000	11 R 14
5177.00	0.0001	2862.88	62.9365	14 R 62	5230.14	0.0005	847.84	22.0000	9 P 21
5177.73	0.0002	60.88	14.0000	12 R 12	5230.15	0.0023	1391.60	17.0000	11 R 16
5178.87	0.0003	2057.92	44.0000	11 P 44	5231.53	0.0022	1418.92	19.0000	11 R 18
5178.97	0.0002	81.95	16.0000	12 R 14	5231.95	0.0005	815.82	20.0000	9 P 19
5180.16	0.0002	106.14	18.0000	12 R 16	5232.89	0.0021	1449.37	21.0000	11 R 20
5180.81	0.0002	1990.08	42.0000	11 P 42	5233.73	0.0005	786.92	18.0000	9 P 17
5181.31	0.0002	133.45	20.0000	12 R 18	5234.24	0.0020	1482.94	23.0000	11 R 22
5182.42	0.0002	163.88	22.0000	12 R 20	5235.49	0.0005	761.14	16.0000	9 P 15
5182.73	0.0004	1925.35	40.0000	11 P 40	5235.56	0.0018	1519.63	25.0000	11 R 24
5183.48	0.0002	197.43	24.0000	12 R 22	5236.87	0.0015	1559.43	27.0000	11 R 26
5184.50	0.0002	234.10	26.0000	12 R 24	5237.22	0.0005	738.49	14.0000	9 P 13
5184.64	0.0005	1863.73	38.0000	11 P 38	5238.16	0.0014	1602.36	29.0000	11 R 28
5185.47	0.0001	273.89	28.0000	12 R 26	5238.92	0.0005	718.96	12.0000	9 P 11
5186.40	0.0001	316.79	30.0000	12 R 28	5239.43	0.0012	1648.40	31.0000	11 R 30
5186.53	0.0006	1805.23	36.0000	11 P 36	5240.37	0.0001	1441.53	89.0000	10 Q 44
5187.28	0.0001	362.81	32.0000	12 R 30	5240.60	0.0005	702.55	10.0000	9 P 9
5188.41	0.0007	1749.84	34.0000	11 P 34	5240.68	0.0010	1697.56	33.0000	11 R 32
5190.27	0.0010	1697.56	32.0000	11 P 32	5241.04	0.0001	1373.54	85.0000	10 Q 42
5192.11	0.0011	1648.40	30.0000	11 P 30	5241.67	0.0002	1308.67	81.0000	10 Q 40
5193.94	0.0013	1602.36	28.0000	11 P 28	5241.92	0.0008	1749.84	35.0000	11 R 34
5195.75	0.0015	1559.43	26.0000	11 P 26	5242.26	0.0004	689.27	8.0000	9 P 7
5197.55	0.0016	1519.63	24.0000	11 P 24	5242.27	0.0002	1246.92	77.0000	10 Q 38
5199.32	0.0019	1482.94	22.0000	11 P 22	5242.84	0.0003	1188.29	73.0000	10 Q 36
5201.08	0.0020	1449.37	20.0000	11 P 20	5243.14	0.0006	1805.23	37.0000	11 R 36
5202.82	0.0021	1418.92	18.0000	11 P 18	5243.38	0.0004	1132.78	69.0000	10 Q 34
5204.55	0.0021	1391.60	16.0000	11 P 16	5243.89	0.0003	679.12	6.0000	9 P 5
5206.25	0.0021	1367.39	14.0000	11 P 14	5243.89	0.0005	1080.40	65.0000	10 Q 32
5207.93	0.0019	1346.31	12.0000	11 P 12	5244.35	0.0005	1863.73	39.0000	11 R 38
5209.60	0.0018	1328.35	10.0000	11 P 10	5244.36	0.0005	1031.14	61.0000	10 Q 30
5211.24	0.0016	1313.51	8.0000	11 P 8	5244.81	0.0007	985.00	57.0000	10 Q 28
5212.75	0.0001	1276.44	40.0000	9 P 39	5245.22	0.0008	941.98	53.0000	10 Q 26
5212.87	0.0012	1301.80	6.0000	11 P 6	5245.50	0.0002	672.09	4.0000	9 P 3
5214.48	0.0008	1293.21	4.0000	11 P 4	5245.54	0.0004	1925.35	41.0000	11 R 40
5214.79	0.0001	1216.34	38.0000	9 P 37	5245.61	0.0009	902.10	49.0000	10 Q 24
5216.06	0.0005	1287.74	2.0000	11 P 2	5245.96	0.0010	865.33	45.0000	10 Q 22
5216.80	0.0002	1159.37	36.0000	9 P 35	5246.01	0.0001	1441.53	41.0455	6 P 44
5218.41	0.0002	1285.40	1.0000	11 R 0	5246.02	0.0001	1475.40	42.0444	5 P 45
5218.78	0.0002	1105.51	34.0000	9 P 33	5246.29	0.0011	831.70	41.0000	10 Q 20
5219.94	0.0007	1287.74	3.0000	11 R 2	5246.58	0.0011	801.19	37.0000	10 Q 18
5220.74	0.0003	1054.76	32.0000	9 P 31	5246.71	0.0002	1990.08	43.0000	11 R 42
5221.46	0.0010	1293.21	5.0000	11 R 4	5246.84	0.0012	773.81	33.0000	10 Q 16



FREQ CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID
5247.07	0.0012	749.55	29.0000	10 Q 14	5266.49	0.0009	962.63	24.0741	5 P 27					
5247.08	0.0001	668.18	2.0000	9 P 1	5267.10	0.0010	941.98	23.0769	6 P 26					
5247.28	0.0010	728.43	25.0000	10 Q 12	5267.18	0.0003	962.63	27.0000	9 R 27					
5247.45	0.0009	710.43	21.0000	10 Q 10	5268.12	0.0016	821.38	45.0000	3 P 46					
5247.59	0.0008	695.57	17.0000	10 Q 8	5268.36	0.0003	1007.14	29.0000	9 R 29					
5247.70	0.0007	683.83	13.0000	10 Q 6	5268.57	0.0010	921.25	22.0800	5 P 25					
5247.79	0.0005	675.22	9.0000	10 Q 4	5269.22	0.0011	902.10	21.0833	6 P 24					
5247.84	0.0003	669.75	5.0000	10 Q 2	5269.52	0.0002	1054.76	31.0000	9 R 31					
5247.87	0.0003	2057.92	45.0000	11 R 44	5270.60	0.0011	882.98	20.0870	5 P 23					
5248.46	0.0001	1405.97	40.0465	5 P 43	5270.66	0.0002	1105.51	33.0000	9 R 33					
5248.53	0.0002	1373.54	39.0476	6 P 42	5270.68	0.0022	752.29	43.0000	3 P 44					
5248.92	0.0001	1389.76	59.0000	3 P 60	5271.29	0.0011	865.33	19.0909	6 P 22					
5249.02	0.0001	2128.87	47.0000	11 R 46	5271.77	0.0002	1159.37	35.0000	9 R 35					
5250.85	0.0002	1339.65	38.0488	5 P 41	5272.60	0.0012	847.84	18.0952	5 P 21					
5250.92	0.0002	672.09	3.0000	9 R 3	5272.85	0.0001	1216.34	37.0000	9 R 37					
5251.01	0.0002	1308.67	37.0500	6 P 40	5273.20	0.0028	686.22	41.0000	3 P 42					
5251.80	0.0002	1299.50	57.0000	3 P 58	5273.32	0.0012	831.70	17.1000	6 P 20					
5252.42	0.0003	679.12	5.0000	9 R 5	5273.90	0.0001	1276.44	39.0000	9 R 39					
5253.20	0.0003	1276.44	36.0513	5 P 39	5274.55	0.0012	815.82	16.1053	5 P 19					
5253.44	0.0003	1246.92	35.0526	6 P 38	5275.30	0.0012	801.19	15.1111	6 P 18					
5253.88	0.0003	689.27	7.0000	9 R 7	5275.67	0.0037	623.18	39.0000	3 P 40					
5254.63	0.0003	1212.25	55.0000	3 P 56	5276.47	0.0012	786.92	14.1176	5 P 17					
5255.33	0.0004	702.55	9.0000	9 R 9	5277.24	0.0012	773.81	13.1250	6 P 16					
5255.52	0.0003	1216.34	34.0541	5 P 37	5278.10	0.0047	563.17	37.0000	3 P 38					
5255.83	0.0004	1188.29	33.0556	6 P 36	5278.20	0.0001	1664.18	100.9208	8 Q 50					
5256.75	0.0005	718.96	11.0000	9 R 11	5278.34	0.0012	761.14	12.1333	5 P 15					
5257.41	0.0004	1128.03	53.0000	3 P 54	5278.75	0.0001	1623.61	98.9192	7 Q 49					
5257.79	0.0004	1159.37	32.0571	5 P 35	5279.13	0.0012	749.55	11.1429	6 P 14					
5258.14	0.0005	738.49	13.0000	9 R 13	5279.21	0.0001	1586.85	96.9175	8 Q 48					
5258.18	0.0004	1132.78	31.0588	6 P 34	5279.73	0.0002	1547.95	94.9158	7 Q 47					
5259.51	0.0005	761.14	15.0000	9 R 15	5280.17	0.0002	1512.63	92.9140	8 Q 46					
5260.03	0.0006	1105.51	30.0606	5 P 33	5280.18	0.0012	738.49	10.1538	5 P 13					
5260.16	0.0007	1046.83	51.0000	3 P 52	5280.49	0.0059	506.20	35.0000	3 P 36					
5260.47	0.0005	1080.40	29.0625	6 P 32	5280.60	0.0002	1475.40	90.9121	7 Q 45					
5260.85	0.0005	786.92	17.0000	9 R 17	5280.98	0.0010	728.43	9.1667	6 P 12					
5262.17	0.0005	815.82	19.0000	9 R 19	5281.09	0.0003	1441.53	88.9101	8 Q 44					
5262.22	0.0007	1054.76	28.0645	5 P 31	5281.57	0.0003	1405.97	86.9080	7 Q 43					
5262.73	0.0007	1031.14	27.0667	6 P 30	5281.97	0.0009	718.96	8.1818	5 P 11					
5262.85	0.0009	968.66	49.0000	3 P 50	5281.97	0.0005	1373.54	84.9059	8 Q 42					
5263.46	0.0005	847.84	21.0000	9 R 21	5282.42	0.0005	1339.65	82.9036	7 Q 41					
5264.38	0.0008	1007.14	26.0690	5 P 29	5282.79	0.0009	710.43	7.2000	6 P 10					
5264.72	0.0004	882.98	23.0000	9 R 23	5282.81	0.0006	1308.67	80.9012	8 Q 40					
5264.94	0.0009	985.00	25.0714	6 P 28	5282.83	0.0071	452.26	33.0000	3 P 34					
5265.51	0.0012	893.51	47.0000	3 P 48	5283.24	0.0007	1276.44	78.8987	7 Q 39					
5265.96	0.0004	921.25	25.0000	9 R 25	5283.61	0.0007	1246.92	76.8961	8 Q 38					

5283.73	0.0008	702.55	6.2222	5 P 9	5294.61	0.0001	1579.34	129.0000	4 Q 64
5284.02	0.0008	1216.34	74.8933	7 Q 37	5294.86	0.0012	675.22	8.4000	6 R 4
5284.37	0.0009	1188.29	72.8904	8 Q 36	5295.60	0.0014	679.12	9.3333	5 R 5
5284.54	0.0007	695.57	5.2500	6 P 8	5295.90	0.0002	1483.04	125.0000	4 Q 62
5284.76	0.0010	1159.37	70.8873	7 Q 35	5295.92	0.0162	192.30	21.0000	3 P 22
5285.09	0.0011	1132.78	68.8840	8 Q 34	5296.28	0.0015	683.83	10.2857	6 R 6
5285.12	0.0087	401.35	31.0000	3 P 32	5297.01	0.0016	689.27	11.2500	5 R 7
5285.44	0.0006	689.27	4.2857	5 P 7	5297.14	0.0002	1389.76	121.0000	4 Q 60
5285.45	0.0012	1105.51	66.8806	7 Q 33	5297.65	0.0017	695.57	12.2222	6 R 8
5285.77	0.0013	1080.40	64.8769	8 Q 32	5297.94	0.0172	159.66	19.0000	3 P 20
5286.11	0.0014	1054.76	62.8730	7 Q 31	5298.35	0.0005	1299.50	117.0000	4 Q 58
5286.26	0.0005	683.83	3.3333	6 P 6	5298.38	0.0017	702.55	13.2000	5 R 9
5286.41	0.0016	1031.14	60.8688	8 Q 30	5298.98	0.0018	710.43	14.1818	6 R 10
5286.73	0.0017	1007.14	58.8644	7 Q 29	5299.52	0.0007	1212.25	113.0000	4 Q 56
5287.00	0.0018	985.00	56.8596	8 Q 28	5299.71	0.0018	718.96	15.1667	5 R 11
5287.11	0.0003	679.12	2.4000	5 P 5	5299.92	0.0178	130.02	17.0000	3 P 18
5287.30	0.0021	962.63	54.8545	7 Q 27	5300.26	0.0019	728.43	16.1538	6 R 12
5287.37	0.0102	353.48	29.0000	3 P 30	5300.64	0.0009	1128.03	109.0000	4 Q 54
5287.56	0.0022	941.98	52.8490	8 Q 26	5301.00	0.0019	738.49	17.1429	5 R 13
5287.84	0.0023	921.25	50.8431	9 Q 25	5301.49	0.0019	749.55	18.1333	6 R 14
5287.92	0.0002	675.22	1.5000	6 P 4	5301.73	0.0013	1046.83	105.0000	4 Q 52
5288.08	0.0025	902.10	48.8367	8 Q 24	5301.85	0.0178	103.41	15.0000	3 P 16
5288.33	0.0026	882.98	46.8297	7 Q 23	5302.24	0.0019	761.14	19.1250	5 R 15
5288.56	0.0027	865.33	44.8221	8 Q 22	5302.68	0.0019	773.81	20.1176	6 R 16
5288.79	0.0028	847.84	42.8139	7 Q 21	5302.77	0.0018	968.66	101.0000	4 Q 50
5288.99	0.0029	831.70	40.8048	8 Q 20	5303.45	0.0018	786.92	21.1111	5 R 17
5289.20	0.0029	815.82	38.7947	7 Q 19	5303.74	0.0174	79.84	13.0000	3 P 14
5289.39	0.0030	801.19	36.7836	8 Q 18	5303.78	0.0025	893.51	97.0000	4 Q 48
5289.57	0.0118	308.64	27.0000	3 P 28	5303.83	0.0018	801.19	22.1053	6 R 18
5289.57	0.0030	786.92	34.7712	7 Q 17	5304.62	0.0017	815.82	23.1000	5 R 19
5289.74	0.0031	773.81	32.7574	8 Q 16	5304.74	0.0034	821.38	93.0000	4 Q 46
5289.91	0.0030	761.14	30.7417	7 Q 15	5304.93	0.0017	831.70	24.0952	6 R 20
5290.06	0.0029	749.55	28.7238	8 Q 14	5305.59	0.0163	59.31	11.0000	3 P 12
5290.20	0.0029	738.49	26.7033	7 Q 13	5305.66	0.0045	752.29	89.0000	4 Q 44
5290.33	0.0028	728.43	24.6795	8 Q 12	5305.75	0.0016	847.84	25.0909	5 R 21
5290.45	0.0027	718.96	22.6515	7 Q 11	5305.98	0.0015	865.33	26.0870	6 R 22
5290.56	0.0026	710.43	20.6182	8 Q 10	5306.54	0.0060	686.22	85.0000	4 Q 42
5290.67	0.0024	702.55	18.5778	7 Q 9	5306.83	0.0015	882.98	27.0833	5 R 23
5290.75	0.0022	695.57	16.5278	8 Q 8	5306.99	0.0014	902.10	28.0800	6 R 24
5290.84	0.0020	689.27	14.4643	7 Q 7	5307.39	0.0144	41.82	9.0000	3 P 10
5290.91	0.0018	683.83	12.3810	8 Q 6	5307.39	0.0077	623.18	81.0000	4 Q 40
5290.97	0.0015	679.12	10.2667	7 Q 5	5307.88	0.0013	921.25	29.0769	5 R 25
5291.02	0.0012	675.22	8.1000	8 Q 4	5307.95	0.0012	941.98	30.0741	6 R 26
5291.06	0.0008	672.09	5.8333	7 Q 3	5308.19	0.0099	563.17	77.0000	4 Q 38
5291.09	0.0005	669.75	3.3333	8 Q 2	5308.87	0.0011	985.00	32.0690	6 R 28
5291.73	0.0134	266.84	25.0000	3 P 26	5308.88	0.0012	962.63	31.0714	5 R 27
5292.65	0.0009	668.18	6.0000	5 R 1	5308.95	0.0124	506.20	73.0000	4 Q 36
5293.40	0.0010	669.75	6.6667	6 R 2	5309.14	0.0120	27.37	7.0000	3 P 8
5293.85	0.0149	228.08	23.0000	3 P 24	5309.67	0.0152	452.26	69.0000	4 Q 34
5294.14	0.0011	672.09	7.5000	5 R 3	5309.74	0.0009	1031.14	34.0645	6 R 30



FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID
5309.85	0.0010	1007.14	33.0667	5 R 29	5324.81	0.0208	59.31	14.0000	3 R 12	5324.81	0.0208	59.31	14.0000	3 R 12
5310.35	0.0183	401.35	65.0000	4 Q 32	5325.42	0.0002	962.63	28.0000	1 Q 27	5325.42	0.0002	962.63	28.0000	1 Q 27
5310.56	0.0008	1080.40	36.0606	6 R 32	5326.04	0.0215	79.84	16.0000	3 R 14	5326.04	0.0215	79.84	16.0000	3 R 14
5310.77	0.0009	1054.76	35.0625	5 R 31	5327.23	0.0216	103.41	18.0000	3 R 16	5327.23	0.0216	103.41	18.0000	3 R 16
5310.85	0.0091	15.97	5.0000	3 P 6	5327.37	0.0002	921.25	26.0000	1 Q 25	5327.37	0.0002	921.25	26.0000	1 Q 25
5310.98	0.0216	353.48	61.0000	4 Q 30	5328.37	0.0211	130.02	20.0000	3 R 18	5328.37	0.0211	130.02	20.0000	3 R 18
5311.34	0.0007	1132.78	38.0571	6 R 34	5329.30	0.0002	882.98	24.0000	1 Q 23	5329.30	0.0002	882.98	24.0000	1 Q 23
5311.58	0.0252	308.64	57.0000	4 Q 28	5329.46	0.0200	159.66	22.0000	3 R 20	5329.46	0.0200	159.66	22.0000	3 R 20
5311.65	0.0007	1105.51	37.0588	5 R 33	5330.51	0.0186	192.35	24.0000	3 R 22	5330.51	0.0186	192.35	24.0000	3 R 22
5312.07	0.0004	1188.29	40.0541	6 R 36	5331.20	0.0002	847.84	22.0000	1 Q 21	5331.20	0.0002	847.84	22.0000	1 Q 21
5312.14	0.0287	266.84	53.0000	4 Q 26	5331.52	0.0170	228.08	26.0000	3 R 24	5331.52	0.0170	228.08	26.0000	3 R 24
5312.50	0.0006	1159.37	39.0556	5 R 35	5332.47	0.0152	266.84	28.0000	3 R 26	5332.47	0.0152	266.84	28.0000	3 R 26
5312.51	0.0057	7.60	3.0000	3 P 4	5333.07	0.0003	815.82	20.0000	1 Q 19	5333.07	0.0003	815.82	20.0000	1 Q 19
5312.66	0.0320	228.08	49.0000	4 Q 24	5333.39	0.0132	308.64	30.0000	3 R 28	5333.39	0.0132	308.64	30.0000	3 R 28
5312.76	0.0003	1246.92	42.0513	6 R 38	5334.25	0.0114	353.48	32.0000	3 R 30	5334.25	0.0114	353.48	32.0000	3 R 30
5313.13	0.0350	192.35	45.0000	4 Q 22	5334.91	0.0003	786.92	18.0000	1 Q 17	5334.91	0.0003	786.92	18.0000	1 Q 17
5313.30	0.0004	1216.34	41.0526	5 R 37	5335.07	0.0096	401.35	34.0000	3 R 32	5335.07	0.0096	401.35	34.0000	3 R 32
5313.40	0.0003	1308.67	44.0488	6 R 40	5335.85	0.0080	452.26	36.0000	3 R 34	5335.85	0.0080	452.26	36.0000	3 R 34
5313.57	0.0374	159.66	41.0000	4 Q 20	5336.58	0.0064	506.20	38.0000	3 R 36	5336.58	0.0064	506.20	38.0000	3 R 36
5313.97	0.0390	130.02	37.0000	4 Q 18	5336.72	0.0003	761.14	16.0000	1 Q 15	5336.72	0.0003	761.14	16.0000	1 Q 15
5314.00	0.0002	1373.54	46.0465	6 R 42	5337.26	0.0051	563.17	40.0000	3 R 38	5337.26	0.0051	563.17	40.0000	3 R 38
5314.06	0.0003	1276.44	43.0500	5 R 39	5337.90	0.0040	623.18	42.0000	3 R 40	5337.90	0.0040	623.18	42.0000	3 R 40
5314.13	0.0020	2.28	1.0000	3 P 2	5338.49	0.0031	686.22	44.0000	3 R 42	5338.49	0.0031	686.22	44.0000	3 R 42
5314.32	0.0396	103.41	33.0000	4 Q 16	5338.50	0.0003	738.49	14.0000	1 P 13	5338.50	0.0003	738.49	14.0000	1 P 13
5314.55	0.0001	1441.53	48.0444	6 R 44	5339.03	0.0023	752.29	46.0000	3 R 44	5339.03	0.0023	752.29	46.0000	3 R 44
5314.64	0.0390	79.84	29.0000	4 Q 14	5339.53	0.0018	821.38	48.0000	3 R 46	5339.53	0.0018	821.38	48.0000	3 R 46
5314.78	0.0002	1339.65	45.0476	5 R 41	5339.99	0.0013	893.51	50.0000	3 R 48	5339.99	0.0013	893.51	50.0000	3 R 48
5314.91	0.0372	59.31	25.0000	4 Q 12	5340.25	0.0003	718.96	12.0000	1 P 11	5340.25	0.0003	718.96	12.0000	1 P 11
5315.05	0.0001	1512.63	50.0426	6 R 46	5340.39	0.0010	968.66	52.0000	3 R 50	5340.39	0.0010	968.66	52.0000	3 R 50
5315.14	0.0339	41.82	21.0000	4 Q 10	5340.75	0.0007	1046.83	54.0000	3 R 52	5340.75	0.0007	1046.83	54.0000	3 R 52
5315.33	0.0295	27.37	17.0000	4 Q 8	5341.07	0.0004	1128.03	56.0000	3 R 54	5341.07	0.0004	1128.03	56.0000	3 R 54
5315.46	0.0002	1405.97	47.0455	5 R 43	5341.34	0.0003	1212.25	58.0000	3 R 56	5341.34	0.0003	1212.25	58.0000	3 R 56
5315.49	0.0239	15.97	13.0000	4 Q 6	5341.56	0.0002	1299.50	60.0000	3 R 58	5341.56	0.0002	1299.50	60.0000	3 R 58
5315.60	0.0172	7.60	9.0000	4 Q 4	5341.74	0.0001	1389.76	62.0000	3 R 60	5341.74	0.0001	1389.76	62.0000	3 R 60
5315.67	0.0098	2.28	5.0000	4 Q 2	5341.97	0.0002	702.55	10.0000	1 P 9	5341.97	0.0002	702.55	10.0000	1 P 9
5316.10	0.0001	1475.40	49.0435	5 R 45	5343.00	0.0001	1246.92	77.0000	2 Q 38	5343.00	0.0001	1246.92	77.0000	2 Q 38
5316.47	0.0040	0.00	2.0000	3 R 0	5343.64	0.0001	1188.29	73.0000	2 Q 36	5343.64	0.0001	1188.29	73.0000	2 Q 36
5317.97	0.0078	2.28	4.0000	3 R 2	5343.67	0.0002	689.27	8.0000	1 P 7	5343.67	0.0002	689.27	8.0000	1 P 7
5319.38	0.0001	1105.51	34.0000	1 P 33	5344.25	0.0002	1132.78	69.0000	2 Q 34	5344.25	0.0002	1132.78	69.0000	2 Q 34
5319.43	0.0114	7.60	6.0000	3 R 4	5344.82	0.0002	1080.40	65.0000	2 Q 32	5344.82	0.0002	1080.40	65.0000	2 Q 32
5320.85	0.0146	15.97	8.0000	3 R 6	5345.33	0.0002	679.12	6.0000	1 P 5	5345.33	0.0002	679.12	6.0000	1 P 5
5321.42	0.0001	1054.76	32.0000	1 P 31	5345.36	0.0003	1031.14	61.0000	2 Q 30	5345.36	0.0003	1031.14	61.0000	2 Q 30
5322.21	0.0173	27.37	10.0000	3 R 8	5345.86	0.0003	985.00	57.0000	2 Q 28	5345.86	0.0003	985.00	57.0000	2 Q 28
5323.44	0.0001	1007.14	30.0000	1 P 29	5346.34	0.0004	941.98	53.0000	2 Q 26	5346.34	0.0004	941.98	53.0000	2 Q 26
5323.54	0.0194	41.82	12.0000	3 R 10	5346.77	0.0004	902.10	49.0000	2 Q 24	5346.77	0.0004	902.10	49.0000	2 Q 24



5346.96	0.0001	672.09	4.0000	1 P 3	5355.42	0.0002	689.27	7.0000	1 R 7
5347.18	0.0005	865.33	45.0000	2 Q 22	5356.86	0.0002	702.55	9.0000	1 R 9
5347.55	0.0005	831.70	41.0000	2 Q 20	5358.28	0.0002	718.96	11.0000	1 R 11
5347.88	0.0005	801.19	37.0000	2 Q 18	5359.66	0.0002	738.49	13.0000	1 R 13
5348.19	0.0005	773.81	33.0000	2 Q 16	5361.01	0.0003	761.14	15.0000	1 R 15
5348.45	0.0005	749.55	29.0000	2 Q 14	5362.34	0.0003	786.92	17.0000	1 R 17
5348.69	0.0005	728.43	25.0000	2 Q 12	5363.63	0.0002	815.82	19.0000	1 R 19
5348.88	0.0005	710.43	21.0000	2 Q 10	5364.89	0.0002	847.84	21.0000	1 R 21
5349.05	0.0004	695.57	17.0000	2 Q 8	5366.13	0.0002	882.98	23.0000	1 R 23
5349.18	0.0003	683.83	13.0000	2 Q 6	5367.33	0.0002	921.25	25.0000	1 R 25
5349.27	0.0002	675.22	9.0000	2 Q 4	5368.51	0.0002	962.63	27.0000	1 R 27
5349.33	0.0001	669.75	5.0000	2 Q 2	5369.66	0.0001	1007.14	29.0000	1 R 29
5353.95	0.0001	679.12	5.0000	1 R 5	5370.78	0.0001	1054.76	31.0000	1 R 31

TABLE 5  
2.7 MU CARBON DIOXIDE LINE PARAMETERS  
T=296 DEG K

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3093.73	0.0001	1405.97	44.0000	150 P 43	3132.84	0.0012	1007.14	26.0690	147 P 29
3095.11	0.0001	1339.65	42.0000	150 P 41	3134.00	0.0012	985.00	25.0714	146 P 28
3096.50	0.0002	1276.44	40.0000	150 P 39	3134.27	0.0011	962.63	24.0741	147 P 27
3097.90	0.0002	1216.34	38.0000	150 P 37	3134.53	0.0001	1620.94	63.0000	144 P 64
3099.31	0.0002	1159.37	36.0000	150 P 35	3134.85	0.0001	718.96	11.0000	150 R 11
3100.72	0.0002	1105.51	34.0000	150 P 33	3135.37	0.0011	941.98	23.0769	146 P 26
3102.14	0.0002	1054.74	32.0000	150 P 31	3135.71	0.0011	921.25	22.0800	147 P 25
3103.57	0.0002	1007.14	30.0000	150 P 29	3135.92	0.0002	1522.10	61.0000	144 P 62
3105.01	0.0002	962.63	28.0000	150 P 27	3136.48	0.0002	738.49	13.0000	150 R 13
3106.46	0.0002	921.25	26.0000	150 P 25	3136.75	0.0011	902.10	21.0833	146 P 24
3107.91	0.0002	882.98	24.0000	150 P 23	3137.16	0.0010	882.98	20.0870	147 P 23
3109.38	0.0002	847.84	22.0000	150 P 21	3137.31	0.0003	1426.36	59.0000	144 P 60
3110.85	0.0002	815.82	20.0000	150 P 19	3138.11	0.0002	761.14	15.0000	150 R 15
3112.33	0.0001	786.92	18.0000	150 P 17	3138.15	0.0010	865.33	19.0909	146 P 22
3115.04	0.0001	1869.23	52.0364	147 P 55	3138.61	0.0009	847.84	18.0952	147 P 21
3116.36	0.0002	1784.25	50.0377	147 P 53	3138.71	0.0005	1333.72	57.0000	144 P 58
3117.49	0.0001	1828.19	51.0370	146 P 54	3139.56	0.0007	831.70	17.1000	146 P 20
3117.70	0.0002	1702.37	48.0392	147 P 51	3139.75	0.0003	786.92	17.0000	150 R 17
3118.68	0.0002	1744.63	49.0385	146 P 52	3140.08	0.0007	815.82	16.1053	147 P 19
3119.03	0.0004	1623.61	46.0408	147 P 49	3140.11	0.0007	1244.17	55.0000	144 P 56
3119.88	0.0002	1664.18	47.0400	146 P 50	3140.99	0.0006	801.19	15.1111	146 P 18
3120.38	0.0004	1547.95	44.0426	147 P 47	3141.40	0.0003	815.82	19.0000	150 R 19
3121.10	0.0004	1586.85	45.0417	146 P 48	3141.51	0.0009	1157.73	53.0000	144 P 54
3121.73	0.0005	1475.40	42.0444	147 P 45	3141.56	0.0004	786.92	14.1176	147 P 17
3122.32	0.0005	1512.63	43.0435	146 P 46	3142.43	0.0004	773.81	13.1250	146 P 16
3123.09	0.0006	1405.97	40.0465	147 P 43	3142.92	0.0012	1074.39	51.0000	144 P 52
3123.56	0.0006	1441.53	41.0455	146 P 44	3143.04	0.0004	761.14	12.1333	147 P 15
3124.46	0.0007	1339.65	38.0488	147 P 41	3143.06	0.0003	847.84	21.0000	150 R 21
3124.82	0.0007	1373.54	39.0476	146 P 42	3143.88	0.0003	749.55	11.1429	146 P 14
3125.84	0.0008	1276.44	36.0513	147 P 39	3144.33	0.0015	994.16	49.0000	144 P 50
3126.09	0.0008	1308.67	37.0500	146 P 40	3144.54	0.0003	738.49	10.1538	147 P 13
3127.22	0.0009	1216.34	34.0541	147 P 37	3144.72	0.0004	882.98	23.0000	150 R 23
3127.37	0.0009	1246.92	35.0526	146 P 38	3145.36	0.0002	728.43	9.1667	146 P 12
3128.61	0.0010	1159.37	32.0571	147 P 35	3145.75	0.0019	917.03	47.0000	144 P 48
3128.67	0.0010	1188.29	33.0556	146 P 36	3146.04	0.0001	718.96	8.1818	147 P 11
3129.98	0.0011	1132.78	31.0588	146 P 34	3146.40	0.0004	921.25	25.0000	150 R 25
3130.01	0.0011	1105.51	30.0606	147 P 33	3146.84	0.0001	710.43	7.2000	146 P 10
3131.30	0.0011	1080.40	29.0625	146 P 32	3147.17	0.0024	843.00	45.0000	144 P 46
3131.42	0.0011	1054.76	28.0645	147 P 31	3148.08	0.0004	962.63	27.0000	150 R 27
3132.64	0.0012	1031.14	27.0667	146 P 30	3148.60	0.0029	772.09	43.0000	144 P 44

3149.77	0.0004	1007.14	29.0000	150 R 29	3177.01	0.0023	941.98	30.0741	146 R 26
3150.03	0.0035	704.28	41.0000	144 P 42	3177.35	0.0023	962.63	31.0714	147 R 27
3151.46	0.0042	639.58	39.0000	144 P 40	3178.78	0.0023	985.00	32.0690	146 R 28
3151.46	0.0003	1054.76	31.0000	150 R 31	3179.05	0.0023	1007.14	33.0667	147 R 29
3152.91	0.0048	577.99	37.0000	144 P 38	3180.57	0.0022	1031.14	34.0645	146 R 30
3153.17	0.0003	1105.51	33.0000	150 R 33	3180.76	0.0021	1054.76	35.0625	147 R 31
3154.35	0.0054	519.52	35.0000	144 P 36	3181.54	0.0001	16.39	13.0000	145 Q 6
3154.88	0.0003	1159.37	35.0000	150 R 35	3181.60	0.0002	28.09	17.0000	145 Q 8
3155.81	0.0059	464.16	33.0000	144 P 34	3181.69	0.0002	42.92	21.0000	145 Q 10
3156.60	0.0003	1216.34	37.0000	150 R 37	3181.78	0.0002	60.87	25.0000	145 Q 12
3157.27	0.0063	411.91	31.0000	144 P 32	3181.90	0.0002	81.94	29.0000	145 Q 14
3158.32	0.0002	1276.44	39.0000	150 R 39	3182.03	0.0002	106.13	33.0000	145 Q 16
3158.47	0.0001	675.22	8.4000	146 R 4	3182.18	0.0002	133.44	37.0000	145 Q 18
3158.73	0.0065	362.78	29.0000	144 P 30	3182.35	0.0002	163.86	41.0000	145 Q 20
3159.24	0.0002	679.12	9.3333	147 R 5	3182.36	0.0021	1080.40	36.0606	146 R 32
3160.05	0.0002	1339.65	41.0000	150 R 41	3182.47	0.0020	1105.51	37.0588	147 R 33
3160.08	0.0003	683.83	10.2857	146 R 6	3182.53	0.0002	197.41	45.0000	145 Q 22
3160.20	0.0065	316.76	27.0000	144 P 28	3182.73	0.0002	234.08	49.0000	145 Q 24
3160.84	0.0004	689.27	11.2500	147 R 7	3182.95	0.0002	273.86	53.0000	145 Q 26
3161.68	0.0063	273.86	25.0000	144 P 26	3183.18	0.0001	316.76	57.0000	145 Q 28
3161.71	0.0005	695.57	12.2222	146 R 8	3183.43	0.0001	362.78	61.0000	145 Q 30
3161.79	0.0001	1405.97	43.0000	150 R 43	3183.80	0.0002	2.34	4.0000	144 R 2
3162.65	0.0006	702.55	13.2000	147 R 9	3184.18	0.0019	1132.78	38.0571	146 R 34
3163.16	0.0059	234.08	23.0000	144 P 24	3184.20	0.0018	1159.37	39.0556	147 R 35
3163.35	0.0007	710.43	14.1818	146 R 10	3185.38	0.0006	7.80	6.0000	144 R 4
3163.53	0.0001	1475.40	45.0000	150 R 45	3185.93	0.0016	1216.34	41.0526	147 R 37
3164.07	0.0008	718.96	15.1667	147 R 11	3186.00	0.0017	1188.29	40.0541	146 R 36
3164.65	0.0052	197.41	21.0000	144 P 22	3186.96	0.0011	16.39	8.0000	144 R 6
3165.01	0.0009	728.43	16.1538	146 R 12	3187.67	0.0014	1276.44	43.0500	147 R 39
3165.69	0.0010	738.49	17.1429	147 R 13	3187.84	0.0015	1246.92	42.0513	146 R 38
3166.15	0.0045	163.86	19.0000	144 P 20	3188.55	0.0020	28.09	10.0000	144 R 8
3166.68	0.0013	749.55	18.1333	146 R 14	3189.41	0.0011	1339.65	45.0476	147 R 41
3167.33	0.0014	761.14	19.1250	147 R 15	3189.69	0.0012	1308.67	44.0488	146 R 40
3167.65	0.0037	133.44	17.0000	144 P 18	3190.14	0.0030	42.92	12.0000	144 R 10
3168.37	0.0015	773.81	20.1176	146 R 16	3191.17	0.0009	1405.97	47.0455	147 R 43
3168.98	0.0017	786.92	21.1111	147 R 17	3191.55	0.0010	1373.54	46.0465	146 R 42
3169.16	0.0028	106.13	15.0000	144 P 16	3191.74	0.0044	60.87	14.0000	144 R 12
3170.07	0.0018	801.19	22.1053	146 R 18	3192.93	0.0008	1475.40	49.0435	147 R 45
3170.64	0.0019	815.82	23.1000	147 R 19	3193.35	0.0057	81.94	16.0000	144 R 14
3170.67	0.0020	81.94	13.0000	144 P 14	3193.43	0.0008	1441.53	48.0444	146 R 44
3171.78	0.0020	831.70	24.0952	146 R 20	3194.69	0.0006	1547.95	51.0417	147 R 47
3172.19	0.0012	60.87	11.0000	144 P 12	3194.96	0.0071	106.13	18.0000	144 R 16
3172.30	0.0021	847.84	25.0909	147 R 21	3195.31	0.0007	1512.63	50.0426	146 R 46
3173.51	0.0021	865.33	26.0870	146 R 22	3196.46	0.0005	1623.61	53.0400	147 R 49
3173.72	0.0007	42.92	9.0000	144 P 10	3196.58	0.0085	133.44	20.0000	144 R 18
3173.98	0.0022	882.98	27.0833	147 R 23	3197.21	0.0006	1586.85	52.0408	146 R 48
3175.25	0.0003	28.09	7.0000	144 P 8	3198.20	0.0096	163.86	22.0000	144 R 20
3175.25	0.0023	902.10	28.0800	146 R 24	3198.24	0.0004	1702.37	55.0385	147 R 51
3175.66	0.0023	921.25	29.0769	147 R 25	3199.13	0.0004	1664.18	54.0392	146 R 50
3176.79	0.0001	16.39	5.0000	144 P 6	3199.83	0.0104	197.41	24.0000	144 R 22



FREQ CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3200.02	0.0002	1784.25	57.0370	147 R 53	3273.57	0.0005	1055.38	63.0000	143 Q 31					
3201.05	0.0004	1744.63	56.0377	146 R 52	3273.76	0.0007	1007.68	59.0000	143 Q 29					
3201.46	0.0110	234.08	26.0000	144 R 24	3273.94	0.0008	963.10	55.0000	143 Q 27					
3201.81	0.0002	1869.23	59.0357	147 R 55	3274.10	0.0009	921.65	51.0000	143 Q 25					
3202.99	0.0002	1828.19	58.0364	146 R 54	3274.25	0.0010	883.32	47.0000	143 Q 23					
3203.10	0.0113	273.86	28.0000	144 R 26	3274.32	0.0001	668.18	2.0000	142 P 1					
3203.60	0.0001	1957.31	61.0345	147 R 57	3274.39	0.0011	848.12	43.0000	143 Q 21					
3204.75	0.0112	316.76	30.0000	144 R 28	3274.51	0.0011	816.05	39.0000	143 Q 19					
3204.93	0.0001	1914.86	60.0351	146 R 56	3274.63	0.0012	787.11	35.0000	143 Q 17					
3206.40	0.0107	362.78	32.0000	144 R 30	3274.73	0.0012	761.29	31.0000	143 Q 15					
3208.06	0.0101	411.91	34.0000	144 R 32	3274.82	0.0010	738.60	27.0000	143 Q 13					
3209.72	0.0093	464.16	36.0000	144 R 34	3274.90	0.0010	719.04	23.0000	143 Q 11					
3211.38	0.0083	519.52	38.0000	144 R 36	3274.96	0.0009	702.61	19.0000	143 Q 9					
3213.05	0.0073	577.99	40.0000	144 R 38	3275.01	0.0007	689.31	15.0000	143 Q 7					
3214.73	0.0062	639.58	42.0000	144 R 40	3275.05	0.0006	679.14	11.0000	143 Q 5					
3216.40	0.0052	704.28	44.0000	144 R 42	3275.08	0.0004	672.09	7.0000	143 Q 3					
3218.09	0.0043	772.09	46.0000	144 R 44	3275.10	0.0002	668.18	3.0000	143 Q 1					
3219.77	0.0034	843.00	48.0000	144 R 46	3275.21	0.0002	672.09	3.0000	142 R 3					
3221.46	0.0027	917.03	50.0000	144 R 48	3279.75	0.0003	679.12	5.0000	142 R 5					
3223.15	0.0021	994.16	52.0000	144 R 50	3279.78	0.0003	2278.89	75.0000	140 P 76					
3224.85	0.0015	1074.39	54.0000	144 R 52	3281.28	0.0005	689.27	7.0000	142 R 7					
3226.55	0.0012	1157.73	56.0000	144 R 54	3281.38	0.0004	2161.51	73.0000	140 P 74					
3228.25	0.0009	1244.17	58.0000	144 R 56	3282.81	0.0006	702.55	9.0000	142 R 9					
3229.95	0.0006	1333.72	60.0000	144 R 58	3282.98	0.0005	2047.21	71.0000	140 P 72					
3231.66	0.0005	1426.36	62.0000	144 R 60	3284.33	0.0007	718.96	11.0000	142 R 11					
3233.37	0.0004	1522.10	64.0000	144 R 62	3284.58	0.0009	1936.01	69.0000	140 P 70					
3235.07	0.0002	1620.94	66.0000	144 R 64	3285.84	0.0008	738.49	13.0000	142 R 13					
3236.78	0.0001	1722.87	68.0000	144 R 66	3286.18	0.0013	1827.89	67.0000	140 P 68					
3256.67	0.0001	882.98	24.0000	142 P 23	3287.35	0.0009	761.14	15.0000	142 R 15					
3258.31	0.0002	847.84	22.0000	142 P 21	3287.77	0.0020	1722.87	65.0000	140 P 66					
3259.94	0.0002	815.82	20.0000	142 P 19	3288.85	0.0011	786.92	17.0000	142 R 17					
3261.57	0.0002	786.92	18.0000	142 P 17	3289.37	0.0031	1620.94	63.0000	140 P 64					
3263.19	0.0003	761.14	16.0000	142 P 15	3290.34	0.0011	815.82	19.0000	142 R 19					
3264.80	0.0003	738.49	14.0000	142 P 13	3290.96	0.0044	1522.10	61.0000	140 P 62					
3266.41	0.0003	718.96	12.0000	142 P 11	3291.82	0.0011	847.84	21.0000	142 R 21					
3268.00	0.0003	702.55	10.0000	142 P 9	3292.56	0.0063	1426.36	59.0000	140 P 60					
3269.59	0.0003	689.27	8.0000	142 P 7	3293.29	0.0010	882.98	23.0000	142 R 23					
3271.18	0.0003	679.12	6.0000	142 P 5	3294.15	0.0089	1333.72	57.0000	140 P 58					
3272.19	0.0001	1407.14	87.0000	143 Q 43	3294.76	0.0010	921.25	25.0000	142 R 25					
3272.45	0.0002	1340.71	83.0000	143 Q 41	3295.75	0.0123	1244.17	55.0000	140 P 56					
3272.70	0.0002	1277.41	79.0000	143 Q 39	3296.22	0.0009	962.63	27.0000	142 R 27					
3272.75	0.0002	672.09	4.0000	142 P 3	3297.34	0.0166	1157.73	53.0000	140 P 54					
3272.93	0.0003	1217.22	75.0000	143 Q 37	3297.67	0.0009	1007.14	29.0000	142 R 29					
3273.16	0.0003	1160.15	71.0000	143 Q 35	3298.93	0.0220	1074.39	51.0000	140 P 52					
3273.37	0.0004	1106.20	67.0000	143 Q 33	3299.11	0.0008	1054.76	31.0000	142 R 31					

3300.52	0.0286	994.16	49.0000	140 P 50	3340.72	0.0041	0.00	2.0000	140 R 0
3300.55	0.0007	1105.51	33.0000	142 R 33	3340.73	0.0071	577.99	77.0000	141 Q 38
3301.98	0.0006	1159.37	35.0000	142 R 35	3340.88	0.0055	639.58	81.0000	141 Q 40
3302.11	0.0363	917.03	47.0000	140 P 48	3341.04	0.0042	704.28	85.0000	141 Q 42
3303.40	0.0004	1216.34	37.0000	142 R 37	3341.20	0.0032	772.09	89.0000	141 Q 44
3303.70	0.0452	843.00	45.0000	140 P 46	3341.37	0.0023	843.00	93.0000	141 Q 46
3304.81	0.0003	1276.44	39.0000	142 R 39	3341.55	0.0017	917.03	97.0000	141 Q 48
3305.29	0.0550	772.09	43.0000	140 P 44	3341.74	0.0012	994.16	101.0000	141 Q 50
3306.21	0.0003	1339.65	41.0000	142 R 41	3341.93	0.0009	1074.39	105.0000	141 Q 52
3306.88	0.0654	704.28	41.0000	140 P 42	3342.13	0.0006	1157.73	109.0000	141 Q 54
3307.61	0.0002	1405.97	43.0000	142 R 43	3342.28	0.0130	2.34	4.0000	140 R 2
3308.46	0.0760	639.58	39.0000	140 P 40	3342.34	0.0004	1244.17	113.0000	141 Q 56
3309.00	0.0002	1475.40	45.0000	142 R 45	3342.56	0.0002	1333.72	117.0000	141 Q 58
3310.38	0.0861	577.99	37.0000	140 P 38	3342.78	0.0002	1426.36	121.0000	141 Q 60
3311.63	0.0001	1547.95	47.0000	142 R 47	3343.84	0.0283	7.80	6.0000	140 R 4
3313.21	0.0950	519.52	35.0000	140 P 36	3345.39	0.0502	16.39	8.0000	140 R 6
3314.80	0.1020	464.16	33.0000	140 P 34	3346.95	0.0785	28.09	10.0000	140 R 8
3316.38	0.1064	411.91	31.0000	140 P 32	3347.83	0.0001	2142.79	62.0000	136 P 61
3317.96	0.1076	362.78	29.0000	140 P 30	3348.50	0.1122	42.92	12.0000	140 R 10
3319.54	0.1051	316.76	27.0000	140 P 28	3349.55	0.0003	2048.50	60.0000	136 P 59
3319.89	0.0989	273.86	25.0000	140 P 26	3350.05	0.1495	60.87	14.0000	140 R 12
3321.11	0.0892	234.08	23.0000	140 P 24	3351.26	0.0002	1957.31	58.0000	136 P 57
3322.69	0.0766	197.41	21.0000	140 P 22	3351.60	0.1880	81.94	16.0000	140 P 14
3324.26	0.0623	163.86	19.0000	140 P 20	3352.96	0.0004	1869.23	56.0000	136 P 55
3325.84	0.0472	133.44	17.0000	140 P 18	3353.15	0.2252	106.13	18.0000	140 P 16
3327.41	0.0328	106.13	15.0000	140 P 16	3354.67	0.0005	1784.25	54.0000	136 P 53
3328.98	0.0202	81.94	13.0000	140 P 14	3354.69	0.2585	133.44	20.0000	140 R 18
3330.55	0.0104	60.87	11.0000	140 P 12	3355.49	0.0001	917.11	47.0000	138 P 48
3332.12	0.0040	42.92	9.0000	140 P 10	3356.24	0.2858	163.86	22.0000	140 R 20
3333.69	0.0008	28.09	7.0000	140 P 8	3356.37	0.0007	1702.37	52.0000	136 P 51
3336.82	0.0006	7.80	3.0000	140 P 4	3357.04	0.0001	843.08	45.0000	138 P 46
3338.38	0.0007	2.34	1.0000	140 P 2	3357.78	0.3055	197.41	24.0000	140 R 22
3339.35	0.0075	2.34	5.0000	141 Q 2	3358.06	0.0009	1623.61	50.0000	136 P 49
3339.36	0.0131	7.80	9.0000	141 Q 4	3358.60	0.0002	772.16	43.0000	138 P 44
3339.38	0.0182	16.39	13.0000	141 Q 6	3359.32	0.3162	234.08	26.0000	140 R 24
3339.41	0.0225	28.09	17.0000	141 Q 8	3359.76	0.0012	1547.95	48.0000	136 P 47
3339.44	0.0259	42.92	21.0000	141 Q 10	3360.15	0.0002	704.34	41.0000	138 P 42
3339.49	0.0282	60.87	25.0000	141 Q 12	3360.86	0.3179	273.86	28.0000	140 R 26
3339.54	0.0295	81.94	29.0000	141 Q 14	3361.45	0.0014	1475.40	46.0000	136 P 45
3339.60	0.0298	106.13	33.0000	141 Q 16	3361.71	0.0002	639.64	39.0000	138 P 40
3339.66	0.0293	133.44	37.0000	141 Q 18	3362.39	0.3109	316.76	30.0000	140 R 28
3339.73	0.0280	163.86	41.0000	141 Q 20	3363.13	0.0017	1405.97	44.0000	136 P 43
3339.82	0.0261	197.41	45.0000	141 Q 22	3363.27	0.0003	578.05	37.0000	138 P 38
3339.90	0.0238	234.08	49.0000	141 Q 24	3363.93	0.2962	362.78	32.0000	140 R 30
3340.00	0.0212	273.86	53.0000	141 Q 26	3364.82	0.0021	1339.65	42.0000	136 P 41
3340.10	0.0186	316.76	57.0000	141 Q 28	3364.83	0.0003	519.57	35.0000	138 P 36
3340.21	0.0158	362.78	61.0000	141 Q 30	3365.46	0.2753	411.91	34.0000	140 R 32
3340.33	0.0133	411.91	65.0000	141 Q 32	3366.39	0.0003	464.20	33.0000	138 P 34
3340.46	0.0110	464.16	69.0000	141 Q 34	3366.49	0.0025	1276.44	40.0000	136 P 39
3340.59	0.0088	519.52	73.0000	141 Q 36	3366.99	0.2499	464.16	36.0000	140 R 34



