

Microwave Spectra of Molecules of Astrophysical Interest. XXIII. Acetaldehyde

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The microwave spectrum of acetaldehyde is critically reviewed and supplemented with spectral frequency calculations derived from the rotation-internal rotation analysis. A simultaneous analysis of the torsional ground state, $v_t = 0$, and first and second torsionally excited states, $v_t = 1$ and 2, was carried out. The primary objective of this review is to provide radio astronomers with complete spectral coverage over the range of 900 MHz to 500 GHz for the ground state and covering rotational quantum number, J , from 0 to 26.
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Key words: acetaldehyde; internal rotation; interstellar molecule; microwave spectrum; radio astronomy; rotational transitions.

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1. Introduction

The present work is a critical review that is intended to update and augment the previous review on the acetaldehyde CH_3CHO molecule.¹ It is part of a series of critical reviews on molecules identified in interstellar molecular clouds. Predicted and observed transition frequencies, energy levels, and line strengths are provided for the rotational levels with $J \leq 26$, $K \leq 14$. These rotational transitions belong to the first three torsional states (labelled $v_t = 0, 1$ and 2) (instead of only the ground state $v_t = 0$ in Ref. 1) and cover the range between 900 MHz and 500 GHz. The present review is based on almost entirely new laboratory measurements or remeasurements and represents an improvement of about an order of magnitude in predictive accuracy.

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2. Organization of Tables

In the following subsections we describe the sources of the microwave and far-infrared rotational transition frequencies, and the molecular constants employed in the analysis. The objective of this review is to provide a complete and accurate set of transition frequencies and transition intensities for the three lowest torsional energy levels of acetaldehyde over the frequency range from 900 MHz to 500 GHz.

2.1-Molecular Parameters

The rotational parameters, centrifugal distortion parameters, internal rotation parameters and interaction parameters between internal rotation and global overall rotation in Table 1 were obtained from a non-linear least-squares fit of microwave and far-infrared measurements in the first three torsional states ($v_t = 0, 1$, and 2) of the ground vibrational state of acetaldehyde $^{12}\text{CH}_3^{12}\text{CH}^{16}\text{O}$.² Reference 2 is the fifth of a series of five papers²⁻⁶ on the infrared and microwave spectrum of acetaldehyde describing in detail the global fit of 3108 transitions (1014 microwave $v_t = 0-0$ lines, 840 microwave $v_t = 1-1$ lines, 430 microwave $v_t = 2-2$ lines, 420 far-infrared (FIR) $v_t = 1-0$ lines and 404 FIR $v_t = 2-1$ lines) to 48 parameters.

The fit, which uses the "rho axis method" (RAM)⁷ in a version slightly extended from the literature,⁸⁻¹² achieves an overall unitless weighted standard deviation of 1.06 and includes essentially all available infrared and microwave transitions involving torsional levels below the torsional barrier. The use of a non-principal axis system (the RAM axis sys-

TABLE I. Torsion-rotation parameters used in the global fit of transitions for the $v_t=0, 1$, and 2 torsional states of acetaldehyde.

Operator ^a	Parameter ^a	Value (cm ⁻¹) ^b	Operator ^a	Parameter ^a	Value (cm ⁻¹) ^b
$\frac{1}{2}(1-\cos 3\alpha)$	V_3	407.94707(360)	$-P_4$	Δ_j	$0.321170(568)\times 10^{-6}$
P_a^2	F	7.655853(1234)	$-P^2 P_a^2$	Δ_{JK}	$-0.2848(222)\times 10^{-5}$
$P_a P_a$	ρ	0.329088(472)	$-P_a^4$	Δ_K	$0.124563(418)\times 10^{-3}$
P_a^2	A	1.884874136(1778)	$-2P^2(P_b^2-P_c^2)$	δ_j	$0.75031(280)\times 10^{-7}$
P_b^2	B	0.348716329(914)	$-(P_a^2(P_b^2-P_c^2))$	δ_K	$0.2232(1092)\times 10^{-5}$
P_c^2	C	0.303177697(272)	$(P_a P_b + P_b P_a)P^2$	D_{abj}	$0.88594(1200)\times 10^{-6}$
$(P_a P_b + P_b P_a)$	D_{ab}	-0.12270925(584)	$(P_a^2 P_b + P_b P_a^2)$	D_{abk}	$0.21285(1352)\times 10^{-4}$
P_a^4	k_4	-0.431347(396) $\times 10^{-3}$	$(1-\cos 6\alpha)P^2$	N_v	$0.47946(482)\times 10^{-4}$
$\frac{1}{2}(1-\cos 6\alpha)$	V_6	-12.91775(1518)	$(1-\cos 6\alpha)P_a^2$	K_2	$-0.27910(702)\times 10^{-3}$
$\{(1-\cos 3\alpha), P_a^2\}$	γ	-0.044534(616)	$P_a^2 P^2$	M_v	$0.220(264)\times 10^{-6}$
$P_a^3 P_a$	k_3	-0.836331(804) $\times 10^{-3}$	$2P_a^4(P_b^2-P_c^2)$	c_3	$-0.1486(1284)\times 10^{-8}$
$\{(1-\cos 3\alpha), P_a P_a\}$	k_6	-0.03274(368)	$P_a^2 P_a P^2$	k_{3j}	$-0.2234(414)\times 10^{-7}$
$P_a^2 P^2$	G_v	-0.28425(628) $\times 10^{-5}$	$P_a^2 P^4$	g_v	$0.491(242)\times 10^{-10}$
$P_a^2 P_a^2$	k_2	-0.983767(1180) $\times 10^{-3}$	$P_a^2 P_a^2 P^2$	k_{2j}	$-0.2451(280)\times 10^{-7}$
$2P_a^2(P_b^2-P_c^2)$	c_1	-0.14158(686) $\times 10^{-5}$	$P_a^2 P_a^4$	k_{2K}	$0.8678(864)\times 10^{-7}$
$P_a(P_a P_b + P_b P_a)$	Δ_{ab}	$0.4211(208)\times 10^{-4}$	$2P_a^2(P_b^2-P_c^2)P^2$	c_{1j}	$-0.9522(940)\times 10^{-10}$
$\sin 3\alpha(P_a P_b + P_b P_a)$	D_{ac}	$-0.1371(262)\times 10^{-2}$	$(1-\cos 3\alpha)P^4$	f_v	$-0.8705(530)\times 10^{-8}$
$(1-\cos 3\alpha)P^2$	F_v	$0.558698(882)\times 10^{-3}$	$(1-\cos 3\alpha)P_a^2 P^2$	k_{5j}	$0.2830(1786)\times 10^{-7}$
$(1-\cos 3\alpha)P_a^2$	k_5	-0.03117(238)	$(1-\cos 3\alpha)P_a^4$	f_k	$0.8039(1774)\times 10^{-6}$
$(1-\cos 3\alpha)(P_b^2-P_c^2)$	c_2	$0.205262(956)\times 10^{-3}$	$P_a P_a^5$	l_k	$0.6666(542)\times 10^{-7}$
$(1-\cos 3\alpha)(P_a P_b + P_b P_a)$	d_{ab}	$0.210277(574)\times 10^{-2}$	$P_a P_a^3 P^2$	λ_v	$-0.11298(874)\times 10^{-7}$
$P_a P_a P^2$	L_v	$0.6005(206)\times 10^{-5}$	$P_a^4 P^2$	H_{KJ}	$-0.19824(1676)\times 10^{-8}$
$P_a P_a^2$	k_1	$-0.559586(644)\times 10^{-3}$	P_a^5	H_K	$0.11290(1438)\times 10^{-7}$
$P_a\{P_a(P_b^2-P_c^2)\}$	c_4	$-0.42896(1694)\times 10^{-5}$			
$P_a(P_a^2 P_b + P_b P_a^2)$	δ_{ab}	$0.5981(330)\times 10^{-4}$			

^aNotation of Refs. 2, 11, and 12. $\{A, B\} = AB + BA$. The product of the parameter and operator from a given row yields the term actually used in the vibration-rotation-torsion Hamiltonian, except for F , ρ , and A , which occur in the Hamiltonian in the form: $F(P_a + \rho P_a)^2 + A P_a^2$.

^bAll values are in cm⁻¹, except ρ , which is unitless. The uncertainties shown are two standard deviations and refer to the corresponding last three or four digits.

tem can be obtained by a rotation about the y -axis from the principal axis system by an angle $\theta_{\text{RAM}} = 4.54^\circ$, which is the angle that diagonalizes the inertial moment matrix) has the consequences that the rotational parameters and the centrifugal distortion parameters as well as the dipole moment components given here must be subjected to the inverse rotation when comparing them with corresponding parameters defined in the principal axis (PAM) system. Specifically, we use a right-handed axis system with the a -axis pointing toward, and the b -axis pointing away from the oxygen atom, since this is consistent with the negative sign for D_{ab} used in almost all fits of acetaldehyde data in the literature. The rotation matrix for converting vector components (e.g., components of the dipole moment operator μ) from the PAM to the RAM system then becomes:

$$\begin{pmatrix} \mu_a \\ \mu_b \end{pmatrix}_{\text{RAM}} = \begin{pmatrix} \cos \theta & \sin \theta \\ -\sin \theta & \cos \theta \end{pmatrix} \begin{pmatrix} \mu_a \\ \mu_b \end{pmatrix}_{\text{PAM}}, \quad (1)$$

where θ is 4.54° . The signs of the dipole moment components must also be chosen consistent with the positive a and b axis directions. Following the chemist's convention of directing dipole moment vectors from the positive to the negative charge, as commonly used also in the microwave literature,^{13,14} μ_a is given with a positive sign and μ_b with a negative sign in Sec. 2.2 below. (Note also that the cosinoidal variation of μ_a and μ_b , as well as the sinusoidal variation of μ_c (Ref. 7) are set to zero for intensity calculations in the present review.)

2.2 Microwave Transitions

Table 2 contains the predicted and observed rotational transitions for acetaldehyde. For each spectral line the first two groups of columns contain the quantum numbers of the upper and lower state v_t, J, K_a, K_c for the asymmetric rotor in a given torsional state, v_t , with rotational state designation, J, K_a, K_c . (Note that transitions with $\Delta K_a \geq 2$ are not present, since they have neither been observed nor calculated.) For the A symmetry species ($\sigma = 0$), a parity quantum number ($P = +$ or $-$) is also given following the convention adopted in Refs. 2-6. Also following Refs. 2-6, for the E symmetry species ($\sigma = 1$), the K_a quantum number presented in Table 2 has a signed value. The quantum numbers for a given transition are followed by the observed transition frequency and the experimentally estimated uncertainty in MHz. In the next column, calculated transitions are presented which were computed from the molecular parameters of Table 1, and are followed by the calculated uncertainties given in parentheses. The uncertainties represent twice the standard deviation from the least-squares analysis (i.e. 95% confidence levels) and were estimated from the variance-covariance matrix as described by Kirchhoff.¹⁵

The next column shows transition dipole matrix element squared or transition intensity. The total internal rotation line strength is calculated as:

$$|\langle v_t', J', K_a', K_c', \sigma' | \alpha_{Za} \mu_a + \alpha_{Zb} \mu_b | v_t'', J'', K_a'', K_c'', \sigma'' \rangle|^2, \quad (2)$$

where α is the direction cosine matrix. The subscript Z refers to the direction of polarization and a or b refer to RAM axes. The absolute nuclear spin statistical weight factors, the absolute partition function and the Boltzmann factors were suppressed. Fourier expansion for each dipole moment component, μ_z , is defined by Eq. 19 of Ref. 7 for the case of an internal rotor molecule. However, for the present calculations, we use only the first term for μ_a and μ_b in that equation, which represents the permanent dipole moments. The usual factorization of Eq. (2) into the sum of products of the dipole moment component squared times a line strength factor is not possible here because of extensive even and odd ΔK_a and Δv_t mixing of the torsional wave functions. Bossert, *et al.*¹⁴ reported the dipole moment components in the principal axis frame: $\mu_a^{\text{PAM}} = 8.392(14) \times 10^{-30}$ C m (2.5160(43) D), $\mu_b^{\text{PAM}} = -3.569(22) \times 10^{-30}$ C m (-1.0700(65) D). These values must be converted to the RAM framework using Θ_{RAM} given above yielding the values for the intensity calculation: $\mu_a^{\text{RAM}} = 8.083(14) \times 10^{-30}$ C m (2.4234(43) D), $\mu_b^{\text{RAM}} = -4.222(22) \times 10^{-30}$ C m (-1.2658(65) D). Note that Bossert, *et al.*¹⁴ use a reversed b -axis compared to the present work, thus, their μ_b is positive rather than negative as required by the axis orientation chosen here. Two cautionary comments on the calculated intensities are in order here. First, for A species transitions certain selection rules on the parity (corresponding to $A_1 \leftrightarrow A_2$ overall selection rules) must be obeyed. However, calculations were carried out without factorizing the A block of the Hamiltonian into A_1 and A_2 submatrices. As a consequence, the parity of the numerically generated eigenvector is not well defined when K -type doublets remain degenerate within energies of the order of machine round-off error. Intensities for such cases were obtained by calculating both the formally parity-allowed and the formally parity-forbidden components of a given K -type doublet transition, and then ascribing all the calculated intensity to the two parity-

allowed transitions. Second, for some high J and/or K regions, as yet unstudied torsion-rotation perturbations occur. For such perturbed regions (empirically identifiable by very irregular changes in the calculated energy and/or intensity with J , for a given v_t and K_a , or even when an expected transition is missing), predicted values given in the present review will be unreliable. An intensity cutoff value of 10^{-8} was used to limit the transitions reported in Table 2 to only those which might be observable. Since the line strength values are given to four decimal places, there are a few cases where exponential notation is used when the value is less than 1×10^{-4} , e.g. $3.2E-5$ should be interpreted as 3.2×10^{-5} .

The torsion-rotation energy of the lower state is shown in the following column with units of cm^{-1} . The torsional zero point energy of the $0_{0,0} A$ state, 75.357 cm^{-1} , has been subtracted from all energy levels. The last column is the reference from which each of the measured lines was obtained, which is composed of the first three letters of the first authors last name and the last two digits of the year of publication. In several cases an asterisk (*) precedes the reference, which signifies that the measured frequency was excluded from the fit but was reported in the reference cited.

Table 2 is a frequency-sorted list of calculated and observed transitions for both the A and E states and $v_t = 0, 1, 2$. In previous publications in this series of reviews we have reported a J -sorted list as well; however, since the predicted spectrum of acetaldehyde is so voluminous, we have eliminated the J -sorted tables.

The previous reports on acetaldehyde²⁻⁶ contain considerable detail on the measurements and methods of analysis, as well as statistics on the various data sets employed. The reader is encouraged to consult these references for more details. One of the authors, I.K., will provide the data set and program employed in the review upon request.

2.3 List of Symbols

a, b, c	"Rho axis" (RAM) labels (and not principal axis labels); defined in Ref. 7.
$I_{aa}, I_{bb}, I_{cc}, I_{ab}$	I_{xx} are the moments of inertia and I_{ab} is the product of inertia in the a, b, c -RAM axis system with the sign choice of Ref. 9.
I_α	Moment of inertia of the CH_3 internal rotor.
A, B, C, D_{ab}	Rotational parameters $A \gg B \gg C$; D_{ab} arises from the use of a non-principal axis system (see Eqs. 2-29 of Ref. 9 interchanging the a and c axes):
	$A = \frac{\hbar^2}{2} \left[\frac{I_{bb} + I_{aa}}{I_{bb}I_{aa} - I_{ab}^2} - \frac{I_{bb}}{I_{bb}^2 + I_{ab}^2} \right], \quad B = \frac{\hbar^2 I_{bb}}{2(I_{bb}^2 + I_{ab}^2)}, \quad C = \hbar^2 / 2I_{cc}, \quad D_{ab} = \frac{\hbar^2 I_{ab}}{2(I_{bb}^2 + I_{ab}^2)}$
$\Delta_J, \Delta_{JK}, \Delta_K, \delta_J, \delta_K$	Quartic centrifugal distortion constants multiplying operators defined according to Watson. ¹⁶
H_{KJ}, H_K	Sextic centrifugal distortion constants multiplying operators defined according to Watson. ¹⁶
ρ	Internal rotation interaction constant: ⁹
	$\rho = (I_{bb}^2 + I_{ab}^2)^{1/2} I_\alpha / (I_{bb}I_{aa} - I_{ab}^2)$
F	Internal rotation constant: ⁹
	$F = \hbar^2 (I_{bb}I_{aa} - I_{ab}^2) / 2I_\alpha (I_{bb}I_{aa} - I_\alpha I_{bb} - I_{ab}^2)$
V_3, V_6	Threefold and sixfold component of torsional barrier.
	$V(\alpha) = \frac{1}{2}V_3(1 - \cos 3\alpha) + \frac{1}{2}V_6(1 - \cos 6\alpha)$
μ_a, μ_b, μ_c	Components of the electric dipole moment along the RAM axes.

J	Total rotational angular momentum quantum number.
K_a	Projection of J along the principal a -axis in the limiting prolate symmetric top.
K_c	Projection of J along the principal c -axis in the limiting oblate symmetric top.
v_t	Principal torsional quantum number in the high barrier limit.
A (i.e., A_1 or A_2), E	Torsion-rotation symmetry species, representing irreducible representations of the symmetry group of the internal rotational Hamiltonian.
P', P''	Parity quantum number, + and -, for the A species. $A+$ and $A-$ labels correspond to A_1 and A_2 , respectively, of the G_6 group for even $J+v_t$ and to A_2 and A_1 for odd $J+v_t$ in the ground vibrational state. Prime (') is for upper state and double prime('') is for lower state.
P	Total rotational angular momentum.
P_a, P_b, P_c	Projection on the RAM a -, b -, or c -axes of the total rotational angular momentum.
P_α	Torsional angular momentum.
α	Torsional angle around internal rotation axis.

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3. ACETALDEHYDE SPECTRAL TABLES

The molecular parameters employed in the global fit of the rotational spectrum of acetaldehyde for $v_t=0, 1$, and 2 are given in Table 1. The calculated spectrum for the three lowest torsional states of acetaldehyde is given in Table 2. References to the experimental data shown in Table 2 follow the table in Section 3.1.

TABLE II. Microwave transitions of CH₃CHO in order of frequency.

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	17	-3	15		0	16	-4	13			909.890(0.043)	1.3491	112.586	
2	21	4	18	-	2	22	3	19	-		965.873(7.496)	4.6867	446.455	
1	1	1	0	-	1	1	1	1	+		969.553(0.001)	9.6081	145.652	
0	26	-1	26	0	26	0	26				1028.183(0.006)	6.5E-8	218.878	
0	1	1	0	-	0	1	1	1	+	1065.075(0.005)	1065.076(0.000)	9.4857	2.202	GOT73
2	12	-2	11		2	11	-3	9			1135.778(2.724)	0.0002	311.623	
2	1	-1	0	-	2	1	1	1	+		1187.919(0.017)	9.1274	259.169	
0	6	2	4	+	0	6	2	5	-		1252.287(0.001)	7.7720	19.794	
0	25	-1	25	0	25	0	25				1301.490(0.007)	1.5E-7	202.864	
2	7	2	5	+	2	7	2	6	-		1347.923(0.041)	6.2575	286.239	
1	2	1	2		1	1	-1	0			1395.763(0.043)	0.0170	144.949	
1	8	-1	7		1	7	-2	5			1640.957(0.029)	1.3702	167.673	
0	24	-1	24	0	24	0	24				1642.930(0.007)	3.1E-7	187.455	
0	1	1	0		0	1	-1	1			1849.634(0.007)	3.1329	2.242	
0	23	-1	23	0	23	0	23				2067.633(0.008)	6.2E-7	172.650	
2	8	2	6	+	2	8	2	7	-		2242.596(0.068)	5.4353	291.416	
0	7	2	5	+	0	7	2	6	-		2243.316(0.002)	6.6913	24.287	
0	4	2	2		0	4	-2	3			2329.424(0.014)	0.1538	12.709	
0	3	2	1		0	3	-2	2			2330.147(0.014)	0.0222	10.136	
0	2	2	0		0	2	-2	1			2339.083(0.015)	0.0013	8.207	
0	5	2	3		0	5	2	4			2379.327(0.013)	0.6505	15.925	
0	22	-1	22	0	22	0	22				2593.293(0.008)	1.2E-6	158.449	
0	6	2	4		0	6	-2	5			2594.589(0.011)	1.8301	19.784	
1	12	1	12		1	11	-2	9			2697.535(0.082)	0.4756	192.278	
1	2	1	1	-	1	2	1	2	+		2908.995(0.004)	5.3645	146.904	
1	15	2	14		1	14	-3	11			2949.123(0.127)	0.2797	225.326	
1	22	1	22		1	22	0	22			3124.619(0.028)	0.0009	300.833	
0	7	2	5		0	7	-2	6			3175.727(0.008)	3.3760	24.284	
0	2	1	1	-	0	2	1	2	+	3195.167(0.010)	3195.162(0.001)	5.2690	3.452	FOU74
0	9	1	9	+	0	8	2	6	+		3208.602(0.010)	1.2239	29.543	
0	21	-1	21	0	21	0	21				3240.248(0.009)	2.3E3-6	144.852	
1	10	3	7	-	1	11	2	10	-		3432.212(0.052)	1.6587	191.379	
2	9	2	7	+	2	9	2	8	-		3514.956(0.106)	4.7770	297.239	
0	2	1	1		0	2	-1	2			3525.230(0.004)	4.3122	3.500	
2	5	0	5	+	2	4	1	4	+		3537.839(0.775)	2.8846	264.828	
1	10	-2	8		1	9	3	7			3539.240(0.064)	0.0106	184.962	
2	2	1	1	-	2	2	1	2	+		3563.633(0.051)	5.0579	260.427	
0	8	2	6	+	0	8	2	7	-		3712.724(0.003)	5.8557	29.419	
2	3	3	0		2	4	2	2			3780.301(2.821)	0.0909	287.223	
2	9	-1	9		2	8	0	8			3838.168(1.814)	0.3852	293.139	
1	21	1	21		1	21	0	21			3850.349(0.029)	0.0016	287.195	
0	20	-1	20	0	20	0	20				4031.357(0.009)	4.2E-6	131.858	
0	9	-1	9	0	8	2	6				4068.413(0.009)	1.1203	29.566	
0	8	2	6		0	8	-2	7			4328.597(0.006)	4.3570	29.422	
1	4	2	3		1	5	-1	4			4482.899(0.050)	0.0404	154.162	
0	25	1	25	+	0	24	2	22	+		4677.892(0.570)	0.3394	202.709	
1	20	1	20		1	20	0	20			4723.064(0.030)	0.0027	274.160	
0	19	-1	19	0	19	0	19				4991.568(0.009)	7.6E-6	119.468	
1	8	1	8		1	7	2	6			5104.625(0.039)	0.9707	165.965	
2	10	2	8	+	2	10	2	9	-		5253.342(0.159)	4.2349	303.707	
1	6	1	5	-	1	5	2	4	-		5420.015(0.025)	0.9837	158.836	
1	11	-3	8		1	12	-2	10			5479.965(0.031)	2.0872	199.953	
0	7	-2	6		0	8	-1	8			5664.911(0.010)	0.1809	24.095	
0	25	2	23		0	26	-1	26			5709.312(0.669)	0.3022	219.102	
1	19	1	19		1	19	0	19			5763.793(0.030)	0.0047	261.731	
0	9	2	7	+	0	9	2	8	-	5778.030(0.040)	5777.879(0.004)	5.1850	35.191	SCH79
1	3	1	2	-	1	3	1	3	+		5818.778(0.008)	3.7841	148.780	
0	22	4	19	-	0	21	5	16	-		5938.232(0.178)	3.8555	187.853	
0	25	-1	25	0	24	2	22				5972.237(0.564)	0.3338	202.708	
0	18	-1	18	0	18	0	18				6147.062(0.009)	1.3E-5	107.680	
0	9	2	7		0	9	-2	8		6187.027(0.040)	6186.965(0.005)	4.5747	35.197	SCH79
2	7	0	7		2	8	-1	8			6188.451(1.659)	0.4467	287.553	
0	3	1	2	-	0	3	1	3	+	6390.085(0.040)	6389.933(0.002)	3.6878	5.326	SCH79

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'} P'$	v_2'	J''	$K_{a''}$	$K_{c''} P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	2	0	2	1	1	1			6416.996(0.026)	0.2589	143.707	
2	15	-3	13	2	14	2			6525.403(7.021)	0.0011	345.953	
0	3	1	2	0	3	-1		6545.420(0.040)	6545.442(0.003)	3.5023	5.376	SCH79
0	7	1	6	0	6	2			6849.369(0.009)	0.3846	19.871	
0	17	3	14 -	0	16	4			6914.820(0.042)	2.9723	112.647	
0	11	-3	9	0	12	-2			6928.327(0.014)	0.8271	56.338	
1	18	1	18	1	18	0			6992.809(0.031)	0.0080	249.905	
2	11	2	10 -	2	12	1			7038.299(2.201)	3.6492	310.584	
0	25	2	23 +	0	26	1			7049.377(0.677)	0.3074	218.870	
1	4	0	4	1	3	-1			7125.938(0.028)	0.8060	148.414	
2	3	1	2 -	2	3	1			7126.827(0.101)	3.5271	262.313	
0	17	3	14	0	16	4			7346.105(0.042)	1.3613	112.610	
0	1	-1	1	0	2	0		7391.311(0.004)	7391.310(0.005)	0.4618	1.996	KLE91
0	17	-1	17	0	17	0			7523.815(0.009)	2.3E-5	96.495	
2	11	2	9 +	2	11	2			7551.298(0.228)	3.7782	310.819	
0	7	1	6 -	0	6	2		7661.224(0.020)	7661.259(0.008)	1.3898	19.794	BAU76
0	12	2	10 +	0	11	3		7877.613(0.020)	7877.635(0.012)	2.1226	56.622	BAU76
0	12	2	10	0	11	3		7937.634(0.050)	7937.659(0.015)	0.8728	56.635	BAU76
0	13	2	12 -	0	12	3		7984.916(0.020)	7984.939(0.013)	2.2068	64.379	BAU76
2	18	5	14 +	2	19	4			8058.867(7.954)	2.9987	420.335	
0	1	1	1 +	0	2	0		8243.476(0.004)	8243.467(0.003)	0.5906	1.927	KLE91
2	18	5	13 -	2	19	4			8252.003(7.959)	2.9983	420.329	
0	9	-1	9	0	8	-2			8397.010(0.010)	0.0959	29.422	
1	17	1	17	1	17	0			8427.621(0.031)	0.0133	238.683	
0	22	4	18 +	0	21	5			8483.502(0.179)	3.8634	187.851	
0	10	2	8 +	0	10	2		8556.062(0.010)	8556.070(0.005)	4.6310	41.600	BAU76
0	13	-2	12	0	12	3		8570.750(0.020)	8570.738(0.015)	1.5127	64.369	BAU76
0	10	2	8	0	10	-2		8839.309(0.020)	8839.282(0.006)	4.3908	41.608	BAU76
0	7	2	5	0	8	-1		8840.555(0.050)	8840.638(0.009)	0.9416	24.095	BAU76
2	8	1	7	2	9	0			8898.966(4.966)	1.4909	299.193	
0	11	3	8	0	12	-2		8908.261(0.050)	8908.318(0.014)	1.1694	56.338	BAU76
1	10	-2	8	1	11	1			9019.763(0.070)	0.3986	184.780	
0	3	0	3	0	2	1		9110.013(0.004)	9109.997(0.003)	0.0591	3.617	KLE91
0	16	-1	16	0	16	0			9145.486(0.008)	4.0E-5	85.913	
0	1	1	0	0	2	0		9240.920(0.004)	9240.944(0.004)	0.1265	1.996	KLE91
1	11	2	9 +	1	10	3			9270.205(0.051)	1.7466	191.482	
0	11	3	8 -	0	12	2		9370.618(0.020)	9370.608(0.011)	2.0030	56.328	BAU76
0	7	1	6	0	6	-2		9443.908(0.050)	9443.957(0.009)	1.0016	19.784	BAU76
0	7	2	5 +	0	8	1		9542.776(0.020)	9542.755(0.009)	1.1288	24.043	BAU76
1	13	2	12	1	12	3			9599.428(0.045)	2.1098	206.594	
1	4	1	3 -	1	4	1			9699.024(0.013)	2.9504	151.282	
0	12	2	10	0	11	-3		9917.636(0.020)	9917.649(0.015)	1.2445	56.569	BAU76
2	5	2	3	2	4	3			10055.938(2.685)	0.2531	289.885	
1	16	1	16	1	16	0			10080.227(0.031)	0.0219	228.066	
1	11	3	9	1	12	2			10267.678(0.042)	1.9523	198.178	
1	6	2	5	1	7	1			10436.804(0.039)	0.9026	160.920	
2	12	2	10 +	2	12	2			10505.237(0.318)	3.3863	318.574	
0	4	1	3 -	0	4	1		10648.419(0.004)	10648.424(0.004)	2.8450	7.824	KLE91
0	13	-2	12	0	12	-3		10649.654(0.020)	10649.582(0.015)	0.6862	64.299	BAU76
0	4	1	3	0	4	-1		10720.631(0.004)	10720.618(0.004)	2.7979	7.876	KLE91
0	15	-1	15	0	15	0			11030.590(0.008)	0.0001	75.933	
2	18	3	16 +	2	19	2			11486.804(4.269)	4.7397	392.702	
2	5	2	3	2	6	1			11568.897(3.443)	0.8454	289.835	
1	2	-1	1	1	3	0			11720.480(0.028)	0.5897	145.848	
2	10	-1	10	2	9	0			11726.950(2.024)	0.3234	299.193	
2	4	1	3 -	2	4	1			11876.865(0.168)	2.7072	264.828	
1	15	1	15	1	15	0			11953.648(0.030)	0.0355	218.053	
0	3	0	3 +	0	2	1		12014.990(0.004)	12015.012(0.004)	1.2070	3.452	KLE91
0	20	5	16 +	0	21	4			12149.090(0.171)	3.6143	173.923	
0	11	2	9 +	0	11	2		12158.059(0.020)	12158.072(0.007)	4.1632	48.646	BAU76
1	9	3	7 +	1	10	2			12270.907(0.047)	1.4980	184.621	
0	11	2	9	0	11	-2		12366.328(0.020)	12366.314(0.007)	4.0733	48.655	BAU76
0	10	-3	8	0	11	2		12493.030(0.000)	12493.058(0.015)	0.9280	49.068	BES80

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_2''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	3	0	3		0	2	-1	2		12635.239(0.004)	12635.228(0.004)	1.1435	3.500	KLE91
2	21	4	17	+	2	22	3	20	+		12714.417(7.693)	4.6142	446.078	
1	13	1	13		1	12	-2	10			13072.098(0.098)	0.5452	200.389	
1	8	1	8	+	1	7	2	5	+		13118.086(0.034)	0.9963	167.521	
0	5	-2	4		0	6	1	5		13145.960(0.000)	13145.980(0.010)	0.6334	15.487	BES80
0	14	-1	14		0	14	0	14			13189.094(0.007)	0.0001	66.557	
1	12	-2	11	-	1	11	3	8	-		13905.048(0.060)	1.8561	199.064	
0	20	5	15	-	0	21	4	18	-		13923.742(0.171)	3.6092	173.865	
0	15	4	11		0	16	3	13			13925.500(0.037)	1.5462	101.840	
1	14	1	14		1	14	0	14			14037.933(0.030)	0.0567	208.646	
2	13	2	11	+	2	13	2	12	-		14211.710(0.431)	3.0448	326.973	
0	15	4	12	-	0	16	3	13	-		14451.724(0.037)	2.7216	101.862	
0	10	3	7		0	11	2	9		14456.880(0.000)	14456.870(0.015)	0.9221	49.068	BES80
2	10	-3	8		2	11	-2	10			14484.142(2.657)	0.0021	304.052	
1	5	1	4	-	1	5	1	5	+	14549.240(0.080)	14548.871(0.019)	2.4376	154.407	*LIA86
0	10	3	8	+	0	11	2	9	+	14691.111(0.020)	14691.103(0.011)	1.8549	49.052	BAU76
0	10	1	10	+	0	9	2	7	+	14766.065(0.020)	14766.094(0.011)	1.2773	35.383	BAU76
2	7	1	6		2	6	2	4			14854.972(3.547)	1.0851	293.843	
0	5	2	4	-	0	6	1	5	-	15164.478(0.020)	15164.449(0.008)	1.0535	15.435	BAU76
0	24	1	24	+	0	23	2	21	+		15416.215(0.476)	0.3772	186.952	
0	5	2	3		0	6	1	5		15525.100(0.030)	15525.307(0.010)	0.4172	15.487	*BES80
1	5	2	3	+	1	6	1	6	+		15596.302(0.026)	0.7411	158.156	
0	13	-1	13		0	13	0	13			15618.788(0.007)	0.0002	57.786	
0	10	-1	10		0	9	2	7		15727.190(0.020)	15727.210(0.011)	1.2216	35.403	BAU76
1	8	3	6		1	9	-2	7			15815.799(0.061)	0.0039	179.155	
1	13	-2	11		1	12	-3	9			15843.931(0.034)	2.3026	208.382	
1	6	-1	5		1	5	2	4			15869.206(0.047)	0.0998	157.391	
0	5	1	4	-	0	5	1	5	+	15968.452(0.020)	15968.461(0.005)	2.3190	10.946	BAU76
0	5	1	4		0	5	-1	5		15988.730(0.020)	15988.693(0.005)	2.3069	10.998	BAU76
1	13	1	13		1	13	0	13			16306.080(0.029)	0.0892	199.845	
1	4	2	3	-	1	5	1	4	-		16439.930(0.023)	0.6905	154.893	
0	24	-1	24		0	23	2	21			16669.072(0.470)	0.3711	186.954	
0	12	2	10	+	0	12	2	11	-	16682.008(0.020)	16682.022(0.010)	3.7619	56.328	BAU76
2	20	4	17	-	2	19	5	14	-		16754.726(7.976)	3.2835	433.087	
2	13	-2	12		2	12	-3	10			16843.317(2.782)	0.0004	319.834	
0	12	2	10		0	12	-2	11		16846.003(0.020)	16845.977(0.010)	3.7352	56.338	BAU76
2	13	2	11		2	14	-3	12			16975.169(6.916)	0.0109	337.130	
2	20	4	16	+	2	19	5	15	+		17048.572(7.968)	3.2844	433.097	
1	13	-3	10		1	14	2	13			17136.528(0.107)	0.1659	215.645	
2	20	2	18	-	2	19	3	17	+		17249.171(4.345)	5.1038	405.940	
2	11	-1	11		2	10	0	10			17764.932(2.266)	0.2650	305.913	
2	5	1	4	-	2	5	1	5	+		17812.594(0.252)	2.1920	267.971	
2	3	1	3	+	2	4	0	4	+		18126.477(0.788)	2.1257	261.709	
0	12	-1	12		0	12	0	12			18302.017(0.006)	0.0003	49.621	
0	15	-4	12		0	16	-3	14			18411.689(0.039)	1.5375	101.666	
2	6	0	6		2	7	-1	7			18561.436(1.569)	0.5067	282.441	
2	10	0	10		2	9	1	8			18704.221(4.994)	1.7795	305.289	
1	12	1	12		1	12	0	12			18710.541(0.029)	0.1380	191.654	
2	14	2	12	-	2	14	2	13	-		18764.428(0.570)	2.7437	336.012	
0	18	3	16	+	0	17	4	13	+		18904.520(0.047)	3.1734	123.608	
2	2	-2	1		2	1	-1	1			19034.210(1.064)	7.5397	264.426	
1	1	0	1	+	1	0	0	0	+	19225.551(0.040)	19225.540(0.002)	6.4056	143.743	BAU76a
0	1	0	1		0	0	0	0		19262.140(0.004)	19262.141(0.001)	6.3282	0.069	KLE91
0	1	0	1	+	0	0	0	0	+	19265.133(0.004)	19265.137(0.001)	6.3239	0.000	*UNPUB
1	1	0	1		1	0	0	0		19268.171(0.040)	19268.160(0.002)	6.3401	141.994	BAU76a
2	1	0	1	+	2	0	0	0	+	19455.673(0.040)	19455.653(0.014)	6.0848	255.224	UNPUB
0	15	4	11	-	0	16	3	14	+		19499.285(0.036)	2.7025	101.698	
1	9	1	9		1	8	2	7			19539.575(0.042)	0.9856	171.623	
2	1	0	1		2	0	0	0		19589.108(0.040)	19589.126(0.019)	5.8517	269.112	UNPUB
2	13	1	12	-	2	12	2	11	-		19833.358(2.188)	4.1444	318.574	
2	26	-1	26		2	26	-2	25			20029.312(1.176)	0.0192	483.186	
0	18	-3	16		0	17	-4	14			20111.349(0.049)	1.0690	123.539	
1	6	-2	4		1	7	-1	6			20277.518(0.028)	1.1651	163.167	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_2''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	6	-2	5		0	7	-1	7			20274.430(0.010)	0.2790	19.108	
1	6	1	5	-	1	6	1	6	+		20365.612(0.025)	2.0941	158.156	
1	3	0	3	+	1	2	1	2	+		20512.154(0.016)	1.0988	146.904	
1	3	1	3		1	2	-1	1			20547.198(0.041)	0.0654	146.239	
0	26	-2	25		0	26	1	25			20605.616(0.076)	8.1E-6	229.144	
1	11	1	11		1	11	0	11			21181.226(0.028)	0.2098	184.073	
1	9	3	6	-	1	10	2	9	-		21191.669(0.048)	1.4468	184.330	
0	11	-1	11		0	11	0	11			21203.544(0.006)	0.0005	42.064	
0	10	-1	10		0	9	-2	8			21914.175(0.011)	0.0465	35.197	
1	14	1	14		1	13	-2	11			21954.658(0.119)	0.6034	209.114	
1	9	-2	7	1	10	1	10	10			21960.947(0.060)	0.3180	177.895	
0	13	-2	11	+	0	13	2	12	-	22208.557(0.020)	22208.577(0.013)	3.4139	64.645	BAU76
2	12	-1	12		2	11	0	11			22289.005(2.518)	0.2131	313.292	
1	16	2	15	1	15	-3	12	12			22299.367(0.155)	0.4329	235.632	
0	6	1	5		0	6	-1	6		22326.171(0.020)	22326.145(0.007)	1.9588	14.742	BAU76
0	6	1	5	-	0	6	1	6	+	22345.900(0.020)	22345.905(0.007)	1.9595	14.690	BAU76
0	13	2	11	0	13	-2	12	12		22346.502(0.020)	22346.488(0.013)	3.4154	64.654	BAU76
0	6	2	4	0	7	-1	7	7		22868.978(0.020)	22869.019(0.009)	0.7096	19.108	BAU76
2	25	-1	25		2	25	-2	24			22996.459(1.264)	0.0259	466.969	
1	11	-2	9	1	10	3	8	8			23091.867(0.069)	0.0258	191.417	
0	6	2	4	+	0	7	1	7	1	23364.771(0.020)	23364.742(0.008)	0.9936	19.056	BAU76
1	10	1	10		1	10	0	10			23626.028(0.026)	0.3125	177.107	
2	6	2	4	2	5	3	2	2			23912.999(2.628)	0.4724	293.045	
1	9	-1	8	1	8	-2	6	6		23974.272(0.040)	23974.273(0.031)	1.5519	172.826	KLE92
2	15	2	13	+	2	15	2	14	-		24251.246(0.738)	2.4757	345.693	
0	10	-1	10	0	10	0	10	10			24270.204(0.006)	0.0008	35.118	
0	25	-2	24	0	25	1	24	24			24373.079(0.075)	1.8E-5	212.590	
1	3	2	2	1	4	-1	3	3			24420.515(0.052)	0.0119	151.581	
0	14	2	13	-	0	13	3	10	-	24802.202(0.020)	24802.233(0.016)	2.3892	72.767	BAU76
0	10	-3	8	0	11	-2	10	10		24859.393(0.020)	24859.372(0.014)	0.8897	48.655	BAU76
2	6	1	5	-	2	6	1	6	+		24932.080(0.351)	1.8365	271.741	
0	11	1	11	+	0	10	2	8	+	25008.607(0.020)	25008.622(0.013)	1.2903	41.885	BAU76
0	23	1	23	+	0	22	2	20	+		25043.442(0.392)	0.4216	171.839	
2	21	3	18	-	2	22	2	21	-		25334.357(3.214)	4.6239	431.305	
0	14	-2	13	0	13	3	10	10			25508.440(0.017)	1.8923	72.753	
1	3	0	3	1	2	1	2	2		25537.383(0.040)	25537.155(0.025)	0.5752	144.996	KLE92
1	5	0	5	1	4	-1	3	3			25543.275(0.028)	0.9361	151.618	
2	2	-1	2	2	2	-2	1	1			25623.983(0.803)	2.4972	265.061	
2	13	-1	13		2	12	0	12			25664.929(2.762)	0.1690	321.320	
2	6	0	6	+	2	5	1	5	+		25665.962(0.762)	3.6790	267.971	
0	23	4	20	-	0	22	5	17	-		25810.157(0.189)	4.0976	202.023	
1	9	1	9	1	9	0	9	9			25935.165(0.025)	0.4541	170.758	
1	9	1	9	+	1	8	2	6	+		25935.499(0.040)	1.0667	173.134	
0	11	-1	11	0	10	2	8	8		26029.553(0.020)	26029.510(0.013)	1.2576	41.903	BAU76
0	23	-1	23	0	22	2	20	20			26259.490(0.387)	0.4148	171.843	
2	24	-1	24		2	24	-2	23			26278.958(1.351)	0.0345	451.353	
1	10	-3	7	1	11	-2	9	9		26282.520(0.040)	26282.543(0.030)	1.8484	192.188	KLE92
0	4	0	4	0	3	1	2	2			26691.022(0.004)	0.0255	5.595	
0	10	3	7	0	11	-2	10	10		26823.146(0.020)	26823.184(0.014)	0.8874	48.655	BAU76
1	5	2	4	1	6	1	6	6		27019.617(0.040)	27019.708(0.041)	0.7797	156.490	KLE92
1	22	1	22	1	21	-2	19	19			27102.370(0.785)	0.4731	300.937	
1	7	1	6	-	1	7	1	7	+		27143.656(0.030)	1.8518	162.528	
0	10	3	7	-	0	11	2	10	-	27173.880(0.020)	27173.886(0.010)	1.7823	48.646	BAU76
0	9	-1	9	0	9	0	9	9			27432.732(0.005)	0.0013	28.787	
1	7	1	6	-	1	6	2	5	-		27673.789(0.026)	1.3013	162.510	
0	14	-2	13	0	13	-3	11	11			27855.560(0.018)	0.4876	72.675	
1	8	1	8	1	8	0	8	8		27991.009(0.040)	27991.034(0.023)	0.6380	165.031	KLE92
2	20	-4	17	-	2	21	3	18	-		28090.158(7.344)	4.3858	432.150	
2	14	-1	14	2	13	0	13	13			28272.983(2.987)	0.1327	329.984	
2	16	-3	14	2	15	2	13	13			28364.255(7.100)	0.0035	355.474	
0	24	-2	23	0	24	1	23	23			28616.392(0.072)	3.7E-5	196.635	
0	18	3	15	-	0	17	4	14	-		28788.975(0.050)	3.2211	123.596	
0	14	2	12	+	0	14	2	13	-	28797.955(0.020)	28798.002(0.018)	3.1105	73.595	BAU76