LINE	FRFQ	LINE	E	L	BAND	LINE	FREQ	LINE	E	L	BAND
	-1		-1		ID		-1		-1		ID
CM	CM	CM /ATM	CM	CM		CM /ATM	CM	CM	CM	CM	
		STP				STP					
3367.96	411.95	0.0003	3397.16	31.0000	138 P 32	0.0005	3397.16	76.0000	140 R 74		
3368.16	1216.34	0.0028	3397.17	38.0000	136 P 37	0.0001	921.65	51.0000	137 Q 25		
3368.52	519.52	0.2217	3397.31	38.0000	140 R 36	0.0002	883.32	47.0000	137 Q 23		
3369.52	362.81	0.0003	3397.44	29.0000	138 P 30	0.0002	848.12	43.0000	137 Q 21		
3369.83	1159.37	0.0031	3397.56	36.0000	136 P 35	0.0002	816.05	39.0000	137 Q 19		
3370.05	577.99	0.1923	3397.66	40.0000	140 R 38	0.0002	787.11	35.0000	137 Q 17		
3371.09	316.79	0.0003	3397.76	27.0000	138 P 28	0.0002	761.29	31.0000	137 Q 15		
3371.49	1105.51	0.0033	3397.84	34.0000	136 P 33	0.0002	738.60	27.0000	137 Q 13		
3371.57	639.58	0.1633	3397.91	42.0000	140 R 40	0.0002	719.04	23.0000	137 Q 11		
3372.65	273.89	0.0003	3397.97	25.0000	138 P 26	0.0002	702.61	19.0000	137 Q 9		
3373.10	704.28	0.1358	3398.02	44.0000	140 R 42	0.0001	689.31	15.0000	137 Q 7		
3373.15	1054.76	0.0035	3398.06	32.0000	136 P 31	0.0001	679.14	11.0000	137 Q 5		
3374.22	234.10	0.0003	3398.46	23.0000	138 P 24	0.0002	16.39	8.0000	138 R 6		
3374.62	772.09	0.1106	3398.64	46.0000	140 R 44	0.0004	2278.89	78.0000	140 R 76		
3374.80	1007.14	0.0035	3400.01	30.0000	136 P 29	0.0003	28.10	10.0000	138 R 8		
3375.79	197.43	0.0002	3400.13	21.0000	138 P 22	0.0001	2399.35	80.0000	140 R 78		
3376.13	843.00	0.0884	3401.21	48.0000	140 R 46	0.0001	672.09	3.0000	136 R 3		
3376.45	962.63	0.0035	3401.57	28.0000	136 P 27	0.0004	42.93	12.0000	138 R 10		
3377.35	163.88	0.0002	3402.75	19.0000	138 P 20	0.0004	679.12	5.0000	136 R 5		
3377.65	917.03	0.0692	3403.12	50.0000	140 R 48	0.0005	60.88	14.0000	138 R 12		
3378.09	921.25	0.0033	3404.29	26.0000	136 P 25	0.0007	689.27	7.0000	136 R 7		
3378.92	133.45	0.0002	3404.68	17.0000	138 P 18	0.0006	81.95	16.0000	138 R 14		
3379.17	994.16	0.0531	3405.82	52.0000	140 R 50	0.0013	702.55	9.0000	138 R 9		
3379.73	882.98	0.0030	3405.23	24.0000	136 P 23	0.0007	106.14	18.0000	138 R 16		
3380.49	106.14	0.0001	3407.35	15.0000	138 P 16	0.0019	718.96	11.0000	136 R 11		
3380.68	1074.39	0.0400	3407.78	54.0000	140 R 52	0.0008	133.45	20.0000	138 R 18		
3381.36	847.84	0.0027	3408.86	22.0000	136 P 21	0.0026	738.49	13.0000	138 R 13		
3382.19	1157.73	0.0296	3409.34	56.0000	140 R 54	0.0009	163.88	22.0000	138 R 20		
3382.98	815.82	0.0022	3410.38	20.0000	136 P 19	0.0034	761.14	15.0000	136 R 15		
3383.70	1244.17	0.0215	3410.82	58.0000	140 R 56	0.0001	281.67	60.0000	135 P 60		
3384.60	786.92	0.0018	3410.89	18.0000	136 P 17	0.0010	197.43	24.0000	138 R 22		
3385.20	1333.72	0.0153	3411.88	60.0000	140 R 58	0.0040	786.92	17.0000	136 R 17		
3386.21	761.14	0.0013	3412.44	16.0000	136 P 15	0.0010	234.10	26.0000	138 R 24		
3386.70	1426.36	0.0107	3412.94	62.0000	140 R 60	0.0003	2722.01	58.0000	135 P 58		
3387.82	738.49	0.0008	3413.38	14.0000	136 P 13	0.0047	815.82	19.0000	136 R 19		
3388.21	1522.10	0.0074	3413.99	64.0000	140 R 62	0.0010	273.89	28.0000	138 R 26		
3389.42	718.96	0.0005	3414.87	12.0000	136 P 11	0.0052	847.84	21.0000	136 R 21		
3389.70	1620.94	0.0050	3415.03	66.0000	140 R 64	0.0004	2632.44	56.0000	135 P 56		
3391.01	702.55	0.0002	3415.54	10.0000	136 P 9	0.0010	316.79	30.0000	138 R 28		
3391.20	1722.87	0.0032	3416.36	68.0000	140 R 66	0.0057	882.98	23.0000	136 R 23		
3392.69	1827.89	0.0022	3417.09	70.0000	140 R 68	0.0009	362.81	32.0000	138 R 30		
3394.19	1936.01	0.0014	3417.10	72.0000	140 R 70	0.0005	2545.98	54.0000	135 P 54		
3395.67	2047.21	0.0009	3417.84	74.0000	140 R 72	0.0059	921.25	25.0000	136 R 25		
3396.86	1007.68	0.0001	3418.64	59.0000	137 Q 29	0.0009	411.95	34.0000	138 R 32		
3397.02	963.10	0.0001	3419.15	55.0000	137 Q 27	0.0008	2462.62	52.0000	135 P 52		



3419.31	0.0059	962.63	27.0000	136 R 27	3434.72	0.0085	1907.68	36.0000	135 P 36
3419.39	0.0001	2682.21	58.9322	134 P 59	3434.82	0.0021	2072.33	43.9091	133 P 44
3420.20	0.0008	464.20	36.0000	138 R 34	3435.13	0.0013	1623.61	49.0000	136 R 49
3420.64	0.0001	2636.02	57.9310	133 P 58	3435.19	0.0005	2425.43	66.9851	28 P 67
3420.78	0.0058	1007.14	29.0000	136 R 29	3435.67	0.0004	2481.30	67.9853	27 P 68
3421.17	0.0012	2382.37	50.0000	135 P 50	3435.70	0.0001	1436.43	62.0000	130 P 62
3421.50	0.0003	2590.77	56.9298	134 P 57	3435.75	0.0025	2037.94	42.9070	134 P 43
3421.75	0.0007	519.57	38.0000	138 R 36	3435.93	0.0009	2342.03	52.0000	132 P 52
3422.24	0.0056	1054.76	31.0000	136 R 31	3436.54	0.0010	1705.37	51.0000	136 R 51
3422.72	0.0003	2546.15	55.9286	133 P 56	3436.57	0.0105	1852.32	34.0000	135 P 34
3423.17	0.0017	2305.23	48.0000	135 P 48	3436.73	0.0001	1390.89	61.0000	131 P 61
3423.30	0.0006	578.05	40.0000	138 R 38	3436.78	0.0029	2004.27	41.9048	133 P 42
3423.60	0.0003	2502.45	54.9273	134 P 55	3437.42	0.0008	2321.84	64.9846	28 P 65
3423.69	0.0052	1105.51	33.0000	136 R 33	3437.71	0.0032	1971.44	40.9024	134 P 41
3424.78	0.0004	2459.39	53.9259	133 P 54	3437.76	0.0002	1346.07	60.0000	130 P 60
3424.85	0.0005	639.64	42.0000	138 R 40	3437.83	0.0007	2375.99	65.9848	27 P 66
3425.14	0.0047	1159.37	35.0000	136 R 40	3437.93	0.0013	2261.67	50.0000	132 P 50
3425.15	0.0022	2231.20	46.0000	135 P 46	3437.94	0.0007	1784.25	53.0000	136 R 53
3425.67	0.0005	2417.24	52.9245	134 P 53	3438.41	0.0128	1800.07	32.0000	135 P 32
3426.41	0.0004	704.34	44.0000	138 R 42	3438.72	0.0037	1939.34	39.9000	133 P 40
3426.59	0.0041	1216.34	37.0000	136 R 37	3438.78	0.0002	1301.99	59.0000	131 P 59
3426.82	0.0005	2375.75	51.9231	133 P 52	3439.34	0.0005	1869.23	55.0000	136 R 55
3427.10	0.0031	2160.27	44.0000	135 P 44	3439.64	0.0012	2221.35	62.9841	28 P 63
3427.72	0.0001	2694.52	60.0000	132 P 60	3439.63	0.0042	1908.06	38.8974	134 P 39
3427.72	0.0007	2335.14	50.9216	134 P 51	3439.80	0.0002	1258.63	58.0000	130 P 58
3427.97	0.0003	772.16	46.0000	138 R 44	3439.91	0.0018	2184.42	48.0000	132 P 48
3428.02	0.0036	1276.44	39.0000	136 R 39	3439.97	0.0009	2273.79	63.9844	27 P 64
3428.85	0.0008	2295.22	49.9200	133 P 50	3440.22	0.0152	1750.94	30.0000	135 P 30
3429.04	0.0041	2092.46	42.0000	135 P 42	3440.64	0.0047	1877.52	37.8947	133 P 38
3429.46	0.0031	1339.65	41.0000	136 R 41	3440.73	0.0004	1957.31	57.0000	136 R 57
3429.52	0.0003	843.08	48.0000	138 R 46	3440.81	0.0003	1216.01	57.0000	131 P 57
3429.76	0.0009	2256.16	48.9184	134 P 49	3441.56	0.0054	1847.80	36.8919	134 P 37
3429.80	0.0003	2601.74	58.0000	132 P 58	3441.81	0.0004	1174.12	56.0000	130 P 56
3430.65	0.0001	2641.89	70.9859	28 P 71	3441.83	0.0019	2123.96	60.9836	28 P 61
3430.86	0.0012	2217.80	47.9167	133 P 48	3441.87	0.0025	2110.28	46.0000	132 P 46
3430.88	0.0025	1405.97	43.0000	136 R 43	3442.08	0.0178	1704.92	28.0000	135 P 28
3430.95	0.0053	2027.75	40.0000	135 P 40	3442.08	0.0015	2174.69	61.9839	27 P 62
3431.08	0.0002	917.11	50.0000	138 R 48	3442.12	0.0003	2048.50	59.0000	136 R 59
3431.77	0.0014	2180.30	46.9149	134 P 47	3442.55	0.0060	1818.83	35.8889	133 P 36
3431.86	0.0004	2512.07	56.0000	132 P 56	3442.82	0.0004	1132.97	55.0000	131 P 55
3432.30	0.0021	1475.40	45.0000	136 R 45	3443.47	0.0067	1790.67	34.8857	134 P 35
3432.65	0.0002	994.25	52.0000	138 R 50	3443.51	0.0001	2142.79	61.0000	136 R 61
3432.85	0.0015	2143.51	45.9130	133 P 46	3443.80	0.0203	1662.02	26.0000	135 P 26
3432.85	0.0067	1966.16	38.0000	135 P 38	3443.81	0.0006	1092.54	54.0000	130 P 54
3432.93	0.0003	2532.12	68.9855	28 P 69	3443.82	0.0034	2038.25	44.0000	132 P 44
3433.50	0.0003	2589.70	69.9857	27 P 70	3444.00	0.0029	2029.67	58.9831	28 P 59
3433.72	0.0016	1547.95	47.0000	136 R 47	3444.18	0.0023	2078.70	59.9833	27 P 60
3433.77	0.0018	2107.56	44.9111	134 P 45	3444.43	0.0074	1763.27	33.8824	133 P 34
3433.90	0.0007	2425.50	54.0000	132 P 54	3444.80	0.0007	1052.85	53.0000	131 P 53
3434.21	0.0001	1074.49	54.0000	138 R 52	3444.89	0.0001	2240.19	63.0000	136 R 63

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3445.35	0.0082	1736.67	32.8788	134 P 33	3454.12	0.0279	1470.10	14.0000	135 P 14	3454.12	0.0279	1470.10	14.0000	135 P 14
3445.56	0.0228	1922.24	24.0000	135 P 24	3454.38	0.0159	1645.34	49.9800	27 P 50	3454.38	0.0159	1645.34	49.9800	27 P 50
3445.75	0.0046	1971.33	42.0000	132 P 42	3454.44	0.0032	696.22	43.0000	131 P 43	3454.44	0.0032	696.22	43.0000	131 P 43
3445.79	0.0009	1013.89	52.0000	130 P 52	3454.47	0.0168	1513.55	22.8261	134 P 23	3454.47	0.0168	1513.55	22.8261	134 P 23
3446.14	0.0043	1938.48	56.9825	28 P 57	3454.53	0.0189	1604.77	48.9796	28 P 49	3454.53	0.0189	1604.77	48.9796	28 P 49
3446.26	0.0035	1985.81	57.9828	27 P 58	3455.11	0.0145	1678.47	32.0000	132 P 32	3455.11	0.0145	1678.47	32.0000	132 P 32
3446.30	0.0089	1710.83	31.8750	133 P 31	3455.35	0.0009	2279.05	76.0000	26 P 76	3455.35	0.0009	2279.05	76.0000	26 P 76
3446.77	0.0010	975.66	51.0000	131 P 52	3455.36	0.0175	1495.54	21.8182	133 P 22	3455.36	0.0175	1495.54	21.8182	133 P 22
3447.21	0.0098	1685.79	30.8710	134 P 31	3455.37	0.0036	664.59	42.0000	130 P 42	3455.37	0.0036	664.59	42.0000	130 P 42
3447.31	0.0250	1585.57	22.0000	135 P 22	3455.38	0.0015	1426.36	59.0000	129 P 60	3455.38	0.0015	1426.36	59.0000	129 P 60
3447.65	0.0059	1906.52	40.0000	132 P 40	3455.78	0.0265	1449.04	12.0000	135 P 12	3455.78	0.0265	1449.04	12.0000	135 P 12
3447.75	0.0012	938.16	50.0000	130 P 50	3456.24	0.0182	1478.31	20.8095	134 P 21	3456.24	0.0182	1478.31	20.8095	134 P 21
3448.15	0.0106	1661.52	29.8667	133 P 30	3456.30	0.0041	633.70	41.0000	131 P 41	3456.30	0.0041	633.70	41.0000	131 P 41
3448.27	0.0055	1850.39	54.9818	28 P 55	3456.36	0.0222	1568.01	47.9792	27 P 48	3456.36	0.0222	1568.01	47.9792	27 P 48
3448.32	0.0053	1896.03	55.9821	27 P 56	3456.57	0.0262	1529.11	46.9787	28 P 47	3456.57	0.0262	1529.11	46.9787	28 P 47
3448.37	0.0001	1936.01	69.0000	129 P 70	3456.81	0.0023	1333.72	57.0000	129 P 58	3456.81	0.0023	1333.72	57.0000	129 P 58
3448.38	0.0001	2649.70	82.0000	26 P 82	3456.93	0.0172	1629.25	30.0000	132 P 30	3456.93	0.0172	1629.25	30.0000	132 P 30
3448.72	0.0014	901.40	49.0000	131 P 49	3457.12	0.0187	1461.87	19.8000	133 P 20	3457.12	0.0187	1461.87	19.8000	133 P 20
3449.04	0.0268	1552.03	20.0000	135 P 20	3457.23	0.0047	603.54	40.0000	130 P 40	3457.23	0.0047	603.54	40.0000	130 P 40
3449.05	0.0116	1638.04	28.8821	134 P 29	3457.43	0.0241	1431.09	10.0000	135 P 10	3457.43	0.0241	1431.09	10.0000	135 P 10
3449.55	0.0076	1844.83	38.0000	132 P 38	3457.62	0.0017	2161.67	74.0000	26 P 74	3457.62	0.0017	2161.67	74.0000	26 P 74
3449.68	0.0016	865.37	48.0000	130 P 48	3457.99	0.0193	1446.21	18.7895	134 P 19	3457.99	0.0193	1446.21	18.7895	134 P 19
3449.75	0.0002	1827.89	67.0000	129 P 68	3458.15	0.0053	574.11	39.0000	131 P 39	3458.15	0.0053	574.11	39.0000	131 P 39
3449.98	0.0124	1615.33	27.8571	133 P 28	3458.25	0.0033	1244.17	55.0000	129 P 56	3458.25	0.0033	1244.17	55.0000	129 P 56
3450.36	0.0078	1809.35	53.9815	27 P 54	3458.33	0.0306	1493.78	45.9783	27 P 46	3458.33	0.0306	1493.78	45.9783	27 P 46
3450.38	0.0093	1765.41	52.9811	28 P 53	3458.59	0.0358	1456.56	44.9778	28 P 45	3458.59	0.0358	1456.56	44.9778	28 P 45
3450.64	0.0018	830.07	47.0000	131 P 47	3458.73	0.0202	1583.15	28.0000	132 P 28	3458.73	0.0202	1583.15	28.0000	132 P 28
3450.73	0.0003	2523.07	80.0000	26 P 80	3458.86	0.0195	1431.33	17.7778	133 P 18	3458.86	0.0195	1431.33	17.7778	133 P 18
3450.75	0.0279	1521.60	18.0000	135 P 18	3459.06	0.0207	1416.26	8.0000	135 P 8	3459.06	0.0207	1416.26	8.0000	135 P 8
3450.88	0.0135	1593.41	26.8519	134 P 27	3459.07	0.0059	545.42	38.0000	130 P 38	3459.07	0.0059	545.42	38.0000	130 P 38
3451.15	0.0004	1722.87	65.0000	129 P 66	3459.69	0.0049	1157.73	53.0000	129 P 54	3459.69	0.0049	1157.73	53.0000	129 P 54
3451.42	0.0096	1786.26	36.0000	132 P 36	3459.72	0.0198	1417.23	16.7647	134 P 17	3459.72	0.0198	1417.23	16.7647	134 P 17
3451.60	0.0021	795.51	46.0000	130 P 46	3459.87	0.0028	2047.37	72.0000	26 P 72	3459.87	0.0028	2047.37	72.0000	26 P 72
3451.79	0.0143	1572.27	25.8462	133 P 26	3459.98	0.0066	517.46	37.0000	131 P 37	3459.98	0.0066	517.46	37.0000	131 P 37
3452.38	0.0112	1725.79	51.9808	27 P 52	3460.28	0.0415	1422.68	43.9773	27 P 44	3460.28	0.0415	1422.68	43.9773	27 P 44
3452.44	0.0283	1494.29	16.0000	135 P 16	3460.52	0.0231	1540.17	26.0000	132 P 26	3460.52	0.0231	1540.17	26.0000	132 P 26
3452.46	0.0134	1683.53	50.9804	28 P 51	3460.58	0.0197	1403.92	15.7500	133 P 16	3460.58	0.0197	1403.92	15.7500	133 P 16
3452.55	0.0006	1620.94	63.0000	129 P 64	3460.59	0.0480	1387.12	42.9767	28 P 43	3460.59	0.0480	1387.12	42.9767	28 P 43
3452.55	0.0024	761.68	45.0000	131 P 45	3460.67	0.0165	1404.56	6.0000	135 P 6	3460.67	0.0165	1404.56	6.0000	135 P 6
3452.69	0.0153	1551.92	24.8800	134 P 25	3460.88	0.0073	490.24	36.0000	130 P 36	3460.88	0.0073	490.24	36.0000	130 P 36
3453.05	0.0005	2399.52	78.0000	26 P 78	3461.14	0.0070	1074.39	51.0000	129 P 52	3461.14	0.0070	1074.39	51.0000	129 P 52
3453.27	0.0119	1730.80	34.0000	132 P 34	3461.44	0.0198	1391.39	14.7333	134 P 15	3461.44	0.0198	1391.39	14.7333	134 P 15
3453.50	0.0028	728.59	44.0000	130 P 44	3461.79	0.0081	463.75	35.0000	131 P 35	3461.79	0.0081	463.75	35.0000	131 P 35
3453.59	0.0159	1532.34	23.8333	133 P 24	3462.10	0.0046	1936.16	70.0000	26 P 70	3462.10	0.0046	1936.16	70.0000	26 P 70
3453.96	0.0009	1522.10	61.0000	129 P 62	3462.20	0.0552	1354.69	41.9762	27 P 42	3462.20	0.0552	1354.69	41.9762	27 P 42



3462.26	0.0115	1395.97	4.0000	135 P 4	3469.68	0.0164	258.42	26.0000	130 P 26
3462.29	0.0259	1500.32	24.0000	132 P 24	3469.72	0.0084	1309.15	4.2000	134 P 5
3462.29	0.0194	1379.64	13.7143	133 P 14	3469.74	0.1440	1113.93	33.9706	27 P 34
3462.33	0.0001	2702.31	58.0000	128 P 58	3469.94	0.0005	3485.31	60.8525	127 P 61
3462.57	0.0631	1320.80	40.9756	28 P 41	3469.96	0.0445	639.58	39.0000	129 P 40
3462.59	0.0100	994.16	49.0000	129 P 50	3470.29	0.1588	1086.65	32.9697	28 P 33
3462.68	0.0089	438.00	34.0000	130 P 34	3470.52	0.0061	1305.23	3.0000	133 P 4
3463.13	0.0190	1368.68	12.6923	134 P 13	3470.54	0.0173	239.28	25.0000	131 P 25
3463.57	0.0098	412.98	33.0000	131 P 33	3470.76	0.0193	1404.56	7.0000	135 R 6
3463.85	0.0059	1390.51	2.0000	135 P 2	3470.80	0.0306	1522.23	62.0000	26 P 62
3463.97	0.0182	1358.49	11.6667	133 P 12	3470.88	0.0317	1347.90	14.0000	132 P 14
3464.04	0.0283	1463.58	22.0000	132 P 22	3471.07	0.0005	3437.56	59.8500	126 P 60
3464.06	0.0140	917.03	47.0000	129 P 48	3471.14	0.0008	2363.09	50.0000	128 P 50
3464.12	0.0720	1289.82	39.9750	27 P 40	3471.32	0.0035	1302.10	1.6667	134 P 3
3464.31	0.0076	1828.04	68.0000	26 P 68	3471.39	0.0181	220.88	24.0000	130 P 24
3464.46	0.0107	388.69	32.0000	130 P 32	3471.46	0.0571	577.99	37.0000	129 P 38
3464.53	0.0816	1257.58	38.9744	28 P 39	3471.59	0.1750	1061.54	31.9688	27 P 32
3464.57	0.0003	2612.86	56.0000	128 P 56	3471.77	0.0001	1615.33	0.2808	133 Q 28
3464.80	0.0176	1349.10	10.6364	134 P 11	3471.89	0.0001	1593.41	0.2910	134 Q 27
3465.34	0.0116	365.14	31.0000	131 P 31	3472.03	0.0001	1572.27	0.3020	133 Q 26
3465.35	0.0002	3684.08	64.8615	127 P 65	3472.14	0.0002	1551.92	0.3138	134 Q 25
3465.52	0.0191	843.00	45.0000	129 P 46	3472.17	0.1910	1035.90	30.9677	28 P 31
3465.64	0.0164	1340.48	9.6000	133 P 10	3472.20	0.0006	3390.59	58.8475	127 P 59
3465.77	0.0304	1429.98	20.0000	132 P 20	3472.23	0.0190	203.21	23.0000	131 P 23
3466.01	0.0924	1228.07	37.9737	27 P 38	3472.25	0.0234	1416.26	9.0000	135 R 8
3466.19	0.0030	1388.17	1.0000	135 R 0	3472.27	0.0002	1532.34	0.3267	133 Q 24
3466.22	0.0126	342.33	30.0000	130 P 30	3472.37	0.0002	1513.55	0.3406	134 Q 23
3466.46	0.0153	1332.65	8.5556	134 P 9	3472.49	0.0002	1495.54	0.3557	133 Q 22
3466.47	0.1038	1197.49	36.9730	28 P 37	3472.54	0.0302	1326.79	12.0000	132 P 12
3466.49	0.0123	1723.01	66.0000	26 P 66	3472.59	0.0003	1478.31	0.3723	134 Q 21
3466.51	0.0002	3633.22	63.8594	126 P 64	3472.69	0.0003	1461.87	0.3905	133 Q 20
3466.78	0.0004	2526.50	54.0000	128 P 54	3472.78	0.0005	1446.21	0.4105	134 Q 19
3467.00	0.0258	772.09	43.0000	129 P 44	3472.87	0.0005	1431.33	0.4327	133 Q 18
3467.09	0.0135	320.25	29.0000	131 P 29	3472.92	0.0473	1426.48	60.0000	26 P 60
3467.28	0.0138	1325.60	7.5000	133 P 8	3472.95	0.0717	519.52	35.0000	129 P 36
3467.49	0.0317	1399.49	18.0000	132 P 18	3472.96	0.0006	1417.23	0.4575	134 Q 17
3467.66	0.0003	3583.14	62.8571	127 P 63	3473.04	0.0006	1403.92	0.4853	133 Q 16
3467.73	0.0088	1390.51	3.0000	135 R 2	3473.07	0.0197	186.28	22.0000	130 P 22
3467.89	0.1164	1169.44	35.9722	27 P 36	3473.11	0.0007	1391.39	0.5167	134 Q 15
3467.96	0.0145	298.90	28.0000	130 P 28	3473.18	0.0008	1379.64	0.5524	133 Q 14
3468.10	0.0123	1319.33	6.4286	134 P 7	3473.25	0.0009	1368.68	0.5934	134 Q 13
3468.39	0.1296	1140.51	34.9714	28 P 35	3473.28	0.0012	2286.04	48.0000	128 P 48
3468.48	0.0342	704.28	41.0000	129 P 42	3473.31	0.0010	1358.49	0.6410	133 Q 12
3468.66	0.0196	1621.07	64.0000	26 P 64	3473.32	0.0008	3344.40	57.8448	126 P 58
3468.80	0.0003	3533.83	61.8548	126 P 62	3473.37	0.0011	1349.10	0.6970	134 Q 11
3468.82	0.0154	278.29	27.0000	131 P 27	3473.41	0.2085	1012.27	29.9667	27 P 30
3468.91	0.0103	1313.85	5.3333	133 P 6	3473.42	0.0013	1340.48	0.7636	133 Q 10
3468.97	0.0005	2443.25	52.0000	128 P 52	3473.47	0.0015	1332.65	0.8444	134 Q 9
3469.19	0.0322	1372.13	16.0000	132 P 16	3473.51	0.0017	1325.60	0.9444	133 Q 8
3469.25	0.0144	1395.97	5.0000	135 R 4	3473.55	0.0020	1319.33	1.0714	134 Q 7



FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID
3473.58	0.0024	1313.85	1.2381	133 Q 6	3478.01	0.0217	100.14	16.0000	130 P 16
3473.61	0.0030	1309.15	1.4667	134 Q 5	3478.06	0.0303	1494.29	17.0000	135 R 16
3473.63	0.0036	1305.23	1.8000	133 Q 4	3478.28	0.0004	2241.30	64.9846	125 P 65
3473.65	0.0049	1302.10	2.3333	134 Q 3	3478.28	0.0107	1309.15	5.3333	134 R 5
3473.67	0.0069	1299.75	3.3333	133 Q 2	3478.39	0.0003	3709.57	66.9851	121 P 67
3473.68	0.0001	2439.75	68.9855	125 P 69	3478.70	0.0002	3766.90	67.9853	120 P 68
3473.73	0.0267	1431.09	11.0000	135 R 10	3478.78	0.3126	883.23	23.9583	27 P 24
3473.90	0.0203	170.08	21.0000	131 P 21	3478.80	0.0003	3563.12	74.9467	25 P 75
3474.03	0.2253	988.27	28.9655	28 P 29	3478.81	0.0216	88.36	15.0000	131 P 15
3474.19	0.0274	1308.81	10.0000	132 P 10	3478.83	0.0021	3125.15	52.8302	127 P 53
3474.43	0.0009	3298.99	56.8421	127 P 57	3478.98	0.1484	316.76	27.0000	129 P 28
3474.45	0.0885	464.16	33.0000	129 P 34	3479.03	0.0125	1313.85	6.4286	133 R 6
3474.62	0.0001	2442.55	68.9855	123 P 69	3479.05	0.0130	1273.63	4.0000	132 P 4
3474.73	0.0209	154.62	20.0000	130 P 20	3479.11	0.0004	2243.78	64.9846	123 P 65
3474.84	0.0001	2389.04	67.9853	124 P 68	3479.16	0.1572	1157.83	54.0000	26 P 54
3475.02	0.0718	1333.83	58.0000	26 P 58	3479.41	0.0004	2193.51	63.9844	124 P 64
3475.19	0.0288	1449.04	13.0000	135 R 12	3479.46	0.0297	1521.60	19.0000	135 R 18
3475.22	0.2435	966.13	27.9643	27 P 28	3479.48	0.3269	864.11	22.9565	28 P 23
3475.39	0.0015	2212.10	46.0000	128 P 46	3479.54	0.0029	2073.52	42.0000	128 P 42
3475.54	0.0012	3254.36	55.8393	126 P 56	3479.62	0.0213	77.32	14.0000	130 P 14
3475.56	0.0213	139.90	19.0000	131 P 19	3479.78	0.0143	1319.33	7.5000	134 R 7
3475.75	0.0001	2391.76	67.9853	122 P 68	3479.91	0.0025	3083.63	51.8269	126 P 52
3475.83	0.0236	1293.96	8.0000	132 P 8	3480.17	0.0005	3504.67	73.9459	24 P 74
3475.87	0.2604	943.77	26.9630	28 P 27	3480.22	0.0004	2195.92	63.9844	122 P 64
3475.96	0.1072	411.91	31.0000	129 P 32	3480.41	0.0208	67.01	13.0000	131 P 13
3475.99	0.0003	2339.06	66.9851	125 P 67	3480.50	0.1693	273.86	25.0000	129 P 26
3476.00	0.0035	1299.75	1.6667	133 R 2	3480.52	0.0157	1325.60	8.5556	133 R 8
3476.38	0.0002	3682.48	76.9481	25 P 77	3480.53	0.3425	846.46	21.9545	27 P 22
3476.38	0.0216	125.91	18.0000	130 P 18	3480.54	0.0005	2146.45	62.9841	125 P 63
3476.63	0.0301	1470.10	15.0000	135 R 14	3480.63	0.0067	1268.16	2.0000	132 P 2
3476.64	0.0013	3210.51	54.8364	127 P 55	3480.66	0.0005	3605.98	64.9846	121 P 65
3476.77	0.0062	1302.10	3.0000	134 R 3	3480.86	0.0283	1552.03	21.0000	135 R 20
3476.88	0.0003	2341.70	66.9851	123 P 67	3480.89	0.0003	3661.52	65.9848	120 P 66
3477.00	0.2788	923.12	25.9615	27 P 26	3480.99	0.0029	3042.90	50.8235	127 P 51
3477.10	0.1071	1244.28	56.0000	26 P 56	3481.19	0.0006	3446.86	72.9452	25 P 73
3477.14	0.0003	2289.81	65.9848	124 P 66	3481.20	0.2271	1074.49	52.0000	26 P 52
3477.20	0.0218	112.66	17.0000	131 P 17	3481.20	0.0201	57.44	12.0000	130 P 12
3477.45	0.0188	1282.23	6.0000	132 P 6	3481.25	0.0172	1332.65	9.6000	134 R 9
3477.47	0.1274	362.78	29.0000	129 P 30	3481.26	0.3541	828.97	20.9524	28 P 21
3477.48	0.0022	2141.26	44.0000	128 P 44	3481.32	0.0005	2148.79	62.9841	123 P 63
3477.53	0.0085	1305.23	4.2000	133 R 4	3481.58	0.0038	2008.90	40.0000	128 P 40
3477.69	0.2950	902.38	24.9600	28 P 25	3481.66	0.0006	2100.13	61.9839	124 P 62
3477.74	0.0016	3167.44	53.8333	126 P 54	3481.98	0.0182	1340.48	10.6364	133 R 10
3477.78	0.0003	3622.48	75.9474	24 P 76	3481.99	0.0193	48.60	11.0000	131 P 11
3478.00	0.0003	2292.38	65.9848	122 P 66	3482.02	0.1891	234.08	23.0000	129 P 24

3482.06	0.0035	3002.95	49.8200	126 P 50	3486.47	0.3852	742.27	14.9333	28 P 15
3482.23	0.0263	1585.57	23.0000	135 R 22	3486.60	0.2283	133.44	17.0000	129 P 18
3482.27	0.3668	812.87	19.9500	27 P 20	3486.62	0.0105	11.05	5.0000	131 P 5
3482.42	0.0006	2102.40	61.9839	122 P 62	3486.74	0.0015	1924.14	57.9828	122 P 58
3482.53	0.0008	3389.95	71.9444	24 P 72	3486.97	0.0212	1417.23	17.7778	134 R 17
3482.71	0.0193	1349.10	11.6667	134 R 11	3487.16	0.0017	1879.49	56.9825	125 P 57
3482.77	0.0008	2054.54	60.9836	130 P 61	3487.19	0.0019	3169.81	67.9412	24 P 66
3482.78	0.0182	40.50	10.0000	125 P 10	3487.21	0.6199	843.08	46.0000	26 P 46
3482.90	0.0006	3505.49	62.9841	121 P 63	3487.33	0.0015	3313.80	58.9831	121 P 59
3482.98	0.0034	1265.81	1.0000	132 R 0	3487.33	0.0076	2814.91	44.8000	127 P 45
3483.02	0.3743	796.94	18.9474	28 P 19	3487.36	0.0012	3363.99	59.9833	120 P 60
3483.07	0.0005	3559.24	63.9844	120 P 64	3487.38	0.3822	730.68	13.9286	27 P 14
3483.13	0.0040	2963.78	48.8163	127 P 49	3487.38	0.0086	7.36	4.0000	130 P 4
3483.23	0.3228	994.25	50.0000	26 P 50	3487.54	0.0075	1833.67	34.0000	128 P 34
3483.23	0.0199	1358.49	12.6923	133 R 12	3487.54	0.0159	1750.94	31.0000	135 R 30
3483.51	0.0008	2056.73	60.9836	123 P 61	3487.56	0.0219	1282.23	7.0000	132 R 6
3483.54	0.2065	197.41	21.0000	129 P 22	3487.66	0.0208	1431.33	18.7895	133 R 18
3483.55	0.0170	33.14	9.0000	131 P 9	3487.81	0.0017	1881.41	56.9825	123 P 57
3483.56	0.0009	3333.70	70.9437	25 P 71	3488.13	0.0065	4.42	3.0000	131 P 3
3483.59	0.0048	1947.38	38.0000	128 P 38	3488.14	0.2301	106.13	15.0000	129 P 16
3483.59	0.0240	1622.24	25.0000	135 R 24	3488.17	0.3723	719.61	12.9231	28 P 13
3483.88	0.0010	2009.68	59.9833	124 P 60	3488.23	0.0025	3116.67	66.9403	25 P 67
3483.99	0.3827	782.31	17.9444	27 P 18	3488.24	0.0022	1837.56	55.9821	124 P 56
3484.15	0.0207	1368.68	13.7143	134 R 13	3488.35	0.0205	1446.21	19.8000	134 R 19
3484.19	0.0048	2925.39	47.8125	126 P 48	3488.37	0.0089	2779.65	43.7955	126 P 44
3484.33	0.0156	26.51	8.0000	130 P 8	3488.82	0.0134	1800.07	33.0000	135 R 32
3484.52	0.0100	1268.16	3.0000	132 R 2	3488.87	0.0021	1839.41	55.9821	122 P 56
3484.59	0.0010	2011.80	59.9833	122 P 60	3488.87	0.0044	2.21	2.0000	130 P 2
3484.76	0.3853	768.04	16.9412	28 P 17	3489.04	0.0198	1461.87	20.8095	133 R 20
3484.86	0.0209	1379.64	14.7333	133 R 14	3489.05	0.3626	709.55	11.9167	27 P 12
3484.87	0.0012	3278.33	69.9429	24 P 70	3489.05	0.0266	1293.96	9.0000	132 R 8
3484.92	0.0213	1662.02	27.0000	135 R 26	3489.17	0.8374	772.16	44.0000	26 P 44
3484.98	0.0012	1965.55	58.9831	125 P 59	3489.32	0.0026	1796.36	54.9818	125 P 55
3485.07	0.2200	163.86	19.0000	129 P 20	3489.40	0.0103	2745.16	42.7907	127 P 43
3485.10	0.0140	20.62	7.0000	131 P 7	3489.47	0.0018	3271.03	57.9828	120 P 58
3485.13	0.0009	3408.09	60.9836	121 P 61	3489.48	0.0030	3064.39	65.9394	24 P 66
3485.22	0.0008	3460.06	61.9839	120 P 62	3489.48	0.0091	1781.48	32.0000	128 P 32
3485.23	0.4511	917.11	48.0000	26 P 48	3489.51	0.0022	3222.60	56.9825	121 P 57
3485.24	0.0055	2887.78	46.8085	127 P 47	3489.61	0.0022	0.74	1.0000	131 P 1
3485.57	0.0212	1391.39	15.7500	134 R 15	3489.68	0.2244	81.94	13.0000	129 P 14
3485.58	0.0060	1888.97	36.0000	128 P 36	3489.71	0.0193	1478.31	21.8182	134 R 21
3485.67	0.0012	1967.60	58.9831	123 P 59	3489.85	0.3457	700.08	10.9091	28 P 11
3485.69	0.3886	754.93	15.9375	27 P 16	3489.92	0.0026	1798.15	54.9818	123 P 55
3485.86	0.0124	15.46	6.0000	130 P 6	3490.08	0.0110	1852.32	35.0000	135 R 34
3485.91	0.0015	3223.67	68.9420	25 P 69	3490.39	0.0031	1755.90	53.9815	124 P 54
3486.05	0.0163	1273.67	5.0000	132 R 4	3490.39	0.0184	1495.54	22.8261	133 R 22
3486.07	0.0015	1922.16	57.9828	124 P 58	3490.42	0.0119	2711.46	41.7857	126 P 42
3486.24	0.0186	1704.92	29.0000	135 R 28	3490.51	0.0002	3650.07	86.9885	20 P 87
3486.27	0.0212	1403.92	16.7647	133 R 16	3490.52	0.0039	3012.81	64.9385	25 P 65
3486.29	0.0066	2850.96	45.8043	126 P 46	3490.52	0.0303	1308.81	11.0000	132 R 10



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3490.71	0.3289	691.56	9.9000	27 P 10	3493.81	0.0048	3049.52	52.9811	121 P 53	3493.81	0.0048	3049.52	52.9811	121 P 53
3490.97	0.0030	1757.62	53.9815	122 P 54	3493.96	0.2208	664.95	5.8333	27 P 6	3493.96	0.2208	664.95	5.8333	27 P 6
3491.05	0.0178	1513.55	23.8333	134 R 23	3493.96	0.0108	7.36	5.0000	130 R 4	3493.96	0.0108	7.36	5.0000	130 R 4
3491.08	0.0023	0.00	1.0000	130 R 0	3494.01	0.0078	2862.88	61.9355	24 P 62	3494.01	0.0078	2862.88	61.9355	24 P 62
3491.11	1.1119	704.34	42.0000	130 P 42	3494.08	0.0051	1640.44	50.9804	123 P 51	3494.08	0.0051	1640.44	50.9804	123 P 51
3491.22	0.2105	60.87	11.0000	129 P 12	3494.32	0.1572	28.09	7.0000	129 P 8	3494.32	0.1572	28.09	7.0000	129 P 8
3491.27	0.0002	3723.31	87.9886	19 P 88	3494.34	0.0130	1615.33	28.8621	133 R 28	3494.34	0.0130	1615.33	28.8621	133 R 28
3491.32	0.0089	1907.68	37.0000	135 R 36	3494.46	0.0200	2584.48	37.7632	126 P 38	3494.46	0.0200	2584.48	37.7632	126 P 38
3491.39	0.0108	1732.40	30.0000	128 P 30	3494.60	0.0060	1601.37	49.9800	124 P 50	3494.60	0.0060	1601.37	49.9800	124 P 50
3491.44	0.0135	2678.54	40.7805	127 P 41	3494.66	0.0003	2322.43	79.0000	22 P 79	3494.66	0.0003	2322.43	79.0000	22 P 79
3491.45	0.0036	1716.17	52.9811	125 P 53	3494.67	0.0127	11.05	6.0000	131 R 5	3494.67	0.0127	11.05	6.0000	131 R 5
3491.51	0.3053	683.68	8.8889	28 P 9	3494.76	0.1849	660.24	4.8000	28 P 5	3494.76	0.1849	660.24	4.8000	28 P 5
3491.57	0.0027	3181.17	55.9821	120 P 56	3494.85	0.0345	1732.13	17.0000	132 R 16	3494.85	0.0345	1732.13	17.0000	132 R 16
3491.67	0.0034	3134.51	54.9818	121 P 55	3494.92	0.0042	2092.46	43.0000	135 R 42	3494.92	0.0042	2092.46	43.0000	135 R 42
3491.72	0.0167	1532.34	24.8400	133 R 24	3494.94	1.8606	578.05	38.0000	26 P 38	3494.94	1.8606	578.05	38.0000	26 P 38
3491.76	0.0050	2962.08	63.9375	24 P 64	3494.96	0.0122	1638.04	29.8667	134 R 29	3494.96	0.0122	1638.04	29.8667	134 R 29
3491.81	0.0044	0.74	2.0000	131 R 1	3495.01	0.0002	3603.53	61.9839	118 P 62	3495.01	0.0002	3603.53	61.9839	118 P 62
3491.98	0.0328	1326.79	13.0000	132 R 12	3495.04	0.0098	2814.41	60.9344	25 P 61	3495.04	0.0098	2814.41	60.9344	25 P 61
3492.01	0.0036	1717.83	52.9811	123 P 53	3495.10	0.0060	1602.85	49.9800	122 P 50	3495.10	0.0060	1602.85	49.9800	122 P 50
3492.20	0.0001	2440.51	81.0000	22 P 81	3495.15	0.0144	1643.59	26.0000	128 P 26	3495.15	0.0144	1643.59	26.0000	128 P 26
3492.34	0.2814	676.69	7.8750	27 P 8	3495.17	0.0001	1197.49	0.0533	28 P 37	3495.17	0.0001	1197.49	0.0533	28 P 37
3492.38	0.0160	1551.92	25.8462	134 R 25	3495.34	0.0005	3565.09	76.0000	23 P 76	3495.34	0.0005	3565.09	76.0000	23 P 76
3492.45	0.0156	2646.41	39.7750	126 P 40	3495.37	0.0145	15.46	7.0000	130 P 6	3495.37	0.0145	15.46	7.0000	130 P 6
3492.51	0.0043	1677.17	51.9808	124 P 52	3495.45	0.0222	2554.69	36.7568	127 P 37	3495.45	0.0222	2554.69	36.7568	127 P 37
3492.53	0.0066	2.21	3.0000	130 R 2	3495.54	0.0002	1140.51	0.0563	28 P 35	3495.54	0.0002	1140.51	0.0563	28 P 35
3492.54	0.0071	1966.16	39.0000	135 R 38	3495.55	0.0001	1228.07	0.0520	27 P 38	3495.55	0.0001	1228.07	0.0520	27 P 38
3492.77	0.1880	42.92	9.0000	129 P 10	3495.56	0.1480	656.35	3.7500	27 P 4	3495.56	0.1480	656.35	3.7500	27 P 4
3492.79	0.0063	2912.06	62.9365	25 P 63	3495.61	0.0112	1661.52	30.8710	133 R 30	3495.61	0.0112	1661.52	30.8710	133 R 30
3493.02	0.0003	3685.55	78.0000	23 P 78	3495.64	0.0071	1564.57	48.9796	125 P 49	3495.64	0.0071	1564.57	48.9796	125 P 49
3493.04	1.4511	639.64	40.0000	26 P 40	3495.65	0.0008	3384.24	82.9880	120 P 83	3495.65	0.0008	3384.24	82.9880	120 P 83
3493.04	0.0150	1572.27	26.8519	133 R 26	3495.70	0.0058	3010.80	51.9808	120 P 52	3495.70	0.0058	3010.80	51.9808	120 P 52
3493.05	0.0043	1678.77	51.9808	122 P 52	3495.85	0.0003	3551.48	60.9836	119 P 61	3495.85	0.0003	3551.48	60.9836	119 P 61
3493.09	0.0005	3515.62	84.9882	20 P 85	3495.87	0.0004	2264.48	78.0000	21 P 78	3495.87	0.0004	2264.48	78.0000	21 P 78
3493.15	0.2513	670.40	6.8571	28 P 7	3495.87	0.1189	16.39	5.0000	129 P 6	3495.87	0.1189	16.39	5.0000	129 P 6
3493.25	0.0087	4.42	4.0000	131 R 3	3495.88	0.0002	1169.44	0.0548	27 P 36	3495.88	0.0002	1169.44	0.0548	27 P 36
3493.28	0.0126	1686.44	28.0000	128 P 28	3495.89	0.0003	1086.65	0.0597	28 P 33	3495.89	0.0003	1086.65	0.0597	28 P 33
3493.43	0.0003	2381.11	80.0000	21 P 80	3495.92	0.0069	2967.64	50.9804	121 P 51	3495.92	0.0069	2967.64	50.9804	121 P 51
3493.43	0.0341	1347.90	15.0000	132 R 14	3496.07	0.0161	20.62	8.0000	131 R 7	3496.07	0.0161	20.62	8.0000	131 R 7
3493.45	0.0002	3648.82	62.9841	119 P 63	3496.07	0.0032	2160.27	45.0000	135 R 44	3496.07	0.0032	2160.27	45.0000	135 R 44
3493.46	0.0175	2615.05	38.7692	127 P 39	3496.12	0.0071	1565.99	48.9796	123 P 49	3496.12	0.0071	1565.99	48.9796	123 P 49
3493.56	0.0051	1638.90	50.9804	125 P 51	3496.18	0.0002	1113.93	0.0580	27 P 34	3496.18	0.0002	1113.93	0.0580	27 P 34
3493.65	0.0039	3094.43	53.9815	120 P 54	3496.22	0.0004	1035.90	0.0635	28 P 31	3496.22	0.0004	1035.90	0.0635	28 P 31
3493.68	0.0142	1593.41	27.8571	134 R 27	3496.23	0.0120	2766.78	59.9233	24 P 60	3496.23	0.0120	2766.78	59.9233	24 P 60
3493.74	0.0055	2027.75	41.0000	135 R 40	3496.23	0.0003	1685.79	31.8750	134 R 31	3496.23	0.0003	1685.79	31.8750	134 R 31
3493.77	0.0003	3587.10	85.9884	19 P 86	3496.26	0.0006	3453.97	83.9881	19 P 84	3496.26	0.0006	3453.97	83.9881	19 P 84



3496.26	0.0337	1399.49	19.0000	132 R 18	3498.39	0.0055	700.08	0.1742	28 Q 11
3496.36	0.1063	653.21	2.6667	28 P 3	3498.40	0.0311	2470.01	33.7353	126 P 34
3496.44	0.0252	2525.68	35.7500	126 P 36	3498.44	0.0183	2673.79	57.9310	24 P 58
3496.47	0.0003	1061.54	0.0616	27 Q 32	3498.49	0.0063	691.56	0.1909	27 Q 10
3496.53	0.0005	988.27	0.0578	28 Q 29	3498.49	0.0073	683.68	0.2111	28 Q 9
3496.67	0.0083	1528.27	47.9792	124 P 48	3498.57	0.0084	676.69	0.2361	27 Q 8
3496.74	0.0004	1012.27	0.0656	27 Q 30	3498.58	0.0099	670.40	0.2679	28 Q 7
3496.77	0.0176	26.51	9.0000	130 R 8	3498.63	0.0117	664.95	0.3095	27 Q 6
3496.82	0.0008	943.77	0.0728	28 Q 27	3498.64	0.0141	660.24	0.3667	28 Q 5
3496.83	2.3433	519.57	36.0000	26 P 36	3498.68	0.0178	656.35	0.4500	27 Q 4
3496.87	0.0094	1710.83	32.8788	133 R 32	3498.69	0.0233	653.21	0.5833	28 Q 3
3496.99	0.0006	966.13	0.0702	27 Q 28	3498.70	2.8979	464.20	34.0000	26 P 34
3497.00	0.0162	1603.85	24.0000	128 P 24	3498.70	0.0070	1790.67	35.8889	134 R 35
3497.08	0.0005	2207.26	77.0000	22 P 77	3498.71	0.0338	650.87	0.8333	27 Q 2
3497.08	0.0010	902.38	0.0785	28 Q 25	3498.71	0.0609	649.30	1.5000	28 Q 1
3497.13	0.0082	1529.87	47.9792	122 P 48	3498.71	0.0111	1458.58	45.9783	124 P 46
3497.15	0.0609	650.87	1.5000	27 P 2	3498.72	0.0011	3323.93	81.9878	19 P 82
3497.21	0.0023	2231.20	47.0000	135 R 46	3498.82	0.0178	1567.23	22.0000	128 P 22
3497.23	0.0009	923.12	0.0755	27 Q 26	3498.82	0.0211	48.60	12.0000	131 R 11
3497.27	0.0149	2719.87	58.9322	25 P 59	3498.98	0.0255	2.34	1.0000	129 P 2
3497.33	0.0012	864.11	0.0851	28 Q 23	3499.02	0.0299	1463.58	23.0000	132 R 22
3497.38	0.0003	3507.49	59.9833	118 P 60	3499.14	0.0111	1459.83	45.9783	122 P 46
3497.42	0.0744	7.80	3.0000	129 P 4	3499.33	0.0062	1818.83	36.8919	133 R 36
3497.43	0.0278	2497.45	34.7429	127 P 35	3499.37	0.0341	2443.35	32.7273	127 P 33
3497.45	0.0011	883.23	0.0811	27 Q 24	3499.40	0.0012	2382.37	51.0000	135 R 50
3497.46	0.0190	33.14	10.0000	131 R 9	3499.47	0.0009	2095.00	75.0000	22 P 75
3497.47	0.0086	1736.67	33.8824	134 R 33	3499.47	0.0225	2628.45	56.9298	25 P 57
3497.56	0.0016	828.97	0.0931	28 Q 21	3499.50	0.0219	57.44	13.0000	130 R 12
3497.64	0.0009	3447.70	74.0000	23 P 74	3499.72	0.0005	3414.56	57.9828	118 P 58
3497.65	0.0014	846.46	0.0889	27 Q 22	3499.73	0.0128	1424.72	44.9778	125 P 45
3497.65	0.0321	1429.98	21.0000	132 R 20	3499.76	0.0114	2852.87	47.9792	120 P 48
3497.70	0.0096	1493.18	46.9787	125 P 47	3499.90	0.0056	1847.80	37.8947	134 R 37
3497.74	0.0081	2930.28	49.9800	120 P 50	3499.92	0.0015	3333.40	72.0000	23 P 72
3497.76	0.0020	796.94	0.1026	28 Q 19	3500.08	0.0135	2813.20	46.9787	121 P 47
3497.83	0.0018	812.83	0.0976	27 Q 20	3500.13	0.0128	1425.92	44.9778	123 P 45
3497.95	0.0026	768.04	0.1144	28 Q 17	3500.17	0.0225	67.01	14.0000	131 R 13
3498.00	0.0023	782.31	0.1082	27 Q 18	3500.27	0.0611	649.30	1.5000	28 R 1
3498.01	0.0098	2888.87	48.9796	121 P 49	3500.34	0.0378	2417.47	31.7188	126 P 32
3498.11	0.0077	1763.27	34.8857	133 R 34	3500.37	0.0272	1500.32	25.0000	132 R 24
3498.12	0.0034	742.27	0.1292	28 Q 15	3500.46	0.0008	2462.62	53.0000	135 R 52
3498.14	0.0029	754.93	0.1213	27 Q 16	3500.53	0.0049	1877.52	38.8974	133 R 38
3498.14	0.0096	1494.48	46.9787	123 P 47	3500.55	3.5178	411.95	32.0000	26 P 32
3498.14	0.0201	40.50	11.0000	130 R 10	3500.56	0.0006	3366.09	56.9825	119 P 57
3498.17	0.0015	3255.94	80.9877	20 P 81	3500.61	0.0190	1533.72	20.0000	128 P 20
3498.22	0.0005	3457.23	58.9831	119 P 59	3500.62	0.0273	2583.92	55.9286	24 P 56
3498.26	0.0043	719.61	0.1484	28 Q 13	3500.66	0.0011	2039.97	74.0000	21 P 74
3498.28	0.0006	2150.77	76.0000	21 P 76	3500.67	0.0026	3130.73	78.9873	20 P 79
3498.28	0.0038	730.68	0.1381	27 Q 14	3500.73	0.0148	1391.59	43.9773	124 P 44
3498.31	0.0017	2305.23	49.0000	135 R 48	3500.83	0.0230	77.32	15.0000	130 R 14
3498.39	0.0049	709.55	0.1603	27 Q 12	3501.04	0.1083	650.87	2.6667	27 R 2

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3501.08	0.0044	1908.04	39.9000	134 R 39	3504.05	0.0218	1297.61	40.9756	123 P 41					
3501.12	0.0147	1392.74	43.9773	122 P 44	3504.08	0.2603	664.95	6.8571	0 27 R 6					
3501.15	0.0019	3196.97	79.9875	19 P 80	3504.09	0.0226	139.90	20.0000	131 R 19					
3501.30	0.0410	2392.38	30.7097	127 P 31	3504.14	0.0201	1476.05	16.0000	128 P 16					
3501.32	0.0516	0.00	2.0000	129 R 0	3504.15	0.0526	2321.80	27.6786	126 P 28					
3501.49	0.0232	88.36	16.0000	131 R 15	3504.16	0.0247	2671.20	42.9767	121 P 43					
3501.50	0.0005	2545.98	55.0000	135 R 54	3504.18	0.0023	1879.23	71.0000	22 P 71					
3501.65	0.0333	2540.13	54.9273	25 P 55	3504.19	4.8929	316.79	28.0000	26 P 28					
3501.71	0.0243	1540.17	27.0000	132 R 26	3504.31	0.0010	3238.03	53.9815	118 P 54					
3501.72	0.0038	1939.34	40.9024	133 R 40	3504.33	0.0180	1629.25	31.0000	132 R 30					
3501.73	0.0169	1359.19	42.9767	125 P 43	3504.40	0.0039	3114.05	68.0000	23 P 68					
3501.76	0.0158	2778.58	45.9783	120 P 46	3504.44	0.0001	2814.67	61.0000	135 R 60					
3501.79	0.1498	653.21	3.7500	28 R 3	3504.45	0.1491	7.80	6.0000	129 R 4					
3501.84	0.0015	1935.66	73.0000	22 P 73	3504.52	0.0019	2107.56	45.9130	134 R 45					
3502.03	0.0008	3324.74	55.9821	118 P 56	3504.70	0.0247	1266.42	39.9750	124 P 40					
3502.10	0.0168	1360.29	42.9767	123 P 43	3504.73	0.0221	154.62	21.0000	130 R 20					
3502.13	0.0185	2740.64	44.9778	121 P 45	3504.79	0.2896	670.40	7.8750	28 R 7					
3502.15	0.0233	100.14	17.0000	130 R 16	3504.91	0.0579	2413.51	51.9231	24 P 52					
3502.17	0.0024	3222.18	70.0000	23 P 70	3505.01	0.0247	1267.37	39.9750	122 P 40					
3502.25	0.0034	1971.44	41.9048	134 R 41	3505.08	0.0557	2299.84	26.6667	127 P 27					
3502.26	0.0450	2368.07	29.7000	126 P 30	3505.15	0.0017	2143.51	46.9149	133 R 46					
3502.38	4.1896	362.81	30.0000	26 P 30	3505.16	0.0013	3193.11	52.9811	119 P 53					
3502.39	0.0198	1503.33	18.0000	128 P 18	3505.34	0.0029	1827.11	70.0000	21 P 70					
3502.50	0.0004	2632.44	57.0000	135 R 56	3505.36	0.0215	170.08	22.0000	131 R 21					
3502.57	0.1899	656.35	4.8000	27 R 4	3505.57	0.3188	676.69	8.8889	27 R 8					
3502.73	0.0192	1327.53	41.9762	124 P 42	3505.60	0.0079	2889.55	74.9867	20 P 75					
3502.78	0.0401	2497.16	53.9259	24 P 54	3505.61	0.0152	1678.47	33.0000	132 R 32					
3502.80	0.0232	112.66	18.0000	131 R 17	3505.62	0.0014	2180.30	47.9167	134 R 47					
3502.88	0.0009	3278.05	54.9818	119 P 55	3505.67	0.0278	1236.96	38.9744	125 P 39					
3502.88	0.0029	2004.27	42.9070	133 R 42	3505.70	0.0283	2639.36	41.9762	120 P 42					
3502.89	0.1021	2.34	4.0000	129 R 2	3505.86	0.0198	1451.89	14.0000	128 P 14					
3503.02	0.0019	1932.08	72.0000	21 P 72	3505.94	0.0698	2372.84	50.9216	25 P 51					
3503.03	0.0211	1583.15	29.0000	132 R 28	3505.95	0.0060	2952.31	75.9868	19 P 76					
3503.08	0.0192	1328.58	41.9762	122 P 42	3505.97	0.0276	1237.87	38.9744	123 P 39					
3503.15	0.0046	3008.59	76.9870	20 P 77	3505.98	0.0208	186.28	23.0000	130 R 22					
3503.20	0.0483	2344.54	28.6897	127 P 29	3505.99	5.5995	273.89	26.0000	26 P 26					
3503.30	0.2252	660.24	5.8333	134 R 5	3506.02	0.0602	2278.66	25.6538	126 P 26					
3503.39	0.0025	2037.94	43.9091	138 R 43	3506.02	0.1908	16.39	8.0000	129 R 6					
3503.45	0.0230	125.91	19.0000	130 R 18	3506.17	0.0325	2604.87	40.9756	121 P 41					
3503.49	0.0003	2722.01	59.0000	135 R 58	3506.26	0.3414	683.68	9.9000	28 R 9					
3503.56	0.0033	3073.09	77.9872	19 P 78	3506.26	0.0012	2217.80	48.9184	133 R 48					
3503.72	0.0218	1296.61	40.9756	125 P 44	3506.50	0.0038	1775.72	69.0000	22 P 69					
3503.74	0.0213	2707.41	43.9773	120 P 44	3506.57	0.0016	3154.44	51.9808	118 P 52					
3503.80	0.0487	2454.93	52.9245	25 P 53	3506.61	0.0065	3009.01	66.0000	23 P 66					
3504.03	0.0021	2072.33	44.9111	133 R 44	3506.61	0.0199	203.21	24.0000	131 R 23					



3506.64	0.0312	1208.24	37.9737	124 P 38	3509.75	0.0425	1127.22	34.9714	123 P 35
3506.70	0.0010	2256.16	49.9200	134 R 49	3509.83	0.0004	2502.45	55.9286	134 R 55
3506.87	0.0124	1730.80	35.0000	132 R 34	3509.92	0.0075	1625.93	66.0000	21 P 66
3506.93	0.0311	1209.10	37.9737	122 P 38	3509.95	0.4125	730.68	14.9333	27 R 14
3506.94	0.0630	2258.26	24.6400	127 P 25	3510.11	0.0535	2481.54	36.9730	121 P 37
3507.03	0.0824	2332.98	49.9200	24 P 50	3510.13	0.1367	2218.01	46.9149	25 P 47
3507.05	0.3641	691.56	10.9091	27 R 10	3510.24	0.0141	320.25	30.0000	131 R 29
3507.22	0.0191	220.88	25.0000	130 R 24	3510.43	0.0229	2660.72	70.9859	20 P 71
3507.35	0.0009	2295.22	50.9216	133 R 50	3510.46	0.0471	1100.71	33.9706	124 P 34
3507.43	0.0019	3111.28	50.9804	119 P 51	3510.51	0.0003	2546.15	56.9298	133 R 56
3507.57	0.0188	1430.85	12.0000	128 P 12	3510.53	0.4139	742.27	15.9375	28 R 15
3507.60	0.2254	28.09	10.0000	129 R 8	3510.55	0.0062	1906.52	41.0000	132 R 40
3507.61	0.0347	1180.26	36.9730	125 P 37	3510.59	0.0755	2184.53	20.5714	127 P 21
3507.64	0.0048	1725.06	68.0000	21 P 68	3510.65	0.0176	2720.03	71.9A61	19 P 72
3507.64	0.0370	2574.43	39.9750	120 P 40	3510.68	0.0470	1101.40	33.9706	122 P 34
3507.70	0.3796	700.08	11.9167	28 R 11	3510.75	0.2694	60.87	14.0000	129 R 12
3507.76	6.2746	234.10	24.0000	26 P 24	3510.83	0.0132	342.33	31.0000	130 R 30
3507.77	0.0007	2335.14	51.9231	134 R 51	3510.83	0.0003	2590.77	57.9310	134 R 57
3507.84	0.0182	239.28	26.0000	131 R 25	3510.90	0.0147	1398.11	8.0000	128 P 8
3507.86	0.0674	2238.65	23.6250	126 P 24	3510.96	0.0161	2808.20	62.0000	23 P 62
3507.88	0.0346	1181.07	36.9730	123 P 37	3511.00	0.0032	2996.59	47.9792	118 P 48
3508.03	0.0137	2773.59	72.9863	20 P 73	3511.04	0.0093	1577.46	65.0000	22 P 65
3508.05	0.0985	2293.87	48.9184	25 P 49	3511.19	0.1588	2181.26	45.9130	24 P 46
3508.12	0.0101	1786.26	37.0000	132 R 36	3511.27	7.3627	163.88	20.0000	26 P 20
3508.15	0.0421	2541.65	38.9744	121 P 39	3511.37	0.4161	754.93	16.9412	27 R 16
3508.31	0.0103	2834.62	73.9865	19 P 74	3511.40	0.0514	1075.67	32.9697	125 P 33
3508.42	0.0007	2375.75	52.9245	133 R 52	3511.41	0.0121	365.14	32.0000	131 R 31
3508.44	0.0172	258.42	27.0000	130 R 26	3511.47	0.0598	2453.93	35.9722	120 P 36
3508.51	0.3954	709.55	12.9231	27 R 12	3511.49	0.0786	2168.05	19.5500	126 P 20
3508.57	0.0386	1153.01	35.9722	124 P 36	3511.53	0.0001	2636.02	58.9322	133 R 58
3508.78	0.0060	1675.13	67.0000	22 P 67	3511.57	0.0003	3621.93	96.0000	15 P 96
3508.78	0.0698	2219.83	22.6087	127 P 23	3511.61	0.0514	1076.32	32.9697	123 P 33
3508.80	0.0102	2907.06	64.0000	23 P 64	3511.64	0.0005	3550.10	74.0000	18 P 74
3508.80	0.0022	3073.96	49.9800	118 P 50	3511.74	0.0047	1971.33	43.0000	132 R 42
3508.81	0.0005	2417.24	53.9259	134 R 53	3511.81	0.0001	2682.21	59.9333	134 R 59
3508.82	0.0385	1153.78	35.9722	122 P 36	3511.86	0.0037	2956.94	46.9787	119 P 47
3508.94	0.0003	3667.53	76.0000	18 P 76	3511.92	0.4113	768.04	17.9444	28 R 17
3509.05	0.0162	278.29	28.0000	131 R 27	3511.99	0.0112	388.69	33.0000	130 R 32
3509.12	0.1154	2255.56	47.9167	24 P 48	3512.05	0.0668	2424.56	34.9714	121 P 35
3509.13	0.4037	719.61	13.9286	28 R 13	3512.16	0.0116	1529.72	64.0000	21 P 64
3509.17	0.2518	42.92	12.0000	129 R 10	3512.20	0.1865	2145.28	44.9111	25 P 45
3509.25	0.0170	1412.92	10.0000	128 P 10	3512.33	0.0564	1051.36	31.9688	124 P 32
3509.35	0.0080	1844.83	39.0000	132 R 38	3512.33	0.2780	81.94	16.0000	129 R 14
3509.48	0.0004	2459.39	54.9273	133 R 54	3512.38	0.0795	2152.36	18.5263	127 P 19
3509.52	6.8772	197.43	22.0000	26 P 22	3512.53	0.0563	1051.97	31.9688	122 P 32
3509.52	0.0426	1126.49	34.9714	125 P 35	3512.54	0.0117	1386.42	6.0000	128 P 6
3509.56	0.0476	2512.62	37.9737	120 P 38	3512.56	0.0102	412.98	34.0000	131 R 33
3509.64	0.0152	298.90	29.0000	130 R 28	3512.78	0.4076	782.31	18.9474	27 R 18
3509.66	0.0026	3032.55	48.9796	119 P 49	3512.81	0.0380	2550.95	68.9855	20 P 69
3509.68	0.0736	2201.78	21.5909	126 P 22	3512.91	0.0035	2039.25	45.0000	132 R 44



FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID
3512.96	0.0293	2608.53	69.9857	19 P 70	3515.87	0.0984	2319.93	30.9677	121 P 31					
3512.99	7.6864	133.45	18.0000	26 P 18	3515.89	0.0808	2097.44	14.0000	127 P 15					
3513.10	0.0249	2712.43	60.0000	23 P 60	3515.89	0.0055	574.11	40.0000	131 R 39					
3513.13	0.0093	438.00	35.0000	130 R 34	3515.95	0.3447	864.11	23.9583	28 R 23					
3513.17	0.0043	2922.35	45.9783	118 P 46	3516.00	0.0764	961.48	27.9643	124 P 28					
3513.24	0.2146	2110.09	43.9091	24 P 44	3516.15	0.0763	961.96	27.9643	122 P 28					
3513.26	0.0610	1027.79	30.9677	125 P 31	3516.19	0.0067	2815.03	42.9767	119 P 43					
3513.26	0.0817	2137.45	17.5000	126 P 18	3516.26	0.3295	2009.16	40.9024	25 P 41					
3513.28	0.0144	1482.71	63.0000	22 P 63	3516.29	0.0014	2261.67	51.0000	132 R 50					
3513.28	0.3975	796.94	19.9500	28 R 19	3516.38	7.6860	81.95	14.0000	26 P 14					
3513.35	0.0742	2398.36	33.9706	120 P 34	3516.43	0.0049	603.54	41.0000	130 R 40					
3513.44	0.0610	1028.36	30.9677	123 P 31	3516.58	0.0266	1346.07	60.0000	21 P 60					
3513.69	0.0085	463.75	36.0000	131 R 35	3516.75	0.0802	2085.67	13.3571	126 P 14					
3513.91	0.2782	106.13	18.0000	129 R 16	3516.89	0.3291	883.23	24.9600	27 R 24					
3513.97	0.0818	2370.68	32.9697	121 P 33	3516.90	0.0812	940.86	26.9630	125 P 27					
3514.04	0.0050	2884.43	44.9778	119 P 45	3516.93	0.0012	3324.50	70.0000	18 P 70					
3514.05	0.0027	2110.28	47.0000	132 R 46	3516.96	0.0043	633.70	42.0000	131 R 41					
3514.14	0.0814	2123.33	16.4706	127 P 17	3516.98	0.0011	3328.75	92.0000	15 P 92					
3514.15	0.0081	1377.84	4.0000	128 P 4	3517.04	0.0811	941.29	26.9630	123 P 27					
3514.17	0.3887	812.83	20.9524	27 R 20	3517.07	0.1074	2296.61	29.9667	120 P 30					
3514.18	0.0662	1004.95	29.9667	124 P 30	3517.09	0.2570	163.86	22.0000	129 R 20					
3514.24	0.2500	2075.66	42.9070	25 P 43	3517.26	0.3103	902.38	25.9615	28 R 25					
3514.25	0.0077	490.24	37.0000	130 R 36	3517.27	0.3727	1977.09	39.9000	24 P 40					
3514.29	0.0006	3473.81	94.0000	15 P 94	3517.33	0.0563	2530.19	56.0000	23 P 56					
3514.30	0.0008	3435.75	72.0000	18 P 72	3517.37	0.0009	2342.03	53.0000	132 R 52					
3514.35	0.0661	1005.49	29.9667	122 P 30	3517.44	0.0077	2783.21	41.9762	118 P 42					
3514.38	0.0177	1436.43	62.0000	21 P 62	3517.49	0.0997	2340.68	44.9846	20 P 65					
3514.63	0.3746	828.97	21.9545	28 R 21	3517.49	0.0038	664.59	63.0000	130 R 42					
3514.69	7.8059	106.14	16.0000	26 P 16	3517.53	0.0783	2394.82	65.9848	19 P 66					
3514.80	0.0069	517.46	38.0000	131 R 37	3517.61	0.0771	2074.69	12.3077	127 P 13					
3515.02	0.0824	2109.99	15.4375	126 P 16	3517.67	0.0324	1301.99	59.0000	22 P 59					
3515.09	0.0710	982.85	28.9655	125 P 29	3517.75	0.1160	2272.30	28.9655	121 P 29					
3515.16	0.0620	2444.26	66.9851	20 P 67	3517.80	0.0864	920.96	25.9615	124 P 26					
3515.18	0.0019	2184.42	49.0000	132 R 48	3517.92	0.0863	921.37	25.9615	122 P 26					
3515.22	0.0901	2345.92	31.9688	120 P 32	3518.01	0.0033	696.22	44.0000	131 R 43					
3515.23	0.0378	2619.76	58.0000	23 P 58	3518.05	7.3018	60.88	12.0000	26 P 12					
3515.25	0.0710	983.35	28.9655	123 P 29	3518.07	0.0021	1370.05	1.0000	128 R 0					
3515.26	0.0483	2500.13	67.9853	19 P 68	3518.23	0.2930	923.12	26.9630	27 R 26					
3515.27	0.2854	2042.03	41.9048	24 P 42	3518.25	0.4266	1945.79	38.8974	25 P 39					
3515.32	0.0058	2851.22	43.9773	118 P 44	3518.31	0.0088	2748.74	40.9756	119 P 41					
3515.35	0.0061	545.42	39.0000	130 R 38	3518.44	0.0007	2425.50	55.0000	132 R 54					
3515.49	0.0217	1390.89	61.0000	22 P 61	3518.46	0.0750	2064.49	11.2500	126 P 12					
3515.50	0.2708	133.44	20.0000	129 R 18	3518.53	0.0029	728.59	45.0000	130 R 44					
3515.54	0.3518	846.46	22.9565	27 R 22	3518.54	0.2734	943.77	27.9643	28 R 27					
3515.74	0.0041	1372.39	2.0000	128 P 2	3518.68	0.2383	197.41	24.0000	129 R 22					

3518.69	0.0909	901.81	24.9600	125 P 25	3521.88	0.1919	273.86	28.0000	129 R 26
3518.75	0.0393	1258.63	58.0000	21 P 58	3521.95	0.0688	1132.97	55.0000	22 P 55
3518.80	0.0908	902.18	24.9600	123 P 25	3521.99	0.0010	975.66	52.0000	131 R 51
3518.90	0.1255	2250.42	27.9643	120 P 28	3522.00	0.1956	2193.52	61.9839	19 P 62
3519.04	0.0025	761.68	46.0000	131 R 45	3522.07	0.2450	2142.79	60.9836	20 P 61
3519.26	0.4784	1915.28	37.8947	24 P 38	3522.10	0.0032	3111.28	66.0000	18 P 66
3519.31	0.0702	2055.07	10.1818	127 P 11	3522.13	0.1831	1061.54	32.9697	27 R 32
3519.41	0.0828	2443.72	54.0000	23 P 54	3522.18	0.6775	1828.41	34.8857	25 P 35
3519.48	0.0004	2512.07	57.0000	132 R 56	3522.19	0.1069	832.54	20.9524	125 P 21
3519.53	0.0021	3216.34	68.0000	18 P 68	3522.26	0.1660	1086.65	33.9706	28 R 33
3519.53	0.0100	2718.32	39.9750	118 P 40	3522.26	0.1069	832.81	20.9524	123 P 21
3519.54	0.0022	795.51	47.0000	130 R 46	3522.27	0.0042	3047.84	88.0000	15 P 88
3519.55	0.2555	966.13	28.9655	27 R 28	3522.47	0.0009	1013.89	53.0000	130 R 52
3519.57	0.0958	883.38	23.9583	124 P 24	3522.48	0.0145	2625.51	36.9730	119 P 37
3519.60	0.1342	2227.78	26.9630	121 P 27	3522.50	0.1611	2167.43	23.9583	120 P 24
3519.60	0.0063	1372.39	3.0000	128 R 2	3522.59	0.0137	1386.42	7.0000	128 R 6
3519.64	0.0022	3186.76	90.0000	15 P 90	3522.64	0.0456	2025.25	5.7143	127 P 7
3519.68	0.0957	883.73	23.9583	122 P 24	3522.66	0.0001	2044.79	73.0000	17 P 73
3519.71	6.6426	42.93	10.0000	26 P 10	3522.93	0.0008	1052.85	54.0000	131 R 53
3519.77	0.1247	2292.62	63.9844	19 P 64	3522.96	4.5383	16.39	6.0000	26 P 6
3519.79	0.1575	2240.19	62.9841	20 P 63	3523.01	0.0823	1092.54	54.0000	21 P 54
3519.80	0.2361	988.27	29.9667	28 P 29	3523.05	0.1102	817.06	19.9500	124 P 20
3519.82	0.0476	1216.01	57.0000	22 P 57	3523.11	0.1102	817.31	19.9500	122 P 20
3520.04	0.0019	830.07	48.0000	131 R 47	3523.16	0.7460	1801.02	33.8824	24 P 34
3520.15	0.0662	2046.44	9.1000	126 P 10	3523.25	0.1684	2148.11	22.9565	121 P 23
3520.23	0.5425	1885.54	36.8919	25 P 37	3523.34	0.0001	2678.54	0.4338	127 Q 41
3520.28	0.2161	234.08	26.0000	129 R 24	3523.40	0.1505	1113.93	34.9714	27 R 34
3520.41	0.0114	2685.57	38.9744	119 P 39	3523.40	0.0007	1092.54	55.0000	130 R 54
3520.45	0.0996	865.70	22.9565	125 P 23	3523.45	0.1354	1140.51	35.9722	28 R 35
3520.50	0.0003	2601.74	59.0000	132 R 58	3523.46	0.0374	2019.76	4.5000	126 P 6
3520.54	0.0996	866.02	22.9565	123 P 23	3523.48	0.1670	316.76	30.0000	129 R 28
3520.54	0.0016	865.37	49.0000	130 R 48	3523.50	0.1700	2280.08	50.0000	23 P 50
3520.71	0.1437	2207.36	25.9615	120 P 26	3523.58	0.0001	2646.41	0.4445	126 Q 40
3520.85	0.2184	1012.27	30.9677	27 R 30	3523.63	0.0162	2597.90	35.9722	118 P 36
3520.89	0.0574	1174.12	56.0000	21 P 56	3523.81	0.0002	1989.62	72.0000	16 P 72
3520.98	0.0599	2038.59	8.0000	127 P 9	3523.81	0.0003	2615.05	0.4558	127 Q 39
3521.03	0.0014	901.40	50.0000	131 R 49	3523.85	0.0006	1132.97	56.0000	131 R 55
3521.04	0.1999	1035.90	31.9688	28 R 31	3523.90	0.1121	802.33	18.9474	125 P 19
3521.11	0.0102	1377.84	5.0000	128 R 4	3523.96	0.1121	802.55	18.9474	123 P 19
3521.22	0.6029	1856.59	35.8889	24 P 36	3524.03	0.0003	2584.48	0.4676	126 Q 38
3521.32	0.1038	848.75	21.9545	124 P 22	3524.05	0.0167	1398.11	9.0000	128 R 8
3521.34	5.7138	28.10	8.0000	26 P 28	3524.06	0.0979	1052.85	53.0000	22 P 53
3521.41	0.1039	849.05	21.9545	122 P 22	3524.11	0.8306	1774.41	32.8788	25 P 33
3521.44	0.1520	2186.39	24.9600	121 P 25	3524.20	0.3020	2097.53	59.9833	19 P 60
3521.47	0.1196	2360.35	52.0000	23 P 52	3524.25	0.0003	2554.69	0.4801	127 Q 37
3521.50	0.0001	2100.71	74.0000	16 P 74	3524.27	0.1765	2130.63	21.9545	120 P 22
3521.50	0.0001	2694.52	61.0000	132 R 60	3524.27	0.0268	2015.05	3.2000	127 P 5
3521.51	0.0012	938.16	51.0000	130 R 50	3524.31	0.0004	1174.12	57.0000	130 R 56
3521.59	0.0129	2656.55	37.9737	118 P 38	3524.32	0.3748	2048.50	58.9831	20 P 59
3521.81	0.0539	2031.53	6.8750	126 P 8	3524.46	0.0004	2525.68	0.4932	126 Q 36



LINE INTENSITY		E		L		BAND		LINE INTENSITY		E		L		BAND			
FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY		
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
CM	CM / ATM CM	CM	CM / ATM CM	CM	CM / ATM CM	CM	CM / ATM CM	CM	CM / ATM CM	CM	CM / ATM CM	CM	CM / ATM CM	CM	CM / ATM CM		
	STP		STP		STP		STP		STP		STP		STP		STP		
3524.52	0.0180	2568.57	34.9714	119 P 35	326.53	0.0222	32.9697	119 P 33	2514.74	0.0031	2184.53	0.8377	27 R 0 21	1957.31	0.5644	1957.31	20 P 57
3524.56	3.1558	7.80	4.0000	26 P 4	3526.55	0.5644	56.9825	20 P 57	1957.31	1.0794	1699.27	29.8667	24 P 30	2238.65	0.0021	2238.65	126 Q 24
3524.63	0.0052	309.31	64.0000	18 P 64	3526.55	0.0021	0.7350	126 Q 24	2238.65	0.0036	2168.05	0.8786	126 Q 20	2219.83	0.0023	2219.83	127 Q 23
3524.63	0.1084	1197.49	37.9737	28 R 37	3526.69	0.0023	0.7663	127 Q 23	2219.83	0.0752	1289.82	40.9756	27 R 40	411.91	0.1193	411.91	129 R 32
3524.64	0.1215	1169.44	36.9730	27 R 36	3526.70	0.1193	34.0000	129 R 32	411.91	0.0082	2910.44	62.0000	18 P 62	411.91	0.1929	411.91	129 R 32
3524.67	0.0004	2497.45	0.5071	127 Q 35	3526.81	0.1929	18.9474	121 P 19	411.91	0.1614	938.16	50.0000	21 P 50	2080.93	0.8044	2080.93	121 P 19
3524.75	0.1140	788.32	17.9444	124 P 18	3526.82	0.8044	0.8044	126 Q 22	2201.78	0.0040	2152.36	69.0000	17 P 69	2201.78	0.0001	2201.78	126 Q 22
3524.75	0.0003	1216.01	58.0000	131 R 57	3526.90	0.0001	63.0000	130 R 62	1436.43	0.0005	1828.62	14.9333	125 P 15	1436.43	0.0204	1436.43	130 R 62
3524.80	0.1141	788.52	17.9444	122 P 18	3526.91	0.0204	13.0000	128 R 12	1436.43	0.1136	750.74	14.9333	125 P 15	1430.85	0.0658	1430.85	128 R 12
3524.87	0.0078	2911.99	86.0000	15 P 86	3526.92	0.0658	41.9762	28 R 41	1320.80	0.1137	750.88	14.9333	125 P 15	41.9762	0.0031	41.9762	28 R 41
3524.87	0.0005	2470.01	0.5218	126 Q 34	3526.94	0.0031	0.8377	28 R 41	1320.80	0.0046	2137.45	0.9737	126 Q 18	2184.53	0.0046	2184.53	126 Q 18
3524.95	0.0004	1935.20	71.0000	17 P 71	3526.97	0.0046	29.8667	24 P 30	2184.53	0.0051	2123.33	1.0294	127 Q 17	1699.27	0.0051	1699.27	127 Q 17
3525.04	0.1825	2112.96	20.9524	121 P 21	3527.06	0.0051	0.8786	126 Q 20	2168.05	0.0146	2779.22	84.0000	15 P 84	2168.05	0.0146	2168.05	126 Q 20
3525.06	0.0005	2443.35	0.5374	127 Q 33	3527.08	0.0146	40.9756	27 R 40	2168.05	0.0058	2109.99	1.0919	126 Q 16	1289.82	0.0058	1289.82	126 Q 16
3525.08	0.9061	1748.58	31.8750	24 P 32	3527.13	0.0058	62.0000	18 P 62	2910.44	0.3264	2128.87	46.0000	23 P 46	2910.44	0.3264	2910.44	18 P 62
3525.08	0.0152	2011.13	1.7500	126 P 4	3527.17	0.3264	50.0000	21 P 50	938.16	0.0244	2489.98	31.9688	118 P 32	938.16	0.0244	938.16	21 P 50
3525.09	0.1425	362.78	32.0000	129 R 30	3527.18	0.0244	69.0000	17 P 69	2152.36	0.0075	2085.67	1.2429	126 Q 14	2152.36	0.0075	2152.36	129 R 30
3525.10	0.1162	1013.89	52.0000	21 P 52	3527.22	0.0075	14.9333	125 P 15	1828.62	0.0083	2074.69	1.3352	127 Q 13	1828.62	0.0083	1828.62	21 P 52
3525.19	0.0003	1258.63	59.0000	130 R 58	3527.25	0.0083	17.9444	126 Q 18	750.74	0.1974	2066.42	17.9444	120 P 18	750.74	0.1974	750.74	130 R 58
3525.25	0.0007	2417.47	0.5540	126 Q 32	3527.28	0.1974	14.9333	125 P 15	2066.42	0.0096	2066.42	17.9444	120 P 18	2417.47	0.0096	2417.47	126 Q 32
3525.44	0.0008	2392.38	0.5716	127 Q 31	3527.28	0.0096	0.9737	126 Q 18	2137.45	0.0108	2055.07	1.5682	127 Q 11	2392.38	0.0108	2392.38	127 Q 31
3525.49	0.0189	1412.92	11.0000	128 R 10	3527.39	0.0108	1.0294	127 Q 17	2123.33	1.1788	1675.78	28.8621	25 P 29	1412.92	1.1788	1412.92	128 R 10
3525.52	0.2375	2202.92	48.0000	23 P 48	3527.44	0.0108	84.0000	15 P 84	2779.22	0.0126	2046.44	1.7182	126 Q 10	2202.92	0.0126	2202.92	23 P 48
3525.59	0.1144	775.06	16.9412	125 P 17	3527.48	0.0126	1.0919	126 Q 16	2109.99	0.0500	1387.12	43.9773	28 R 43	775.06	0.0500	775.06	125 P 17
3525.61	0.0009	2368.07	0.5903	126 Q 30	3527.52	0.0500	46.0000	23 P 46	2128.87	0.0244	2489.98	31.9688	118 P 32	2368.07	0.0244	2368.07	126 Q 30
3525.63	0.1145	775.24	16.9412	123 P 17	3527.57	0.0244	69.0000	17 P 69	2128.87	0.0075	2085.67	1.2429	126 Q 14	775.24	0.0075	775.24	123 P 17
3525.63	0.0002	1301.99	60.0000	131 R 59	3527.63	0.0075	31.9688	118 P 32	2489.98	0.0083	2074.69	1.3352	127 Q 13	1301.99	0.0083	1301.99	131 R 59
3525.63	0.0201	2542.38	33.9706	118 P 34	3527.63	0.0083	17.9444	126 Q 18	2085.67	0.1974	2066.42	17.9444	120 P 18	2542.38	0.1974	2542.38	118 P 34
3525.64	0.0852	1257.58	39.9750	28 R 39	3527.66	0.1974	14.9333	125 P 15	2074.69	0.0096	2066.42	17.9444	120 P 18	1257.58	0.0096	1257.58	28 R 39
3525.78	0.0011	2344.54	0.6103	127 Q 29	3527.76	0.0096	17.9444	126 Q 18	2066.42	0.0108	2055.07	1.5682	127 Q 11	2344.54	0.0108	2344.54	127 Q 29
3525.87	0.0964	1228.07	38.9744	27 R 38	3527.81	0.0108	1.4423	126 Q 12	2055.07	1.1788	1675.78	28.8621	25 P 29	1228.07	1.1788	1228.07	27 R 38
3525.95	0.0012	2321.80	0.6318	126 Q 28	3527.88	0.0108	1.5682	127 Q 11	2055.07	0.0126	2046.44	1.7182	126 Q 10	2321.80	0.0126	2321.80	126 Q 28
3525.95	0.9991	1723.53	30.8710	25 P 31	3527.91	0.0126	28.8621	25 P 29	1675.78	0.0500	1387.12	43.9773	28 R 43	1723.53	0.0500	1723.53	25 P 31
3526.02	0.1890	2096.96	19.9500	120 P 20	3527.94	0.0126	1.7182	126 Q 10	2046.44	0.0500	1387.12	43.9773	28 R 43	2096.96	0.0500	2096.96	120 P 20
3526.03	0.0002	1346.07	61.0000	130 R 60	3528.00	0.0126	43.9773	28 R 43	2046.44	0.0500	1387.12	43.9773	28 R 43	1346.07	0.0500	1346.07	130 R 60
3526.06	0.0004	1881.54	70.0000	16 P 70	3528.03	0.0500	43.9773	28 R 43	2038.59	0.0167	2031.53	2.1250	126 Q 8	1881.54	0.0167	1881.54	16 P 70
3526.09	0.0014	2299.84	0.6548	127 Q 27	3528.03	0.0167	2.1250	126 Q 8	2038.59	0.1122	739.68	13.9286	124 P 14	2299.84	0.1122	2299.84	127 Q 27
3526.11	0.0014	2299.84	0.6548	127 Q 27	3528.05	0.1122	13.9286	124 P 14	2031.53	0.0193	2025.25	2.4107	127 Q 7	2299.84	0.0193	2299.84	127 Q 27
3526.14	1.6211	975.66	51.0000	22 P 51	3528.07	0.0193	2.4107	127 Q 7	2031.53	0.1123	739.80	13.9286	122 P 14	975.66	0.1123	975.66	22 P 51
3526.14	2.34	2.34	2.0000	26 P 2	3528.09	0.1123	13.9286	122 P 14	2025.25	0.0231	2019.76	2.7857	126 Q 6	2.34	0.0231	2.34	26 P 2
3526.26	0.0016	2278.66	0.6795	126 Q 26	3528.10	0.0231	2.7857	126 Q 6	2019.76	0.0271	2015.05	3.3000	126 Q 5	2278.66	0.0271	2278.66	126 Q 26
3526.37	0.4588	2004.64	57.9828	19 P 58	3528.13	0.0231	3.3000	126 Q 5	2019.76	0.0351	2011.13	4.0500	126 Q 4	2004.64	0.0351	2004.64	19 P 58
3526.41	0.0018	2258.41	0.7052	124 Q 25	3528.17	0.0351	4.0500	126 Q 4	2015.05	0.1892	901.40	49.0000	22 P 49	2258.41	0.1892	2258.41	124 Q 25
3526.42	0.1148	762.53	15.9375	124 P 16	3528.19	0.1892	49.0000	22 P 49	2011.13	0.0456	2007.99	5.2500	127 Q 3	762.53	0.0456	762.53	124 P 16
3526.46	0.1149	762.69	15.9375	122 P 16	3528.20	0.0456	5.2500	127 Q 3	2007.99	0.0456	2007.99	5.2500	127 Q 3	762.69	0.0456	762.69	122 P 16
3526.46	0.0001	1390.89	62.0000	131 R 61	3528.22	0.0456	5.2500	127 Q 3	2007.99	0.0456	2007.99	5.2500	127 Q 3	1390.89	0.0456	1390.89	131 R 61



3528.26	0.0575	1354.69	42.9767	27 R 42	3531.55	3.9526	7.80	5.0000	26 R 4
3528.30	0.0213	1451.89	15.0000	128 R 14	3531.55	0.0627	577.99	40.0000	129 R 38
3528.31	0.0981	464.16	36.0000	129 R 34	3531.61	1.5434	1589.67	24.8400	25 P 25
3528.34	0.0006	1776.45	68.0000	16 P 68	3531.68	0.0013	1624.47	65.0000	17 P 65
3528.49	0.8204	0.00	1.0000	26 R 0	3531.72	0.0233	1568.01	48.9796	27 R 48
3528.52	0.0266	2464.02	30.9677	119 P 31	3532.00	0.01919	2003.59	12.9231	121 P 13
3528.53	0.6857	1914.86	55.9821	19 P 56	3532.02	0.0002	1390.89	61.0000	117 P 61
3528.56	0.1987	2052.03	16.9412	121 P 17	3532.04	0.0192	2722.01	58.0000	18 P 58
3528.76	0.8361	1869.23	54.9818	20 P 55	3532.09	0.0278	2011.13	3.2000	126 R 4
3528.77	0.0001	1529.72	64.0000	116 P 64	3532.10	0.0886	695.51	8.8889	123 P 9
3528.85	1.2609	1653.08	27.8571	24 P 28	3532.10	0.0885	695.46	8.8889	125 P 9
3528.89	0.1090	729.36	12.9231	125 P 13	3532.23	0.3431	761.68	45.0000	22 P 45
3528.91	0.1091	729.47	12.9231	123 P 13	3532.25	0.0140	1683.53	51.9808	28 R 51
3529.12	0.0373	1456.56	45.9783	28 R 45	3532.32	0.0201	1533.72	21.0000	128 R 20
3529.21	0.2209	865.37	48.0000	21 P 48	3532.41	0.0362	2371.94	26.9630	119 P 27
3529.43	0.0433	1422.68	44.9778	27 R 44	3532.50	0.0484	2522.89	80.0000	15 P 20
3529.46	0.0008	1725.04	67.0000	17 P 67	3532.53	1.6163	1570.10	23.8333	24 P 24
3529.48	0.2004	2039.01	15.9375	120 P 16	3532.78	0.0016	1575.31	64.0000	16 P 64
3529.50	0.4410	2057.92	44.0000	23 P 44	3532.78	1.4579	1744.63	51.9A08	19 P 52
3529.59	0.0290	2440.71	29.9667	118 P 30	3532.83	0.0167	1645.34	50.9804	27 R 50
3529.60	0.0126	2814.67	60.0000	18 P 60	3532.84	0.0378	2015.05	4.5000	127 R 5
3529.66	0.0215	1476.05	17.0000	128 R 16	3532.87	0.1870	1993.58	11.9167	120 P 12
3529.70	0.1058	719.78	11.9167	124 P 12	3532.88	0.0814	688.83	7.8750	124 P 8
3529.72	0.1059	719.87	11.9167	122 P 12	3532.89	0.0815	688.87	7.8750	122 P 8
3529.77	1.3630	1631.16	26.8519	25 P 27	3533.05	5.3098	16.39	7.0000	26 R 6
3529.86	0.0001	1482.71	63.0000	117 P 63	3533.10	1.7463	1702.37	50.9804	20 P 51
3529.93	0.0792	519.52	38.0000	129 R 36	3533.10	0.0003	1346.07	60.0000	116 P 60
3529.99	0.0268	2649.52	82.0000	15 P 82	3533.18	0.0489	639.58	42.0000	129 R 40
3530.03	2.4344	2.34	3.0000	26 R 2	3533.23	0.3942	728.59	44.0000	21 P 44
3530.19	0.0274	1529.11	47.9792	28 R 47	3533.25	0.0098	1765.41	53.9815	28 R 53
3530.23	0.2568	830.07	47.0000	22 P 47	3533.39	0.7643	1925.35	40.0000	23 P 40
3530.29	0.1986	2026.24	14.9333	121 P 15	3533.42	0.0388	2351.53	25.9615	118 P 26
3530.48	0.0314	2416.42	28.9655	119 P 29	3533.44	1.7097	1551.30	22.8261	25 P 23
3530.51	0.1007	710.94	10.9091	125 P 11	3533.58	0.0475	2019.76	5.7143	126 R 6
3530.52	0.1008	711.01	10.9091	123 P 11	3533.62	0.0187	1567.23	23.0000	128 R 22
3530.57	0.0011	1674.38	66.0000	16 P 66	3533.66	0.0728	682.96	6.8571	123 P 7
3530.58	0.0320	1493.78	46.9787	27 R 46	3533.66	0.0727	682.93	6.8571	125 P 7
3530.66	1.0082	1828.19	53.9815	19 P 54	3533.68	0.1782	1984.05	10.9091	121 P 11
3530.70	1.4429	1610.03	25.8462	24 P 26	3533.88	0.0020	1526.90	63.0000	17 P 63
3530.94	1.2184	1784.25	52.9811	20 P 53	3533.92	0.0117	1725.79	52.9811	27 R 52
3530.94	0.0002	1436.43	62.0000	116 P 62	3534.17	0.0003	1301.99	59.0000	117 P 59
3531.00	0.0211	1503.33	19.0000	128 R 18	3534.21	0.4509	696.22	43.0000	22 P 43
3531.18	0.1971	2014.73	13.9286	120 P 14	3534.23	0.0067	1850.39	55.9821	28 R 55
3531.23	0.2974	795.51	46.0000	21 P 46	3534.32	0.0410	2330.58	24.9600	119 P 25
3531.23	0.0198	1604.77	49.9800	28 R 49	3534.32	0.0551	2025.25	6.8750	127 R 2
3531.30	0.0955	702.83	9.9000	124 P 10	3534.34	1.7703	1533.30	21.8182	24 P 22
3531.31	0.0956	702.89	9.9000	122 P 10	3534.44	0.0637	677.79	5.8333	122 P 6
3531.33	0.0153	2007.99	1.7500	127 R 3	3534.44	0.0636	677.77	5.8333	124 P 6
3531.46	0.5857	1990.08	42.0000	23 P 42	3534.45	0.0287	2632.44	56.0000	18 P 56
3531.52	0.0338	2394.56	27.9643	118 P 28	3534.53	0.1696	1975.56	9.9000	120 P 10

LINE	FREQ	INTENSITY	E	L	BAND	FREQ	INTENSITY	E	L	BAND
	CM	CM / ATM CM	CM		ID	CM	CM / ATM CM	CM		ID
	-1	-1	-1			-1	-1	-1		
		STP					STP			
3534.54	6.4521	0.0373	28.10	9.0000	26 R 8	3536.81	0.0002	941.29	0.0728	123 Q 27
3534.81	0.0373	0.0373	704.28	44.0000	129 R 42	3536.82	0.0421	2545.98	54.0000	18 P 54
3534.87	2.0737	0.0170	1664.18	49.9800	19 P 50	3536.93	2.9005	1586.85	47.9792	12 P 46
3534.89	0.0170	0.0170	1603.85	25.0000	128 R 24	3536.96	0.0002	921.37	0.0755	19 Q 28
3534.97	0.0024	0.0024	1479.25	62.0000	16 P 62	3536.99	0.0003	901.81	0.0785	125 Q 25
3534.99	0.0861	0.0080	2399.35	78.0000	15 P 78	3537.01	1.1295	1954.36	6.8571	121 P 7
3534.99	0.0080	0.0080	1809.35	54.9818	27 R 54	3537.01	1.9542	1483.96	18.7895	25 P 19
3535.06	0.0629	0.0046	2031.53	8.0000	126 R 54	3537.07	0.0019	2123.96	61.9839	28 R 61
3535.19	0.0046	0.0046	1938.48	57.9828	28 R 57	3537.07	0.0037	1985.81	58.9831	27 R 58
3535.20	0.5137	0.0534	664.59	42.0000	21 P 42	3537.11	0.0003	902.18	0.0785	123 Q 25
3535.20	0.0534	0.0534	673.36	4.8000	123 P 5	3537.11	0.0003	883.38	0.0817	124 Q 24
3535.20	0.0533	0.0005	1258.63	4.8000	125 P 5	3537.13	0.0038	1386.20	60.0000	16 P 60
3535.23	0.0005	0.0005	1623.61	58.0000	116 P 58	3537.14	0.6586	603.54	40.0000	21 P 40
3535.24	2.4618	1.8507	1516.07	48.9796	20 P 49	3537.16	0.0477	2274.86	21.9545	118 P 22
3535.24	1.8507	0.9502	1863.73	20.8095	25 P 21	3537.21	1.2347	1805.23	36.0000	23 P 36
3535.31	0.9502	0.0435	2311.63	38.0000	23 P 38	3537.23	0.0780	2055.07	11.2500	127 R 11
3535.31	0.0435	0.1574	1967.64	23.9583	118 P 24	3537.25	0.0003	883.73	0.0817	122 Q 24
3535.35	0.1574	0.0683	2038.59	8.8889	121 P 9	3537.26	0.0003	865.70	0.0851	125 Q 23
3535.79	0.0683	0.0001	1027.79	9.1000	127 R 9	3537.35	3.4125	1547.95	46.9787	20 P 47
3535.91	0.0001	0.0001	669.67	0.0635	125 Q 31	3537.35	0.0007	1174.12	56.0000	116 P 56
3535.96	0.0427	0.0425	669.66	3.7500	122 P 4	3537.36	0.0133	1686.44	29.0000	128 R 28
3535.96	0.0425	0.0055	42.93	3.7500	124 P 4	3537.39	0.0003	866.02	0.0851	123 Q 23
3536.00	7.3407	0.0055	1896.03	11.0000	26 R 10	3537.40	0.0004	848.75	0.0889	124 Q 22
3536.04	0.0055	0.0031	1432.35	56.9825	27 R 56	3537.45	0.1509	2278.89	76.0000	15 P 76
3536.05	0.0031	0.0001	1004.95	61.0000	17 P 61	3537.45	7.9539	60.88	13.0000	26 R 12
3536.10	0.0001	0.0030	2029.67	0.0656	124 Q 30	3537.47	0.0175	664.50	1.5000	122 P 2
3536.12	0.0030	1.8931	1499.63	59.9833	28 R 59	3537.47	0.0174	664.50	1.5000	124 P 2
3536.13	1.8931	0.0001	1028.36	19.8000	24 P 20	3537.52	0.0004	849.05	0.0889	122 Q 22
3536.14	0.0001	0.0011	1643.59	0.0635	123 Q 31	3537.53	0.0004	832.54	0.0931	125 Q 21
3536.14	0.0011	0.0529	633.70	27.0000	128 R 26	3537.64	0.0004	832.81	0.0931	123 Q 21
3536.17	0.0529	0.1451	1960.68	41.0000	22 P 41	3537.66	0.0005	817.06	0.0976	124 Q 20
3536.17	0.1451	0.0002	2292.34	7.8750	120 P 8	3537.76	0.0005	817.31	0.0976	122 Q 20
3536.20	0.0002	0.0006	982.85	22.9565	119 P 23	3537.79	0.0006	802.33	0.1026	125 Q 19
3536.28	0.0006	0.0001	1216.01	0.0678	125 Q 29	3537.80	0.1139	1948.93	5.8333	120 P 6
3536.29	0.0001	0.0001	1005.49	57.0000	117 P 57	3537.88	0.0006	802.55	0.1026	123 Q 19
3536.32	0.0001	0.0021	772.09	0.0656	122 Q 30	3537.89	1.9727	1469.09	17.7778	24 P 18
3536.44	0.0021	0.0002	961.48	46.0000	129 R 44	3537.90	0.0007	788.32	0.1082	124 Q 18
3536.46	0.0002	0.0002	983.35	0.0702	124 Q 28	3537.91	0.0013	2221.35	63.9844	28 R 63
3536.49	0.0002	0.0002	2046.44	0.0678	123 Q 29	3537.94	0.0825	2064.49	12.5077	126 R 12
3536.51	0.0744	0.0002	940.86	10.1818	126 R 10	3537.98	0.0007	788.52	0.1082	122 Q 18
3536.63	0.0002	0.0002	961.96	0.0728	125 Q 27	3538.01	0.0007	775.06	0.1144	125 Q 17
3536.65	0.0002	0.0306	666.72	0.0702	122 Q 28	3538.05	0.0493	2257.22	20.9524	119 P 21
3536.72	0.0306	0.0002	666.71	2.6667	123 P 3	3538.08	0.0024	2078.70	60.9836	27 R 60
3536.80	0.0002	0.0002	920.96	0.0755	124 Q 26	3538.08	0.0208	843.00	48.0000	129 R 46
3536.80	0.0002	0.0002	920.96	0.0755	124 Q 26	3538.09	0.0007	775.24	0.1144	123 Q 17



3538.11	0.7411	574.11	39.0000	22 P 39	3539.44	4.6510	1475.40	44.9778	20 P 45
3538.12	0.0008	762.53	0.1213	124 Q 16	3539.44	0.0009	1092.54	54.0000	116 P 54
3538.18	0.0008	762.69	0.1213	122 Q 16	3539.56	0.0001	2370.68	0.0597	121 Q 33
3538.20	0.0047	1340.80	59.0000	17 P 59	3539.61	0.0005	2425.43	67.9853	28 P 67
3538.22	0.0009	750.74	0.1292	125 Q 15	3539.64	1.9977	1441.68	15.7500	24 P 16
3538.27	0.0009	750.88	0.1292	123 Q 15	3539.72	0.0151	917.03	50.0000	129 P 48
3538.31	0.0012	739.68	0.1381	124 Q 14	3539.73	0.0095	1781.48	33.0000	128 R 32
3538.36	0.0012	739.80	0.1381	122 Q 14	3539.87	0.0521	2225.22	18.9474	119 P 19
3538.39	0.0013	729.36	0.1484	125 Q 13	3539.88	0.2601	2161.51	74.0000	15 P 74
3538.40	0.0008	1132.97	55.0000	117 P 55	3539.91	0.0003	2319.93	0.0635	121 Q 31
3538.44	0.0013	729.47	0.1484	123 Q 13	3540.01	0.9264	517.46	37.0000	22 P 37
3538.47	0.0015	719.78	0.1603	124 Q 12	3540.03	0.0010	2273.79	64.9846	27 R 64
3538.51	0.0015	719.87	0.1603	122 Q 12	3540.04	0.0871	2097.44	15.4375	127 R 15
3538.55	0.0016	710.94	0.1742	125 Q 11	3540.12	0.0001	2345.92	0.0616	120 Q 32
3538.55	0.0113	1732.40	31.0000	128 R 30	3540.21	0.0548	1937.17	2.6667	121 P 3
3538.58	0.0016	711.01	0.1742	123 Q 11	3540.24	0.0003	2272.30	0.0678	121 Q 29
3538.61	0.0953	1944.20	4.8000	121 P 5	3540.30	8.3542	106.14	17.0000	26 R 16
3538.61	0.0019	702.83	0.1909	124 Q 10	3540.32	0.0069	1252.27	57.0000	17 P 57
3538.64	0.0019	702.89	0.1909	122 Q 10	3540.41	0.0003	2296.61	0.0656	120 Q 30
3538.64	0.0842	2074.69	13.3571	127 R 13	3540.41	0.0175	663.03	1.5000	123 R 1
3538.67	0.0021	695.46	0.2111	125 Q 9	3540.41	0.0175	663.03	1.5000	125 R 1
3538.70	0.0021	695.51	0.2111	123 Q 9	3540.43	0.0003	2532.12	69.9857	28 R 69
3538.73	0.0024	688.83	0.2361	124 Q 8	3540.48	0.0011	1052.85	53.0000	117 P 53
3538.75	0.0025	688.87	0.2361	122 Q 8	3540.50	2.0022	1429.15	14.7333	25 P 15
3538.77	2.0083	1454.99	16.7647	25 P 17	3540.55	0.0004	2227.78	0.0728	121 Q 27
3538.77	0.0008	2321.84	65.9848	28 R 65	3540.69	0.0003	2250.42	0.0702	120 Q 28
3538.78	0.0028	682.93	0.2679	125 Q 7	3540.72	0.0885	2109.99	16.4706	126 R 16
3538.79	0.0028	682.96	0.2679	123 Q 7	3540.79	0.0533	2210.70	17.9444	118 P 18
3538.82	0.0034	677.77	0.3095	124 Q 6	3540.83	0.0005	2186.39	0.0785	121 Q 25
3538.83	0.0034	677.79	0.3095	122 Q 6	3540.88	0.0078	1833.67	35.0000	128 R 34
3538.86	0.0040	673.35	0.3667	125 Q 5	3540.94	0.0004	2207.36	0.0755	120 Q 26
3538.87	0.0040	673.36	0.3667	123 Q 5	3540.96	1.0292	490.24	36.0000	21 P 36
3538.89	8.2877	81.95	15.0000	26 R 14	3540.96	1.8540	1697.56	32.0000	23 P 32
3538.89	0.0051	669.67	0.4500	122 Q 4	3540.98	0.0007	2375.99	66.9851	27 R 66
3538.89	0.0051	669.66	0.4500	124 Q 4	3541.00	0.0314	1934.83	1.5000	120 P 2
3538.91	0.0067	666.71	0.5833	125 Q 3	3541.01	5.3934	1441.53	43.9773	19 P 44
3538.92	0.0067	666.72	0.5833	123 Q 3	3541.09	0.0006	2148.11	0.0851	121 Q 23
3538.93	0.0097	664.50	0.8333	122 Q 2	3541.12	0.0311	664.50	2.6667	124 R 2
3538.93	0.0097	664.50	0.8333	124 Q 2	3541.13	0.0311	664.50	2.6667	122 R 2
3538.94	0.0175	663.03	1.5000	123 Q 1	3541.18	0.0005	2167.43	0.0817	120 Q 24
3538.94	0.0175	663.03	1.5000	125 Q 1	3541.22	0.0001	2641.89	71.9861	28 R 71
3538.98	3.9890	1512.63	45.9783	19 P 46	3541.33	0.0008	2112.96	0.0931	121 Q 21
3538.99	0.0511	2241.22	19.9500	118 P 20	3541.36	1.9582	1417.40	13.7143	24 P 14
3539.06	0.8303	545.42	38.0000	21 P 38	3541.37	0.0109	994.16	52.0000	129 R 50
3539.07	0.0015	2174.69	62.9841	27 R 62	3541.38	0.0084	1209.13	56.0000	16 P 56
3539.09	1.5271	1749.84	34.0000	23 P 34	3541.40	0.0008	2130.63	0.0889	120 Q 22
3539.17	0.0609	2462.62	52.0000	18 P 52	3541.41	0.0872	2123.33	17.5000	127 R 17
3539.26	0.0057	1296.16	58.0000	16 P 58	3541.48	0.0866	2382.37	50.0000	18 P 50
3539.34	0.0871	2085.67	14.4000	126 R 14	3541.50	6.2313	1405.97	42.9767	20 P 43
3539.41	0.0764	1940.31	3.7500	120 P 4	3541.51	0.0013	1013.89	52.0000	116 P 52