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	14	2	12		0	14	-2	13		28920.466(0.020)	28920.430(0.018)	3.1253	73.604	BAU76
1	14	2	13		1	13	3	11			29042.380(0.051)	2.2160	215.645	
0	18	3	15		0	17	4	13			29104.013(0.049)	1.0837	123.564	
1	15	1	15		1	14	-2	12			29178.626(0.147)	0.6454	218.452	
0	8	1	7		0	7	2	5		29310.400(0.100)	29310.313(0.009)	0.2753	24.390	BAU76
0	23	4	19	+	0	22	5	18	+		29396.683(0.190)	4.1098	202.019	
1	7	1	7		1	7	0	7		29685.384(0.040)	29685.420(0.022)	0.8562	159.930	KLE92
0	7	1	6		0	7	-1	7		29718.416(0.020)	29718.387(0.008)	1.7027	19.108	BAU76
0	7	1	6	-	0	7	1	7	+	29773.695(0.020)	29773.715(0.008)	1.6989	19.056	BAU76
2	23	-1	23		2	23	-2	22			29870.720(1.436)	0.0455	436.339	
2	9	-3	7		2	10	-2	9			29904.385(2.580)	0.0060	297.123	
1	10	3	8		1	11	2	10			30358.460(0.040)	1.7574	190.405	
2	15	-1	15		2	14	0	14			30495.205(3.190)	0.1035	339.275	
0	8	-1	8		0	8	0	8			30609.583(0.005)	0.0021	23.074	
1	13	2	12	-	1	12	3	9	-		30738.597(0.071)	2.0351	207.384	
2	16	2	14	+	2	16	2	15	-		30751.347(0.938)	2.2353	356.014	
1	1	-1	0		1	2	0	2		30816.812(0.040)	30816.737(0.028)	0.3117	143.921	KLE92
0	13	2	11	0	0	12	3	9		30917.169(0.020)	30917.226(0.016)	0.7416	64.369	BAU76
0	8	1	7	-	0	7	2	6	-	30941.333(0.020)	30941.407(0.009)	1.7519	24.287	BAU76
1	6	1	6		1	6	0	6		30943.726(0.040)	30943.802(0.021)	1.0802	155.458	KLE92
0	13	2	11	+	0	12	3	10	+	31132.798(0.020)	31132.852(0.015)	2.3956	64.347	BAU76
1	4	2	2	+	1	5	1	5	+	31268.860(0.200)	31268.652(0.024)	0.5657	154.407	BAK88
1	12	2	10	+	1	11	3	9	+		31383.060(0.059)	1.9996	198.580	
1	5	1	5		1	5	0	5		31749.740(0.040)	31749.872(0.021)	1.2595	151.618	KLE92
1	1	1	1		1	1	0	1		32105.520(0.040)	32105.746(0.026)	0.6839	142.636	KLE92
1	4	1	4		1	4	0	4		32155.659(0.040)	32155.816(0.022)	1.3358	148.414	KLE92
1	2	1	2		1	2	0	2		32212.275(0.040)	32212.500(0.025)	1.0418	143.921	KLE92
1	3	1	3		1	3	0	3		32267.479(0.040)	32267.678(0.023)	1.2666	145.848	KLE92
0	8	1	7	0	0	7	-2	6		32486.073(0.020)	32486.041(0.009)	1.4723	24.284	BAU76
2	14	-2	13		2	13	-3	11			32504.428(2.836)	0.0026	328.682	
0	19	5	15	+	0	20	4	16	+		32546.154(0.165)	3.3628	160.367	
2	16	-1	16		2	15	0	15			32698.935(3.373)	0.0803	349.180	
0	4	0	4	+	0	3	1	3	+	32709.185(0.020)	32709.222(0.004)	1.8589	5.326	DAU76
1	21	1	21		1	20	-2	18			32779.571(0.632)	0.5193	287.323	
1	10	1	10		1	9	2	8			32845.095(0.046)	0.9531	177.895	
0	13	2	11	0	0	12	-3	10		32996.136(0.020)	32996.070(0.017)	1.6481	64.299	BAU76
2	17	5	13	+	2	18	4	14	+		33056.359(7.947)	2.7226	408.216	
2	17	5	12	-	2	18	4	15	-		33180.632(7.951)	2.7223	408.212	
2	7	1	6	-	2	7	1	7	+		33232.275(0.466)	1.5755	276.139	
0	4	0	4	0	0	3	-1	3		33236.469(0.020)	33236.464(0.004)	1.8268	5.376	BAU76a
1	8	3	6	+	1	9	2	7	+		33285.690(0.045)	1.2527	178.114	
0	23	-2	22		0	23	1	22			33333.118(0.069)	0.0001	181.280	
2	5	0	5		2	6	-1	6			33380.833(1.539)	0.5747	277.928	
2	10	2	9	-	2	11	1	10	-		33425.514(2.221)	3.1826	302.592	
0	22	1	22	+	0	21	2	19	+		33446.961(0.319)	0.4735	157.375	
0	7	-1	7		0	7	0	7			33712.067(0.005)	0.0035	17.984	
2	22	-1	22		2	22	-2	21			33752.015(1.518)	0.0592	421.929	
0	19	5	14	-	0	20	4	17	-		33760.062(0.165)	3.3597	160.327	
0	12	1	12	+	0	11	2	9	+	33824.155(0.020)	33824.185(0.017)	1.2672	49.052	BAU76
0	9	-3	7		0	10	2	8		34274.578(0.020)	34274.579(0.015)	0.6755	41.903	BAU76
1	16	1	16		1	15	-2	13			34587.250(0.185)	0.6670	228.402	
0	22	-1	22	0	0	21	2	19			34631.180(0.315)	0.4660	157.381	
0	14	4	10		0	15	3	12			34762.465(0.034)	1.6621	91.486	
2	4	-2	3		2	3	-1	3			34790.017(1.102)	2.7935	268.007	
0	11	-1	11		0	10	-2	9			34868.791(0.013)	0.0224	41.608	
1	8	1	7	-	1	8	1	8	+		34873.331(0.036)	1.6755	167.521	
0	12	-1	12		0	11	2	9		34878.776(0.020)	34878.784(0.017)	1.2449	49.068	BAU76
1	7	3	5		1	8	2	6			35045.062(0.060)	0.0012	173.994	
2	17	-1	17		2	16	0	16			35214.818(3.545)	0.0622	359.690	
0	4	-2	3		0	5	1	4		35312.355(0.020)	35312.324(0.010)	0.3804	11.531	BAU76
0	14	4	11	-	0	15	3	12	-		35385.607(0.034)	2.4690	91.507	
0	5	-2	4		0	6	-1	6		35472.152(0.020)	35472.125(0.010)	0.3298	14.742	BAU76
0	2	-1	2		0	1	1	0		35837.327(0.020)	35837.303(0.006)	0.6215	2.304	BAU76a

TABLE II. (Continued.)

v_c'	J'	K_a'	K_c'	P'	v_c''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	7	1	6	2	8	0	8				35955.302(4.928)	1.2493	293.139	
1	8	-2	6	1	9	1	9				36038.151(0.052)	0.2377	171.623	
0	9	3	6	0	10	2	8				36254.620(0.015)	0.9111	41.903	
0	15	2	13	+	0	15	2	14	-		36489.401(0.025)	2.8452	83.176	
2	3	-1	3	2	3	-2	2				36565.105(0.930)	2.0377	266.787	
0	15	2	13	0	15	-2	14				36602.011(0.024)	2.8670	83.185	
0	9	3	7	+	0	10	2	8	+	36613.186(0.020)	36613.200(0.010)	1.5908	41.885	BAU76
0	6	-1	6	0	6	0	6				36649.808(0.005)	0.0060	13.519	
1	7	-1	6	1	6	2	5				36680.427(0.045)	0.2006	161.268	
1	20	1	20	1	19	-2	17				36833.880(0.502)	0.5663	274.318	
2	20	4	16	+	2	21	3	19	+		37032.251(7.495)	4.3367	431.862	
1	1	-1	0	1	1	1	1				37233.733(0.044)	0.0173	143.707	
1	2	-1	1	1	2	1	2				37257.635(0.042)	0.0847	144.996	
2	4	2	2	2	5	1	4				37331.193(3.358)	0.6178	285.977	
0	2	1	2	+	0	1	1	1	+	37464.168(0.020)	37464.206(0.003)	9.4864	2.202	BAU76a
1	2	1	2	+	1	1	1	1	+	37515.286(0.040)	37515.282(0.004)	9.5851	145.652	BAU76a
0	4	2	3	-	0	5	1	4	-	37516.317(0.020)	37516.358(0.008)	0.7415	11.478	BAU76
1	3	-1	2	1	3	1	3				37540.383(0.040)	0.2281	146.924	
1	10	1	10	+	1	9	2	7	+		37570.800(0.048)	1.0980	179.367	
0	4	2	2	0	5	1	4				37641.748(0.010)	0.3589	11.531	
0	2	-1	2	0	1	-1	1			37686.868(0.020)	37686.937(0.003)	8.8712	2.242	BAU76a
2	2	1	2	+	2	1	1	1	+	37708.516(0.040)	37708.603(0.028)	9.1386	259.169	UNPUB
1	12	-3	9	1	13	2	12				37754.024(0.092)	0.0899	206.594	
1	14	-2	12	1	13	-3	10			37821.192(0.040)	37821.070(0.041)	2.4833	216.217	KLE92
0	14	-4	11	0	15	-3	13			37833.696(0.040)	37833.621(0.037)	1.6566	91.359	UNPUB
0	19	3	17	+	0	18	4	14	+		37849.448(0.055)	3.3953	135.210	
0	5	2	3	0	6	-1	6			37851.405(0.020)	37851.452(0.009)	0.4892	14.742	BAU76
2	21	-1	21	2	21	-2	20				37887.103(1.593)	0.0762	408.124	
1	3	2	2	-	1	4	1	3	-	37892.200(0.200)	37892.270(0.023)	0.4221	151.605	BAK88
2	7	2	5	2	6	3	3				38034.758(2.636)	0.7346	296.827	
1	17	1	17	1	16	-2	14				38067.632(0.238)	0.6663	238.964	
0	5	2	3	+	0	6	1	6	+	38138.436(0.020)	38138.429(0.008)	0.8226	14.690	BAU76
0	8	1	7	0	8	-1	8			38150.985(0.020)	38150.951(0.010)	1.5082	24.095	BAU76
0	8	1	7	-	0	8	1	8	+	38240.715(0.020)	38240.845(0.010)	1.5020	24.043	BAU76
2	18	-1	18	2	17	0	17				38313.497(3.720)	0.0482	370.795	
2	17	2	15	+	2	17	2	16	-		38332.855(1.174)	2.0186	366.973	
1	4	-1	3	1	4	1	4				38361.058(0.038)	0.4540	149.486	
1	2	0	2	+	1	1	0	1	+	38432.576(0.040)	38432.582(0.004)	12.8098	144.385	KLE92
2	2	1	1	2	1	1	0			38476.216(0.040)	38476.180(0.029)	9.4003	276.987	UNPUB
0	22	-2	21	0	22	1	21				38503.632(0.064)	0.0001	166.529	
0	2	0	2	0	1	0	1			38505.999(0.020)	38506.035(0.003)	12.6551	0.711	BAU76a
0	2	0	2	+	0	1	0	1	+	38512.113(0.020)	38512.081(0.003)	12.6465	0.643	BAU76a
1	2	0	2	1	1	0	1			38522.740(0.040)	38522.742(0.004)	12.6763	142.636	KLE92
1	2	1	2	1	1	1	1			38629.512(0.040)	38629.496(0.004)	9.4662	143.707	KLE92
1	2	-1	1	1	1	-1	0			38653.416(0.040)	38653.398(0.003)	9.3822	144.949	KLE92
0	14	4	10	+	0	15	3	13	+		38864.707(0.034)	2.4573	91.393	
2	2	0	2	+	2	1	0	1	+	38900.320(0.040)	38900.335(0.028)	12.1691	255.873	UNPUB
1	1	1	0	-	1	1	0	1	+	38977.440(0.040)	38977.442(0.015)	1.5513	144.385	KLE92
1	19	1	19	1	18	-2	16				39136.995(0.394)	0.6102	261.923	
0	19	-3	17	0	18	-4	15				39172.273(0.056)	0.7221	135.139	
2	2	0	2	2	1	0	1			39195.208(0.040)	39195.250(0.040)	11.6908	269.766	UNPUB
1	4	1	4	1	3	-1	2				39281.755(0.039)	0.1520	148.176	
2	2	1	2	+	2	3	0	3	+		39283.559(0.798)	1.3961	259.116	
1	8	3	5	-	1	9	2	8	-	39300.872(0.040)	39300.841(0.046)	1.2248	177.917	KLE92
0	5	-1	5	0	5	0	5				39335.472(0.004)	0.0110	9.686	
0	2	1	1	0	1	1	0			39362.504(0.020)	39362.533(0.003)	8.8688	2.304	BAU76a
2	17	3	15	+	2	18	2	16	+		39365.988(4.218)	4.3908	380.139	
1	2	1	1	-	1	1	1	0	-	39454.688(0.040)	39454.724(0.004)	9.5841	145.685	KLE92
1	18	1	18	1	17	-2	15				39575.334(0.306)	0.6456	250.138	
0	2	1	1	-	0	1	1	0	-	39594.287(0.020)	39594.292(0.003)	9.4865	2.238	BAU76a
1	2	1	1	-	1	2	0	2	+	39999.635(0.040)	39999.584(0.015)	2.5522	145.667	KLE92
1	5	-1	4	1	5	1	5			40042.987	40042.742(0.035)	0.7373	152.677	
2	20	3	17	-	2	21	2	20	-		40060.347(4.999)	4.5078	417.171	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_2''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	2	1	1	-	2	1	1	0	-	40084.264(0.040)	40084.317(0.032)	9.1389	259.208	UNPUB
0	21	1	21	+	0	20	2	18	+		40524.251(0.256)	0.5336	143.563	
1	17	2	16		1	16	-3	13			40748.085(0.192)	0.6201	246.557	
1	4	0	4	+	1	3	1	3	+	40969.760(0.040)	40969.780(0.017)	1.6955	148.780	KLE92
0	15	2	14	-	0	14	3	11	-		40980.341(0.022)	2.5455	81.809	
0	13	1	13	+	0	12	2	10	+		41116.453(0.023)	1.2143	56.885	
0	2	1	1		0	1	-1	1			41212.168(0.006)	0.6222	2.242	
1	22	2	21		1	22	-1	21			41483.022(0.205)	0.1114	309.061	
1	5	-2	3		1	6	-1	5			41549.368(0.028)	0.9384	159.306	
1	3	1	2	-	1	3	0	3	+	41567.016(0.040)	41567.007(0.015)	3.5033	147.588	KLE92
2	12	2	10		2	13	-3	11			41604.828(6.812)	0.0225	328.986	
0	21	-1	21		0	20	2	18			41681.767(0.253)	0.5253	143.570	
0	4	-1	4	0	0	4	0	4			41687.673(0.004)	0.0219	6.485	
0	15	-2	14		0	14	3	11			41781.734(0.022)	2.2396	81.791	
2	8	1	7		2	7	2	5			41793.281(3.668)	1.3497	298.095	
2	21	4	18	-	2	20	5	15	-		41826.038(8.004)	3.5788	446.487	
0	13	-1	13		0	12	2	10			42189.357(0.023)	1.1968	56.900	
2	19	-1	19		2	18	0	18			42189.855(3.913)	0.0374	382.490	
2	20	-1	20		2	20	-2	19			42222.595(1.661)	0.0969	394.927	
2	21	4	17	+	2	20	5	16	+		42264.664(7.993)	3.5804	446.502	
2	8	1	7	-	2	8	1	8	+		42708.619(0.596)	1.3750	281.163	
1	6	-1	5		1	6	1	6			42888.915(0.033)	1.0224	156.490	
1	12	-2	10		1	11	3	9			42938.187(0.076)	0.0573	198.521	
0	9	-3	7		0	10	-2	9			43113.861(0.014)	0.8907	41.608	
1	6	0	6		1	5	-1	4			43319.668(0.031)	0.9677	155.458	
0	5	0	5		0	4	1	3			43539.148(0.005)	0.0128	8.233	
1	9	1	8	-	1	9	1	9	+		43539.570(0.041)	1.5454	173.134	
0	3	-1	3		0	3	0	3			43629.973(0.004)	0.0492	3.921	
1	4	1	3	-	1	4	0	4	+	43720.070(0.040)	43720.035(0.016)	4.3850	150.147	KLE92
1	2	2	1		1	3	-1	2			44039.616(0.054)	0.0020	149.645	
0	21	-2	20		0	21	1	20			44090.393(0.058)	0.0002	152.382	
1	4	2	3		1	5	1	5			44525.641(0.043)	0.6077	152.677	
2	2	-1	2		2	1	-1	1			44658.193(0.482)	3.6331	264.426	
1	4	0	4		1	3	1	3			44666.322(0.024)	0.9865	146.924	
0	15	-2	14		0	14	-3	12			44676.269(0.021)	0.2950	81.695	
2	5	-2	4		2	4	-1	4			44726.423(1.335)	2.8227	270.708	
1	11	1	11		1	10	2	9			45032.463(0.052)	0.8805	184.780	
2	8	-3	6		2	9	-2	8			45036.775(2.491)	0.0118	290.841	
0	2	-1	2		0	2	0	2		45078.240(0.040)	45078.247(0.005)	0.1320	1.996	KLE91
0	9	3	6		0	10	-2	9		45093.840(0.040)	45093.902(0.015)	0.6540	41.608	KLE91
0	16	2	14	+	0	16	2	15	-		45301.732(0.034)	2.6132	93.388	
0	9	3	6	-	0	10	2	9	-	45344.590(0.040)	45344.586(0.010)	1.5489	41.600	KLE91
0	16	2	14		0	16	-2	15			45406.983(0.034)	2.6390	93.397	
0	24	4	21	-	0	23	5	18	-		45671.320(0.203)	4.3348	216.841	
0	1	-1	1		0	1	0	1		45897.330(0.040)	45897.345(0.006)	0.3593	0.711	KLE91
0	20	1	20	-	0	19	2	17	+		46183.379(0.202)	0.6024	130.406	
2	4	-1	4		2	4	-2	3			46184.491(1.150)	1.6471	269.167	
1	5	1	4	-	1	5	0	5	+	46510.870(0.040)	46510.860(0.017)	5.1787	153.341	KLE92
2	11	0	11		2	10	1	9			46556.403(5.003)	2.1297	311.739	
1	10	-1	9		1	9	-2	7			46642.297(0.035)	1.7068	178.627	
1	9	-3	6		1	10	-2	8			46686.501(0.030)	1.5961	185.080	
2	19	-1	19		2	19	-2	18			46686.866(1.719)	0.1216	382.340	
0	14	1	14	+	0	13	2	11	+		46809.994(0.033)	1.1394	65.386	
1	21	2	20		1	21	-1	20			46823.379(0.184)	0.1818	294.872	
2	21	2	19	+	2	20	3	18	+		46827.798(4.455)	5.4870	419.852	
2	20	-1	20		2	19	0	19			46961.813(4.132)	0.0293	394.769	
1	14	2	13	-	1	13	3	10	-		46977.795(0.088)	2.1916	216.336	
2	18	2	16	+	2	18	2	17	-		47051.070(1.447)	1.8225	378.569	
1	7	-1	6		1	7	1	7			47117.231(0.035)	1.2496	160.920	
2	14	1	13	-	2	13	2	12	-		47161.525(2.181)	4.6715	326.973	
0	12	-1	12		0	11	-2	10			47245.098(0.017)	0.0109	48.655	
0	20	-1	20		0	19	2	17			47319.302(0.199)	0.5933	130.414	
0	9	1	8		0	9	-1	9			47605.785(0.012)	1.3567	29.702	

TABLE II. (Continued.)

v_1'	J'	K_a'	$K_c' P'$	v_2''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	3	2	1 +	1	4	1	4 +	47684.852(0.040)	47684.785(0.023)	0.3701	151.282	KLE92
0	9	1	8 -	0	9	1	9 +	47731.136(0.080)	47731.005(0.012)	1.3490	29.650	LIA86
0	1	1	0	0	1	0	1		47746.980(0.005)	1.3472	0.711	
0	1	1	0 -	0	1	0	1 +	47820.668(0.040)	47820.620(0.004)	1.7133	0.643	KLE91
1	15	2	14	1	14	3	12		47846.772(0.062)	2.2592	225.326	
0	14	-1	14	0	13	2	11		47892.621(0.032)	1.1242	65.400	
1	11	1	11 +	1	10	2	8 +		47912.874(0.059)	1.0930	186.219	
2	17	-3	15	2	16	2	14		47949.023(7.128)	0.0231	365.716	
2	15	-2	14	2	14	-3	12		47966.320(2.890)	0.0069	338.163	
2	7	0	7 +	2	6	1	6 +		48206.653(0.749)	4.5145	271.741	
0	2	1	1	0	2	0	2		48603.477(0.004)	2.6797	1.996	
0	2	1	1 -	0	2	0	2 +		48902.831(0.004)	2.8232	1.927	
2	22	3	19	2	22	2	20		48907.455(4.445)	12.3126	441.636	
2	21	3	18	2	21	2	19		49617.829(4.392)	9.3690	427.452	
1	6	1	5 -	1	6	0	6 +	50001.512(0.100)	50001.502(0.019)	5.8679	157.168	KLE92
0	20	-2	19	0	20	1	19		50038.919(0.051)	0.0004	138.844	
0	3	1	2	0	3	0	3		50175.415(0.004)	3.8190	3.921	
1	8	1	7 -	1	7	2	6 -	50304.308(0.040)	50304.363(0.028)	1.6451	167.006	KLE92
0	19	1	19 +	0	18	2	16 +		50343.674(0.157)	0.6800	117.908	
1	9	3	7	1	10	2	9		50512.986(0.039)	1.5376	183.277	
0	3	1	2 -	0	3	0	3 +		50559.668(0.004)	3.8846	3.853	
2	4	0	4	2	5	-1	5		50622.420(1.553)	0.6933	274.016	
0	24	4	20 +	0	23	5	19 +		50642.510(0.206)	4.3532	216.835	
0	15	1	15 +	0	14	2	12 +		50853.437(0.047)	1.0505	74.555	
1	7	-2	5	1	8	1	8		51185.905(0.047)	0.1626	165.965	
2	18	-1	18	2	18	-2	17		51190.633(1.767)	0.1506	370.366	
0	19	3	16 -	0	18	4	15 -		51247.005(0.060)	3.4680	135.193	
0	4	-2	3	0	5	-1	5		51301.017(0.010)	0.3050	10.998	
1	1	1	1	1	0	0	0	51373.664(0.040)	51373.906(0.027)	0.4907	141.994	KLE92
0	19	3	16	0	18	4	14		51393.506(0.058)	0.7368	135.166	
0	19	-1	19	0	18	2	16		51462.914(0.155)	0.6700	117.918	
0	9	1	8	0	8	2	6		51674.198(0.009)	0.1633	29.566	
2	3	-2	2	2	2	-2	1		51739.711(0.264)	15.0659	265.061	
0	15	-1	15	0	14	2	12		51941.690(0.046)	1.0366	74.569	
1	20	2	19	1	20	-1	19		52286.833(0.162)	0.2890	281.295	
0	4	1	3	0	4	0	4		52408.291(0.004)	4.8348	6.485	
2	8	2	6	2	7	3	4		52593.530(2.689)	1.0263	301.229	
2	21	-1	21	2	20	0	20		52682.138(4.382)	0.0234	407.631	
0	3	-1	3	0	2	1	1		52739.970(0.005)	0.1894	3.617	
0	18	5	14 +	0	19	4	15 +		52746.165(0.161)	3.1096	147.463	
1	8	-1	7	1	8	1	8		52826.863(0.040)	1.3867	165.965	
0	4	1	3 -	0	4	0	4 +		52830.882(0.005)	4.8781	6.417	
0	18	1	18 +	0	17	2	15 +		52936.809(0.120)	0.7659	106.071	
1	10	1	9 -	1	10	1	10 +	53120.528(0.040)	53120.546(0.047)	1.4494	179.367	KLE92
2	3	2	1	2	2	2	0		53174.799(0.285)	12.3414	283.067	
0	16	1	16 +	0	15	2	13 +		53220.393(0.065)	0.9548	84.393	
2	16	2	14	2	16	1	15		53336.887(4.594)	3.0902	363.936	
2	9	1	8 -	2	9	1	9 +		53354.572(0.741)	1.2158	286.813	
0	18	5	13 -	0	19	4	16 -		53559.386(0.161)	3.1077	147.436	
0	4	2	2	0	5	-1	5		53630.441(0.009)	0.3155	10.998	
0	4	2	2 +	0	5	1	5 +		53754.483(0.007)	0.6230	10.946	
0	5	0	5 +	0	4	1	4 +		53781.006(0.005)	2.5552	7.824	
1	7	3	5 +	1	8	2	6 +		53834.940(0.045)	1.0107	172.269	
2	15	2	13	2	15	1	14		53877.038(4.771)	3.9096	353.677	
0	17	1	17 +	0	16	2	14 +		53908.432(0.089)	0.8585	94.899	
0	18	-1	18	0	17	2	15		54043.846(0.118)	0.7550	106.082	
1	13	2	11 +	1	12	3	10 +		54095.055(0.073)	2.2592	206.324	
1	6	3	4	1	7	-2	5		54200.089(0.061)	0.0003	169.480	
0	5	0	5	0	4	-1	4		54259.766(0.005)	2.5336	7.876	
1	7	1	6 -	1	7	0	7 +		54260.551(0.023)	6.4395	161.623	
0	16	-1	16	0	15	2	13		54313.245(0.064)	0.9420	84.406	
0	14	2	12	0	13	3	10		54428.870(0.019)	0.5435	72.753	
2	5	-1	5	2	5	-2	4		54453.358(1.348)	1.3602	272.200	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_2''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	19	4	16	-	2	20	3	17	-		54596.625(7.211)	4.0909	418.508	
0	9	1	8	-	0	8	2	7	-		54652.331(0.010)	2.1428	29.419	
0	17	-1	17	0	0	16	2	14			55007.031(0.088)	0.8466	94.911	
0	14	2	12	+	0	13	3	11	+		55094.303(0.020)	2.6763	72.718	
0	13	4	9	0	0	14	3	11			55218.873(0.033)	1.7227	81.791	
0	17	2	15	+	0	17	2	16	-		55235.959(0.047)	2.4106	104.229	
0	5	1	4	0	0	5	0	5			55324.165(0.005)	5.7473	9.686	
0	17	2	15	0	0	17	-2	16			55334.184(0.046)	2.4392	104.237	
2	23	3	20	2	23	2	2	21			55361.825(5.021)	12.0164	456.348	
0	8	-3	6	0	0	9	2	7			55470.640(0.016)	0.4609	35.403	
0	3	-2	2	0	0	2	2	0			55489.680(0.015)	0.0025	8.285	
2	17	-1	17	2	17	-2	16				55628.612(1.803)	0.1844	359.009	
2	19	3	16	-	2	20	2	19	-		55635.498(4.828)	4.3599	403.670	
0	5	1	4	-	0	5	0	5	+		55768.369(0.005)	5.7852	9.618	
0	13	4	10	-	0	14	3	11	-		55957.400(0.033)	2.2149	81.809	
2	6	-2	5	2	5	-1	5	5			55997.029(1.528)	3.1043	274.016	
0	9	1	8	0	0	8	-2	7			56002.795(0.009)	1.9747	29.422	
1	12	1	12	1	11	2	10				56147.863(0.061)	0.7770	192.278	
0	3	1	3	+	0	2	1	2	+	56184.800(0.080)	56184.747(0.004)	16.8641	3.452	LIA86
1	3	1	3	+	1	2	1	2	+	56260.299(0.100)	56260.383(0.006)	17.0413	146.904	KLE92
0	3	-1	3	0	0	2	-1	2		56265.250(0.080)	56265.201(0.004)	16.6852	3.500	LIA86
0	19	-2	18	0	19	1	18				56280.396(0.045)	0.0007	125.919	
0	16	2	15	-	0	15	3	12	-		56408.171(0.029)	2.6714	91.507	
0	20	3	18	+	0	19	4	15	+		56546.539(0.066)	3.6049	147.463	
2	3	1	3	+	2	2	1	2	+		56555.823(0.042)	16.2456	260.427	
0	14	2	12	0	0	13	-3	11			56775.990(0.020)	2.1266	72.675	
2	20	3	17	2	20	2	18				56780.569(4.615)	5.5757	413.812	
1	12	1	12	+	1	11	2	9	+		56863.277(0.074)	1.0574	193.688	
2	19	2	17	+	2	19	2	18	-		56947.389(1.760)	1.6445	390.802	
2	17	2	15	2	17	1	16				57019.589(4.335)	2.1425	374.787	
0	3	-2	2	0	0	4	1	3			57049.219(0.011)	0.2049	8.233	
1	1	1	1	+	1	0	0	0	+	57233.411(0.040)	57233.429(0.015)	1.0342	143.743	KLE92
0	16	-2	15	0	15	3	12				57266.815(0.029)	2.4999	91.486	
1	5	1	5	1	4	-1	3				57293.147(0.037)	0.2671	150.766	
0	13	-4	10	0	14	-3	12				57337.084(0.035)	1.7198	81.695	
0	8	3	5	0	0	9	2	7		57476.080(0.080)	57476.155(0.015)	0.8651	35.403	LIA86
1	3	0	3	+	1	2	0	2	+	57602.710(0.040)	57602.744(0.006)	19.2114	145.667	KLE92
1	7	3	4	-	1	8	2	7	-		57695.959(0.045)	0.9966	172.142	
0	3	0	3	0	0	2	0	2		57713.490(0.080)	57713.475(0.004)	18.9795	1.996	LIA86
0	3	0	3	+	0	2	0	2	+	57722.670(0.080)	57722.680(0.004)	18.9667	1.927	LIA86
1	19	2	18	1	19	-1	18				57747.898(0.139)	0.4468	268.335	
1	3	0	3	1	2	0	2			57749.601(0.040)	57749.655(0.006)	19.0049	143.921	KLE92
0	3	2	2	-	0	2	2	1	-	57790.100(0.040)	57790.157(0.004)	10.5424	8.232	KLE91
1	3	-2	1	1	2	-2	0	0		57801.055(0.040)	57801.060(0.005)	10.5354	151.592	KLE92
1	3	1	3	1	2	1	2			57804.863(0.040)	57804.833(0.006)	16.7937	144.996	KLE92
0	3	2	1	0	0	2	2	0		57819.970(0.080)	57819.827(0.004)	10.5447	8.285	LIA86
0	3	-2	2	0	0	2	-2	1		57828.761(0.040)	57828.763(0.004)	10.5418	8.207	KLE91
1	3	2	2	-	1	2	2	1	-	57837.378(0.040)	57837.440(0.005)	10.5891	150.940	KLE92
0	3	2	1	+	0	2	2	0	+	57862.100(0.080)	57862.128(0.004)	10.5424	8.233	LIA86
1	3	2	1	+	1	2	2	0	+	57912.089(0.040)	57912.208(0.005)	10.5891	150.941	KLE92
2	14	2	12	2	14	1	13				57920.745(4.770)	4.3369	344.020	
1	8	-1	7	1	7	2	6				57931.487(0.044)	0.3488	165.795	
2	16	5	12	+	2	17	4	13	+		57939.059(7.948)	2.4551	396.739	
0	8	3	6	+	0	9	2	7	+	57946.430(0.080)	57946.437(0.011)	1.3296	35.383	LIA86
2	16	5	11	-	2	17	4	14	-		58017.142(7.950)	2.4550	396.737	
1	3	2	2	1	2	2	1	5		58023.673(0.040)	58023.711(0.006)	10.4739	149.645	KLE92
0	10	1	9	0	10	-1	10				58058.985(0.014)	1.2366	35.928	
0	20	-3	18	0	19	-1	16				58069.818(0.066)	0.4056	147.386	
1	3	-1	2	1	2	-1	1			58087.537(0.040)	58087.581(0.005)	16.6509	146.239	KLE92
1	18	2	17	1	17	-3	14				58167.102(0.239)	0.8326	258.101	
0	10	1	9	-	0	10	1	10	+	58221.460(0.080)	58221.304(0.014)	1.2277	35.876	*LIA86
2	3	2	2	-	2	2	2	1	-		58261.106(0.027)	10.2017	270.050	
0	13	4	9	+	0	14	3	12	+		58289.914(0.032)	2.2080	81.733	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	3	2	1	+	2	2	2	0	+		58303.988(0.027)	10.2017	270.050	
2	3	0	3	+	2	2	0	2	+		58323.072(0.042)	18.2523	257.171	
1	11	-3	8		1	12	2	11			58685.829(0.081)	0.0445	198.178	
1	2	2	1	-	1	3	1	2	-		58925.867(0.023)	0.1841	148.975	
0	6	1	5	0	6	6	0	6			58975.953(0.005)	6.5502	13.519	
0	13	-1	13	0	12	-2	11				59035.334(0.023)	0.0055	56.338	
1	3	1	2	-	1	2	1	1	-	59170.248(0.040)	59170.166(0.006)	17.0374	147.001	KLE92
2	3	0	3		2	2	0	2			59222.730(1.208)	12.3976	271.073	
0	3	1	2	0	2	1	1	1		59285.370(0.040)	59285.412(0.004)	16.6831	3.617	KLE91
2	9	2	8	-	2	10	1	9	-		59304.222(2.245)	2.7415	295.261	
2	22	-1	22		2	21	0	21			59354.087(4.661)	0.0191	421.075	
1	8	1	7	-	1	8	0	8	+	59358.527(0.040)	59358.500(0.027)	6.8853	166.704	KLE92
0	3	2	2	-	0	4	1	3	-	59378.729(0.040)	59378.705(0.008)	0.4543	8.179	KLE91
0	3	2	1	0	4	1	3	3		59379.338(0.040)	59379.366(0.010)	0.2480	8.233	KLE91
0	3	1	2	-	0	2	1	1	-	59379.499(0.040)	59379.518(0.004)	16.8643	3.559	KLE91
0	6	1	5	-	0	6	0	6	+		59434.626(0.005)	6.5886	13.453	
0	6	0	6	0	5	1	4				59616.011(0.006)	0.0073	11.531	
2	7	-3	5		2	8	-2	7			59817.898(2.391)	0.0194	285.205	
2	16	-1	16		2	16	-2	15			59881.908(1.828)	0.2234	348.274	
2	1	1	1	+	2	2	0	2	+		59898.028(0.806)	0.6897	257.171	
1	9	-1	8		1	9	1	9			60012.424(0.048)	1.4362	171.623	
2	3	1	2	-	2	2	1	1	-		60119.016(0.048)	16.2467	260.546	
0	3	2	1	0	2	-2	1				60158.910(0.015)	0.0025	8.207	
1	7	0	7		1	6	-1	5			60242.657(0.034)	0.9092	159.930	
1	15	-2	13		1	14	-3	11			60565.472(0.056)	2.6198	225.228	
0	16	-2	15	0	15	-3	13				61089.241(0.026)	0.1590	91.359	
2	6	-1	6		2	6	-2	5			61274.386(1.504)	1.1422	275.884	
2	19	4	15	+	2	20	3	18	+		61306.917(7.326)	4.0582	418.290	
0	8	-3	6	0	9	-2	8				61657.605(0.014)	0.8537	35.197	
1	5	0	5	+	1	4	1	4	+		61740.202(0.018)	2.3349	151.282	
2	6	1	5		2	7	0	7			62210.224(4.883)	1.0430	287.760	
2	3	2	1		2	4	1	3			62243.331(3.294)	0.3952	282.765	
1	4	-2	2		1	5	-1	4			62307.563(0.029)	0.6942	156.091	
1	15	2	14	-	1	14	3	11	-		62523.141(0.111)	2.3214	225.920	
2	3	-1	3		2	2	-1	2			62680.834(0.192)	10.8315	265.916	
0	18	-2	17	0	18	1	17				62735.523(0.038)	0.0012	113.611	
1	3	2	2		1	4	1	4			62781.572(0.044)	0.4012	149.486	
0	3	1	2	0	2	-1	2				62810.642(0.005)	0.1900	3.500	
1	22	1	22	+	1	21	2	19	+		62880.209(0.935)	0.3576	302.124	
2	16	-2	15		2	15	-3	13			63062.386(2.951)	0.0128	348.274	
1	18	2	17		1	18	-1	17			63071.072(0.116)	0.6681	255.997	
1	13	-2	11		1	12	3	10			63197.383(0.086)	0.1162	206.274	
0	7	1	6	0	7	0	7				63430.454(0.006)	7.2321	17.984	
1	11	1	10	-	1	11	1	11	+		63586.324(0.056)	1.3799	186.219	
0	8	3	5	0	9	-2	8				63663.120(0.016)	0.4501	35.197	
0	8	3	5	-	0	9	2	8	-		63812.148(0.010)	1.3069	35.191	
2	15	-1	15		2	15	-2	14			63820.681(1.844)	0.2680	338.163	
0	7	1	6	-	0	7	0	7	+		63900.157(0.006)	7.2738	17.918	
1	5	0	5		1	4	1	4			63904.332(0.024)	1.5273	149.486	
2	13	2	11		2	13	1	12			64249.551(4.637)	4.4199	334.986	
1	13	1	13	+	1	12	2	10	+		64341.951(0.095)	0.9984	201.773	
2	18	2	16		2	18	1	17			64542.073(4.160)	1.4248	386.230	
1	2	2	0	+	1	3	1	3	+	64763.670(0.200)	64763.368(0.023)	0.1702	148.780	BAK88
2	18	-3	16		2	17	2	15			64980.587(7.124)	0.0442	376.688	
0	1	-1	1	0	0	0	0	0		65159.576(0.040)	65159.487(0.006)	0.8926	0.069	KLE91
2	10	1	9	-	2	10	1	10	+		65161.080(0.900)	1.0860	293.087	
1	9	1	8	-	1	9	0	9	+		65361.747(0.032)	7.2038	172.407	
0	25	4	22	-	0	24	5	19	-		65495.341(0.220)	4.5659	232.307	
1	16	2	15		1	15	3	13			65821.044(0.079)	2.2339	235.632	
0	1	1	1	+	0	0	0	0	+	66020.684(0.040)	66020.680(0.005)	1.1422	0.000	KLE91
0	18	2	16	+	0	18	2	17	-		66277.572(0.062)	2.2343	115.697	
1	13	1	13		1	12	2	11			66277.963(0.071)	0.6527	200.389	
0	18	2	16		0	18	-2	17			66367.701(0.061)	2.2650	115.704	