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3541.55	0.0010	2080.93	0.1026	121 Q 19	3543.26	0.0650	673.36	5.8333	123 R 5	3543.26	0.0650	673.36	5.8333	123 R 5
3541.60	0.0009	2096.96	0.0976	120 Q 20	3543.42	0.0835	2168.05	20.5714	126 R 20	3543.42	0.0835	2168.05	20.5714	126 R 20
3541.67	0.0536	2196.33	16.9412	119 P 17	3543.44	0.0537	2170.57	14.9333	119 P 15	3543.44	0.0537	2170.57	14.9333	119 P 15
3541.70	8.1798	133.45	19.0000	26 R 17	3543.47	0.0122	1125.12	54.0000	16 P 54	3543.47	0.0122	1125.12	54.0000	16 P 54
3541.75	0.0014	2052.03	0.1144	121 Q 17	3543.54	8.2054	1339.65	40.9756	20 P 41	3543.54	8.2054	1339.65	40.9756	20 P 41
3541.78	0.0011	2066.42	0.1082	120 Q 18	3543.56	0.0017	938.16	50.0000	116 P 50	3543.56	0.0017	938.16	50.0000	116 P 50
3541.84	0.0430	666.71	3.7500	125 R 3	3543.68	0.0001	2701.20	72.9863	27 R 72	3543.68	0.0001	2701.20	72.9863	27 R 72
3541.85	0.0432	666.72	3.7500	123 R 3	3543.76	0.1209	2305.23	48.0000	18 P 48	3543.76	0.1209	2305.23	48.0000	18 P 48
3541.90	1.1384	463.75	35.0000	22 P 35	3543.76	1.3743	412.98	33.0000	22 P 33	3543.76	1.3743	412.98	33.0000	22 P 33
3541.90	0.0004	2481.30	68.9855	27 R 68	3543.82	0.0003	2779.40	84.0000	14 P 84	3543.82	0.0003	2779.40	84.0000	14 P 84
3541.93	0.0018	2026.24	0.1292	121 Q 15	3543.91	1.7769	1386.85	10.6364	25 P 11	3543.91	1.7769	1386.85	10.6364	25 P 11
3541.94	0.0015	2039.01	0.1213	120 Q 16	3543.94	0.0750	677.77	6.8571	124 R 6	3543.94	0.0750	677.77	6.8571	124 R 6
3542.00	0.0063	1888.97	37.0000	128 R 36	3543.96	0.0751	677.79	6.8571	122 R 6	3543.96	0.0751	677.79	6.8571	122 R 6
3542.08	0.0020	2014.73	0.1381	120 Q 14	3544.08	0.0800	2184.53	21.5909	127 R 21	3544.08	0.0800	2184.53	21.5909	127 R 21
3542.08	0.0023	2003.59	0.1484	121 Q 13	3544.12	0.0315	1933.26	1.5000	121 R 1	3544.12	0.0315	1933.26	1.5000	121 R 1
3542.08	0.0872	2137.45	18.5263	126 R 12	3544.17	0.0039	2008.90	41.0000	128 R 40	3544.17	0.0039	2008.90	41.0000	128 R 40
3542.21	0.0025	1993.58	0.1603	120 Q 12	3544.32	0.0532	2159.06	13.9286	118 P 14	3544.32	0.0532	2159.06	13.9286	118 P 14
3542.22	1.9270	1406.43	12.6923	25 P 13	3544.43	7.2612	197.43	23.0000	26 R 22	3544.43	7.2612	197.43	23.0000	26 R 22
3542.22	0.0029	1984.05	0.1742	121 Q 11	3544.51	0.0145	1084.25	53.0000	17 P 53	3544.51	0.0145	1084.25	53.0000	17 P 53
3542.29	0.4413	2047.21	72.0000	15 P 72	3544.58	0.0020	901.40	49.0000	117 P 49	3544.58	0.0020	901.40	49.0000	117 P 49
3542.32	0.0032	1975.56	0.1909	120 Q 10	3544.62	2.5791	1602.36	28.0000	23 P 28	3544.62	2.5791	1602.36	28.0000	23 P 28
3542.33	0.0037	1967.64	0.2111	121 Q 9	3544.63	0.0837	682.93	7.8750	125 R 7	3544.63	0.0837	682.93	7.8750	125 R 7
3542.40	0.0044	1960.68	0.2361	120 Q 8	3544.65	0.0838	682.96	7.8750	123 R 7	3544.65	0.0838	682.96	7.8750	123 R 7
3542.42	0.0051	1954.36	0.2679	121 Q 7	3544.67	0.7368	1936.01	70.0000	15 P 70	3544.67	0.7368	1936.01	70.0000	15 P 70
3542.43	0.0101	1166.75	55.0000	17 P 55	3544.68	1.5000	388.69	32.0000	21 P 32	3544.68	1.5000	388.69	32.0000	21 P 32
3542.47	0.0061	1948.93	0.3095	120 Q 6	3544.69	0.0052	1157.73	56.0000	129 R 54	3544.69	0.0052	1157.73	56.0000	129 R 54
3542.49	0.0073	1944.20	0.3667	121 Q 5	3544.74	0.0778	2201.78	22.6087	126 R 22	3544.74	0.0778	2201.78	22.6087	126 R 22
3542.52	0.0092	1940.31	0.4500	120 Q 4	3544.74	1.6597	1378.24	9.6000	24 P 10	3544.74	1.6597	1378.24	9.6000	24 P 10
3542.54	0.0015	975.66	51.0000	117 P 51	3544.89	0.0559	1934.83	2.6667	120 R 2	3544.89	0.0559	1934.83	2.6667	120 R 2
3542.54	0.0120	1937.17	0.5833	121 Q 3	3544.94	0.0001	2454.93	0.1495	25 Q 53	3544.94	0.0001	2454.93	0.1495	25 Q 53
3542.54	0.0546	669.66	4.8000	124 R 4	3544.99	9.3607	1308.67	39.9750	19 P 40	3544.99	9.3607	1308.67	39.9750	19 P 40
3542.56	0.0175	1934.83	0.8333	120 Q 2	3545.18	0.0518	2147.93	12.9231	119 P 13	3545.18	0.0518	2147.93	12.9231	119 P 13
3542.56	0.0315	1933.26	1.5000	121 Q 1	3545.21	0.0030	2073.52	43.0000	128 R 42	3545.21	0.0030	2073.52	43.0000	128 R 42
3542.56	0.0547	669.67	4.8000	122 R 4	3545.28	0.0001	2413.51	0.1524	24 Q 52	3545.28	0.0001	2413.51	0.1524	24 Q 52
3542.57	0.0542	2183.32	15.9375	118 P 16	3545.31	0.0921	688.83	8.8889	124 R 8	3545.31	0.0921	688.83	8.8889	124 R 8
3542.75	0.0846	2152.36	19.5500	127 R 19	3545.34	0.0923	688.87	8.8889	122 R 8	3545.34	0.0923	688.87	8.8889	122 R 8
3542.80	2.2083	1648.40	30.0000	23 P 30	3545.38	0.0736	2219.83	23.6250	127 R 23	3545.38	0.0736	2219.83	23.6250	127 R 23
3542.80	0.0006	2589.70	70.9859	27 R 70	3545.53	0.0003	2372.84	0.1554	25 Q 51	3545.53	0.0003	2372.84	0.1554	25 Q 51
3542.83	1.2536	438.00	34.0000	21 P 34	3545.54	0.0174	1044.13	52.0000	16 P 52	3545.54	0.0174	1044.13	52.0000	16 P 52
3543.01	7.1675	1373.54	41.9762	19 P 42	3545.56	10.6171	1276.44	38.9744	20 P 39	3545.56	10.6171	1276.44	38.9744	20 P 39
3543.03	0.0076	1074.39	54.0000	129 R 52	3545.58	1.5490	1370.41	8.5556	25 P 9	3545.58	1.5490	1370.41	8.5556	25 P 9
3543.06	1.8470	1396.25	11.6667	24 P 12	3545.59	0.0023	865.37	48.0000	116 P 48	3545.59	0.0023	865.37	48.0000	116 P 48
3543.07	7.8009	163.88	21.0000	26 R 20	3545.60	1.6297	365.14	31.0000	22 P 31	3545.60	1.6297	365.14	31.0000	22 P 31
3543.09	0.0050	1947.38	39.0000	128 R 38	3545.64	0.0772	1937.17	3.7500	121 R 3	3545.64	0.0772	1937.17	3.7500	121 R 3
3543.24	0.0649	673.35	5.8333	125 R 5	3545.77	6.6069	234.10	25.0000	26 R 24	3545.77	6.6069	234.10	25.0000	26 R 24

3545.85	0.0003	2332.98	0.1584	24 Q 50	3548.23	0.2245	2160.27	44.0000	18 P 44
3545.98	0.0990	695.46	9.9000	125 R 9	3548.31	2.0327	298.90	28.0000	21 P 28
3546.01	0.1661	2231.20	46.0000	18 P 46	3548.35	0.0019	1977.09	0.1976	24 P 40
3546.02	0.0992	695.51	9.9000	123 R 9	3548.40	5.1315	316.79	29.0000	26 R 28
3546.02	0.0710	2238.65	24.6400	126 R 24	3548.53	0.0552	2321.80	28.6897	126 R 28
3546.05	0.0505	2137.93	11.9167	118 P 12	3548.56	0.0022	1945.79	0.2026	25 Q 39
3546.09	0.0004	2293.87	0.1616	25 Q 49	3548.59	0.0037	761.68	45.0000	117 P 45
3546.23	0.0023	2141.26	45.0000	128 R 44	3548.59	0.0424	2112.02	8.8889	119 P 9
3546.35	0.0036	1244.17	58.0000	129 R 56	3548.60	0.0287	928.29	49.0000	17 P 49
3546.40	1.3945	1363.36	7.5000	24 P 8	3548.63	0.1492	1954.36	7.8750	121 R 7
3546.40	0.0004	2255.56	0.1650	24 Q 48	3548.63	0.1183	729.36	13.9286	125 R 13
3546.42	0.0980	1940.31	4.8000	120 R 4	3548.69	0.1184	729.47	13.9286	123 R 13
3546.43	2.9520	1559.43	26.0000	23 P 26	3548.78	0.0026	1915.28	0.2078	24 Q 38
3546.46	0.0004	2649.70	82.0000	14 P 82	3548.85	0.8531	1346.91	4.2000	25 P 5
3546.51	1.7626	342.33	30.0000	21 P 30	3548.90	15.1366	1188.29	35.9722	19 P 36
3546.56	0.0207	1004.76	51.0000	17 P 51	3548.98	0.0032	1885.54	0.2134	25 Q 37
3546.60	0.0028	830.07	47.0000	117 P 47	3549.08	0.0008	2523.07	80.0000	14 P 80
3546.63	0.0005	2218.01	0.1684	25 Q 47	3549.13	0.0009	2363.09	51.0000	128 R 50
3546.65	0.1056	702.83	10.9091	124 R 10	3549.14	0.0505	2344.54	29.7000	127 R 29
3546.66	0.0664	2258.26	25.6538	127 R 25	3549.19	0.0037	1856.59	0.2192	24 Q 36
3546.70	0.1058	702.89	10.9091	122 R 10	3549.20	2.1671	278.29	27.0000	22 P 27
3546.90	0.0481	2128.42	10.9091	119 P 11	3549.27	0.1210	739.68	14.9333	124 R 14
3546.92	0.0006	2181.26	0.1721	24 Q 46	3549.34	0.1211	739.80	14.9333	122 R 14
3546.95	12.0106	1246.92	37.9737	19 P 38	3549.35	1.9601	1722.87	66.0000	15 P 66
3547.02	1.2114	1827.89	68.0000	15 P 68	3549.38	0.0044	1828.41	0.2254	25 Q 35
3547.10	5.8831	273.89	27.0000	26 P 26	3549.41	0.1644	1960.68	8.8889	120 R 8
3547.15	0.0008	2145.28	0.1758	25 Q 45	3549.42	0.0392	2105.06	7.8750	118 P 8
3547.15	0.1161	1944.20	5.8333	121 R 5	3549.53	16.8465	1159.37	34.9714	20 P 35
3547.22	1.2422	1357.09	6.4286	25 P 7	3549.58	0.0051	1801.02	0.2319	24 Q 34
3547.22	0.0017	2212.10	47.0000	128 R 46	3549.58	0.0043	728.59	44.0000	116 P 44
3547.29	0.0633	2278.66	26.6667	126 R 26	3549.60	0.0337	891.19	48.0000	16 P 48
3547.32	0.1105	710.94	11.9167	125 R 11	3549.65	0.6164	1342.99	3.0000	24 P 4
3547.37	0.1107	711.01	11.9167	123 R 11	3549.68	4.3877	362.81	31.0000	26 R 30
3547.41	1.8974	320.25	29.0000	22 P 29	3549.70	0.0016	1426.36	62.0000	129 R 60
3547.42	0.0009	2110.09	0.1798	24 Q 44	3549.75	0.0473	2368.07	30.7097	126 R 30
3547.56	13.4953	1216.34	36.9730	20 P 37	3549.76	0.0061	1774.41	0.2389	25 Q 33
3547.58	0.0243	966.15	50.0000	16 P 50	3549.91	0.1220	750.74	15.9375	125 R 15
3547.60	0.0032	795.51	46.0000	116 P 46	3549.95	0.0070	1748.58	0.2462	24 Q 32
3547.64	0.0011	2075.66	0.1839	25 Q 43	3549.98	3.6262	1482.94	22.0000	23 P 22
3547.75	0.0458	2119.93	9.9000	118 P 10	3549.99	0.1221	750.88	15.9375	123 R 15
3547.90	0.0013	2042.03	0.1883	24 Q 42	3550.04	0.0007	2443.25	53.0000	128 R 52
3547.91	0.0586	2299.84	27.6786	127 R 27	3550.09	2.2990	258.42	26.0000	21 P 26
3547.92	0.1342	1948.93	6.8571	120 R 6	3550.09	0.1760	1967.64	9.9000	121 R 9
3547.97	0.1153	719.78	12.9231	124 R 12	3550.12	0.0083	1723.53	0.2540	25 Q 31
3548.03	0.1155	719.87	12.9231	122 R 12	3550.25	0.0350	2098.75	6.8571	119 P 7
3548.03	0.0024	1333.72	60.0000	129 R 58	3550.29	0.0096	1699.27	0.2624	24 Q 30
3548.04	1.0504	1351.61	5.3333	24 P 6	3550.35	0.0428	2392.38	31.7188	127 R 31
3548.11	0.0016	2009.16	0.1928	25 Q 41	3550.42	0.2980	2092.46	42.0000	18 P 42
3548.19	0.0012	2286.04	49.0000	128 R 48	3550.45	0.3506	1339.86	1.6667	25 P 3
3548.22	3.3082	1519.63	24.0000	23 P 24	3550.45	0.0111	1675.78	0.2713	25 Q 29



FREQ		LINE INTENSITY		E		L		BAND		FREQ		LINE INTENSITY		E		L		BAND	
CM	-1	CM	-1	CM	-1	CM	-1	ID	R	CM	-1	CM	-1	CM	-1	CM	-1	ID	R
		STP								STP									
		-3								-3									
3550.54	0.1229	762.53	16.9412	124	R	16	3552.33	0.2039	1993.58	12.9231	120	R	12						
3550.57	0.0049	696.22	43.0000	117	P	43	3552.40	0.1018	1396.25	0.6410	24	O	12						
3550.61	0.0394	854.84	47.0000	17	P	47	3552.46	0.1189	802.33	19.9500	125	O	19						
3550.63	0.0127	1653.08	0.2808	24	O	28	3552.52	0.1167	1386.85	0.6970	25	O	11						
3550.76	0.1230	762.69	16.9412	122	R	16	3552.52	0.1323	1378.24	0.7636	24	O	10						
3550.81	0.0148	1631.16	0.2910	25	O	27	3552.52	0.0063	633.70	41.0000	117	P	41						
3550.88	18.7306	1132.78	33.9706	19	P	34	3552.52	0.1189	802.55	19.9500	123	R	19						
3550.91	0.1878	1975.56	10.9091	120	R	10	3552.58	0.3889	2027.75	40.0000	18	P	40						
3550.92	0.0169	1610.03	0.3020	24	O	26	3552.58	0.1532	1370.41	0.8444	25	O	9						
3550.94	0.0004	2526.50	55.0000	128	R	54	3552.59	0.0532	784.41	45.0000	17	P	45						
3550.95	0.0396	2417.47	32.7273	126	R	32	3552.61	0.0001	2702.31	59.0000	128	R	58						
3550.97	3.6799	411.95	33.0000	26	R	32	3552.62	0.1759	1363.36	0.9444	24	O	8						
3551.05	2.4266	239.28	25.0000	22	P	25	3552.67	0.2074	1357.09	1.0714	25	O	7						
3551.07	0.0196	1589.67	0.3138	25	O	25	3552.69	0.0206	2084.72	3.7500	118	P	4						
3551.17	0.0308	2093.32	5.8333	118	P	6	3552.69	0.0290	2497.45	35.7500	127	R	35						
3551.19	0.1221	775.06	17.9444	125	R	17	3552.71	22.7493	1080.40	31.9688	19	P	32						
3551.27	0.0223	1570.10	0.3267	24	O	24	3552.71	0.2441	1351.61	1.2381	24	O	6						
3551.32	0.1222	775.24	17.9444	123	R	17	3552.72	2.6615	203.21	23.0000	22	P	23						
3551.39	0.0256	1551.30	0.3406	25	O	23	3552.74	0.2983	1346.91	1.4667	25	O	5						
3551.45	0.0011	1522.10	64.0000	129	R	62	3552.77	0.3702	1342.99	1.8000	24	O	4						
3551.47	0.0290	1533.30	0.3557	24	O	22	3552.79	0.4910	1339.86	2.3333	25	O	3						
3551.53	20.6456	1105.51	32.9697	20	P	33	3552.80	0.7040	1337.51	3.3333	24	O	2						
3551.55	0.1957	1984.05	11.9167	121	R	11	3552.95	0.2081	2003.59	13.9286	121	R	13						
3551.55	0.0355	2443.35	33.7353	127	R	33	3553.01	0.1166	817.06	20.9524	124	R	20						
3551.56	0.0056	664.59	42.0000	116	P	42	3553.08	0.0007	1620.94	66.0000	129	R	64						
3551.60	0.0333	1516.07	0.3723	25	O	21	3553.14	0.1168	817.31	20.9524	122	R	20						
3551.65	0.0459	819.25	46.0000	16	P	46	3553.26	0.0263	2525.68	36.7568	126	R	36						
3551.67	3.1212	1620.94	64.0000	15	P	64	3553.40	24.8287	1054.76	30.9677	20	P	31						
3551.68	0.0015	2399.52	78.0000	14	P	78	3553.42	2.4473	519.57	37.0000	26	R	36						
3551.73	0.0375	1499.63	0.3905	24	O	20	3553.46	4.0536	1418.92	18.0000	23	P	18						
3551.78	3.8826	1449.37	20.0000	23	P	20	3553.49	0.0071	603.54	40.0000	116	P	40						
3551.79	0.0003	2612.86	57.0000	128	R	56	3553.50	0.0148	2081.57	2.6667	119	P	3						
3551.79	0.0429	1483.96	0.4105	25	O	19	3553.58	0.0614	750.33	44.0000	16	P	44						
3551.85	0.1213	788.32	18.9474	124	R	18	3553.58	2.7648	186.28	22.0000	21	P	22						
3551.89	2.5481	220.88	24.0000	21	P	24	3553.61	0.1130	832.54	21.9545	125	R	21						
3551.89	0.0482	1469.09	0.4327	24	O	18	3553.76	0.2127	2014.73	14.9333	120	R	14						
3551.89	0.0257	2088.60	4.8000	119	P	5	3553.76	0.1131	832.81	21.9545	123	R	21						
3551.90	0.1213	788.52	18.9474	122	R	18	3553.82	0.0233	2554.69	37.7632	127	R	37						
3551.99	0.0550	1454.99	0.4575	25	O	17	3553.92	4.8911	1522.10	62.0000	15	P	62						
3552.08	0.0618	1441.68	0.4853	24	O	16	3553.93	0.0001	2311.63	0.0817	118	O	24						
3552.11	0.0326	2470.01	34.7429	126	R	34	3553.99	0.0001	2292.34	0.0851	119	O	23						
3552.17	0.0704	1429.15	0.5167	25	O	15	3554.21	0.1096	848.75	22.9565	124	R	22						
3552.20	3.0287	464.20	35.0000	24	R	34	3554.23	0.0001	2274.86	0.0889	118	O	22						
3552.25	0.0791	1417.40	0.5524	24	O	14	3554.24	0.0026	2279.05	76.0000	14	P	76						
3552.33	0.0903	1406.43	0.5934	25	O	13	3554.29	0.0085	2079.24	1.5000	118	P	2						



3554.30	0.0003	2257.22	0.0931	119 Q 21	3556.15	0.0955	902.18	25.9615	123 R 25
3554.34	0.2134	2026.24	15.9375	121 R 15	3556.17	7.5423	1426.36	60.0000	15 P 60
3554.36	0.1097	849.05	22.9565	122 R 22	3556.36	0.0101	517.46	37.0000	117 P 37
3554.38	0.0209	2584.48	38.7692	126 R 38	3556.45	31.6704	985.00	27.9643	19 P 28
3554.44	2.8559	170.08	21.0000	22 P 21	3556.49	0.0002	1827.89	70.0000	129 R 68
3554.45	0.0080	574.11	39.0000	117 P 39	3556.50	0.0920	652.61	41.0000	17 P 41
3554.51	0.0003	2241.22	0.0976	118 Q 20	3556.52	0.0907	920.96	26.9630	124 R 26
3554.56	0.0705	717.00	43.0000	17 P 43	3556.55	0.0124	2711.46	42.7907	126 R 42
3554.57	0.0003	2225.22	0.1026	119 Q 19	3556.57	0.2102	2066.42	18.9474	120 R 18
3554.59	27.1071	1031.14	29.9667	19 P 30	3556.65	0.8646	1342.99	4.2000	24 R 4
3554.63	1.9421	578.05	39.0000	26 R 38	3556.73	0.0907	921.37	26.9630	122 R 26
3554.71	0.4987	1966.16	38.0000	18 P 38	3556.79	0.0045	2161.67	74.0000	14 P 74
3554.76	0.0004	2210.70	0.1082	118 Q 18	3556.81	0.6282	1907.68	36.0000	18 P 36
3554.78	0.0004	1722.87	68.0000	129 R 66	3556.87	4.0538	1367.39	14.0000	23 P 14
3554.80	0.1050	865.70	23.9583	125 R 23	3556.97	3.0362	125.91	18.0000	21 P 18
3554.82	0.0004	2196.33	0.1144	119 Q 17	3556.98	1.1599	704.34	43.0000	26 R 42
3554.93	0.0183	2615.05	39.7750	127 R 39	3557.07	0.2049	2080.93	19.9500	121 R 19
3554.97	0.1051	866.02	23.9583	123 R 23	3557.08	0.0107	2745.16	43.7955	127 R 43
3554.99	0.0004	2183.32	0.1213	118 Q 16	3557.09	0.0852	940.86	27.9643	125 R 27
3555.05	0.0005	2170.57	0.1292	119 Q 15	3557.18	33.8627	962.63	26.9630	20 P 27
3555.14	0.3523	1337.51	1.6667	24 R 2	3557.30	0.0111	490.24	36.0000	116 P 36
3555.18	4.1168	1391.60	16.0000	23 P 16	3557.31	0.0851	941.29	27.9643	123 R 27
3555.18	0.0005	2159.06	0.1381	118 Q 14	3557.40	0.0085	2077.67	1.5000	119 R 1
3555.18	0.2145	2039.01	16.9412	120 R 16	3557.41	1.0860	1346.91	5.3333	25 R 5
3555.24	0.0006	2147.93	0.1484	119 Q 13	3557.46	0.1044	621.55	40.0000	16 P 40
3555.29	2.9328	154.62	20.0000	21 P 20	3557.60	0.0093	2779.65	44.8000	126 R 44
3555.30	29.2869	1007.14	28.9655	20 Q 29	3557.65	0.0801	961.48	28.9655	124 R 28
3555.36	0.0006	2137.93	0.1603	118 Q 12	3557.81	3.0591	112.66	17.0000	22 P 17
3555.38	0.1007	883.38	24.9600	124 R 24	3557.87	0.0001	2790.40	62.0000	114 P 62
3555.41	0.0090	545.42	38.0000	116 P 38	3557.88	0.0800	961.96	28.9655	122 R 28
3555.41	0.0008	2128.42	0.1742	119 Q 11	3557.94	0.2004	2096.96	20.9524	120 R 20
3555.48	0.0163	2646.41	40.7805	126 R 40	3558.11	0.0080	2814.91	45.8043	127 R 45
3555.51	0.0009	2119.93	0.1909	118 Q 10	3558.13	0.8734	772.16	45.0000	26 R 44
3555.53	0.0807	684.43	42.0000	16 P 42	3558.15	1.2698	1351.61	6.4286	24 R 6
3555.56	0.0010	2112.02	0.2111	119 Q 9	3558.17	0.0150	2079.24	2.6667	118 R 2
3555.56	0.1007	883.73	24.9600	122 R 24	3558.20	0.0744	982.85	29.9667	125 R 29
3555.63	0.0011	2105.06	0.2361	118 Q 8	3558.20	0.0001	1936.01	72.0000	129 R 70
3555.67	0.0014	2098.75	0.2679	119 Q 7	3558.24	0.0123	463.75	35.0000	117 P 35
3555.72	0.2120	2052.03	17.9444	121 R 17	3558.28	36.2565	941.98	25.9615	19 P 26
3555.73	0.0016	2093.32	0.3095	118 Q 6	3558.40	11.4440	1333.72	58.0000	15 P 58
3555.76	0.0020	2088.60	0.3667	119 Q 5	3558.40	0.1930	2112.96	21.9545	121 R 21
3555.80	0.0025	2084.72	0.4500	118 Q 4	3558.42	0.1180	591.25	39.0000	17 P 39
3555.82	1.5141	639.64	41.0000	26 R 40	3558.45	0.0744	983.35	29.9667	123 R 29
3555.82	0.0033	2081.57	0.5833	119 Q 3	3558.55	3.8514	1346.31	12.0000	23 P 12
3555.84	0.0047	2079.24	0.8333	118 Q 2	3558.62	0.0069	2850.96	46.8085	126 R 46
3555.85	0.0085	2077.67	1.5000	119 Q 1	3558.64	3.0604	100.14	16.0000	21 P 16
3555.90	0.6319	1339.86	3.0000	25 R 3	3558.74	0.0693	1004.95	30.9677	124 R 30
3555.95	0.0955	901.81	25.9615	125 R 25	3558.88	0.7769	1852.32	34.0000	18 P 34
3556.02	0.0140	2678.54	41.7857	127 R 41	3558.89	1.4541	1357.09	7.5000	25 R 7
3556.13	2.9937	139.90	19.0000	22 P 19	3558.92	0.0209	2081.57	3.7500	119 R 3

LINE INTENSITY		E		L		BAND		LINE INTENSITY		E		L		BAND	
FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
CM	CM / ATM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM
	STP								STP						
3559.01	0.0693	1005.49	30.9677	122 R 30	3561.45	0.3367	994.25	51.0000	26 R 50						
3559.04	38.3506	921.25	24.9600	20 P 25	3561.54	0.0025	3083.63	52.8302	126 R 52						
3559.13	0.0058	2887.78	47.8125	127 R 47	3561.73	0.0444	1127.22	35.9722	123 R 35						
3559.18	0.0136	438.00	34.0000	116 P 34	3561.80	1.9589	1386.85	11.6667	25 R 11						
3559.26	0.6464	843.08	47.0000	26 R 46	3561.81	0.0126	1936.16	70.0000	14 P 70						
3559.28	0.0638	1027.79	31.9688	125 R 31	3561.84	3.0140	1313.51	8.0000	23 P 8						
3559.30	0.1865	2130.63	22.9565	120 R 22	3561.86	0.0403	2098.75	7.8750	119 R 7						
3559.31	0.0076	2047.37	72.0000	14 P 72	3561.88	0.0403	1153.01	36.9730	124 R 36						
3559.37	0.1328	561.70	38.0000	16 P 38	3561.89	2.8273	57.44	12.0000	21 P 12						
3559.46	3.0389	88.36	15.0000	22 P 15	3561.90	44.5449	865.33	21.9545	19 P 22						
3559.57	0.0637	1028.36	31.9688	123 R 31	3561.95	0.0176	365.14	31.0000	117 P 31						
3559.62	0.0050	2925.39	48.8163	126 R 48	3561.95	0.1509	2207.36	26.9630	120 R 26						
3559.63	1.5967	1363.36	8.5556	24 R 8	3561.97	0.0003	2883.48	62.0000	115 P 62						
3559.68	0.0265	2084.72	4.8000	118 R 4	3562.01	0.0021	3125.15	53.8333	127 R 53						
3559.71	0.0001	2981.77	64.0000	115 P 64	3562.19	0.1842	477.59	35.0000	17 P 35						
3559.71	0.1776	2148.11	23.9583	121 R 23	3562.25	0.0402	1153.78	36.9730	122 R 36						
3559.81	0.0589	1051.36	32.9697	124 R 32	3562.26	0.1409	2227.78	27.9643	121 R 27						
3560.10	40.6370	902.10	23.9583	19 P 24	3562.38	0.0361	1180.26	37.9737	125 R 37						
3560.11	0.0149	412.98	33.0000	117 P 33	3562.46	0.0018	3167.44	54.8364	126 R 54						
3560.11	0.0588	1051.97	32.9697	122 R 32	3562.51	2.0204	1396.25	12.6923	24 R 12						
3560.11	0.0042	2863.78	49.8200	127 R 49	3562.51	0.2369	1074.49	53.0000	26 R 52						
3560.21	3.5039	1328.35	10.0000	23 P 10	3562.61	0.0444	2105.06	8.8989	118 R 8						
3560.28	2.9934	77.32	14.0000	21 P 14	3562.68	46.0402	847.84	20.9524	20 P 21						
3560.32	0.1487	532.91	37.0000	17 P 37	3562.69	2.7050	48.60	11.0000	22 P 11						
3560.34	0.0537	1075.67	33.9706	125 R 33	3562.77	25.0902	1157.73	54.0000	15 P 54						
3560.35	1.7453	1370.41	9.6000	25 R 9	3562.77	0.0361	1181.07	37.9737	123 R 37						
3560.36	0.4705	917.11	49.0000	26 R 48	3562.86	0.0191	342.33	30.0000	116 P 30						
3560.39	0.0003	2694.52	60.0000	114 P 60	3562.87	0.0326	1208.24	38.9744	124 R 38						
3560.40	0.0313	2088.60	5.8333	119 R 5	3562.88	0.0004	2601.74	58.0000	114 P 58						
3560.59	0.0036	3002.95	50.8235	126 R 50	3562.92	1.1233	1750.94	30.0000	18 P 30						
3560.60	17.0841	1244.17	56.0000	15 P 56	3562.92	0.0015	3210.51	55.8393	127 R 55						
3560.64	0.1696	2167.43	24.9600	120 R 24	3563.12	0.2036	451.07	34.0000	16 P 34						
3560.66	0.0537	1076.32	33.9706	123 R 33	3563.21	2.0945	1406.43	13.7143	25 R 13						
3560.86	0.0492	1100.71	34.9714	124 R 34	3563.25	0.1316	2250.42	28.9655	120 R 28						
3560.87	42.5028	862.98	22.9565	20 P 23	3563.28	0.0325	1209.10	38.9744	122 R 38						
3560.91	0.9432	1800.07	32.0000	18 P 32	3563.30	0.0475	2112.02	9.9000	119 R 9						
3561.00	0.1598	2186.39	25.9615	121 R 25	3563.36	0.0289	1236.96	39.9750	125 R 39						
3561.03	0.0163	388.69	32.0000	116 P 32	3563.36	0.0012	3254.36	56.8421	126 R 56						
3561.07	0.0030	3042.90	51.8269	127 R 51	3563.47	2.3940	1301.80	6.0000	23 P 6						
3561.08	1.8473	1378.24	10.6364	24 R 10	3563.49	2.5593	40.50	10.0000	21 P 10						
3561.09	2.9231	67.01	13.0000	22 P 13	3563.51	0.1216	2272.30	29.9667	121 R 29						
3561.16	0.0362	2093.32	6.8571	118 R 6	3563.55	0.1640	1157.83	55.0000	26 R 54						
3561.19	0.0491	1101.40	34.9714	122 R 34	3563.67	47.6896	831.70	19.9500	19 P 20						
3561.26	0.1659	504.87	36.0000	16 P 36	3563.76	0.0206	320.25	29.0000	117 P 29						
3561.37	0.0445	1126.49	35.9722	125 R 35	3563.79	0.0289	1237.87	39.9750	123 R 39						



3563.80	0.0009	3298.99	57.8448	127 R 57	3566.29	0.0003	3583.14	63.8594	127 R 63
3563.84	0.0257	1266.42	40.9756	124 R 40	3566.42	0.0006	2696.15	58.0000	115 P 58
3563.92	2.1171	1417.40	14.7333	24 R 14	3566.43	0.0003	2701.20	71.9861	12 P 72
3563.95	0.0001	2815.79	73.9865	12 P 74	3566.45	0.0249	258.42	26.0000	116 P 26
3564.04	0.2240	425.31	33.0000	17 P 33	3566.55	0.0494	1426.48	61.0000	26 R 60
3564.04	0.0507	2119.93	10.9091	118 R 10	3566.60	0.0116	1458.58	46.9787	124 R 46
3564.21	0.0004	2788.28	60.0000	115 P 60	3566.61	1.7358	15.46	6.0000	21 P 6
3564.23	0.0008	3344.40	58.8475	126 R 58	3566.65	0.8552	1287.74	2.0000	23 P 2
3564.28	0.0208	1828.04	68.0000	14 P 68	3566.67	2.1019	1469.09	18.7895	24 R 18
3564.28	2.3879	33.14	9.0000	22 P 9	3566.68	0.0002	3633.22	64.8615	126 R 64
3564.29	0.0257	1267.37	40.9756	122 R 40	3566.70	0.0133	1425.92	45.9783	123 R 45
3564.32	0.0228	1296.61	41.9762	125 R 41	3566.73	0.0336	1723.01	66.0000	14 P 66
3564.37	0.0003	2754.76	72.9863	13 P 73	3566.78	0.2902	352.55	30.0000	16 P 30
3564.46	4.86692	815.82	18.9474	20 P 19	3566.83	0.0574	2159.06	14.9333	118 R 14
3564.53	0.1125	2296.61	30.9677	120 R 30	3566.85	1.5014	1662.02	26.0000	18 P 26
3564.57	0.1117	1244.28	57.0000	26 R 56	3566.88	0.0004	2641.89	70.9859	13 P 71
3564.61	2.1549	1429.15	15.7500	25 R 15	3567.03	0.0775	2398.36	34.9714	120 R 34
3564.66	0.0220	298.90	28.0000	116 P 28	3567.03	0.0100	1493.18	47.9792	125 R 47
3564.66	0.0006	3390.59	59.8500	127 R 59	3567.05	51.5034	994.16	50.0000	15 P 50
3564.70	0.0528	2128.42	11.9167	119 R 11	3567.07	0.0002	3684.08	65.8636	127 R 65
3564.73	0.1029	2319.93	31.9688	121 R 31	3567.10	0.0697	2424.56	35.9722	121 R 35
3564.79	0.0227	1297.61	41.9762	123 R 41	3567.16	50.5249	773.81	15.9375	19 P 16
3564.79	0.0201	1327.53	42.9767	124 R 42	3567.17	0.0116	1459.83	46.9787	122 R 46
3564.90	1.3119	1704.92	28.0000	18 P 28	3567.33	0.0263	239.28	25.0000	117 P 25
3564.92	36.2466	1074.39	52.0000	15 P 52	3567.34	2.0771	1483.96	19.8000	25 R 19
3564.96	0.2453	400.30	32.0000	16 P 32	3567.37	1.4782	11.05	5.0000	22 P 5
3565.06	2.1925	26.51	8.0000	21 P 8	3567.43	0.0576	2170.57	15.9375	119 R 15
3565.07	1.6648	1293.21	4.0000	23 P 4	3567.46	0.0087	1528.51	48.9796	124 R 48
3565.07	0.0005	3437.56	60.8525	126 R 60	3567.50	0.0320	1522.23	63.0000	26 R 62
3565.25	0.0176	1359.19	43.9773	125 R 43	3567.63	0.0099	1494.48	47.9792	123 R 47
3565.27	0.0200	1328.58	42.9767	122 R 42	3567.68	0.3135	329.81	29.0000	17 P 29
3565.30	2.1418	1441.68	16.7647	24 R 16	3567.78	0.0009	2425.50	54.0000	114 P 54
3565.34	0.0007	2512.07	56.0000	114 P 56	3567.89	0.0074	1564.57	49.9800	125 R 49
3565.42	49.7754	801.19	17.9444	19 P 18	3567.97	50.0823	761.14	14.9333	20 P 15
3565.45	0.0551	2137.93	12.9231	118 R 12	3568.01	2.0076	1499.63	20.8095	24 R 20
3565.49	0.0005	3485.31	61.8548	127 R 61	3568.08	0.0085	1529.87	48.9796	122 R 48
3565.56	0.0235	278.29	27.0000	117 P 27	3568.13	1.2041	7.36	4.0000	21 P 4
3565.57	0.0748	1333.83	59.0000	26 R 58	3568.18	0.0579	2183.32	16.9412	118 R 16
3565.71	0.0154	1391.59	44.9778	124 R 44	3568.21	0.0276	220.88	24.0000	116 P 24
3565.76	0.0175	1360.29	43.9773	123 R 43	3568.25	0.0625	2453.93	36.9730	120 R 36
3565.79	0.0943	2345.92	32.9697	120 R 32	3568.25	0.0558	2481.54	37.9737	121 R 37
3565.83	1.9746	20.62	7.0000	22 P 7	3568.30	0.0063	1601.37	50.9804	124 R 50
3565.87	0.2675	376.04	31.0000	17 P 31	3568.43	0.0204	1621.07	65.0000	26 R 64
3565.89	0.0003	3533.83	62.8571	126 R 62	3568.52	0.0073	1565.99	49.9800	123 R 49
3565.92	0.0855	2370.68	33.9706	121 R 33	3568.57	0.3369	307.83	28.0000	16 P 28
3565.99	2.1460	1454.99	17.7708	25 R 17	3568.62	0.0008	2607.11	56.0000	115 P 56
3566.08	0.0562	2147.93	13.9286	119 R 13	3568.67	1.9588	1516.07	21.8182	25 R 21
3566.15	0.0134	1424.72	45.9783	125 R 45	3568.71	0.0053	1638.90	51.9808	125 R 51
3566.23	50.1022	786.92	16.9412	20 P 17	3568.75	0.0572	2196.33	17.9444	119 R 17
3566.23	0.0154	1392.74	44.9778	122 R 44	3568.77	1.6823	1622.24	24.0000	18 P 24



FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID
3568.87	49.7035	749.55	13.9286	19 P 14	3570.81	0.0310	170.08	21.0000	117 P 21
3568.88	0.9164	4.42	3.0000	22 P 3	3571.04	0.0018	1879.49	57.9828	125 R 57
3568.89	0.0004	2589.70	69.9857	12 P 70	3571.07	0.0027	1798.15	55.9821	123 R 55
3568.96	0.0063	1602.85	50.9804	122 R 50	3571.22	0.0048	1936.16	71.0000	26 R 70
3569.00	0.4327	1285.40	1.0000	23 R 0	3571.28	0.4056	246.43	25.0000	17 P 25
3569.08	0.0288	203.21	23.0000	117 P 23	3571.23	98.8903	843.00	46.0000	15 P 46
3569.12	0.0045	1677.17	52.9811	124 R 52	3571.27	1.6239	1589.67	25.8462	25 R 25
3569.15	0.0535	1621.07	64.0000	14 P 64	3571.32	0.0008	2481.30	67.9853	12 P 68
3569.15	71.9701	917.03	48.0000	15 P 48	3571.32	0.0006	1869.23	0.0360	20 Q 55
3569.24	0.0001	2142.79	0.0325	20 Q 61	3571.32	0.0521	2257.22	21.9545	119 R 21
3569.33	1.8703	1533.30	22.8261	24 R 22	3571.35	0.0003	2004.64	0.0342	19 Q 58
3569.34	0.0129	1723.01	67.0000	26 R 66	3571.38	44.9529	718.96	10.9091	20 P 11
3569.37	0.0007	2532.12	68.9855	13 P 69	3571.40	0.0015	1922.16	58.9831	124 R 58
3569.38	0.0439	2541.65	39.9750	121 R 39	3571.47	0.0022	1839.41	56.9825	122 R 56
3569.40	0.0054	1640.44	51.9808	123 R 51	3571.55	0.0839	1522.23	62.0000	14 P 62
3569.45	0.0496	2512.62	38.9744	120 R 38	3571.58	0.0257	2671.20	43.9773	121 R 43
3569.46	0.3601	286.60	27.0000	17 P 27	3571.66	0.0318	154.62	20.0000	116 P 20
3569.50	0.0567	2210.70	18.9474	118 R 18	3571.76	0.0012	1965.55	59.9833	125 R 59
3569.51	0.0038	1716.17	53.9815	125 R 53	3571.79	0.0295	2639.36	42.9767	120 R 42
3569.63	0.6177	2.21	2.0000	21 P 2	3571.84	0.0009	2425.43	66.9851	13 P 67
3569.69	48.4074	738.49	12.9231	20 P 13	3571.84	0.3123	0.00	1.0000	21 R 0
3569.82	0.0045	1678.77	52.9811	122 R 52	3571.87	0.0018	1881.41	57.9828	123 R 57
3569.90	0.0033	1755.90	54.9818	124 R 54	3571.90	1.5165	1610.03	26.8519	24 R 26
3569.95	0.0300	186.28	22.0000	116 P 22	3571.92	0.0029	2047.37	73.0000	26 R 72
3569.96	0.0003	2048.50	0.0336	20 Q 59	3571.96	0.0005	1914.86	0.0354	19 Q 56
3569.98	1.8037	1551.30	23.8333	25 R 23	3571.96	0.0008	1784.25	0.0374	20 Q 53
3570.05	0.0554	2225.22	19.9500	119 R 19	3572.06	2.0851	1293.21	5.0000	23 R 4
3570.18	0.0013	2342.03	52.0000	114 P 52	3572.08	0.0503	2274.86	22.9565	118 R 22
3570.22	0.0079	1828.04	69.0000	26 R 68	3572.10	0.4271	227.47	2.0000	16 P 24
3570.25	0.0037	1717.83	53.9815	123 R 53	3572.11	0.0010	2009.68	60.9836	124 R 60
3570.29	0.0027	1796.36	55.9821	125 R 55	3572.24	42.7651	710.43	9.9000	19 P 10
3570.35	0.3832	266.14	26.0000	16 P 26	3572.26	0.0015	1924.14	58.9831	122 R 58
3570.37	0.3111	0.74	1.0000	22 P 1	3572.45	0.0009	2054.54	61.9839	125 R 61
3570.49	0.0339	2604.87	41.9762	121 R 41	3572.51	0.0324	139.90	19.0000	117 P 19
3570.54	1.2842	1287.74	3.0000	23 R 2	3572.52	1.9741	1552.03	20.0000	18 P 20
3570.56	47.1439	728.43	11.9167	19 P 12	3572.53	1.4311	1631.16	27.8571	25 R 27
3570.63	1.7027	1570.10	24.8400	24 R 24	3572.55	0.0007	1828.19	0.0367	19 Q 54
3570.63	0.0386	2574.43	40.9756	120 R 40	3572.55	0.0019	2261.67	50.0000	114 P 50
3570.65	0.0004	1957.31	0.0348	20 Q 57	3572.56	0.0479	2292.34	23.9583	119 R 23
3570.66	1.8439	1585.57	22.0000	18 P 22	3572.57	0.6225	0.74	2.0000	22 R 1
3570.66	0.0031	1757.62	54.9818	122 R 54	3572.58	0.0013	1702.37	0.0388	20 Q 51
3570.67	0.0022	1837.56	56.9825	124 R 56	3572.64	0.0191	2740.64	45.9783	121 R 45
3570.71	0.0001	2097.53	0.0331	19 Q 60	3572.64	0.0012	1967.60	59.9833	123 R 59
3570.80	0.0012	2521.16	54.0000	115 P 54	3572.73	0.0017	2161.67	75.0000	26 R 74
3570.80	0.0541	2241.22	20.9524	118 R 20	3572.79	0.0006	2100.13	62.9841	124 R 62

3572.93	0.0222	2707.41	44.9778	120 R 44	3574.89	0.0027	2184.42	48.0000	114 P 48
3572.96	0.4472	209.28	23.0000	17 P 23	3574.96	0.0381	2371.94	27.9643	119 R 27
3572.96	0.0017	2438.29	60.9836	115 P 52	3574.96	0.0001	2439.75	69.9857	125 R 69
3573.02	0.0010	2011.80	8.8889	122 R 60	3574.99	1.0460	1723.53	31.8750	25 R 31
3573.05	39.6865	702.55	0.0381	20 P 9	3575.01	0.0003	2523.07	81.0000	26 R 80
3573.12	0.0011	1744.63	63.9844	19 Q 52	3575.02	0.0331	100.14	16.0000	116 P 16
3573.12	0.0005	2146.45	28.8621	125 R 63	3575.04	3.4033	1313.51	9.0000	23 R 8
3573.16	1.3227	1653.08	0.0404	24 R 28	3575.09	0.0025	2358.50	50.0000	115 P 50
3573.17	0.0020	1623.61	3.0000	20 Q 49	3575.14	0.0003	2292.38	66.9851	122 R 66
3573.28	0.9274	2.21	44.0000	21 R 2	3575.15	0.0120	2852.87	48.9796	120 R 48
3573.29	133.5894	772.09	44.0000	15 P 44	3575.16	0.0056	1441.53	0.0449	19 Q 44
3573.32	0.0459	2311.63	24.9600	118 R 24	3575.30	0.0097	1339.65	0.0482	20 Q 41
3573.35	0.0329	125.91	18.0000	116 P 18	3575.32	177.3893	704.28	42.0000	15 P 42
3573.39	0.0009	2056.73	61.9839	123 R 61	3575.41	1.7779	11.05	6.0000	22 R 5
3573.44	0.0005	2193.51	64.9846	124 R 64	3575.47	0.0003	2341.70	67.9853	123 R 67
3573.52	0.0010	2279.05	77.0000	26 R 76	3575.52	28.7024	683.83	5.8333	19 P 6
3573.56	2.8010	1301.80	7.0000	23 R 6	3575.53	0.4963	159.24	20.0000	16 P 20
3573.66	0.0017	1664.18	0.0396	19 Q 50	3575.60	0.9480	1748.58	32.8788	24 R 32
3573.68	0.0142	2813.20	47.9792	121 R 47	3575.62	0.0081	1373.54	0.0471	19 Q 42
3573.72	0.0012	2375.99	65.9848	12 P 66	3575.69	0.0072	2967.64	51.9808	121 R 51
3573.74	0.0031	1547.95	0.0421	20 Q 47	3575.72	0.0001	2649.70	83.0000	26 R 82
3573.75	0.0006	2102.40	62.9841	122 R 62	3575.74	0.0356	2394.56	28.9655	118 R 28
3573.76	0.0004	2241.30	65.9848	125 R 65	3575.77	0.0139	1276.44	0.0506	20 Q 39
3573.77	1.2356	1675.78	29.8667	25 R 29	3575.79	0.0001	2391.76	68.9855	122 R 68
3573.77	0.0432	2330.58	25.9615	119 R 25	3575.84	0.0329	88.36	15.0000	117 P 15
3573.82	0.4657	191.84	22.0000	16 P 22	3576.05	0.0117	1308.67	0.0494	19 Q 40
3573.89	36.5832	695.57	7.8750	19 P 8	3576.10	2.0305	15.46	7.0000	21 R 6
3573.93	0.1292	1426.48	60.0000	14 P 60	3576.11	0.0019	2273.79	63.9844	12 P 64
3574.00	1.2236	4.42	4.0000	22 R 3	3576.11	0.0001	2442.55	69.9857	123 R 69
3574.05	0.0165	2778.58	46.9787	120 R 46	3576.12	0.0329	2416.42	29.9667	119 R 29
3574.07	0.0003	2289.81	66.9851	124 R 66	3576.16	2.0929	1494.29	16.0000	18 P 16
3574.11	0.0005	2148.79	63.9844	123 R 63	3576.18	0.8686	1774.41	33.8824	25 R 33
3574.18	0.0025	1586.85	0.0412	19 Q 48	3576.22	0.0196	1216.34	0.0533	20 Q 37
3574.19	0.0331	112.66	17.0000	117 P 17	3576.22	0.0085	2930.28	50.9804	120 R 50
3574.27	0.0016	2321.84	64.9846	13 P 65	3576.28	0.1961	1333.83	58.0000	14 P 58
3574.28	0.0046	1475.40	0.0440	20 Q 45	3576.33	24.0379	679.12	4.8000	20 P 5
3574.28	0.0005	2399.52	79.0000	26 R 78	3576.38	0.45076	144.08	19.0000	17 P 19
3574.35	2.0609	1521.60	18.0000	18 P 18	3576.46	0.0165	1246.92	0.0520	19 Q 38
3574.37	0.0003	2339.06	67.9853	125 R 67	3576.51	3.8719	1328.35	11.0000	23 R 10
3574.39	1.1307	1699.27	30.8710	24 R 30	3576.64	0.0273	1159.37	0.0563	20 Q 35
3574.46	0.0004	2195.92	64.9846	122 R 64	3576.66	0.0324	77.32	14.0000	116 P 14
3574.54	0.0407	2351.53	26.9630	118 R 26	3576.66	0.0051	3049.52	53.9815	121 R 53
3574.67	0.0001	2389.04	68.9855	124 R 68	3576.69	0.0025	2221.35	62.9841	13 P 63
3574.68	0.4822	175.16	21.0000	17 P 21	3576.78	0.7798	1801.02	34.8857	24 R 34
3574.68	0.0037	1512.63	0.0430	19 Q 46	3576.79	2.2636	20.62	8.0000	22 R 7
3574.70	32.6713	689.27	6.8571	20 P 7	3576.85	0.0232	1188.29	0.0548	19 Q 36
3574.70	0.0102	2888.87	49.9800	121 R 49	3576.90	0.0303	2440.71	30.9677	118 R 30
3574.71	1.5080	7.36	5.0000	21 R 4	3577.05	0.0376	1105.51	0.0597	20 Q 33
3574.80	0.0067	1405.97	0.0460	20 Q 43	3577.13	19.2483	675.22	3.7500	19 P 4
3574.80	0.0004	2243.78	65.9848	123 R 65	3577.20	0.0038	2110.28	46.0000	114 P 46