MICROWAVE SPECTRUM OF ACETALDEHYDE

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TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	16	3	14	+	2	17	2	15	+		66386.402(4.188)	4.0536	368.251	
2	7	-1	7		2	7	-2	6			66586.051(1.619)	0.9691	280.219	
1	8	-3	5		1	9	-2	7			66792.256(0.031)	1.3377	178.627	
2	24	3	21		2	24	2	22			66922.669(5.693)	10.0139	471.620	
2	22	4	19	-	2	21	5	16	-		66947.951(8.045)	3.8849	460.530	
2	11	2	9		2	12	-3	10			66998.870(6.721)	0.0304	321.507	
0	1	1	0	0	0	0	0	0		67009.108(0.040)	67009.121(0.006)	0.2451	0.069	KLE91
2	14	-1	14		2	14	-2	13			67306.623(1.849)	0.3188	328.682	
1	6	-2	4		1	7	1	7			67344.749(0.045)	0.0987	160.920	
2	19	3	16		2	19	2	17			67503.427(4.687)	3.1621	400.772	
2	22	4	18	+	2	21	5	17	+		67591.509(8.029)	3.8876	460.551	
2	9	2	7		2	8	3	5			67714.801(2.771)	1.3346	306.253	
0	3	-2	2	0	4	-1	4				67769.837(0.010)	0.2236	7.876	
2	20	2	18	+	2	20	2	19	-		68048.884(2.115)	1.4827	403.670	
1	17	2	16		1	17	-1	16			68124.545(0.096)	0.9578	244.285	
0	4	-1	4	0	3	1	2				68378.695(0.006)	0.0520	5.595	
1	10	-1	9		1	10	1	10			68603.244(0.057)	1.4211	177.895	
2	7	-2	6		2	6	-1	6			68700.201(1.675)	3.5401	277.928	
0	8	1	7	0	8	0	8				68760.534(0.007)	7.7841	23.074	
1	21	1	21	+	1	20	2	18	+		68792.958(0.759)	0.4053	288.530	
2	9	1	8		2	8	2	6			69129.640(3.805)	1.6588	302.983	
0	8	1	7	-	0	8	0	8	+	69239.760(0.080)	69239.554(0.007)	7.8302	23.009	LIA86
0	17	-2	16	0	0	17	1	16			69318.970(0.032)	0.0020	101.924	
1	1	-1	0		1	1	0	1		69339.690(0.080)	69339.479(0.028)	0.9706	142.636	LIA86
1	2	-1	1		1	2	0	2		69470.310(0.080)	69470.135(0.028)	1.6698	143.921	LIA86
0	11	1	10	0	11	-1	11				69479.007(0.017)	1.1401	42.771	
1	11	-1	10		1	10	-2	8			69480.308(0.040)	1.8271	185.080	
0	11	1	10	-	0	11	1	11	+		69680.851(0.018)	1.1301	42.720	
1	3	-1	2		1	3	0	3		69808.440(0.080)	69808.061(0.027)	2.4393	145.848	*LIA86
0	3	2	1	0	4	-1	4				70099.984(0.009)	0.1801	7.876	
0	3	2	1	+	0	4	1	4	+	70117.290(0.080)	70117.102(0.007)	0.4051	7.824	*LIA86
2	3	0	3		2	4	-1	4			70169.414(1.783)	1.0167	270.708	
2	13	-1	13		2	13	-2	12			70194.957(1.847)	0.3768	319.834	
0	14	-1	14	0	13	-2	12				70239.109(0.031)	0.0028	64.654	
2	21	1	20		2	22	-2	21			70246.143(7.070)	0.0683	421.929	
1	14	1	14	+	1	13	2	11	+		70290.976(0.124)	0.9235	210.473	
2	8	-1	8		2	8	-2	7			70389.328(1.700)	0.8269	285.205	
1	4	-1	3		1	4	0	4		70516.950(0.080)	70516.874(0.026)	3.2867	148.414	LIA86
1	8	3	6		1	9	2	8			70621.841(0.038)	1.3026	176.799	
1	2	1	2		1	1	0	1		70735.320(0.080)	70735.242(0.025)	0.7924	142.636	*LIA86
0	17	2	16	-	0	16	3	13	-		70965.355(0.038)	2.7629	101.862	
2	8	0	8	+	2	7	1	7	+		71101.329(0.737)	5.3966	276.139	
2	4	-2	3		2	3	-2	2			71355.123(0.221)	24.0929	266.787	
2	4	2	2		2	3	2	1			71396.056(0.312)	21.9988	284.841	
1	5	-1	4		1	5	0	5			71792.614(0.027)	4.1932	151.618	
2	12	2	10		2	12	1	11			71821.745(4.452)	4.3112	326.590	
0	17	-2	16	0	16	3	13				71844.914(0.038)	2.6677	101.840	
2	18	3	15	-	2	19	2	18	-		71960.068(4.692)	4.1833	390.802	
0	25	4	21	+	0	24	5	20	+		72280.124(0.226)	4.5932	232.299	
1	10	1	9	-	1	10	0	10	+		72325.793(0.039)	7.4007	178.727	
2	12	-1	12		2	12	-2	11			72335.978(1.837)	0.4429	311.623	
2	9	-1	9		2	9	-2	8			72745.846(1.756)	0.7077	290.841	
0	17	5	13	+	0	18	4	14	+		72781.633(0.158)	2.8550	135.210	
1	16	2	15		1	16	-1	15			72799.740(0.079)	1.3019	233.203	
1	9	1	8	-	1	8	2	7	-		73290.745(0.030)	2.0183	172.142	
0	17	5	12	-	0	18	4	15	-		73314.102(0.158)	2.8539	135.193	
1	5	3	3		1	6	-2	4			73317.435(0.063)	0.0001	165.612	
1	20	1	20	+	1	19	2	17	+		73404.554(0.608)	0.4603	275.546	
2	11	-1	11		2	11	-2	10			73576.623(1.820)	0.5187	304.052	
2	10	-1	10		2	10	-2	9			73763.059(1.794)	0.6061	297.123	
0	10	1	9	0	9	2	7				73786.194(0.009)	0.0901	35.403	
1	6	-1	5		1	6	0	6			73832.717(0.030)	5.1112	155.458	
1	6	3	4	+	1	7	2	5	+		73990.378(0.046)	0.7732	167.083	

TABLE II. (Continued.)

v_1'	J'	$K_c' P'$	$K_c' P'$	v_1''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	6	-3	4	2	7	-2	6		74209.139(2.281)	0.0280	280.219	
0	20	3	17	0	19	4	15		74250.708(0.072)	0.4176	147.419	
1	6	1	6	1	5	-1	4		74263.471(0.035)	0.3822	154.013	
2	12	0	12	2	11	1	10		74340.701(4.983)	2.5568	318.840	
0	20	3	17 -	0	19	4	16 -		74362.489(0.075)	3.7137	147.436	
1	19	2	18	1	18	-3	15		74445.352(0.297)	1.0613	270.261	
2	19	2	17	2	19	1	18		74616.500(4.083)	1.0507	398.283	
1	15	1	15 +	1	14	2	12 +		74675.986(0.164)	0.8403	219.787	
0	4	-2	3	0	3	2	1		74796.271(0.015)	0.0287	10.214	
0	7	0	7	0	6	1	5		74854.541(0.007)	0.0044	15.487	
0	4	1	4 +	0	3	1	3 +		74891.681(0.005)	23.7139	5.326	
1	12	1	11 -	1	12	1	12 +		74897.636(0.069)	1.3318	193.688	
2	15	1	14 -	2	14	2	13 -		74913.917(2.185)	5.2343	336.012	
0	4	-1	4	0	3	-1	3		74924.137(0.005)	23.6762	5.376	
0	21	3	19 +	0	20	4	16 +		74926.953(0.080)	3.7997	160.367	
1	4	1	4 +	1	3	1	3 +		74990.791(0.008)	23.9665	148.780	
0	4	-3	2	0	3	3	0		74992.645(0.024)	8.5E-7	18.027	
0	9	1	8	0	9	0	9		75038.517(0.008)	8.2021	28.787	
0	6	0	6 +	0	5	1	5 +		75160.001(0.006)	3.3039	10.946	
2	3	3	0	2	3	2	1		75176.357(2.922)	0.2452	284.841	
0	12	4	8	0	13	3	10		75352.968(0.032)	1.7101	72.753	
2	4	1	4 +	2	3	1	3 +		75394.627(0.055)	22.8436	262.313	
1	2	1	2 +	1	1	0	1 +		75523.171(0.016)	1.5509	144.385	
0	9	1	8 -	0	9	0	9 +		75526.172(0.008)	8.2531	28.723	
1	14	1	14	1	13	2	12		75552.614(0.085)	0.5196	209.114	
0	6	0	6	0	5	-1	5		75604.704(0.006)	3.2857	10.998	
1	2	-1	1	1	1	1	1		75887.131(0.043)	0.0173	143.707	
0	16	-2	15	0	16	1	15		75943.771(0.026)	0.0033	90.863	
2	4	3	1	2	3	3	0		76043.508(0.208)	11.9421	287.349	
0	7	-3	5	0	8	2	6		76130.898(0.017)	0.2728	29.566	
1	8	0	8	1	7	-1	6		76133.890(0.040)	0.7888	165.031	
0	12	4	9 -	0	13	3	10 -		76231.255(0.032)	1.9600	72.767	
1	6	3	3 -	1	7	2	6 -		76321.531(0.046)	0.7668	167.006	
1	19	1	19 +	1	18	2	16 +		76639.696(0.480)	0.5232	263.172	
1	4	0	4 +	1	3	0	3 +		76718.009(0.008)	25.6091	147.588	
0	21	-3	19	0	20	-4	17		76772.989(0.078)	0.1966	160.280	
1	7	-1	6	1	7	0	7		76802.651(0.034)	5.9793	159.930	
1	4	1	4	1	3	1	3		76822.138(0.007)	23.5541	146.924	
0	4	0	4	0	3	0	3		76866.437(0.005)	25.3001	3.921	
0	4	0	4 +	0	3	0	3 +		76878.958(0.005)	25.2831	3.853	
0	12	-4	9	0	13	-3	11		76899.763(0.034)	1.7090	72.675	
1	4	0	4	1	3	0	3		76934.000(0.007)	25.3227	145.848	
1	4	-3	1	1	3	-3	0		76972.130(0.008)	11.1183	161.592	
2	17	2	15 +	2	18	1	18 +		76974.342(4.023)	2.0698	365.684	
2	4	1	3	2	3	1	2		77006.526(0.059)	23.4523	280.196	
1	15	2	14	1	15	-1	14		77033.648(0.066)	1.6578	222.757	
0	4	2	3 -	0	3	2	2 -		77038.605(0.005)	18.9757	10.160	
0	17	-2	16	0	16	-3	14		77059.336(0.033)	0.0809	101.666	
0	4	3	1	0	3	3	0		77082.464(0.004)	11.0748	18.027	
0	4	3	2 +	0	3	3	1 +		77082.954(0.004)	11.0724	18.025	
0	4	3	1 -	0	3	3	0 -		77084.099(0.004)	11.0724	18.025	
1	4	-2	2	1	3	-2	1		77088.583(0.007)	18.9610	153.520	
0	4	-3	2	0	3	-3	1		77095.109(0.004)	11.0702	17.957	
1	4	2	3 -	1	3	2	2 -		77099.697(0.007)	19.0608	152.869	
0	4	2	2	0	3	2	1		77125.695(0.005)	18.9557	10.214	
0	4	-2	3	0	3	-2	2		77126.418(0.005)	18.9506	10.136	
0	4	2	2 +	0	3	2	1 +		77218.295(0.005)	18.9758	10.163	
2	22	2	20 +	2	21	3	19 +		77223.748(4.603)	5.8938	434.437	
1	16	2	15 -	1	15	3	12 -		77267.049(0.142)	2.4209	236.134	
1	4	3	2	1	3	3	1		77280.505(0.007)	11.0053	159.812	
1	4	2	2 +	1	3	2	1 +		77286.058(0.007)	19.0607	152.872	
1	4	3	2 +	1	3	3	1 +		77286.796(0.007)	11.0560	159.882	
1	4	3	1 -	1	3	3	0 -		77288.103(0.007)	11.0560	159.882	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	4	3	2 +	2	3	3	1 +		77365.922(0.028)	10.8532	286.514	
2	4	3	1 -	2	3	3	0 -		77366.310(0.028)	10.8532	286.514	
1	4	2	3	1	3	2	2		77398.274(0.007)	18.8542	151.581	
1	14	2	12 +	1	13	3	11 +		77415.094(0.092)	2.5284	214.714	
1	16	1	16 +	1	15	2	13 +		77485.480(0.218)	0.7548	229.715	
2	17	-2	16	2	16	-3	14		77618.987(3.030)	0.0200	359.009	
1	4	-1	3	1	3	-1	2		77642.812(0.006)	23.3680	148.176	
2	4	2	3 -	2	3	2	2 -		77672.224(0.036)	18.3621	271.993	
2	4	0	4 +	2	3	0	3 +		77712.905(0.055)	24.3340	259.116	
2	4	-3	2	2	3	-3	1		77737.763(0.748)	14.3352	273.002	
0	12	4	8 +	0	13	3	11 +		77746.882(0.032)	1.9561	72.718	
2	18	2	16 +	2	19	1	19 +		77769.085(4.316)	1.9669	377.545	
2	4	2	2 +	2	3	2	1 +		77779.415(0.036)	18.3622	271.995	
2	16	2	14 +	2	17	1	17 +		77928.519(3.766)	2.1558	354.440	
2	11	1	10 -	2	11	1	11 +		78115.982(1.073)	0.9780	299.986	
0	7	3	4	0	8	2	6		78162.129(0.015)	0.7960	29.566	
0	2	-2	1	0	3	1	2		78319.769(0.012)	0.0775	5.595	
0	15	2	13	0	14	3	11		78383.745(0.024)	0.3421	81.791	
0	19	2	17 +	0	19	2	18 -		78398.903(0.082)	2.0812	127.791	
1	18	1	18 +	1	17	2	15 +		78432.686(0.374)	0.5939	251.408	
0	19	2	17	0	19	-2	18		78478.971(0.081)	2.1139	127.797	
1	11	-1	10	1	11	1	11		78500.071(0.067)	1.3673	184.780	
1	17	1	17 +	1	16	2	14 +		78728.676(0.287)	0.6717	240.256	
0	7	3	5 +	0	8	2	6 +		78762.441(0.011)	1.0718	29.543	
0	10	1	9 -	0	9	2	8 -		78765.276(0.011)	2.5665	35.191	
1	4	1	3 -	1	3	1	2 -		78871.037(0.008)	23.9567	148.975	
2	18	3	15	2	18	2	16		79097.926(4.576)	1.9990	388.383	
0	4	1	3	0	3	1	2		79099.313(0.005)	23.6746	5.595	
0	4	1	3 -	0	3	1	2 -		79150.172(0.005)	23.7143	5.539	
0	4	3	1	0	3	-3	1		79184.928(0.024)	8.5E-7	17.957	
0	4	2	2	0	3	-2	2		79455.842(0.015)	0.0287	10.136	
1	9	-1	8	1	8	2	7		79551.999(0.044)	0.5485	170.972	
?	4	0	4	2	3	0	3		79632.787(0.807)	16.9809	273.048	
1	10	-3	7	1	11	2	10		79732.870(0.073)	0.0201	190.405	
0	15	2	13 +	0	14	3	12 +		79761.622(0.026)	2.9683	81.733	
2	19	-3	17	2	18	2	16		79773.040(7.143)	0.0441	388.383	
2	4	3	1	2	4	2	2		79823.809(2.737)	0.4223	287.223	
2	11	2	9	2	11	1	10		79966.227(4.262)	4.1135	318.840	
0	10	1	9	0	9	-2	8		79973.160(0.010)	2.4711	35.197	
2	4	1	3 -	2	3	1	2 -		80144.665(0.063)	22.8463	262.551	
1	11	1	10 -	1	11	0	11 +		80288.508(0.047)	7.4887	185.662	
2	19	2	17 +	2	20	1	20 +		80343.273(4.647)	1.8524	390.022	
0	7	-3	5	0	8	-2	7		80459.494(0.014)	0.7904	29.422	
2	18	4	15 -	2	19	3	16 -		80537.363(7.094)	3.8005	405.526	
2	15	2	13 +	2	16	1	16 +		80584.524(3.541)	2.2194	343.814	
0	2	2	0	0	3	1	2		80658.852(0.010)	0.1203	5.595	
0	2	2	1 -	0	3	1	2 -		80738.720(0.008)	0.1985	5.539	
1	8	-1	7	1	8	0	8		80817.897(0.040)	6.7444	165.031	
1	14	2	13	1	14	-1	13		80823.447(0.057)	1.9591	212.949	
0	15	-1	15	0	14	-2	13		80862.120(0.041)	0.0015	73.604	
2	4	-1	4	2	3	-1	3		80974.509(0.115)	17.9990	268.007	
2	25	3	22	2	25	2	23		81220.858(6.243)	8.0564	487.488	
0	15	2	13	0	14	-3	12		81278.280(0.026)	2.6196	81.695	
1	2	2	1	1	3	1	3		81579.999(0.045)	0.1845	146.924	
0	12	1	11	0	12	-1	12		81825.113(0.022)	1.0622	50.231	
0	12	1	11 -	0	12	1	12 +		82069.377(0.023)	1.0510	50.180	
0	10	1	9	0	10	0	10		82329.189(0.010)	8.4888	35.118	
0	7	3	4	0	8	-2	7		82490.776(0.017)	0.2679	29.477	
0	7	3	4 -	0	8	2	7 -		82515.145(0.011)	1.0604	29.419	
0	15	-2	14	0	15	1	14		82525.133(0.021)	0.0056	80.432	
1	3	-2	1	1	4	-1	3		82554.870(0.030)	0.4417	153.520	
2	15	5	11 +	2	16	4	12 +		82698.380(7.955)	2.1958	385.904	
2	15	5	10 -	2	16	4	13 -		82746.142(7.957)	2.1957	385.902	

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c'	P'	ν_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	6	0	6	+	1	5	1	5	+		82754.856(0.020)	3.0239	154.407	
0	10	1	9	-	0	10	0	10	+		82825.639(0.010)	8.5446	35.055	
1	17	2	16		1	16	3	14			82827.295(0.102)	2.1419	246.557	
0	5	-1	5	0	4	1	3				82874.621(0.007)	0.0183	8.233	
2	8	-2	7	2	7	-1	7				82888.416(1.780)	4.0913	282.441	
1	6	0	6	1	5	1	5				83362.411(0.025)	2.2194	152.677	
2	10	2	8	2	9	3	6				83502.844(2.874)	1.6463	311.899	
0	2	-1	2	0	1	0	1			83584.260(0.180)	83584.282(0.006)	1.6222	0.711	BAU76
1	14	-2	12	1	13	3	11				83999.977(0.098)	0.2163	214.677	
1	15	1	15	1	14	2	13				84136.223(0.105)	0.3903	218.452	
1	16	-2	14	1	15	-3	12				84138.428(0.078)	2.7073	234.888	
0	2	1	2	+	0	1	0	1	+	84219.764(0.180)	84219.750(0.006)	1.7134	0.643	BAU76
1	13	2	12	1	13	-1	12				84220.753(0.052)	2.1381	203.785	
1	5	-2	3	1	6	1	6				84438.283(0.045)	0.0509	156.490	
0	18	2	17	-	0	17	3	14	-		84523.984(0.050)	2.8164	112.878	
2	8	2	7	-	2	9	1	8	-		84653.764(2.272)	2.3233	288.592	
2	5	3	2	2	5	2	3				84676.123(2.628)	0.5680	290.221	
2	20	2	18	+	2	21	1	21	+		84710.364(5.017)	1.7312	403.114	
0	2	-2	1	0	3	-1	3				84865.210(0.010)	0.1136	5.376	
2	14	2	12	+	2	15	1	15	+		84879.917(3.347)	2.2558	333.807	
2	20	1	19	2	21	-2	20				84986.532(6.995)	0.0666	408.124	
0	26	4	23	-	0	25	5	20	-		85249.520(0.242)	4.7897	248.423	
0	18	-2	17	0	17	3	14				85396.224(0.050)	2.7601	112.855	
2	18	4	14	+	2	19	3	17	+		85496.069(7.180)	3.7791	405.364	
2	20	2	18	2	20	1	19				85535.010(3.970)	0.9848	410.959	
0	4	1	3	0	3	-1	3				85644.755(0.006)	0.0525	5.376	
1	9	-1	8	1	9	0	9				85947.589(0.047)	7.3759	170.758	
2	2	2	0	2	3	1	2				86075.058(3.253)	0.1803	280.196	
1	7	-3	4	1	8	-2	6				86676.067(0.033)	1.0787	172.826	
1	13	1	12	-	1	13	1	13	+		87004.906(0.088)	1.3016	201.773	
0	2	1	1	0	1	0	1				87109.513(0.006)	0.0843	0.711	
0	2	2	0	+	0	3	1	3	+		87146.655(0.008)	0.1854	5.326	
0	2	2	0	0	3	-1	3				87204.294(0.010)	0.0713	5.376	
1	12	2	11	1	12	-1	11				87303.647(0.048)	2.1538	195.266	
2	5	1	4	2	6	0	6				87472.939(4.828)	0.8639	283.060	
2	5	-3	3	2	6	-2	5				88195.495(2.165)	0.0358	275.884	
2	10	2	8	2	10	1	9				88298.723(4.086)	3.8744	311.739	
2	3	-1	3	2	2	-2	1				88304.817(0.798)	0.6038	265.061	
1	1	-1	0	1	0	0	0				88607.640(0.029)	0.6164	141.994	
2	17	3	14	-	2	18	2	17	-		88939.907(4.584)	3.9815	378.569	
0	14	-2	13	0	14	1	13				88983.283(0.017)	0.0096	70.636	
0	8	0	8	0	7	1	6				89177.162(0.008)	0.0028	20.099	
1	12	1	11	-	1	12	0	12	+		89264.568(0.059)	7.4857	193.208	
2	6	3	3	2	6	2	4				89451.315(2.593)	0.6981	293.843	
1	20	2	19	1	19	-3	16				89459.769(0.370)	1.2981	283.039	
1	12	-1	11	1	12	1	12				89597.048(0.078)	1.2952	192.278	
2	17	3	14	2	17	2	15				89691.611(4.359)	1.5280	376.688	
2	5	2	3	2	4	2	2				89879.748(0.318)	30.4754	287.223	
1	7	1	7	1	6	-1	5				89928.077(0.036)	0.4643	157.921	
1	3	1	3	1	2	0	2				90017.333(0.024)	1.1780	143.921	
1	11	2	10	1	11	-1	10				90140.370(0.045)	2.0056	187.398	
1	7	3	5	1	8	2	7				90622.788(0.038)	1.0598	170.972	
0	11	1	10	0	11	0	11				90682.551(0.013)	8.6539	42.064	
2	13	2	11	+	2	14	1	14	+		90738.847(3.181)	2.2604	324.420	
2	21	2	19	+	2	22	1	22	+		90866.842(5.429)	1.6076	416.821	
1	9	0	9	1	8	-1	7				90868.677(0.046)	0.6416	170.758	
2	5	-2	4	2	4	-2	3				90910.914(0.204)	31.6846	269.167	
0	16	-1	16	0	15	-2	14				90915.256(0.055)	0.0008	83.185	
1	17	2	16	-	1	16	3	13	-		91095.292(0.183)	2.4872	246.976	
0	11	1	10	-	0	11	0	11	+		91188.827(0.013)	8.7142	42.002	
2	18	-2	17	2	17	-3	15				91464.053(3.134)	0.0279	370.366	
0	20	2	18	+	0	20	2	19	-		91560.879(0.105)	1.9490	140.508	
0	20	2	18	0	20	-2	19				91628.377(0.104)	1.9836	140.514	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	B_1''	J''	K_a''	K_c''	Observed frequency (unc.)/ P'' MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b	
2	2	0	2	2	3	-1	3		91921.193(2.526)	1.3856	268.007		
2	12	1	11	-	2	12	1	12 +	92203.349(1.260)	0.8865	307.509		
1	16	1	16	1	15	2	14		92203.599(0.133)	0.2762	228.402		
1	10	-1	9	1	10	0	10		92229.272(0.054)	7.8645	177.107		
1	12	-1	11	1	11	-2	9		92294.583(0.048)	1.8998	192.188		
1	4	3	2	1	5	-2	3		92423.309(0.065)	1.1E-5	162.389		
0	18	-2	17	0	17	-3	15		92547.576(0.042)	0.0404	112.617		
2	15	3	13	+	2	16	2	14 +	92558.849(4.172)	3.7251	357.039		
0	16	5	12	+	0	17	4	13 +	92679.805(0.156)	2.5997	123.608		
1	10	2	9	1	10	-1	9		92762.314(0.043)	1.7264	180.183		
0	22	3	20	+	0	21	4	17 +	92912.142(0.097)	3.9765	173.923		
2	10	2	8	2	11	-3	9		92925.072(6.648)	0.0332	314.685		
0	16	5	11	-	0	17	4	14 -	93019.730(0.156)	2.5990	123.596		
2	20	-3	18	2	19	2	17		93182.668(7.206)	0.0225	400.772		
1	15	-5	11	1	16	-4	12		93238.398(0.315)	2.3256	255.761		
1	3	1	3	+	1	2	0	2 +	93350.972(0.016)	2.0800	145.667		
0	5	1	5	+	0	4	1	4 +	93580.859(0.100)	30.3517	7.824	BAU76	
0	5	-1	5	0	4	-1	4	+	93595.276(0.100)	30.3517	7.876	BAU76	
2	23	1	22	2	23	0	23		93640.789(5.061)	3.7908	449.715		
1	5	1	5	+	1	4	1	4 +	93702.172(0.040)	93702.191(0.009)	30.6806	151.282	KLE92
2	22	1	21	2	22	0	22		93769.364(4.890)	4.2601	435.103		
1	5	3	3	+	1	6	2	4 +	93829.147(0.048)	0.5432	162.553		
2	7	3	4	2	7	2	5		93946.630(2.616)	0.8203	298.095		
0	5	-2	4	0	4	2	2		94096.196(0.014)	0.1529	12.787		
2	5	1	5	+	2	4	1	4 +	94222.348(0.069)	29.2369	264.828		
2	9	0	9	+	2	8	1	8 +	94284.839(0.726)	6.3298	281.163		
0	5	-3	3	0	4	3	1		94294.598(0.024)	1.9E-5	20.599		
0	26	4	22	+	0	25	5	21 +	94375.344(0.252)	4.8297	248.410		
2	5	3	2	2	4	3	1		94732.061(0.205)	21.7410	289.885		
0	13	1	12	0	13	-1	13		95046.045(0.030)	0.9992	58.307		
1	5	3	2	-	1	6	2	5 -	95129.848(0.048)	0.5408	162.510		
1	9	2	8	1	9	-1	8		95154.706(0.042)	1.3681	173.625		
0	11	4	7	0	12	3	9		95232.319(0.032)	1.6029	64.369		
0	22	-3	20	0	21	-4	18		95241.566(0.094)	0.0875	173.821		
0	13	-2	12	0	13	1	12		95245.252(0.014)	0.0166	61.477		
2	5	4	2	-	2	4	4	1 -	95254.525(0.089)	11.6279	305.721		
2	5	4	1	+	2	4	4	0 +	95254.528(0.089)	11.6279	305.721		
2	21	2	19	2	21	1	20		95327.840(3.679)	1.2212	424.272		
0	13	1	12	-	0	13	1	13 +	95335.990(0.031)	0.9867	58.256		
1	3	-1	2	1	2	1	2		95345.216(0.042)	0.0671	144.996		
2	24	1	23	2	24	0	24		95455.975(5.271)	3.3439	464.915		
0	11	1	10	0	10	2	8		95508.517(0.011)	0.0499	41.903		
1	5	1	5	1	4	1	4		95654.204(0.009)	30.0704	149.486		
1	5	0	5	+	1	4	0	4 +	95761.152(0.040)	95761.213(0.009)	32.0019	150.147	KLE92
2	21	1	20	2	21	0	21		95848.215(4.745)	4.7080	421.075		
0	5	0	5	0	4	0	4	95947.340(0.000)	95947.439(0.006)	31.6159	6.485	BAU76	
0	5	0	5	+	0	4	0	4 +	95963.380(0.180)	95963.465(0.006)	31.5946	6.417	BAU76
1	5	0	5	1	4	0	4	96060.132(0.040)	96060.149(0.009)	31.6270	148.414	KLE92	
1	5	-3	2	1	4	-3	1		96227.565(0.009)	20.3286	164.159		
1	5	-4	1	1	4	-4	0		96237.551(0.009)	11.4461	174.800		
0	11	4	8	-	0	12	3	9 -	96263.800(0.032)	1.7052	64.379		
0	6	-1	6	0	5	1	4		96265.819(0.008)	0.0081	11.531		
0	5	2	4	-	0	4	2	3 -	96274.200(0.000)	96274.257(0.005)	26.5649	12.730	BAU76
2	5	1	4	2	4	1	3		96308.194(0.074)	29.9692	282.765		
0	6	-3	4	0	7	2	5		96314.396(0.019)	0.1233	24.390		
0	5	4	2	-	0	4	4	1 -	96343.283(0.040)	96343.268(0.005)	11.3912	31.581	KLE91
0	5	4	1	+	0	4	4	0 +	96343.283(0.040)	96343.282(0.005)	11.3912	31.581	KLE91
1	5	2	4	-	1	4	2	3 -	96347.562(0.040)	96347.542(0.008)	26.6857	155.441	KLE92
0	5	4	1	0	4	4	0		96353.161(0.040)	96353.156(0.005)	11.3901	31.533	KLE91
0	5	-4	2	0	4	-4	1		96360.784(0.040)	96360.787(0.005)	11.3868	31.502	KLE91
0	5	3	3	+	0	4	3	2 +	96367.846(0.040)	96367.790(0.005)	20.2464	20.596	KLE91
0	5	3	2	0	4	3	1		96368.352(0.040)	96368.376(0.005)	20.2508	20.599	UNPUB
0	5	3	2	-	0	4	3	1 -	96371.751(0.040)	96371.794(0.005)	20.2464	20.596	UNPUB

TABLE II. (Continued.)

v_1'	J'	K_c'	P'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	5	-3		3		0	4	-3	2		96384.401(0.040)	96384.417(0.005)	20.2425	20.529	UNPUB
1	5	-2		3		1	4	-2	2		96394.202(0.040)	96394.191(0.008)	26.5404	156.091	KLE92
0	5	-2		4		0	4	-2	3		96425.618(0.049)	96425.620(0.005)	26.4174	12.709	KLE91
1	5	4		2		1	4	4	1			96460.437(0.009)	11.3555	174.013	
0	5	2		3		0	4	2	2		96475.536(0.040)	96475.523(0.005)	26.4240	12.787	KLE91
0	11	-4		8		0	12	-3	10			96488.915(0.034)	1.6028	64.299	
2	9	2		7		2	9	1	8			96602.997(3.927)	3.6121	305.289	
1	10	1		9	-	1	9	2	8	-		96607.215(0.033)	2.4248	177.917	
1	5	3		3		1	4	3	2		96617.623(0.040)	96617.584(0.008)	20.1241	162.389	KLE92
1	5	3		3	+	1	4	3	2	+	96622.386(0.040)	96622.243(0.008)	20.2177	162.460	KLE92
1	5	3		2	-	1	4	3	1	-	96626.720(0.040)	96626.805(0.008)	20.2177	162.460	KLE92
0	5	2		3	+	0	4	2	2	+	96632.627(0.040)	96632.668(0.005)	26.5650	12.739	KLE91
1	5	4		2	-	1	4	4	1	-	96690.960(0.040)	96690.870(0.009)	11.3298	172.830	KLE92
1	5	4		1	+	1	4	4	0	+	96690.960(0.040)	96690.886(0.009)	11.3298	172.830	KLE92
2	5	3		3	+	2	4	3	2	+	96716.238(0.040)	96716.211(0.035)	19.8445	289.094	UNPUB
2	5	3		2	-	2	4	3	1	-	96717.382(0.040)	96717.570(0.035)	19.8445	289.094	UNPUB
1	5	2		3	+	1	4	2	2	+	96718.351(0.040)	96718.396(0.008)	26.6856	155.450	KLE92
2	10	1		9		2	9	2	7			96760.628(3.960)	2.0424	308.512	
0	7	0		7	+	0	6	1	6	+	96765.331(0.040)	96765.385(0.006)	4.1114	14.690	KLE91
2	26	3		23		2	26	2	24			96782.979(6.683)	6.5542	503.978	
1	5	2		4		1	4	2	3		96800.311(0.040)	96800.280(0.009)	26.3980	154.162	KLE92
2	5	-3		3		2	4	-3	2			96865.893(0.215)	24.3028	275.595	
0	19	2		18	-	0	18	3	15	-		96951.365(0.065)	2.8301	124.557	
2	5	0		5	+	2	4	0	4	+		97058.943(0.068)	30.4137	261.709	
2	5	2		4	-	2	4	2	3	-		97075.394(0.044)	25.7053	274.584	
0	7	0		7		0	6	-1	6		97180.702(0.040)	97180.686(0.006)	4.0938	14.742	KLE91
0	11	4		7	+	0	12	3	10	+		97213.935(0.032)	1.7032	64.347	
1	8	2		7		1	8	-1	7			97264.267(0.041)	0.9877	167.727	
2	5	2		3	+	2	4	2	2	+		97289.674(0.045)	25.7055	274.589	
1	5	-1		4		1	4	-1	3		97335.912(0.040)	97335.889(0.008)	29.8588	150.766	KLE92
2	5	-4		2		2	4	-4	1			97612.001(0.067)	11.0192	287.968	
0	21	3		18		0	20	4	16			97703.195(0.089)	0.2051	160.323	
0	19	-2		18		0	18	3	15			97796.092(0.066)	2.7924	124.535	
2	8	3		5		2	8	2	6			98017.837(2.678)	0.9383	302.983	
2	12	2		10	+	2	13	1	13	+		98074.659(3.040)	2.2302	315.653	
2	16	3		13		2	16	2	14			98078.126(4.095)	1.3995	365.716	
0	21	3		18	-	0	20	4	17	-		98201.691(0.094)	3.9595	160.327	
0	6	3		3		0	7	2	5			98368.628(0.015)	0.6933	24.390	
0	5	3		2		0	4	-3	2			98458.195(0.024)	1.9E-5	20.529	
2	9	-2		8		2	8	-1	8			98548.686(1.849)	4.7376	287.553	
1	5	1		4	-	1	4	1	3	-	98552.050(0.040)	98552.038(0.009)	30.6610	151.605	KLE92
1	18	2		17		1	17	3	15			98793.573(0.133)	1.9891	258.101	
0	5	2		3		0	4	-2	3			98804.947(0.014)	0.1528	12.709	
0	5	1		4		0	4	1	3		98863.328(0.040)	98863.314(0.006)	30.3504	8.233	KLE91
0	5	1		4	-	0	4	1	3	-	98900.948(0.040)	98900.951(0.006)	30.3523	8.179	KLE91
1	7	2		6		1	7	-1	6			99020.299(0.042)	0.6381	162.492	
2	25	1		24		2	25	0	25			99141.255(5.538)	2.9599	480.706	
0	6	3		4	+	0	7	2	5	+		99141.292(0.012)	0.8191	24.361	
2	5	-1		5		2	4	-1	4			99179.780(0.082)	25.0514	270.708	
1	13	1		12	-	1	13	0	13	+		99241.999(0.076)	7.4131	201.364	
0	6	-3		4		0	7	-2	6			99490.123(0.014)	0.6911	24.284	
1	11	-1		10		1	11	0	11			99681.297(0.062)	8.2153	184.073	
2	20	1		19		2	20	0	20			99781.567(4.617)	5.1052	407.631	
1	14	1		13	-	1	14	1	14	+		99847.675(0.115)	1.2869	210.473	
1	17	1		17		1	16	2	15			99906.693(0.169)	0.1844	238.964	
2	1	1		0	-	2	1	0	1	+		99986.282(0.815)	2.0316	255.873	
2	5	0		5		2	4	0	4			100029.827(0.310)	23.3884	275.705	
2	11	2		9		2	10	3	7			100067.149(2.997)	1.9452	318.169	
0	12	1		11		0	12	0	12			100127.130(0.017)	8.7137	49.621	
2	5	1		4	-	2	4	1	3	-		100158.078(0.078)	29.2424	265.224	
1	6	2		5		1	6	-1	5			100364.881(0.044)	0.3593	157.921	
0	17	-1		17		0	16	-2	15			100414.015(0.072)	0.0004	93.397	
2	19	1		18		2	20	-2	19			100602.883(6.913)	0.0635	394.927	

TABLE II. (Continued.)

v_1'	J'	K_c'	P'	K_c'	P'	v_2''	J''	K_a''	K_c''	P''	Observed frequency (unc.) ^b MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	12	1		11	-	0	12	0	12	+	100645.231(0.018)	8.7778	49.561		
1	9	-3		6	1	10	2	9			100738.727(0.067)	0.0082	183.277		
2	5	4		1	2	4	4	0			100759.412(0.240)	10.9021	293.912		
2	2	1		1	-	2	2	0	2	+	101170.264(0.823)	3.3656	257.171		
0	12	-2		11	0	12	1	11			101245.577(0.012)	0.0295	52.961		
1	5	2		4	1	5	-1	4			101283.179(0.046)	0.1700	154.013		
1	15	2		13	+	1	14	3	12	+	101335.005(0.120)	2.8107	223.750		
0	3	-1		3	0	2	0	2			101343.448(0.007)	2.2565	1.996		
0	6	3		3	-	0	7	2	6	-	101400.616(0.012)	0.8139	24.287		
1	10	-1		9	1	9	2	8			101448.339(0.045)	0.8056	176.799		
0	6	3		3	0	7	-2	6			101544.356(0.018)	0.1215	24.284		
2	9	3		6	2	9	2	7			101556.507(2.766)	1.0530	308.512		
2	13	0		13	2	12	1	11			101754.984(4.925)	3.0743	326.590		
2	4	-3		2	2	5	-2	4			101779.989(2.054)	0.0369	272.200		
1	13	-1		12	1	13	1	13			101790.433(0.093)	1.2183	200.389		
2	26	2		24	2	26	1	25			101810.758(2.911)	3.4806	500.582		
1	4	2		3	1	4	-1	3			101818.788(0.049)	0.0639	150.766		
0	3	1		3	+	0	2	0	2	+	101892.416(0.007)	2.2976	1.927		
1	3	2		2	1	3	-1	2			102063.327(0.052)	0.0172	148.176		
2	22	2		20	2	22	1	21			102103.640(3.280)	1.7376	438.231		
1	2	2		1	1	2	-1	1			102127.197(0.054)	0.0025	146.239		
1	4	-2		2	1	5	1	5			102350.305(0.047)	0.0210	152.677		
1	2	-2		0	1	3	-1	2			102396.622(0.030)	0.1982	151.592		
0	9	0		9	0	8	1	7			102504.939(0.009)	0.0019	25.368		
0	16	2		14	0	15	3	12			102673.799(0.032)	0.1937	91.486		
2	3	1		2	-	2	3	0	3	+	102966.208(0.836)	4.6691	259.116		
1	21	2		20	1	20	-3	17			103051.341(0.460)	1.5322	296.434		
2	16	1		15	-	2	15	2	14	-	103053.409(2.200)	5.8369	345.693		
1	7	0		7	1	6	1	6			103131.572(0.025)	3.0627	156.490		
1	12	2		10	+	1	12	1	11	-	103142.043(0.056)	10.0988	196.186		
0	11	1		10	-	0	10	2	9	-	103245.543(0.013)	3.0274	41.600		
1	11	2		9	+	1	11	1	10	-	103456.919(0.044)	8.9810	188.340		
1	13	2		11	+	1	13	1	12	-	103530.659(0.070)	11.1876	204.675		
2	15	3		12	2	15	2	13			103760.580(3.822)	1.4064	355.474		
1	18	2		17	-	1	17	3	14	-	103889.260(0.235)	2.5180	258.445		
1	7	0		7	+	1	6	1	6	+	103936.295(0.021)	3.7674	158.156		
1	8	1		8	1	7	-1	6			104124.924(0.040)	0.4977	162.492		
2	25	2		23	2	25	1	24			104161.050(2.944)	3.2043	484.013		
0	11	1		10	0	10	-2	9			104347.799(0.012)	2.9718	41.608		
1	10	2		8	+	1	10	1	9	-	104366.521(0.036)	7.8667	181.139		
1	10	0		10	1	9	-1	8			104373.774(0.054)	0.4964	177.107		
2	19	-2		18	2	18	-3	16			104437.152(3.271)	0.0356	382.340		
2	10	3		7	2	10	2	8			104468.113(2.875)	1.1629	314.685		
2	26	1		25	2	26	0	26			104595.583(5.879)	2.6634	497.093		
1	14	2		12	+	1	14	1	13	-	104719.263(0.088)	12.2144	213.803		
2	8	2		6	2	8	1	7			104746.879(3.785)	3.3314	299.489		
0	16	2		14	+	0	15	3	13	+	105116.060(0.035)	3.2754	91.393		
2	23	2		21	2	23	1	22			105217.383(3.033)	2.3366	452.839		
2	19	1		18	2	19	0	19			105342.100(4.502)	5.4455	394.769		
2	4	1		3	-	2	4	0	4	+	105397.968(0.855)	5.9297	261.709		
1	15	-2		13	1	14	3	12			105463.120(0.113)	0.3702	223.730		
2	24	2		22	2	24	1	23			105533.660(2.963)	2.8328	468.099		
0	21	2		19	+	0	21	2	20	-	105714.102(0.134)	1.8354	153.849		
1	9	2		7	+	1	9	1	8	-	105750.770(0.029)	6.7848	174.587		
0	21	2		19	0	21	-2	20			105766.238(0.132)	1.8720	153.853		
2	17	4		14	-	2	18	3	15	-	105959.630(6.991)	3.5134	393.202		
1	6	-3		3	1	7	-2	5			106393.726(0.034)	0.8235	167.673		
2	21	-3		19	2	20	2	18			106418.609(7.292)	0.0018	413.812		
2	16	3		13	-	2	17	2	16	-	106487.123(4.498)	3.7579	366.973		
0	16	2		14	0	15	-3	13			106496.225(0.034)	3.0748	91.359		
2	11	3		8	2	11	2	9			106648.996(3.005)	1.2639	321.507		
1	15	2		13	+	1	15	1	14	-	106792.663(0.111)	13.1484	223.568		
2	11	2		9	+	2	12	1	12	+	106792.946(2.922)	2.1631	307.509		