LINE INTENSITY -1 CM / ATM CM STP	FREQ -1 CM	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
0.5159	3577.21	129.67	18.0000	16 P 18	3579.30	0.0049	2208.21	46.0000	115 P 46	3579.31	296.8087	577.99	38.0000	115 P 46
0.0035	3577.21	2281.81	48.0000	115 P 48	3579.31	0.0028	577.99	38.0000	120 R 56	3579.33	4.3709	1367.39	56.9825	120 R 56
0.0322	3577.22	1132.78	0.0580	19 Q 34	3579.38	0.3013	801.19	15.0000	23 R 14	3579.41	0.3395	786.92	0.1144	20 Q 17
0.0279	3577.25	2464.02	31.9688	119 R 31	3579.41	0.0188	2568.57	35.9722	119 R 35	3579.42	0.0015	3313.80	59.9833	121 R 59
0.0061	3577.28	3010.80	52.9811	120 R 52	3579.48	0.0050	2039.25	44.0000	114 P 44	3579.50	2.9659	48.60	12.0000	22 R 11
231.4888	3577.33	639.58	40.0000	15 P 40	3579.59	0.3859	773.81	0.1213	19 Q 16	3579.60	0.4346	761.14	0.1292	20 Q 15
0.7079	3577.36	1828.41	35.8889	25 R 35	3579.63	0.4452	1945.79	39.9000	25 R 39	3579.67	1.9577	1449.04	12.0000	18 P 12
0.0513	3577.42	1054.74	0.0635	20 Q 31	3579.70	0.5192	91.00	15.0000	17 P 15	3579.75	0.4943	749.55	0.1381	19 Q 14
0.0317	3577.47	67.01	13.0000	117 P 13	3579.77	0.5572	738.49	0.1484	20 Q 13	3579.88	0.0277	40.50	10.0000	116 P 10
2.4751	3577.48	26.51	9.0000	21 R 8	3579.89	0.6356	728.43	0.1603	19 Q 12	3579.91	0.7198	718.96	0.1742	20 Q 11
0.0441	3577.57	1080.40	0.0616	19 Q 32	3580.01	0.8265	710.43	0.1909	19 Q 10	3580.03	0.9444	702.55	0.2111	20 Q 9
0.0035	3577.60	3134.51	55.9821	121 R 55	3580.11	1.0988	695.57	0.2361	19 Q 8	3580.13	1.2782	689.27	0.2679	20 Q 7
0.0690	3577.78	1007.14	0.0678	20 Q 29	3580.16	3.0786	57.44	13.0000	21 R 12	3580.18	1.5250	683.83	0.3095	19 Q 6
0.0597	3577.90	1031.14	14.0000	18 P 14	3580.20	1.8382	679.12	0.3667	20 Q 5	3580.24	2.3118	675.22	0.4500	19 Q 4
2.0607	3577.93	1470.10	2.6667	20 P 3	3580.24	0.0169	2597.90	36.9730	118 R 36	3580.26	3.0261	672.09	0.5833	20 Q 3
13.8249	3577.93	672.09	2.6667	20 P 3	3580.27	0.9444	702.55	0.2111	20 Q 9	3580.28	4.3966	669.75	0.8333	19 Q 2
4.1951	3577.95	1346.31	13.0000	23 R 12	3580.30	0.0011	3408.09	1.5000	20 Q 1	3580.32	0.0019	3271.03	58.9831	120 R 58
0.6298	3577.95	1856.59	36.8919	24 R 36	3580.41	0.0152	2625.51	37.9737	119 R 37	3580.47	0.5122	79.63	14.0000	16 P 14
0.0255	3578.04	2489.98	32.9697	118 R 32	3580.51	0.0001	2825.09	61.9355	112 P 62	3580.53	0.0001	2825.09	61.9355	112 P 62
0.5208	3578.05	1116.02	17.0000	17 P 17	3580.67	0.0258	33.14	9.0000	117 P 9	3580.73	0.3437	2009.16	41.9048	25 R 41
0.0919	3578.11	962.63	0.0728	20 Q 27	3580.79	4.4056	1391.60	17.0000	23 R 16	3580.81	3.1653	67.01	14.0000	22 R 13
2.6635	3578.16	33.14	10.0000	22 R 9	3580.80	0.0048	2078.70	59.9833	12 R 60	3580.88	0.4301	1157.83	54.0000	14 P 54
0.0799	3578.20	985.00	0.0702	19 Q 28	3580.90	0.0006	3505.49	63.9844	121 R 63	3580.91	0.0006	3505.49	63.9844	121 R 63
0.0306	3578.28	57.44	12.0000	116 P 12	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.0041	3578.32	3094.43	54.9818	120 R 54	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.0231	3578.35	2514.74	33.9706	119 R 33	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.1213	3578.41	921.25	0.0785	20 Q 25	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.0031	3578.46	2174.69	61.9839	12 P 62	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.1061	3578.49	941.98	0.0755	19 Q 26	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.5665	3578.51	1885.54	37.8947	25 R 37	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.0024	3578.53	3222.60	57.9828	121 R 57	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.2928	3578.60	1244.28	56.0000	14 P 56	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.1585	3578.70	882.98	0.0851	20 Q 23	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
7.9106	3578.72	669.75	1.5000	19 P 2	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.1393	3578.75	902.10	0.0817	19 Q 24	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
2.8274	3578.83	40.50	11.0000	21 R 10	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.5220	3578.87	103.13	16.0000	16 P 16	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.2055	3578.96	847.84	0.0931	20 Q 21	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.1813	3578.99	865.33	0.0889	19 Q 22	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.0039	3579.08	2123.96	60.9836	13 P 61	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.0293	3579.08	48.60	11.0000	117 P 11	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.4994	3579.09	1915.28	38.8974	24 R 38	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.0209	3579.15	2542.38	34.9714	118 R 34	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.2647	3579.19	815.82	0.1026	20 Q 19	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63
0.2344	3579.21	831.70	0.0976	19 Q 20	3581.15	0.0006	3505.49	63.9844	121 R 63	3581.15	0.0006	3505.49	63.9844	121 R 63



3581.27	373.8074	519.52	36.0000	15 P 36	3584.08	0.0003	3661.52	66.9851	120 R 66
3581.29	0.0012	3363.99	60.9836	120 R 60	3584.13	24.6860	675.22	4.8000	19 R 4
3581.30	0.2976	2042.03	42.9070	24 R 42	3584.30	0.0061	2851.22	44.9778	118 R 44
3581.30	0.0134	2656.55	38.9744	118 R 38	3584.37	0.0052	2884.43	45.9783	119 R 45
3581.32	0.5010	69.01	13.0000	17 P 13	3584.44	0.1203	2255.56	48.9184	24 R 48
3581.38	0.0065	2137.69	44.0000	115 P 44	3584.51	0.4112	34.13	9.0000	17 P 9
3581.39	1.7810	1431.09	10.0000	18 P 10	3584.53	0.0131	7.36	4.0000	116 P 4
3581.44	0.0060	2029.67	58.9831	13 P 59	3584.62	3.1764	139.90	20.0000	22 R 19
3581.45	0.0237	26.51	8.0000	116 P 8	3584.73	1.2168	1404.56	6.0000	18 P 6
3581.46	3.2263	77.32	15.0000	21 R 14	3584.86	29.2825	679.12	5.8333	20 R 5
3581.49	0.0118	2685.57	39.9750	119 R 39	3584.90	3.8283	1482.94	23.0000	23 R 22
3581.71	0.0001	2776.76	60.9344	113 P 61	3584.91	0.1028	2293.87	49.9200	25 R 49
3581.72	0.0067	1971.33	42.0000	114 P 42	3584.96	0.0002	3766.90	68.9855	120 R 68
3581.81	0.2608	2075.66	43.9091	25 R 43	3585.13	561.1488	411.91	32.0000	15 P 32
3581.84	7.9341	668.18	1.5000	20 R 1	3585.24	3.1055	154.62	21.0000	21 R 20
3581.98	0.0005	3605.98	65.9848	121 R 65	3585.24	0.0003	2636.02	57.9310	112 P 58
3582.11	3.2621	88.36	16.0000	22 R 15	3585.25	0.0044	2922.35	46.9787	118 R 46
3582.13	0.4852	59.15	12.0000	16 P 12	3585.27	0.0039	2956.94	47.9792	119 R 47
3582.18	4.3133	1418.92	19.0000	23 R 18	3585.28	0.0099	4.42	3.0000	117 P 3
3582.23	0.0214	20.62	7.0000	117 P 7	3585.30	0.3780	27.30	8.0000	16 P 8
3582.24	0.0008	3460.06	62.9841	120 R 62	3585.40	0.0110	1896.03	55.9821	12 P 56
3582.32	0.0105	2718.32	40.9756	118 R 40	3585.42	0.8829	994.25	50.0000	14 P 50
3582.37	0.2239	2110.09	44.9111	24 R 44	3585.45	0.0860	2332.98	50.9216	24 P 50
3582.48	0.0092	2748.74	41.9762	119 R 41	3585.46	0.0113	2005.94	40.0000	115 P 40
3582.61	14.0784	669.75	2.6667	19 R 2	3585.62	33.8352	683.83	6.8571	19 R 6
3582.74	3.2737	100.14	17.0000	21 R 16	3585.68	3.0183	170.08	22.0000	22 R 21
3582.78	0.0003	3709.57	67.9853	121 R 67	3585.89	0.0729	2372.84	51.9231	25 R 51
3582.87	0.1945	2145.28	45.9130	25 R 45	3586.03	0.0067	2.21	2.0000	116 P 2
3582.89	0.0003	2729.00	59.9333	112 P 60	3586.07	0.3407	21.23	7.0000	17 P 7
3582.93	0.4650	50.05	11.0000	17 P 11	3586.09	0.0133	1850.39	54.9818	13 P 55
3583.00	0.0187	15.46	6.0000	116 P 6	3586.12	0.0114	1844.83	38.0000	114 P 38
3583.07	1.5320	1416.26	8.0000	18 P 8	3586.15	0.0027	3032.55	49.9800	119 R 49
3583.11	0.0074	1985.81	57.9828	12 P 58	3586.16	0.0032	2996.59	48.9796	118 R 48
3583.17	0.6212	1074.49	52.0000	14 P 52	3586.23	3.4829	1519.63	25.0000	23 R 24
3583.17	0.0005	3559.24	64.9846	120 R 64	3586.33	37.6431	689.27	7.8750	20 R 7
3583.21	462.2781	464.16	34.0000	15 P 34	3586.35	0.8461	1395.97	4.0000	18 P 4
3583.33	0.0080	2783.21	42.9767	118 R 42	3586.39	0.0004	2590.77	56.9298	113 P 57
3583.36	19.4706	672.09	3.7500	20 R 3	3586.42	0.0604	2413.51	52.9245	24 R 52
3583.38	3.2623	112.66	18.0000	22 R 17	3586.45	2.9172	186.28	23.0000	21 R 22
3583.42	0.1656	2181.26	46.9149	24 R 46	3586.77	0.0034	0.74	1.0000	117 P 1
3583.43	0.0086	2070.27	42.0000	115 P 42	3586.85	0.2997	15.93	6.0000	16 P 6
3583.44	0.0070	2815.03	43.9773	119 R 43	3586.85	0.0508	2454.93	53.9259	119 R 53
3583.55	4.1132	1449.37	21.0000	23 R 20	3587.00	0.0019	3111.28	51.9808	25 R 51
3583.72	0.4403	41.71	10.0000	16 P 10	3587.03	668.3076	362.78	30.0000	15 P 30
3583.77	0.0160	11.05	5.0000	117 P 5	3587.04	2.8041	203.21	24.0000	22 R 23
3583.78	0.0091	1938.48	56.9825	13 P 57	3587.05	0.0023	3073.96	50.9804	118 R 50
3583.90	0.1426	2218.01	47.9167	25 R 47	3587.10	41.0458	695.57	8.8889	19 R 8
3583.94	0.0089	1906.52	40.0000	114 P 40	3587.38	0.0418	2497.16	54.9273	24 R 54
3584.00	3.2293	125.91	19.0000	21 R 18	3587.47	0.0144	1944.71	38.0000	115 P 38
3584.06	0.0003	2682.21	58.9322	113 P 59	3587.55	3.1011	1559.43	27.0000	23 R 26

LINE		LINE		LINE		LINE		LINE		LINE	
FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM
/ATM		/ATM		/ATM		/ATM		/ATM		/ATM	
STP		STP		STP		STP		STP		STP	
-3		-3		-3		-3		-3		-3	
L		L		L		L		L		L	
BAND		BAND		BAND		BAND		BAND		BAND	
ID		ID		ID		ID		ID		ID	
3587.55	0.0005	2546.15	55.9286	112 P 56	3590.39	0.0177	1730.00	34.0000	114 P 34		
3587.61	0.2554	11.3A	5.0000	17 P 5	3590.40	0.0132	4.42	4.0000	117 P 3		
3587.63	2.6810	220.88	25.0000	21 R 24	3590.44	0.0102	2814.41	61.9355	175 R 61		
3587.64	1.2337	917.11	48.0000	14 P 48	3590.49	1.9866	320.25	30.0000	22 R 29		
3587.66	0.0161	1809.35	53.9815	12 P 54	3590.62	0.0539	0.76	1.0000	17 P 1		
3587.78	4.43831	702.55	9.9000	20 R 9	3590.62	52.4798	738.49	13.9286	20 R 13		
3587.79	0.0348	2540.13	55.9286	25 R 55	3590.63	0.0279	1683.53	50.9804	13 P 51		
3587.81	0.0013	3193.11	53.9815	119 R 53	3590.75	893.1922	273.86	26.0000	15 P 26		
3587.91	0.0016	3154.44	52.9811	118 R 52	3590.79	0.0003	3551.48	61.9839	119 R 61		
3587.95	0.4037	1390.51	2.0000	18 P 2	3590.96	0.0080	2862.88	62.9365	24 R 62		
3588.22	2.5501	239.2A	26.0000	22 R 25	3590.97	0.0009	2417.24	52.9245	113 P 53		
3588.24	0.0034	0.00	1.0000	116 R 0	3591.05	1.8442	342.33	31.0000	21 R 30		
3588.27	0.0143	1786.2A	36.0000	114 P 36	3591.05	0.0003	3507.49	60.9836	118 R 60		
3588.31	0.0284	2583.92	56.9298	24 R 56	3591.10	0.0164	7.36	5.0000	116 R 4		
3588.37	0.0195	1765.41	52.9811	13 P 53	3591.28	0.0065	2912.06	63.9375	25 R 63		
3588.37	0.2082	7.58	4.0000	16 P 4	3591.37	1.9391	1697.56	33.0000	23 R 32		
3588.56	47.3394	710.43	10.9091	19 R 10	3591.41	53.6255	749.55	14.9333	19 R 14		
3588.60	0.0009	3278.05	55.9821	119 R 55	3591.42	0.0224	1831.53	34.0000	115 P 34		
3588.69	0.0007	2502.45	54.9273	113 P 55	3591.46	0.0002	3648.82	63.9844	119 R 63		
3588.70	0.0235	2628.45	57.9310	25 R 57	3591.60	1.7042	365.14	32.0000	22 R 31		
3588.74	0.0012	3238.03	54.9818	118 R 54	3591.76	0.0002	3603.53	62.9841	118 R 62		
3588.79	2.4134	258.42	27.0000	21 R 26	3591.80	0.0052	2962.08	64.9385	24 R 64		
3588.84	2.7046	1602.3A	29.0000	23 R 28	3591.80	0.0192	11.05	3.0000	117 R 5		
3588.90	780.4793	316.76	28.0000	15 P 28	3591.82	0.6526	1390.51	6.0000	18 R 2		
3588.96	0.0067	0.74	2.0000	117 R 1	3592.00	53.8100	761.14	15.9375	20 R 15		
3589.13	0.1584	4.55	3.0000	17 P 3	3592.01	2.2903	772.16	44.0000	14 P 44		
3589.21	49.3500	718.96	11.9167	20 R 11	3592.08	0.0042	3012.81	65.9394	25 R 65		
3589.22	0.0190	2673.79	58.9322	24 R 58	3592.09	0.0540	0.00	1.0000	16 R 0		
3589.36	0.0006	3366.09	57.9828	119 R 57	3592.10	0.0011	2375.75	51.9231	112 P 52		
3589.37	2.2728	278.29	28.0000	22 R 27	3592.11	0.0331	1645.34	49.9800	12 P 50		
3589.45	0.0181	1886.57	36.0000	115 P 36	3592.14	1.5676	388.69	33.0000	21 R 32		
3589.54	0.0008	3324.74	56.9825	118 R 56	3592.48	0.0214	1678.47	32.0000	114 P 32		
3589.58	0.0156	2719.87	59.9333	25 R 59	3592.50	0.0220	15.46	7.0000	116 P 6		
3589.68	0.0100	2.21	3.0000	116 R 2	3592.58	1000.8511	234.08	24.0000	15 P 24		
3589.84	1.6953	843.08	46.0000	14 P 46	3592.60	1.5958	1749.84	35.0000	23 R 34		
3589.84	0.0007	2459.39	53.9259	112 P 54	3592.61	0.0032	3064.39	66.9403	24 R 66		
3589.88	0.1069	2.2A	2.0000	16 P 2	3592.67	1.4356	412.98	34.0000	22 R 33		
3589.90	0.0232	1725.79	51.9808	12 P 52	3592.80	54.0929	773.81	16.9412	19 R 16		
3589.93	2.1299	298.90	29.0000	21 R 28	3592.82	0.1077	0.76	2.0000	17 R 1		
3589.99	51.4036	728.43	12.9231	19 R 12	3592.86	0.0393	1604.77	48.9796	13 P 49		
3590.09	0.0005	3457.23	59.9833	119 R 59	3592.87	0.0026	3116.67	67.9412	25 R 67		
3590.10	0.0125	2766.78	60.9344	24 R 60	3593.19	0.0245	20.62	8.0000	117 R 7		
3590.12	2.3123	1648.40	31.0000	23 R 30	3593.20	1.3087	438.00	35.0000	21 R 34		
3590.29	0.2199	1388.17	1.0000	18 R 0	3593.22	0.0013	2335.14	50.9216	113 P 51		
3590.31	0.0005	3414.54	58.9831	118 R 58	3593.31	1.0597	1395.97	5.0000	18 R 4		



3593.36	53.4732	786.92	17.9444	20 R 17	3596.74	0.6073	633.70	42.0000	22 R 41
3593.36	0.0272	1779.5A	32.0000	115 P 32	3596.86	47.0351	865.33	22.9565	19 R 22
3593.39	0.0021	3169.81	68.9420	24 R 68	3597.07	0.3906	21.23	8.0000	17 R 7
3593.54	0.1605	2.228	3.0000	16 R 2	3597.18	0.0376	1684.98	28.0000	115 P 28
3593.63	0.0016	3223.63	69.9429	25 R 69	3597.20	0.0342	67.01	14.0000	117 R 13
3593.73	1.1880	463.75	36.0000	22 R 35	3597.25	0.5352	664.59	43.0000	21 R 42
3593.82	1.2893	1805.23	37.0000	23 R 36	3597.25	0.0743	1456.56	44.9778	13 P 45
3593.87	0.0268	26.51	9.0000	116 R 8	3597.30	44.8114	882.98	23.9583	20 R 23
3594.15	3.0413	704.34	42.0000	14 P 42	3597.33	0.6108	1990.08	43.0000	23 R 42
3594.15	0.0012	3278.33	70.9437	24 R 70	3597.62	1.9679	1431.09	11.0000	18 R 10
3594.18	52.9813	801.19	18.9474	19 R 18	3597.63	0.0024	2180.30	46.9149	113 P 47
3594.24	1.0737	490.24	37.0000	21 R 36	3597.69	0.4697	696.22	44.0000	22 R 43
3594.26	0.2116	4.55	4.0000	17 R 3	3597.75	0.4267	27.30	9.0000	16 R 8
3594.30	0.0463	1568.01	47.9792	12 P 48	3597.84	0.0350	77.32	15.0000	116 R 14
3594.33	0.0014	2295.22	49.9200	112 P 50	3597.93	1225.9902	133.44	18.0000	15 P 18
3594.36	0.0031	3333.70	71.9444	25 R 71	3598.16	0.4105	728.59	45.0000	21 R 44
3594.38	1.096.9431	197.41	22.0000	15 P 22	3598.17	42.7888	902.10	24.9600	19 R 24
3594.54	0.0255	1629.25	30.0000	114 P 30	3598.35	5.0893	578.05	38.0000	14 P 38
3594.55	0.0289	33.14	10.0000	117 R 9	3598.44	0.4587	34.13	10.0000	17 R 9
3594.70	51.6793	815.82	19.9500	20 R 19	3598.47	0.4598	2057.92	45.0000	23 R 44
3594.76	0.9661	517.46	38.0000	22 R 37	3598.48	0.0353	88.36	16.0000	117 R 15
3594.78	1.4235	1404.56	7.0000	18 R 6	3598.56	0.0341	1540.17	26.0000	114 P 25
3594.89	0.0008	3389.95	72.9452	24 R 72	3598.57	40.3325	921.25	25.9615	20 R 26
3594.97	0.2606	7.58	5.0000	16 R 4	3598.60	0.0862	1422.68	43.9773	12 P 44
3595.01	1.0230	1863.73	39.0000	23 R 38	3598.62	0.3573	761.68	46.0000	22 R 45
3595.06	0.0006	3446.86	73.9459	25 R 73	3598.72	0.0029	2143.51	45.9130	112 P 46
3595.07	0.0544	1529.11	46.9787	13 P 47	3599.00	2.1323	1449.04	13.0000	18 R 12
3595.22	0.0306	40.50	11.0000	116 R 10	3599.05	0.0429	1642.32	26.0000	115 P 26
3595.26	0.8657	545.42	39.0000	21 R 38	3599.07	0.3098	795.51	47.0000	21 R 46
3595.28	0.0323	1730.73	30.0000	115 P 30	3599.11	0.4864	41.71	11.0000	16 R 10
3595.44	0.0018	2256.16	48.9184	113 P 49	3599.12	0.0354	100.14	17.0000	116 R 16
3595.53	50.5336	831.70	20.9524	19 R 20	3599.40	0.0995	1387.12	42.9767	13 P 43
3595.60	0.0005	3504.67	74.9467	24 R 74	3599.46	38.0909	941.98	26.9630	19 R 26
3595.67	0.3071	11.38	6.0000	17 R 5	3599.52	0.2675	830.07	48.0000	22 R 47
3595.74	0.0003	3563.12	75.9474	25 R 75	3599.58	0.3403	2128.87	47.0000	23 R 46
3595.76	0.7724	574.11	40.0000	22 R 39	3599.67	1245.0347	106.13	16.0000	15 P 16
3595.88	0.0321	48.60	12.0000	117 R 11	3599.75	0.0353	112.66	18.0000	117 R 17
3596.01	48.6937	847.84	21.9545	20 R 21	3599.78	0.5096	50.05	12.0000	17 R 11
3596.17	1174.3846	163.86	20.0000	15 P 20	3599.80	0.0034	2107.56	44.9111	113 P 45
3596.18	0.7974	1925.35	41.0000	23 R 40	3599.81	35.5411	962.63	27.9643	20 R 27
3596.21	1.7297	1416.26	9.0000	18 R 8	3599.96	0.2301	865.37	49.0000	21 R 48
3596.25	0.6864	603.54	41.0000	21 R 40	3600.34	2.2218	1470.10	15.0000	18 R 14
3596.26	3.9691	639.64	40.0000	14 P 40	3600.37	0.0350	125.91	19.0000	116 R 18
3596.29	0.0003	3622.48	76.9481	24 R 76	3600.40	0.1970	901.40	50.0000	22 R 49
3596.37	0.3506	15.93	7.0000	16 R 6	3600.42	6.4099	519.57	36.0000	14 P 36
3596.39	0.0002	3682.48	77.9487	25 R 77	3600.45	0.5283	59.15	13.0000	16 R 12
3596.46	0.0637	1493.78	45.9783	12 P 46	3600.52	0.0384	1500.32	24.0000	114 P 24
3596.54	0.0021	2217.80	47.9167	112 P 48	3600.66	0.2477	2202.92	49.0000	23 R 48
3596.54	0.0333	57.44	13.0000	116 R 12	3600.71	0.1145	1354.69	41.9762	12 P 42
3596.56	0.0298	1583.15	28.0000	114 P 28	3600.73	33.2128	985.00	28.9655	19 R 28



LINE	FREQ	INTENSITY	E	L	BAND	LINE	FREQ	INTENSITY	E	L	BAND
-1	-1	-1	-1	-1	ID	-1	-1	-1	-1	-1	ID
CM	CM	CM	CM	CM		CM	CM	CM	CM	CM	
		STP						STP			
3600.74	0.0001		2381.11	80.0000	10 P 80	3604.03	0.0004		2207.26	77.0000	11 P 77
3600.83	0.1681		938.16	51.0000	21 R 50	3604.05	0.0060		1971.44	40.9024	113 P 41
3600.87	0.0039		2072.33	43.9091	112 P 44	3604.21	2.0912		1552.03	21.0000	18 R 20
3600.90	0.0481		1602.77	24.0000	115 P 24	3604.32	0.5487		129.67	19.0000	16 R 18
3600.99	0.0344		139.90	20.0000	117 R 19	3604.34	0.0450		1429.98	20.0000	114 P 20
3601.02	30.6889		1007.14	29.9667	20 R 29	3604.39	0.0338		1301.99	60.0000	22 R 59
3601.11	0.5425		69.01	14.0000	17 R 13	3604.40	19.5734		1132.78	34.9714	19 R 34
3601.25	0.1429		975.66	52.0000	22 R 51	3604.46	9.6233		411.95	32.0000	14 P 32
3601.39	1225.8830		81.94	14.0000	15 P 14	3604.53	17.5972		1159.37	35.9722	20 R 35
3601.53	0.1310		1320.80	40.9756	13 P 41	3604.53	0.0563		1532.96	20.0000	115 P 20
3601.60	0.0336		154.62	21.0000	116 R 20	3604.57	0.0276		239.28	26.0000	117 R 25
3601.66	2.2396		1494.29	17.0000	18 R 16	3604.75	0.0277		1346.07	61.0000	21 R 60
3601.66	0.1210		1013.89	53.0000	21 R 52	3604.76	1059.4347		42.92	10.0000	15 P 10
3601.73	0.1772		2280.08	51.0000	23 R 50	3604.79	0.0587		2530.19	57.0000	23 R 56
3601.76	0.5521		79.63	15.0000	16 R 14	3604.86	0.1918		1228.07	37.9737	12 P 38
3601.84	0.0003		2322.43	79.0000	11 P 79	3604.95	0.5387		144.08	20.0000	17 R 19
3601.94	0.0045		2037.94	42.9070	113 P 43	3605.10	0.0226		1390.89	62.0000	22 R 61
3601.98	28.3860		1031.14	30.9677	19 R 30	3605.10	0.0068		1939.34	39.9000	112 P 40
3602.07	0.1019		1052.85	54.0000	22 R 53	3605.12	0.0005		2150.77	76.0000	10 P 76
3602.21	0.0327		170.08	22.0000	117 R 21	3605.15	0.0262		258.42	27.0000	116 R 26
3602.22	25.9834		1054.76	31.9688	20 R 31	3605.44	1.9465		1585.57	23.0000	18 R 22
3602.41	0.5574		91.00	16.0000	17 R 15	3605.45	0.0185		1436.43	63.0000	21 R 62
3602.45	7.9273		464.20	34.0000	14 P 34	3605.57	0.5255		159.24	21.0000	16 R 20
3602.45	0.0420		1463.58	22.0000	114 P 22	3605.58	15.8062		1188.29	36.9730	19 R 36
3602.48	0.0857		1092.54	55.0000	21 R 54	3605.66	14.0876		1216.34	37.9737	20 R 37
3602.73	0.0527		1566.32	22.0000	115 P 22	3605.70	0.2154		1197.49	36.9730	13 P 37
3602.77	0.1247		2360.35	53.0000	23 R 52	3605.72	0.0246		278.29	28.0000	117 R 27
3602.80	0.1494		1289.82	39.9750	12 P 40	3605.77	0.0394		2619.76	59.0000	23 R 58
3602.81	0.0316		186.28	23.0000	116 R 22	3605.79	0.0150		1482.71	64.0000	22 R 63
3602.87	0.0716		1132.97	56.0000	22 R 55	3606.13	0.0121		1529.72	65.0000	21 R 64
3602.93	0.0003		2264.48	78.0000	10 P 78	3606.14	0.0078		1908.06	38.8974	113 P 39
3602.95	2.1928		1521.60	19.0000	18 R 18	3606.18	0.5096		175.16	22.0000	17 R 21
3603.00	0.0051		2004.27	41.9048	112 P 42	3606.20	0.0006		2095.00	75.0000	11 P 75
3603.05	0.5583		103.13	17.0000	16 R 16	3606.21	0.0470		1399.49	18.0000	114 P 18
3603.09	1164.5910		60.87	12.0000	15 P 12	3606.28	0.0231		298.90	29.0000	116 P 28
3603.20	23.7950		1080.40	32.9697	19 R 32	3606.31	0.0588		1502.71	18.0000	115 P 18
3603.26	0.0597		1174.12	57.0000	21 R 56	3606.41	911.2898		28.09	8.0000	15 P 8
3603.39	21.5833		1105.51	33.9706	20 R 33	3606.44	11.4615		362.81	30.0000	14 P 30
3603.40	0.0303		203.21	24.0000	117 R 23	3606.45	0.0098		1577.46	66.0000	22 R 65
3603.63	0.1695		1257.58	38.9744	13 P 39	3606.63	1.7710		1622.24	25.0000	18 R 24
3603.64	0.0496		1216.01	58.0000	22 R 57	3606.72	0.0260		2712.43	61.0000	23 R 60
3603.69	0.5554		116.02	18.0000	17 R 17	3606.74	12.5350		1246.92	38.9744	19 R 38
3603.80	0.0864		2443.72	55.0000	23 R 54	3606.75	11.0776		1276.44	39.9750	20 R 39
3603.99	0.0290		220.88	25.0000	116 R 24	3606.77	0.0078		1625.93	67.0000	21 R 66
3604.02	0.0410		1258.63	59.0000	21 R 58	3606.79	0.4913		191.84	23.0000	16 R 22

3606.84	0.0215	320.25	30.0000	117 R 29	3610.05	1.1760	1750.94	31.0000	18 R 30
3606.90	0.2417	1169.44	35.9722	12 P 36	3610.06	0.0004	2264.48	79.0000	21 R 78
3607.09	0.0062	1675.13	68.0000	22 R 67	3610.07	0.0129	463.75	36.0000	117 R 35
3607.17	0.0087	1877.52	37.8947	112 P 38	3610.08	5.6236	1441.53	44.9778	19 R 44
3607.29	0.0009	2039.97	74.0000	10 P 74	3610.23	0.0123	1790.67	34.8857	113 P 35
3607.39	0.4711	209.28	24.0000	17 R 23	3610.28	0.0003	3222.43	80.0000	22 R 79
3607.39	0.0049	1725.06	69.0000	21 R 68	3610.30	0.0042	3114.05	69.0000	23 R 68
3607.39	0.0199	342.33	31.0000	116 R 30	3610.32	0.3529	307.83	29.0000	16 R 28
3607.65	0.0168	2808.20	63.0000	23 R 62	3610.33	15.3195	273.89	26.0000	14 P 26
3607.69	0.0040	1775.72	70.0000	22 R 69	3610.50	0.0003	2381.11	81.0000	21 R 80
3607.75	0.2689	1140.51	34.9714	13 P 35	3610.51	0.0017	1879.23	71.0000	11 P 71
3607.80	1.5770	1662.02	27.0000	18 R 26	3610.59	0.0116	490.24	37.0000	116 R 36
3607.82	8.5582	1339.65	41.9762	20 R 41	3610.65	0.0002	3773.11	98.0000	5 P 98
3607.88	9.7652	1308.67	40.9756	19 R 40	3610.71	0.0001	2440.51	82.0000	22 R 81
3607.94	0.0185	365.14	32.0000	117 R 31	3610.89	0.3282	329.81	30.0000	17 R 29
3607.98	0.0032	1827.11	71.0000	21 R 70	3610.90	0.3632	1061.54	31.9688	12 P 32
3607.99	0.4493	227.47	25.0000	16 R 24	3610.90	3.5576	47.9792	154.795	20 R 47
3608.04	0.0478	1372.14	16.0000	114 P 16	3610.92	0.0001	2500.64	83.0000	21 R 82
3608.05	723.8030	16.39	6.0000	15 P 6	3611.10	0.0105	517.46	38.0000	117 R 37
3608.07	0.0596	1475.56	16.0000	115 P 16	3611.12	0.9863	1800.07	33.0000	18 R 32
3608.20	0.0098	1847.80	36.8919	113 P 37	3611.13	0.0025	3222.18	71.0000	23 R 70
3608.27	0.0025	1879.23	72.0000	22 R 71	3611.15	4.1589	1512.63	46.9787	19 R 46
3608.37	0.0010	1985.66	73.0000	11 P 73	3611.24	258.5422	2.34	2.0000	15 P 2
3608.40	13.3858	316.79	28.0000	14 P 28	3611.24	0.0135	1763.27	33.8824	112 P 34
3608.48	0.0170	388.69	33.0000	116 R 32	3611.38	0.0005	3565.09	76.0000	9 P 76
3608.55	0.0020	1932.08	73.0000	21 R 72	3611.45	0.3037	352.55	31.0000	16 R 30
3608.56	0.0108	2907.06	65.0000	23 R 64	3611.51	0.0558	1430.57	12.0000	115 P 12
3608.58	0.4263	246.43	26.0000	17 R 25	3611.58	0.0022	1827.11	70.0000	10 P 70
3608.71	0.0003	3685.55	78.0000	9 P 78	3611.61	0.0446	1326.79	12.0000	114 P 12
3608.82	0.0015	1985.66	74.0000	22 R 73	3611.61	0.0094	545.42	39.0000	116 R 38
3608.87	6.4976	1405.97	43.9773	20 R 43	3611.76	0.3964	1035.90	30.9677	13 P 31
3608.91	0.2991	1113.93	33.9706	12 P 34	3611.87	2.5666	1623.61	49.9800	20 R 49
3608.94	1.3755	1704.92	29.0000	18 R 28	3611.94	0.0015	3333.40	73.0000	23 R 72
3608.99	7.4750	1373.54	42.9767	19 R 42	3612.00	0.2797	376.04	32.0000	17 R 31
3609.02	0.0155	412.98	34.0000	117 R 33	3612.11	0.0084	574.11	40.0000	117 R 39
3609.08	0.0011	2039.97	75.0000	21 R 74	3612.17	0.8118	1852.32	35.0000	18 R 34
3609.16	0.4023	266.14	27.0000	16 R 26	3612.20	3.0239	1586.85	48.9796	19 R 48
3609.22	0.0110	1818.83	35.8889	112 P 36	3612.23	17.1666	234.10	24.0000	14 P 24
3609.34	0.0009	2095.00	76.0000	22 R 75	3612.24	0.0151	1736.67	32.8788	113 P 33
3609.44	0.0014	1932.08	72.0000	10 P 72	3612.55	0.2564	400.30	33.0000	16 R 32
3609.44	0.0068	3009.01	67.0000	23 R 66	3612.60	0.0074	603.54	41.0000	116 R 40
3609.55	0.0142	438.00	35.0000	116 R 34	3612.64	0.0028	1775.72	69.0000	11 P 69
3609.58	0.0006	2150.77	77.0000	21 R 76	3612.73	0.0009	3447.70	75.0000	23 R 74
3609.66	503.3157	7.80	4.0000	15 P 4	3612.82	1.8208	1702.37	51.9808	20 R 51
3609.74	0.3777	286.60	28.0000	17 R 27	3612.86	0.4328	1012.27	29.9667	12 P 30
3609.77	0.3296	1086.65	32.9697	13 P 35	3613.09	0.0066	633.70	42.0000	117 R 41
3609.80	0.0587	1451.51	14.0000	115 P 14	3613.10	0.2339	425.31	34.0000	17 R 33
3609.82	0.0000	2207.26	78.0000	22 R 77	3613.19	0.6559	1907.68	37.0000	18 R 36
3609.84	0.0070	1347.90	14.0000	114 P 14	3613.19	0.0507	1412.72	10.0000	115 P 10
3609.90	0.0470	1475.40	45.9783	20 R 45	3613.22	2.1621	1664.18	50.9804	19 R 50



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID
3613.24	0.0003	3621.93	96.0000	5 P 96	3616.36	0.3912	2048.50	59.9833	20 R 59	3616.36	0.3912	2048.50	59.9833	20 R 59
3613.24	0.0165	1710.83	31.8750	112 P 32	3616.49	0.0345	1386.34	6.0000	115 P 6	3616.49	0.0345	1386.34	6.0000	115 P 6
3613.34	0.0406	1308.81	10.0000	114 P 10	3616.63	630.3603	7.80	5.0000	15 R 4	3616.63	630.3603	7.80	5.0000	15 R 4
3613.48	0.0005	3565.09	77.0000	23 R 76	3616.65	0.0012	3333.40	72.0000	9 P 72	3616.65	0.0012	3333.40	72.0000	9 P 72
3613.57	0.0058	664.59	43.0000	116 R 42	3616.71	0.5789	923.12	25.9615	12 P 26	3616.71	0.5789	923.12	25.9615	12 P 26
3613.58	130.8352	0.00	1.0000	15 R 0	3616.72	0.0278	1282.23	6.0000	114 P 6	3616.72	0.0278	1282.23	6.0000	114 P 6
3613.64	0.2126	451.07	35.0000	16 R 34	3616.75	0.1088	621.55	41.0000	16 R 40	3616.75	0.1088	621.55	41.0000	16 R 40
3613.70	0.0035	1725.06	68.0000	10 P 68	3616.80	0.0021	901.40	50.0000	117 R 49	3616.80	0.0021	901.40	50.0000	117 R 49
3613.73	0.0476	988.27	28.9655	13 P 29	3616.86	0.0068	1577.46	65.0000	11 P 65	3616.86	0.0068	1577.46	65.0000	11 P 65
3613.74	1.2705	1784.25	53.9815	20 R 53	3616.94	0.2339	2160.27	45.0000	18 R 44	3616.94	0.2339	2160.27	45.0000	18 R 44
3614.03	0.0008	3447.70	74.0000	9 P 74	3617.08	0.4788	2004.64	58.9831	19 R 58	3617.08	0.4788	2004.64	58.9831	19 R 58
3614.05	0.0051	696.22	44.0000	117 R 43	3617.14	0.0229	1615.33	27.8571	112 P 28	3617.14	0.0229	1615.33	27.8571	112 P 28
3614.10	18.8154	197.43	22.0000	14 P 22	3617.18	0.2557	2142.79	61.9839	20 R 61	3617.18	0.2557	2142.79	61.9839	20 R 61
3614.17	0.1922	477.59	36.0000	17 R 35	3617.23	0.0018	938.16	51.0000	116 R 50	3617.23	0.0018	938.16	51.0000	116 R 50
3614.17	0.5204	1966.16	39.0000	18 R 38	3617.25	0.0959	652.61	42.0000	17 R 41	3617.25	0.0959	652.61	42.0000	17 R 41
3614.21	0.0003	3685.55	79.0000	23 R 78	3617.58	0.6124	902.38	24.9600	13 P 25	3617.58	0.6124	902.38	24.9600	13 P 25
3614.22	1.5202	1744.63	52.9811	19 R 52	3617.67	0.0015	975.66	52.0000	117 R 51	3617.67	0.0015	975.66	52.0000	117 R 51
3614.22	0.0181	1685.79	30.8710	113 P 31	3617.74	0.0841	684.43	43.0000	16 R 42	3617.74	0.0841	684.43	43.0000	16 R 42
3614.52	0.0044	728.59	45.0000	116 R 44	3617.76	21.0301	133.45	18.0000	14 P 18	3617.76	21.0301	133.45	18.0000	14 P 18
3614.64	0.8170	1869.23	55.9821	20 R 55	3617.80	0.1732	2231.20	47.0000	18 R 46	3617.80	0.1732	2231.20	47.0000	18 R 46
3614.70	0.1731	504.87	37.0000	16 R 36	3617.90	0.0085	1529.72	64.0000	10 P 64	3617.90	0.0085	1529.72	64.0000	10 P 64
3614.76	0.0044	1675.13	67.0000	11 P 67	3617.98	0.1644	2240.19	63.9844	20 R 63	3617.98	0.1644	2240.19	63.9844	20 R 63
3614.80	0.5057	966.13	27.9643	12 P 28	3617.99	0.3152	2097.53	60.9836	19 R 60	3617.99	0.3152	2097.53	60.9836	19 R 60
3614.86	0.0436	1397.98	8.0000	115 P 8	3618.09	0.0013	1013.89	53.0000	116 R 52	3618.09	0.0013	1013.89	53.0000	116 R 52
3614.92	0.0002	3809.10	81.0000	23 R 80	3618.10	0.0247	1593.41	26.8519	113 P 27	3618.10	0.0247	1593.41	26.8519	113 P 27
3614.99	0.0039	761.68	46.0000	117 R 45	3618.11	0.0241	1377.81	4.0000	115 P 4	3618.11	0.0241	1377.81	4.0000	115 P 4
3615.05	0.0350	1293.96	8.0000	114 P 8	3618.12	846.7947	16.39	7.0000	15 R 6	3618.12	846.7947	16.39	7.0000	15 R 6
3615.12	388.2295	2.34	3.0000	15 R 2	3618.22	0.0734	717.00	44.0000	17 R 43	3618.22	0.0734	717.00	44.0000	17 R 43
3615.12	0.4058	2027.75	41.0000	18 R 40	3618.35	0.0193	1273.63	4.0000	114 P 4	3618.35	0.0193	1273.63	4.0000	114 P 4
3615.20	1.0514	1828.19	54.9818	19 R 54	3618.40	0.0014	3328.75	92.0000	5 P 92	3618.40	0.0014	3328.75	92.0000	5 P 92
3615.20	0.0196	1661.52	29.8667	112 P 30	3618.51	0.0011	1052.85	54.0000	117 R 53	3618.51	0.0011	1052.85	54.0000	117 R 53
3615.22	0.1551	532.91	38.0000	17 R 37	3618.59	0.6488	883.23	23.9583	12 P 24	3618.59	0.6488	883.23	23.9583	12 P 24
3615.45	0.0034	795.51	47.0000	116 R 46	3618.62	0.1260	2305.23	49.0000	18 R 48	3618.62	0.1260	2305.23	49.0000	18 R 48
3615.51	0.5889	1957.31	57.9828	20 R 57	3618.70	0.0639	750.33	45.0000	16 R 44	3618.70	0.0639	750.33	45.0000	16 R 44
3615.67	0.5407	943.77	26.9630	13 P 27	3618.75	0.1040	2340.68	65.9848	20 R 65	3618.75	0.1040	2340.68	65.9848	20 R 65
3615.74	0.1384	561.70	39.0000	16 R 38	3618.87	0.2042	2193.52	62.9841	19 R 62	3618.87	0.2042	2193.52	62.9841	19 R 62
3615.81	0.0055	1625.93	66.0000	10 P 66	3618.93	0.0009	1092.54	55.0000	116 R 54	3618.93	0.0009	1092.54	55.0000	116 R 54
3615.83	0.0008	3473.81	94.0000	5 P 94	3618.94	0.0106	1482.71	63.0000	11 P 63	3618.94	0.0106	1482.71	63.0000	11 P 63
3615.90	0.0029	830.07	48.0000	117 R 47	3619.06	0.0261	1572.27	25.8462	112 P 26	3619.06	0.0261	1572.27	25.8462	112 P 26
3615.95	20.1443	163.88	20.0000	14 P 20	3619.18	0.0554	784.41	46.0000	17 R 45	3619.18	0.0554	784.41	46.0000	17 R 45
3616.05	0.3108	2092.46	43.0000	18 R 42	3619.25	0.0021	3222.18	70.0000	9 P 70	3619.25	0.0021	3222.18	70.0000	9 P 70
3616.15	0.7153	1914.86	56.9825	19 R 56	3619.34	0.0008	1132.97	56.0000	117 R 55	3619.34	0.0008	1132.97	56.0000	117 R 55
3616.18	0.0214	1638.04	28.8621	113 P 29	3619.42	0.0901	2382.37	51.0000	18 R 50	3619.42	0.0901	2382.37	51.0000	18 R 50
3616.25	0.1230	591.25	40.0000	17 R 39	3619.47	0.6787	864.11	22.9565	13 P 23	3619.47	0.6787	864.11	22.9565	13 P 23
3616.35	0.0025	865.37	49.0000	116 R 48	3619.49	0.0648	2444.26	67.9853	20 R 67	3619.49	0.0648	2444.26	67.9853	20 R 67



3619.55	21.3573	106.14	16.0000	14 P 16	3622.78	0.0001	1529.72	65.0000	116 R 64
3619.59	1028.9460	28.09	9.0000	15 R 8	3622.81	0.0048	3008.59	77.9872	20 R 77
3619.65	0.0478	819.25	47.0000	16 R 46	3622.81	0.0322	1495.54	21.8182	112 P 22
3619.69	0.0124	1372.38	2.0000	115 P 2	3622.90	0.0132	2814.67	61.0000	18 R 60
3619.72	0.1302	2292.62	64.9846	19 R 64	3622.90	0.0184	2720.03	72.9863	19 R 72
3619.74	0.0007	1174.12	57.0000	116 R 56	3622.97	0.0001	2339.06	66.9851	111 P 67
3619.96	0.0099	1268.16	2.0000	114 P 2	3623.05	19.9782	60.88	12.0000	14 P 12
3619.98	0.0131	1436.43	62.0000	10 P 62	3623.06	0.0238	1301.99	59.0000	11 P 59
3620.01	0.0280	1551.92	24.8400	113 P 25	3623.16	0.7772	796.94	18.9474	13 P 19
3620.11	0.0410	854.84	48.0000	17 R 47	3623.17	0.0126	1125.12	55.0000	16 R 54
3620.14	0.0006	1216.01	58.0000	117 R 57	3623.39	0.0028	3130.73	79.9875	20 R 79
3620.18	0.0635	2462.62	53.0000	18 R 52	3623.48	0.0001	2391.76	67.9853	108 P 68
3620.21	0.0397	2550.95	69.9857	20 R 69	3623.49	0.0052	3047.84	88.0000	5 P 88
3620.45	0.7113	846.46	21.9545	12 P 22	3623.50	0.0085	2910.44	63.0000	18 R 62
3620.54	0.0005	1258.63	59.0000	116 R 58	3623.56	0.0186	1372.38	3.0000	115 R 2
3620.56	0.0351	891.19	49.0000	16 R 48	3623.58	0.0106	1166.75	56.0000	17 R 55
3620.56	0.0817	2394.82	66.9851	19 R 66	3623.63	0.0108	2834.62	74.9867	19 R 74
3620.90	0.0240	2660.72	71.9861	20 R 71	3623.68	0.0003	2044.79	73.0000	8 P 73
3620.91	0.0439	2545.98	55.0000	18 R 54	3623.73	0.0336	1478.31	20.8095	113 P 21
3620.93	0.0003	1301.99	60.0000	117 R 59	3623.83	0.0149	1268.16	3.0000	114 R 2
3620.95	0.0027	3186.76	90.0000	5 P 90	3623.86	1321.6412	81.94	15.0000	15 R 14
3620.95	0.0293	1532.34	23.8333	112 P 24	3623.94	0.0015	3255.94	81.9878	20 R 81
3621.01	0.0160	1390.89	61.0000	11 P 61	3623.99	0.0087	1209.13	57.0000	16 R 56
3621.01	0.0299	928.29	50.0000	17 R 49	3624.05	0.0003	2289.81	65.9848	110 P 66
3621.03	1170.6391	42.92	11.0000	15 R 10	3624.06	0.0055	3009.31	65.0000	18 R 64
3621.31	0.0003	1346.07	61.0000	116 R 60	3624.08	0.0290	1258.63	58.0000	10 P 58
3621.32	21.0292	81.95	14.0000	14 P 14	3624.09	0.7948	782.31	17.9444	12 P 18
3621.33	0.7352	828.97	20.9524	13 P 21	3624.34	0.0063	2952.31	76.9870	19 R 76
3621.36	0.0504	2500.13	68.9855	19 R 68	3624.37	0.0055	3009.01	66.0000	9 P 66
3621.46	0.0254	966.15	51.0000	16 R 50	3624.39	0.0072	1252.27	58.0000	17 R 57
3621.56	0.0142	2773.59	73.9865	20 R 73	3624.47	0.0008	3384.24	83.9881	20 R 83
3621.61	0.0299	2632.44	57.0000	18 R 56	3624.51	0.0001	2341.70	66.9851	109 P 67
3621.69	0.0002	1390.89	62.0000	117 R 61	3624.60	0.0034	3111.28	67.0000	18 R 66
3621.82	0.0034	3114.05	68.0000	9 P 68	3624.64	0.0343	1461.87	19.8000	112 P 20
3621.88	0.0310	1513.55	22.8261	113 P 23	3624.76	18.1745	461.93	10.0000	14 P 10
3621.89	0.0214	1004.76	52.0000	17 R 51	3624.79	0.0059	1296.16	59.0000	16 R 58
3621.89	0.0001	2389.04	67.9853	110 P 68	3624.81	0.0002	1989.62	72.0000	7 P 72
3622.03	0.0063	1370.05	1.0000	115 R 0	3624.96	0.8001	768.04	16.9412	13 P 17
3622.04	0.0196	1346.07	60.0000	10 P 60	3624.97	0.0005	3515.62	85.9884	20 R 85
3622.06	0.0002	1436.43	63.0000	116 R 62	3625.02	0.0036	3073.09	78.9873	19 R 78
3622.15	0.0306	2608.53	70.9859	19 R 70	3625.07	0.0301	1377.81	5.0000	115 R 4
3622.20	0.0084	2889.55	75.9868	20 R 75	3625.09	0.0351	1216.01	57.0000	11 P 57
3622.27	0.0201	2722.01	59.0000	18 R 58	3625.09	0.0021	3216.34	69.0000	18 R 68
3622.28	0.7615	812.83	19.9500	12 P 20	3625.12	0.0003	2241.30	64.9846	111 P 65
3622.30	0.0050	1265.81	1.0000	114 R 0	3625.17	0.0048	1340.80	60.0000	17 R 59
3622.33	0.0180	1044.13	53.0000	16 R 52	3625.24	1332.2456	106.13	17.0000	15 R 16
3622.42	0.0001	1482.71	64.0000	117 R 63	3625.32	0.0242	1273.63	5.0000	114 R 4
3622.46	1268.4234	60.87	13.0000	15 R 12	3625.44	0.0003	3650.07	87.9886	20 R 87
3622.54	0.0001	2100.71	74.0000	7 P 74	3625.54	0.0003	2292.38	65.9848	108 P 66
3622.75	0.0152	1084.25	54.0000	17 R 53	3625.55	0.0014	3324.50	71.0000	18 R 70

FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID
3625.55	0.0354	1446.21	18.7895	113 P 19	3628.48	0.7730	719.61	12.9231	13 P 13	3628.48	0.7730	719.61	12.9231	13 P 13
3625.56	0.0039	1386.20	61.0000	16 R 60	3628.51	0.0183	2779.22	84.0000	5 P 84	3628.51	0.0183	2779.22	84.0000	5 P 84
3625.67	0.0021	3196.97	80.9877	19 R 80	3628.60	0.0005	2148.79	62.9841	109 P 63	3628.60	0.0005	2148.79	62.9841	109 P 63
3625.87	0.8068	754.93	15.9375	12 P 16	3628.71	0.0005	1828.62	70.0000	17 R 69	3628.71	0.0005	1828.62	70.0000	17 R 69
3625.93	0.0032	1432.35	62.0000	17 R 61	3629.03	0.0004	1881.54	71.0000	16 R 70	3629.03	0.0004	1881.54	71.0000	16 R 70
3625.94	0.0004	1935.20	71.0000	8 P 71	3629.11	0.0721	1052.85	53.0000	11 P 53	3629.11	0.0721	1052.85	53.0000	11 P 53
3625.98	0.0008	3435.75	73.0000	18 R 82	3629.24	0.0363	1391.39	14.7333	113 P 15	3629.24	0.0363	1391.39	14.7333	113 P 15
3626.01	0.0098	2911.99	86.0000	5 P 86	3629.24	1157.9262	197.41	23.0000	15 R 22	3629.24	1157.9262	197.41	23.0000	15 R 22
3626.10	0.0422	1174.12	56.0000	10 P 56	3629.31	0.0006	1776.45	68.0000	7 P 68	3629.31	0.0006	1776.45	68.0000	7 P 68
3626.19	0.0004	2193.51	63.9844	110 P 64	3629.35	0.0004	1935.20	72.0000	17 R 71	3629.35	0.0004	1935.20	72.0000	17 R 71
3626.30	0.0026	1479.25	63.0000	16 R 62	3629.36	0.7528	709.55	11.9167	12 P 12	3629.36	0.7528	709.55	11.9167	12 P 12
3626.30	0.0011	3323.93	82.9880	19 R 82	3629.37	0.0008	2054.54	60.9836	111 P 61	3629.37	0.0008	2054.54	60.9836	111 P 61
3626.37	0.0005	3550.10	75.0000	18 R 74	3629.38	0.0137	2808.20	62.0000	9 P 62	3629.38	0.0137	2808.20	62.0000	9 P 62
3626.44	15.6333	28.10	8.0000	14 P 8	3629.44	0.0560	1412.72	11.0000	115 R 10	3629.44	0.0560	1412.72	11.0000	115 R 10
3626.45	0.0358	1431.33	17.7778	112 P 18	3629.59	0.0449	1308.81	11.0000	114 R 10	3629.59	0.0449	1308.81	11.0000	114 R 10
3626.55	0.0405	1386.34	7.0000	115 R 65	3629.61	0.0006	2102.40	61.9839	108 P 62	3629.61	0.0006	2102.40	61.9839	108 P 62
3626.56	0.0003	2243.78	64.9846	109 P 65	3629.65	0.0002	1989.62	73.0000	16 R 72	3629.65	0.0002	1989.62	73.0000	16 R 72
3626.60	1304.4113	133.44	19.0000	15 R 18	3629.72	8.6346	7.80	4.0000	14 P 4	3629.72	8.6346	7.80	4.0000	14 P 4
3626.67	0.0021	1526.90	64.0000	17 R 63	3629.95	0.0003	2044.79	74.0000	17 R 73	3629.95	0.0003	2044.79	74.0000	17 R 73
3626.73	0.0003	3667.53	77.0000	18 R 76	3629.99	0.0355	1379.64	13.7143	112 P 14	3629.99	0.0355	1379.64	13.7143	112 P 14
3626.74	0.7998	742.27	14.9333	13 P 15	3630.10	0.0854	1013.89	52.0000	10 P 52	3630.10	0.0854	1013.89	52.0000	10 P 52
3626.77	0.0325	1282.23	7.0000	114 R 64	3630.21	0.7178	700.08	10.9091	13 P 11	3630.21	0.7178	700.08	10.9091	13 P 11
3626.89	0.0088	2907.06	64.0000	9 P 64	3630.24	0.0001	2100.71	75.0000	16 R 74	3630.24	0.0001	2100.71	75.0000	16 R 74
3626.90	0.0006	3453.97	84.9882	19 R 84	3630.42	0.0008	1725.04	67.0000	8 P 67	3630.42	0.0008	1725.04	67.0000	8 P 67
3627.02	0.0016	1575.31	65.0000	16 R 64	3630.42	0.0009	2009.68	59.9833	110 P 60	3630.42	0.0009	2009.68	59.9833	110 P 60
3627.07	0.0004	1881.54	70.0000	7 P 70	3630.53	1053.5577	234.08	25.0000	15 R 24	3630.53	1053.5577	234.08	25.0000	15 R 24
3627.11	0.0506	1132.97	55.0000	11 P 55	3630.62	0.0008	2056.73	60.9836	109 P 61	3630.62	0.0008	2056.73	60.9836	109 P 61
3627.25	0.0005	2146.45	62.9841	111 P 63	3630.84	0.0607	1430.57	13.0000	115 R 12	3630.84	0.0607	1430.57	13.0000	115 R 12
3627.34	0.0364	1417.23	66.7647	13 P 17	3630.85	0.0349	1368.68	12.6923	113 P 13	3630.85	0.0349	1368.68	12.6923	113 P 13
3627.37	0.0013	1624.47	66.0000	17 R 65	3630.95	0.0486	1326.79	13.0000	114 R 12	3630.95	0.0486	1326.79	13.0000	114 R 12
3627.47	0.0003	3587.10	86.9885	19 R 86	3631.00	0.0337	2649.52	82.0000	5 P 82	3631.00	0.0337	2649.52	82.0000	5 P 82
3627.58	0.0004	2195.92	63.9844	108 P 64	3631.06	0.6830	691.56	9.9000	12 P 10	3631.06	0.6830	691.56	9.9000	12 P 10
3627.63	0.7937	730.68	13.9286	12 P 14	3631.09	0.1010	975.66	51.0000	11 P 51	3631.09	0.1010	975.66	51.0000	11 P 51
3627.72	0.0011	1674.38	67.0000	16 R 66	3631.31	4.4354	2.34	2.0000	14 P 2	3631.31	4.4354	2.34	2.0000	14 P 2
3627.93	1243.9953	163.86	21.0000	15 R 20	3631.46	0.0011	1965.55	58.9831	111 P 59	3631.46	0.0011	1965.55	58.9831	111 P 59
3628.00	0.0492	1397.98	9.0000	115 R 20	3631.53	0.0011	1674.38	66.0000	7 P 66	3631.53	0.0011	1674.38	66.0000	7 P 66
3628.02	0.0002	3723.31	88.9888	19 R 88	3631.63	0.0009	2011.80	59.9833	108 P 60	3631.63	0.0009	2011.80	59.9833	108 P 60
3628.06	0.0008	1725.04	68.0000	17 R 67	3631.72	0.0335	1358.49	11.6667	112 P 12	3631.72	0.0335	1358.49	11.6667	112 P 12
3628.09	12.4170	16.39	6.0000	14 P 6	3631.75	0.0003	3650.07	86.9885	4 P 87	3631.75	0.0003	3650.07	86.9885	4 P 87
3628.11	0.0605	1092.54	54.0000	10 P 54	3631.80	938.1496	273.86	27.0000	15 R 26	3631.80	938.1496	273.86	27.0000	15 R 26
3628.19	0.0005	1828.62	69.0000	8 P 69	3631.80	0.0002	3709.57	66.9851	107 P 67	3631.80	0.0002	3709.57	66.9851	107 P 67
3628.20	0.0394	1293.96	9.0000	114 R 8	3631.85	0.0213	2712.43	60.0000	9 P 60	3631.85	0.0213	2712.43	60.0000	9 P 60
3628.23	0.0362	1403.92	15.7500	112 P 16	3631.90	0.6337	683.68	8.8889	13 P 9	3631.90	0.6337	683.68	8.8889	13 P 9
3628.31	0.0006	2100.13	61.9839	110 P 62	3632.07	0.1187	938.16	50.0000	10 P 50	3632.07	0.1187	938.16	50.0000	10 P 50
3628.39	0.0007	1776.45	69.0000	16 R 68	3632.23	0.0632	1451.51	15.0000	115 R 14	3632.23	0.0632	1451.51	15.0000	115 R 14