TABLE II: (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b	
1	10	-4	6		1	11	-3				106806.091(0.120)	1.4417	200.136		
0	11	-2	10		0	11	1				106925.991(0.011)	0.0538	45.089		
2	14	3	11		2	14	2				106943.765(3.567)	1.4248	345.953		
2	14	5	10	+	2	15	4		11	+	107321.795(7.968)	1.9439	375.710		
1	18	1	18		1	17	2				107348.820(0.214)	0.1170	250.138		
2	14	5	9	-	2	15	4				107350.132(7.968)	1.9438	375.709		
2	13	1	12	-	2	13	1				107402.780(1.459)	0.8079	315.653		
1	8	2	6	+	1	8	1				107481.127(0.025)	5.7578	168.684		
0	19	-2	18		0	18	-3				107518.502(0.054)	0.0202	124.210		
0	3	1	2		0	2	0				107888.889(0.007)	0.0319	1.996		
2	12	3	9		2	12	2				107957.441(3.159)	1.3485	328.986		
1	2	-1	1		1	1	0				107992.877(0.028)	0.8684	142.636		
0	20	2	19	-	0	19	3				108113.865(0.085)	2.8035	136.902		
2	13	3	10		2	13	2				108172.872(3.344)	1.4064	337.130		
1	12	-1	11		1	12	0				108307.589(0.071)	8.4417	191.654		
2	5	1	4	-	2	5	0				108497.103(0.880)	7.1352	264.946		
1	17	-2	15		1	16	-3				108521.571(0.109)	2.7454	245.198		
0	7	-1	7		0	6	1				108566.607(0.010)	0.0042	15.487		
2	6	2	4		2	5	2				108589.122(0.312)	38.2866	290.221		
0	20	-2	19		0	19	3				108917.031(0.085)	2.7744	136.880		
0	14	1	13		0	14	-1				109079.034(0.040)	0.9483	66.997		
1	4	1	4		1	3	0				109089.816(0.023)	1.6770	145.848		
0	18	-1	18		0	17	-2				109378.030(0.092)	0.0002	104.237		
0	14	1	13	-	0	14	1				109418.212(0.042)	0.9344	66.947		
1	7	2	5	+	1	7	1				109425.160(0.022)	4.7999	163.433		
2	7	2	6	-	2	8	1				109456.469(2.299)	1.9256	282.588		
2	17	4	13	+	2	18	3				109562.899(7.053)	3.4996	393.085		
0	5	1	4		0	4	-1				109583.931(0.007)	0.0186	7.876		
1	16	2	14	+	1	16	1				109825.272(0.141)	13.9641	233.966		
1	14	1	13	-	1	14	0				110181.308(0.101)	7.2924	210.128		
0	23	3	21	+	0	22	4				110413.514(0.117)	4.1319	188.133		
2	6	-2	5		2	5	-2				110450.387(0.195)	38.6824	272.200		
1	6	3	4		1	7	2				110490.619(0.039)	0.8151	165.795		
0	13	1	12		0	13	0				110664.833(0.024)	8.6889	57.786		
1	4	1	4	+	1	3	0				110739.038(0.040)	110739.038(0.040)	2.6306	147.588	KLE92
0	13	1	12	-	0	13	0				111197.805(0.025)	8.7561	57.727		
2	6	5	1	-	2	5	5				111209.809(0.215)	12.6494	323.344		
2	6	5	2	+	2	5	5				111209.809(0.215)	12.6494	323.344		
1	6	2	4	+	1	6	1				111452.058(0.021)	3.9165	158.836	KLE92	
1	3	3	1		1	4	-2				111536.994(0.068)	8.1E-7	159.812		
2	4	1	3		2	5	0				111631.600(4.744)	0.7094	279.041		
2	18	1	17		2	18	0				112144.661(4.407)	5.7352	382.490		
0	10	-2	9		0	10	1				112234.125(0.010)	0.1012	37.864		
0	6	1	6	+	0	5	1				112248.728(0.040)	112248.728(0.040)	36.8827	10.946	KLE91
0	6	-1	6		0	5	-1				112254.524(0.040)	112254.524(0.040)	36.8971	10.998	KLE91
2	6	1	5	-	2	6	0				112302.555(0.913)	8.2736	268.827		
1	6	1	6	+	1	5	1				112390.746(0.010)	37.2908	154.407	KLE92	
1	14	-5	10		1	15	-4				112393.124(0.314)	2.0679	245.472		
0	15	5	11	+	0	16	4				112463.397(0.154)	2.3442	112.654		
2	7	2	5		2	7	1				112631.100(3.658)	3.0314	294.338		
0	15	5	10	-	0	16	4				112674.358(0.154)	2.3439	112.647		
2	6	1	6	+	2	5	1				113036.437(0.082)	35.5267	267.971		
0	6	-2	5		0	5	2				113315.730(0.013)	0.4747	16.005		
1	15	1	14	-	1	15	1				113354.602(0.151)	1.2860	219.787		
2	6	3	3		2	5	3				113364.314(0.200)	30.4224	293.045		
1	4	3	2	+	1	5	2				113428.272(0.050)	0.3269	158.677		
0	23	-3	21		0	22	-4				113430.960(0.112)	0.0371	188.008		
1	5	2	3	+	1	5	1				113438.209(0.040)	113438.209(0.040)	3.1045	154.893	KLE92
0	6	-3	4		0	5	3				113610.291(0.023)	0.0002	23.813		
1	19	2	18		1	18	3				113710.482(0.171)	1.7825	270.261		
1	17	2	15	+	1	17	1				113882.200(0.178)	14.6425	244.993		
1	4	3	1	-	1	5	2				114080.503(0.050)	0.3262	158.655		
1	6	1	6		1	5	1				114306.213(0.010)	36.4738	152.677		

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	6	4	3 -	2	5	4	2 -		114321.178(0.105)	21.5306	308.898	
2	6	4	2 +	2	5	4	1 +		114321.191(0.105)	21.5306	308.898	
1	19	1	19	1	18	2	17		114579.702(0.269)	0.0711	261.923	
1	6	0	6 +	1	5	0	5 +	114716.863(0.040)	114716.845(0.011)	38.3894	153.341	KLE92
0	10	0	10	0	9	1	8		114765.272(0.010)	0.0012	31.290	
1	13	-1	12	1	12	-2	10		114862.531(0.058)	1.9087	199.953	
0	10	4	6	0	11	3	8		114928.005(0.032)	1.4169	56.635	
0	6	0	6	0	5	0	5	114940.190(0.040)	114940.177(0.006)	37.9259	9.686	KLE91
2	3	-3	1	2	4	-2	3		114953.140(2.116)	0.0161	269.167	
0	6	0	6 +	0	5	0	5 +	114959.911(0.040)	114959.909(0.006)	37.9004	9.618	KLE91
1	14	-1	13	1	14	1	14		114979.562(0.112)	1.1445	209.114	
1	22	2	21	1	21	-3	18		115017.864(0.570)	1.7455	310.445	
1	6	0	6	1	5	0	5	115112.297(0.040)	115112.283(0.010)	37.9159	151.618	KLE92
1	4	-1	3	1	3	1	3		115183.196(0.040)	0.1572	146.924	
1	4	2	2 +	1	4	1	3 -	115271.916(0.040)	115271.819(0.021)	2.3523	151.605	KLE92
2	1	0	1	2	2	-1	2		115406.777(2.444)	1.0601	265.916	
1	6	-3	3	1	5	-3	2	115491.403(0.040)	115491.361(0.010)	28.5838	167.369	KLE92
1	6	-4	2	1	5	-4	1	115493.119(0.040)	115493.083(0.011)	21.1950	178.010	KLE92
0	6	2	5 -	0	5	2	4 -	115493.938(0.040)	115493.928(0.006)	33.7314	15.941	KLE91
1	19	2	18 -	1	18	3	15 -		115529.070(0.302)	2.5129	270.539	
1	6	5	1	1	5	5	0		115561.432(0.011)	11.6155	191.917	
1	6	2	5 -	1	5	2	4 -	115577.437(0.040)	115577.460(0.009)	33.8874	158.655	KLE92
0	6	5	1 -	0	5	5	0 -	115605.816(0.040)	115605.799(0.006)	11.6037	48.890	KLE91
0	6	5	2 +	0	5	5	1 +	115605.816(0.040)	115605.799(0.006)	11.6037	48.890	KLE91
2	10	-2	9	2	9	-1	9		115606.441(1.892)	5.4674	293.267	
0	6	-5	1	0	5	-5	0	115621.611(0.040)	115621.546(0.006)	11.5995	48.836	KLE91
0	6	4	3 -	0	5	4	2 -	115622.924(0.040)	115622.888(0.006)	21.0946	34.795	KLE91
0	6	4	2 +	0	5	4	1 +	115622.924(0.040)	115622.949(0.006)	21.0946	34.795	KLE91
0	6	5	2	0	5	5	1	115626.174(0.040)	115626.139(0.006)	11.5998	48.813	KLE91
0	6	4	2	0	5	4	1	115634.715(0.040)	115634.711(0.006)	21.0925	34.747	KLE91
2	6	1	5	2	5	1	4		115642.044(0.090)	36.3421	285.977	
0	6	-4	3	0	5	-4	2	115644.062(0.040)	115644.056(0.006)	21.0865	34.716	KLE91
0	26	-3	24	0	26	2	24		115658.428(0.213)	0.0002	236.131	
1	6	-5	2	1	5	-5	1		115660.585(0.012)	11.6252	191.339	
0	6	3	4 +	0	5	3	3 +	115660.988(0.040)	115660.996(0.006)	28.4709	23.810	KLE91
0	6	3	3	0	5	3	2	115664.537(0.040)	115664.523(0.006)	28.4770	23.813	KLE91
0	6	3	3 -	0	5	3	2 -	115671.622(0.040)	115671.664(0.006)	28.4709	23.811	KLE91
0	6	-3	4	0	5	-3	3	115684.063(0.040)	115684.069(0.006)	28.4654	23.744	KLE91
0	6	-2	5	0	5	-2	4	115695.035(0.040)	115695.058(0.006)	33.2643	15.925	KLE91
1	6	-2	4	1	5	-2	3	115723.466(0.040)	115723.458(0.009)	33.6937	159.306	KLE92
1	6	4	3	1	5	4	2		115764.400(0.010)	21.0284	177.230	
0	6	2	4	0	5	2	3	115910.302(0.040)	115910.319(0.006)	33.2719	16.005	KLE91
1	6	3	4 +	1	5	3	3 +	115965.747(0.200)	115965.568(0.009)	28.4329	165.683	*KLE92
1	6	3	4	1	5	3	3	115965.773(0.200)	115965.965(0.009)	28.2997	165.612	*KLE92
1	6	3	3 -	1	5	3	2 -	115977.629(0.040)	115977.687(0.009)	28.4329	165.683	KLE92
2	6	-3	4	2	5	-3	3	115988.120(0.040)	115988.231(0.073)	31.9336	278.826	UNPUB
1	6	5	1 -	1	5	5	0 -	116024.780(0.200)	116024.734(0.013)	11.5253	189.991	KLE92
1	6	5	2 +	1	5	5	1 +	116024.780(0.200)	116024.734(0.013)	11.5253	189.991	KLE92
1	6	4	3 -	1	5	4	2 -	116040.523(0.040)	116040.478(0.011)	20.9820	176.055	KLE92
1	6	4	2 +	1	5	4	1 +	116040.523(0.040)	116040.549(0.011)	20.9820	176.055	KLE92
0	10	-4	7	0	11	-3	9		116066.142(0.034)	1.4173	56.569	
2	6	3	4 +	2	5	3	3 +	116071.975(0.041)	116071.975(0.041)	27.9041	292.320	
2	6	3	3 -	2	5	3	2 -	116075.603(0.041)	116075.603(0.041)	27.9041	292.321	
0	10	4	7 -	0	11	3	8 -		116103.799(0.032)	1.4518	56.641	
0	5	-3	3	0	6	2	4		116107.078(0.021)	0.0365	19.871	
0	6	2	4 +	0	5	2	3 +	116118.107(0.040)	116118.140(0.006)	33.7319	15.962	KLE91
1	6	2	4 +	1	5	2	3 +	116221.340(0.040)	116221.368(0.009)	33.8874	158.677	KLE92
1	6	2	5	1	5	2	4	116234.132(0.040)	116234.087(0.010)	33.5243	157.391	KLE92
2	6	0	6 +	2	5	0	5 +		116350.471(0.080)	36.4907	264.946	
2	20	-2	19	2	19	-3	17		116400.338(3.449)	0.0425	394.927	
2	6	2	5 -	2	5	2	4 -		116468.601(0.052)	32.6392	277.822	
1	11	0	11	1	10	-1	9		116613.550(0.061)	0.3695	184.073	
2	18	1	17	2	19	-2	18		116641.672(6.833)	0.0590	382.340	

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	K_c', P'	v_1''	J''	$K_{a''}$	K_c'', P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	6	-5	1	2	5	-5	0		116650.388(0.077)	11.2963	309.856	
0	10	4	6 +	0	11	3	9 +		116675.066(0.032)	1.4508	56.622	
0	12	1	11	0	11	2	9		116703.897(0.013)	0.0285	49.068	
2	10	2	8 +	2	11	1	11 +		116794.839(2.823)	2.0585	299.986	
1	9	1	9	1	8	-1	7		116803.842(0.047)	0.4895	167.727	
2	6	2	4 +	2	5	2	3 +		116843.204(0.053)	32.6395	277.835	
1	3	2	1 +	1	3	1	2 -	116856.898(0.040)	116856.798(0.022)	1.6370	148.975	KLE92
2	7	1	6 -	2	7	0	7 +		116860.110(0.956)	9.3332	273.349	
0	9	-2	8	0	9	1	8		117121.302(0.010)	0.1952	31.290	
1	6	-1	5	1	5	-1	4		117152.385(0.009)	36.2577	154.013	
2	6	-4	3	2	5	-4	2		117167.670(0.079)	20.4071	291.224	
2	6	-1	6	2	5	-1	5		117271.415(0.083)	32.0157	274.016	
1	9	4	6 -	1	10	3	7 -		117491.164(0.119)	1.1560	191.494	
2	4	-1	4	2	3	-2	2		117539.614(0.968)	1.2210	266.787	
2	12	2	10	2	11	3	8		117553.928(3.143)	2.2096	325.065	
0	13	2	11	0	13	1	12		117591.740(0.012)	11.9540	61.477	
2	10	0	10 +	2	9	1	9 +		117686.641(0.717)	7.3178	286.813	
0	6	3	3	0	5	-3	3		117738.301(0.023)	0.0002	23.744	
0	19	-1	19	0	18	-2	17		117830.615(0.117)	0.0001	115.704	
0	21	2	20 -	0	20	3	17 -		117881.747(0.109)	2.7380	149.917	
0	14	2	12	0	14	1	13		117903.714(0.014)	13.1211	70.636	
2	14	3	12 +	2	15	2	13 +		117906.978(4.167)	3.4030	346.502	
0	12	2	10	0	12	1	11		118091.553(0.011)	10.7338	52.961	
1	13	-1	12	1	13	0	13		118096.513(0.083)	8.5620	199.845	
1	2	2	0 +	1	2	1	1 -		118114.756(0.023)	0.9108	147.001	
0	5	3	2	0	6	2	4		118180.856(0.016)	0.5366	19.871	
1	6	1	5 -	1	5	1	4 -		118207.487(0.010)	37.2563	154.893	
2	1	1	1 +	2	0	0	0 +		118254.016(0.807)	1.3544	255.224	
0	6	2	4	0	5	-2	4		118289.646(0.013)	0.4744	15.925	
0	13	2	11 +	0	13	1	12 -		118398.043(0.013)	11.9999	61.436	
0	8	0	8 +	0	7	1	7 +	118508.500(0.200)	118508.760(0.007)	4.9818	19.056	BAU76
0	4	-1	4	0	3	0	3		118554.110(0.008)	2.8779	3.921	
0	6	1	5	0	5	1	4	118591.770(0.150)	118591.964(0.006)	36.8957	11.531	GIL76
0	6	1	5 -	0	5	1	4 -	118625.890(0.150)	118626.166(0.006)	36.8835	11.478	GIL76
0	21	-2	20	0	20	3	17		118633.788(0.110)	2.7129	149.896	
0	14	2	12 +	0	14	1	13 -		118667.797(0.015)	13.1665	70.597	
0	5	-3	3	0	6	-2	5		118701.666(0.014)	0.5360	19.784	
0	8	0	8	0	7	-1	7		118895.549(0.007)	4.9634	19.108	
0	12	2	10 +	0	12	1	11 -		118932.313(0.012)	10.7872	52.918	
1	18	2	16 +	1	18	1	17 -		119019.424(0.225)	15.1721	256.645	
0	4	1	4 +	0	3	0	3 +	119061.400(0.160)	119061.416(0.008)	2.9043	3.853	BAU76
0	15	2	13	0	15	1	14		119127.143(0.016)	14.2029	80.432	
0	5	3	3 +	0	6	2	4 +		119165.776(0.012)	0.5748	19.835	
2	9	2	7	2	10	-3	8		119226.325(6.594)	0.0318	308.512	
2	6	5	2	2	5	5	1		119231.841(0.147)	11.0464	305.731	
0	11	2	9	0	11	1	10		119292.306(0.010)	9.4900	45.089	
2	17	1	16	2	17	0	17		119650.548(4.364)	5.9568	370.795	
0	8	-1	8	0	7	1	6		119786.744(0.011)	0.0025	20.099	
0	15	2	13 +	0	15	1	14 -		119844.088(0.017)	14.2521	80.396	
0	11	2	9 +	0	11	1	10 -		120155.574(0.011)	9.5636	45.044	
2	6	1	5 -	2	5	1	4 -		120155.923(0.092)	35.5362	268.565	
2	6	2	4	2	6	1	5		120158.018(3.544)	2.7070	289.835	
1	11	1	10 -	1	10	2	9 -		120222.542(0.038)	2.8688	184.330	
2	6	4	2	2	5	4	1		120396.933(0.248)	20.3067	297.273	
0	5	3	2 -	0	6	2	5 -		120423.403(0.012)	0.5729	19.794	
2	6	0	6	2	5	0	5		120466.854(0.219)	29.8985	279.041	
0	5	3	2	0	6	-2	5		120775.445(0.020)	0.0360	19.784	
0	22	2	20 +	0	22	2	21 -		120799.337(0.166)	1.7383	167.810	
0	22	2	20	0	22	-2	21		120833.216(0.165)	1.7771	167.813	
1	3	-2	1	1	4	1	4		120915.927(0.050)	0.0063	149.486	
1	2	2	1 -	1	2	1	2 +		121005.028(0.023)	0.8765	146.904	
2	22	-3	20	2	21	2	19		121024.819(7.371)	0.0094	427.452	
0	10	2	8	0	10	1	9		121073.407(0.009)	8.2436	37.864	

TABLE II. (Continued.)

v_1'	J'	K_a'	$K_c' P'$	v_1''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	16	2	14	0	16	1	15		121350.754(0.020)	15.1696	90.863	
0	8	-2	7	0	8	1	7		121540.661(0.010)	0.3751	25.368	
1	8	-3	5	1	9	2	8		121598.297(0.063)	0.0030	176.799	
1	20	1	20	1	19	2	18		121609.217(0.333)	0.0417	274.318	
0	22	3	19	0	21	4	17		121765.952(0.111)	0.0929	173.881	
0	10	2	8 +	0	10	1	9 -		121940.768(0.010)	8.3615	37.818	
0	20	-2	19	0	19	-3	17		121942.642(0.067)	0.0101	136.446	
1	15	1	14 -	1	15	0	15 +		122017.139(0.134)	7.1433	219.498	
0	16	2	14 +	0	16	1	15 -		122017.674(0.020)	15.2251	90.829	
2	8	1	7 -	2	8	0	8 +		122221.560(1.009)	10.3031	278.511	
0	14	1	13	0	14	0	14		122268.129(0.033)	8.6027	66.557	
1	3	2	2 -	1	3	1	3 +		122582.086(0.022)	1.5178	148.780	
0	22	3	19 -	0	21	4	18 -		122818.840(0.117)	4.2073	173.865	
0	14	1	13 -	0	14	0	14 +		122820.065(0.034)	8.6721	66.500	
1	8	0	8	1	7	1	7		123251.121(0.026)	4.0353	160.920	
0	9	2	7	0	9	1	8		123308.267(0.009)	6.9978	31.290	
1	11	-1	10	1	10	2	9		123532.534(0.046)	1.1315	183.277	
2	14	1	13 -	2	14	1	14 +		123688.662(1.670)	0.7395	324.420	
0	15	1	14	0	15	-1	15		123849.291(0.053)	0.9076	76.301	
0	9	2	7 +	0	9	1	8 -		124151.087(0.010)	7.2076	31.242	
0	15	1	14 -	0	15	1	15 +		124241.474(0.055)	0.8922	76.252	
2	15	3	12 -	2	16	2	15 -		124520.398(4.431)	3.5156	356.014	
2	11	1	10	2	10	2	8		124569.036(4.135)	2.5495	314.685	
0	17	2	15	0	17	1	16		124653.153(0.025)	15.9963	101.924	
1	4	2	3 -	1	4	1	4 +		124690.991(0.022)	2.0781	151.282	
1	8	0	8 +	1	7	1	7 +		125201.734(0.022)	4.5672	162.528	
0	17	2	15 +	0	17	1	16 -		125268.693(0.025)	16.0595	101.893	
1	19	2	17 +	1	19	1	18 -		125282.698(0.285)	15.5497	268.919	
0	7	2	6	0	7	1	6		125451.655(0.010)	0.6647	20.099	
0	25	-3	23	0	25	2	23		125527.259(0.187)	0.0005	219.102	
0	20	-1	20	0	19	-2	18		125798.273(0.146)	0.0001	127.797	
1	16	2	14 +	1	15	3	13 +		125832.200(0.155)	3.1102	233.432	
0	8	2	6	0	8	1	7		125869.257(0.009)	5.7328	25.368	
1	20	2	19 -	1	19	3	16 -		125897.479(0.386)	2.4726	283.257	
0	11	0	11	0	10	1	9		125899.373(0.012)	0.0008	37.864	
1	5	-3	2	1	6	-2	4		125985.677(0.036)	0.5770	163.167	
0	22	2	21 -	0	21	3	18 -		126134.674(0.140)	2.6375	163.603	
1	9	-4	5	1	10	-3	7		126239.331(0.120)	1.1898	193.064	
1	15	5	10	1	16	4	13		126600.801(0.239)	2.3484	255.187	
0	8	2	6 +	0	8	1	7 -		126644.004(0.009)	6.1209	25.319	
0	22	-2	21	0	21	3	18		126829.418(0.142)	2.6141	163.582	
0	17	2	15	0	16	3	13		127179.098(0.041)	0.1048	101.840	
2	5	2	3	2	5	1	4		127210.941(3.444)	2.3494	285.977	
2	21	-2	20	2	20	-3	18		127248.864(3.668)	0.0477	408.124	
2	16	1	15	2	16	0	16		127299.107(4.409)	6.0372	359.690	
0	24	3	22 +	0	23	4	19 +		127332.270(0.140)	4.2623	203.000	
1	5	2	4 -	1	5	1	5 +		127336.342(0.022)	2.5883	154.407	
1	16	1	15 -	1	16	1	16 +		127444.205(0.196)	1.2973	229.715	
2	7	2	5	2	6	2	4		127486.073(0.300)	45.6644	293.843	
1	3	-1	2	1	2	0	2		127557.716(0.027)	1.0487	143.921	
1	12	0	12	1	11	-1	10		127577.691(0.070)	0.2670	191.654	
1	20	2	19	1	19	3	17		127624.595(0.216)	1.5292	283.039	
1	16	-2	14	1	15	3	13		127660.104(0.133)	0.5866	233.436	
1	5	1	5 +	1	4	0	4 +		127723.202(0.017)	3.2116	150.147	
1	5	1	5	1	4	0	4		127810.021(0.022)	2.3062	148.414	
2	9	2	7 +	2	10	1	10 +		127980.258(2.741)	1.9172	293.087	
1	10	1	10	1	9	-1	8		127999.801(0.055)	0.4563	173.625	
0	12	1	11 -	0	11	2	10 -		128051.634(0.015)	3.5305	48.646	
2	3	3	0	2	2	2	0		128351.155(3.051)	0.8601	283.067	
1	21	1	21	1	20	2	19		128427.211(0.409)	0.0237	287.323	
2	9	1	8 -	2	9	0	9 +		128443.479(1.075)	11.1736	284.308	
2	14	0	14	2	13	1	12		128566.178(4.819)	3.6863	334.986	
0	7	2	5	0	7	1	6		128627.382(0.009)	4.4352	20.099	

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c'	P'	ν_2''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	6	-2	5		0	6	1	5			128841.037(0.010)	0.9667	15.487	
1	14	-1	13		1	14	0	14			129017.495(0.100)	8.5971	208.646	
1	15	-1	14		1	15	1	15			129064.471(0.137)	1.0778	218.452	
0	12	1	11		0	11	-2	10			129070.211(0.014)	3.4958	48.655	
0	18	2	16		0	18	1	17			129103.225(0.033)	16.6654	113.611	
0	4	1	3		0	3	0	3			129274.728(0.008)	0.0150	3.921	
0	7	2	5	+	0	7	1	6	-		129276.508(0.009)	5.1116	20.049	
0	18	2	16	+	0	18	1	17	-		129667.264(0.032)	16.7370	113.582	
2	7	5	2	-	2	6	5	1	-		129878.697(0.231)	23.6053	327.053	
2	7	5	3	+	2	6	5	2	+		129878.697(0.231)	23.6053	327.053	
0	9	-1	9		0	8	1	7			129937.671(0.013)	0.0017	25.368	
2	7	-2	6		2	6	-2	5			129974.587(0.187)	45.3685	275.884	
1	5	3	3		1	6	2	5			130225.381(0.040)	0.5746	161.268	
1	6	2	5	-	1	6	1	6	+	130523.055(0.080)	130523.057(0.023)	3.0569	158.156	LIA86
0	7	1	7	+	0	6	1	6	+		130891.827(0.007)	43.3520	14.690	
0	7	-1	7		0	6	-1	6			130892.753(0.007)	43.3745	14.742	
2	16	4	13	-	2	17	3	14	-		130905.306(6.900)	3.2286	381.536	
1	7	1	7	+	1	6	1	6	+		131053.190(0.011)	43.8432	158.156	
0	17	2	15	+	0	16	3	14	+		131123.294(0.047)	3.6021	101.698	
0	24	-3	22		0	23	-4	20			131296.200(0.133)	0.0151	202.844	
0	6	2	4		0	6	1	5			131435.626(0.010)	3.2044	15.487	
1	13	-5	9		1	14	-4	10			131512.199(0.313)	1.8130	235.829	
2	17	1	16	-	2	16	2	15	-		131537.560(2.228)	6.4835	356.014	
0	5	-2	4		0	5	1	4			131737.944(0.011)	1.0811	11.531	
2	13	5	9	+	2	14	4	10	+		131792.658(7.984)	1.6990	366.155	
2	13	5	8	-	2	14	4	11	-		131808.892(7.985)	1.6990	366.155	
2	21	2	19		2	22	-1	22			131821.968(8.164)	0.0149	423.055	
2	7	1	7	+	2	6	1	6	+		131834.488(0.095)	41.7560	271.741	
0	6	2	4	+	0	6	1	5	-		131910.664(0.009)	4.1817	15.435	
2	7	3	4		2	6	3	3			131981.388(0.196)	38.4313	296.827	
0	14	5	10	+	0	15	4	11	+		132151.301(0.153)	2.0894	102.348	
0	14	5	9	-	0	15	4	12	-		132278.125(0.153)	2.0892	102.344	
0	7	-2	6		0	6	2	4			132301.024(0.012)	0.8067	19.871	
2	7	6	1	+	2	6	6	0	+		132381.155(0.222)	12.3916	338.985	
2	7	6	2	-	2	6	6	1	-		132381.155(0.222)	12.3916	338.985	
0	17	2	15		0	16	-3	14			132393.520(0.045)	3.4903	101.666	
2	17	1	16		2	18	-2	17			132527.684(6.769)	0.0531	370.366	
2	20	2	18		2	21	-1	21			132634.439(8.232)	0.0183	409.388	
1	20	2	18	+	1	20	1	19	-		132705.276(0.359)	15.7804	281.809	
0	23	2	22	-	0	22	3	19	-		132767.316(0.179)	2.5072	177.962	
1	7	1	7		1	6	1	6			132816.991(0.011)	42.8414	156.490	
1	3	3	1	+	1	4	2	2	+		132859.872(0.052)	0.1365	155.450	
0	7	-3	5		0	6	3	3			132941.840(0.023)	0.0013	27.671	
2	19	2	17		2	20	-1	20			132996.787(8.248)	0.0164	396.335	
1	3	3	0	-	1	4	2	3	-		133139.942(0.052)	0.1364	155.441	
0	21	-1	21		0	20	-2	19			133310.144(0.179)	3.3E-5	140.514	
2	7	4	4	-	2	6	4	3	-		133396.193(0.119)	30.4455	312.711	
2	7	4	3	+	2	6	4	2	+		133396.235(0.119)	30.4455	312.711	
0	23	-2	22		0	22	3	19			133401.323(0.180)	2.4849	177.942	
2	16	4	12	+	2	17	3	15	+		133475.580(6.944)	3.2200	381.452	
1	7	0	7	+	1	6	0	6	+		133572.185(0.012)	44.7715	157.168	
1	18	-2	16		1	17	-3	14			133609.808(0.148)	2.7336	256.161	
2	4	2	2		2	4	1	3			133639.387(3.360)	1.9444	282.765	
2	6	2	5	-	2	7	1	6	-		133697.266(2.327)	1.5468	277.247	
1	10	4	7		1	11	3	9			133735.549(0.079)	1.4582	198.521	
0	7	0	7		0	6	0	6			133830.494(0.007)	44.2296	13.519	
0	7	0	7	+	0	6	0	6	+		133854.105(0.007)	44.1998	13.453	
2	11	-2	10		2	10	-1	10			133941.065(1.916)	6.2745	299.584	
1	7	0	7		1	6	0	6		134075.390(0.080)	134075.374(0.010)	44.1887	155.458	LIA86
0	5	2	3		0	5	1	4			134117.271(0.010)	2.2345	11.531	
0	4	-2	3		0	4	1	3			134175.637(0.012)	0.9478	8.233	
1	7	2	6	-	1	7	1	7	+	134255.915(0.080)	134255.871(0.025)	3.4864	162.528	LIA86

TABLE II. (Continued.)

v_1'	J'	K_a'	$K_c' P'$	v_1''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	5	2	3 +	0	5	1	4 -		134418.690(0.009)	3.3248	11.478	
2	18	2	16	2	19	-1	19		134496.879(8.243)	0.0111	383.897	
0	9	4	5	0	10	3	7		134498.428(0.033)	1.1904	49.550	
0	6	1	5	0	5	-1	5		134580.657(0.009)	0.0082	10.998	
1	16	-2	14	1	16	-1	15		134638.800(0.115)	13.4028	233.203	
1	15	-2	13	1	15	-1	14		134649.996(0.092)	12.0846	222.757	
2	3	1	2	2	4	0	4		134654.901(4.562)	0.5867	275.705	
1	16	1	15 -	1	16	0	16 +		134661.968(0.175)	6.9820	229.475	
1	7	6	1	1	6	6	0		134666.725(0.015)	11.8067	213.189	
0	7	2	6 -	0	6	2	5 -		134694.451(0.006)	40.6558	19.794	
1	7	-4	3	1	6	-4	2		134753.081(0.012)	29.9733	181.863	
0	19	2	17	0	19	1	18		134759.367(0.045)	17.1678	125.919	
1	7	-3	4	1	6	-3	3		134765.291(0.011)	36.2920	171.221	
1	7	2	6 -	1	6	2	5 -		134786.004(0.010)	40.8476	162.510	
2	15	1	14	2	15	0	15		134799.467(4.537)	5.8973	349.180	
1	7	5	2	1	6	5	1		134831.023(0.012)	21.7215	195.772	
0	7	6	1 +	0	6	6	0 +		134873.278(0.008)	11.7547	69.949	
0	7	6	2 -	0	6	6	1 -		134873.278(0.008)	11.7547	69.949	
0	7	-6	1	0	6	-6	0		134877.334(0.008)	11.7529	69.944	
0	15	1	14	0	15	0	15		134879.881(0.046)	8.4775	75.933	
0	7	5	2 -	0	6	5	1 -		134881.723(0.007)	21.7001	52.746	
0	7	5	3 +	0	6	5	2 +		134881.723(0.007)	21.7001	52.746	
1	21	2	20 -	1	20	3	17 -		134884.341(0.491)	2.4000	296.598	
0	7	-2	6	0	6	-2	5		134895.612(0.006)	39.8595	19.784	
0	7	6	2	0	6	6	1		134896.729(0.008)	11.7500	69.878	
0	7	-5	2	0	6	-5	1		134900.255(0.007)	21.6923	52.692	
0	7	5	3	0	6	5	2	134905.470(0.080)	134905.424(0.007)	21.6928	52.670	LIA86
0	7	4	4 -	0	6	4	3 -	134908.590(0.080)	134908.457(0.006)	29.8332	38.651	LIA86
0	7	4	3 +	0	6	4	2 +	134908.590(0.080)	134908.659(0.006)	29.8332	38.651	LIA86
0	7	4	3	0	6	4	2	134922.260(0.080)	134922.223(0.006)	29.8304	38.604	LIA86
0	7	-4	4	0	6	-4	3	134933.400(0.080)	134933.382(0.006)	29.8218	38.574	LIA86
1	7	-5	3	1	6	-5	2	134941.360(0.080)	134941.386(0.013)	21.7400	195.197	LIA86
0	7	3	5 +	0	6	3	4 +	134963.330(0.080)	134963.243(0.006)	36.1527	27.668	LIA86
0	7	3	4	0	6	3	3	134973.050(0.080)	134973.072(0.006)	36.1594	27.671	LIA86
0	7	3	4 -	0	6	3	3 -	134987.260(0.080)	134987.216(0.006)	36.1527	27.669	LIA86
0	7	-3	5	0	6	-3	4	134996.000(0.080)	134996.072(0.006)	36.1449	27.603	LIA86
2	7	1	6	2	6	1	5		135012.991(0.107)	42.6016	289.835	
1	22	1	22	1	21	2	20		135019.134(0.495)	0.0131	300.937	
1	7	4	4	1	6	4	3	135074.800(0.080)	135074.836(0.011)	29.7394	181.092	LIA86
2	7	-3	5	2	6	-3	4	135083.150(0.080)	135083.226(0.054)	38.9152	282.695	LIA86
1	7	-2	5	1	6	-2	4	135083.150(0.080)	135083.311(0.010)	40.5997	163.167	LIA86
1	7	-6	2	1	6	-6	1		135177.814(0.017)	11.7274	211.524	
2	7	-6	1	2	6	-6	0		135233.032(0.095)	11.6151	337.432	
1	7	6	1 +	1	6	6	0 +	135248.090(0.080)	135248.059(0.014)	11.6885	211.379	LIA86
1	7	6	2 -	1	6	6	1 -	135248.090(0.080)	135248.059(0.014)	11.6885	211.379	LIA86
0	19	2	17 +	0	19	1	18 -		135272.862(0.044)	17.2477	125.894	
0	5	-1	5	0	4	0	4	135282.620(0.080)	135282.911(0.009)	3.5210	6.485	LIA86
2	7	-1	7	2	6	-1	6		135286.252(0.104)	38.9078	277.928	
1	7	3	5 +	1	6	3	4 +		135317.107(0.010)	36.1077	169.551	
1	7	3	5	1	6	3	4		135327.923(0.010)	35.9365	169.480	
1	7	3	4 -	1	6	3	3 -		135344.242(0.010)	36.1077	169.552	
0	24	-3	22	0	24	2	22		135352.079(0.161)	0.0010	202.708	
1	7	5	3 +	1	6	5	2 +		135371.590(0.014)	21.5545	193.861	
1	7	5	2 -	1	6	5	1 -		135371.591(0.014)	21.5545	193.861	
1	7	4	4 -	1	6	4	3 -		135396.170(0.012)	29.6761	179.926	
1	7	4	3 +	1	6	4	2 +		135396.406(0.012)	29.6761	179.926	
2	7	3	5 +	2	6	3	4 +		135433.912(0.046)	35.4304	296.192	
2	7	3	4 -	2	6	3	3 -		135442.085(0.046)	35.4304	296.192	
0	15	1	14 -	0	15	0	15 +		135455.823(0.047)	8.5483	75.878	
0	7	2	5	0	6	2	4	135476.680(0.080)	135476.751(0.006)	39.8674	19.871	LIA86
2	7	0	7 +	2	6	0	6 +		135577.128(0.092)	42.5647	268.827	
2	10	1	9 -	2	10	0	10 +		135585.546(1.155)	11.9367	290.738	
0	9	-4	6	0	10	-3	8		135603.071(0.034)	1.1911	49.484	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_2''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	4	-3	2	0	5	2	3		135632.980(0.022)	0.0062	16.005	
0	7	2	5 +	0	6	2	4 +	135685.390(0.080)	135685.480(0.006)	40.6572	19.835	LIA86
1	5	-1	4	1	4	1	4		135696.947(0.037)	0.2780	149.486	
1	7	2	6	1	6	2	5	135700.820(0.080)	135700.726(0.011)	40.4124	161.268	LIA86
0	5	1	5 +	0	4	0	4 +	135763.400(0.080)	135763.373(0.009)	3.5429	6.417	LIA86
1	14	-2	12	1	14	-1	13		135781.044(0.074)	10.7237	212.949	
0	9	4	6 -	0	10	3	7 -		135792.364(0.033)	1.2013	49.553	
0	21	-2	20	0	20	-3	18		135796.758(0.084)	0.0051	149.323	
1	7	2	5 +	1	6	2	4 +	135804.420(0.080)	135804.337(0.010)	40.8481	162.553	LIA86
2	7	2	6 -	2	6	2	5 -		135849.816(0.059)	39.3382	281.707	
0	12	0	12	0	11	1	10		135869.072(0.016)	0.0006	45.089	
1	17	-2	15	1	17	-1	16		135898.031(0.144)	14.5928	244.285	
2	7	-5	2	2	6	-5	1		136108.014(0.088)	21.1261	313.747	
0	9	4	5 +	0	10	3	8 +		136119.241(0.033)	1.2008	49.542	
0	3	-2	2	0	3	1	2		136148.532(0.012)	0.6494	5.595	
2	13	2	11	2	12	3	9		136188.878(3.319)	2.4084	332.587	
2	7	2	5 +	2	6	2	4 +		136448.064(0.062)	39.3390	281.732	
0	4	2	2	0	4	1	3		136505.061(0.011)	1.5715	8.233	
2	2	1	2 +	2	1	0	1 +		136506.966(0.798)	2.0318	255.873	
0	4	2	2 +	0	4	1	3 -		136686.973(0.009)	2.5272	8.179	
2	7	-4	4	2	6	-4	3		136742.104(0.090)	28.8634	295.132	
0	23	2	21 +	0	23	2	22 -		136747.574(0.204)	1.6560	182.391	
0	23	2	21	0	23	-2	22		136760.351(0.203)	1.6971	182.392	
2	22	-2	21	2	21	-3	19		136920.756(3.926)	0.0509	421.929	
1	14	-1	13	1	13	-2	11		136934.220(0.071)	1.8398	208.382	
1	8	4	5 -	1	9	3	6 -		136943.650(0.118)	0.9214	185.037	
0	7	3	4	0	6	-3	4		137027.304(0.023)	0.0013	27.603	
1	7	-1	6	1	6	-1	5		137045.308(0.010)	42.6419	157.921	
1	8	4	4 +	1	9	3	7 +		137142.041(0.118)	0.9211	185.030	
0	13	1	12	0	12	2	10		137235.402(0.016)	0.0170	56.900	
1	13	0	13	1	12	-1	11		137275.530(0.081)	0.1884	199.845	
0	2	-2	1	0	2	1	1		137605.181(0.014)	0.2793	3.617	
0	24	2	23 -	0	23	3	20 -		137694.389(0.226)	2.3544	192.996	
0	4	3	1	0	5	2	3		137722.799(0.016)	0.3384	16.005	
2	7	6	2	2	6	6	1		137735.705(0.132)	11.2672	324.379	
1	11	1	11	1	10	-1	9		137794.776(0.065)	0.4129	180.183	
1	13	-2	11	1	13	-1	12		137818.708(0.060)	9.4128	203.785	
1	7	1	6 -	1	6	1	5 -		137831.234(0.011)	43.7875	158.836	
0	4	-3	2	0	5	-2	4		138012.307(0.015)	0.3383	15.925	
0	7	2	5	0	6	-2	5		138071.340(0.011)	0.8061	19.784	
0	24	-2	23	0	23	3	20		138266.519(0.228)	2.3328	192.977	
0	7	1	6	0	6	1	5	138284.880(0.080)	138284.995(0.007)	43.3724	15.487	LIA86
0	7	1	6 -	0	6	1	5 -	138319.750(0.080)	138319.636(0.007)	43.3527	15.435	LIA86
2	17	2	15	2	18	-1	18		138356.640(8.249)	0.0051	372.073	
0	3	2	1	0	3	1	2		138478.679(0.011)	1.1083	5.595	
1	18	-2	16	1	18	-1	17		138513.778(0.182)	15.5989	255.997	
1	8	2	7 -	1	8	1	8 +	138538.866(0.080)	138538.783(0.029)	3.8769	167.521	LIA86
0	3	2	1 +	0	3	1	2 -		138618.850(0.009)	1.7640	5.539	
0	4	3	2 +	0	5	2	3 +		138916.127(0.013)	0.3456	15.962	
0	10	-1	10	0	9	1	8		139035.477(0.014)	0.0012	31.290	
2	7	5	3	2	6	5	2		139142.249(0.167)	20.6751	309.708	
2	3	2	1	2	3	1	2		139249.857(3.297)	1.4690	280.196	
0	16	1	15	0	16	-1	16		139270.194(0.070)	0.8756	86.218	
1	2	2	1	1	2	1	2		139384.832(0.044)	0.9503	144.996	
0	4	3	1 -	0	5	2	4 -		139545.537(0.013)	0.3450	15.941	
1	3	2	2	1	3	1	3		139603.711(0.043)	1.6591	146.924	
0	16	1	15 -	0	16	1	16 +		139719.282(0.072)	0.8584	86.169	
2	7	4	3	2	6	4	2		139830.523(0.247)	28.8865	301.289	
1	2	-2	0	1	3	1	3		139937.005(0.053)	0.0010	146.924	
0	2	2	0	0	2	1	1		139944.264(0.011)	0.7003	3.617	
0	4	3	1	0	5	-2	4		140102.126(0.021)	0.0062	15.925	
2	7	1	6 -	2	6	1	5 -		140134.683(0.105)	41.7711	272.573	
0	2	2	0 +	0	2	1	1 -		140136.240(0.010)	0.9838	3.559	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	4	2	3		1	4	1	4			140179.846(0.041)	2.2813	149.486	
2	8	2	6	+	2	9	1	9	+		140250.932(2.673)	1.7412	286.813	
0	9	0	9	+	0	8	1	8	+	140298.340(0.080)	140298.284(0.007)	5.9163	24.043	LIA86
0	22	-1	22	0	21	-2	20				140397.417(0.218)	1.7E-5	153.853	
2	0	0	0		2	1	-1	1			140475.844(2.196)	0.8452	264.426	
1	12	-2	10		1	12	-1	11		140509.765(0.080)	140509.511(0.050)	8.2226	195.266	LIA86
1	21	2	20		1	20	3	18			140635.730(0.268)	1.2408	296.434	
0	9	0	9	0	8	-1	8			140655.940(0.080)	140655.890(0.007)	5.8962	24.095	LIA86
1	2	2	1	1	1	1	-1	0			140780.595(0.055)	0.0005	144.949	
0	25	2	24	-	0	24	3	21	-		140854.466(0.284)	2.1866	208.705	
2	7	0	7		2	6	0	6			140904.759(0.218)	36.2893	283.060	
1	15	-1	14		1	15	0	15			141018.119(0.124)	8.5689	218.053	
2	15	1	14	-	2	15	1	15	+		141029.406(1.893)	0.6794	333.807	
0	2	-2	1	0	2	-1	2			141130.496(0.080)	141130.411(0.011)	0.6842	3.500	LIA86
2	11	0	11	+	2	10	1	10	+		141232.387(0.711)	8.3630	293.087	
1	21	2	19	+	1	21	1	20	-		141304.890(0.449)	15.8761	295.313	
1	5	2	4	1	5	1	5				141323.921(0.038)	2.8315	152.677	
0	25	-2	24	0	24	3	21				141365.539(0.286)	2.1660	208.687	
0	20	2	18	0	20	1	19				141667.296(0.061)	17.5033	138.844	
1	17	1	16	-	1	17	1	17	+		142026.489(0.249)	1.3195	240.256	
0	20	2	18	+	0	20	1	19	-		142132.228(0.060)	17.5909	138.822	
0	26	2	25	-	0	25	3	22	-		142212.119(0.352)	2.0115	225.090	
1	7	-3	4	1	8	2	7				142253.793(0.061)	0.0010	170.972	
2	14	1	13	2	14	0	14				142266.865(4.690)	5.5488	339.275	
1	22	2	21	-	1	21	3	18	-		142391.203(0.620)	2.2993	310.559	
2	13	3	11	+	2	14	2	12	+		142466.665(4.169)	3.0854	336.638	
1	19	-2	17	1	19	-1	18				142523.235(0.229)	16.3989	268.335	
0	26	-2	25	0	25	3	22				142664.588(0.354)	1.9920	225.072	
0	3	-2	2	0	3	-1	3			142693.941(0.080)	142693.974(0.011)	1.0489	5.376	LIA86
2	14	3	11	-	2	15	2	14	-		142965.067(4.378)	3.2578	345.693	
1	6	2	5	1	6	1	6				143253.795(0.036)	3.3018	156.490	
0	2	2	1	-	0	2	1	2	+	143313.332(0.080)	143313.400(0.010)	0.9515	3.452	LIA86
1	9	2	8	-	1	9	1	9	+	143374.560(0.080)	143374.470(0.035)	4.2283	173.134	LIA86
0	2	2	0	0	2	-1	2				143469.494(0.012)	0.2653	3.500	
0	25	3	23	+	0	24	4	20	+		143559.516(0.168)	4.3638	218.525	
1	11	-2	9	1	11	-1	10			143590.781(0.080)	143590.697(0.042)	7.1864	187.398	LIA86
1	9	0	9	1	8	1	8			143695.537(0.080)	143695.539(0.027)	5.1049	165.965	LIA86
2	11	1	10	-	2	11	0	11	+		143708.370(1.251)	12.5868	297.798	
2	2	2	0	2	2	1	1				143806.333(3.255)	0.8773	278.271	
1	16	-1	15	1	16	1	16				143942.827(0.170)	1.0197	228.402	
1	12	1	11	-	1	11	2	10	-		144099.240(0.047)	3.3551	191.379	
1	6	1	6	+	1	5	0	5	+	144352.783(0.080)	144352.735(0.018)	3.8310	153.341	LIA86
0	13	0	13	0	12	1	11				144662.123(0.022)	0.0004	52.961	
0	4	-2	3	0	4	-1	4			144896.238(0.080)	144896.255(0.011)	1.4244	7.876	LIA86
0	3	2	2	-	0	3	1	3	+	144918.695(0.080)	144918.809(0.009)	1.6511	5.326	LIA86
0	3	2	1	0	3	1	3				145024.121(0.011)	0.5978	5.376	
0	23	-3	21	0	23	2	21				145042.570(0.136)	0.0021	186.954	
2	5	-1	5	2	4	-2	3				145364.272(1.163)	1.8554	269.167	
2	16	2	14	2	17	-1	17				145421.176(8.250)	0.0010	360.865	
1	4	-3	1	1	5	-2	3				145481.569(0.037)	0.3463	159.306	
1	8	-4	4	1	9	-3	6				145616.583(0.121)	0.9443	186.638	
1	14	0	14	1	13	-1	12				145735.434(0.096)	0.1304	208.646	
1	12	-1	11	1	11	2	10				145744.910(0.049)	1.5435	190.405	
2	8	2	6	2	9	-3	7				145777.569(6.557)	0.0275	302.983	
1	13	5	9	+	1	14	4	10	+		146055.145(0.301)	1.7888	234.159	
1	6	1	6	1	5	0	5			146055.927(0.080)	146056.085(0.022)	3.0623	151.618	LIA86
1	7	2	6	1	7	1	7				146137.530(0.035)	3.6912	160.920	
1	12	1	12	1	11	-1	10				146288.232(0.076)	0.3674	187.398	
0	23	3	20	0	22	4	18				146432.119(0.137)	0.0405	188.093	
1	9	0	9	+	1	8	1	8	+	146467.880(0.080)	146467.780(0.023)	5.4224	167.521	LIA86
2	8	2	6	2	7	2	5				146540.161(0.287)	52.7286	298.095	
1	14	5	9	1	15	4	12				146745.996(0.237)	2.0936	244.869	
1	10	-2	8	1	10	-1	9			146814.599(0.080)	146814.540(0.036)	6.3030	180.183	LIA86

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'} P'$	v_2''	J''	$K_{a''}$	$K_{c''} P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	4	2	3 -	0	4	1	4 +	147065.758(0.080)	147065.733(0.009)	2.2672	7.824	LIA86
0	23	-1	23	0	22	-2	21		147092.707(0.263)	8.3E-6	167.813	
0	11	-1	11	0	10	1	9		147102.917(0.016)	0.0010	37.864	
0	4	2	2	0	4	-1	4		147225.679(0.011)	0.8358	7.876	
1	4	-1	3	1	3	0	3		147450.874(0.026)	1.1369	145.848	
2	16	1	15	2	17	-2	16		147712.901(6.730)	0.0452	359.009	
0	5	-2	4	0	5	-1	5	147726.660(0.080)	147726.637(0.011)	1.9207	10.998	LIA86
1	20	-2	18	1	20	-1	19		147934.473(0.289)	16.9947	281.295	
1	17	1	16 -	1	17	0	17 +		148011.194(0.227)	6.8207	240.056	
0	23	3	20 -	0	22	4	19 -		148251.947(0.146)	4.4597	188.051	
0	16	1	15	0	16	0	16		148415.680(0.062)	8.3332	85.913	
2	8	5	3 -	2	7	5	2 -		148598.444(0.242)	33.4850	331.385	
2	8	5	4 +	2	7	5	3 +		148598.444(0.242)	33.4850	331.385	
1	10	2	9 -	1	10	1	10 +	148763.883(0.080)	148763.723(0.041)	4.5404	179.367	LIA86
0	25	-3	23	0	24	-4	21		148793.545(0.157)	0.0059	218.326	
0	16	1	15 -	0	16	0	16 +		149021.405(0.064)	8.4047	85.858	
0	22	-2	21	0	21	-3	19		149063.605(0.103)	0.0026	162.841	
2	8	-2	7	2	7	-2	6		149474.467(0.181)	51.8653	280.219	
0	8	-1	8	0	7	-1	7	149505.238(0.080)	149505.132(0.007)	49.8105	19.108	LIA86
0	8	1	8 +	0	7	1	7 +	149507.547(0.080)	149507.468(0.007)	49.7819	19.056	LIA86
1	8	1	8 +	1	7	1	7 +	149686.988(0.080)	149686.903(0.012)	50.3609	162.528	LIA86
0	5	2	4 -	0	5	1	5 +	149759.094(0.080)	149759.076(0.009)	2.8340	10.946	LIA86
2	4	0	4	2	4	-1	4		149802.201(1.573)	3.3243	270.708	
1	4	3	2	1	5	2	4		149841.884(0.042)	0.3466	157.391	
0	21	2	19	0	21	1	20		149856.631(0.082)	17.6809	152.382	
1	9	-2	7	1	9	9	8	149960.693(0.080)	149960.748(0.031)	5.5484	173.625	LIA86
2	13	1	12	2	13	0	13		149963.528(4.816)	5.0767	329.984	
1	8	2	7	1	8	1	8		150091.129(0.035)	4.0149	165.965	
0	5	2	3	0	5	-1	5		150105.964(0.010)	0.9038	10.998	
0	21	2	19 +	0	21	1	20 -		150275.996(0.081)	17.7753	152.362	
1	17	-2	15	1	16	3	14		150600.782(0.157)	0.8699	243.795	
1	12	-5	8	1	13	-4	9		150604.598(0.313)	1.5618	226.830	
2	8	3	5	2	7	3	4		150611.367(0.195)	45.9971	301.229	
2	8	1	8 +	2	7	1	7 +		150614.270(0.108)	47.9464	276.139	
2	5	0	5	2	5	-1	5		150652.248(1.562)	4.1201	274.016	
0	8	-2	7	0	7	2	5		150850.974(0.010)	0.7324	24.390	
1	17	2	15 +	1	16	3	14 +		150872.781(0.199)	3.4312	243.759	
1	22	2	20 +	1	22	1	21 -		151080.627(0.557)	15.8552	309.428	
2	3	0	3	2	3	-1	3		151143.923(1.764)	2.5855	268.007	
0	6	-2	5	0	6	-1	6	151167.222(0.080)	151167.183(0.011)	2.5910	14.742	LIA86
2	4	3	1	2	3	2	1		151219.865(2.835)	1.0687	284.841	
1	8	1	8	1	7	1	7	151242.246(0.080)	151242.155(0.012)	49.2117	160.920	LIA86
2	8	6	2 +	2	7	6	1 +		151263.436(0.229)	23.3214	343.401	
2	8	6	3 -	2	7	6	2 -		151263.436(0.229)	23.3214	343.401	
0	5	1	4	0	4	0	4		151271.604(0.009)	0.0082	6.485	
0	6	-1	6	0	5	0	5	151590.000(0.080)	151589.984(0.009)	4.2012	9.686	LIA86
0	13	5	9 +	0	14	4	10 +		151759.219(0.152)	1.8360	92.689	
0	18	2	16	0	17	3	14		151763.925(0.052)	0.0564	112.855	
0	13	5	8 -	0	14	4	11 -		151832.752(0.152)	1.8359	92.687	
2	8	-7	1	2	7	-7	0		151969.605(0.187)	12.2212	367.956	
0	6	1	6 +	0	5	0	5 +	152048.580(0.080)	152048.629(0.010)	4.2221	9.618	LIA86
0	8	-3	6	0	7	3	4		152290.975(0.022)	0.0065	32.173	
0	14	0	14	0	13	1	12		152295.267(0.031)	0.0002	61.477	
1	8	0	8 +	1	7	0	7 +	152318.695(0.080)	152318.629(0.012)	51.1492	161.623	LIA86
2	12	1	11	2	11	2	9		152381.179(4.327)	3.2615	321.507	
2	8	4	5 -	2	7	4	4 -		152480.766(0.132)	38.7414	317.161	
2	8	4	4 +	2	7	4	3 +		152480.883(0.132)	38.7414	317.161	
1	22	3	20	1	22	-2	20		152530.231(0.367)	1.6629	314.496	
0	8	0	8	0	7	0	7	152607.625(0.080)	152607.615(0.007)	50.5269	17.984	LIA86
0	8	0	8 +	0	7	0	7 +	152635.070(0.080)	152635.202(0.007)	50.4928	17.918	LIA86
1	8	-2	6	1	8	-1	7		152841.993(0.028)	4.8865	167.727	
2	12	1	11 -	2	12	0	12 +		152870.830(1.364)	13.1210	305.485	
1	22	2	21	1	21	3	19		152892.194(0.325)	0.9381	310.445	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	8	0	8		1	7	0	7		152936.590(0.080)	152936.540(0.011)	50.4456	159.930	LIA86
0	6	2	5	-	0	6	1	6	+	153004.351(0.080)	153004.282(0.009)	3.3617	14.690	LIA86
1	15	0	15		1	14	-1	13			153006.022(0.117)	0.0889	218.053	
0	13	1	12	-	0	12	2	11	-		153134.466(0.019)	4.0811	56.328	
2	8	-1	8		2	7	-1	7			153277.744(0.125)	45.7295	282.441	
2	12	-2	11		2	11	-1	11			153403.901(1.928)	7.1568	306.506	
0	24	-1	24		0	23	-2	22			153429.423(0.313)	3.8E-6	182.392	
0	24	2	22		0	24	-2	23			153468.924(0.246)	1.6306	197.589	
0	24	2	22	+	0	24	2	23	-		153479.917(0.247)	1.5870	197.589	
2	7	2	5	+	2	8	1	8	+		153513.011(2.618)	1.5336	281.163	
1	13	1	13		1	12	-1	11			153581.609(0.089)	0.3235	195.266	
1	9	4	6		1	10	3	8			153637.572(0.078)	1.2080	191.417	
0	6	2	4	0	6	6	-1	6			153761.771(0.010)	0.7585	14.742	
2	6	0	6		2	6	-1	6			153847.687(1.577)	4.8582	277.928	
0	8	2	7	-	0	7	2	6	-	153872.754(0.080)	153872.687(0.006)	47.4283	24.287	LIA86
1	8	6	2		1	7	6	1		153912.183(0.080)	153912.180(0.016)	22.2494	217.681	LIA86
1	8	7	1		1	7	7	0			153923.082(0.020)	11.9265	237.667	
1	8	2	7	-	1	7	2	6	-	153970.078(0.080)	153969.814(0.011)	47.6569	167.006	LIA86
0	8	4	4		0	9	3	6			153982.392(0.033)	0.9522	43.112	
1	8	-4	4		1	7	-4	3		154018.453(0.080)	154018.366(0.012)	38.1442	186.357	LIA86
1	16	-1	15		1	16	0	16			154023.054(0.156)	8.4985	228.066	
0	8	-2	7		0	7	-2	6		154026.765(0.080)	154026.701(0.007)	46.7096	24.284	LIA86
1	8	-3	5		1	7	-3	4		154051.234(0.080)	154051.210(0.011)	43.6570	175.717	LIA86
0	13	1	12	0	12	-2	11	11		154081.440(0.040)	154081.379(0.017)	4.0576	56.338	UNPUB
1	8	5	3		1	7	5	2		154104.840(0.040)	154104.925(0.013)	30.8835	200.269	UNPUB
0	8	-7	1		0	7	-7	0		154131.375(0.080)	154131.329(0.011)	11.8686	94.810	LIA86
0	8	7	1	-	0	7	7	0	-	154145.469(0.080)	154145.581(0.011)	11.8671	94.764	LIA86
0	8	7	2	+	0	7	7	1	+	154145.469(0.080)	154145.581(0.011)	11.8671	94.764	LIA86
0	8	6	2	+	0	7	6	1	+	154147.144(0.080)	154147.056(0.008)	22.1526	74.448	LIA86
0	8	6	3	-	0	7	6	2	-	154147.144(0.080)	154147.056(0.008)	22.1526	74.448	LIA86
0	8	-6	2		0	7	-6	1		154151.988(0.080)	154151.926(0.008)	22.1492	74.443	LIA86
2	8	-3	6		2	7	-3	5			154156.891(0.067)	45.6412	287.201	
0	8	7	2		0	7	7	1			154160.404(0.011)	11.8639	94.731	
0	8	5	4	+	0	7	5	3	+	154161.562(0.080)	154161.472(0.007)	30.8542	57.246	LIA86
0	8	5	3	-	0	7	5	2	-	154161.562(0.080)	154161.475(0.007)	30.8542	57.246	LIA86
2	3	1	3	+	2	2	0	2	+		154162.454(0.787)	2.7177	257.171	
0	12	-1	12		0	11	1	10			154171.089(0.021)	0.0008	45.089	
0	8	6	3		0	7	6	2		154173.840(0.040)	154173.910(0.008)	22.1438	74.378	UNPUB
0	8	-5	3		0	7	-5	2		154182.906(0.080)	154182.858(0.007)	30.8432	57.192	LIA86
0	8	5	4		0	7	5	3		154188.543(0.080)	154188.518(0.007)	30.8439	57.170	LIA86
0	8	4	5	-	0	7	4	4	-	154201.246(0.080)	154200.919(0.006)	37.9687	43.151	*LIA86
0	8	4	4	+	0	7	4	3	+	154201.246(0.080)	154201.474(0.006)	37.9687	43.151	*LIA86
0	8	4	4		0	7	4	3		154216.730(0.080)	154216.688(0.006)	37.9653	43.104	LIA86
1	8	-5	4		1	7	-5	3		154224.187(0.080)	154224.143(0.014)	30.9105	199.698	LIA86
0	8	-4	5		0	7	-4	4		154229.801(0.080)	154229.775(0.006)	37.9545	43.075	LIA86
0	8	3	6	+	0	7	3	5	+	154274.719(0.080)	154274.689(0.006)	43.4950	32.170	LIA86
0	8	3	5		0	7	3	4		154296.566(0.080)	154296.491(0.006)	43.4982	32.173	LIA86
0	8	-3	6		0	7	-3	5		154322.422(0.080)	154322.207(0.006)	43.4811	32.106	*LIA86
0	8	3	5	-	0	7	3	4	-	154322.422(0.080)	154322.541(0.006)	43.4950	32.172	*LIA86
1	8	7	1	-	1	7	7	0	-	154337.324(0.080)	154337.319(0.018)	11.8385	236.808	LIA86
1	8	7	2	+	1	7	7	1	+	154337.324(0.080)	154337.319(0.018)	11.8385	236.808	LIA86
1	8	4	5		1	7	4	4		154392.750(0.080)	154392.819(0.011)	37.8491	185.598	LIA86
2	8	1	7		2	7	1	6			154424.381(0.126)	48.7512	294.338	
1	8	-2	6		1	7	-2	5		154482.965(0.080)	154482.950(0.011)	47.3458	167.673	LIA86
1	8	-6	3		1	7	-6	2		154490.200(0.040)	154490.247(0.019)	22.1019	216.033	UNPUB
0	22	-3	20		0	22	2	20			154513.072(0.114)	0.0041	171.843	
2	8	-6	2		2	7		1			154560.500(0.105)	21.8913	341.943	
1	8	6	2	+	1	7	6	1	+	154577.164(0.080)	154577.095(0.015)	22.0286	215.890	LIA86
1	8	6	3	-	1	7	6	2	-	154577.164(0.080)	154577.095(0.015)	22.0286	215.890	LIA86
2	2	0	2		2	2	-1	2			154602.026(2.431)	1.7515	265.916	
1	8	-7	2		1	7	-7	1			154667.686(0.025)	11.8025	235.690	
1	8	3	6	+	1	7	3	5	+	154676.703(0.080)	154676.588(0.010)	43.4454	174.065	LIA86
2	15	0	15		2	14	1	13			154691.507(4.664)	4.3759	344.020	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	11	2	10	-	1	11	1	11	+		154704.915(0.050)	4.8138	186.219	
1	8	3	6		1	7	3	5		154705.700(0.040)	154705.758(0.011)	43.2367	173.994	UNPUB
1	8	5	4	+	1	7	5	3	+		154722.697(0.015)	30.6488	198.377	
1	8	5	3	-	1	7	5	2	-	154722.680(0.040)	154722.700(0.015)	30.6488	198.377	UNPUB
2	8	0	8	+	2	7	0	7	+		154729.163(0.104)	48.6350	273.349	
1	8	3	5	-	1	7	3	4	-	154730.656(0.080)	154730.526(0.010)	43.4454	174.067	LIA86
1	21	-2	19		1	21	-1	20			154740.093(0.362)	17.4008	294.872	
1	8	4	5	-	1	7	4	4	-	154759.269(0.080)	154758.814(0.012)	37.7718	184.442	*LIA86
1	8	4	4	+	1	7	4	3	+	154759.269(0.080)	154759.462(0.012)	37.7718	184.442	*LIA86
2	8	3	6	+	2	7	3	5	+		154802.507(0.052)	42.6225	300.710	
2	8	3	5	-	2	7	3	4	-		154818.873(0.051)	42.6225	300.710	
0	3	-3	1	0	0	4	2	2			155013.395(0.023)	0.0005	12.787	
0	8	-4	5	0	9	-3	7	7		155088.150(0.080)	155088.126(0.035)	0.9529	43.046	LIA86
1	9	2	8		1	9	1	9		155167.040(0.080)	155167.130(0.039)	4.2996	171.623	LIA86
0	7	-2	6	0	7	-1	7	7		155170.047(0.080)	155170.042(0.011)	3.3536	19.108	LIA86
0	8	2	6	0	7	2	5	5		155179.644(0.080)	155179.571(0.007)	46.7179	24.390	LIA86
1	8	2	7		1	7	2	6		155195.871(0.080)	155195.754(0.012)	47.1504	163.795	LIA86
2	8	2	7	-	2	7	2	6	-		155216.995(0.066)	45.8896	286.239	
0	17	1	16	0	17	-1	17	17			155244.363(0.090)	0.8509	96.746	
1	7	-2	5		1	7	-1	6		155310.800(0.040)	155310.829(0.026)	4.2767	162.492	UNPUB
0	8	2	6	+	0	7	2	5	+	155342.105(0.080)	155342.095(0.006)	47.4318	24.361	LIA86
0	8	4	5	-	0	9	3	6	-	155363.440(0.040)	155363.531(0.033)	0.9558	43.113	UNPUB
2	15	4	12	-	2	16	3	13	-		155410.721(6.819)	2.9457	370.525	
1	8	2	6	+	1	7	2	5	+	155472.597(0.080)	155472.545(0.011)	47.6588	167.083	LIA86
0	8	4	4	+	0	9	3	7	+	155539.680(0.040)	155539.680(0.033)	0.9556	43.107	UNPUB
2	8	-5	3		2	7	-5	2			155573.034(0.097)	30.0394	318.287	
0	17	1	16	-	0	17	1	17	+		155754.260(0.093)	0.8317	96.697	
2	15	2	13		2	16	-1	16			155977.570(8.208)	3.4E-5	350.271	
2	12	5	8	+	2	13	4	9	+		156090.094(8.005)	1.4611	357.241	
2	12	5	7	-	2	13	4	10	-		156099.026(8.006)	1.4611	357.241	
2	8	2	6	+	2	7	2	5	+		156111.668(0.070)	45.8912	286.284	
1	7	4	4	-	1	8	3	5	-		156326.057(0.118)	0.6936	179.228	
0	8	3	5	0	7	-3	5	5			156327.722(0.022)	0.0064	32.106	
2	14	2	12		2	13	3	10			156331.365(3.533)	2.4993	340.738	
2	8	-4	5		2	7	-4	4			156339.050(0.101)	36.7382	299.694	
1	7	4	3	+	1	8	3	6	+		156425.664(0.118)	0.6935	179.225	
2	8	7	1	-	2	7	7	0	-		156432.832(0.219)	11.6766	356.743	
2	8	7	2	+	2	7	7	1	+		156432.832(0.219)	11.6766	356.743	
2	8	7	2		2	7	7	1			156540.070(0.135)	11.4488	350.296	
2	2	1	1		2	3	0	3			156556.413(4.063)	0.5183	273.048	
0	7	2	6	-	0	7	1	7	+	156806.930(0.080)	156806.907(0.009)	3.8531	19.056	LIA86
1	8	-1	7		1	7	-1	6		156952.199(0.080)	156951.787(0.010)	49.0466	162.492	*LIA86
0	14	1	13		0	13	2	11			156971.655(0.020)	0.0105	65.400	
1	18	1	17	-	1	18	1	18	+		157005.507(0.312)	1.3516	251.408	
0	3	3	0	0	4	2	2	2			157115.859(0.016)	0.1433	12.787	
1	6	-1	5		1	5	1	5			157195.128(0.035)	0.4002	152.677	
2	15	4	11	+	2	16	3	14	+		157206.766(6.851)	2.9404	370.466	
1	6	-2	4		1	6	-1	5		157272.760(0.040)	157272.826(0.025)	3.6805	157.921	UNPUB
0	3	-3	1	0	4	-2	3	3			157342.818(0.015)	0.1434	12.709	
2	5	2	1	-	2	6	1	5	-		157363.348(2.353)	1.1858	272.573	
1	8	1	7	-	1	7	1	6	-	157416.375(0.080)	157416.578(0.012)	50.2768	163.433	*LIA86
2	8	6	3		2	7	6	2			157457.055(0.146)	21.2376	328.973	
1	2	2	1	-	1	1	1	0	-	157550.960(0.040)	157550.758(0.024)	1.5796	145.685	UNPUB
0	18	2	16	+	0	17	3	15	+		157736.565(0.060)	3.9532	112.646	
0	8	1	7		0	7	1	6		157937.754(0.080)	157937.695(0.007)	49.8069	20.099	LIA86
0	8	1	7	-	0	7	1	6	-	157974.707(0.080)	157974.598(0.007)	49.7819	20.049	LIA86
2	12	1	11		2	12	0	12			158006.705(4.899)	4.5623	321.320	
1	15	-1	14		1	14	-2	12			158243.097(0.088)	1.6891	217.479	
0	7	2	5	0	7	-1	7	7			158345.770(0.009)	0.4845	19.108	
0	8	2	6	0	7	-2	6	6			158355.298(0.010)	0.7317	24.284	
0	3	3	1	+	0	4	2	2	+		158465.840(0.013)	0.1442	12.739	
1	2	2	0	+	1	1	1	1	+	158539.080(0.040)	158539.033(0.024)	1.5590	145.652	UNPUB
1	5	-2	3		1	5	-1	4			158701.754(0.026)	3.0696	154.013	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	3	3	0	-	0	4	2	3	-		158735.695(0.013)	0.1441	12.730	
0	15	0	15		0	14	1	13			158814.813(0.043)	0.0002	70.636	
0	18	2	16	0	0	17	-3	15			158915.277(0.058)	3.8897	112.617	
0	26	3	24	+	0	25	4	21	+		158976.773(0.201)	4.4328	234.710	
2	8	5	4		2	7	5	3			159051.812(0.184)	29.4269	314.349	
2	8	4	4		2	7	4	3			159075.311(0.238)	36.9693	305.953	
1	16	0	16		1	15	-1	14			159157.019(0.147)	0.0599	228.066	
1	19	-2	17		1	18	-3	15			159220.689(0.194)	2.6663	267.778	
1	21	3	19		1	21	-2	19			159244.759(0.308)	2.0891	300.033	
0	22	2	20		0	22	1	21			159336.849(0.109)	17.7177	166.529	
2	16	1	15	-	2	16	1	16	+		159386.687(2.128)	0.6261	343.814	
0	25	-1	25	0	0	24	-2	23			159441.161(0.370)	1.6E-6	197.589	
0	3	3	0	0	0	4	-2	3			159445.282(0.022)	0.0005	12.709	
2	7	0	7		2	7	-1	7			159466.195(1.640)	5.4668	282.441	
1	17	-1	16		1	17	1	17			159507.518(0.213)	0.9706	238.964	
1	4	-2	2	1	4	-1	3	3			159643.452(0.027)	2.4285	150.766	
0	8	-2	7	0	8	-1	8	8			159691.612(0.010)	4.0396	24.095	
0	22	2	20	+	0	22	1	21	-		159714.655(0.108)	17.8176	166.512	
1	14	1	14		1	13	-1	12			159773.367(0.106)	0.2824	203.785	
2	1	0	1	2	1	-1	1	1			160064.970(2.191)	1.2581	264.426	
2	8	1	7	2	7	1	6	6	-		160090.613(0.118)	47.9688	277.247	
1	3	2	2	1	2	-1	1	1			160150.908(0.052)	0.0050	146.239	
1	3	-2	1	1	3	-1	2	2			160197.682(0.028)	1.7473	148.176	
0	13	-1	13	0	12	1	11	11			160280.910(0.027)	0.0006	52.961	
2	18	1	17	-	2	17	2	16	-		160318.195(2.271)	7.1786	366.973	
1	2	-2	0	1	2	-1	1	1			160484.203(0.030)	0.9953	146.239	
0	7	1	6	0	6	-1	6	6			160611.140(0.010)	0.0044	14.742	
1	7	1	7	+	1	6	0	6	+	160689.072(0.080)	160689.080(0.019)	4.4956	157.168	LIA86
0	8	2	7	-	0	8	1	8	+		161172.125(0.010)	4.3090	24.043	
1	12	2	11	-	1	12	1	12	+		161193.551(0.062)	5.0494	193.688	
2	8	0	8	2	7	0	7	7			161267.913(0.226)	42.5711	287.760	
1	10	2	9	1	10	1	10	10		161365.480(0.080)	161365.558(0.045)	4.5744	177.895	LIA86
0	23	-2	22	0	22	-3	20	20			161731.712(0.127)	0.0013	176.997	
2	13	3	10	-	2	14	2	13	-		161753.008(4.337)	2.9871	336.012	
1	18	1	17	-	1	18	0	18	+		161949.033(0.288)	6.6672	251.243	
2	15	1	14	2	16	-2	15	15			161982.441(6.704)	0.0352	348.274	
1	23	2	21	+	1	23	1	22	-		162010.423(0.683)	15.7397	324.151	
0	10	0	10	+	0	9	1	9	+	162043.810(0.080)	162043.849(0.008)	6.9127	29.650	LIA86
0	10	0	10	0	9	-1	9	9		162371.090(0.080)	162371.057(0.007)	6.8900	29.702	LIA86
1	6	-3	3	1	7	2	6	6			162684.256(0.063)	0.0003	165.795	
0	17	1	16	0	17	0	17	17			162768.179(0.082)	8.1858	96.495	
1	22	-2	20	1	22	-1	21	21			162922.291(0.452)	17.6379	309.061	
2	13	1	12	-	2	13	0	13	+		163127.013(1.496)	13.5396	313.795	
0	17	1	16	-	0	17	0	17	+		163409.912(0.084)	8.2577	96.442	
0	21	-3	19	0	21	2	19	19			163682.771(0.094)	0.0080	157.381	
1	7	1	7	1	6	0	6	6		163760.634(0.080)	163760.794(0.023)	3.9236	155.458	LIA86
0	8	2	6	0	8	-1	8	8			164020.208(0.010)	0.2515	24.095	
1	17	0	17	1	16	-1	15	15			164278.811(0.186)	0.0399	238.683	
0	16	0	16	0	15	1	14	14			164294.903(0.059)	0.0001	80.432	
1	10	0	10	1	9	1	9	9		164386.269(0.080)	164386.198(0.028)	6.2421	171.623	LIA86
0	9	-2	8	0	9	-1	9	9		164727.070(0.080)	164727.086(0.011)	4.5890	29.702	LIA86
2	12	0	12	+	2	11	1	11	+		164845.953(0.705)	9.4666	299.986	
2	12	0	12	+	2	11	1	11	+		164845.953(0.705)	9.4666	299.986	
1	3	-3	0	1	4	-2	2	2			164903.630(0.038)	0.1443	156.091	
1	7	-4	3	1	8	-3	5	5			164949.299(0.122)	0.7081	180.855	
1	15	1	15	1	14	-1	13	13			164959.670(0.130)	0.2443	212.949	
0	26	-1	26	0	25	-2	24	24			165161.125(0.434)	5.8E-7	213.403	
1	20	3	18	1	20	-2	18	18			165276.279(0.260)	2.3335	286.230	
0	14	-1	14	0	13	1	12	12			165484.361(0.037)	0.0005	61.477	
1	12	5	8	+	1	13	4	9	+		165646.168(0.304)	1.5473	225.115	
1	12	5	7	-	1	13	4	10	-		165692.994(0.304)	1.5472	225.113	
2	9	2	7	2	8	2	6	6		165734.595(1.000)	165732.638(0.277)	59.5417	302.983	BEL93
0	26	-3	24	0	25	-4	22	22			165881.134(0.185)	0.0021	234.456	

TABLE II. (Continued.)