3632.27	0.0507	1347.90	15.0000	114 R 14	3635.71	0.0007	1061.54	0.0616	12 Q 32
3632.50	0.0012	1922.16	57.9828	110 P 58	3635.75	0.0008	1035.90	0.0635	13 Q 31
3632.52	0.0002	3723.31	87.9886	3 P 88	3635.92	0.1081	2399.35	78.0000	5 P 78
3632.57	0.0322	1349.10	10.6364	113 P 11	3635.92	0.0026	1479.25	62.0000	7 P 62
3632.63	0.0010	1967.60	58.9831	109 P 59	3635.92	0.0225	1319.33	6.4286	113 P 7
3632.64	0.0013	1624.47	65.0000	8 P 65	3635.96	0.2187	795.51	46.0000	10 P 46
3632.74	0.5842	676.69	7.8750	12 P 8	3636.01	0.3074	656.35	3.7500	12 P 4
3633.04	818.2965	316.76	29.0000	15 R 28	3636.05	0.0003	3559.24	63.9844	106 P 64
3633.05	0.1391	901.40	49.0000	11 P 49	3636.06	0.0477	1429.98	21.0000	114 R 20
3633.24	0.0001	1320.80	0.0482	13 Q 41	3636.13	0.0010	1012.27	0.0656	12 Q 30
3633.26	0.0001	1354.69	0.0471	12 Q 42	3636.17	0.0011	988.27	0.0678	13 Q 29
3633.42	0.0301	1340.48	9.6000	112 P 10	3636.23	0.0597	1532.96	21.0000	115 R 20
3633.47	0.0608	2522.89	80.0000	5 P 80	3636.51	0.0013	966.13	0.0702	12 Q 28
3633.54	0.0016	1879.49	56.9825	111 P 57	3636.57	0.0015	943.77	0.0728	13 Q 27
3633.57	0.5217	670.40	6.8571	13 P 7	3636.59	0.0022	1798.15	54.9818	109 P 55
3633.57	0.0511	1372.13	17.0000	114 R 16	3636.62	0.0027	1755.90	53.9815	110 P 54
3633.59	0.0638	1475.56	17.0000	115 R 16	3636.64	482.9692	464.16	55.0000	15 R 34
3633.61	0.0002	3661.52	65.9848	106 P 66	3636.68	10.8139	7.80	5.0000	14 R 4
3633.63	0.0012	1924.14	57.9828	108 P 58	3636.70	0.0481	2530.19	56.0000	9 P 56
3633.65	2.2445	0.00	1.0000	14 R 0	3636.74	0.0191	1313.85	5.3333	112 P 6
3633.74	0.0016	1575.31	64.0000	7 P 64	3636.78	0.0005	3505.49	62.9841	107 P 63
3633.80	0.0002	1257.58	0.0506	13 Q 39	3636.82	0.2207	653.21	2.6667	13 P 3
3633.81	0.0002	1289.82	0.0494	12 Q 40	3636.87	0.0017	923.12	0.0755	12 Q 26
3634.03	0.1624	865.37	48.0000	10 P 48	3636.92	0.2523	761.68	45.0000	11 P 45
3634.26	0.0281	1332.65	8.5556	113 P 9	3636.93	0.0019	902.38	0.0785	13 Q 25
3634.27	699.6788	362.78	31.0000	15 R 30	3636.96	0.0009	3384.24	82.9880	4 P 83
3634.29	0.0322	2619.76	58.0000	9 P 58	3637.01	0.0032	1432.35	61.0000	8 P 61
3634.30	0.0003	3605.9A	64.9846	107 P 65	3637.21	0.0022	883.23	0.0817	12 Q 24
3634.32	0.0002	1228.07	0.0520	12 Q 38	3637.25	0.0443	1463.58	23.0000	114 R 22
3634.33	0.0003	1197.49	0.0533	13 Q 37	3637.27	0.0026	864.11	0.0851	13 Q 23
3634.37	0.0005	3515.62	84.9882	4 P 85	3637.52	0.0029	846.46	0.0889	12 Q 22
3634.39	0.4584	664.95	5.8333	12 P 6	3637.52	0.0557	1566.32	23.0000	115 R 22
3634.57	0.0018	1837.56	55.9821	110 P 56	3637.53	0.0006	3453.97	83.9881	3 P 84
3634.62	0.0016	1881.41	56.9825	109 P 57	3637.56	0.0154	1309.15	4.2000	113 P 5
3634.81	0.0003	1169.44	0.0548	12 Q 36	3637.57	0.0027	1757.62	53.9815	108 P 54
3634.83	0.0021	1526.90	63.0000	8 P 63	3637.58	0.0033	828.97	0.0931	13 Q 21
3634.83	0.0004	1140.51	0.0563	13 Q 35	3637.61	0.1264	650.87	1.5000	12 P 2
3634.83	0.0500	1399.49	19.0000	114 R 18	3637.63	0.0032	1716.17	52.9811	111 P 53
3634.92	0.0625	1502.71	19.0000	115 R 18	3637.70	0.0003	3667.53	76.0000	6 P 76
3635.00	0.1889	830.07	47.0000	11 P 47	3637.79	390.2534	519.52	37.0000	15 R 36
3635.03	0.0003	3587.10	85.9884	3 P 86	3637.80	0.0037	812.83	0.0976	12 Q 20
3635.09	0.0253	1325.60	7.5000	112 P 8	3637.87	0.0042	796.94	0.1026	13 Q 19
3635.18	6.6602	2.34	3.0000	14 R 2	3637.88	0.2898	728.59	44.0000	10 P 44
3635.20	0.3839	660.24	4.8000	13 P 5	3638.01	0.0001	1710.83	0.2462	112 Q 32
3635.28	0.0006	1113.93	0.0580	12 Q 34	3638.06	0.0048	782.31	0.1082	12 Q 18
3635.31	0.0006	1086.65	0.0597	13 Q 33	3638.09	0.0039	1386.20	60.0000	7 P 60
3635.40	0.0002	3788.05	78.0000	6 P 78	3638.12	0.0055	768.04	0.1144	13 Q 17
3635.46	586.8086	411.91	33.0000	15 R 32	3638.15	14.5266	16.39	7.0000	14 R 6
3635.59	0.0023	1796.36	54.9818	111 P 55	3638.22	0.0001	1685.79	0.2540	113 Q 31
3635.61	0.0018	1839.41	55.9821	108 P 56	3638.29	0.0062	754.93	0.1213	12 Q 16



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3638.35	0.0069	742.27	0.1292	13 Q 15	3640.00	0.0012	3323.93	81.9878	3 P 82	3640.01	241.4341	639.58	41.0000	15 R 40
3638.36	0.1992	2278.89	76.0000	5 P 76	3640.03	0.0452	1642.32	27.0000	115 R 26	3640.13	0.0007	1461.87	0.3905	112 Q 20
3638.41	0.0403	1500.32	3.0000	112 P 4	3640.24	0.0059	1296.16	58.0000	7 P 58	3640.26	0.0008	1446.21	0.4105	113 Q 19
3638.43	0.0001	1661.52	0.2624	112 Q 30	3640.39	0.0009	1431.33	0.4327	112 Q 18	3640.49	0.0045	1640.44	50.9804	109 P 51
3638.48	0.0006	3460.06	61.9839	106 P 62	3640.51	0.0010	1417.23	0.4575	113 Q 17	3640.62	0.0012	1403.92	0.4853	112 Q 16
3638.49	0.0078	730.68	0.1381	12 Q 14	3640.64	0.0313	1583.15	29.0000	114 R 28	3640.65	0.0053	1601.37	49.9800	110 P 50
3638.55	0.0089	719.61	0.1484	13 Q 13	3640.72	0.4286	633.70	41.0000	11 P 41	3640.72	0.1267	649.30	1.5000	13 R 1
3638.55	0.0031	1717.83	52.9811	109 P 53	3640.73	0.0013	1391.39	0.5167	113 Q 15	3640.77	0.3261	2161.51	74.0000	5 P 74
3638.63	0.0002	1638.04	0.2713	113 Q 29	3640.83	0.0015	1379.64	0.5524	112 Q 14	3640.88	0.0009	3363.99	59.9833	106 P 60
3638.64	0.0038	1677.17	51.9808	110 P 52	3640.92	0.0016	1368.68	0.5934	113 Q 13	3640.92	0.0016	42.93	11.0000	14 R 10
3638.67	0.0101	709.55	0.1603	12 Q 12	3641.01	0.0018	1358.49	0.6410	112 Q 12	3641.09	184.9540	704.28	43.0000	15 R 42
3638.72	0.0115	700.08	0.1742	13 Q 11	3641.09	0.0022	1349.10	0.6970	113 Q 11	3641.16	0.0024	1340.48	0.7636	112 Q 10
3638.79	0.0506	1602.77	25.0000	115 R 24	3641.23	0.0027	1332.65	0.8444	113 Q 9	3641.24	0.4395	1684.98	29.0000	115 R 28
3638.82	0.0132	691.56	0.1909	12 Q 10	3641.29	0.0032	1325.60	0.9444	112 Q 8	3641.29	0.0071	1252.27	57.0000	8 P 57
3638.82	0.0002	1615.33	0.2808	112 Q 28	3641.30	0.0038	1319.33	1.0714	113 Q 7	3641.34	0.0038	1319.33	1.0714	113 Q 7
3638.83	0.3315	696.22	43.0000	11 P 43	3641.39	0.0044	1313.85	1.2381	112 Q 6	3641.39	0.0044	1313.85	1.2381	112 Q 6
3638.87	0.0151	683.68	0.2111	13 Q 9	3641.43	0.0054	1309.15	1.4667	113 Q 5	3641.44	0.1021	2360.35	52.0000	9 P 52
3638.91	309.6919	577.99	39.0000	15 R 38	3641.46	0.0067	1305.23	1.8000	108 P 50	3641.46	0.0067	1602.85	49.9800	108 P 50
3638.94	0.0176	676.69	0.2361	12 Q 8	3641.49	0.0090	1302.10	2.6667	12 R 2	3641.51	0.0128	1299.75	3.3333	113 Q 3
3638.99	0.0204	670.40	0.2679	13 Q 7	3641.51	0.0128	1299.75	3.3333	112 Q 2	3641.64	0.0062	1564.57	48.9796	111 P 49
3639.01	0.0002	1593.41	0.2910	113 Q 27	3641.65	0.0012	1281.80	3313.80	107 P 59	3641.65	0.0012	603.54	40.0000	10 P 40
3639.04	0.0244	664.95	0.3095	12 Q 6	3641.66	0.4843	1269.25	31.0000	114 R 30	3641.66	0.4843	603.54	40.0000	10 P 40
3639.08	0.0707	2443.72	54.0000	9 P 54	3641.70	0.0267	1629.25	31.0000	114 R 30	3641.70	0.0267	1629.25	31.0000	114 R 30
3639.08	0.0293	660.24	0.3667	13 Q 5	3642.07	0.0031	3130.73	78.9873	4 P 79	3642.07	0.0031	3130.73	78.9873	4 P 79
3639.11	0.0369	656.35	0.4500	12 Q 4	3642.15	139.2585	772.09	45.0000	15 R 44	3642.15	139.2585	772.09	45.0000	15 R 44
3639.14	0.0484	653.21	0.5833	13 Q 3	3642.23	0.0009	3435.75	72.0000	6 P 72	3642.23	0.0009	3435.75	72.0000	6 P 72
3639.16	0.0702	650.87	0.8333	12 Q 2	3642.24	0.3109	653.21	3.7500	13 R 3	3642.24	0.3109	653.21	3.7500	13 R 3
3639.17	0.0048	1340.80	59.0000	8 P 59	3642.27	0.0044	1313.85	1.2381	112 Q 6	3642.27	0.0044	1313.85	1.2381	112 Q 6
3639.17	0.1267	649.30	1.5000	13 Q 1	3642.28	0.0045	1309.15	1.4667	113 Q 5	3642.28	0.0045	1309.15	1.4667	113 Q 5
3639.17	0.0064	1302.10	1.6667	113 P 3	3642.31	0.0006	1478.31	14.7831	10 P 40	3642.31	0.0006	1478.31	14.7831	10 P 40
3639.19	0.0004	1572.27	0.3020	112 Q 26	3642.31	0.0006	1478.31	14.7831	10 P 40	3642.31	0.0006	1478.31	14.7831	10 P 40
3639.23	0.0008	3408.09	60.9836	107 P 61	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.36	0.0004	1551.92	0.3138	113 Q 25	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.52	0.0038	1678.77	51.9808	108 P 52	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.53	0.0018	3255.94	80.9877	4 P 81	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.53	0.0004	1532.34	0.3267	112 Q 24	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.54	0.0035	1540.17	27.0000	114 R 26	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.59	17.6512	28.10	9.0000	14 R 8	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.65	0.0045	1638.90	50.9804	111 P 51	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.69	0.0005	1513.55	0.3406	113 Q 23	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.78	0.3778	664.59	42.0000	10 P 42	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.84	0.0006	1495.54	0.3557	112 Q 22	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.97	0.0006	3550.10	74.0000	6 P 74	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40
3639.99	0.0006	1478.31	0.3723	113 Q 21	3642.34	0.0004	1532.34	0.0004	10 P 40	3642.34	0.0004	1532.34	0.0004	10 P 40

3642.37	0.0086	1209.13	56.0000	7 P 56	3646.11	37.7851	1074.39	53.0000	15 R 52
3642.39	21.7585	60.88	13.0000	14 R 12	3646.22	0.0112	1425.92	44.9778	109 P 45
3642.42	0.0061	1565.99	48.9796	109 P 49	3646.28	0.8370	463.75	35.0000	11 P 35
3642.44	0.0337	1730.73	31.0000	115 R 30	3646.38	22.3740	133.45	19.0000	14 R 18
3642.46	0.0022	3196.97	79.9875	3 P 80	3646.41	0.0025	3134.51	54.9818	107 P 55
3642.59	0.5449	574.11	39.0000	11 P 39	3646.53	0.0093	1906.52	41.0000	114 R 40
3642.63	0.0073	1528.51	47.9792	110 P 48	3646.55	0.0130	1391.59	43.9773	110 P 44
3642.73	0.0225	1678.47	33.0000	114 R 32	3646.57	0.0179	1054.13	52.0000	7 P 52
3642.99	0.3942	656.35	4.8000	12 R 4	3646.61	0.7087	683.68	9.9000	13 R 9
3643.17	0.5534	2047.21	72.0000	5 P 72	3646.71	0.0027	3216.34	68.0000	6 P 68
3643.18	103.0756	843.00	47.0000	15 R 46	3646.81	0.0231	1313.85	6.4286	112 R 6
3643.25	0.0013	3271.03	57.9828	106 P 58	3646.98	0.0150	1944.71	39.0000	115 R 38
3643.38	0.0073	1529.87	47.9792	108 P 48	3647.04	26.1592	1157.73	55.0000	15 R 54
3643.42	0.0105	1166.75	55.0000	8 P 55	3647.10	0.0095	2889.55	74.9867	4 P 75
3643.52	0.6106	545.42	38.0000	10 P 38	3647.16	0.0129	1392.74	43.9773	108 P 44
3643.61	0.0284	1779.58	33.0000	115 R 32	3647.19	0.9217	1438.00	34.0000	10 P 34
3643.62	0.0084	1493.18	46.9787	111 P 47	3647.32	0.0071	2952.31	75.9868	3 P 76
3643.72	0.4676	660.24	5.8333	13 R 5	3647.35	0.7559	691.56	10.9091	12 R 10
3643.73	0.0184	1730.80	35.0000	114 R 34	3647.39	0.0071	1971.33	43.0000	114 R 42
3643.75	22.6708	81.95	15.0000	14 R 14	3647.51	0.0147	1359.19	42.9767	111 P 43
3643.77	0.1450	2280.08	50.0000	9 P 50	3647.54	0.0264	1319.33	7.5000	113 R 7
3643.83	0.0063	1299.75	1.6667	112 R 2	3647.60	0.0213	1004.76	51.0000	8 P 51
3644.04	0.0018	3222.60	56.9825	107 P 57	3647.65	21.3369	163.88	21.0000	14 R 20
3644.18	75.0139	917.03	49.0000	15 R 48	3647.90	1.5194	1827.89	68.0000	5 P 68
3644.33	0.0084	1494.48	46.9787	109 P 47	3647.92	0.0031	3094.43	53.9815	106 P 54
3644.45	0.6812	517.46	37.0000	11 P 37	3647.94	17.8158	1244.17	57.0000	15 R 56
3644.47	0.5403	664.95	6.8571	12 R 6	3648.01	0.7880	700.08	11.9167	13 R 11
3644.48	0.0017	3324.50	70.0000	6 P 70	3648.04	0.0002	3682.55	76.9481	2 P 77
3644.48	0.0126	1125.12	54.0000	7 P 54	3648.06	0.0118	2005.94	41.0000	115 R 40
3644.59	0.0115	1302.10	3.0000	113 R 3	3648.09	1.0106	412.98	33.0000	11 P 33
3644.60	0.0055	3008.59	76.9870	4 P 77	3648.09	0.0147	1360.29	42.9767	109 P 43
3644.60	0.0097	1458.58	45.9783	110 P 46	3648.23	0.0053	2039.25	45.0000	114 R 44
3644.69	0.0149	1786.26	37.0000	114 R 36	3648.26	0.0290	1325.60	8.5556	112 R 8
3644.75	0.0233	1831.53	35.0000	115 R 34	3648.34	0.2785	2128.87	46.0000	9 P 46
3644.90	0.0041	3073.09	77.9872	3 P 78	3648.47	0.0168	1327.53	41.9762	110 P 42
3645.08	22.8521	106.14	17.0000	14 R 16	3648.64	0.0252	966.15	50.0000	7 P 50
3645.16	53.6639	994.16	51.0000	15 R 50	3648.75	0.8208	709.55	12.9231	12 R 12
3645.18	0.6011	670.40	7.8750	13 R 7	3648.75	0.0036	3049.52	52.9811	107 P 53
3645.28	0.0097	1459.83	45.9783	108 P 46	3648.81	11.9371	1333.72	59.0000	15 R 58
3645.34	0.0157	1305.23	4.2000	112 R 4	3648.90	19.8600	197.43	23.0000	14 R 22
3645.36	0.7567	490.24	36.0000	10 P 36	3648.93	0.0042	3111.28	66.0000	6 P 66
3645.52	0.0151	1084.25	53.0000	8 P 53	3648.98	0.0317	1332.65	9.6000	113 R 9
3645.54	0.9242	1936.01	70.0000	5 P 70	3648.99	1.1029	388.69	32.0000	10 P 32
3645.58	0.0112	1424.72	44.9778	111 P 45	3649.03	0.0168	1328.58	41.9762	108 P 42
3645.60	0.0021	3181.17	55.9821	106 P 56	3649.03	0.0039	2110.28	47.0000	114 R 46
3645.63	0.0119	1844.83	39.0000	114 R 38	3649.11	0.0090	2070.27	43.0000	115 R 42
3645.88	0.0190	1886.57	37.0000	115 R 36	3649.30	0.0003	3622.48	75.9474	1 P 76
3645.93	0.6618	676.69	8.8889	12 R 8	3649.39	0.8380	719.61	13.9286	13 R 13
3646.07	0.2027	2202.92	48.0000	9 P 48	3649.43	0.0190	1296.61	40.9756	111 P 41
3646.08	0.0198	1309.15	5.3333	113 R 5	3649.58	0.0163	2773.59	72.9863	4 P 73



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3649.66	0.0297	928.29	49.0000	8 P 49	3652.47	14.0331	316.79	29.0000	14 R 28
3649.66	7.8696	1426.36	61.0000	15 R 60	3652.48	0.0063	2930.28	49.9800	106 P 50
3649.68	0.0335	1340.48	10.6364	112 R 10	3652.54	1.4944	298.90	28.0000	10 P 28
3649.72	0.0124	2834.62	73.9865	3 P 74	3652.55	3.9144	1620.94	64.0000	5 P 64
3649.80	0.0028	2184.42	49.0000	114 R 48	3652.56	0.0007	2512.07	57.0000	114 R 56
3649.89	1.1983	365.14	31.0000	11 P 31	3652.71	0.0272	1209.10	37.9737	108 P 38
3649.95	0.0190	1297.61	40.9756	109 P 41	3652.72	0.0475	819.25	46.0000	7 P 46
3650.11	18.0594	234.10	25.0000	14 R 24	3652.78	1.2658	1827.89	69.0000	15 R 68
3650.13	0.8563	730.68	14.9333	12 R 14	3652.80	0.4998	1990.08	42.0000	9 P 42
3650.14	0.0068	2137.69	45.0000	115 R 44	3652.80	0.8459	782.31	18.9474	12 R 18
3650.21	0.0045	3010.80	51.9808	106 P 52	3653.03	0.0002	3702.68	63.9844	104 P 64
3650.24	2.4582	1722.87	66.0000	5 P 66	3653.05	0.0006	3446.92	72.9452	2 P 73
3650.38	0.0217	1266.42	39.9750	110 P 40	3653.11	0.0026	2358.50	51.0000	115 R 50
3650.39	0.0355	1349.10	11.6667	113 R 11	3653.12	0.0390	1391.39	15.7500	113 R 15
3650.48	5.1050	1522.10	63.0000	15 R 62	3653.16	0.0004	2601.74	59.0000	114 R 58
3650.54	0.0021	2261.67	51.0000	114 R 50	3653.18	0.0003	3648.82	62.9841	105 P 63
3650.56	0.0003	3563.19	74.9467	2 P 75	3653.19	0.0303	1180.26	36.9730	111 P 37
3650.58	0.3764	2057.92	44.0000	9 P 44	3653.30	0.0107	2910.44	62.0000	6 P 62
3650.69	0.0349	891.19	48.0000	7 P 48	3653.34	0.0075	2888.87	48.9796	107 P 49
3650.74	0.8592	742.27	15.9375	13 R 15	3653.35	0.8252	796.94	19.9500	13 R 19
3650.77	1.2960	342.33	30.0000	10 P 30	3653.41	1.5932	278.29	27.0000	11 P 27
3650.87	0.0216	1267.37	39.9750	108 P 40	3653.49	0.7703	1936.01	71.0000	15 R 70
3650.91	0.0002	3749.26	64.9846	105 P 65	3653.60	11.9983	362.81	31.0000	14 R 30
3651.06	0.0053	2967.64	50.9804	107 P 51	3653.62	0.0303	1181.07	36.9730	109 P 37
3651.08	0.0367	1358.49	12.6923	112 R 12	3653.72	0.0550	784.41	45.0000	8 P 45
3651.12	0.0068	3009.31	64.0000	6 P 64	3653.74	0.0003	2694.52	61.0000	114 R 60
3651.15	0.0050	2208.21	47.0000	115 R 46	3653.79	0.0389	16.7647	16.7647	112 R 16
3651.24	0.0014	2342.03	53.0000	114 R 52	3654.05	0.0019	2438.29	53.0000	115 R 52
3651.28	3.2589	1620.94	65.0000	15 R 64	3654.09	0.8068	812.83	20.9524	12 R 20
3651.30	16.0892	273.89	27.0000	14 R 26	3654.12	0.0339	1153.01	35.9722	110 P 36
3651.32	0.0243	1236.96	38.9744	111 P 39	3654.18	0.4614	2047.21	73.0000	15 R 72
3651.47	0.8637	754.93	16.9412	12 R 16	3654.28	0.0008	3389.95	71.9444	1 P 72
3651.66	1.3949	320.25	29.0000	11 P 29	3654.28	1.6902	258.42	26.0000	10 P 26
3651.70	0.0408	854.84	47.0000	8 P 47	3654.28	0.0001	2790.40	63.0000	114 R 62
3651.77	0.0380	1368.68	13.7143	113 R 13	3654.45	0.0390	1417.23	17.7778	113 R 17
3651.79	0.0242	1237.87	38.9744	109 P 39	3654.46	0.0351	2608.53	69.9857	3 P 70
3651.80	0.0005	3504.67	73.9459	1 P 74	3654.46	0.0455	2550.95	68.9855	4 P 69
3651.92	0.0009	2425.50	55.0000	114 R 54	3654.52	0.0338	1153.78	35.9722	108 P 36
3652.03	0.0274	2660.72	70.9859	4 P 71	3654.61	0.7774	828.97	21.9545	13 R 21
3652.05	2.0473	1722.87	67.0000	15 R 66	3654.70	10.0623	411.95	33.0000	14 R 32
3652.06	0.8538	768.04	17.9444	13 R 17	3654.72	0.0087	2852.87	47.9792	106 P 48
3652.10	0.0210	2720.03	71.9861	3 P 72	3654.73	0.0635	750.33	44.0000	7 P 44
3652.14	0.0036	2281.81	49.0000	115 R 48	3654.83	0.2721	2161.51	75.0000	15 R 74
3652.26	0.0273	1208.24	37.9737	110 P 38	3654.85	6.1342	1522.10	62.0000	5 P 62
3652.45	0.0384	1379.64	14.7333	112 R 14	3654.98	0.6523	1925.35	40.0000	9 P 40



3654.98	0.0013	2521.16	55.0000	115 R 54	3657.86	5.3096	578.05	39.0000	14 R 38
3655.05	0.0373	1126.49	34.9714	111 P 35	3657.95	0.0016	3223.68	68.9420	2 P 69
3655.10	0.0381	1431.33	18.7895	112 P 18	3658.09	0.0493	1051.97	31.9688	108 P 32
3655.15	1.7840	239.28	25.0000	11 P 25	3658.12	0.0082	2911.99	87.0000	15 R 86
3655.23	0.0003	3603.53	61.9839	104 P 62	3658.24	0.5674	943.77	27.9643	13 R 27
3655.36	0.7509	846.46	22.9565	12 R 22	3658.27	0.0327	1513.55	23.8333	113 R 23
3655.42	0.0372	1127.22	34.9714	109 P 35	3658.46	0.0003	2883.48	63.0000	115 R 62
3655.44	0.0005	3551.48	60.9836	105 P 61	3658.56	2.0995	170.08	21.0000	11 P 21
3655.45	0.1579	2278.89	77.0000	15 R 76	3658.56	0.0043	3047.84	89.0000	15 R 88
3655.47	0.0164	2814.67	60.0000	6 P 60	3658.68	0.1080	621.55	40.0000	7 P 40
3655.51	0.0009	3333.75	70.9437	2 P 71	3658.69	0.0535	1027.79	30.9677	111 P 31
3655.60	0.0104	2813.20	46.9787	107 P 47	3658.85	4.1391	639.64	41.0000	14 R 40
3655.72	0.0730	717.00	43.0000	8 P 43	3658.89	0.0309	1532.34	24.8400	112 R 24
3655.75	0.0376	1446.21	19.8000	113 R 19	3658.97	0.0022	3186.76	91.0000	15 R 90
3655.78	8.2813	464.20	35.0000	14 R 34	3658.98	0.0534	1028.36	30.9677	109 P 31
3655.85	0.7155	864.11	23.9583	13 R 23	3659.00	0.5302	966.13	28.9655	12 R 28
3655.88	0.0008	2607.11	57.0000	115 R 56	3659.12	0.0936	2394.82	65.9848	3 P 66
3655.97	0.0412	1100.71	33.9706	110 P 34	3659.12	0.0163	2707.41	43.9773	106 P 44
3656.01	1.8733	220.88	24.0000	10 P 24	3659.15	0.0021	3169.81	67.9412	1 P 68
3656.05	0.0902	2399.35	79.0000	15 R 78	3659.25	0.1192	2340.68	64.9846	4 P 65
3656.32	0.0411	1101.40	33.9706	108 P 34	3659.26	1.0538	1805.23	36.0000	9 P 36
3656.39	0.0364	1461.87	20.8095	112 R 20	3659.28	0.0001	2981.77	65.0000	115 R 64
3656.60	0.6832	883.23	24.9600	12 R 24	3659.34	0.0012	3328.75	93.0000	15 R 92
3656.61	0.0507	2522.89	81.0000	15 R 80	3659.38	14.3524	1333.72	58.0000	5 P 58
3656.71	0.0835	684.43	42.0000	7 P 42	3659.39	0.4900	988.27	29.9667	13 R 29
3656.73	0.0012	3278.33	69.9429	1 P P 70	3659.40	2.1561	154.62	20.0000	10 P 20
3656.76	0.0006	2696.15	59.0000	115 R 58	3659.49	0.0295	1551.92	25.8462	113 R 25
3656.80	0.0578	2500.13	67.9853	3 P 68	3659.58	0.0009	3414.56	57.9828	104 P 58
3656.83	6.6912	519.57	37.0000	14 R 36	3659.59	0.0580	1004.95	29.9667	110 P 30
3656.86	1.9567	203.21	23.0000	11 P 23	3659.66	0.1220	59.0000	39.0000	8 P 39
3656.87	0.0743	244.26	66.9851	4 P 67	3659.68	0.0006	3473.81	95.0000	15 R 94
3656.88	0.0450	1075.67	32.9697	111 P 33	3659.75	0.0372	2632.44	56.0000	6 P 56
3656.94	0.0120	2778.58	45.9783	106 P 46	3659.82	3.1706	704.34	43.0000	14 R 42
3657.03	0.0356	1478.31	21.8182	113 R 21	3659.86	0.0580	1005.49	29.9667	108 P 30
3657.06	0.6439	902.38	25.9615	13 R 25	3659.89	0.0011	3366.09	56.9825	105 P 57
3657.13	9.4591	1426.36	60.0000	5 P 60	3659.99	0.0003	3621.93	97.0000	15 R 96
3657.14	0.8366	1863.71	38.0000	9 P 38	3660.02	0.0188	2671.20	42.9767	107 P 43
3657.15	0.0281	2649.52	83.0000	15 R 82	3660.09	0.0274	1572.27	26.8519	112 R 26
3657.21	0.0449	1076.32	32.9697	109 P 33	3660.17	0.4532	1012.27	30.9677	12 R 30
3657.41	0.0006	3507.49	59.9833	104 P 60	3660.23	2.2008	139.90	19.0000	11 P 19
3657.62	0.0249	2722.01	58.0000	6 P 58	3660.36	0.0026	3116.71	66.9403	2 P 67
3657.62	0.0004	2788.28	61.0000	115 R 60	3660.48	0.0621	982.85	28.9655	111 P 29
3657.65	0.0153	2779.22	85.0000	15 R 84	3660.52	0.4148	1035.90	31.9688	13 R 31
3657.65	0.0339	1495.54	22.8261	112 R 22	3660.63	0.1374	561.70	38.0000	7 P 38
3657.68	0.0008	3457.23	58.9831	105 P 59	3660.69	0.0260	1593.41	27.8571	113 R 27
3657.70	0.0952	652.61	41.0000	8 P 41	3660.73	0.0621	983.35	28.9655	109 P 29
3657.71	2.0326	186.28	22.0000	10 P 22	3660.76	2.3871	772.16	45.0000	14 R 44
3657.79	0.0494	1051.36	31.9688	110 P 32	3661.06	2.2320	125.91	18.0000	10 P 18
3657.82	0.6081	923.12	26.9630	12 R 26	3661.27	0.0239	1615.33	28.8621	112 R 28
3657.82	0.0142	2740.64	44.9778	107 P 45	3661.28	0.0216	2639.36	41.9762	106 P 42

LINE INTENSITY		E		L		BAND		LINE INTENSITY		E		L		BAND	
-1		CM		-1		ID		-1		CM		-1		ID	
FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY	FREQ	INTENSITY
CM	STP	CM	STP	CM	STP	CM	STP	CM	STP	CM	STP	CM	STP	CM	STP
3661.30	0.3798	1061.54	12 R 32	32.9697	0.0158	1736.67	113 R 33	33.8824	0.0158	1736.67	113 R 33	33.8824	0.0158	1736.67	113 R 33
3661.36	1.3035	1749.84	9 P 34	34.0000	0.0796	902.18	109 P 25	24.9600	0.0796	902.18	109 P 25	24.9600	0.0796	902.18	109 P 25
3661.37	0.0669	961.48	110 P 28	27.9643	0.6476	1074.49	14 R 52	53.0000	0.6476	1074.49	14 R 52	53.0000	0.6476	1074.49	14 R 52
3661.42	0.1493	2292.62	3 P 64	63.9844	0.0024	3193.11	105 P 53	52.9811	0.0024	3193.11	105 P 53	52.9811	0.0024	3193.11	105 P 53
3661.55	0.0033	3064.39	1 P 66	65.9394	2.0004	77.32	10 P 14	14.0000	2.0004	77.32	10 P 14	14.0000	2.0004	77.32	10 P 14
3661.59	0.1538	532.91	8 P 37	37.0000	0.0321	2541.65	107 P 39	38.9744	0.0321	2541.65	107 P 39	38.9744	0.0321	2541.65	107 P 39
3661.60	0.0668	961.96	108 P 28	27.9643	0.2106	451.07	7 P 34	34.0000	0.2106	451.07	7 P 34	34.0000	0.2106	451.07	7 P 34
3661.61	0.3445	1086.65	13 P 33	33.9706	0.2001	1228.07	12 R 38	38.9744	0.2001	1228.07	12 R 38	38.9744	0.2001	1228.07	12 R 38
3661.62	0.1886	2240.19	4 P 63	62.9841	0.0142	1763.27	112 R 34	34.8857	0.0142	1763.27	112 R 34	34.8857	0.0142	1763.27	112 R 34
3661.62	21.4256	1244.17	5 P 56	56.0000	0.1768	1257.58	13 R 39	39.9750	0.1768	1257.58	13 R 39	39.9750	0.1768	1257.58	13 R 39
3661.67	1.7668	843.08	14 R 46	47.0000	0.0838	883.38	110 P 24	23.9583	0.0838	883.38	110 P 24	23.9583	0.0838	883.38	110 P 24
3661.72	0.0014	3324.74	104 P 56	55.9821	0.0838	883.73	108 P 24	23.9583	0.0838	883.73	108 P 24	23.9583	0.0838	883.73	108 P 24
3661.85	0.0223	1638.04	113 P 29	29.8667	0.4483	1157.83	14 R 54	55.0000	0.4483	1157.83	14 R 54	55.0000	0.4483	1157.83	14 R 54
3661.86	0.0545	2545.98	6 P 54	54.0000	0.0067	2912.09	2 P 63	62.9365	0.0067	2912.09	2 P 63	62.9365	0.0067	2912.09	2 P 63
3661.88	2.2488	112.66	11 P 17	17.0000	0.0002	3633.22	102 P 64	63.8594	0.0002	3633.22	102 P 64	63.8594	0.0002	3633.22	102 P 64
3662.08	0.0016	3278.05	105 P 55	54.9818	2.1487	67.01	11 P 13	13.0000	2.1487	67.01	11 P 13	13.0000	2.1487	67.01	11 P 13
3662.19	0.0249	2604.87	107 P 41	40.9756	0.0129	1790.67	113 R 35	35.8889	0.0129	1790.67	113 R 35	35.8889	0.0129	1790.67	113 R 35
3662.25	0.0710	940.86	111 P 27	26.9630	0.2317	425.31	8 P 33	33.0000	0.2317	425.31	8 P 33	33.0000	0.2317	425.31	8 P 33
3662.41	0.3125	1113.93	12 R 34	34.9714	1.8851	1648.40	9 P 30	30.0000	1.8851	1648.40	9 P 30	30.0000	1.8851	1648.40	9 P 30
3662.42	0.0205	1661.52	112 R 30	30.8710	0.0363	2512.62	106 P 38	37.9737	0.0363	2512.62	106 P 38	37.9737	0.0363	2512.62	106 P 38
3662.46	0.0710	941.29	109 P 27	26.9630	0.1559	1289.82	12 R 40	40.9756	0.1559	1289.82	12 R 40	40.9756	0.1559	1289.82	12 R 40
3662.55	0.1716	504.87	7 P 36	36.0000	0.0115	1818.83	112 R 36	36.8919	0.0115	1818.83	112 R 36	36.8919	0.0115	1818.83	112 R 36
3662.56	1.2857	917.11	14 R 48	49.0000	0.1366	1320.80	13 R 41	41.9762	0.1366	1320.80	13 R 41	41.9762	0.1366	1320.80	13 R 41
3662.68	0.2809	1140.51	13 R 35	35.9722	0.0873	865.70	111 P 23	22.9565	0.0873	865.70	111 P 23	22.9565	0.0873	865.70	111 P 23
3662.70	2.2497	100.14	10 P 16	16.0000	0.3053	1244.28	14 R 56	57.0000	0.3053	1244.28	14 R 56	57.0000	0.3053	1244.28	14 R 56
3662.74	0.0042	3012.85	2 P 65	64.9385	0.0873	866.02	109 P 23	22.9565	0.0873	866.02	109 P 23	22.9565	0.0873	866.02	109 P 23
3662.99	0.0189	1685.79	113 R 31	31.8750	2.0783	57.44	10 P 12	12.0000	2.0783	57.44	10 P 12	12.0000	2.0783	57.44	10 P 12
3663.13	0.0757	920.96	110 P 26	25.9615	0.3616	2097.53	3 P 60	60.9833	0.3616	2097.53	3 P 60	60.9833	0.3616	2097.53	3 P 60
3663.32	0.0756	921.37	108 P 26	25.9615	0.0028	3154.44	104 P 52	51.9808	0.0028	3154.44	104 P 52	51.9808	0.0028	3154.44	104 P 52
3663.42	1.5825	1697.56	9 P 32	32.0000	45.4574	1074.39	5 P 52	52.0000	45.4574	1074.39	5 P 52	52.0000	45.4574	1074.39	5 P 52
3663.42	0.9201	994.25	14 R 50	51.0000	0.1122	2382.37	6 P 50	50.0000	0.1122	2382.37	6 P 50	50.0000	0.1122	2382.37	6 P 50
3663.42	0.0283	2574.43	106 P 40	39.9750	0.0103	1847.80	113 R 37	37.8947	0.0103	1847.80	113 R 37	37.8947	0.0103	1847.80	113 R 37
3663.50	0.2523	1169.44	12 R 36	36.9730	0.0083	2862.88	1 P 62	61.9355	0.0083	2862.88	1 P 62	61.9355	0.0083	2862.88	1 P 62
3663.51	0.1905	477.59	8 P 35	35.0000	0.4488	2048.50	4 P 59	58.9831	0.4488	2048.50	4 P 59	58.9831	0.4488	2048.50	4 P 59
3663.52	2.2339	88.36	11 P 15	15.0000	0.0003	3583.14	103 P 63	62.8571	0.0003	3583.14	103 P 63	62.8571	0.0003	3583.14	103 P 63
3663.55	0.0172	1710.83	112 R 32	32.8788	0.2538	400.334	7 P 32	32.0000	0.2538	400.334	7 P 32	32.0000	0.2538	400.334	7 P 32
3663.70	0.2341	2193.52	13 P 62	61.9839	0.0034	3111.28	105 P 51	50.9804	0.0034	3111.28	105 P 51	50.9804	0.0034	3111.28	105 P 51
3663.73	0.2248	1197.49	37.9737	33 P 37	0.0409	2481.54	107 P 37	36.9730	0.0409	2481.54	107 P 37	36.9730	0.0409	2481.54	107 P 37
3663.83	31.4661	1157.73	5 P 54	54.0000	0.2046	1333.83	14 R 58	59.0000	0.2046	1333.83	14 R 58	59.0000	0.2046	1333.83	14 R 58
3663.85	0.0019	3238.03	104 P 54	53.9815	0.0909	848.75	110 P 22	21.9545	0.0909	848.75	110 P 22	21.9545	0.0909	848.75	110 P 22
3663.93	0.0053	2962.08	1 P 64	63.9375	0.1193	1354.69	12 R 42	42.9767	0.1193	1354.69	12 R 42	42.9767	0.1193	1354.69	12 R 42
3663.94	0.0002	3684.08	103 P 65	64.8615	0.1037	1387.12	13 R 43	43.9773	0.1037	1387.12	13 R 43	43.9773	0.1037	1387.12	13 R 43
3663.95	0.2932	2142.79	4 P 61	60.9836	1.9892	48.60	11 P 11	11.0000	1.9892	48.60	11 P 11	11.0000	1.9892	48.60	11 P 11
3663.95	0.0789	2462.62	6 P 52	52.0000	0.0910	849.05	108 P 22	21.9545	0.0910	849.05	108 P 22	21.9545	0.0910	849.05	108 P 22
3664.00	0.0795	901.81	111 P 25	24.9600	0.0091	1877.52	112 R 38	38.8974	0.0091	1877.52	112 R 38	38.8974	0.0091	1877.52	112 R 38



3667.27	0.2768	376.04	31.0000	8 P 31	3670.12	0.2152	2231.20	46.0000	6 P 46
3667.30	0.0080	1908.06	39.9000	113 R 39	3670.12	0.0055	2996.59	47.9792	104 P 48
3667.37	0.1348	1426.48	61.0000	14 R 60	3670.19	0.0036	2107.56	45.9130	113 R 45
3667.43	0.0935	832.54	20.9524	111 P 21	3670.25	0.0291	1683.53	51.9808	13 R 51
3667.44	0.0104	2814.44	60.9344	2 P 61	3670.34	90.2578	917.03	48.0000	5 P 48
3667.45	0.0003	3533.83	61.8548	102 P 62	3670.35	0.0345	1645.34	50.9804	12 R 50
3667.46	2.2017	1602.36	28.0000	9 P 28	3670.42	0.8209	1914.86	55.9821	3 P 56
3667.51	1.8813	40.50	10.0000	10 P 10	3670.52	0.0131	1936.16	71.0000	14 R 70
3667.55	0.0935	832.81	20.9524	109 P 21	3670.58	0.0626	2370.68	32.9697	107 P 33
3667.57	0.0897	1422.68	44.9778	12 R 44	3670.61	1.2759	15.46	6.0000	10 P 6
3667.61	0.0458	2453.93	35.9722	106 P 36	3670.65	0.0066	2956.94	46.9787	105 P 47
3667.62	0.0774	1456.56	45.9783	13 R 45	3670.65	0.0031	2143.51	46.9149	112 R 46
3667.77	0.0071	1939.34	40.9024	112 R 40	3670.78	0.1002	775.06	16.9412	111 P 17
3668.00	0.0875	1522.23	63.0000	14 R 62	3670.82	1.0010	1869.23	54.9818	4 P 55
3668.05	0.0039	3073.96	49.9800	104 P 50	3670.86	0.1002	775.24	16.9412	109 P 17
3668.08	0.1566	2305.23	48.0000	6 P 48	3670.89	0.0195	2673.79	57.9310	1 P 58
3668.19	64.5909	994.16	50.0000	5 P 50	3670.90	0.0006	3390.59	58.8475	103 P 59
3668.20	0.5493	2004.64	57.9828	3 P 58	3670.95	0.3726	286.60	27.0000	8 P 27
3668.20	0.3003	352.55	30.0000	7 P 30	3671.07	0.0203	1765.41	53.9815	13 R 53
3668.27	0.0062	1971.44	41.9048	113 R 41	3671.09	0.0079	2047.37	73.0000	14 R 72
3668.28	0.0964	817.06	19.9500	110 P 20	3671.10	0.0026	2180.30	47.9167	113 R 47
3668.29	1.7553	33.14	9.0000	11 P 9	3671.22	0.0243	1725.79	52.9811	12 R 52
3668.39	0.0965	817.31	19.9500	108 P 20	3671.38	2.8243	1519.63	24.0000	9 P 24
3668.52	0.0664	1493.78	46.9787	12 R 46	3671.38	1.0866	11.05	5.0000	11 P 5
3668.52	0.0568	1529.11	47.9792	13 R 47	3671.55	0.0022	2217.80	48.9184	112 R 48
3668.53	0.0511	2424.56	34.9714	107 P 35	3671.61	0.1005	762.53	15.9375	110 P 16
3668.54	0.0048	3032.55	48.9796	105 P 49	3671.63	0.0046	2161.67	75.0000	14 R 74
3668.55	0.6756	1957.31	56.9825	4 P 57	3671.67	0.1006	762.69	15.9375	108 P 16
3668.60	0.0128	2766.78	59.9333	1 P 60	3671.68	0.0689	2345.92	31.9688	106 P 32
3668.61	0.0005	385.31	60.8525	103 P 61	3671.86	0.0364	266.14	26.0000	7 P 26
3668.67	0.0559	1621.07	65.0000	14 R 64	3671.86	0.0140	1850.39	55.9821	13 R 55
3668.76	0.0054	2004.27	42.9070	112 R 42	3671.99	0.0018	2256.16	49.9200	113 R 49
3669.07	1.6116	26.51	8.0000	10 P 8	3672.03	0.0240	2628.47	56.9298	2 P 57
3669.12	0.3242	329.81	29.0000	8 P 29	3672.04	0.0008	3344.40	57.8448	102 P 58
3669.12	0.0980	802.33	18.9474	111 P 19	3672.07	0.0168	1809.35	54.9818	12 R 54
3669.21	0.0981	802.55	18.9474	109 P 19	3672.13	0.8852	7.36	4.0000	10 P 4
3669.24	0.0048	2037.94	43.9091	113 R 43	3672.14	0.2907	2160.27	44.0000	6 P 44
3669.31	0.0351	1723.01	67.0000	14 R 66	3672.17	0.0027	2279.05	77.0000	14 R 76
3669.40	0.0409	1604.77	49.9800	13 R 49	3672.17	0.0075	2923.35	45.9783	104 P 46
3669.44	2.5200	1559.43	26.0000	9 P 26	3672.42	0.0994	750.74	14.9333	111 P 15
3669.45	0.0483	1568.01	48.9796	12 R 48	3672.42	0.0016	2295.22	50.9216	112 R 50
3669.66	0.0567	2398.36	33.9706	106 P 34	3672.46	124.0180	843.00	46.0000	5 P 46
3669.72	0.0040	2072.33	44.9111	112 R 44	3672.48	0.0995	750.88	14.9333	109 P 15
3669.75	0.0159	2719.90	58.9322	2 P 59	3672.61	1.2068	1828.19	53.9815	3 P 54
3669.76	0.0005	3437.56	59.8500	102 P 60	3672.61	0.0752	2319.93	30.9677	107 P 31
3669.85	1.4515	20.62	7.0000	11 P 7	3672.63	0.0094	1938.48	57.9828	13 R 57
3669.93	0.0217	1828.04	69.0000	14 R 68	3672.63	0.0016	2359.52	79.0000	14 R 78
3669.95	0.0998	788.32	17.9444	110 P 18	3672.73	0.0089	2864.43	44.9778	105 P 45
3670.04	0.3485	307.83	28.0000	7 P 28	3672.76	0.4196	246.43	25.0000	8 P 25
3670.04	0.0998	788.52	17.9444	108 P 18	3672.85	0.0013	2335.14	51.9231	113 P 51