v_t'	J'	K_a'	K_c'	P'	v_t''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	9	2	8	-	0	9	1	9	+	166104.240(0.080)	166104.212(0.010)	4.7291	29.650	LIA86
2	12	3	10	+	2	13	2	11	+		166284.707(4.175)	2.7710	327.447	
2	11	1	10	+	2	11	0	11			166311.357(4.940)	4.0568	313.292	
2	9	-8	1		2	8	-8	0		166689.501(1.000)	166687.933(0.360)	13.0654	397.121	BEL93
1	13	5	8		1	14	4	11			166794.471(0.236)	1.8401	235.198	
2	9	5	5	+	2	8	5	4	+	167370.293(1.000)	167370.041(0.247)	42.6311	336.342	BEL93
2	9	5	4	-	2	8	5	3	-	167370.293(1.000)	167370.042(0.247)	42.6311	336.342	BEL93
2	8	0	8		2	8	-1	8			167456.364(1.766)	5.9209	287.553	
0	7	-1	7		0	6	0	6		167542.220(1.000)	167542.560(0.010)	4.9284	13.519	BEL93
1	10	0	10	+	1	9	1	9	+	167655.880(0.080)	167655.892(0.024)	6.3285	173.134	LIA86
2	6	2	4	+	2	7	1	7	+		167679.217(2.573)	1.2986	276.139	
1	5	-1	4		1	4	0	4			167852.763(0.027)	1.1259	148.414	
1	17	-1	16		1	17	0	17		167935.220(1.000)	167935.139(0.197)	8.4045	238.683	BEL93
0	7	1	7	+	0	6	0	6	+	167980.420(0.080)	167980.547(0.010)	4.9499	13.453	LIA86
1	13	-1	12		1	12	2	11			168068.396(0.053)	2.0631	198.178	
0	9	-1	9		0	8	-1	8		168088.650(0.080)	168088.622(0.007)	56.2191	24.095	LIA86
0	9	1	9	+	0	8	1	8	+	168093.480(0.080)	168093.451(0.007)	56.1848	24.043	LIA86
1	13	1	12	-	1	12	2	11	-	168192.500(1.000)	168192.986(0.059)	3.8886	199.064	BEL93
1	13	2	12	-	1	13	1	13	+	168220.660(1.000)	168221.918(0.077)	5.2485	201.773	BEL93
1	9	1	9	+	1	8	1	8	+	168290.040(0.080)	168289.957(0.012)	56.8570	167.521	LIA86
1	18	0	18		1	17	-1	16			168480.556(0.237)	0.0264	249.905	
1	11	2	10		1	11	1	11		168640.280(0.080)	168640.441(0.052)	4.8628	184.780	LIA86
0	9	-2	8		0	8	2	6			168795.500(0.008)	0.4269	29.566	
0	17	0	17		0	16	1	15			168833.971(0.080)	0.0001	90.863	
2	9	-2	8		2	8	-2	7		168939.077(1.000)	168938.014(0.176)	58.2344	285.205	BEL93
1	16	1	16		1	15	-1	14			169237.246(0.161)	0.2093	222.757	
2	9	3	6		2	8	3	5		169272.733(1.000)	169271.308(0.196)	53.2529	306.253	BEL93
1	3	3	1		1	4	2	3			169361.658(0.043)	0.1450	154.162	
2	9	1	9	+	2	8	1	8	+	169374.162(1.000)	169373.747(0.121)	54.1094	281.163	BEL93
1	9	1	9		1	8	1	8		169630.810(0.080)	169630.704(0.013)	55.5917	165.965	LIA86
1	11	-5	7		1	12	-4	8			169678.404(0.314)	1.3156	218.476	
2	14	2	12		2	15	-1	15			169692.405(8.114)	0.0012	340.292	
0	15	-1	15		0	14	1	13			169845.403(0.050)	0.0004	70.636	
0	23	2	21		0	23	1	22		170093.950(1.000)	170093.469(0.142)	17.6370	181.280	BEL93
2	9	6	3	+	2	8	6	2	+	170142.986(1.000)	170142.120(0.232)	33.2664	348.446	BEL93
2	9	6	4	-	2	8	6	3	-	170142.986(1.000)	170142.120(0.232)	33.2664	348.446	BEL93
0	10	-2	9		0	10	-1	10		170292.380(1.000)	170293.110(0.012)	5.0335	35.928	BEL93
0	23	2	21	+	0	23	1	22	-	170435.120(1.000)	170434.680(0.141)	17.7408	181.267	BEL93
1	24	3	21	-	1	24	2	22	+		170526.170(0.354)	20.3766	345.285	
1	23	3	20	-	1	23	2	21	+		170617.947(0.314)	19.1737	329.555	
1	19	3	17		1	19	-2	17			170662.973(0.219)	2.3397	273.089	
0	25	2	23		0	25	-2	24			170870.436(0.293)	1.5762	213.403	
0	25	2	23	+	0	25	2	24	-		170907.569(0.294)	1.5297	213.404	
0	9	2	7		0	9	-1	9			170914.052(0.011)	0.1192	29.702	
1	9	0	9	+	1	8	0	8	+	170953.030(0.080)	170952.949(0.013)	57.5243	166.704	LIA86
2	9	7	2		2	8	7	1		170982.983(1.000)	170984.347(0.203)	23.1759	373.025	BEL93
2	4	1	4	+	2	3	0	3	+		171234.008(0.772)	3.4185	259.116	
0	9	0	9		0	8	0	8		171265.500(0.080)	171265.472(0.007)	56.8186	23.074	LIA86
2	9	-1	9		2	8	-1	8			171294.532(0.142)	52.4763	287.553	
0	9	0	9	+	0	8	0	8	+	171296.970(0.080)	171296.993(0.007)	56.7801	23.009	LIA86
0	12	5	8	+	0	13	4	9	+		171300.238(0.151)	1.5852	83.677	
0	12	5	7	-	0	13	4	10	-		171341.134(0.151)	1.5851	83.676	
1	25	3	22	-	1	25	2	23	+		171422.880(0.406)	21.4896	361.654	
2	9	4	6	-	2	8	4	5	-	171576.417(1.000)	171575.999(0.144)	46.6228	322.247	BEL93
2	9	4	5	+	2	8	4	4	+	171576.417(1.000)	171576.282(0.144)	46.6228	322.247	BEL93
1	22	3	19	-	1	22	2	20	+		171598.666(0.280)	17.9124	314.468	
0	10	2	9	-	0	10	1	10	+	171605.950(0.080)	171606.001(0.012)	5.1134	35.876	LIA86
0	9	-3	7		0	8	3	5			171658.026(0.022)	0.0259	37.320	
0	18	1	17		0	18	-1	18			171665.812(0.114)	0.8324	107.885	
0	24	3	21		0	23	4	19			171665.958(0.168)	0.0172	202.961	
1	9	0	9		1	8	0	8		171686.570(0.080)	171686.574(0.011)	56.6884	165.031	LIA86
2	6	-1	6		2	5	-2	4			171724.772(1.325)	2.5252	272.200	
1	19	0	19		1	18	-1	17			171886.980(0.299)	0.0174	261.731	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	18	1	17	-	0	18	1	18	+		172240.257(0.118)	0.8111	107.837	
1	19	1	18	-	1	19	1	19	+		172282.785(0.383)	1.3921	263.172	
1	23	-2	21		1	23	-1	22			172451.686(0.560)	17.7300	323.860	
2	7	2	5		2	8	-3	6			172457.304(6.539)	0.0218	298.095	
0	20	-3	18		0	20	2	18			172475.548(0.076)	0.0153	143.570	
0	18	0	18		0	17	1	16			172549.937(0.105)	4.4E-5	101.924	
1	17	1	17		1	16	-1	15			172706.432(0.202)	0.1774	233.203	
0	9	2	8	-	0	8	2	7	-	173025.580(0.080)	173025.538(0.006)	54.0989	29.419	LIA86
0	9	-2	8		0	8	-2	7		173124.000(0.080)	173124.096(0.007)	53.6890	29.422	LIA86
1	9	2	8	-	1	8	2	7	-	173125.760(0.080)	173125.644(0.011)	54.3659	172.142	LIA86
1	9	6	3		1	8	6	2			173160.582(0.017)	31.7820	222.815	
1	9	7	2		1	8	7	1			173167.171(0.021)	22.6143	242.801	
2	9	-3	7		2	8	-3	6		173220.618(1.000)	173219.896(0.082)	52.2397	292.343	BEL93
1	9	-4	5		1	8	-4	4		173289.790(0.080)	173289.796(0.012)	45.9093	191.495	LIA86
1	9	8	1	+	1	8	8	0	+	173317.340(1.000)	173317.787(0.025)	11.9773	265.952	BEL93
1	9	8	2	-	1	8	8	1	-	173317.340(1.000)	173317.787(0.025)	11.9773	265.952	BEL93
1	9	-3	6		1	8	-3	5		173351.000(0.080)	173351.082(0.012)	50.7919	180.855	LIA86
1	21	3	18	-	1	21	2	19	+		173355.355(0.249)	16.6250	300.027	
1	9	5	4		1	8	5	3		173383.740(0.080)	173383.752(0.013)	39.4158	205.410	LIA86
0	9	-8	1		0	8	-8	0		173388.230(0.080)	173388.235(0.014)	11.9586	123.420	LIA86
1	26	3	23	-	1	26	2	24	+		173394.253(0.478)	22.4843	378.657	
0	9	-7	2		0	8	-7	1		173402.540(0.080)	173402.303(0.011)	22.5060	99.951	LIA86
0	7	4	3		0	8	3	5			173403.770(0.033)	0.7168	37.320	
1	9	8	1		1	8	8	0			173406.803(0.026)	11.9830	265.455	
0	9	8	2		0	8	8	1		173414.700(0.080)	173414.732(0.013)	11.9542	123.363	LIA86
0	9	7	2	-	0	8	7	1	-	173418.750(0.080)	173418.031(0.011)	22.5031	99.906	*LIA86
0	9	7	3	+	0	8	7	2	+	173418.750(0.080)	173418.031(0.011)	22.5031	99.906	*LIA86
0	9	8	1	+	0	8	8	0	+	173418.750(0.080)	173419.149(0.013)	11.9543	123.344	*LIA86
0	9	8	2	-	0	8	8	1	-	173418.750(0.080)	173419.149(0.013)	11.9543	123.344	*LIA86
0	9	6	3	+	0	8	6	2	+	173423.190(0.080)	173423.299(0.008)	31.6459	79.590	LIA86
0	9	6	4	-	0	8	6	3	-	173423.190(0.080)	173423.299(0.008)	31.6459	79.590	LIA86
0	9	-6	3		0	8	-6	2		173429.050(0.080)	173429.071(0.008)	31.6411	79.585	LIA86
0	9	7	3		0	8	7	2		173434.860(0.080)	173434.895(0.011)	22.4970	99.873	LIA86
1	8	4	5		1	9	3	7			173436.520(0.078)	0.9621	184.962	
0	16	-1	16		0	15	1	14			173440.389(0.067)	0.0004	80.432	
0	9	5	5	+	0	8	5	4	+	173445.560(0.080)	173445.593(0.007)	39.3798	62.388	LIA86
0	9	5	4	-	0	8	5	3	-	173445.560(0.080)	173445.603(0.007)	39.3798	62.388	LIA86
0	9	6	4		0	8	6	3		173453.470(0.080)	173453.572(0.008)	31.6335	79.520	LIA86
0	9	-5	4		0	8	-5	3		173469.920(0.080)	173469.910(0.007)	39.3660	62.335	LIA86
0	9	5	5		0	8	5	4		173475.980(0.080)	173475.963(0.007)	39.3671	62.313	LIA86
0	9	4	6	-	0	8	4	5	-	173501.150(0.080)	173501.179(0.006)	45.7019	48.295	LIA86
0	9	4	5	+	0	8	4	4	+	173502.640(0.080)	173502.510(0.006)	45.7019	48.295	LIA86
1	9	-5	5		1	8	-5	4		173509.200(0.080)	173509.203(0.015)	39.4512	204.842	LIA86
0	9	4	5		0	8	4	4		173519.040(0.080)	173519.109(0.006)	45.6980	48.248	LIA86
0	9	-4	6		0	8	-4	5		173534.180(0.080)	173534.246(0.006)	45.6850	48.219	LIA86
0	9	3	7	+	0	8	3	6	+	173594.970(0.080)	173594.927(0.006)	50.6108	37.316	LIA86
1	9	7	2	-	1	8	7	1	-	173636.250(0.080)	173636.367(0.019)	22.4490	241.956	LIA86
1	9	7	3	+	1	8	7	2	+	173636.250(0.080)	173636.367(0.019)	22.4490	241.956	LIA86
0	9	3	6		0	8	3	5		173638.120(0.080)	173638.066(0.006)	50.5962	37.320	LIA86
0	9	-3	7		0	8	-3	6		173663.480(0.080)	173663.541(0.006)	50.5767	37.253	LIA86
0	9	3	6	-	0	8	3	5	-	173682.410(0.080)	173682.411(0.006)	50.6108	37.319	LIA86
1	9	4	6		1	8	4	5		173719.530(0.080)	173719.430(0.012)	45.5578	190.748	LIA86
0	24	-2	23		0	23	-3	21			173795.204(0.154)	0.0006	191.792	
2	9	0	9	+	2	8	0	8	+		173797.781(0.115)	54.7014	278.511	
1	9	-6	4		1	8	-6	3			173803.244(0.020)	31.5745	221.186	
2	13	-2	12		2	12	-1	12			173833.025(1.929)	8.1150	314.036	
2	9	1	8		2	8	1	7		173877.779(1.000)	173876.520(0.148)	54.7776	299.489	BEL93
2	9	-6	3		2	8	-6	2			173891.340(0.115)	31.2753	347.099	
1	9	6	3	+	1	8	6	2	+	173909.190(0.080)	173909.217(0.016)	31.4698	221.046	LIA86
1	9	6	4	-	1	8	6	3	-	173909.190(0.080)	173909.217(0.016)	31.4698	221.046	LIA86
0	6	1	5		0	5	0	5			173916.130(0.010)	0.0049	9.686	
1	9	-2	7		1	8	-2	6		173935.050(0.080)	173935.021(0.011)	53.9776	177.876	LIA86
1	9	-7	3		1	8	-7	2		174002.390(1.000)	174001.598(0.026)	22.3817	240.849	BEL93

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	9	-8	2		1	8	-8	1			174035.993(0.029)	11.8768	264.051	
1	9	3	7	+	1	8	3	6	+	174043.070(0.080)	174043.085(0.010)	50.5589	179.225	LIA86
1	24	2	22	+	1	24	1	23	-		174049.732(0.828)	15.5538	339.479	
1	9	5	5	+	1	8	5	4	+	174078.460(0.080)	174078.596(0.016)	39.1202	203.538	LIA86
1	9	5	4	-	1	8	5	3	-	174078.460(0.080)	174078.607(0.016)	39.1202	203.538	LIA86
1	9	3	7		1	8	3	6		174102.290(0.080)	174101.798(0.011)	50.3127	179.155	*LIA86
1	9	4	6	-	1	8	4	5	-	174129.200(0.080)	174129.190(0.012)	45.4691	189.605	LIA86
1	9	4	5	+	1	8	4	4	+	174130.820(0.080)	174130.738(0.012)	45.4691	189.605	LIA86
1	9	3	6	-	1	8	3	5	-	174141.260(0.080)	174141.221(0.010)	50.5589	179.228	LIA86
2	9	3	7	+	2	8	3	6	+	174177.773(1.000)	174177.997(0.056)	49.5908	305.873	BEL93
2	9	3	6	-	2	8	3	5	-	174207.358(1.000)	174208.040(0.056)	49.5909	305.874	BEL93
1	18	-2	16		1	17	3	15			174236.280(0.187)	1.2250	254.805	
0	24	3	21	-	0	23	4	20	-		174519.827(0.180)	4.7200	202.884	
0	7	-4	4		0	8	-3	6			174521.892(0.035)	0.7174	37.253	
2	14	1	13	-	2	14	0	14	+		174522.901(1.646)	13.8467	322.724	
2	5	3	2		2	4	2	2			174555.871(2.680)	1.3453	287.223	
2	9	2	8	-	2	8	2	7	-	174568.161(1.000)	174568.073(0.073)	52.3417	291.416	BEL93
1	20	0	20		1	19	-1	18			174634.051(0.373)	0.0115	274.160	
2	10	1	9		2	10	0	10			174659.404(4.947)	3.5859	305.913	
1	9	2	8		1	8	2	7		174706.790(0.080)	174706.705(0.012)	53.7849	170.972	LIA86
0	7	4	4	-	0	8	3	5	-		174845.024(0.034)	0.7183	37.319	
0	7	4	3	+	0	8	3	6	+		174933.133(0.034)	0.7183	37.316	
0	9	2	7		0	8	2	6		174982.610(1.000)	174982.465(0.007)	53.6995	29.566	BEL93
2	9	-5	4		2	8	-5	3		175045.602(1.000)	175046.553(0.106)	38.3420	323.476	BEL93
0	9	2	7	+	0	8	2	6	+	175090.760(1.000)	175090.693(0.006)	54.1063	29.543	BEL93
1	9	2	7	+	1	8	2	6	+	175225.880(0.080)	175225.838(0.012)	54.3709	172.269	LIA86
2	9	8	2		2	8	8	1		175261.380(1.000)	175261.375(0.160)	11.6337	383.161	BEL93
1	18	3	16		1	18	-2	16			175413.453(0.186)	2.1266	260.617	
1	18	1	18		1	17	-1	16			175473.365(0.254)	0.1487	244.285	
0	19	0	19		0	18	1	17			175574.571(0.134)	2.8E-5	113.611	
2	14	1	13		2	15	-2	14			175592.341(6.664)	0.0248	338.163	
0	9	3	6		0	8	-3	6			175643.582(0.022)	0.0259	37.253	
1	18	-1	17		1	18	1	18			175645.621(0.264)	0.9301	250.138	
1	6	4	3	-	1	7	3	4	-		175660.413(0.119)	0.4771	174.067	
1	6	4	2	+	1	7	3	5	+		175705.845(0.119)	0.4771	174.065	
2	9	7	2	-	2	8	7	1	-	175742.838(1.000)	175741.785(0.226)	22.1809	361.961	BEL93
2	9	7	3	+	2	8	7	2	+	175742.838(1.000)	175741.785(0.226)	22.1809	361.961	BEL93
1	20	3	17	-	1	20	2	18	+	175762.770(1.000)	175762.443(0.219)	15.3423	286.236	BEL93
1	14	2	13	-	1	14	1	14	+	175779.380(1.000)	175778.876(0.096)	5.4134	210.473	BEL93
0	15	1	14		0	14	2	12			175790.981(0.024)	0.0066	74.569	
2	9	2	7	+	2	8	2	6	+	175841.839(1.000)	175840.433(0.079)	52.3447	291.491	BEL93
1	3	2	2	-	1	2	1	1	-	175931.780(1.000)	175933.474(0.023)	1.7552	147.001	BEL93
2	9	-4	6		2	8	-4	5			175962.656(0.111)	44.2262	304.909	
2	9	7	3		2	8	7	2		176135.138(1.000)	176135.376(0.146)	21.7114	355.518	BEL93
0	19	2	17		0	18	3	15			176275.063(0.065)	0.0309	124.535	
1	19	1	18	-	1	19	0	19	+		176354.724(0.358)	6.5265	263.036	
0	17	-1	17		0	16	1	15			176357.786(0.087)	0.0003	90.863	
0	11	-2	10		0	11	-1	11		176404.918(0.080)	176404.999(0.014)	5.4079	42.771	LIA86
1	18	2	16	+	1	17	3	15	+		176414.430(0.253)	3.7781	254.731	
1	8	1	8	+	1	7	0	7	+	176803.925(0.080)	176803.798(0.020)	5.2101	161.623	LIA86
1	9	-1	8		1	8	-1	7		176816.260(0.080)	176816.266(0.011)	55.4724	167.727	LIA86
1	21	0	21		1	20	-1	19			176863.695(0.460)	0.0075	287.195	
1	12	2	11		1	12	1	12		176900.530(0.080)	176900.695(0.061)	5.1790	192.278	LIA86
1	9	1	8	-	1	8	1	7	-	176956.150(0.080)	176956.196(0.012)	56.7361	168.684	LIA86
0	2	-2	1		0	1	1	0			176967.714(0.016)	0.1602	2.304	
2	9	6	4		2	8	6	3		177194.019(1.000)	177194.578(0.159)	30.3448	334.225	BEL93
2	1	1	0		2	2	0	2			177302.963(3.510)	0.3570	271.073	
2	9	8	1	+	2	8	8	0	+	177450.806(1.000)	177451.318(0.225)	11.4721	379.662	BEL93
2	9	8	2	-	2	8	8	1	-	177450.806(1.000)	177451.318(0.225)	11.4721	379.662	BEL93
0	9	1	8		0	8	1	7		177543.370(0.080)	177543.455(0.007)	56.2126	25.368	LIA86
0	9	1	8	-	0	8	1	7	-	177583.600(0.080)	177583.611(0.007)	56.1832	25.319	LIA86
1	19	1	19		1	18	-1	17			177650.774(0.316)	0.1233	255.997	
0	11	2	10	-	0	11	1	11	+	177678.441(0.080)	177678.353(0.014)	5.4618	42.720	LIA86

TABLE II. (Continued.)

v_t'	J'	K_a'	$K_c' P'$	v_t''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	18	1	17	0	18	0	18	177813.540(1.000)	177812.874(0.106)	8.0467	107.680	BEL93
1	2	2	1	1	1	1	1		178014.328(0.044)	1.6767	143.707	
0	20	0	20	0	19	1	18		178047.312(0.168)	1.8E-5	125.919	
2	9	4	5	2	8	4	4	178156.498(1.000)	178155.324(0.228)	44.7289	311.259	BEL93
0	14	1	13 -	0	13	2	12 -	178436.570(1.000)	178436.783(0.023)	4.6849	64.645	BEL93
0	18	1	17 -	0	18	0	18 +	178497.020(1.000)	178496.941(0.109)	8.1189	107.628	BEL93
2	15	2	13	2	14	3	11		178503.502(3.781)	2.4487	349.520	
1	16	-1	15	1	15	-2	13		178530.076(0.109)	1.4700	227.248	
1	19	3	16 -	1	19	2	17 +		178683.809(0.189)	14.0910	273.098	
0	18	-1	18	0	17	1	16		178696.999(0.113)	0.0003	101.924	
2	17	1	16 -	2	17	1	17 +		178714.731(2.373)	0.5785	354.440	
1	22	0	22	1	21	-1	20		178717.844(0.558)	0.0050	300.833	
0	2	-2	1	0	1	-1	1	178818.810(1.000)	178817.348(0.012)	1.5353	2.242	BEL93
1	3	2	1 +	1	2	1	2 +		178935.960(0.023)	1.6870	146.904	
2	9	5	5	2	8	5	4	178949.448(1.000)	178948.532(0.198)	37.6042	319.654	BEL93
0	25	3	22	0	25	2	23	178975.500(1.000)	178974.580(0.096)	22.7468	219.102	BEL93
0	10	2	8	0	10	-1	10		179132.392(0.012)	0.0558	35.928	
0	24	3	21	0	24	2	22	179240.430(1.000)	179240.195(0.085)	21.5022	202.708	BEL93
0	2	2	0	0	1	1	0		179306.797(0.012)	1.5442	2.304	
0	9	2	7	0	8	-2	7		179311.062(0.009)	0.4264	29.422	
0	14	1	13	0	13	-2	12	179317.790(1.000)	179318.143(0.022)	4.6676	64.654	BEL93
1	20	1	20	1	19	-1	18		179357.115(0.390)	0.1011	268.335	
0	25	3	22 -	0	25	2	23 +		179432.356(0.098)	22.7923	219.105	
1	4	2	3	1	3	-1	2		179461.601(0.050)	0.0224	148.176	
1	17	3	15	1	17	-2	15		179498.453(0.158)	1.7620	248.818	
2	14	4	11 -	2	15	3	12 -		179506.770(6.749)	2.6642	360.167	
0	2	2	1 -	0	1	1	0 -	179712.060(1.000)	179712.530(0.011)	1.7127	2.238	BEL93
0	24	3	21 -	0	24	2	22 +	179781.580(1.000)	179781.164(0.087)	21.5404	202.709	BEL93
0	26	3	23	0	26	2	24	179883.050(1.000)	179882.388(0.112)	23.8679	236.131	BEL93
2	13	1	12	2	12	2	10		179896.768(4.523)	4.3091	328.986	
1	7	-1	6	1	6	1	6		179934.222(0.034)	0.4889	156.490	
2	9	1	8 -	2	8	1	7 -	180020.282(1.000)	180019.700(0.130)	54.1411	282.588	BEL93
0	21	0	21	0	20	1	19		180108.815(0.207)	1.1E-5	138.844	
2	11	5	7 +	2	12	4	8 +		180188.992(8.030)	1.2300	348.966	
2	11	5	6 -	2	12	4	9 -		180193.678(8.030)	1.2300	348.965	
0	26	3	23 -	0	26	2	24 +		180258.503(0.113)	23.9215	236.136	
2	16	0	16	2	15	1	14		180274.074(4.482)	5.0895	353.677	
2	4	2	3 -	2	5	1	4 -		180443.878(2.377)	0.8430	268.565	
0	19	-1	19	0	18	1	17		180566.139(0.142)	0.0002	113.611	
0	23	3	20	0	23	2	21	180571.040(1.000)	180571.255(0.076)	20.1694	186.954	BEL93
1	21	1	21	1	20	-1	19		180714.044(0.476)	0.0820	281.295	
2	14	4	10 +	2	15	3	13 +		180733.136(6.770)	2.6611	360.127	
0	2	2	0 +	0	1	1	1 +	180795.170(1.000)	180795.609(0.011)	1.6933	2.202	BEL93
0	19	-3	17	0	19	2	17		180819.737(0.060)	0.0294	130.414	
2	12	3	9 -	2	13	2	12 -		180822.422(4.305)	2.7063	326.973	
1	8	1	8	1	7	0	7	180927.587(0.080)	180927.575(0.024)	4.8628	159.930	LIA86
0	2	2	0	0	1	-1	1		181156.431(0.014)	0.1549	2.242	
0	23	3	20 -	0	23	2	21 +	181195.460(1.000)	181195.243(0.078)	20.2018	186.952	BEL93
2	9	0	9	2	8	0	8	181480.749(1.000)	181480.717(0.227)	48.7864	293.139	BEL93
1	22	1	22	1	21	-1	20		181842.463(0.574)	0.0660	294.872	
0	22	0	22	0	21	1	20		181894.517(0.251)	7.2E-6	152.382	
1	18	3	15 -	1	18	2	16 +		181976.096(0.161)	12.8922	260.616	
0	20	-1	20	0	19	1	18		182078.669(0.176)	0.0002	125.919	
0	24	2	22	0	24	1	23		182085.316(0.181)	17.4661	196.635	
2	2	2	0	2	1	1	0		182282.513(3.257)	1.5744	276.987	
0	24	2	22 +	0	24	1	23 -	182396.670(1.000)	182395.703(0.180)	17.5725	196.625	BEL93
1	26	-3	23	1	26	-2	24		182529.963(0.410)	23.3175	378.836	
1	18	-1	17	1	18	0	18	182637.510(1.000)	182638.430(0.247)	8.3023	249.905	BEL93
2	5	2	3 +	2	6	1	6 +		182670.502(2.537)	1.0415	271.741	
2	9	1	8	2	9	0	9		182775.486(4.932)	3.1589	299.193	
0	22	3	19	0	22	2	20	182843.760(1.000)	182843.461(0.067)	18.7861	171.843	BEL93
1	16	3	14	1	16	-2	14		182872.399(0.135)	1.3319	237.695	
1	5	-3	2	1	6	2	5		182893.622(0.066)	0.0001	161.268	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	25	-3	22		1	25	-2	23			182896.768(0.366)	21.9382	361.787	
0	12	-2	11		0	12	-1	12		183070.738(0.050)	183070.690(0.017)	5.7314	50.231	MAE87
0	8	-1	8		0	7	0	7		183217.176(0.050)	183217.198(0.010)	5.7096	17.984	MAE87
1	24	-2	22		1	24	-1	23			183283.292(0.686)	17.7032	339.264	
0	21	-1	21		0	20	1	19			183349.063(0.215)	0.0001	138.844	
0	23	0	23		0	22	1	21			183528.706(0.300)	4.5E-6	166.529	
0	22	3	19	-	0	22	2	20 +		183548.650(1.000)	183548.373(0.070)	18.8150	171.839	BEL93
0	8	1	8	+	0	7	0	7 +		183633.925(0.050)	183633.910(0.010)	5.7325	17.918	MAE87
0	11	0	11	+	0	10	1	10 +		183662.715(0.050)	183662.717(0.008)	7.9656	35.876	MAE87
1	15	2	14	-	1	15	1	15 +		183850.260(1.000)	183849.776(0.121)	5.5464	219.787	BEL93
0	11	0	11		0	10	-1	10		183958.405(0.050)	183958.358(0.008)	7.9395	35.928	MAE87
1	6	-4	2		1	7	-3	4			184247.428(0.123)	0.4853	175.717	
0	12	2	11	-	0	12	1	12 +		184319.682(0.050)	184319.668(0.018)	5.7751	50.180	MAE87
0	22	-1	22		0	21	1	20			184487.810(0.258)	0.0001	152.382	
1	24	-3	21		1	24	-2	22			184655.190(0.344)	20.3335	345.378	
0	19	2	17	+	0	18	3	16 +		184899.240(1.000)	184899.529(0.076)	4.3338	124.238	BEL93
2	10	2	8		2	9	2	7		185059.567(1.000)	185059.351(0.271)	66.1280	308.512	BEL93
1	20	-2	18		1	19	-3	16			185107.409(0.244)	2.5302	280.055	
0	24	0	24		0	23	1	22			185119.611(0.354)	2.8E-6	181.280	
1	11	5	7	+	1	12	4	8 +			185186.720(0.308)	1.3085	216.718	
1	11	5	6	-	1	12	4	9 -			185211.651(0.308)	1.3085	216.717	
1	11	0	11		1	10	1	10		185216.826(0.080)	185216.794(0.028)	7.4260	177.895	LIA86
0	25	-2	24		0	24	-3	22			185253.655(0.187)	0.0003	207.223	
2	10	-8	2		2	9	-8	1		185431.637(1.000)	185430.828(0.359)	24.8424	402.681	BEL93
1	17	3	14	-	1	17	2	15 +			185493.153(0.134)	11.7603	248.792	
1	15	3	13		1	15	-2	13			185508.772(0.116)	0.9170	227.248	
0	23	-1	23		0	22	1	21			185596.339(0.307)	0.0001	166.529	
0	21	3	18		0	21	2	19		185916.920(1.000)	185916.959(0.059)	17.3887	157.381	BEL93
2	13	2	11		2	14	-1	14			185940.096(7.999)	0.0027	330.927	
0	19	2	17		0	18	-3	16		185996.690(1.000)	185997.473(0.074)	4.2960	124.210	BEL93
1	13	2	12		1	13	1	13		186009.580(1.000)	186011.187(0.073)	5.5248	200.389	BEL93
0	10	-2	9		0	9	2	7			186020.320(0.008)	0.2049	35.403	
2	10	5	6	+	2	9	5	5 +		186192.966(1.000)	186193.083(0.247)	51.2496	341.925	BEL93
2	10	5	5	-	2	9	5	4 -		186192.966(1.000)	186193.086(0.247)	51.2496	341.925	BEL93
2	3	-3	1		2	3	-2	2			186308.263(1.994)	1.1338	266.787	
0	10	-1	10		0	9	-1	9		186641.295(0.050)	186641.261(0.007)	62.6082	29.702	MAE87
0	10	1	10	+	0	9	1	9 +		186648.188(0.050)	186648.185(0.007)	62.5684	29.650	MAE87
0	21	3	18	-	0	21	2	19 +			186698.578(0.062)	17.4172	157.375	
1	12	5	7		1	13	4	10			186754.073(0.235)	1.5889	226.175	
0	25	0	25		0	24	1	23			186756.063(0.414)	1.8E-6	196.635	
0	24	-1	24		0	23	1	22		186762.690(1.000)	186762.541(0.360)	0.0001	181.280	BEL93
1	10	1	10	+	1	9	1	9 +		186861.187(0.080)	186861.139(0.013)	63.3394	173.134	LIA86
2	15	1	14	-	2	15	0	15 +			187093.041(1.817)	14.0495	332.271	
2	15	1	14	-	2	15	0	15 +			187093.041(1.817)	14.0495	332.271	
1	25	2	23	+	1	25	1	24 -			187131.710(0.992)	15.3213	355.412	
1	14	3	12		1	14	-2	12			187429.973(0.100)	0.5747	217.479	
0	8	1	7		0	7	-1	7			187656.083(0.012)	0.0026	19.108	
1	23	-3	20		1	23	-2	21		187728.640(1.000)	187728.089(0.327)	18.5394	329.612	BEL93
2	5	1	5	+	2	4	0	4 +		187742.310(1.000)	187743.452(0.754)	4.1405	261.709	BEL93
2	10	3	7		2	9	3	6		187971.224(1.000)	187970.958(0.199)	60.2823	311.899	BEL93
1	10	1	10		1	9	1	9		188012.197(0.080)	188012.225(0.013)	61.9728	171.623	LIA86
0	25	-1	25		0	24	1	23			188057.553(0.419)	0.0001	196.635	
2	10	1	10	+	2	9	1	9 +		188110.229(1.000)	188111.106(0.134)	60.2521	286.813	BEL93
2	10	-9	1		2	9	-9	0			188124.459(0.402)	12.7680	424.203	
2	10	-2	9		2	9	-2	8		188352.786(1.000)	188352.287(0.171)	64.5099	290.841	BEL93
0	19	1	18		0	19	-1	19		188423.830(1.000)	188423.208(0.142)	0.8194	119.634	BEL93
2	13	0	13	+	2	12	1	12 +			188451.806(0.701)	10.6279	307.509	
2	13	0	13	+	2	12	1	12 +			188451.806(0.701)	10.6279	307.509	
0	26	0	26		0	25	1	24			188506.020(0.479)	1.1E-6	212.590	
1	3	3	1		1	3	-2	1			188625.577(0.069)	6.2E-7	153.520	
0	18	-3	16		0	18	2	16			188648.016(0.047)	0.0568	117.918	
1	11	0	11	+	1	10	1	10 +		188697.793(0.080)	188697.756(0.026)	7.2784	179.367	LIA86
1	13	3	11		1	13	-2	11			188715.287(0.088)	0.3285	208.382	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b
1	10	-5	6		1	11	-4	7			188740.920(0.315)	1.0760	210.765	
0	11	2	9		0	11	-1	11			188771.313(0.014)	0.0266	42.771	
1	4	3	2		1	4	-2	2			188817.499(0.066)	1.0E-5	156.091	
0	26	2	24		0	26	-2	25			188866.957(0.346)	1.5326	229.831	
0	26	2	24	+	0	26	2	25	-		188932.170(0.347)	1.4830	229.834	
1	6	-1	5		1	5	0	5			188945.000(0.028)	1.0293	151.618	
2	13	1	12		2	14	-2	13			188997.168(6.606)	0.0158	328.682	
2	10	6	4	+	2	9	6	3	+	189021.386(1.000)	189020.116(0.231)	42.5127	354.122	BEL93
2	10	6	5	-	2	9	6	4	-	189021.386(1.000)	189020.116(0.231)	42.5127	354.122	BEL93
1	5	3	3		1	5	-2	3			189040.893(0.063)	0.0001	159.306	
0	19	1	18	-	0	19	1	19	+		189065.575(0.146)	0.7956	119.587	
1	16	3	13	-	1	16	2	14	+	189091.190(1.000)	189091.291(0.110)	10.7033	237.630	BEL93
1	6	3	4		1	6	-2	4	+		189283.400(0.060)	0.0004	163.167	
2	19	1	18	-	2	18	2	17	-		189341.092(2.328)	7.9270	378.569	
2	10	-1	10		2	9	-1	9		189369.121(1.000)	189369.499(0.154)	59.1441	293.267	BEL93
2	11	3	9	+	2	12	2	10	+		189416.855(4.183)	2.4589	318.925	
1	10	0	10	+	1	9	0	9	+	189478.078(0.080)	189478.069(0.013)	63.8993	172.407	LIA86
1	12	3	10		1	12	-2	10			189483.856(0.078)	0.1717	199.953	
1	7	3	5		1	7	-2	5			189528.012(0.059)	0.0016	167.673	
0	26	-1	26		0	25	1	24			189534.203(0.484)	4.2E-5	212.590	
0	20	3	17		0	20	2	18		189639.930(1.000)	189638.518(0.051)	16.0089	143.570	BEL93
1	8	3	6		1	8	-2	6			189750.820(0.059)	0.0051	172.826	
0	10	0	10		0	9	0	9		189803.782(0.050)	189803.789(0.007)	63.1062	28.787	MAE87
0	10	0	10	+	0	9	0	9	+	189838.992(0.050)	189839.016(0.007)	63.0629	28.723	MAE87
1	11	3	9		1	11	-2	9			189865.908(0.070)	0.0823	192.188	
1	9	3	7		1	9	-2	7			189917.597(0.060)	0.0143	178.627	
1	10	3	8		1	10	-2	8			189979.138(0.064)	0.0360	185.080	
2	10	-7	3		2	9	-7	2		190005.975(1.000)	190005.734(0.216)	33.2420	378.728	BEL93
0	13	-2	12		0	13	-1	13		190291.295(0.050)	190291.298(0.023)	6.0134	58.307	MAE87
1	10	0	10		1	9	0	9		190321.337(0.080)	190321.362(0.012)	62.9199	170.758	LIA86
2	8	1	7		2	8	0	8			190379.683(4.903)	2.7755	293.139	
0	20	3	17	-	0	20	2	18	+		190490.290(0.053)	16.0418	143.563	
1	14	-1	13		1	13	2	12		190532.130(1.000)	190532.175(0.058)	2.7106	206.594	BEL93
2	10	4	7	-	2	9	4	6	-		190682.877(0.155)	54.2119	327.970	
2	10	4	6	+	2	9	4	5	+		190683.494(0.155)	54.2119	327.970	
0	11	5	7	+	0	12	4	8	+		190785.313(0.150)	1.3381	75.311	
0	11	5	6	-	0	12	4	9	-		190806.981(0.150)	1.3381	75.310	
0	10	-3	8		0	9	3	6			191039.261(0.021)	0.0879	43.112	
1	20	1	19	-	1	20	0	20	+		191108.658(0.438)	6.4005	275.435	
0	13	2	12	-	0	13	1	13	+	191525.449(0.050)	191525.456(0.024)	6.0540	58.256	MAE87
1	22	-3	19		1	22	-2	20		191965.520(1.000)	191965.077(0.306)	16.6539	314.496	BEL93
0	10	2	9	-	0	9	2	8	-	192150.015(0.050)	192149.973(0.006)	60.6975	35.191	MAE87
0	10	-2	9		0	9	-2	8		192207.291(0.050)	192207.285(0.006)	60.5127	35.197	MAE87
1	19	-1	18		1	19	1	19			192239.041(0.326)	0.8970	261.923	
1	10	2	9	-	1	9	2	8	-	192250.361(0.080)	192250.392(0.012)	61.0048	177.917	LIA86
2	10	-3	8		2	9	-3	7		192284.106(1.000)	192283.882(0.097)	58.7652	298.121	BEL93
1	10	9	1	-	1	9	9	0	-	192314.650(1.000)	192314.058(0.032)	12.0906	298.472	BEL93
1	10	9	2	+	1	9	9	1	+	192314.650(1.000)	192314.058(0.032)	12.0906	298.472	BEL93
1	10	6	4		1	9	6	3			192412.302(0.017)	40.6770	228.591	
1	10	7	3		1	9	7	2			192412.636(0.021)	32.4344	248.577	
1	16	2	15	-	1	16	1	16	+		192416.546(0.152)	5.6503	229.715	
1	14	1	13	-	1	13	2	12	-		192452.298(0.076)	4.4742	207.384	
1	10	-4	6		1	9	-4	5		192568.310(0.080)	192568.276(0.013)	53.3896	197.275	LIA86
1	10	8	2	+	1	9	8	1	+	192582.630(1.000)	192581.981(0.025)	22.8261	271.733	BEL93
1	10	8	3	-	1	9	8	2	-	192582.630(1.000)	192581.981(0.025)	22.8261	271.733	BEL93
1	15	3	12	-	1	15	2	13	+	192635.890(1.000)	192634.977(0.089)	9.7226	227.131	BEL93
0	10	-9	1		0	9	-9	0		192651.513(0.080)	192651.590(0.016)	12.0298	155.770	LIA86
0	10	-8	2		0	9	-8	1		192656.298(0.080)	192656.326(0.013)	22.7911	129.204	LIA86
0	10	9	2		0	9	9	1		192660.790(0.080)	192660.871(0.016)	12.0279	155.761	LIA86
1	10	-3	7		1	9	-3	6		192667.138(0.080)	192667.047(0.012)	57.7642	186.638	LIA86
1	10	5	5		1	9	5	4			192668.117(0.013)	47.5068	211.193	
1	10	8	2		1	9	8	1			192671.788(0.027)	22.8371	271.239	
0	10	-7	3		0	9	-7	2		192674.853(0.080)	192674.881(0.010)	32.2812	105.735	LIA86

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	10	8	3	0	9	8	2			192685.790(0.080)	192685.803(0.013)	22.7828	129.148	LIA86
0	10	9	1	-	0	9	9	0	-	192688.037(0.080)	192687.959(0.016)	12.0247	155.697	LIA86
0	10	9	2	+	0	9	9	1	+	192688.037(0.080)	192687.959(0.016)	12.0247	155.697	LIA86
0	10	8	2	+	0	9	8	1	+	192690.185(0.080)	192690.364(0.013)	22.7830	129.128	LIA86
0	10	8	3	-	0	9	8	2	-	192690.185(0.080)	192690.364(0.013)	22.7830	129.128	LIA86
2	4	-3	2		2	4	-2	3			192690.903(1.941)	1.8062	269.167	
0	10	7	3	-	0	9	7	2	-	192692.138(0.080)	192691.981(0.010)	32.2772	105.690	LIA86
0	10	7	4	+	0	9	7	3	+	192692.138(0.080)	192691.981(0.010)	32.2772	105.690	LIA86
0	10	6	4	+	0	9	6	3	+	192702.331(0.050)	192702.316(0.008)	40.5058	85.375	MAE87
0	10	6	5	-	0	9	6	4	-	192702.331(0.050)	192702.316(0.008)	40.5058	85.375	MAE87
0	10	-6	4		0	9	-6	3		192709.033(0.080)	192709.087(0.008)	40.4997	85.370	LIA86
0	10	7	4		0	9	7	3		192711.083(0.080)	192710.946(0.010)	32.2686	105.658	LIA86
0	10	5	6	+	0	9	5	5	+	192734.657(0.050)	192734.631(0.007)	47.4656	68.173	MAE87
0	10	5	5	-	0	9	5	4	-	192734.657(0.050)	192734.658(0.007)	47.4656	68.173	MAE87
0	10	6	5		0	9	6	4		192736.004(0.050)	192736.022(0.008)	40.4901	85.306	MAE87
0	10	-5	5		0	9	-5	4		192761.964(0.050)	192761.963(0.007)	47.4491	68.121	MAE87
0	10	5	6		0	9	5	5		192768.294(0.050)	192768.301(0.007)	47.4504	68.099	MAE87
1	9	1	9	+	1	8	0	8	+	192775.408(0.080)	192775.126(0.021)	5.9772	166.704	LIA86
2	10	0	10	+	2	9	0	9	+	192775.408(0.080)	192775.548(0.127)	60.7634	284.308	*LIA86
0	6	4	2		0	7	3	4			192778.038(0.034)	0.4925	32.173	
1	10	-5	6		1	9	-5	5		192796.923(0.080)	192796.938(0.015)	47.5507	210.630	LIA86
0	10	4	7	-	0	9	4	6	-	192810.110(0.050)	192810.081(0.006)	53.1533	54.082	MAE87
0	10	4	6	+	0	9	4	5	+	192812.985(0.050)	192812.962(0.006)	53.1533	54.082	MAE87
0	10	4	6		0	9	4	5		192830.468(0.050)	192830.498(0.006)	53.1489	54.036	MAE87
0	10	-4	7		0	9	-4	6		192847.843(0.050)	192847.813(0.006)	53.1340	54.008	MAE87
0	10	3	8	+	0	9	3	7	+	192922.938(0.050)	192922.950(0.006)	57.5677	43.107	MAE87
1	10	7	3	-	1	9	7	2	-	192937.771(0.080)	192937.783(0.019)	32.1999	247.748	LIA86
1	10	7	4	+	1	9	7	3	+	192937.771(0.080)	192937.783(0.019)	32.1999	247.748	LIA86
0	10	3	7		0	9	3	6		193003.130(0.050)	193003.073(0.006)	57.4928	43.112	MAE87
0	10	-3	8		0	9	-3	7		193019.289(0.050)	193019.301(0.006)	57.4713	43.046	MAE87
1	10	9	1		1	9	9	0			193029.459(0.036)	12.0046	296.858	
1	10	4	7		1	9	4	6		193055.716(0.080)	193055.751(0.012)	52.9855	196.542	LIA86
0	10	3	7	-	0	9	3	6	-	193072.338(0.050)	193072.345(0.006)	57.5678	43.113	MAE87
1	10	-6	5		1	9	-6	4		193116.960(1.000)	193116.900(0.020)	40.4159	226.983	BEL93
1	7	4	4		1	8	3	6			193145.498(0.078)	0.7237	179.155	
2	10	-6	4		2	9	-6	3			193225.967(0.124)	40.0352	352.899	
1	10	-9	2		1	9	-9	1		193227.250(1.000)	193226.997(0.035)	11.9615	296.630	BEL93
1	10	6	4	+	1	9	6	3	+	193244.775(0.080)	193244.767(0.016)	40.2819	226.847	LIA86
1	10	6	5	-	1	9	6	4	-	193244.775(0.080)	193244.767(0.016)	40.2819	226.847	LIA86
2	10	9	2		2	9	9	1			193248.720(0.215)	11.9087	421.799	
2	10	9	2		2	9	9	1			193248.720(0.215)	11.9087	421.799	
1	10	-7	4		1	9	-7	3		193336.570(1.000)	193335.623(0.028)	32.1049	246.653	BEL93
2	10	1	9		2	9	1	8			193363.625(0.174)	60.6519	305.289	
0	19	1	18		0	19	0	19		193415.290(1.000)	193414.776(0.134)	7.9235	119.468	BEL93
1	10	3	8	+	1	9	3	7	+	193414.990(0.080)	193415.004(0.010)	57.5159	185.030	LIA86
1	10	5	6	+	1	9	5	5	+	193439.892(0.080)	193439.807(0.016)	47.1558	209.345	LIA86
1	10	5	5	-	1	9	5	4	-	193439.892(0.080)	193439.838(0.016)	47.1558	209.345	LIA86
1	10	-2	8		1	9	-2	7		193456.884(0.080)	193456.837(0.011)	60.5188	178.627	LIA86
1	10	4	7	-	1	9	4	6	-	193507.958(0.080)	193507.962(0.012)	52.8879	195.413	LIA86
1	10	1	6	+	1	9	1	5	+	193511.230(0.080)	193511.297(0.012)	52.8879	195.413	LIA86
1	10	3	8		1	9	3	7		193518.310(0.080)	193518.378(0.011)	57.2320	184.962	LIA86
2	10	3	8	+	2	9	3	7	+	193560.350(1.000)	193560.342(0.061)	56.4015	311.683	BEL93
1	10	3	7	-	1	9	3	6	-	193581.689(0.080)	193581.676(0.011)	57.5160	185.037	LIA86
0	16	1	15		0	15	2	13			193583.439(0.030)	0.0043	84.406	
2	10	3	7	-	2	9	3	6	-	193611.927(1.000)	193611.902(0.061)	56.4017	311.685	BEL93
0	19	3	16		0	19	2	17		193844.780(1.000)	193845.349(0.043)	14.6706	130.414	BEL93
1	4	2	3	-	1	3	1	2	-		193863.005(0.022)	1.9813	148.975	
2	10	2	9	-	2	9	2	8	-	193900.355(1.000)	193900.969(0.080)	58.7233	297.239	BEL93
0	6	-4	3		0	7	-3	5			193910.717(0.035)	0.4930	32.106	
0	19	1	18	-	0	19	0	19	+	194147.130(1.000)	194147.236(0.137)	7.9959	119.417	BEL93
1	10	2	9		1	9	2	8		194210.654(0.080)	194210.653(0.012)	60.3394	176.799	LIA86
0	6	4	3	-	0	7	3	4	-		194259.108(0.034)	0.4934	32.172	
0	6	4	2	+	0	7	3	5	+		194299.164(0.034)	0.4933	32.170	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	10	-5	5	2	9	-5	4	194531.263(1.000)	194529.698(0.114)	46.2174	329.315	BEL93
2	10	8	3	2	9	8	2		194750.921(0.171)	22.1734	389.007	
0	19	3	16 -	0	19	2	17 +	194758.460(1.000)	194758.092(0.045)	14.7158	130.406	BEL93
0	10	2	8	0	9	2	7	194859.611(0.050)	194859.602(0.007)	60.5288	35.403	LIA86
0	10	2	8 +	0	9	2	7 +	194928.220(0.080)	194928.165(0.006)	60.7118	35.383	LIA86
1	5	4	2 -	1	6	3	3 -		194964.178(0.120)	0.2790	169.552	
1	5	4	1 +	1	6	3	4 +		194982.403(0.120)	0.2790	169.551	
0	10	3	7	0	9	-3	7		194983.113(0.021)	0.0878	43.046	
2	10	7	3 -	2	9	7	2 -	194983.900(1.000)	194983.402(0.228)	31.8720	367.823	BEL93
2	10	7	4 +	2	9	7	3 +	194983.900(1.000)	194983.402(0.228)	31.8720	367.823	BEL93
1	10	2	8 +	1	9	2	7 +	195057.831(0.080)	195057.867(0.013)	61.0154	178.114	LIA86
2	14	-2	13	2	13	-1	13		195063.119(1.922)	9.1512	322.176	
0	25	2	23	0	25	1	24		195243.515(0.227)	17.2332	212.590	
1	25	-2	23	1	25	-1	24		195352.312(0.831)	17.5850	355.271	
0	3	-2	2	0	2	1	1		195433.944(0.015)	0.5804	3.617	
0	25	2	23 +	0	25	1	24 -	195531.260(1.000)	195529.423(0.225)	17.3410	212.583	BEL93
2	10	-4	7	2	9	-4	6	195617.857(1.000)	195617.612(0.121)	51.4444	310.778	BEL93
2	10	2	8 +	2	9	2	7 +	195639.583(1.000)	195639.355(0.090)	58.7286	297.356	BEL93
2	10	7	4	2	9	7	3	195738.675(1.000)	195740.306(0.156)	31.1441	361.393	BEL93
1	14	2	13	1	14	1	14	195802.960(1.000)	195803.009(0.089)	5.8877	209.114	BEL93
0	17	-3	15	0	17	2	15		195897.605(0.037)	0.1110	106.082	
1	14	3	11 -	1	14	2	12 +	196003.360(1.000)	196002.621(0.073)	8.8149	217.296	BEL93
0	26	-2	25	0	25	-3	23		196111.909(0.224)	0.0001	223.290	
1	10	1	9 -	1	9	1	8 -	196442.080(0.080)	196442.115(0.013)	63.1723	174.587	LIA86
2	7	-1	7	2	6	-2	5		196560.637(1.450)	3.2362	275.884	
1	10	-1	9	1	9	-1	8	196602.900(0.080)	196603.045(0.011)	61.9043	173.625	LIA86
2	10	9	1 -	2	9	9	0 -	196821.300(1.000)	196821.914(0.272)	11.5092	409.270	BEL93
2	10	9	2 +	2	9	9	1 +	196821.300(1.000)	196821.914(0.272)	11.5092	409.270	BEL93
2	10	6	5	2	9	6	4	196947.905(1.000)	196948.904(0.171)	38.8495	340.136	BEL93
2	3	2	1	2	2	1	1		196981.132(3.300)	1.6784	278.271	
2	10	8	2 +	2	9	8	1 +		197092.280(0.236)	21.8840	385.581	
2	10	8	3 -	2	9	8	2 -		197092.280(0.236)	21.8840	385.581	
0	10	1	9	0	9	1	8	197094.462(0.080)	197094.461(0.007)	62.5968	31.290	LIA86
2	10	4	6	2	9	4	5		197099.774(0.217)	52.2624	317.202	
1	21	-3	18	1	21	-2	19		197119.088(0.274)	14.8312	300.033	
0	10	1	9 -	0	9	1	8 -	197138.479(0.050)	197138.484(0.007)	62.5635	31.242	MAE87
2	7	1	6	2	7	0	7		197223.214(4.865)	2.4322	287.760	
0	7	1	6	0	6	0	6		197260.948(0.010)	0.0031	13.519	
0	25	3	22	0	24	4	20		197400.080(0.202)	0.0071	218.488	
1	3	2	2	1	2	1	2		197408.543(0.043)	1.8264	144.996	
1	17	-1	16	1	16	-2	14		197575.150(0.135)	1.2120	237.695	
1	9	1	9	1	8	0	8	197621.728(0.080)	197621.739(0.027)	5.8584	165.031	LIA86
1	3	-2	1	1	3	1	3		197738.066(0.052)	0.0090	146.924	
1	2	-2	0	1	2	1	2		197741.838(0.055)	0.0013	144.996	
0	3	2	1	0	2	1	1	197763.980(0.080)	197764.091(0.013)	1.3144	3.617	LIA86
0	3	2	2 -	0	2	1	1 -	197908.411(0.050)	197908.394(0.012)	1.9031	3.559	MAE87
1	19	-1	18	1	19	0	19	198002.240(1.000)	198002.835(0.309)	8.2030	261.731	BEL93
1	4	-2	2	1	4	1	4		198004.510(0.048)	0.0334	149.486	
2	6	3	3	2	5	2	3		198040.436(2.598)	1.6689	290.221	
0	14	-2	13	0	14	-1	14	198062.333(0.050)	198062.318(0.030)	6.2592	66.997	MAE87
0	18	3	15	0	18	2	16	198371.430(1.000)	198370.426(0.036)	13.3869	117.918	BEL93
2	4	2	2 +	2	5	1	5 +		198417.264(2.509)	0.7690	267.971	
1	19	-2	17	1	18	3	16		198485.819(0.221)	1.6626	266.469	
1	5	2	4	1	4	-1	3		198619.068(0.047)	0.0675	150.766	
0	9	-1	9	0	8	0	8	198698.169(0.050)	198698.205(0.010)	6.5493	23.074	MAE87
1	5	-2	3	1	5	1	5		198744.496(0.045)	0.0879	152.677	
2	10	5	6	2	9	5	5	198818.035(1.000)	198817.586(0.210)	45.3898	325.623	BEL93
0	3	-2	2	0	2	-1	2	198959.200(0.080)	198959.174(0.013)	1.2828	3.500	LIA86
2	18	1	17 -	2	18	1	18 +		198959.683(2.628)	0.5355	365.684	
1	13	3	10 -	1	13	2	11 +		199092.057(0.061)	7.9729	208.128	
0	9	1	9 +	0	8	0	8 +	199092.200(0.050)	199092.160(0.010)	6.5742	23.009	MAE87
2	6	2	4	2	7	-3	5		199128.123(6.543)	0.0157	293.843	
1	2	-2	0	1	1	-1	0	199137.920(1.000)	199137.601(0.030)	1.7607	144.949	BEL93

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	14	2	13	-	0	14	1	14	+	199287.989(0.050)	199288.006(0.031)	6.3002	66.947	MAE87
0	18	3	15	-	0	18	2	16	+	199332.250(1.000)	199331.842(0.038)	13.4586	117.908	BEL93
0	12	2	10		0	12	-1	12			199916.666(0.018)	0.0129	50.231	
2	10	1	9	-	2	9	1	8	-		199917.615(0.141)	60.2951	288.592	
1	4	2	2	+	1	3	1	3	+		199961.634(0.023)	1.8282	148.780	
2	11	3	8	-	2	12	2	11	-		200117.541(4.281)	2.4178	318.574	
1	6	-2	4		1	6	1	6			200161.741(0.044)	0.1820	156.490	
0	20	2	18		0	19	3	16		200543.290(1.000)	200545.408(0.079)	0.0173	136.880	BEL93
2	16	1	15	-	2	16	0	16	+		200857.472(2.006)	14.1585	342.431	
0	10	2	8		0	9	-2	8			201046.567(0.008)	0.2047	35.197	
1	26	2	24	+	1	26	1	25	-		201168.967(1.172)	15.0639	371.947	
0	3	2	1	+	0	2	1	2	+	201193.450(1.000)	201193.530(0.012)	1.8384	3.452	BEL93
0	3	2	1		0	2	-1	2		201288.300(1.000)	201289.321(0.014)	0.5512	3.500	BEL93
1	17	2	16	-	1	17	1	17	+		201457.907(0.190)	5.7282	240.256	
2	10	0	10		2	9	0	9		201479.145(1.000)	201479.707(0.220)	54.9673	299.193	BEL93
0	25	3	22	-	0	24	4	21	-		201620.690(0.220)	4.9922	218.365	
1	12	3	9	-	1	12	2	10	+	201825.240(0.080)	201825.273(0.053)	7.1874	199.626	LIA86
1	19	2	17	+	1	18	3	16	+	202408.690(1.000)	202408.702(0.315)	4.1558	266.346	BEL93
1	7	-2	5		1	7	1	7			202428.060(0.044)	0.3134	160.920	
0	11	-2	10		0	10	2	8			202434.508(0.009)	0.0947	41.903	
0	16	-3	14		0	16	2	14			202511.028(0.028)	0.2178	94.911	
2	12	1	11		2	13	-2	12			202536.732(6.537)	0.0091	319.834	
1	20	-3	17		1	20	-2	18		202859.850(1.000)	202860.667(0.235)	13.2222	286.230	BEL93
1	4	-3	1		1	5	2	4			202900.144(0.071)	8.1E-5	157.391	
2	3	2	2	-	2	4	1	3	-		202929.731(2.399)	0.5210	265.224	
0	17	3	14		0	17	2	15		203048.450(1.000)	203048.957(0.029)	12.1561	106.082	BEL93
2	6	1	5		2	6	0	6			203114.983(4.815)	2.1275	283.060	
2	16	2	14		2	15	3	12			203272.451(4.050)	2.2814	358.935	
1	21	1	20	-	1	21	1	21	+		203350.006(0.551)	1.4928	288.530	
1	5	-4	1		1	6	-3	3			203519.636(0.125)	0.2829	171.221	
2	6	1	6	+	2	5	0	5	+	203720.870(1.000)	203720.946(0.736)	4.8897	264.946	BEL93
0	15	1	14	-	0	14	2	13	-	203892.540(1.000)	203892.913(0.029)	5.3472	73.595	BEL93
2	13	4	9	+	2	14	3	12	+		204034.973(6.701)	2.3823	350.435	
0	17	3	14	-	0	17	2	15	+	204043.180(1.000)	204042.774(0.031)	12.2817	106.071	BEL93
2	10	5	6	+	2	11	4	7	+		204060.141(8.058)	1.0064	341.329	
2	10	5	5	-	2	11	4	8	-		204062.465(8.058)	1.0064	341.329	
1	8	-1	7		1	7	1	7			204069.018(0.037)	0.5268	160.920	
1	11	3	8	-	1	11	2	9	+	204151.900(0.080)	204151.779(0.048)	6.4480	191.791	LIA86
2	12	2	10		2	13	-1	13			204163.520(7.891)	0.0036	322.176	
2	11	-8	3		2	10	-8	2		204226.830(1.000)	204226.536(0.352)	35.6693	408.866	BEL93
2	11	2	9		2	10	2	8		204535.718(1.000)	204535.263(0.273)	72.4752	314.685	BEL93
1	10	5	6	+	1	11	4	7	+		204684.820(0.313)	1.0741	208.969	
1	10	5	5	-	1	11	4	8	-		204697.349(0.313)	1.0741	208.969	
0	15	1	14		0	14	-2	13		204713.080(1.000)	204711.411(0.027)	5.3333	73.604	BEL93
2	11	5	7	+	2	10	5	6	+	205066.074(1.000)	205066.021(0.244)	59.4723	348.136	BEL93
2	11	5	6	-	2	10	5	5	-	205066.074(1.000)	205066.028(0.244)	59.4723	348.136	BEL93
0	12	0	12	+	0	11	1	11	+	205084.712(0.050)	205084.756(0.009)	9.0670	42.720	MAE87
0	11	-1	11		0	10	-1	10		205161.941(0.050)	205161.902(0.007)	68.9827	35.928	MAE87
0	11	1	11	+	0	10	1	10	+	205170.705(0.050)	205170.693(0.007)	68.9372	35.876	MAE87
0	12	0	12		0	11	-1	11		205348.155(0.050)	205348.080(0.009)	9.0366	42.771	MAE87
1	11	1	11	+	1	10	1	10	+	205399.988(0.080)	205399.941(0.014)	69.8130	179.367	LIA86
0	20	1	19		0	20	-1	20			205404.159(0.174)	0.8108	131.993	
1	10	3	7	-	1	10	2	8	+	206050.030(0.080)	206050.001(0.045)	5.7443	184.621	LIA86
1	12	0	12		1	11	1	11		206077.617(0.080)	206077.762(0.029)	8.6427	184.780	LIA86
1	21	1	20	-	1	21	0	21	+	206097.560(1.000)	206098.002(0.526)	6.2894	288.439	BEL93
1	15	2	14		1	15	1	15		206097.560(1.000)	206098.119(0.111)	6.2443	218.452	BEL93
0	20	1	19	-	0	20	1	20	+	206114.930(1.000)	206117.229(0.178)	0.7844	131.946	BEL93
0	15	-2	14		0	15	-1	15		206373.860(1.000)	206374.424(0.040)	6.4723	76.301	BEL93
1	11	1	11		1	10	1	10		206398.076(0.080)	206398.020(0.014)	68.3457	177.895	LIA86
1	11	5	6		1	12	4	9			206632.118(0.234)	1.3415	217.798	
2	11	3	8		2	10	3	7		206715.269(1.000)	206716.145(0.202)	67.1405	318.169	BEL93
2	11	1	11	+	2	10	1	10	+	206823.189(1.000)	206824.774(0.147)	66.3786	293.087	BEL93
2	11	-9	2		2	10	-9	1		206891.658(1.000)	206891.526(0.399)	24.4108	430.478	BEL93

MICROWAVE SPECTRUM OF ACETALDEHYDE

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TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	11	-1	11		2	10	-1	10		207518.349(1.000)	207517.688(0.161)	65.7323	299.584	BEL93
1	9	3	6	-	1	9	2	7	+	207526.230(0.080)	207526.192(0.044)	5.0667	178.114	LIA86
0	15	2	14	-	0	15	1	15	+	207595.850(1.000)	207596.161(0.041)	6.5153	76.252	BEL93
2	11	-2	10		2	10	2	9		207703.800(1.000)	207704.124(0.169)	70.7125	297.123	BEL93
0	16	3	13	0	16	2	14			207724.400(1.000)	207725.450(0.023)	10.9565	94.911	BEL93
1	9	-5	5		1	10	-4	6			207798.742(0.317)	0.8449	203.699	
2	11	6	5	+	2	10	6	4	+		207900.572(0.228)	51.2424	360.427	
2	11	6	6	-	2	10	6	5	-		207900.572(0.228)	51.2424	360.427	
1	11	0	11	+	1	10	0	10	+	207903.066(0.080)	207903.004(0.014)	70.2772	178.727	LIA86
2	5	1	4		2	5	0	5			207939.793(4.733)	1.8708	279.041	
0	11	0	11	0	10	0	10			208228.538(0.050)	208228.562(0.007)	69.3915	35.118	MAE87
0	11	0	11	+	0	10	0	10	+	208267.034(0.050)	208267.053(0.007)	69.3432	35.055	MAE87
0	15	-3	13	0	15	2	13				208437.969(0.022)	0.4212	84.406	
2	11	10	2		2	10	10	1			208477.395(0.408)	12.5351	463.596	
2	11	10	2		2	10	10	1			208477.395(0.408)	12.5351	463.596	
1	26	-2	24		1	26	-1	25			208571.428(0.994)	17.4033	371.879	
1	8	3	5	-	1	8	2	6	+	208609.530(1.000)	208610.809(0.044)	4.4061	172.269	BEL93
1	10	1	10	+	1	9	0	9	+	208683.310(0.080)	208683.316(0.021)	6.7962	172.407	LIA86
0	16	3	13	-	0	16	2	14	+	208730.580(1.000)	208730.072(0.024)	11.1891	94.899	BEL93
1	19	-3	16		1	19	-2	17			208827.799(0.191)	11.9091	273.089	
1	11	0	11		1	10	0	10		208842.851(0.080)	208842.822(0.013)	69.1438	177.107	LIA86
2	11	-7	4		2	10	-7	3		209034.758(1.000)	209034.534(0.226)	42.6644	385.066	BEL93
1	20	-1	19		1	20	1	20			209166.854(0.398)	0.8703	274.318	
1	7	3	4	-	1	7	2	5	+	209352.960(1.000)	209352.828(0.045)	3.7540	167.083	BEL93
0	20	1	19	0	20	0	20			209436.410(1.000)	209435.516(0.166)	7.8196	131.858	BEL93
0	26	2	24	0	26	1	25				209472.573(0.278)	16.9656	229.144	
1	12	0	12	+	1	11	1	11	+	209539.644(0.080)	209539.587(0.028)	8.2631	186.219	LIA86
0	26	2	24	+	0	26	1	25	-	209742.830(1.000)	209740.585(0.277)	17.0738	229.140	BEL93
2	11	4	8	-	2	10	4	7	-	209803.217(1.000)	209802.249(0.166)	61.5862	334.331	BEL93
2	11	4	7	+	2	10	4	6	+	209803.217(1.000)	209803.494(0.166)	61.5862	334.331	BEL93
1	6	3	3	-	1	6	2	4	+		209812.922(0.047)	3.1009	162.553	
1	9	-2	7		1	9	1	9			209973.172(0.054)	0.6109	171.623	
1	5	3	2	-	1	5	2	3	+	210055.110(1.000)	210056.603(0.049)	2.4344	158.677	BEL93
1	3	3	0	-	1	3	2	1	+	210146.960(1.000)	210146.148(0.053)	0.9601	152.872	BEL93
1	4	3	1	-	1	4	2	2	+	210146.960(1.000)	210148.194(0.051)	1.7345	155.450	BEL93
0	20	1	19	-	0	20	0	20	+	210222.270(1.000)	210221.795(0.169)	7.8925	131.809	BEL93
0	10	5	6	+	0	11	4	7	+	210222.270(1.000)	210223.681(0.149)	1.0965	67.590	BEL93
0	10	5	5	-	0	11	4	8	-		210234.520(0.149)	1.0965	67.590	
1	3	3	1	+	1	3	2	2	-		210239.421(0.053)	0.9598	152.869	
0	17	1	16	0	16	2	14				210251.395(0.036)	0.0028	94.911	
0	11	-3	9	0	10	3	7				210420.931(0.020)	0.2516	49.550	
1	4	3	2	+	1	4	2	3	-	210428.030(1.000)	210426.519(0.051)	1.7329	155.441	BEL93
2	4	2	2		2	3	1	2			210645.912(3.364)	1.8115	280.196	
1	5	3	3	+	1	5	2	4	-	210700.880(1.000)	210701.220(0.049)	2.4292	158.655	BEL93
1	7	-1	6		1	6	0	6			210878.025(0.032)	0.8778	155.458	
1	18	2	17	-	1	18	1	18	+	210949.620(1.000)	210949.726(0.236)	5.7833	251.408	BEL93
1	21	-2	19		1	20	-3	17			210968.105(0.294)	2.3102	292.996	
1	6	3	4	+	1	6	2	5	-		211089.328(0.047)	3.0875	162.510	
0	11	2	10	-	0	10	2	9	-	211243.095(0.080)	211243.045(0.007)	67.2432	41.600	LIA86
0	11	-2	10	0	10	-2	9			211273.759(0.080)	211273.790(0.007)	67.1717	41.608	LIA86
1	5	2	4	-	1	4	1	3	-		211339.509(0.021)	2.2338	151.605	
1	11	2	10	-	1	10	2	9	-	211341.160(0.080)	211341.133(0.013)	67.5926	184.330	LIA86
2	11	-3	9		2	10	-3	8		211360.634(1.000)	211360.604(0.113)	65.2451	304.535	BEL93
1	11	10	1	+	1	10	10	0	+	211526.620(1.000)	211525.267(0.040)	12.1579	334.192	BEL93
1	11	10	2	-	1	10	10	1	-	211526.620(1.000)	211525.267(0.040)	12.1579	334.192	BEL93
1	11	9	2	-	1	10	9	1	-	211552.380(1.000)	211551.787(0.031)	23.1377	304.887	BEL93
1	11	9	3	+	1	10	9	2	+	211552.380(1.000)	211551.787(0.031)	23.1377	304.887	BEL93
1	7	3	5	+	1	7	2	6	-		211620.430(0.045)	3.7249	167.006	
2	11	0	11	+	2	10	0	10	+		211656.852(0.140)	66.8207	290.738	
1	11	7	4		1	10	7	3		211659.590(1.000)	211659.670(0.022)	41.6228	254.996	BEL93
2	4	1	3		2	4	0	4			211661.427(4.554)	1.7054	275.705	
1	11	8	3	+	1	10	8	2	+		211848.202(0.025)	32.8539	278.157	
1	11	8	4	-	1	10	8	3	-		211848.202(0.025)	32.8539	278.157	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	11	-4	7		1	10	-4	6		211854.736(0.080)	211854.761(0.013)	60.6618	203.699	LIA86
0	11	10	2		0	10	10	1		211903.662(0.080)	211903.611(0.018)	12.0890	191.904	LIA86
0	11	-9	2		0	10	-9	1		211917.529(0.080)	211917.562(0.015)	23.0229	162.196	LIA86
0	11	-10	1		0	10	-10	0		211921.044(0.080)	211921.137(0.018)	12.0874	191.861	LIA86
0	11	-8	3		0	10	-8	2		211925.244(0.080)	211925.274(0.012)	32.8044	135.630	LIA86
2	10	3	8	+	2	11	2	9	+		211925.417(4.192)	2.1490	311.071	
0	11	9	3		0	10	9	2		211927.978(0.080)	211928.053(0.014)	23.0193	162.187	LIA86
1	11	8	3		1	10	8	2			211936.186(0.027)	32.8698	277.666	
0	11	10	1	+	0	10	10	0	+	211945.947(0.080)	211945.959(0.018)	12.0838	191.825	LIA86
0	11	10	2	-	0	10	10	1	-	211945.947(0.080)	211945.959(0.018)	12.0838	191.825	LIA86
0	11	-7	4		0	10	-7	3		211949.218(0.080)	211949.238(0.010)	41.4294	112.162	LIA86
0	11	9	2	-	0	10	9	1	-	211957.568	211957.386(0.014)	23.0134	162.124	
0	11	9	3	+	0	10	9	2	+	211957.568	211957.386(0.014)	23.0134	162.124	
0	11	8	4		0	10	8	3			211957.737(0.012)	32.7927	135.575	
1	11	5	6		1	10	5	5			211958.634(0.013)	55.2765	217.620	
0	11	8	3	+	0	10	8	2	+	211962.304(0.080)	211962.340(0.012)	32.7930	135.556	LIA86
0	11	8	4	-	0	10	8	3	-	211962.304(0.080)	211962.340(0.012)	32.7930	135.556	LIA86
0	11	7	4	-	0	10	7	3	-	211967.626(0.080)	211967.596(0.010)	41.4243	112.118	LIA86
0	11	7	5	+	0	10	7	4	+	211967.626(0.080)	211967.596(0.010)	41.4243	112.118	LIA86
2	14	0	14	+	2	13	1	13	+		211977.582(0.698)	11.8449	315.653	
0	11	6	6	-	0	10	6	5	-	211984.433(0.050)	211984.414(0.008)	48.9049	91.803	MAE87
0	11	6	5	+	0	10	6	4	+	211984.433(0.050)	211984.415(0.008)	48.9049	91.803	MAE87
0	11	7	5		0	10	7	4		211988.622(0.080)	211988.723(0.010)	41.4133	112.086	LIA86
0	11	-6	5		0	10	-6	4		211992.300(0.050)	211992.288(0.008)	48.8976	91.798	MAE87
1	11	-3	8		1	10	-3	7		212001.464(0.080)	212001.516(0.012)	64.6169	193.064	LIA86
0	11	6	6		0	10	6	5		212021.551(0.050)	212021.565(0.008)	48.8861	91.735	MAE87
0	11	5	7	+	0	10	5	6	+	212029.196(0.050)	212029.131(0.007)	55.2311	74.602	MAE87
0	11	5	6	-	0	10	5	5	-	212029.196(0.050)	212029.199(0.007)	55.2311	74.602	MAE87
0	11	-5	6		0	10	-5	5		212059.551(0.050)	212059.570(0.007)	55.2122	74.551	MAE87
0	11	5	7		0	10	5	6		212066.053(0.050)	212066.076(0.007)	55.2138	74.529	MAE87
1	11	-5	7		1	10	-5	6		212087.744(0.080)	212087.754(0.016)	55.3289	217.061	LIA86
0	5	4	1		0	6	3	3			212116.399(0.034)	0.2877	27.671	
0	11	4	8	-	0	10	4	7	-	212128.397(0.050)	212128.386(0.006)	60.3997	60.514	MAE87
0	11	4	7	+	0	10	4	6	+	212134.154(0.050)	212134.138(0.006)	60.3997	60.514	MAE87
0	11	4	7		0	10	4	6		212151.898(0.050)	212151.890(0.006)	60.3944	60.468	MAE87
0	11	-4	8		0	10	-4	7		212171.475(0.050)	212171.495(0.006)	60.3776	60.440	MAE87
1	11	-10	2		1	10	-10	1			212216.046(0.050)	12.0594	333.252	
1	11	7	4	-	1	10	7	3	-	212241.747(0.080)	212241.797(0.020)	41.3253	254.183	LIA86
1	11	7	5	+	1	10	7	4	+	212241.747(0.080)	212241.797(0.020)	41.3253	254.183	LIA86
0	11	3	9	+	0	10	3	8	+	212257.119(0.050)	212257.138(0.006)	64.4089	49.542	MAE87
0	15	3	12		0	15	2	13			212260.395(0.018)	9.7425	84.406	
1	11	9	2		1	10	9	1		212324.910(1.000)	212324.190(0.036)	22.9755	303.297	BEL93
1	8	3	6	+	1	8	2	7	-	212327.119(0.080)	212327.204(0.044)	4.3493	172.142	LIA86
0	11	-3	9		0	10	-3	8		212384.722(0.050)	212384.743(0.006)	64.1488	49.484	MAE87
0	11	3	8		0	10	3	7		212400.951(0.050)	212400.921(0.006)	64.1718	49.550	MAE87
1	11	4	8		1	10	4	7		212403.085(0.080)	212402.875(0.012)	60.2087	202.982	LIA86
1	11	-6	6		1	10	-6	5		212431.400(1.000)	212431.323(0.021)	48.7983	233.425	BEL93
0	11	3	8	-	0	10	3	7	-	212498.631(0.050)	212498.647(0.006)	64.4091	49.553	MAE87
0	20	2	18	+	0	19	3	17	+		212548.484(0.095)	4.7492	136.473	
1	11	-9	3		1	10	-9	2		212551.020(1.000)	212550.737(0.037)	22.8933	303.075	BEL93
2	11	-6	5		2	10	-6	4			212564.790(0.131)	48.3417	359.344	
2	11	9	3		2	10	9	2			212576.172(0.228)	22.7958	428.245	
2	11	9	3		2	10	9	2			212576.172(0.228)	22.7958	428.245	
1	11	6	6	-	1	10	6	5	-	212584.072(0.080)	212584.072(0.017)	48.6366	233.293	LIA86
1	11	6	5	+	1	10	6	4	+	212584.072(0.080)	212584.073(0.017)	48.6366	233.293	LIA86
1	11	10	1		1	10	10	0			212620.714(0.054)	12.0223	332.210	
0	13	2	11		0	13	-1	13			212637.786(0.025)	0.0064	58.307	
1	11	-7	5		1	10	-7	4		212669.990(1.000)	212669.749(0.028)	41.2057	253.102	BEL93
1	11	-8	4		1	10	-8	3		212712.150(1.000)	212711.967(0.031)	32.5840	276.306	BEL93
1	6	4	3		1	7	3	5			212776.421(0.079)	0.4974	173.994	
1	11	3	9	+	1	10	3	8	+	212790.126(0.080)	212790.101(0.011)	64.3595	191.482	LIA86
1	11	5	7	+	1	10	5	6	+	212806.943(0.080)	212806.817(0.016)	54.8747	215.797	LIA86
1	11	5	6	-	1	10	5	5	-	212806.943(0.080)	212806.893(0.016)	54.8747	215.797	LIA86

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	11	1	10		2	10	1	9		212867.692(1.000)	212867.759(0.206)	66.3272	311.739	BEL93
1	11	4	8	-	1	10	4	7	-	212895.712(0.080)	212895.649(0.013)	60.1047	201.868	LIA86
1	11	4	7	+	1	10	4	6	+	212902.207(0.080)	212902.275(0.013)	60.1047	201.868	LIA86
2	11	3	9	+	2	10	3	8	+		212949.190(0.066)	63.0965	318.140	
1	11	3	9		1	10	3	8		212957.802(0.080)	212957.775(0.012)	64.0374	191.417	LIA86
2	11	3	8	-	2	10	3	7	-	213033.049(1.000)	213033.058(0.065)	63.0968	318.144	BEL93
1	11	3	8	-	1	10	3	7	-	213057.919(0.080)	213057.895(0.011)	64.3598	191.494	LIA86
1	11	-2	9		1	10	-2	8		213071.005(0.080)	213071.005(0.012)	66.9809	185.080	LIA86
2	11	2	10	-	2	10	2	9	-	213213.352(1.000)	213213.586(0.087)	65.0526	303.707	BEL93
1	9	3	7	+	1	9	2	8	-	213244.677(0.080)	213244.644(0.045)	4.9640	177.917	LIA86
0	15	3	12	-	0	15	2	13	+	213246.390(1.000)	213247.445(0.020)	10.1786	84.393	BEL93
0	5	-4	2		0	6	-3	4			213262.733(0.035)	0.2880	27.603	
0	4	-2	3		0	3	1	2		213273.520(1.000)	213274.950(0.015)	0.9532	5.595	BEL93
2	11	-10	1		2	10	-10	0		213380.009(1.000)	213377.758(0.317)	12.0255	453.159	BEL93
0	20	2	18		0	19	-3	17		213571.510(1.000)	213571.020(0.092)	4.7252	136.446	BEL93
0	5	4	2	-	0	6	3	3	-		213623.436(0.034)	0.2881	27.669	
0	5	4	1	+	0	6	3	4	+		213639.458(0.034)	0.2881	27.668	
0	14	-3	12		0	14	2	12		213637.990(1.000)	213639.845(0.019)	0.7686	74.569	BEL93
1	11	2	10		1	10	2	9		213672.900(0.080)	213672.904(0.013)	66.8237	183.277	LIA86
2	3	0	3		2	2	-1	2			213824.756(1.732)	0.0710	265.916	
1	20	-1	19		1	20	0	20		213888.650(1.000)	213889.919(0.381)	8.1140	274.160	BEL93
1	10	1	10		1	9	0	9		213947.314(0.080)	213947.390(0.029)	6.8988	170.758	LIA86
2	8	-3	6		2	8	-2	7			213974.789(2.377)	3.6379	285.205	
2	11	-5	6		2	10	-5	5		214023.198(1.000)	214023.623(0.121)	53.7824	335.804	BEL93
0	10	-1	10		0	9	0	9		214073.954(0.050)	214073.993(0.010)	7.4490	28.787	MAE87
2	11	7	4	-	2	10	7	3	-		214159.349(0.227)	40.9766	374.327	
2	11	7	5	+	2	10	7	4	+		214159.349(0.227)	40.9766	374.327	
2	11	8	4		2	10	8	3			214245.511(0.182)	31.9180	395.503	
1	4	4	1	-	1	5	3	2	-		214250.995(0.121)	0.1118	165.683	
1	4	4	0	+	1	5	3	3	+		214257.085(0.121)	0.1118	165.683	
0	11	3	8		0	10	-3	8			214364.733(0.020)	0.2513	49.484	
1	10	3	8	+	1	10	2	9	-	214409.326(0.080)	214409.256(0.046)	5.5700	184.330	LIA86
0	10	1	10	+	0	9	0	9	+	214443.389(0.050)	214443.352(0.010)	7.4765	28.723	MAE87
1	18	-3	15		1	18	-2	16			214678.582(0.148)	10.8913	260.617	
0	11	2	9		0	10	2	8		214800.801(0.050)	214800.822(0.007)	67.1975	41.903	MAE87
0	11	2	9	+	0	10	2	8	+	214845.019(0.050)	214845.047(0.007)	67.2682	41.885	MAE87
2	3	2	1	+	2	4	1	4	+		214860.198(2.486)	0.4903	264.828	
1	11	2	9	+	1	10	2	8	+	214956.103(0.080)	214956.116(0.015)	67.6120	184.621	LIA86
2	21	3	18		2	22	-2	21			215191.811(8.716)	0.0348	421.929	
0	16	-2	15		0	16	-1	16		215215.890(1.000)	215213.965(0.052)	6.6558	86.218	BEL93
1	18	-1	17		1	17	-2	15			215220.955(0.168)	0.9504	248.818	
2	11	-4	8		2	10	-4	7			215309.328(0.131)	58.4674	317.303	
2	11	7	5		2	10	7	4		215355.911(1.000)	215355.772(0.164)	39.9735	367.922	BEL93
1	10	-2	8		1	10	1	10			215417.784(0.063)	0.7247	177.895	
2	11	2	9	+	2	10	2	8	+	215512.496(1.000)	215511.542(0.101)	65.0616	303.882	BEL93
0	4	2	3	-	0	3	1	2	-		215567.481(0.013)	2.1473	5.539	
0	4	2	2		0	3	1	2		215604.580(1.000)	215604.374(0.013)	1.1859	5.595	BEL93
2	11	10	1	+	2	10	10	0	+	215664.927(1.000)	215664.855(0.264)	11.5510	446.090	BEL93
2	11	10	2	-	2	10	10	1	-	215664.927(1.000)	215664.855(0.264)	11.5510	446.090	BEL93
0	9	1	8		0	8	-1	8			215694.407(0.013)	0.0018	24.095	
2	2	1	1		2	2	0	2			215779.143(3.508)	1.7594	271.073	
2	17	1	16	-	2	17	0	17	+		215819.166(2.214)	14.1868	353.202	
1	11	3	9	+	1	11	2	10	-		215858.224(0.050)	6.1661	191.379	
1	11	1	10	-	1	10	1	9	-	215865.810(0.080)	215865.719(0.015)	69.5892	181.139	LIA86
2	11	4	7		2	10	4	6		215940.911(1.000)	215940.029(0.209)	59.6262	323.776	BEL93
1	11	-1	10		1	10	-1	9		216294.726(0.080)	216294.848(0.012)	68.3274	180.183	LIA86
2	11	1	10		2	12	-2	11			216358.330(6.463)	0.0047	311.623	
0	16	2	15	-	0	16	1	16	+	216435.020(1.000)	216435.223(0.054)	6.7017	86.169	BEL93
2	1	1	0		2	1	0	1			216498.212(3.506)	1.0571	269.766	
2	11	9	2	-	2	10	9	1	-	216513.428(1.000)	216513.260(0.284)	22.0332	415.835	BEL93
2	11	9	3	+	2	10	9	2	+	216513.428(1.000)	216513.263(0.284)	22.0332	415.835	BEL93
0	14	3	11		0	14	2	12		216534.440(1.000)	216534.380(0.016)	8.4600	74.569	BEL93
0	11	1	10		0	10	1	9		216581.936(0.050)	216581.924(0.007)	68.9639	37.864	MAE87