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3672.89	0.6735	4.42	3.0000	11 P 3	3675.42	0.0013	3210.51	54.8364	103 P 55	3675.42	0.0013	3210.51	54.8364	103 P 55
3672.89	0.0115	1896.03	56.9825	12 R 56	3675.64	0.0882	710.94	10.9091	111 P 11	3675.64	0.0882	710.94	10.9091	111 P 11
3673.06	1.4585	1784.25	52.9811	4 P 53	3675.64	0.0004	2636.02	58.9322	112 R 58	3675.64	0.0004	2636.02	58.9322	112 R 58
3673.06	0.0008	2523.07	81.0000	14 R 80	3675.65	0.0960	2250.42	27.9643	106 P 28	3675.65	0.0960	2250.42	27.9643	106 P 28
3673.16	0.0290	2583.92	55.9286	1 P 56	3675.67	0.0883	711.01	10.9091	109 P 11	3675.67	0.0883	711.01	10.9091	109 P 11
3673.17	0.0009	3298.99	56.8421	103 P 57	3675.84	0.2296	0.00	1.0000	10 R 0	3675.84	0.2296	0.00	1.0000	10 R 0
3673.24	0.0982	739.68	13.9286	110 P 14	3675.93	0.0021	2273.79	64.9846	12 R 64	3675.93	0.0021	2273.79	64.9846	12 R 64
3673.27	0.0011	2375.75	52.9245	112 R 52	3676.01	0.0003	2652.21	59.9333	113 R 59	3676.01	0.0003	2652.21	59.9333	113 R 59
3673.28	0.0983	739.80	13.9286	108 P 14	3676.05	0.0011	2425.43	67.9853	13 R 67	3676.05	0.0011	2425.43	67.9853	13 R 67
3673.30	3.0958	1482.94	22.0000	9 P 22	3676.12	0.5038	2027.75	40.0000	6 P 40	3676.12	0.5038	2027.75	40.0000	6 P 40
3673.37	0.0063	2029.67	59.9833	13 R 59	3676.21	0.0137	2783.21	41.9762	104 P 42	3676.21	0.0137	2783.21	41.9762	104 P 42
3673.53	0.0005	2649.70	83.0000	14 R 82	3676.30	0.4988	175.16	21.0000	8 P 21	3676.30	0.4988	175.16	21.0000	8 P 21
3673.63	0.4540	2.21	2.0000	10 P 2	3676.37	0.0003	2729.00	60.9344	112 R 60	3676.37	0.0003	2729.00	60.9344	112 R 60
3673.65	0.4417	227.47	24.0000	7 P 24	3676.43	0.0835	702.83	9.9000	110 P 10	3676.43	0.0835	702.83	9.9000	110 P 10
3673.68	0.0821	2296.61	29.9667	106 P 30	3676.45	0.0836	702.89	9.9000	108 P 10	3676.45	0.0836	702.89	9.9000	108 P 10
3673.69	0.0076	1985.81	58.9831	12 R 58	3676.52	0.0520	2454.94	52.9245	2 P 53	3676.52	0.0520	2454.94	52.9245	2 P 53
3673.69	0.0009	2417.24	53.9259	113 R 54	3676.54	0.0016	3167.44	53.8333	102 P 54	3676.54	0.0016	3167.44	53.8333	102 P 54
3673.94	0.0003	2779.40	85.0000	14 R 84	3676.57	0.074	0.74	2.0000	11 R 1	3676.57	0.074	0.74	2.0000	11 R 1
3674.04	0.0954	729.36	12.9231	111 P 13	3676.58	0.1027	2227.78	26.9630	107 P 27	3676.58	0.1027	2227.78	26.9630	107 P 27
3674.08	0.0041	2123.96	61.9839	13 R 61	3676.62	0.0013	2375.99	66.9851	12 R 66	3676.62	0.0013	2375.99	66.9851	12 R 66
3674.08	0.0955	729.47	12.9231	109 P 13	3676.64	222.4620	704.28	42.0000	5 P 42	3676.64	222.4620	704.28	42.0000	5 P 42
3674.09	0.0008	2459.39	54.9273	112 R 54	3676.66	0.0007	2532.12	69.9857	13 R 69	3676.66	0.0007	2532.12	69.9857	13 R 69
3674.14	0.3862	2092.46	42.0000	6 P 42	3676.73	0.0001	2776.76	61.9355	113 R 61	3676.73	0.0001	2776.76	61.9355	113 R 61
3674.20	0.0103	2851.22	43.9773	104 P 44	3676.84	0.0157	2748.74	40.9756	105 P 41	3676.84	0.0157	2748.74	40.9756	105 P 41
3674.29	0.0356	2540.15	54.9273	2 P 55	3676.94	2.4823	1664.18	49.9800	3 P 50	3676.94	2.4823	1664.18	49.9800	3 P 50
3674.30	0.0012	3254.36	55.8393	102 P 56	3677.03	3.4607	1418.92	18.0000	9 P 18	3677.03	3.4607	1418.92	18.0000	9 P 18
3674.37	0.2286	0.74	1.0000	11 P 1	3677.07	0.0001	2825.09	62.9365	112 R 62	3677.07	0.0001	2825.09	62.9365	112 R 62
3674.46	0.0051	2078.70	60.9836	12 R 60	3677.17	0.5134	159.24	20.0000	7 P 20	3677.17	0.5134	159.24	20.0000	7 P 20
3674.49	0.0007	2502.45	55.9286	113 R 55	3677.22	0.0775	695.46	8.8889	111 P 9	3677.22	0.0775	695.46	8.8889	111 P 9
3674.54	0.4626	209.28	23.0000	8 P 23	3677.23	0.0776	695.51	8.8889	109 P 9	3677.23	0.0776	695.51	8.8889	109 P 9
3674.56	167.5335	772.09	44.0000	5 P 44	3677.24	0.0004	2641.89	71.9861	13 R 71	3677.24	0.0004	2641.89	71.9861	13 R 71
3674.61	0.0887	2272.30	28.9655	107 P 29	3677.29	0.6816	2.21	3.0000	10 R 2	3677.29	0.6816	2.21	3.0000	10 R 2
3674.77	0.0026	2221.35	63.9844	13 R 63	3677.29	0.0008	2481.30	68.9855	12 R 68	3677.29	0.0008	2481.30	68.9855	12 R 68
3674.79	1.7452	1744.63	51.9808	3 P 52	3677.47	2.9471	1623.61	48.9796	4 P 49	3677.47	2.9471	1623.61	48.9796	4 P 49
3674.80	0.0119	2815.03	42.9767	105 P 43	3677.59	0.1098	2207.36	25.9615	106 P 26	3677.59	0.1098	2207.36	25.9615	106 P 26
3674.85	0.0926	719.78	11.9167	110 P 12	3677.63	0.0619	2413.51	51.9231	1 P 52	3677.63	0.0619	2413.51	51.9231	1 P 52
3674.88	0.0927	719.87	11.9167	108 P 12	3677.64	0.0021	3125.15	52.8302	103 P 53	3677.64	0.0021	3125.15	52.8302	103 P 53
3674.88	0.0005	2546.15	56.9298	112 R 56	3677.79	0.0003	2754.76	73.9865	13 R 73	3677.79	0.0003	2754.76	73.9865	13 R 73
3675.18	3.3147	1449.37	20.0000	9 P 20	3677.93	0.0005	2589.70	70.9859	12 R 70	3677.93	0.0005	2589.70	70.9859	12 R 70
3675.21	0.0032	2174.69	62.9841	12 R 62	3678.00	0.8993	4.42	4.0000	11 R 3	3678.00	0.8993	4.42	4.0000	11 R 3
3675.27	0.0004	2590.77	57.9310	113 R 57	3678.00	0.0712	688.83	7.8750	110 P 8	3678.00	0.0712	688.83	7.8750	110 P 8
3675.28	2.0907	1702.37	50.9804	4 P 51	3678.01	0.0713	688.87	7.8750	108 P 8	3678.01	0.0713	688.87	7.8750	108 P 8
3675.41	0.0428	2497.16	53.9259	1 P 54	3678.04	0.5252	144.08	19.0000	8 P 19	3678.04	0.5252	144.08	19.0000	8 P 19
3675.42	0.4817	191.84	22.0000	7 P 22	3678.08	0.6461	1966.16	38.0000	6 P 38	3678.08	0.6461	1966.16	38.0000	6 P 38
3675.42	0.0017	2321.84	65.9848	13 R 65	3678.21	0.0178	2718.32	39.9750	104 P 40	3678.21	0.0178	2718.32	39.9750	104 P 40

3678.51	0.1163	2186.39	24.9600	107 P 25	3681.99	0.0001	983.35	0.0678	109 Q 29
3678.55	0.0003	2701.20	72.9863	12 R 72	3682.00	0.1231	2255.56	47.9167	1 P 48
3678.70	290.3070	639.58	40.0000	5 P 40	3682.00	0.0002	0.0728	0.0728	111 Q 27
3678.71	1.1084	7.36	5.0000	10 R 4	3682.02	0.0040	2963.78	48.8163	103 P 49
3678.73	0.0746	2372.85	50.9216	2 P 51	3682.13	0.0288	2597.90	35.9722	104 P 36
3678.75	0.0025	3083.63	51.8269	102 P 52	3682.13	0.0002	961.96	0.0702	108 Q 28
3678.78	0.0636	682.96	6.8571	109 P 7	3682.15	0.0002	920.96	0.0755	110 Q 26
3678.78	0.0635	682.93	6.8571	111 P 7	3682.19	1.9576	33.14	10.0000	11 P 9
3678.85	3.5148	1391.60	16.0000	9 P 16	3682.26	0.0002	941.29	0.0728	109 Q 27
3678.86	0.0202	2685.57	38.9744	105 P 39	3682.29	0.5299	79.63	14.0000	7 P 14
3678.90	0.4537	129.67	18.0000	7 P 18	3682.29	0.0002	901.81	0.0785	111 Q 25
3679.07	3.4720	1586.85	47.9792	3 P 48	3682.30	0.1396	2112.96	20.9524	107 P 21
3679.15	0.0001	2815.79	74.9867	12 R 74	3682.39	0.0002	921.37	0.0755	108 Q 26
3679.42	1.3068	11.05	6.0000	11 R 5	3682.40	3.2883	1346.31	12.0000	9 P 12
3679.51	0.1232	2167.43	23.9583	106 P 24	3682.42	0.0003	883.38	0.0817	110 Q 24
3679.55	0.0557	677.79	5.8333	108 P 6	3682.51	0.0002	902.18	0.0785	109 Q 25
3679.55	0.0557	677.77	5.8333	110 P 6	3682.55	0.0003	865.70	0.0851	111 Q 23
3679.64	4.0852	1547.95	46.9787	4 P 47	3682.57	0.0153	664.50	1.5000	108 P 2
3679.76	0.5388	116.02	17.0000	8 P 17	3682.57	0.0152	664.50	1.5000	110 P 2
3679.83	0.0881	2332.98	49.9200	1 P 50	3682.63	0.0003	883.73	0.0817	108 Q 24
3679.84	0.0029	3042.90	50.8235	103 P 51	3682.68	0.0003	848.75	0.0889	110 Q 22
3680.02	0.8137	1907.68	36.0000	6 P 36	3682.74	468.7844	519.52	36.0000	5 P 36
3680.12	1.4924	15.46	7.0000	10 R 6	3682.74	0.0003	866.02	0.0851	109 Q 23
3680.18	0.0229	2656.55	37.9737	104 P 38	3682.80	0.0004	832.54	0.0931	111 Q 21
3680.31	0.0467	673.36	4.8000	109 P 5	3682.84	0.0321	2568.57	34.9714	105 P 35
3680.31	0.0466	673.35	4.8000	111 P 5	3682.85	0.0003	849.05	0.0889	108 Q 22
3680.42	0.1288	2148.11	22.9565	107 P 23	3682.87	2.0781	40.50	11.0000	10 R 10
3680.61	0.5400	103.13	16.0000	7 P 16	3682.91	0.0004	817.06	0.0976	110 Q 20
3680.64	3.4610	1367.39	14.0000	9 P 14	3682.95	0.0004	832.81	0.0931	109 Q 21
3680.73	372.2228	577.99	38.0000	5 P 38	3683.02	0.0005	802.33	0.1026	111 Q 19
3680.81	1.6637	20.62	8.0000	11 R 7	3683.05	0.0004	817.31	0.0976	108 Q 20
3680.86	0.0257	2625.51	36.9730	105 P 37	3683.07	0.1460	2218.02	46.9149	2 P 47
3680.91	0.1052	2293.88	48.9184	2 P 49	3683.10	0.0048	2925.39	47.8125	102 P 48
3680.93	0.0035	3002.95	49.8200	102 P 50	3683.12	0.5182	69.01	13.0000	8 P 13
3681.07	0.0373	669.67	3.7500	108 P 4	3683.12	0.0006	788.32	0.1082	110 Q 18
3681.07	0.0373	669.66	3.7500	110 P 4	3683.15	0.0005	802.55	0.1026	109 Q 19
3681.18	4.7750	1512.63	45.9783	3 P 46	3683.22	0.0006	775.06	0.1144	111 Q 17
3681.36	0.0001	1027.79	0.0635	111 Q 31	3683.24	0.0006	788.52	0.1082	108 Q 18
3681.39	0.1350	2130.63	21.9545	106 P 22	3683.25	0.1446	2096.96	19.9500	106 P 20
3681.45	0.5371	91.00	15.0000	8 P 15	3683.26	6.4561	1441.53	43.9773	3 P 44
3681.50	1.8193	26.51	9.0000	10 R 8	3683.31	0.0007	762.53	0.1213	110 Q 16
3681.53	0.0001	1004.95	0.0656	110 Q 30	3683.32	0.0006	775.24	0.1144	109 Q 17
3681.69	0.0001	982.85	0.0678	111 Q 29	3683.40	0.0007	762.69	0.1213	108 Q 16
3681.70	0.0001	1028.36	0.0635	109 Q 31	3683.40	0.0008	750.74	0.1292	111 Q 15
3681.78	5.5677	1475.40	44.9778	4 P 45	3683.48	0.0008	750.88	0.1292	109 Q 15
3681.82	0.0268	666.72	2.6667	109 P 3	3683.48	0.0009	739.68	0.1381	110 Q 14
3681.82	0.0268	666.71	2.6667	111 P 3	3683.54	2.1799	48.60	12.0000	11 R 11
3681.85	0.0001	1005.49	0.0656	108 Q 30	3683.55	0.0009	739.80	0.1381	108 Q 14
3681.85	0.0002	961.48	0.0702	110 Q 28	3683.56	0.0010	729.36	0.1484	111 Q 13
3681.94	1.0062	1852.32	34.0000	6 P 34	3683.62	0.0012	729.47	0.1484	109 Q 13



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3683.63	0.0013	719.78	0.1603	110 Q 12	3685.73	1.4546	1750.94	30.0000	6 P 30					
3683.68	0.0013	719.87	0.1603	108 Q 12	3685.82	2.5733	1313.51	8.0000	9 P 8					
3683.69	0.0015	710.94	0.1742	111 Q 11	3685.97	0.0433	2489.98	31.9688	104 P 32					
3683.74	0.0016	711.01	0.1742	109 Q 11	3685.98	0.1519	2052.03	16.9412	107 P 17					
3683.75	0.0017	702.83	0.1909	110 Q 10	3685.99	9.8225	1339.65	40.9756	4 P 41					
3683.79	0.0019	702.89	0.1909	108 Q 10	3686.18	2.3976	88.36	16.0000	11 R 15					
3683.81	0.0019	695.46	0.2111	111 Q 9	3686.23	0.0272	664.50	2.6667	110 R 2					
3683.84	0.0019	695.51	0.2111	109 Q 9	3686.24	0.0273	664.50	2.6667	108 R 2					
3683.85	1.2214	1800.07	32.0000	6 P 32	3686.26	0.2291	2110.09	43.9091	1 P 44					
3683.85	0.0022	688.83	0.2361	110 Q 8	3686.30	0.0076	2814.91	44.8000	103 P 45					
3683.88	0.0022	688.87	0.2361	108 Q 8	3686.40	0.4254	34.13	9.0000	8 P 9					
3683.90	7.4595	1405.97	42.9767	4 P 43	3686.69	703.7219	411.91	32.0000	5 P 32					
3683.90	0.0025	682.93	0.2679	111 Q 7	3686.72	0.0472	2464.02	30.9677	105 P 31					
3683.92	0.0025	682.96	0.2679	109 Q 7	3686.83	2.4061	100.14	17.0000	10 R 16					
3683.94	0.0029	677.77	0.3095	110 Q 6	3686.88	0.1533	2039.01	15.9375	106 P 16					
3683.95	0.5019	59.15	12.0000	7 P 12	3686.94	0.0377	666.71	3.7500	111 R 3					
3683.95	0.0029	677.79	0.3095	108 Q 6	3686.96	0.0378	666.72	3.7500	109 R 3					
3683.97	0.0035	673.35	0.3667	111 Q 5	3687.20	0.3910	27.30	8.0000	7 P 8					
3683.98	0.0035	673.36	0.3667	109 Q 5	3687.31	0.2668	2075.67	42.9070	2 P 43					
3684.00	0.0045	669.67	0.4500	108 Q 4	3687.35	0.0089	2779.65	43.7955	102 P 44					
3684.00	0.0045	669.66	0.4500	110 Q 4	3687.37	11.2051	1308.67	39.9750	3 P 40					
3684.02	0.0059	666.72	0.5833	109 Q 3	3687.47	2.3977	112.66	18.0000	11 R 17					
3684.02	0.0058	666.71	0.5833	111 Q 3	3687.49	2.0439	1301.80	6.0000	9 P 6					
3684.03	0.0085	664.50	0.8333	110 Q 2	3687.59	1.6988	1704.92	28.0000	6 P 28					
3684.04	0.0085	664.50	0.8333	108 Q 2	3687.65	0.0477	669.66	4.8000	110 R 4					
3684.04	0.0153	663.03	1.5000	111 Q 1	3687.67	0.0478	669.67	4.8000	108 R 4					
3684.05	0.0153	663.03	1.5000	109 Q 1	3687.77	0.1519	2026.24	14.9333	107 P 15					
3684.06	0.0356	2542.38	33.9706	104 P 34	3687.86	0.0516	2440.71	29.9667	104 P 30					
3684.13	2.9915	1328.35	10.0000	9 P 10	3688.00	0.3524	21.23	7.0000	8 P 7					
3684.14	0.1695	2181.26	45.9130	1 P 46	3688.06	12.7095	1276.44	38.9744	4 P 39					
3684.16	0.1476	2080.93	18.9474	107 P 19	3688.11	2.3735	125.91	19.0000	10 R 18					
3684.17	0.0055	2887.78	46.8085	103 P 47	3688.36	0.3046	2042.03	41.9048	1 P 42					
3684.21	2.2628	57.44	13.0000	10 R 12	3688.36	0.0568	673.35	5.8333	111 P 5					
3684.73	575.7322	464.16	34.0000	5 P 34	3688.38	0.0569	673.36	5.8333	109 R 5					
3684.77	0.4810	50.05	11.0000	8 P 11	3688.40	0.0103	2745.16	42.7907	103 P 43					
3684.79	0.0394	2514.74	32.9697	105 P 33	3688.63	838.1047	362.78	30.0000	5 P 30					
3684.87	2.3265	67.01	14.0000	11 R 13	3688.63	0.0558	2416.42	28.9655	105 P 29					
3685.08	0.1510	2066.42	17.9444	106 P 18	3688.65	0.1508	2014.73	13.9286	106 P 14					
3685.21	0.1990	2145.28	44.9111	2 P 45	3688.74	2.3346	139.90	20.0000	11 R 19					
3685.24	0.0066	2850.96	45.8043	102 P 46	3688.79	0.3101	15.93	6.0000	7 P 6					
3685.33	8.5798	1373.54	41.9762	3 P 42	3689.06	0.0656	677.77	6.8571	110 R 6					
3685.51	0.0153	663.03	1.5000	109 R 1	3689.08	0.0657	677.79	6.8571	108 R 6					
3685.51	0.0153	663.03	1.5000	111 R 1	3689.12	1.4214	1293.21	4.0000	9 P 4					
3685.53	2.3713	77.32	15.0000	10 R 14	3689.37	2.2824	154.62	21.0000	10 R 20					
3685.59	0.4555	41.71	10.0000	7 P 10	3689.39	14.3772	1246.92	37.9737	3 P 38					



3689.40	0.3516	2009.17	40.9024	2 P 41	3693.36	22.4209	1132.78	33.9706	3 P 34
3689.43	1.9441	1662.02	26.0000	6 P 26	3693.41	0.0773	2311.63	23.9583	104 P 24
3689.44	0.0119	2711.46	41.7857	102 P 42	3693.49	0.5790	1885.54	36.8919	2 P 37
3689.53	0.1468	2003.59	12.9231	107 P 13	3693.55	0.0200	2584.48	37.7632	102 P 38
3689.58	0.2642	11.38	5.0000	8 P 5	3693.61	1.6704	278.29	28.0000	11 R 27
3689.73	0.0603	2394.56	27.9643	104 P 28	3693.80	0.1111	1960.68	7.8750	106 P R
3689.75	0.0732	682.93	7.8750	111 R 7	3693.80	0.1034	729.36	13.9286	111 R 13
3689.78	0.0733	682.96	7.8750	109 R 7	3693.89	0.1035	729.47	13.9286	109 R 13
3689.99	2.2184	170.08	22.0000	11 R 21	3694.11	24.7137	1105.51	32.9697	4 P 33
3690.10	16.1549	1216.34	36.9730	4 P 37	3694.18	0.0559	0.00	1.0000	7 R 0
3690.36	0.2153	7.58	4.0000	7 P 4	3694.20	1.5654	298.90	29.0000	10 R 28
3690.40	0.1431	1993.58	11.9167	106 P 12	3694.22	0.0809	2292.34	22.9565	105 P 23
3690.43	0.3979	1977.09	39.9000	1 P 40	3694.30	1255.1248	234.08	24.0000	5 P 24
3690.44	0.0806	688.83	8.8889	110 R 8	3694.45	0.1058	739.68	14.9333	110 R 14
3690.48	0.0135	2678.54	40.7805	103 P 41	3694.49	0.6435	1856.59	35.8889	1 P 36
3690.48	0.0807	688.87	8.8889	108 P 27	3694.55	0.1060	739.80	14.9333	108 P 14
3690.52	0.0644	2371.94	26.9630	105 P 27	3694.56	0.0222	2554.69	36.7568	103 P 37
3690.54	978.7729	316.76	28.0000	5 P 28	3694.59	1.0963	1287.74	3.0000	9 R 2
3690.61	2.1440	186.28	23.0000	10 R 22	3694.64	0.0990	1954.36	6.8571	107 P 7
3690.72	0.7302	1287.74	2.0000	9 P 2	3694.78	1.4601	320.25	30.0000	11 R 29
3691.12	0.0867	695.46	9.9000	111 R 9	3694.83	2.5560	1552.03	20.0000	6 P 20
3691.14	0.1639	4.55	3.0000	8 P 3	3694.93	0.1114	0.76	2.0000	8 R 1
3691.17	0.0868	695.51	9.9000	109 R 9	3695.10	0.1069	750.74	15.9375	111 R 15
3691.22	2.0609	203.21	24.0000	11 R 23	3695.21	0.0849	750.88	15.9375	109 R 15
3691.25	2.1783	1622.24	24.0000	6 P 24	3695.22	27.2312	2274.86	21.9545	104 P 22
3691.27	0.1363	1984.05	10.9091	107 P 11	3695.31	0.0870	1080.40	31.9688	3 P 32
3691.38	18.1190	1188.29	35.9722	3 P 36	3695.36	1.3554	342.33	31.0000	10 R 30
3691.45	0.4552	1945.79	38.8974	2 P 39	3695.46	0.0870	1948.93	5.8333	106 P 6
3691.51	0.0156	2646.41	39.7750	102 P 40	3695.50	0.7231	1828.42	34.8857	2 P 35
3691.58	0.0690	2351.53	25.9615	104 P 26	3695.57	0.0252	2525.68	35.7500	102 P 36
3691.80	0.0925	702.87	10.9091	110 R 10	3695.67	0.1659	2.28	3.0000	7 R 2
3691.82	1.9705	220.88	25.0000	10 R 24	3695.75	0.1076	762.53	16.9412	110 R 16
3691.86	0.0926	702.89	10.9091	108 R 10	3695.87	0.1077	762.69	16.9412	108 R 16
3691.91	0.1106	2.28	2.0000	7 P 2	3695.93	1.2526	365.14	32.0000	11 R 31
3692.11	0.1297	1975.56	9.9000	106 P 2	3696.04	0.0876	2257.22	20.9524	105 P 21
3692.12	20.1663	1159.37	34.9714	4 P 10	3696.08	29.7209	1054.76	30.9677	4 P 31
3692.38	0.0731	2330.58	24.9600	105 P 25	3696.08	1.7801	1293.21	5.0000	9 R 4
3692.43	1120.1185	273.86	26.0000	5 P 26	3696.14	1375.6238	197.41	22.0000	5 P 22
3692.43	1.8743	239.28	26.0000	11 R 25	3696.29	0.0728	1944.20	4.8000	107 P 5
3692.47	0.5105	1915.28	37.8947	1 P 38	3696.39	0.1068	775.06	17.9444	111 R 17
3692.47	0.0968	710.94	11.9167	111 R 11	3696.41	0.2189	4.55	4.0000	8 R 3
3692.53	0.0175	2615.05	38.7692	103 P 39	3696.49	0.7962	1801.02	33.8824	1 P 34
3692.54	0.0969	711.01	11.9167	109 R 11	3696.49	1.1522	388.69	33.0000	10 R 32
3692.67	0.0556	0.76	1.0000	8 P 1	3696.50	0.0001	2345.92	0.0616	106 Q 32
3692.97	0.1204	1967.64	8.8889	107 P 9	3696.52	0.1069	775.24	17.9444	109 R 17
3693.02	1.7738	258.42	27.0000	10 R 24	3696.57	0.0278	2497.45	34.7429	103 P 35
3693.05	2.3875	1585.57	22.0000	6 P 22	3696.58	2.6682	1521.60	18.0000	6 P 18
3693.06	0.3695	1285.40	1.0000	9 R 0	3696.59	0.0001	2319.93	0.0635	107 Q 31
3693.14	0.1008	719.78	12.9231	110 R 12	3696.95	0.0001	2296.61	0.0656	106 Q 30
3693.21	0.1011	719.87	12.9231	108 R 12	3697.00	0.0908	2241.22	19.9500	104 P 20

LINE INTENSITY		L		E		FREQ		LINE INTENSITY		L		E		FREQ	
-1	CM	-1	CM	-1	CM	-1	CM	-1	CM	-1	CM	-1	CM	-1	CM
STP		STP		STP		STP		STP		STP		STP		STP	
-3		-3		-3		-3		-3		-3		-3		-3	
BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID	BAND ID
3697.02	0.1061	18.9474	110 R 18	788.32	0.1061	1301.80	9 R 6	0.1061	0.6040	21.23	8.0000	8 R 7			
3697.04	0.0003	0.0678	107 Q 29	2272.30	0.0003	2470.01	102 P 34	0.0003	0.0011	2039.01	0.1213	106 Q 16			
3697.05	1.0551	34.0000	11 R P 3	412.98	1.0551	33.7353	102 P 34	1537.4401	0.0013	2026.24	0.1292	107 Q 15			
3697.09	0.0564	3.7500	106 P 4	1940.31	0.0564	35.0000	10 R 34	0.6363	0.0013	1723.54	30.8710	2 P 31			
3697.14	0.2696	5.0000	7 R 4	7.58	0.2696	19.9500	111 R 19	0.0021	0.0664	848.75	22.9565	110 R 22			
3697.17	0.1062	18.9474	108 R 18	788.52	0.1062	0.0755	106 Q 26	0.0025	0.0959	2014.73	0.1381	106 Q 14			
3697.23	32.4474	29.9667	3 P 30	1031.14	32.4474	19.9500	109 R 19	40.5341	0.0115	2417.47	31.7188	102 P 32			
3697.37	0.0003	0.0702	106 Q 28	2250.42	0.0003	2207.36	109 R 19	0.0029	0.0378	2003.59	0.1484	107 Q 13			
3697.46	0.0003	0.0728	107 Q 27	2227.78	0.0003	802.33	8 R 5	0.4414	0.0018	2196.33	16.9412	105 P 17			
3697.48	0.8865	32.8788	2 P 33	1774.41	0.8865	802.55	107 P 25	0.0034	0.0954	1993.58	0.1603	106 Q 12			
3697.54	2.3912	7.0000	9 R 6	1301.80	2.3912	2225.22	107 P 3	0.0034	0.0019	849.05	22.9565	108 R 22			
3697.56	0.0311	33.7353	102 P 34	2470.01	0.0311	11.38	8 R 5	0.0034	0.0960	133.44	18.0000	5 P 18			
3697.61	0.9620	35.0000	10 R 34	438.00	0.9620	2186.39	107 P 25	2.6678	1537.4401	545.42	39.0000	10 R 38			
3697.65	0.1040	19.9500	111 R 19	802.33	0.1040	1937.17	107 P 3	2.6678	0.0021	1984.05	0.1742	107 Q 11			
3697.76	0.0003	0.0755	106 Q 26	2207.36	0.0003	163.86	5 P 20	0.0039	0.0021	1975.56	0.1909	106 Q 10			
3697.82	0.1040	19.9500	109 R 19	802.55	0.1040	1007.14	4 P 29	0.0039	0.05341	962.63	26.9630	4 P 27			
3697.83	0.0927	18.9474	105 P 19	2225.22	0.0927	1007.14	4 P 29	0.0039	0.0029	1967.64	0.2111	107 Q 9			
3697.86	0.3177	6.0000	8 R 5	11.38	0.3177	16.0000	6 P 16	0.0039	0.0029	27.30	9.0000	7 R 8			
3697.86	0.0049	0.0785	107 Q 25	2186.39	0.0049	1494.29	108 R 20	0.0039	0.0034	1960.68	0.2361	106 Q 8			
3697.90	0.0049	2.6667	107 P 3	1937.17	0.0049	817.31	1 P 32	0.0039	0.0034	1470.10	14.0000	6 P 14			
3697.96	1472.7326	20.0000	5 P 20	163.86	1472.7326	1748.58	1 P 32	0.0039	0.0039	1954.36	0.2679	107 Q 7			
3698.03	35.0572	28.9655	4 P 29	1007.14	35.0572	2130.63	106 Q 22	0.0039	0.0039	866.02	23.9583	109 R 23			
3698.13	0.0004	0.0817	106 Q 24	2167.43	0.0004	2443.35	103 P 33	0.0039	0.0039	1328.35	11.0000	9 R 10			
3698.16	0.8731	36.0000	11 R 35	463.75	0.8731	2112.96	107 Q 21	0.0039	0.0039	1699.27	29.8667	1 P 30			
3698.22	0.0005	0.0851	107 Q 23	2148.11	0.0005	15.93	7 R 6	0.0039	0.0039	2392.38	30.7097	103 P 31			
3698.32	2.7096	20.9524	110 R 20	817.06	2.7096	490.24	10 R 36	0.0039	0.0039	2183.32	15.9375	104 P 16			
3698.45	0.1021	16.0000	6 P 16	1494.29	0.1021	1934.83	106 P 2	0.0039	0.0039	34.13	10.0000	8 R 9			
3698.46	0.9670	31.8750	1 P 32	1748.58	0.9670	2210.70	104 P 18	0.0039	0.0039	883.38	24.9600	110 R 24			
3698.46	0.0005	0.0889	106 Q 22	2130.63	0.0005	2096.96	106 Q 20	0.0039	0.0039	41.0000	41.0000	10 R 40			
3698.55	0.0341	32.7273	103 P 33	2443.35	0.0341	2080.93	107 Q 19	0.0039	0.0039	883.73	24.9600	108 R 24			
3698.55	0.0006	0.0931	107 Q 21	2112.96	0.0006	832.54	111 R 21	0.0039	0.0039	941.98	25.9615	3 P 26			
3698.58	0.3626	7.0000	7 R 6	15.93	0.3626	1313.51	9 R 8	0.0039	0.0039	901.81	25.9615	111 R 25			
3698.70	0.7591	37.0000	10 R 36	490.24	0.7591	2066.42	106 Q 18	0.0039	0.0039	2170.57	14.9333	105 P 15			
3698.70	0.0240	1.5000	106 P 2	1934.83	0.0240	832.81	109 R 21	0.0039	0.0039	633.70	42.0000	11 R 41			
3698.77	0.0948	17.9444	104 P 18	2210.70	0.0948	2052.03	107 Q 17	0.0039	0.0039	1675.79	28.8621	2 P 29			
3698.77	0.0008	0.0976	106 Q 20	2096.96	0.0008	0.1144	107 Q 17	0.0039	0.0039	45.71	11.0000	7 R 10			
3698.77	0.0008	0.0976	106 Q 20	2096.96	0.0008	985.00	3 P 28	0.0039	0.0039	11.0000	29.7000	102 P 30			
3698.86	0.0008	0.1026	107 Q 19	2080.93	0.0008	517.46	11 R 37	0.0039	0.0039	2368.07					
3698.89	0.0988	21.9545	111 R 21	832.54	0.0988			0.0039	0.0039						
3698.96	2.9053	9.0000	9 R 8	1313.51	2.9053			0.0039	0.0039						
3699.05	0.0009	0.1082	106 Q 18	2066.42	0.0009			0.0039	0.0039						
3699.09	0.0990	21.9545	109 R 21	832.81	0.0990			0.0039	0.0039						
3699.13	0.0010	0.1144	107 Q 17	2052.03	0.0010			0.0039	0.0039						
3699.14	37.9093	27.9643	3 P 28	985.00	37.9093			0.0039	0.0039						
3699.24	0.7102	38.0000	11 R 37	517.46	0.7102			0.0039	0.0039						



3701.52	1561.3136	106.13	16.0000	5 P 16	3704.98	1460.4145	60.87	12.0000	5 P 12
3701.57	902.18	902.18	25.9615	109 R 25	3705.06	1.9831	1416.26	8.0000	6 P 8
3701.72	3.5810	1346.31	13.0000	9 R 12	3705.16	1.6471	1589.67	24.8400	2 P 25
3701.73	2.5345	1449.04	12.0000	6 P 12	3705.16	0.0558	1028.36	31.9688	109 R 31
3701.81	0.0240	1933.26	1.5000	107 R 1	3705.29	0.0602	2278.66	25.6538	102 P 26
3701.83	45.9057	921.25	24.9600	4 P 25	3705.32	0.0516	1051.36	32.9697	110 R 32
3701.87	0.3933	664.59	43.0000	10 R 42	3705.35	0.1448	901.40	50.0000	11 R 49
3701.89	0.0793	920.96	26.9630	110 R 26	3705.44	0.5776	103.13	17.0000	7 R 16
3702.08	0.5272	50.05	12.0000	8 R 11	3705.54	55.1089	847.84	20.9524	4 P 21
3702.18	0.0793	921.37	26.9630	108 R 26	3705.55	0.1027	1948.93	6.8571	106 R 6
3702.23	0.0946	2159.06	13.9286	104 P 14	3705.61	0.0814	2119.93	9.9000	104 P 10
3702.33	1.3457	1653.08	27.8571	1 P 28	3705.63	3.6814	1418.92	19.0000	9 R 18
3702.38	0.3452	696.22	44.0000	11 R 43	3705.75	0.0515	1051.97	32.9697	108 R 32
3702.44	0.0483	2344.54	28.6897	103 P 29	3705.82	0.1236	938.16	51.0000	10 R 50
3702.48	0.0745	940.86	27.9643	111 R 27	3705.87	0.0470	1075.67	33.9706	111 R 33
3702.58	0.0428	1934.83	2.6667	106 R 2	3706.09	1.7249	1570.10	23.8333	1 P 24
3702.76	0.5465	59.15	13.0000	7 R 12	3706.10	0.5745	116.02	18.0000	8 R 17
3702.79	0.0745	941.29	27.9643	109 R 27	3706.23	0.0632	2258.26	24.6400	103 P 25
3702.88	48.6416	902.10	23.9583	3 P 24	3706.25	0.1141	1954.36	7.8750	107 R 7
3702.89	0.3018	728.59	45.0000	10 R 44	3706.30	0.1051	975.66	52.0000	11 R 51
3703.06	3.7308	1367.39	15.0000	9 R 14	3706.32	0.0469	1076.32	33.9706	109 R 33
3703.06	0.0701	961.48	28.9655	110 R 28	3706.42	0.0430	1100.71	34.9714	110 R 34
3703.07	0.0922	2147.93	12.9231	105 P 13	3706.44	0.0755	2112.02	8.8889	105 P 9
3703.26	1537.2867	81.94	14.0000	5 P 14	3706.52	57.0823	831.70	19.9500	3 P 20
3703.28	1.4546	1631.16	26.8519	2 P 27	3706.67	1328.5365	42.92	10.0000	5 P 10
3703.32	0.0590	1937.17	3.7500	107 R 3	3706.69	1.5751	1404.56	6.0000	6 P 6
3703.39	0.2626	761.68	46.0000	11 R 45	3706.74	0.5676	129.67	19.0000	7 R 18
3703.39	0.0701	961.96	28.9655	108 R 28	3706.76	0.0889	1013.89	53.0000	10 R 52
3703.40	2.3056	1431.09	10.0000	6 P 10	3706.86	3.5104	1449.37	21.0000	9 R 20
3703.40	0.0526	2321.80	27.6786	102 P 28	3706.90	0.0430	1101.40	34.9714	108 R 34
3703.44	0.5612	69.01	14.0000	8 R 19	3706.96	0.0389	1126.49	35.9722	111 R 35
3703.63	0.0651	982.85	29.9667	111 R 23	3707.00	0.1257	1960.68	8.8889	106 R 8
3703.70	50.8752	882.98	22.9565	4 P 23	3707.02	1.8248	1551.30	22.8261	2 P 23
3703.89	0.2277	795.51	47.0000	10 R 46	3707.16	0.0674	2238.65	23.6250	102 P 24
3703.93	0.0898	2137.93	11.9167	104 P 12	3707.23	0.0750	1052.85	54.0000	11 R 53
3703.99	0.0651	983.35	29.9667	109 R 29	3707.27	0.0697	2105.06	7.8750	104 P 8
3704.08	0.0749	1940.31	4.8000	106 R 4	3707.36	58.2551	815.82	18.9474	4 P 19
3704.11	0.5711	79.63	15.0000	7 R 14	3707.39	0.5572	144.08	20.0000	8 R 19
3704.20	0.0607	1004.95	30.9677	110 R 30	3707.46	0.0388	1127.22	35.9722	109 R 35
3704.22	1.5640	1610.03	25.8462	1 P 26	3707.50	0.0353	1153.01	36.9730	110 R 36
3704.35	0.0558	2299.84	26.6667	103 P 27	3707.67	0.1346	1967.64	9.9000	107 R 9
3704.36	3.7604	1391.60	17.0000	9 R 16	3707.69	0.0630	1092.54	55.0000	10 R 54
3704.38	0.1966	830.07	48.0000	11 R 47	3707.94	1.8893	1533.30	21.8182	1 P 22
3704.58	0.0606	1005.49	30.9677	108 R 30	3708.03	0.5436	159.24	21.0000	7 R 20
3704.71	53.3188	865.33	21.9545	3 P 22	3708.03	0.0352	1153.78	36.9730	108 R 36
3704.76	0.0856	2128.42	10.9091	105 P 11	3708.03	0.0317	1180.26	37.9737	111 R 37
3704.76	0.0559	1027.79	31.9688	111 R 31	3708.07	3.2671	1482.94	23.0000	9 R 22
3704.78	0.5765	91.00	16.0000	8 R 15	3708.09	0.0698	2219.83	22.6000	103 P 23
3704.80	0.0887	1944.20	5.8333	107 R 5	3708.09	0.0621	2098.75	6.8571	105 P 7
3704.86	0.1691	865.37	49.0000	10 R 48	3708.14	0.0527	1132.97	56.0000	11 R 55



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3708.30	1.0952	1395.97	4.0000	6 P 4	3711.13	0.4409	246.43	26.0000	8 R 25					
3708.31	59.5784	801.19	17.9444	3 P 18	3711.16	0.1627	2014.73	14.9333	106 R 14					
3708.34	1142.7521	28.09	8.0000	5 P 8	3711.19	0.0135	1436.43	63.0000	10 R 62					
3708.41	0.1436	1975.56	10.9091	106 R 10	3711.31	0.0175	1328.58	42.9767	108 R 42					
3708.55	0.0284	1208.24	38.9744	110 R 38	3711.32	0.0263	2081.57	2.6667	105 P 3					
3708.59	0.0439	1174.12	57.0000	10 R 56	3711.43	0.0001	2371.94	0.0728	105 Q 27					
3708.59	0.0316	1181.07	37.9737	109 R 37	3711.48	0.0000	2394.56	0.0702	104 Q 28					
3708.66	0.5272	175.16	22.0000	8 R 21	3711.50	2.3077	1602.36	29.0000	9 R 28					
3708.85	1.9752	1516.07	20.8095	2 P 21	3711.56	2.1052	1469.09	17.7778	1 P 18					
3708.90	0.0546	2093.32	5.8333	104 P 6	3711.59	0.0134	1391.59	44.9778	110 R 44					
3709.01	0.0737	2201.78	21.5909	102 P 22	3711.60	631.1427	7.80	4.0000	5 P 4					
3709.03	0.0364	1216.01	58.0000	11 R 57	3711.61	0.0110	1482.71	64.0000	11 R 63					
3709.07	0.1496	1984.05	11.9167	107 R 11	3711.73	0.4162	266.14	27.0000	7 R 26					
3709.07	0.0253	1236.96	39.9750	111 R 39	3711.73	0.0795	2152.36	18.5263	103 P 19					
3709.14	0.0284	1209.10	38.9744	108 R 38	3711.74	0.0003	2330.58	0.0785	105 Q 25					
3709.15	59.9696	786.92	16.9412	4 P 17	3711.76	0.1631	2026.24	15.9375	107 R 15					
3709.25	2.9723	1519.63	25.0000	9 R 24	3711.78	0.0003	2351.53	0.0755	104 Q 26					
3709.28	0.5083	191.84	23.0000	7 R 22	3711.81	59.4909	749.55	13.9286	3 P 14					
3709.47	0.0302	1258.63	59.0000	10 R 58	3711.85	0.0153	1360.29	43.9773	109 R 43					
3709.59	0.0226	1266.42	40.9756	110 R 40	3711.87	0.0003	2048.50	0.0336	4 Q 59					
3709.69	0.0252	1237.87	39.9750	109 R 39	3712.02	0.0089	1529.72	65.0000	10 R 64					
3709.72	0.0457	2088.60	4.8000	105 P 5	3712.03	0.0003	2292.34	0.0851	105 Q 23					
3709.76	2.0203	1499.63	19.8000	1 P 20	3712.05	0.0003	2311.63	0.0817	104 Q 24					
3709.80	0.1559	1993.58	12.9231	106 R 12	3712.08	0.0117	1424.72	45.9783	111 R 45					
3709.88	0.5626	1390.51	2.0000	6 P 2	3712.11	0.0150	2079.24	1.5000	104 P 2					
3709.90	0.4874	209.28	24.0000	8 R 23	3712.22	0.2846	1388.17	1.0000	6 R 0					
3709.91	0.0248	1301.99	60.0000	11 R 59	3712.30	0.0004	2257.22	0.0931	105 Q 21					
3709.92	0.0755	2184.53	20.5714	103 P 21	3712.31	0.0004	2274.86	0.0889	104 Q 22					
3709.98	907.6363	16.39	6.0000	5 P 6	3712.33	0.3907	286.60	28.0000	8 R 27					
3710.07	60.4747	773.81	15.9375	3 P 16	3712.37	0.0134	1392.74	44.9778	108 R 44					
3710.10	0.0198	1296.61	41.9762	111 R 41	3712.43	0.0072	1577.46	66.0000	11 R 65					
3710.24	0.0225	1267.37	40.9756	108 R 40	3712.44	0.0003	2097.53	0.0331	3 Q 60					
3710.34	0.0204	1346.07	61.0000	10 R 60	3712.45	2.1432	1454.99	16.7647	2 P 17					
3710.39	2.6462	1559.43	27.0000	9 R 26	3712.49	0.1640	2039.01	16.9412	106 R 16					
3710.43	0.1590	2003.59	13.9286	107 R 13	3712.54	0.0004	2241.22	0.0976	104 Q 20					
3710.52	0.4648	227.47	25.0000	7 R 24	3712.55	0.0005	2225.22	0.1026	105 Q 19					
3710.52	0.0367	2084.72	3.7500	104 P 4	3712.56	0.1022	1458.58	46.9787	110 R 46					
3710.60	0.0175	1327.53	42.9767	110 R 42	3712.58	1.9729	1648.40	31.0000	9 R 30					
3710.66	2.0857	1483.96	18.7895	2 P 19	3712.62	0.0004	1957.31	0.0348	4 Q 57					
3710.77	0.0166	1390.89	62.0000	11 R 61	3712.63	0.0817	2137.45	17.5000	102 P 19					
3710.78	0.0198	1297.61	41.9762	109 R 41	3712.65	57.9395	738.49	12.9231	4 P 13					
3710.83	0.0786	2168.05	19.5500	102 P 20	3712.75	0.0005	2210.70	0.1082	104 Q 18					
3710.91	59.9449	761.14	14.9333	4 P 15	3712.77	0.0006	2196.33	0.1144	105 Q 17					
3711.09	0.0001	2142.79	0.0325	4 Q 61	3712.83	0.0057	1625.93	67.0000	10 R 66					
3711.10	0.0153	1359.19	43.9773	111 R 43	3712.90	0.0117	1425.92	45.9783	109 R 45					

3712.92	0.3651	307.83	29.0000	7 R 28	3714.79	0.0018	1879.23	72.0000	11 R 71
3712.94	0.0008	2183.32	0.1213	104 Q 16	3714.90	0.0046	1638.90	51.9808	111 R 51
3712.96	0.0008	2170.57	0.1292	105 Q 15	3714.94	0.0064	1565.99	49.9R04	109 R 49
3713.04	0.0087	1493.18	47.9792	111 R 47	3715.06	0.1531	2096.96	20.9524	106 R 20
3713.06	0.1621	2052.03	17.9444	107 R 47	3715.08	2.0898	1417.40	13.7143	1 P 14
3713.11	0.0009	2159.06	0.1381	104 Q 14	3715.09	0.0013	1744.63	0.0381	3 Q 52
3713.14	0.0004	2004.64	0.0342	3 Q 58	3715.17	0.0014	1932.08	73.0000	10 R 72
3713.14	0.0010	2147.93	0.1484	105 Q 13	3715.21	51.1850	710.43	9.9000	3 P 10
3713.19	324.2005	2.34	2.0000	5 P 2	3715.22	0.0150	2077.67	1.5000	105 R 1
3713.23	0.0045	1675.13	68.0000	11 R 67	3715.23	0.2652	400.30	33.0000	7 R 32
3713.26	0.0011	2137.93	0.1603	104 Q 12	3715.27	1.3717	1395.97	5.0000	6 R 4
3713.29	0.0014	2128.42	0.1742	105 Q 11	3715.28	0.0808	2097.44	14.4000	103 P 15
3713.33	2.1318	1441.68	15.7500	1 P 16	3715.35	0.0039	1677.17	52.9811	110 R 52
3713.34	0.0006	1869.23	0.0360	4 Q 55	3715.37	0.0025	1623.61	0.0404	4 Q 49
3713.38	0.0015	2119.93	0.1909	104 Q 10	3715.44	0.0054	1602.85	50.9804	108 R 50
3713.41	0.0018	2112.02	0.2111	105 Q 9	3715.53	164.0585	0.00	1.0000	5 R 0
3713.41	0.0101	1459.83	46.9787	108 R 46	3715.55	0.0011	1985.66	74.0000	11 R 73
3713.48	0.0020	2105.06	0.2361	104 Q 8	3715.58	0.1475	2112.96	21.9545	107 R 21
3713.51	0.3395	329.81	30.0000	8 R 29	3715.64	1.0998	1805.23	37.0000	9 R 36
3713.51	0.0024	2098.75	0.2679	105 Q 7	3715.70	0.0020	1664.18	0.0396	3 Q 50
3713.51	0.0076	1528.51	48.9796	110 R 48	3715.79	0.0034	1716.17	53.9815	111 R 53
3713.52	56.4266	728.43	11.9167	3 P 12	3715.80	0.2421	425.31	34.0000	8 R 33
3713.52	0.0814	2123.33	16.4706	103 P 17	3715.92	0.0009	2039.97	75.0000	10 R 74
3713.57	0.0029	2093.32	0.3095	104 Q 6	3715.94	2.0564	1406.43	12.6923	2 P 13
3713.59	0.0035	2088.60	0.3667	105 Q 5	3715.94	0.0046	1640.44	51.9808	109 R 51
3713.63	1.6543	1697.56	33.0000	9 R 32	3715.99	0.0268	2079.24	2.6667	104 R 2
3713.63	0.0036	1725.06	69.0000	10 R 68	3716.00	0.0038	1547.95	0.0421	4 Q 47
3713.63	0.0044	2084.72	0.4500	104 Q 4	3716.04	47.5000	702.55	8.8889	4 P 9
3713.64	0.0058	2081.57	0.5833	105 Q 3	3716.15	0.0802	2085.67	13.3571	102 P 14
3713.66	0.0083	2079.24	0.8333	104 Q 2	3716.23	0.0028	1755.90	54.9818	110 R 54
3713.67	0.0150	2077.67	1.5000	105 Q 1	3716.28	0.0031	1586.85	0.0412	3 Q 48
3713.76	0.8448	1390.51	3.0000	6 R 2	3716.29	0.0006	2095.00	76.0000	11 R 75
3713.79	0.1606	2066.42	18.9474	106 R 18	3716.31	0.1425	2130.63	22.9565	106 R 22
3713.81	0.0005	1914.86	0.0354	3 Q 56	3716.36	0.2199	451.07	35.0000	7 R 34
3713.93	0.0087	1494.48	47.9792	109 R 47	3716.43	0.0039	1678.77	52.9811	108 R 52
3713.98	0.0065	1564.57	49.9800	111 R 49	3716.60	0.0055	1475.40	0.0440	4 Q 45
3714.02	0.0029	1775.72	70.0000	11 R 69	3716.60	0.8726	1863.73	39.0000	9 R 38
3714.04	0.0011	1784.25	0.0374	4 Q 53	3716.65	0.0005	2150.77	77.0000	10 R 76
3714.09	0.3142	352.55	31.0000	7 R 30	3716.67	0.0023	1796.36	55.9821	111 R 55
3714.21	2.1366	1429.15	14.7333	2 P 15	3716.74	0.0371	2081.57	3.7500	105 R 3
3714.33	0.1566	2080.93	19.9500	107 R 19	3716.76	1.8426	1404.56	7.0000	6 R 6
3714.36	53.8040	718.96	10.9091	4 P 11	3716.79	0.1359	2148.11	23.9583	107 R 23
3714.40	0.0824	2109.99	15.4375	102 P 16	3716.80	1.9711	1396.25	11.6667	1 P 12
3714.41	0.0023	1827.11	71.0000	10 R 70	3716.84	0.0046	1512.63	0.0430	3 Q 46
3714.44	0.0075	1529.87	48.9796	108 R 48	3716.88	43.7854	695.57	7.8750	3 P 8
3714.44	0.0056	1601.37	50.9804	110 R 50	3716.91	0.1988	477.59	36.0000	8 R 35
3714.46	0.0009	1828.19	0.0367	3 Q 54	3716.92	0.0034	1717.83	53.9815	109 R 53
3714.65	1.3613	1749.84	35.0000	9 R 34	3717.01	0.0004	2207.26	78.0000	11 R 77
3714.66	0.2893	376.04	32.0000	8 R 31	3717.02	0.0771	2074.69	12.3077	103 P 13
3714.72	0.0016	1702.37	0.0388	4 Q 51	3717.06	486.8078	2.34	3.0000	5 R 2



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3717.10	0.0020	1837.56	56.9825	110 R 56	3719.06	0.1273	591.25	40.0000	8 R 39	3719.06	0.1273	591.25	40.0000	8 R 39
3717.17	0.0081	1405.97	0.0460	4 Q 43	3719.12	0.1077	2227.78	27.9643	107 R 27	3719.12	0.1077	2227.78	27.9643	107 R 27
3717.36	0.0003	2264.48	79.0000	10 R 78	3719.17	0.0008	2054.54	61.9839	111 R 61	3719.17	0.0008	2054.54	61.9839	111 R 61
3717.38	0.0067	1441.53	0.0449	3 Q 44	3719.21	0.0327	1159.37	0.0563	4 Q 35	3719.21	0.0327	1159.37	0.0563	4 Q 35
3717.40	0.0028	1757.62	54.9818	108 R 54	3719.23	0.0004	2255.56	0.1650	1 Q 44	3719.23	0.0004	2255.56	0.1650	1 Q 44
3717.46	0.1790	504.87	37.0000	7 R 36	3719.29	0.3921	2057.92	45.0000	9 R 48	3719.29	0.3921	2057.92	45.0000	9 R 48
3717.51	0.0470	2084.72	4.8000	104 R 4	3719.29	0.0014	1924.14	58.9831	108 R 58	3719.29	0.0014	1924.14	58.9831	108 R 58
3717.52	0.1297	2167.43	24.9600	106 R 24	3719.31	0.0278	1188.29	0.0548	3 Q 36	3719.31	0.0278	1188.29	0.0548	3 Q 36
3717.52	0.0016	1879.49	57.9828	111 R 57	3719.34	1.6529	1370.41	8.5556	2 P 9	3719.34	1.6529	1370.41	8.5556	2 P 9
3717.53	0.6802	1925.35	41.0000	9 R 40	3719.34	28.7698	679.12	4.8000	4 P 5	3719.34	28.7698	679.12	4.8000	4 P 5
3717.62	0.0001	2454.94	0.1495	2 Q 53	3719.54	0.0005	2218.02	0.1684	2 Q 47	3719.54	0.0005	2218.02	0.1684	2 Q 47
3717.65	1.8962	1386.85	10.6364	2 P 11	3719.57	0.0662	2046.44	9.1000	102 P 10	3719.57	0.0662	2046.44	9.1000	102 P 10
3717.70	39.1032	689.27	6.8571	4 P 7	3719.57	0.0006	2100.13	62.9841	110 R 62	3719.57	0.0006	2100.13	62.9841	110 R 62
3717.71	0.0003	2322.43	80.0000	11 R 79	3719.59	0.1126	621.55	41.0000	7 R 40	3719.59	0.1126	621.55	41.0000	7 R 40
3717.72	0.0116	1339.65	0.0482	4 Q 41	3719.66	0.0451	1105.51	0.0597	4 Q 33	3719.66	0.0451	1105.51	0.0597	4 Q 33
3717.87	0.0750	2064.49	11.2500	102 P 12	3719.68	2.5473	1431.09	11.0000	6 R 10	3719.68	2.5473	1431.09	11.0000	6 R 10
3717.88	0.0023	1798.15	55.9821	109 R 55	3719.71	0.0716	2098.75	7.8750	105 R 7	3719.71	0.0716	2098.75	7.8750	105 R 7
3717.90	0.0097	1373.54	0.0471	3 Q 42	3719.74	0.0385	1132.78	0.0580	3 Q 34	3719.74	0.0385	1132.78	0.0580	3 Q 34
3717.94	0.0014	1922.16	58.9831	110 R 58	3719.75	0.0011	1967.60	59.9833	109 R 59	3719.75	0.0011	1967.60	59.9833	109 R 59
3717.96	0.0001	2413.51	0.1524	1 Q 52	3719.83	0.0006	2181.26	0.1721	1 Q 46	3719.83	0.0006	2181.26	0.1721	1 Q 46
3717.97	0.1222	2186.39	25.9615	107 R 25	3719.87	0.1005	2250.42	28.9655	106 R 28	3719.87	0.1005	2250.42	28.9655	106 R 28
3718.00	0.1604	532.91	38.0000	8 R 37	3719.96	0.0005	2146.45	63.9844	111 R 63	3719.96	0.0005	2146.45	63.9844	111 R 63
3718.06	0.0001	2381.11	81.0000	10 R 80	3720.05	1.0617	16.39	7.0000	5 R 6	3720.05	1.0617	16.39	7.0000	5 R 6
3718.23	2.2389	1416.26	9.0000	6 R 8	3720.08	0.0613	1054.76	0.0635	4 Q 31	3720.08	0.0613	1054.76	0.0635	4 Q 31
3718.24	0.0166	1276.44	0.0506	4 Q 39	3720.11	0.0992	652.61	42.0000	8 R 41	3720.11	0.0992	652.61	42.0000	8 R 41
3718.29	0.0557	2088.60	5.8333	105 R 5	3720.12	0.0008	2145.28	0.1758	2 Q 45	3720.12	0.0008	2145.28	0.1758	2 Q 45
3718.29	0.0003	2372.85	0.1554	2 Q 51	3720.12	0.2902	2128.87	47.0000	9 R 46	3720.12	0.2902	2128.87	47.0000	9 R 46
3718.35	0.0020	1839.41	56.9825	108 R 56	3720.14	23.0370	675.22	3.7500	3 P 4	3720.14	23.0370	675.22	3.7500	3 P 4
3718.36	0.0011	1965.55	59.9833	111 R 59	3720.14	0.0528	1080.40	0.0416	3 Q 32	3720.14	0.0528	1080.40	0.0416	3 Q 32
3718.39	0.0140	1308.67	0.0494	3 Q 40	3720.17	1.4882	1363.36	7.5000	1 P 8	3720.17	1.4882	1363.36	7.5000	1 P 8
3718.40	0.0001	2440.51	82.0000	11 R 81	3720.21	0.0009	2011.80	60.9836	108 R 60	3720.21	0.0009	2011.80	60.9836	108 R 60
3718.42	0.5209	1990.08	43.0000	9 R 42	3720.24	0.0930	2272.30	29.9667	107 R 29	3720.24	0.0930	2272.30	29.9667	107 R 29
3718.50	1.7711	1378.24	9.6000	1 P 10	3720.35	0.0004	2193.51	64.9846	110 R 64	3720.35	0.0004	2193.51	64.9846	110 R 64
3718.52	34.3524	683.83	5.8333	3 P 6	3720.41	0.0009	2110.09	0.1798	1 Q 44	3720.41	0.0009	2110.09	0.1798	1 Q 44
3718.53	0.1432	561.70	39.0000	7 R 38	3720.41	0.0599	2038.59	8.0000	103 P 9	3720.41	0.0599	2038.59	8.0000	103 P 9
3718.57	790.4093	7.80	5.0000	5 R 4	3720.48	0.0826	1007.14	0.0678	4 Q 29	3720.48	0.0826	1007.14	0.0678	4 Q 29
3718.61	0.0003	2332.98	0.1584	1 Q 50	3720.48	0.0789	2105.06	8.8889	104 R 8	3720.48	0.0789	2105.06	8.8889	104 R 8
3718.71	0.1154	2207.36	26.9630	106 R 26	3720.51	0.0715	1031.14	0.0656	3 Q 30	3720.51	0.0715	1031.14	0.0656	3 Q 30
3718.73	0.0702	2055.07	10.1818	103 P 11	3720.62	0.0870	684.43	43.0000	7 R 42	3720.62	0.0870	684.43	43.0000	7 R 42
3718.74	0.0235	1216.34	0.0533	4 Q 37	3720.66	0.0008	2056.73	61.9839	109 R 61	3720.66	0.0008	2056.73	61.9839	109 R 61
3718.77	0.0009	2009.68	60.9836	110 R 60	3720.67	0.0011	2075.67	0.1839	2 Q 43	3720.67	0.0011	2075.67	0.1839	2 Q 43
3718.82	0.0016	1881.41	57.9828	109 R 57	3720.74	0.0003	2241.30	65.9848	111 R 65	3720.74	0.0003	2241.30	65.9848	111 R 65
3718.86	0.0198	1246.92	0.0520	3 Q 38	3720.85	0.1100	962.63	0.0728	4 Q 27	3720.85	0.1100	962.63	0.0728	4 Q 27
3718.92	0.0004	2293.88	0.1616	2 Q 49	3720.87	0.0957	985.00	0.0702	3 Q 28	3720.87	0.0957	985.00	0.0702	3 Q 28
3719.01	0.0644	2093.32	6.8571	104 R 6	3720.93	0.0211	2202.92	49.0000	9 R 48	3720.93	0.0211	2202.92	49.0000	9 R 48



3720.95	0.0014	2042.03	0.1883	1 Q 42	3722.63	0.0494	819.25	47.0000	7 R 46
3720.95	16.5459	672.09	2.6667	4 P 3	3722.67	0.0048	1828.42	0.2254	2 Q 35
3721.00	1.3256	1357.09	6.4286	2 P 7	3722.68	0.5916	749.55	0.1381	3 Q 14
3721.00	0.0959	2296.61	30.9677	106 R 30	3722.72	0.6669	738.49	0.1484	4 Q 13
3721.10	2.7600	1449.04	13.0000	6 R 12	3722.84	0.7608	728.43	0.1603	3 Q 12
3721.11	0.0006	2102.40	62.9841	108 R 62	3722.86	0.0003	2615.05	0.4558	103 Q 39
3721.11	0.0003	2289.81	66.9851	110 R 66	3722.87	0.0003	2292.38	66.9851	108 R 66
3721.13	0.0761	717.00	44.0000	8 R 43	3722.88	0.8613	718.96	0.1742	4 Q 11
3721.16	0.0845	2112.02	9.9000	105 R 9	3722.89	0.0055	1801.02	0.2319	1 Q 34
3721.19	0.1450	921.25	0.0785	4 Q 25	3722.90	0.0374	2019.76	4.5000	102 P 6
3721.20	0.1269	941.98	0.0755	3 Q 26	3722.93	1467.7988	42.92	11.0000	5 R 10
3721.22	0.0016	2009.17	0.1928	2 Q 41	3722.98	0.9891	710.43	0.1909	3 Q 10
3721.25	0.0539	2031.53	6.8750	102 P 8	3723.02	1.1302	702.55	0.2111	4 Q 9
3721.34	0.0787	2319.93	31.9688	107 R 31	3723.09	1.3150	695.57	0.2361	3 Q 8
3721.47	0.0020	1977.09	0.1976	1 Q 40	3723.10	0.0065	1774.41	0.2389	2 Q 33
3721.49	0.0003	2339.06	67.9853	111 R 67	3723.11	0.0425	854.84	48.0000	8 R 47
3721.50	0.1666	902.10	0.0817	3 Q 24	3723.11	0.0003	2584.48	0.4676	102 Q 38
3721.50	1290.1581	28.09	9.0000	5 R 8	3723.13	1.5297	689.27	0.2679	4 Q 7
3721.51	0.1896	882.98	0.0851	4 Q 23	3723.17	0.0736	2443.72	55.0000	9 R 54
3721.56	0.0005	2148.79	63.9844	109 R 63	3723.17	0.0592	2398.36	34.9714	106 R 34
3721.64	0.0561	750.33	45.0000	7 R 44	3723.18	1.8251	683.83	0.3095	3 Q 6
3721.71	0.1510	2280.08	51.0000	9 R 50	3723.21	2.2000	679.12	0.3667	4 Q 5
3721.73	0.0024	1945.79	0.2026	2 Q 39	3723.25	2.7668	675.22	0.4500	3 Q 4
3721.74	9.4675	669.75	1.5000	3 P 2	3723.27	3.6217	672.09	0.5833	4 Q 3
3721.79	0.2169	865.33	0.0889	3 Q 22	3723.29	5.2619	669.75	0.8333	3 Q 2
3721.81	0.2459	847.84	0.0931	4 Q 21	3723.29	9.4915	2341.70	67.9853	109 R 67
3721.82	1.1209	1351.61	5.3333	1 P 6	3723.30	9.4915	668.18	1.5000	4 Q 1
3721.86	0.0001	2389.04	68.9855	110 R 68	3723.31	0.0075	1748.58	0.2462	1 Q 32
3721.93	0.0902	2119.93	10.9091	104 R 10	3723.34	0.0003	2554.69	0.4801	103 Q 37
3721.97	0.0028	1915.28	0.2078	1 Q 38	3723.36	0.0979	2137.93	12.9231	104 R 12
3722.00	0.0004	2195.92	64.9846	108 R 64	3723.43	0.0534	2424.56	35.9722	107 R 35
3722.04	0.2805	831.70	0.0976	3 Q 20	3723.44	0.6577	1342.99	3.0000	1 P 4
3722.07	0.3168	815.82	0.1026	4 Q 19	3723.54	0.0088	1723.54	0.2540	2 Q 31
3722.08	0.0456	2025.25	5.7143	103 P 7	3723.57	0.0004	2525.68	0.4932	102 Q 36
3722.10	0.0721	2345.92	32.9697	106 R 32	3723.60	0.0363	891.19	49.0000	7 R 48
3722.13	0.0573	784.41	46.0000	8 R 45	3723.70	0.0102	1699.27	0.2624	1 Q 30
3722.21	0.0033	1885.54	0.2134	2 Q 37	3723.71	0.0268	2015.05	3.2000	103 P 5
3722.28	0.3506	801.19	0.1082	3 Q 18	3723.72	0.0001	2391.76	68.9855	108 R 68
3722.31	0.4064	786.92	0.1144	4 Q 17	3723.79	0.0004	2497.45	0.5071	103 Q 35
3722.36	0.0001	2678.54	0.4338	103 Q 41	3723.86	0.0501	2530.19	57.0000	9 R 56
3722.40	0.0653	2370.68	33.9706	107 R 33	3723.89	0.0120	1675.79	0.2713	2 Q 29
3722.43	0.0003	2243.78	65.9848	109 R 65	3723.89	2.8988	1494.29	17.0000	6 R 16
3722.44	0.0039	1856.59	0.2192	1 Q 36	3723.98	0.0998	2147.93	13.9286	105 R 13
3722.45	0.1063	2350.35	53.0000	9 R 52	3724.01	0.0005	2470.01	0.5218	102 Q 34
3722.49	0.4620	773.81	0.1213	3 Q 16	3724.07	0.0137	1653.09	0.2808	1 Q 28
3722.51	2.8758	1470.10	15.0000	6 R 14	3724.07	0.0310	928.29	50.0000	8 R 49
3722.53	0.5201	761.14	0.1292	4 Q 15	3724.21	0.0478	2453.93	36.9730	106 R 36
3722.58	0.0938	2128.42	11.9167	105 R 11	3724.22	0.0005	2443.35	0.5374	103 Q 33
3722.62	0.0001	2646.41	0.4445	102 Q 40	3724.24	0.0005	1339.86	1.6667	2 P 3
3722.63	0.9104	1346.91	4.2000	2 P 5	3724.25	0.0158	1631.16	0.2910	2 Q 27

FREQ CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID	FREQ CM	LINE INTENSITY -1 CM /ATM CM STP	E -1 CM	L	BAND ID
3724.33	1590.3789	60.87	13.0000	5 R 12	3726.20	0.1245	1386.85	0.6970	2 Q 11	3726.20	0.1245	1386.85	0.6970	2 Q 11
3724.42	0.0181	1610.03	0.3020	1 Q 26	3726.22	0.0296	2574.43	40.9756	106 R 40	3726.22	0.0296	2574.43	40.9756	106 R 40
3724.43	0.0007	2417.47	0.5540	102 Q 32	3726.27	0.1412	1378.24	0.7636	1 Q 10	3726.27	0.1412	1378.24	0.7636	1 Q 10
3724.44	0.0427	2481.54	37.9737	107 R 37	3726.27	0.0031	2184.53	0.8377	103 Q 21	3726.27	0.0031	2184.53	0.8377	103 Q 21
3724.52	0.0336	2619.76	59.0000	9 R 58	3726.32	0.0091	2907.06	65.0000	9 R 64	3726.32	0.0091	2907.06	65.0000	9 R 64
3724.52	0.0152	2011.13	1.7500	102 P 4	3726.33	0.1635	1370.41	0.8444	2 Q 9	3726.33	0.1635	1370.41	0.8444	2 Q 9
3724.54	0.0263	966.15	51.0000	7 R 50	3726.35	0.0259	2604.87	41.9762	107 R 41	3726.35	0.0259	2604.87	41.9762	107 R 41
3724.58	0.0209	1589.67	0.3138	2 Q 25	3726.37	23.3016	672.09	3.7500	4 R 3	3726.37	23.3016	672.09	3.7500	4 R 3
3724.62	0.0008	2392.38	0.5716	103 Q 31	3726.38	0.0131	1125.12	55.0000	7 R 54	3726.38	0.0131	1125.12	55.0000	7 R 54
3724.74	0.0238	1570.10	0.3267	1 Q 24	3726.39	0.0187	1363.36	0.9444	1 Q 8	3726.39	0.0187	1363.36	0.9444	1 Q 8
3724.76	0.1021	2159.06	14.9333	104 R 14	3726.40	0.0036	2168.05	0.8786	102 Q 20	3726.40	0.0036	2168.05	0.8786	102 Q 20
3724.82	0.0009	2368.07	0.5903	102 Q 30	3726.44	0.2212	1357.09	1.0714	2 Q 7	3726.44	0.2212	1357.09	1.0714	2 Q 7
3724.85	9.4954	668.18	1.5000	4 R 1	3726.48	0.2606	1351.61	1.2381	1 Q 6	3726.48	0.2606	1351.61	1.2381	1 Q 6
3724.89	0.0274	1551.30	0.3406	2 Q 23	3726.52	0.3183	1346.91	1.4667	2 Q 5	3726.52	0.3183	1346.91	1.4667	2 Q 5
3725.00	0.0011	2344.54	0.6103	103 Q 29	3726.52	0.0040	2152.36	0.9237	103 Q 19	3726.52	0.0040	2152.36	0.9237	103 Q 19
3725.01	0.0222	1004.76	52.0000	8 R 51	3726.55	0.3950	1342.99	1.8000	1 Q 4	3726.55	0.3950	1342.99	1.8000	1 Q 4
3725.03	0.0309	1533.30	0.3557	1 Q 22	3726.57	0.5240	1339.86	2.3333	2 Q 3	3726.57	0.5240	1339.86	2.3333	2 Q 3
3725.15	0.0221	2712.43	61.0000	9 R 60	3726.59	0.7513	1337.51	3.3333	1 Q 2	3726.59	0.7513	1337.51	3.3333	1 Q 2
3725.17	0.0355	1516.07	0.3723	2 Q 21	3726.59	2.7069	1552.03	21.0000	6 R 20	3726.59	2.7069	1552.03	21.0000	6 R 20
3725.18	0.0012	2321.80	0.6318	102 Q 28	3726.64	0.0046	2137.45	0.9737	102 Q 18	3726.64	0.0046	2137.45	0.9737	102 Q 18
3725.23	0.0379	2512.62	38.9744	106 R 38	3726.71	0.1018	2196.33	17.9444	105 R 17	3726.71	0.1018	2196.33	17.9444	105 R 17
3725.25	2.8383	1521.60	19.0000	6 R 18	3726.75	0.0051	2123.33	1.0294	103 Q 17	3726.75	0.0051	2123.33	1.0294	103 Q 17
3725.30	0.0400	1499.63	0.3905	1 Q 20	3726.82	0.0109	1166.75	56.0000	8 R 55	3726.82	0.0109	1166.75	56.0000	8 R 55
3725.36	0.0014	2299.84	0.6548	103 Q 27	3726.86	0.0058	3009.01	67.0000	9 R 66	3726.86	0.0058	3009.01	67.0000	9 R 66
3725.36	0.1023	2170.57	15.9375	105 R 15	3726.86	0.0058	2109.99	1.0919	102 Q 16	3726.86	0.0058	2109.99	1.0919	102 Q 16
3725.41	0.0336	2541.65	39.9750	107 R 39	3726.96	0.0066	2097.44	1.1625	103 Q 15	3726.96	0.0066	2097.44	1.1625	103 Q 15
3725.42	0.0457	1483.96	0.4105	2 Q 19	3727.05	0.0075	2085.67	1.2429	102 Q 14	3727.05	0.0075	2085.67	1.2429	102 Q 14
3725.47	0.0187	1044.13	53.0000	7 R 52	3727.06	1670.3424	106.13	17.0000	5 R 16	3727.06	1670.3424	106.13	17.0000	5 R 16
3725.52	0.0016	2278.66	0.6795	102 Q 26	3727.13	29.5428	675.22	4.8000	3 R 4	3727.13	29.5428	675.22	4.8000	3 R 4
3725.54	0.0051	1469.09	0.4327	1 Q 18	3727.14	0.0083	2074.69	1.3352	103 Q 13	3727.14	0.0083	2074.69	1.3352	103 Q 13
3725.62	16.8486	669.75	2.6667	3 R 2	3727.18	0.0226	2639.36	42.9767	106 R 42	3727.18	0.0226	2639.36	42.9767	106 R 42
3725.65	0.0587	1454.99	0.4575	2 Q 17	3727.22	0.0096	2064.49	1.4423	102 Q 12	3727.22	0.0096	2064.49	1.4423	102 Q 12
3725.68	0.0018	2258.26	0.7062	103 Q 25	3727.26	0.0091	1209.13	57.0000	7 R 56	3727.26	0.0091	1209.13	57.0000	7 R 56
3725.71	1657.0762	81.94	15.0000	5 R 14	3727.27	0.0196	2671.20	43.9773	107 R 43	3727.27	0.0196	2671.20	43.9773	107 R 43
3725.75	0.0143	2808.20	63.0000	9 R 62	3727.29	0.0108	2055.07	1.5682	103 Q 11	3727.29	0.0108	2055.07	1.5682	103 Q 11
3725.76	0.0659	1441.68	0.4853	1 Q 16	3727.36	0.0126	2046.44	1.7182	102 Q 10	3727.36	0.0126	2046.44	1.7182	102 Q 10
3725.84	0.0021	2238.65	0.7350	102 Q 24	3727.38	0.0035	3114.05	69.0000	9 R 68	3727.38	0.0035	3114.05	69.0000	9 R 68
3725.86	0.0752	1429.15	0.5167	2 Q 15	3727.42	0.0142	2038.59	1.9000	103 Q 9	3727.42	0.0142	2038.59	1.9000	103 Q 9
3725.93	0.0157	1084.25	54.0000	8 R 53	3727.48	0.0167	2031.53	2.1250	102 Q 9	3727.48	0.0167	2031.53	2.1250	102 Q 9
3725.95	0.0844	1417.40	0.5524	1 Q 14	3727.51	0.1009	2210.70	18.9474	104 R 18	3727.51	0.1009	2210.70	18.9474	104 R 18
3725.99	0.0023	2219.83	0.7663	103 Q 23	3727.53	0.0193	2025.25	2.4107	103 Q 7	3727.53	0.0193	2025.25	2.4107	103 Q 7
3726.04	0.0964	1406.43	0.5934	2 Q 13	3727.57	0.0231	2019.76	2.7857	102 Q 6	3727.57	0.0231	2019.76	2.7857	102 Q 6
3726.12	0.1086	1396.25	0.6410	1 Q 12	3727.61	0.0277	2015.05	3.3000	102 Q 5	3727.61	0.0277	2015.05	3.3000	102 Q 5
3726.13	0.0027	2201.78	0.8004	102 Q 22	3727.64	0.0351	2011.13	4.0500	102 Q 4	3727.64	0.0351	2011.13	4.0500	102 Q 4
3726.15	0.1029	2183.32	16.9412	104 R 16	3727.66	0.0456	2007.99	5.2500	103 Q 3	3727.66	0.0456	2007.99	5.2500	103 Q 3



3727.70	0.0074	1252.27	58.0000	8 R 57	3731.77	0.0008	1725.04	68.0000	8 R 67
3727.86	35.0433	679.12	5.8333	4 R 5	3731.88	0.0768	2330.58	25.9615	105 R 25
3727.87	0.0022	3222.18	71.0000	9 R 70	3731.92	1.3547	1351.61	6.4286	1 R 6
3727.91	2.5195	1585.57	23.0000	6 R 22	3732.14	0.0026	3134.51	55.9821	107 R 55
3728.04	0.0984	2225.22	19.9500	105 R 19	3732.15	0.0007	1776.45	69.0000	7 R 68
3728.11	0.0170	2707.41	44.9778	106 R 44	3732.18	59.0552	718.96	11.9167	4 R 11
3728.13	0.0061	1296.16	59.0000	7 R 58	3732.22	1320.8408	234.08	25.0000	5 R 24
3728.15	0.0147	2740.64	45.9783	107 R 45	3732.28	0.0378	2015.05	4.5000	103 R 5
3728.33	0.0014	3333.40	73.0000	9 R 72	3732.34	0.0032	3094.43	54.9818	106 R 54
3728.39	1635.4143	133.44	19.0000	5 R 18	3732.53	0.0005	1828.62	70.0000	8 R 69
3728.55	0.0050	1340.80	60.0000	8 R 59	3732.65	1.5514	1357.09	7.5000	2 R 7
3728.62	40.4913	683.83	6.8571	3 R 6	3732.75	0.0725	2351.53	26.9630	104 R 26
3728.76	0.0008	3447.70	75.0000	9 R 74	3732.84	0.0018	3222.60	57.9828	107 R 57
3728.86	0.0962	2241.22	20.9524	104 R 20	3732.90	0.0004	1881.54	71.0000	7 R 70
3728.92	0.3759	1337.51	1.6667	1 R 2	3732.93	61.5119	728.43	12.9231	3 R 12
3728.97	0.0041	1386.20	61.0000	7 R 60	3732.98	1.5224	1750.94	31.0000	6 R 30
3729.01	0.0126	2778.58	46.9787	106 R 46	3733.02	0.0475	2019.76	5.7143	102 R 6
3729.01	0.0108	2813.20	47.9792	107 R 47	3733.10	0.0022	3181.17	56.9825	106 R 56
3729.17	0.0005	3565.09	77.0000	9 R 76	3733.11	0.0677	2371.94	27.9643	105 R 27
3729.21	2.2924	1622.24	25.0000	6 R 24	3733.26	0.0004	1935.20	72.0000	8 R 71
3729.32	45.0480	689.27	7.8750	4 R 7	3733.38	1.7035	1363.36	8.5556	1 R 8
3729.34	0.0927	2257.22	21.9545	105 R 21	3733.44	1176.1192	273.86	27.0000	5 R 26
3729.39	0.0033	1432.35	62.0000	8 R 61	3733.52	0.0012	3313.80	59.9833	107 R 59
3729.55	0.0003	3685.55	79.0000	9 R 78	3733.56	62.7994	738.49	13.9286	4 R 13
3729.68	0.6742	1339.86	3.0000	2 R 3	3733.62	0.0002	1989.62	73.0000	7 R 72
3729.69	1559.6377	163.86	21.0000	5 R 20	3733.62	0.0551	2025.25	6.8750	103 R 7
3729.80	0.0027	1479.25	63.0000	7 R 62	3733.75	0.0015	3271.03	58.9831	106 R 58
3729.83	0.0078	2888.87	49.9800	107 R 49	3733.98	0.0003	2044.79	74.0000	8 R 73
3729.88	0.0092	2852.87	48.9796	106 R 48	3734.01	0.0632	2394.56	28.9655	104 R 28
3730.08	49.5981	695.57	8.8889	3 R 8	3734.10	1.8621	1370.41	9.6000	2 R 9
3730.18	0.0896	2274.86	22.9565	104 R 22	3734.17	0.0008	3408.09	61.9839	107 R 61
3730.20	0.0021	1526.90	64.0000	8 R 63	3734.19	1.2768	1800.07	33.0000	6 R 32
3730.43	0.9226	1342.99	4.2000	1 R 4	3734.32	64.1693	749.55	14.9333	3 R 14
3730.49	2.0413	1662.02	27.0000	6 R 26	3734.32	0.0585	2416.42	29.9667	105 R 29
3730.60	0.0018	1575.31	65.0000	7 R 64	3734.33	0.0001	2100.71	75.0000	7 R 74
3730.62	0.0853	2292.34	23.9583	105 R 23	3734.48	0.0628	2031.53	8.0000	102 R 8
3730.63	0.0054	2967.64	51.9808	107 R 51	3734.55	0.0009	3363.99	60.9836	106 R 60
3730.73	0.0066	2930.28	50.9804	106 R 50	3734.65	1025.8432	316.76	29.0000	5 R 28
3730.76	53.1127	702.55	9.9000	4 R 9	3734.79	0.0005	3505.49	63.9844	107 R 63
3730.78	0.0153	2007.99	1.7500	103 R 3	3734.81	1.9710	1378.24	10.6364	1 R 10
3730.97	1451.7020	197.41	23.0000	5 R 22	3734.92	64.3897	761.14	15.9375	4 R 15
3731.00	0.0014	1624.47	66.0000	8 R 65	3735.21	0.0683	2038.59	9.1000	103 R 9
3731.18	1.1587	1346.91	5.3333	2 R 5	3735.23	0.0006	3460.06	62.9841	106 R 62
3731.39	0.0011	1674.38	67.0000	7 R 66	3735.24	0.0540	2440.71	30.9677	104 R 30
3731.40	0.0039	3049.52	53.9815	107 R 53	3735.38	0.0003	3605.98	65.9848	107 R 65
3731.48	0.0814	2311.63	24.9600	104 R 24	3735.39	1.0509	1852.32	35.0000	6 R 34
3731.52	56.6497	710.43	10.9091	3 R 10	3735.51	0.0495	2464.02	31.9688	105 R 31
3731.53	0.0278	2011.13	3.2000	102 R 4	3735.52	2.0899	1386.85	11.6667	2 R 11
3731.55	0.0046	3010.80	52.9811	106 R 52	3735.69	64.7271	773.81	16.9412	3 R 16
3731.74	1.7805	1704.92	29.0000	6 R 28	3735.82	877.1221	362.78	31.0000	5 R 30



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM STP	E -1 CM	L	BAND ID
3735.88	0.0005	3559.24	64.9846	106 R 64	3741.10	0.0185	2718.32	40.9756	104 R 40	3741.10	0.0185	2718.32	40.9756	104 R 40
3735.92	0.0744	2046.44	10.1818	102 R 10	3741.33	48.2571	921.25	25.9615	4 R 25	3741.33	48.2571	921.25	25.9615	4 R 25
3735.95	0.0002	3709.57	67.9853	107 R 67	3741.34	302.6317	639.58	41.0000	5 R 40	3741.34	302.6317	639.58	41.0000	5 R 40
3736.22	2.1555	1396.25	12.6923	1 R 12	3741.43	0.0872	2137.45	18.5263	102 R 18	3741.43	0.0872	2137.45	18.5263	102 R 18
3736.26	63.9853	786.92	17.6444	4 R 17	3741.61	2.1416	1499.63	10.8095	1 R 20	3741.61	2.1416	1499.63	10.8095	1 R 20
3736.46	0.0453	2489.98	32.9697	104 R 32	3742.09	0.0846	2152.36	19.5500	103 R 19	3742.09	0.0846	2152.36	19.5500	103 R 19
3736.51	0.0003	3661.52	66.9851	106 R 66	3742.12	0.2243	2231.20	47.0000	6 R 46	3742.12	0.2243	2231.20	47.0000	6 R 46
3736.56	0.8491	1907.68	37.0000	6 R 36	3742.13	0.0123	2815.03	43.9773	105 R 43	3742.13	0.0123	2815.03	43.9773	105 R 43
3736.63	0.0780	2055.07	11.2500	103 R 11	3742.15	45.5736	941.98	26.9630	3 R 26	3742.15	45.5736	941.98	26.9630	3 R 26
3736.67	0.0411	2514.74	33.9706	105 R 33	3742.21	0.0142	2783.21	42.9767	104 R 42	3742.21	0.0142	2783.21	42.9767	104 R 42
3736.92	2.2346	1406.43	13.7143	2 R 13	3742.26	2.0896	1516.07	21.8182	2 R 21	3742.26	2.0896	1516.07	21.8182	2 R 21
3736.98	735.6117	411.91	33.0000	5 R 32	3742.37	231.8304	704.28	43.0000	5 R 42	3742.37	231.8304	704.28	43.0000	5 R 42
3737.03	63.3954	801.19	18.9474	3 R 18	3742.53	42.5233	962.63	27.9643	4 R 27	3742.53	42.5233	962.63	27.9643	4 R 27
3737.34	0.0824	2064.49	12.3077	102 R 12	3742.74	0.0835	2168.05	20.5714	102 R 20	3742.74	0.0835	2168.05	20.5714	102 R 20
3737.56	61.8375	815.82	19.9500	4 R 19	3742.89	1.9952	1533.30	22.8261	1 R 22	3742.89	1.9952	1533.30	22.8261	1 R 22
3737.61	2.2586	1417.40	14.7333	1 R 14	3743.16	0.0092	2884.43	45.9783	105 R 45	3743.16	0.0092	2884.43	45.9783	105 R 45
3737.65	0.0372	2542.38	34.9714	104 R 34	3743.17	0.1632	2305.23	49.0000	6 R 48	3743.17	0.1632	2305.23	49.0000	6 R 48
3737.71	0.6737	1966.16	39.0000	6 R 38	3743.29	0.0107	2851.22	44.9778	104 R 44	3743.29	0.0107	2851.22	44.9778	104 R 44
3737.81	0.0335	2568.57	35.9722	105 R 35	3743.37	39.87361	985.00	28.9655	3 R 28	3743.37	39.87361	985.00	28.9655	3 R 28
3738.03	0.0842	2074.69	13.3571	103 R 13	3743.38	174.5499	772.09	45.0000	5 R 44	3743.38	174.5499	772.09	45.0000	5 R 44
3738.10	605.4280	464.16	35.0000	5 R 34	3743.39	0.0800	2184.53	21.5909	103 R 21	3743.39	0.0800	2184.53	21.5909	103 R 21
3738.29	2.2990	1429.15	15.7500	2 R 15	3743.53	1.9240	1551.30	23.8333	2 R 23	3743.53	1.9240	1551.30	23.8333	2 R 23
3738.34	60.4652	831.70	20.9524	3 R 20	3743.71	36.7169	1007.14	29.9667	4 R 29	3743.71	36.7169	1007.14	29.9667	4 R 29
3738.73	0.0871	2085.67	14.4000	102 R 14	3744.03	0.0778	2201.78	22.6087	102 R 22	3744.03	0.0778	2201.78	22.6087	102 R 22
3738.82	0.0301	2597.90	36.9730	104 R 36	3744.15	1.8163	1570.10	24.8400	1 R 24	3744.15	1.8163	1570.10	24.8400	1 R 24
3738.84	58.2638	847.84	21.9545	4 R 21	3744.16	0.0067	2956.94	47.9792	105 R 47	3744.16	0.0067	2956.94	47.9792	105 R 47
3738.84	0.5253	2027.75	41.0000	6 R 40	3744.20	0.1168	2382.37	51.0000	6 R 50	3744.20	0.1168	2382.37	51.0000	6 R 50
3738.93	0.0269	2625.51	37.9737	105 R 37	3744.36	129.81949	843.00	47.0000	5 R 46	3744.36	129.81949	843.00	47.0000	5 R 46
3738.97	2.2848	1441.68	16.7647	1 R 16	3744.36	0.0080	2922.35	46.9787	104 R 46	3744.36	0.0080	2922.35	46.9787	104 R 46
3739.21	489.1934	519.52	37.0000	5 R 36	3744.57	33.9606	1031.14	30.9677	3 R 30	3744.57	33.9606	1031.14	30.9677	3 R 30
3739.41	0.0871	2097.44	15.4375	103 R 15	3744.67	0.0736	2219.83	23.6250	103 R 23	3744.67	0.0736	2219.83	23.6250	103 R 23
3739.64	2.2895	1454.99	17.7778	2 R 17	3744.77	1.7322	1589.67	25.8462	2 R 25	3744.77	1.7322	1589.67	25.8462	2 R 25
3739.64	56.2778	865.33	22.9565	3 R 22	3744.86	31.0864	1054.76	31.9688	4 R 31	3744.86	31.0864	1054.76	31.9688	4 R 31
3739.95	0.4024	2092.46	43.0000	6 R 42	3745.13	0.0049	3032.55	49.9800	105 R 49	3745.13	0.0049	3032.55	49.9800	105 R 49
3739.97	0.0239	2656.55	38.9744	104 R 38	3745.21	0.0822	2462.62	53.0000	6 R 52	3745.21	0.0822	2462.62	53.0000	6 R 52
3740.02	0.0211	2685.57	39.9750	105 R 39	3745.30	0.0710	2238.65	24.6400	102 R 24	3745.30	0.0710	2238.65	24.6400	102 R 24
3740.09	0.0885	2109.99	16.4706	102 R 16	3745.32	94.40205	917.03	49.0000	5 R 48	3745.32	94.40205	917.03	49.0000	5 R 48
3740.10	53.6172	882.98	23.9583	4 R 23	3745.39	1.6176	1610.03	26.8519	1 R 26	3745.39	1.6176	1610.03	26.8519	1 R 26
3740.29	388.1992	577.99	39.0000	5 R 38	3745.41	0.0058	2996.59	48.9796	104 R 48	3745.41	0.0058	2996.59	48.9796	104 R 48
3740.30	2.2423	1469.09	18.7895	1 R 18	3745.74	28.4672	1080.40	32.9697	3 R 32	3745.74	28.4672	1080.40	32.9697	3 R 32
3740.76	0.0872	2123.33	17.5000	103 R 17	3745.92	0.0664	2258.26	25.6538	103 R 25	3745.92	0.0664	2258.26	25.6538	103 R 25
3740.91	51.1957	902.10	24.9600	3 R 24	3745.98	25.8215	1105.51	33.9706	4 R 33	3745.98	25.8215	1105.51	33.9706	4 R 33
3740.96	2.2157	1483.96	19.8000	2 R 19	3745.99	1.5265	1631.16	27.8571	2 R 27	3745.99	1.5265	1631.16	27.8571	2 R 27
3741.05	0.3030	2160.27	45.0000	6 R 44	3746.09	0.0035	3111.28	51.9808	105 R 51	3746.09	0.0035	3111.28	51.9808	105 R 51
3741.09	0.0163	2748.74	41.9762	105 R 41	3746.21	0.0568	2545.98	55.0000	6 R 54	3746.21	0.0568	2545.98	55.0000	6 R 54

3746.26	67.2847	994.16	51.0000	5 R 50	3751.35	0.0003	3648.82	63.9R44	105 R 62
3746.43	0.0041	3073.96	50.9804	104 R 50	3751.39	6.3977	1522.10	63.0000	5 R 62
3746.53	0.0632	2278.66	26.6667	102 R 26	3751.71	0.6041	1885.54	37.8947	2 R 37
3746.59	1.4109	1653.08	28.8621	1 R 28	3751.77	0.0044	3111.28	67.0000	6 R 66
3746.89	23.4160	1132.78	34.9714	3 R 34	3751.80	0.0290	2497.45	35.7500	103 R 35
3747.02	0.0024	3193.11	53.9815	105 R 53	3752.15	0.0002	3749.26	65.9848	105 R 65
3747.08	21.0522	1159.37	35.9722	4 R 35	3752.17	4.0840	1620.94	65.0000	5 R 64
3747.14	0.0586	2299.84	27.6786	103 R 27	3752.17	0.0003	3603.53	62.9841	104 R 62
3747.17	47.3572	1074.39	53.0000	5 R 52	3752.18	5.8004	1475.40	45.9783	4 R 45
3747.18	0.0388	2632.44	57.0000	6 R 56	3752.24	0.5325	1915.28	38.8974	1 R 38
3747.19	1.3180	1675.79	29.8667	2 R 29	3752.28	6.7267	1441.53	44.9778	3 R 44
3747.44	0.0029	3154.44	52.9811	104 R 52	3752.35	0.0263	2525.68	36.7568	102 R 36
3747.75	0.0552	2321.80	28.6897	102 R 28	3752.64	0.0028	3216.34	69.0000	6 R 68
3747.77	1.2060	1699.27	30.8710	1 R 30	3752.77	0.4747	1945.79	39.9000	2 R 39
3747.93	0.0016	3278.05	55.9821	105 R 55	3752.90	0.0233	2554.69	37.7632	103 R 37
3748.02	18.9088	1188.29	36.9730	3 R 36	3752.92	2.5657	1722.87	67.0000	5 R 66
3748.06	32.7856	1157.73	55.0000	5 R 54	3753.06	0.0003	3702.68	64.9846	104 R 64
3748.14	0.0260	2722.01	59.0000	6 R 58	3753.13	4.2555	1547.95	47.9792	4 R 47
3748.15	16.8531	1216.34	37.9737	4 R 37	3753.29	0.4149	1977.09	40.9024	1 R 40
3748.34	0.0505	2344.54	29.7000	103 R 29	3753.29	4.9745	1512.63	46.9787	3 R 46
3748.35	1.1157	1723.54	31.8750	2 R 31	3753.44	0.0209	2584.48	38.7692	102 R 38
3748.43	0.0019	3238.03	54.9818	104 R 54	3753.49	0.0017	3324.50	71.0000	6 R 70
3748.82	0.0011	3366.09	57.9828	105 R 57	3753.66	1.5864	1827.89	69.0000	5 R 68
3748.83	1.0111	1748.58	32.8788	1 R 32	3753.81	0.3665	2009.17	41.9048	2 R 41
3748.93	22.3282	1244.17	57.0000	5 R 56	3753.97	0.0183	2615.05	39.7750	103 R 39
3748.94	0.0471	2368.07	30.7097	102 R 30	3754.04	3.0699	1623.61	49.9800	4 R 49
3749.07	0.0171	2814.67	61.0000	6 R 60	3754.27	3.6170	1586.85	48.9796	3 R 48
3749.12	14.9950	1246.92	38.9744	3 R 38	3754.32	0.3175	2042.03	42.9070	1 R 42
3749.20	13.2518	1276.44	39.9750	4 R 39	3754.32	0.0011	3435.75	73.0000	6 R 72
3749.39	0.0014	3324.74	56.9825	104 R 56	3754.37	0.9654	1936.01	71.0000	5 R 70
3749.50	0.9264	1774.41	33.8824	2 R 33	3754.50	0.0163	2646.41	40.7805	102 R 40
3749.52	0.0428	2392.38	31.7188	103 R 31	3754.82	0.2781	2075.67	43.9091	2 R 43
3749.69	0.0008	3457.23	59.9833	105 R 59	3754.93	2.1779	1702.37	51.9808	4 R 51
3749.77	14.9604	1333.72	59.0000	5 R 58	3755.02	0.0140	2678.54	41.7857	103 R 41
3749.99	0.0111	2910.44	63.0000	6 R 62	3755.06	0.5783	2047.21	73.0000	5 R 72
3750.06	0.8318	1801.02	34.8857	1 R 34	3755.13	0.0006	3550.10	50.0000	6 R 74
3750.10	0.0395	2417.47	32.7273	102 R 32	3755.23	2.5860	1664.18	50.9804	3 R 50
3750.20	11.6813	1308.67	40.9756	3 R 40	3755.32	0.2388	2110.09	44.9111	1 R 44
3750.22	10.2377	1339.65	41.9762	4 R 41	3755.54	0.0124	2711.46	42.7907	102 R 42
3750.34	0.0009	3414.56	58.9831	104 R 58	3755.55	0.0001	2808.20	62.0000	101 P 62
3750.53	0.0005	3551.48	61.9839	105 R 61	3755.73	0.3411	2161.51	75.0000	5 R 74
3750.59	9.8625	1426.36	61.0000	5 R 60	3755.80	1.5196	1784.25	53.9815	4 R 45
3750.61	0.7550	1828.42	35.8889	2 R 35	3755.81	0.2074	2145.28	45.9130	2 R 53
3750.67	0.0355	2443.35	33.7353	103 R 33	3755.93	0.0003	3667.53	77.0000	6 R 76
3750.89	0.0071	3009.31	65.0000	6 R 64	3756.04	0.0107	2745.16	43.7955	103 R 43
3751.16	0.6716	1856.59	36.8919	1 R 36	3756.17	1.8182	1744.63	52.9811	3 R 52
3751.22	7.7725	1405.97	43.9773	4 R 43	3756.29	0.1765	2181.26	46.9149	1 R 46
3751.24	0.0326	2470.01	34.7429	102 R 34	3756.38	0.1979	2278.89	77.0000	5 R 76
3751.25	8.9416	1373.54	42.9767	3 R 42	3756.55	0.0093	2779.65	44.8000	102 R 44
3751.26	0.0006	3507.49	60.9836	104 R 60	3756.64	1.0430	1869.23	55.9821	4 R 55



FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID	FREQ -1 CM	LINE INTENSITY -1 CM / ATM CM	E -1 CM	L	BAND ID
3756.71	0.0002	3788.05	79.0000	6 R 78	3761.58	0.0203	2673.79	58.9322	1 R 58					
3756.77	0.1520	2218.02	47.9167	2 R 47	3761.66	0.0015	3210.51	55.8393	103 R 55					
3757.01	0.1131	2399.35	79.0000	5 R 78	3761.81	0.0476	2550.95	69.9857	4 R 69					
3757.09	0.0080	2814.91	45.8043	103 R 45	3761.83	0.0003	3621.93	97.0000	5 R 96					
3757.24	1.2575	1828.19	54.9818	3 R 54	3761.98	0.0166	2719.90	59.9333	2 R 59					
3757.24	0.1283	2255.56	48.9184	1 R 48	3762.00	0.0007	2530.19	56.0000	101 P 56					
3757.45	0.7042	1957.31	57.9828	4 R 57	3762.08	0.0012	3254.36	56.8421	102 R 56					
3757.53	0.0059	2850.96	46.8085	102 R 46	3762.11	0.0977	2394.82	66.9851	3 R 66					
3757.62	0.0637	2522.89	81.0000	5 R 80	3762.27	0.0002	3773.11	99.0000	5 R 98					
3757.71	0.1056	2293.88	49.9200	2 R 49	3762.37	0.0134	2766.78	60.9344	1 R 60					
3757.71	0.0003	2712.43	60.0000	101 P 60	3762.44	0.0287	2660.72	71.9861	4 R 71					
3757.98	0.8555	1914.86	56.9825	3 R 56	3762.50	0.0009	3298.99	57.8448	103 R 57					
3758.02	0.0058	2887.78	47.8126	103 R 47	3762.75	0.0108	2814.44	61.9355	2 R 61					
3758.16	0.0917	2332.9A	50.9216	1 R 50	3762.86	0.0504	2500.13	68.9855	3 R 68					
3758.22	0.0352	2649.52	83.0000	5 R 82	3762.92	0.0008	3344.40	58.8475	102 R 58					
3758.24	0.4678	2048.50	59.9833	4 R 59	3763.06	0.0170	2773.59	73.9865	4 R 73					
3758.49	0.0050	2925.39	48.8163	102 R 48	3763.13	0.0086	2862.88	62.9365	1 R 62					
3758.61	0.0776	2372.85	51.9231	2 R 51	3763.32	0.0006	3390.59	59.8500	103 R 59					
3758.79	0.0193	2779.22	85.0000	5 R 84	3763.50	0.0070	2912.09	63.9375	2 R 63					
3758.85	0.5725	2004.64	58.9831	3 R 58	3763.60	0.0366	2608.53	70.9859	3 R 70					
3758.96	0.0042	2963.78	49.8200	103 R 49	3763.64	0.0099	2889.55	75.9868	4 R 75					
3759.01	0.3058	2142.79	61.9839	4 R 61	3763.72	0.0005	3437.56	60.8525	102 R 60					
3759.06	0.0644	2413.51	52.9245	1 R 52	3763.86	0.0054	2962.08	64.9385	1 R 64					
3759.34	0.0104	2911.99	87.0000	5 R 86	3764.12	0.0009	2443.72	54.0000	101 P 54					
3759.43	0.0036	3002.95	50.8235	102 R 50	3764.12	0.0005	3485.31	61.8548	103 R 61					
3759.50	0.0541	2454.94	53.9259	2 R 53	3764.21	0.0058	3008.59	77.9872	4 R 77					
3759.70	0.3771	2097.53	60.9836	3 R 60	3764.22	0.0045	3012.85	65.9394	2 R 65					
3759.74	0.1966	2240.19	63.9844	4 R 63	3764.32	0.0220	2720.03	72.9863	3 R 72					
3759.86	0.0004	2619.76	89.0000	101 P 58	3764.51	0.0003	3533.83	62.8571	102 R 62					
3759.87	0.0055	3047.84	89.0000	5 R 88	3764.57	0.0035	3064.39	66.9403	1 R 66					
3759.89	0.0030	3042.90	51.8269	103 R 51	3764.74	0.0032	3130.73	79.9875	4 R 79					
3759.93	0.0445	2497.16	54.9273	1 R 54	3764.89	0.0003	3583.14	63.8594	103 R 63					
3760.34	0.0025	3083.63	52.8302	102 R 52	3764.91	0.0028	3116.71	67.9412	2 R 67					
3760.35	0.0371	2540.15	55.9286	2 R 55	3765.01	0.0129	2834.62	74.9867	3 R 74					
3760.39	0.0028	3186.76	91.0000	5 R 90	3765.25	0.0021	3169.81	68.9420	1 R 68					
3760.46	0.1245	2340.68	65.9848	4 R 65	3765.26	0.0018	3255.94	81.9878	4 R 81					
3760.52	0.2443	2193.52	62.9841	3 R 62	3765.26	0.0002	3633.22	64.8615	102 R 64					
3760.77	0.0303	2583.92	56.9298	1 R 56	3765.26	0.0016	3223.68	69.9429	2 R 69					
3760.78	0.0021	3125.15	53.8333	103 R 53	3765.63	0.0002	3684.08	65.8636	103 R 65					
3760.88	0.0015	3328.75	93.0000	5 R 92	3765.68	0.0074	2952.31	76.9870	3 R 76					
3761.14	0.0776	2444.26	67.9853	4 R 67	3765.75	0.0011	3384.24	83.9881	4 R 83					
3761.18	0.0250	2628.47	57.9310	2 R 57	3765.90	0.0013	3278.33	70.9437	1 R 70					
3761.22	0.0018	3167.44	54.8364	102 R 54	3766.21	0.0005	3515.62	85.9884	4 R 85					
3761.32	0.1557	2292.62	64.9846	3 R 64	3766.22	0.0011	3333.75	71.9444	2 R 71					
3761.36	0.0008	3473.81	95.0000	5 R 94	3766.22	0.0013	2360.35	52.0000	101 P 52					



3766.33	0.0042	3073.09	78.9873	3 R 78	3809.45	0.0260	1301.80	6.0000	101 P 6
3766.52	0.0008	3389.95	72.9452	1 R 72	3811.06	0.0180	1293.21	4.0000	101 P 4
3766.65	0.0003	3650.07	87.9886	4 R 87	3812.65	0.0093	1287.74	2.0000	101 P 2
3766.83	0.0006	3446.92	73.9459	2 R 73	3814.99	0.0046	1285.40	1.0000	101 R 0
3766.96	0.0024	3196.97	80.9877	3 R 80	3816.53	0.0139	1287.74	3.0000	101 R 2
3767.12	0.0005	3504.67	74.9467	1 R 74	3818.04	0.0225	1293.21	5.0000	101 R 4
3767.41	0.0003	3563.19	75.9474	2 R 75	3819.52	0.0304	1301.80	7.0000	101 R 6
3767.57	0.0014	3323.93	82.9880	3 R 82	3820.98	0.0369	1313.51	9.0000	101 R 8
3767.69	0.0003	3622.48	76.9481	1 R 76	3822.42	0.0419	1328.35	11.0000	101 R 10
3767.96	0.0002	3682.55	77.9487	2 R 77	3823.83	0.0454	1346.31	13.0000	101 R 12
3768.16	0.0008	3453.97	84.9882	3 R 84	3825.22	0.0474	1367.39	15.0000	101 R 14
3768.32	0.0018	2280.08	50.0000	101 P 50	3826.59	0.0477	1391.60	17.0000	101 R 16
3768.73	0.0003	3587.10	86.9885	3 R 86	3827.93	0.0467	1418.92	19.0000	101 R 18
3769.28	0.0002	3723.31	88.9888	3 R 88	3829.25	0.0446	1449.37	21.0000	101 R 20
3770.39	0.0026	2202.92	48.0000	101 P 48	3830.55	0.0414	1482.94	23.0000	101 R 22
3772.45	0.0036	2128.87	46.0000	101 P 46	3831.82	0.0378	1519.63	25.0000	101 R 24
3774.49	0.0048	2057.92	44.0000	101 P 44	3833.07	0.0336	1559.43	27.0000	101 R 26
3776.52	0.0064	1990.08	42.0000	101 P 42	3834.31	0.0293	1602.36	29.0000	101 R 28
3778.52	0.0083	1925.35	40.0000	101 P 40	3835.51	0.0250	1648.40	31.0000	101 R 30
3780.51	0.0107	1863.73	38.0000	101 P 38	3836.70	0.0210	1697.56	33.0000	101 R 32
3782.48	0.0134	1805.23	36.0000	101 P 36	3837.87	0.0173	1749.84	35.0000	101 R 34
3784.43	0.0165	1749.84	34.0000	101 P 34	3839.01	0.0140	1805.23	37.0000	101 R 36
3786.35	0.0201	1697.56	32.0000	101 P 32	3840.14	0.0110	1863.73	39.0000	101 R 38
3788.26	0.0239	1648.40	30.0000	101 P 30	3841.24	0.0087	1925.35	41.0000	101 R 40
3790.15	0.0279	1602.36	28.0000	101 P 28	3842.33	0.0066	1990.08	43.0000	101 R 42
3792.02	0.0320	1559.43	26.0000	101 P 26	3843.40	0.0049	2057.92	45.0000	101 R 44
3793.85	0.0359	1519.63	24.0000	101 P 24	3844.45	0.0037	2128.87	47.0000	101 R 46
3795.68	0.0393	1482.94	22.0000	101 P 22	3845.48	0.0027	2202.92	49.0000	101 R 48
3797.48	0.0420	1449.37	20.0000	101 P 20	3846.49	0.0020	2280.08	51.0000	101 R 50
3799.26	0.0439	1418.92	18.0000	101 P 18	3847.49	0.0013	2360.35	53.0000	101 R 52
3801.02	0.0446	1391.60	16.0000	101 P 16	3848.47	0.0009	2443.72	55.0000	101 R 54
3802.75	0.0439	1367.39	14.0000	101 P 14	3849.43	0.0007	2530.19	57.0000	101 R 56
3804.46	0.0418	1346.31	12.0000	101 P 12	3850.38	0.0004	2619.76	59.0000	101 R 58
3806.14	0.0379	1328.35	10.0000	101 P 10	3851.32	0.0003	2712.43	61.0000	101 R 60
3807.81	0.0326	1313.51	8.0000	101 P 8	3764.12	0.0005	3485.31	61.8548	103 R 61

## 5. References

- Burch, Darrell E., David Gryvnak and Dudley Williams (1960), Infrared Absorption by Carbon Dioxide, Scientific Report No. II(AFCRL-255).
- Burch, Darrell E., David Gryvnak and Richard R. Patty (1964), Absorption by CO<sub>2</sub> Between 4500 and 5400 cm<sup>-1</sup>, Philco Scientific Report No. U2955.
- Courtoy, Charles P. (1959), Spectre Infrarouge, A Grand Dispersion et Constantes Moleculaires Du CO<sub>2</sub>, Annales de la Soci  t   Scientifique de Bruxelles, 73, 5-203.
- Herzberg, G. (1962), Molecular Spectra and Molecular Structure II Infrared and Raman Spectra of Polyatomic Molecules (Van Nostrand, New York, 1962)





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