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	11	1	10	-	0	10	1	9	-	216630.221(0.050)	216630.241(0.007)	68.9270	37.818	MAE87
2	11	8	4	-	2	10	8	3	-	216698.178(1.000)	216697.604(0.243)	31.5314	392.155	BEL93
2	11	8	3	+	2	10	8	2	+	216698.178(1.000)	216697.605(0.243)	31.5314	392.155	BEL93
2	11	6	6		2	10	6	5		216720.935(1.000)	216719.950(0.181)	46.9180	346.705	BEL93
1	16	2	15		1	16	1	16			216742.566(0.141)	6.5689	228.402	
1	15	1	14	-	1	14	2	13	-	216818.490(1.000)	216818.650(0.098)	5.1163	216.336	BEL93
2	15	-2	14		2	14	-1	14			216931.247(1.906)	10.2670	330.927	
1	4	2	3		1	3	1	3			217001.984(0.041)	1.9912	146.924	
0	14	3	11	-	0	14	2	12	+	217469.324(0.050)	217469.257(0.016)	9.2436	74.555	MAE87
1	6	2	5		1	5	-1	4			217517.266(0.044)	0.1590	154.013	
1	12	3	10	+	1	12	2	11	-	217628.668(0.080)	217628.590(0.056)	6.7504	199.064	*LIA86
0	12	-2	11		0	11	2	9			217949.474(0.011)	0.0450	49.068	
0	13	-3	11		0	13	2	11		218098.570(1.000)	218099.379(0.017)	1.2402	65.400	BEL93
1	3	-2	1		1	2	-1	1		218284.920(1.000)	218285.263(0.029)	1.9385	146.239	BEL93
2	20	1	19	-	2	19	2	18	-		218545.830(2.399)	8.7331	390.802	
2	11	5	7		2	10	5	6		218642.428(1.000)	218642.446(0.220)	52.9016	332.255	BEL93
1	22	1	21	-	1	22	1	22	+		218967.131(0.648)	1.5498	302.124	
2	7	1	7	+	2	6	0	6	+	219205.360(1.000)	219204.963(0.718)	5.6723	268.827	BEL93
2	10	3	7	-	2	11	2	10	-		219588.297(4.263)	2.1238	310.819	
1	13	3	11	+	1	13	2	12	-	219756.890(1.000)	219756.467(0.064)	7.3200	207.384	BEL93
2	11	1	10	-	2	10	1	9	-	219780.235(1.000)	219779.676(0.152)	66.4351	295.261	BEL93
0	4	-2	3		0	3	-1	3			219820.392(0.014)	1.1194	5.376	
2	19	1	18	-	2	19	1	19	+		220059.108(2.893)	0.4966	377.545	
1	17	-3	14		1	17	-2	15			220124.925(0.110)	10.1118	248.818	
2	12	11	2		2	11	11	1			220274.202(2.984)	13.1294	504.280	
0	13	3	10		0	13	2	11		220446.445(0.050)	220446.499(0.015)	7.1195	65.400	MAE87
1	19	2	18	-	1	19	1	19	+	220865.260(1.000)	220865.470(0.291)	5.8188	263.172	BEL93
2	11	0	11		2	10	0	10		221215.803(1.000)	221215.806(0.207)	61.1324	305.913	BEL93
1	22	1	21	-	1	22	0	22	+		221221.424(0.623)	6.1921	302.049	
0	13	3	10	-	0	13	2	11	+	221295.808(0.050)	221295.767(0.014)	8.3746	65.386	MAE87
0	8	1	7		0	7	0	7			221368.149(0.011)	0.0020	17.984	
2	7	3	4		2	6	2	4			221432.703(2.582)	2.0227	293.843	
1	5	2	3	+	1	4	1	4	+		221689.239(0.022)	1.9496	151.282	
0	12	-3	10		0	12	2	10		221831.070(1.000)	221831.073(0.016)	1.6784	56.900	BEL93
1	11	-2	9		1	11	1	11		222091.120(1.000)	222090.769(0.074)	0.7853	184.780	BEL93
0	4	2	2		0	3	-1	3		222150.240(1.000)	222149.816(0.014)	0.8762	5.376	BEL93
2	10	-3	8		2	10	-2	9			222188.267(2.553)	4.5595	297.123	
0	4	2	2	+	0	3	1	3	+	222227.030(1.000)	222227.078(0.013)	2.0020	5.326	BEL93
1	14	3	12	+	1	14	2	13	-	222276.180(1.000)	222276.309(0.075)	7.8717	216.336	BEL93
0	21	1	20		0	21	-1	21		222500.830(1.000)	222500.145(0.210)	0.8059	144.960	BEL93
1	3	-3	0		1	4	2	3			222728.294(0.076)	6.1E-7	154.162	
1	4	-4	0		1	5	-3	2			222773.445(0.126)	0.1130	167.369	
2	12	-8	4		2	11	-8	3		223073.647(1.000)	223073.587(0.340)	45.7719	415.678	BEL93
1	20	-2	18		1	19	3	17			223272.235(0.262)	2.2014	278.782	
0	21	1	20	-	0	21	1	21	+	223284.900(1.000)	223285.892(0.214)	0.7766	144.914	BEL93
2	5	2	3		2	4	1	3			223519.134(3.447)	1.9554	282.765	
0	26	3	23		0	25	4	21			223535.677(0.241)	0.0028	234.675	
0	11	2	9		0	10	-2	9			223640.104(0.009)	0.0946	41.608	
0	12	-1	12		0	11	-1	11		223649.880(0.080)	223650.097(0.008)	75.3460	42.771	LIA86
0	12	1	12	+	0	11	1	11	+	223660.420(0.080)	223660.610(0.008)	75.2945	42.720	LIA86
1	12	1	12	+	1	11	1	11	+	223906.390(0.080)	223906.519(0.016)	76.2807	186.219	LIA86
0	12	3	9		0	12	2	10			223909.917(0.015)	5.8676	56.900	
2	12	5	8	+	2	11	5	7	+	223986.777(1.000)	223986.423(0.240)	67.3874	354.976	BEL93
2	12	5	7	-	2	11	5	6	-	223986.777(1.000)	223986.441(0.240)	67.3874	354.976	BEL93
2	11	2	9		2	12	-1	12			223988.578(7.804)	0.0038	314.036	
1	9	5	5	+	1	10	4	6	+		224147.288(0.318)	0.8464	201.868	
1	9	5	4	-	1	10	4	7	-		224153.161(0.318)	0.8464	201.868	
2	12	2	10		2	11	2	9		224203.984(1.000)	224202.924(0.287)	78.5248	321.507	BEL93
0	21	2	19		0	20	3	17			224400.025(0.093)	0.0099	149.896	
0	21	2	19		0	20	3	17			224400.025(0.093)	0.0099	149.896	
0	17	-2	16		0	17	-1	17		224562.980(1.000)	224563.333(0.068)	6.8126	96.746	BEL93
1	11	1	11	+	1	10	0	10	+	224605.244(0.080)	224605.188(0.073)	7.6637	178.727	LIA86
0	12	3	9	-	0	12	2	10	+	224657.086(0.080)	224656.971(0.012)	7.5607	56.885	LIA86

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	12	1	12		1	11	1	11		224788.330(0.080)	224788.304(0.015)	74.7050	184.780	LIA86
2	2	2	1	-	2	3	1	2	-		224813.290(2.417)	0.2294	262.551	
0	11	-3	9		0	11	2	9		224878.490(1.000)	224877.801(0.016)	1.8952	49.068	BEL93
1	16	-3	13		1	16	-2	14		224951.830(1.000)	224951.610(0.080)	9.4885	237.695	BEL93
1	15	3	13	+	1	15	2	14	-	225220.220(1.000)	225220.246(0.091)	8.4020	225.920	BEL93
2	12	3	9		2	11	3	8		225512.860(1.000)	225511.369(0.204)	73.8648	325.065	BEL93
2	12	1	12	+	2	11	1	11	+	225512.860(1.000)	225513.434(0.161)	72.4917	299.986	BEL93
2	5	2	3		2	6	-3	4			225622.227(6.572)	0.0101	290.221	
2	12	-9	3		2	11	-9	2		225629.985(1.000)	225629.883(0.414)	35.2215	437.379	BEL93
0	18	1	17		0	17	2	15			225709.657(0.044)	0.0019	106.082	
2	12	-1	12		2	11	-1	11		225740.860(1.000)	225739.880(0.167)	72.2447	306.506	BEL93
0	21	1	20		0	21	0	21		225740.860(1.000)	225740.394(0.202)	7.7360	144.852	BEL93
0	17	2	16	-	0	17	1	17	+	225787.010(1.000)	225786.994(0.070)	6.8616	96.697	BEL93
1	12	0	12	+	1	11	0	11	+	226241.760(0.080)	226241.771(0.016)	76.6606	185.662	LIA86
0	13	0	13	+	0	12	1	12	+		226256.329(0.011)	10.2073	50.180	
1	21	-1	20		1	21	1	21			226309.109(0.480)	0.8488	287.323	
1	10	5	5		1	11	4	8			226435.390(0.234)	1.0994	210.067	
0	13	0	13		0	12	-1	12		226487.690(1.000)	226487.236(0.011)	10.1716	50.231	BEL93
0	12	0	12		0	11	0	11		226551.591(0.080)	226551.624(0.008)	75.6769	42.064	LIA86
2	12	4	9	-	2	13	3	10	-		226569.192(6.634)	2.1056	341.408	
0	12	0	12	+	0	11	0	11	+	226592.710(0.080)	226592.732(0.008)	75.6231	42.002	LIA86
2	12	6	7	-	2	11	6	6	-	226787.913(1.000)	226786.685(0.224)	59.5769	367.361	BEL93
2	12	6	6	+	2	11	6	5	+	226787.913(1.000)	226786.686(0.224)	59.5769	367.361	BEL93
0	11	3	8		0	11	2	9		226857.714(0.080)	226857.791(0.015)	4.8815	49.068	LIA86
1	8	-5	4		1	9	-4	5			226857.815(0.319)	0.6254	197.275	
1	13	0	13		1	12	1	12			226872.578(0.031)	9.8826	192.278	
2	12	-2	11		2	11	-2	10		226981.153(1.000)	226980.524(0.169)	76.8551	304.052	BEL93
0	14	2	12		0	14	-1	14			226982.748(0.035)	0.0032	66.997	
2	12	4	8	+	2	13	3	11	+		227095.781(6.643)	2.1046	341.391	
1	12	0	12		1	11	0	11		227259.030(0.080)	227258.988(0.014)	75.3640	184.073	LIA86
2	20	3	17		2	21	-2	20			227302.111(8.568)	0.0243	408.124	
2	12	10	3		2	11	10	2		227437.654(1.000)	227438.229(0.425)	24.0844	470.550	BEL93
0	11	3	8	-	0	11	2	9	+	227514.359(0.080)	227514.461(0.012)	6.7910	49.052	LIA86
1	17	2	16		1	17	1	17		227631.080(1.000)	227632.062(0.178)	6.8438	238.964	BEL93
2	9	5	5	+	2	10	4	6	+		227670.552(8.089)	-0.7914	334.331	
2	9	5	4	-	2	10	4	7	-		227671.628(8.089)	0.7914	334.331	
2	12	-7	5		2	11	-7	4		228071.019(1.000)	228071.467(0.235)	51.6052	392.039	BEL93
1	6	2	5	-	1	5	1	4	-	228365.007(0.050)	228364.932(0.021)	2.5070	154.893	BAR93
1	16	3	14	+	1	16	2	15	-	228616.910(1.000)	228617.516(0.110)	8.9076	236.134	BEL93
1	20	2	18	+	1	19	3	17	+	228803.150(1.000)	228802.552(0.386)	4.5690	278.604	BEL93
2	12	4	9	-	2	11	4	8	-	228935.643(1.000)	228934.814(0.176)	68.7970	341.329	BEL93
2	12	4	8	+	2	11	4	7	+	228935.643(1.000)	228937.170(0.176)	68.7970	341.329	BEL93
1	15	-3	12		1	15	-2	13		229030.170(1.000)	229030.449(0.057)	8.9384	227.248	BEL93
0	9	-3	7		0	9	2	7			229134.181(0.016)	1.5226	35.403	
0	10	3	7		0	10	2	8		229258.004(0.080)	229257.692(0.015)	4.2122	41.903	LIA86
0	16	1	15	-	0	15	2	14	-		229429.075(0.036)	6.0729	83.176	
0	11	-1	11		0	10	0	10			229432.106(0.010)	8.4073	35.118	
0	26	3	23	-	0	25	4	22	-		229532.416(0.266)	5.2809	234.492	
0	9	5	5	+	0	10	4	6	+		229623.188(0.149)	0.8627	60.514	
0	9	5	4	-	0	10	4	7	-		229628.248(0.149)	0.8627	60.514	
1	9	-1	8		1	8	1	8			229643.128(0.043)	0.5201	165.965	
0	12	-3	10		0	11	3	8			229768.732(0.020)	0.5788	56.635	
0	11	1	11	+	0	10	0	10	+	229775.071(0.050)	229775.029(0.011)	8.4380	35.055	BAR93
0	10	3	7	-	0	10	2	8	+	229860.914(0.080)	229860.861(0.011)	6.0552	41.885	LIA86
1	11	1	11		1	10	0	10		230024.072(0.080)	230024.048(0.031)	7.9785	177.107	LIA86
1	12	-2	10		1	12	1	12			230106.559(0.087)	0.7809	192.278	
1	13	0	13	+	1	12	1	12	+	230144.609(0.050)	230144.537(0.031)	9.2735	193.688	BAR93
1	21	-1	20		1	21	0	21			230159.458(0.463)	8.0394	287.195	
0	16	1	15		0	15	-2	14		230187.110(1.000)	230185.450(0.034)	6.0608	83.185	BEL93
0	12	2	11	-	0	11	2	10	-	230301.880(0.080)	230301.924(0.007)	73.7486	48.646	LIA86
0	12	-2	11		0	11	-2	10		230315.740(0.080)	230315.788(0.007)	73.7298	48.655	LIA86
1	12	2	11	-	1	11	2	10	-	230395.170(0.080)	230395.155(0.014)	74.1423	191.379	LIA86
2	12	0	12	+	2	11	0	11	+	230438.767(1.000)	230438.340(0.153)	72.8734	297.798	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	$K_c' P'$	v_1''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	8	-3	6	0	8	2	6		230453.105(0.017)	1.0566	29.566	
2	12	-3	10	2	11	-3	9	230461.568(1.000)	230461.464(0.129)	71.6949	311.585	BEL93
2	10	1	9	2	11	-2	10		230471.095(6.392)	0.0020	304.052	
0	5	-2	4	0	4	1	3	230601.040(1.000)	230601.257(0.015)	1.3667	8.233	BEL93
1	12	10	2 +	1	11	10	1 +	230757.220(1.000)	230757.005(0.040)	23.3482	341.248	BEL93
1	12	10	3 -	1	11	10	2 -	230757.220(1.000)	230757.005(0.040)	23.3482	341.248	BEL93
2	4	0	4	2	3	-1	3		230776.709(1.597)	0.0072	268.007	
1	12	9	3 -	1	11	9	2 -	230791.241(0.050)	230791.224(0.031)	33.4015	311.944	BAR93
1	12	9	4 +	1	11	9	3 +	230791.241(0.050)	230791.224(0.031)	33.4015	311.944	BAR93
2	17	2	15	2	16	3	13		230882.224(4.317)	2.1330	368.987	
1	12	7	5	1	11	7	4	230908.432(0.050)	230908.474(0.022)	50.3368	262.056	BAR93
1	12	6	6	1	11	6	5	230927.146(0.050)	230927.201(0.017)	57.1895	242.070	BAR93
2	18	0	18	2	17	1	16		230934.339(4.260)	6.3014	374.787	
1	12	-11	2	1	11	-11	1		231042.790(0.068)	12.1639	373.599	
1	12	11	1 -	1	11	11	0 -	231057.326(0.050)	231057.269(0.059)	12.1755	373.198	BAR93
1	12	11	2 +	1	11	11	1 +	231057.326(0.050)	231057.269(0.059)	12.1755	373.198	BAR93
0	9	3	6	0	9	2	7		231114.258(0.080)	3.8076	35.403	LIA86
1	12	8	4 +	1	11	8	3 +	231116.590(0.050)	231116.618(0.025)	42.2657	285.223	BAR93
1	12	8	5 -	1	11	8	4 -	231116.590(0.050)	231116.618(0.025)	42.2657	285.223	BAR93
0	12	11	2	0	11	11	1		231149.450(0.021)	12.1398	231.779	
1	12	-4	8	1	11	-4	7	231150.210(0.080)	231150.270(0.014)	67.7773	210.765	LIA86
0	12	10	3	0	11	10	2	231166.860(0.080)	231166.899(0.015)	23.2178	198.973	LIA86
1	20	2	19 -	1	20	1	20 +		231176.735(0.356)	5.8379	275.546	
0	12	-9	3	0	11	-9	2	231183.560(0.080)	231183.766(0.013)	33.2384	169.265	*LIA86
0	12	-10	2	0	11	-10	1	231185.428(0.050)	231185.469(0.016)	23.2148	198.930	BAR93
0	12	11	1 -	0	11	11	0 -	231189.805(0.050)	231189.854(0.019)	12.1350	231.720	BAR93
0	12	11	2 +	0	11	11	1 +	231189.805(0.050)	231189.854(0.019)	12.1350	231.720	BAR93
0	12	-11	1	0	11	-11	0	231191.823(0.050)	231191.913(0.020)	12.1353	231.703	BAR93
0	12	8	4	0	11	8	3	231195.320(0.080)	231195.166(0.011)	42.2033	142.699	*LIA86
0	12	9	4	0	11	9	3	231195.320(0.080)	231195.537(0.013)	33.2332	169.256	*LIA86
1	12	8	4	1	11	8	3		231200.025(0.028)	42.2861	284.735	
0	12	10	2 +	0	11	10	1 +	231212.660(0.080)	231212.649(0.015)	23.2080	198.895	LIA86
0	12	10	3 -	0	11	10	2 -	231212.660(0.080)	231212.649(0.015)	23.2080	198.895	LIA86
0	12	-7	5	0	11	-7	4	231225.450(0.080)	231225.548(0.010)	50.1070	119.232	LIA86
0	12	9	3 -	0	11	9	2 -	231226.955(0.050)	231226.989(0.013)	33.2248	169.194	BAR93
0	12	9	4 +	0	11	9	3 +	231226.955(0.050)	231226.989(0.013)	33.2248	169.194	BAR93
0	12	8	5	0	11	8	4	231230.610(0.050)	231230.617(0.011)	42.1883	142.645	BAR93
0	12	8	4 +	0	11	8	3 +	231235.170(0.080)	231235.152(0.011)	42.1888	142.626	LIA86
0	12	8	5 -	0	11	8	4 -	231235.170(0.080)	231235.152(0.011)	42.1888	142.626	LIA86
0	12	7	5 -	0	11	7	4 -	231244.980(0.080)	231245.042(0.010)	50.1009	119.188	LIA86
0	12	7	6 +	0	11	7	5 +	231244.980(0.080)	231245.042(0.010)	50.1009	119.188	LIA86
1	12	5	7	1	11	5	6	231255.770(0.080)	231255.918(0.013)	62.8048	224.690	LIA86
0	12	7	6	0	11	7	5	231267.640(0.080)	231268.396(0.010)	50.0879	119.157	*LIA86
0	12	6	7 -	0	11	6	6 -	231269.908(0.050)	231269.903(0.009)	56.9582	98.874	BAR93
0	12	6	6 +	0	11	6	5 +	231269.908(0.050)	231269.905(0.009)	56.9582	98.874	BAR93
0	12	-6	6	0	11	-6	5	231279.060(0.080)	231278.989(0.008)	56.9498	98.869	LIA86
0	7	-3	5	0	7	2	5		231310.468(0.019)	0.5578	24.390	
0	12	6	7	0	11	6	6	231310.460(0.080)	231310.507(0.009)	56.9367	98.807	LIA86
0	12	5	8 +	0	11	5	7 +	231329.700(0.080)	231329.636(0.007)	62.7564	81.675	LIA86
0	12	5	7 -	0	11	5	6 -	231329.700(0.080)	231329.790(0.007)	62.7564	81.675	LIA86
1	12	-3	9	1	11	-3	8	231357.290(0.080)	231357.344(0.013)	71.3781	200.136	LIA86
0	12	-5	7	0	11	-5	6	231363.290(0.080)	231363.289(0.007)	62.7352	81.625	LIA86
0	12	5	8	0	11	5	7	231369.740(0.080)	231369.834(0.008)	62.7371	81.603	LIA86
1	19	-1	18	1	18	-2	16		231376.037(0.211)	0.7135	260.617	
1	12	-5	8	1	11	-5	7	231382.071(0.050)	231382.089(0.017)	62.8659	224.136	BAR93
0	4	4	0	0	5	3	2		231427.766(0.034)	0.1151	23.813	
0	12	4	9 -	0	11	4	8 -	231456.800(0.080)	231456.738(0.007)	67.4920	67.590	LIA86
0	12	4	8 +	0	11	4	7 +	231467.490(0.080)	231467.499(0.007)	67.4920	67.590	LIA86
0	12	4	8	0	11	4	7	231484.290(0.080)	231484.373(0.007)	67.4840	67.545	LIA86
0	12	-4	9	0	11	-4	8	231506.410(0.080)	231506.297(0.007)	67.4655	67.518	LIA86
1	12	-10	3	1	11	-10	2		231510.456(0.052)	23.1614	340.331	
1	12	7	5 -	1	11	7	4 -	231548.550(0.080)	231548.625(0.020)	49.9818	261.263	LIA86
1	12	7	6 +	1	11	7	5 +	231548.550(0.080)	231548.625(0.020)	49.9818	261.263	LIA86

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	15	1	14	2	14	2	12		231570.229(4.752)	7.9520	345.953	
0	12	3	10 +	0	11	3	9 +	231595.180(0.080)	231595.269(0.007)	71.1630	56.622	LIA86
1	12	9	3	1	11	9	2	231616.860(1.000)	231616.768(0.037)	33.1710	310.379	BEL93
0	9	3	6 -	0	9	2	7 +	231716.879(0.080)	231716.680(0.011)	5.3438	35.383	LIA86
1	12	-6	7	1	11	-6	6	231746.645(0.050)	231746.633(0.021)	56.8364	240.511	BAR93
0	12	-3	10	0	11	-3	9	231748.890(0.080)	231748.722(0.007)	70.5765	56.569	LIA86
1	12	4	9	1	11	4	8	231761.830(0.080)	231761.905(0.013)	67.2784	210.067	LIA86
0	6	-3	4	0	6	2	4		231791.147(0.021)	0.1993	19.871	
0	12	3	9	0	11	3	8	231847.620(0.080)	231847.575(0.007)	70.6000	56.635	LIA86
1	12	-9	4	1	11	-9	3	231875.020(1.000)	231874.657(0.038)	33.0528	310.165	BEL93
2	12	9	4	2	11	9	3		231904.427(0.239)	32.9177	435.336	
2	12	-6	6	2	11	-6	5		231908.213(0.138)	56.3086	366.435	
1	12	6	7 -	1	11	6	6 -	231927.500(0.080)	231927.445(0.017)	56.6483	240.384	LIA86
1	12	6	6 +	1	11	6	5 +	231927.500(0.080)	231927.446(0.017)	56.6483	240.384	LIA86
1	12	10	2	1	11	10	1		231939.102(0.056)	23.0913	339.302	
2	2	2	0 +	2	3	1	3 +		231950.837(2.469)	0.2212	262.313	
2	18	1	17 -	2	18	0	18 +		231962.229(2.440)	14.1487	364.583	
0	12	3	9 -	0	11	3	8 -	231968.420(0.080)	231968.385(0.007)	71.1635	56.641	LIA86
1	12	-7	6	1	11	-7	5		232003.963(0.029)	49.8399	260.196	
0	5	-3	3	0	5	2	3		232017.397(0.022)	0.0452	16.005	
1	12	11	1	1	11	11	0	232041.865(0.050)	232041.772(0.082)	12.0547	371.731	BAR93
1	12	-8	5	1	11	-8	4		232050.053(0.031)	41.9224	283.402	
0	4	-3	2	0	4	2	2		232108.503(0.023)	0.0062	12.787	
0	3	-3	1	0	3	2	1		232139.090(0.024)	0.0004	10.214	
1	12	3	10 +	1	11	3	9 +	232165.470(0.080)	232165.521(0.012)	71.1185	198.580	LIA86
1	12	5	8 +	1	11	5	7 +	232180.250(0.080)	232180.081(0.016)	62.3565	222.895	LIA86
1	12	5	7 -	1	11	5	6 -	232180.250(0.080)	232180.253(0.016)	62.3565	222.895	LIA86
1	12	4	9 -	1	11	4	8 -	232292.780(0.080)	232292.591(0.013)	67.1704	208.969	LIA86
1	12	4	8 +	1	11	4	7 +	232304.990(0.080)	232304.918(0.013)	67.1704	208.969	LIA86
1	14	-3	11	1	14	-2	12	232327.500(0.050)	232327.621(0.042)	8.3961	217.479	BAR93
1	5	4	2	1	6	3	4	232339.822(0.050)	232339.944(0.080)	0.2907	169.480	BAR93
2	12	3	10 +	2	11	3	9 +		232343.860(0.071)	69.7037	325.243	
2	12	1	11	2	11	1	10		232347.405(0.244)	71.7343	318.840	
2	12	-10	2	2	11	-10	1	232365.182(1.000)	232364.368(0.326)	23.1527	460.277	BEL93
1	12	3	10	1	11	3	9	232422.030(0.080)	232422.043(0.012)	70.7576	198.521	LIA86
0	8	3	5	0	8	2	6	232458.590(0.080)	232458.620(0.015)	3.5787	29.566	LIA86
2	12	3	9 -	2	11	3	8 -	232474.716(1.000)	232474.417(0.070)	69.7043	325.250	BEL93
0	13	-2	12	0	12	2	10		232480.655(0.014)	0.0225	56.900	
1	17	3	15 +	1	17	2	16 -		232493.969(0.135)	9.3851	246.976	
2	12	2	11 -	2	11	2	10 -	232504.097(1.000)	232503.814(0.095)	71.3418	310.819	BEL93
1	12	3	9 -	1	11	3	8 -	232576.380(0.080)	232576.449(0.013)	71.1190	198.601	LIA86
0	4	-4	1	0	5	-3	3	232586.077(0.050)	232586.015(0.035)	0.1153	23.744	BAR93
0	5	2	4 -	0	4	1	3 -	232691.370(0.080)	232691.566(0.013)	2.4191	8.179	LIA86
1	12	-2	10	1	11	-2	9	232804.110(0.080)	232804.094(0.013)	73.3700	192.188	LIA86
0	4	4	1 -	0	5	3	2 -	232951.717(0.050)	232951.832(0.035)	0.1153	23.811	BAR93
0	4	4	0 +	0	5	3	3 +	232957.164(0.050)	232957.173(0.035)	0.1153	23.810	BAR93
0	5	2	3	0	4	1	3	232981.310(0.080)	232980.585(0.014)	1.0439	8.233	*LIA86
1	12	2	11	1	11	2	10	233048.500(0.080)	233048.557(0.014)	73.2403	190.405	LIA86
0	8	3	5 -	0	8	2	6 +	233124.965(0.080)	233124.962(0.012)	4.6485	29.543	LIA86
2	12	7	5 -	2	11	7	4 -	233274.504(1.000)	233273.109(0.224)	49.6444	381.471	BEL93
2	12	7	6 +	2	11	7	5 +	233274.504(1.000)	233273.109(0.224)	49.6444	381.471	BEL93
0	7	3	4	0	7	2	5	233341.707(0.080)	233341.700(0.015)	3.3908	24.390	LIA86
2	12	-5	7	2	11	-5	6	233530.050(1.000)	233529.519(0.127)	61.1149	342.943	BEL93
2	12	8	5	2	11	8	4	233745.813(1.000)	233745.613(0.190)	41.0664	402.650	BEL93
1	8	-1	7	1	7	0	7	233754.513(0.050)	233754.437(0.037)	0.7071	159.930	BAR93
0	12	3	9	0	11	-3	9		233827.566(0.020)	0.5780	56.569	
0	6	3	3	0	6	2	4	233845.390(0.080)	233845.379(0.016)	3.0620	19.871	LIA86
2	9	3	7 +	2	10	2	8 +		233876.617(4.200)	1.8413	303.882	
0	5	3	2	0	5	2	3	234091.226(0.080)	234091.175(0.016)	2.5154	16.005	LIA86
2	12	11	1 -	2	11	11	0 -		234100.800(0.340)	11.7788	489.860	
2	12	11	1 -	2	11	11	0 -		234100.800(0.340)	11.7788	489.860	
2	12	11	2 +	2	11	11	1 +		234100.800(0.340)	11.7788	489.860	
2	12	11	2 +	2	11	11	1 +		234100.800(0.340)	11.7788	489.860	

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c' P'	ν_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	7	3	4 -	0	7	2	5 +	234144.480(0.080)	234144.516(0.012)	3.9609	24.361	LIA86
0	4	3	1	0	4	2	2	234198.426(0.080)	234198.322(0.016)	1.8186	12.787	LIA86
0	3	3	0	0	3	2	1	234242.101(0.080)	234241.554(0.017)	1.0096	10.214	*LIA86
2	8	1	8 +	2	7	0	7 +		234242.105(0.702)	6.4939	273.349	
2	19	2	17 +	2	19	1	18 -		234338.225(2.313)	20.6807	384.885	
0	6	-3	4	0	6	-2	5	234385.785(0.080)	234385.736(0.014)	3.0610	19.784	LIA86
2	18	2	16 +	2	18	1	17 -		234389.851(2.261)	19.3485	372.320	
0	5	-3	3	0	5	-2	4	234396.867(0.080)	234396.724(0.015)	2.5163	15.925	LIA86
0	18	-2	17	0	18	-1	18		234401.335(0.087)	6.9453	107.885	
0	4	-3	2	0	4	-2	3	234437.949(0.080)	234437.927(0.015)	1.8196	12.709	LIA86
0	3	-3	1	0	3	-2	2	234469.387(0.080)	234469.237(0.016)	1.0102	10.136	LIA86
0	7	-3	5	0	7	-2	6	234486.470(0.080)	234486.196(0.014)	3.3838	24.284	LIA86
1	23	1	22 -	1	23	1	23 +		234543.806(0.752)	1.6090	316.327	
2	12	4	8	2	11	4	7	234707.922(1.000)	234707.256(0.205)	66.8539	330.979	BEL93
0	8	-3	6	0	8	-2	7	234781.600(0.080)	234781.701(0.014)	3.5591	29.422	LIA86
0	12	2	10	0	11	2	9	234795.460(0.080)	234795.450(0.008)	73.7700	49.068	LIA86
0	12	2	10 +	0	11	2	9 +	234825.830(0.080)	234825.875(0.008)	73.7887	49.052	LIA86
0	6	3	3 -	0	6	2	4 +	234842.894(0.080)	234842.780(0.013)	3.2717	19.835	LIA86
1	13	-3	10	1	13	-2	11	234894.124(0.050)	234894.195(0.034)	7.8255	208.382	BAR93
1	12	2	10 +	1	11	2	9 +	234902.930(0.080)	234902.956(0.018)	74.1736	191.791	LIA86
2	12	7	6	2	11	7	5	234982.851(1.000)	234982.598(0.171)	48.3511	375.106	BEL93
2	12	-4	9	2	11	-4	8		235044.125(0.142)	65.3455	324.485	
1	12	1	11 -	1	11	1	10 -	235217.820(0.080)	235217.832(0.017)	75.9894	188.340	LIA86
0	5	3	2 -	0	5	2	3 +	235289.309(0.080)	235289.256(0.013)	2.5683	15.962	LIA86
2	12	10	2 +	2	11	10	1 +	235291.427(1.000)	235291.983(0.274)	22.3202	453.283	BEL93
2	12	10	3 -	2	11	10	2 -	235291.427(1.000)	235291.983(0.274)	22.3202	453.283	BEL93
0	9	-3	7	0	9	-2	8	235320.950(0.080)	235321.146(0.014)	3.7655	35.197	LIA86
2	17	2	15 +	2	17	1	16 -		235340.496(2.228)	17.9639	360.401	
2	15	0	15 +	2	14	1	14 +		235356.648(0.694)	13.1141	324.470	
2	12	2	10 +	2	11	2	9 +	235458.073(1.000)	235457.753(0.115)	71.3560	311.071	BEL93
0	4	3	1 -	0	4	2	2 +	235550.094(0.080)	235550.130(0.014)	1.8297	12.739	LIA86
0	18	2	17 -	0	18	1	18 +	235630.250(1.000)	235629.949(0.089)	6.9978	107.837	BEL93
0	3	3	0 -	0	3	2	1 +	235684.164(0.080)	235684.326(0.014)	1.0126	10.163	LIA86
0	3	3	1 +	0	3	2	2 -	235774.063(0.050)	235774.108(0.014)	1.0123	10.160	BAR93
2	6	2	4	2	5	1	4		235800.062(3.546)	2.1112	285.977	
0	4	3	2 +	0	4	2	3 -	235818.410(0.080)	235818.458(0.014)	1.8284	12.730	LIA86
1	12	-1	11	1	11	-1	10	235885.210(0.080)	235885.280(0.014)	74.7326	187.398	LIA86
0	5	3	3 +	0	5	2	4 -	235911.873(0.080)	235911.991(0.013)	2.5641	15.941	LIA86
0	12	1	11	0	11	1	10	235996.190(0.080)	235996.202(0.008)	75.3165	45.089	LIA86
2	12	-11	1	2	11	-11	0		236012.383(0.551)	11.6757	487.097	
0	12	1	11 -	0	11	1	10 -	236049.150(0.080)	236049.136(0.008)	75.2762	45.044	LIA86
1	7	2	6	1	6	-1	5		236065.607(0.042)	0.3133	157.921	
0	6	3	4 +	0	6	2	5 -	236078.870(0.080)	236079.060(0.012)	3.2609	19.794	LIA86
0	10	-3	8	0	10	-2	9	236133.202(0.080)	236133.162(0.014)	4.1312	41.608	LIA86
1	16	-1	15	1	15	2	14		236146.425(0.075)	4.4140	225.326	
2	12	9	3 -	2	11	9	2 -	236206.042(1.000)	236205.911(0.293)	31.8204	423.058	BEL93
2	12	9	4 +	2	11	9	3 +	236206.042(1.000)	236205.938(0.293)	31.8204	423.058	BEL93
2	12	8	5 -	2	11	8	4 -	236251.507(1.000)	236251.903(0.250)	40.6072	399.384	BEL93
2	12	8	4 +	2	11	8	3 +	236251.507(1.000)	236251.918(0.250)	40.6072	399.384	BEL93
0	7	3	5 +	0	7	2	6 -	236347.801(0.080)	236347.852(0.012)	3.9374	24.287	LIA86
1	2	-2	0	1	1	1	1	236371.394(0.050)	236371.334(0.056)	0.0003	143.707	BAR93
1	23	1	22 -	1	23	0	23 +		236392.515(0.729)	6.1073	316.266	
0	6	3	3	0	6	-2	5		236439.968(0.020)	0.1966	19.784	
1	22	2	20	1	21	-3	18		236457.133(0.340)	2.0013	306.609	
0	5	3	2	0	5	-2	4		236470.503(0.021)	0.0446	15.925	
2	12	6	7	2	11	6	6	236508.207(1.000)	236506.743(0.190)	54.6615	353.934	BEL93
0	7	3	4	0	7	-2	6		236517.427(0.018)	0.5493	24.284	
0	4	3	1	0	4	-2	3		236527.746(0.022)	0.0061	12.709	
0	3	3	0	0	3	-2	2		236571.701(0.022)	0.0004	10.136	
0	8	3	6 +	0	8	2	7 -	236749.754(0.080)	236749.854(0.011)	4.6025	29.419	LIA86
0	8	3	5	0	8	-2	7	236785.720(1.000)	236787.217(0.017)	1.0371	29.422	BEL93
1	12	-3	9	1	12	-2	10	236837.011(0.080)	236837.309(0.031)	7.2179	199.953	LIA86
1	18	3	16 +	1	18	2	17 -		236871.683(0.166)	9.8318	258.445	

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c', P'	ν_1''	J''	K_a''	K_c'', P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	5	2	4	1	4	1	4	236980.119(0.050)	236980.126(0.039)	2.1252	149.486	BAR93
2	16	2	14 +	2	16	1	15 -		237096.478(2.210)	16.5515	349.131	
0	11	-3	9	0	11	-2	10	237244.090(0.080)	237244.115(0.015)	4.7328	48.655	LIA86
2	21	2	19 +	2	21	1	20 -		237266.650(2.504)	23.0913	411.938	
1	4	-2	2	1	3	-1	2	237286.079(0.050)	237286.265(0.027)	2.1513	148.176	BAR93
0	9	3	6	0	9	-2	8		237301.187(0.016)	1.4863	35.197	
0	9	3	7 +	0	9	2	8 -	237319.286(0.080)	237319.243(0.011)	5.2605	35.191	LIA86
2	3	-3	1	2	2	-2	1		238047.974(1.858)	0.8760	265.061	
0	10	3	8 +	0	10	2	9 -	238092.283(0.080)	238092.220(0.011)	5.9130	41.600	LIA86
0	10	3	7	0	10	-2	9		238096.974(0.015)	1.7706	41.608	
1	11	-3	8	1	11	-2	9	238283.962(0.080)	238284.059(0.029)	6.5810	192.188	LIA86
2	12	5	8	2	11	5	7	238407.116(1.000)	238406.430(0.227)	60.2185	339.548	BEL93
0	12	-3	10	0	12	-2	11	238677.098(0.080)	238677.050(0.015)	5.6029	56.338	LIA86
1	18	2	17	1	18	1	18	238716.140(1.000)	238716.693(0.223)	7.0642	250.138	BEL93
0	11	3	9 +	0	11	2	10 -	239106.297(0.080)	239106.312(0.011)	6.5598	48.646	LIA86
2	9	3	6 -	2	10	2	9 -		239189.981(4.251)	1.8267	303.707	
0	11	3	8	0	11	-2	10		239224.106(0.015)	1.8133	48.655	
2	16	-2	15	2	15	-1	15		239280.194(1.881)	11.4631	340.292	
2	13	11	3	2	12	11	2	239306.380(1.000)	239306.616(1.977)	24.2284	511.628	BEL93
1	10	-3	7	1	10	-2	8	239353.376(0.080)	239353.548(0.029)	5.9267	185.080	LIA86
2	15	2	13 +	2	15	1	14 -		239556.328(2.203)	15.1351	338.511	
2	12	1	11 -	2	11	1	10 -	239601.216(1.000)	239600.801(0.163)	72.5639	302.592	BEL93
1	13	-2	11	1	13	1	13		239609.142(0.105)	0.7121	200.389	
0	22	1	21	0	22	-1	22		239611.564(0.249)	0.8040	158.536	
0	19	1	18	0	18	2	16		239886.122(0.055)	0.0012	117.918	
2	15	-3	13	2	15	-2	14		240038.489(2.862)	7.1072	338.163	
1	9	-3	6	1	9	-2	7	240143.254(0.080)	240143.338(0.030)	5.2642	178.627	LIA86
2	22	2	20 +	2	22	1	21 -		240394.167(2.657)	24.1263	426.419	
0	12	3	10 +	0	12	2	11 -	240399.656(0.080)	240399.657(0.011)	7.1995	56.328	LIA86
0	13	-3	11	0	13	-2	12	240445.826(0.050)	240445.867(0.015)	6.6678	64.654	BAR93
0	22	1	21 -	0	22	1	22 +		240470.973(0.255)	0.7715	158.491	
1	12	1	12 +	1	11	0	11 +	240608.634(0.080)	240608.704(0.026)	8.5742	185.662	LIA86
0	21	2	19 +	0	20	3	18 +		240613.841(0.116)	5.2049	149.349	
2	12	0	12	2	11	0	11	240651.712(1.000)	240652.057(0.193)	67.2904	313.292	BEL93
1	8	-3	5	1	8	-2	6	240727.254(0.080)	240727.276(0.031)	4.5981	172.826	LIA86
0	12	3	9	0	12	-2	11	240755.580(1.000)	240755.893(0.015)	1.5803	56.338	BEL93
1	7	-3	4	1	7	-2	5	241158.980(0.080)	241159.017(0.032)	3.9284	167.673	LIA86
1	16	1	15 -	1	15	2	14 -	241227.530(1.000)	241227.174(0.123)	5.8186	225.920	BEL93
0	5	-2	4	0	4	-1	4	241321.894(0.050)	241321.875(0.014)	0.9405	7.876	BAR93
1	6	-3	3	1	6	-2	4	241477.039(0.080)	241477.037(0.033)	3.2504	163.167	LIA86
0	21	2	19	0	20	-3	18	241563.090(1.000)	241562.995(0.113)	5.1885	149.323	BEL93
2	9	-1	9	2	8	-2	7		241683.860(1.610)	4.7769	285.205	
1	5	-3	2	1	5	-2	3	241709.105(0.050)	241709.134(0.035)	2.5545	159.306	BAR93
1	19	3	17 +	1	19	2	18 -	241768.500(1.000)	241768.652(0.205)	10.2454	270.539	BEL93
1	21	2	20 -	1	21	1	21 +	241853.670(1.000)	241853.827(0.430)	5.8438	288.530	BEL93
1	4	-3	1	1	4	-2	2	241875.712(0.050)	241875.760(0.036)	1.8212	156.091	BAR93
2	20	1	19 -	2	20	1	20 +		241941.715(3.166)	0.4610	390.022	
2	13	-8	5	2	12	-8	4	241970.046(1.000)	241969.562(0.325)	55.3072	423.119	BEL93
1	3	-3	0	1	3	-2	1	241992.259(0.050)	241992.213(0.038)	1.0084	153.520	BAR93
0	13	3	11 -	0	13	2	12 -	242010.294(0.050)	242010.276(0.012)	7.8299	64.645	BAR93
0	13	-1	13	0	12	-1	12	242106.018(0.050)	242106.023(0.010)	81.7005	50.231	BAR93
0	13	1	13 +	0	12	1	12 +	242118.140(0.050)	242118.143(0.010)	81.6426	50.180	BAR93
2	13	12	2	2	12	12	1		242181.405(1.421)	13.3239	542.822	
0	22	1	21	0	22	0	22	242205.390(1.000)	242204.857(0.242)	7.6714	158.449	BEL93
1	13	3	11	1	13	2	12	242313.316(0.050)	242313.242(0.043)	7.7146	206.594	BAR93
1	13	1	13 -	1	12	1	12 +	242381.632(0.050)	242381.631(0.020)	82.7443	193.688	BAR93
1	14	3	12	1	14	2	13	242387.732(0.050)	242387.570(0.047)	8.1701	215.645	BAR93
0	14	-3	12	0	14	-2	13	242560.212(0.050)	242560.275(0.016)	7.7371	73.604	BAR93
2	14	2	12 -	2	14	1	13 -		242611.537(2.204)	13.7362	328.546	
1	12	3	10	1	12	2	11	242689.610(0.080)	242689.721(0.040)	7.1807	198.178	LIA86
2	19	3	16	2	20	-2	19		242722.810(8.512)	0.0158	394.927	
0	13	3	10	0	13	-2	12	242792.720(1.000)	242792.987(0.015)	1.1431	64.654	BEL93
2	13	5	9 -	2	12	5	8 +	242951.611(1.000)	242951.239(0.235)	75.0572	362.447	BEL93

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	13	5	8	-	2	12	5	7	-	242951.611(1.000)	242951.280(0.235)	75.0572	362.447	BEL93
0	15	2	13		0	15	-1	15			242976.435(0.050)	0.0016	76.301	
0	22	1	21	-	0	22	0	22	+	243111.560(1.000)	243111.016(0.247)	7.7463	158.403	BEL93
1	15	3	13		1	15	2	14		243124.950(1.000)	243125.121(0.057)	8.5413	225.326	BEL93
1	13	1	13		1	12	1	12		243178.660(0.050)	243178.657(0.018)	81.0494	192.278	BAR93
1	11	3	9		1	11	2	10		243316.100(0.080)	243316.235(0.038)	6.5887	190.405	LIA86
1	22	-1	21		1	22	1	22			243551.561(0.572)	0.8312	300.937	
1	8	5	4	+	1	9	4	5	+		243579.989(0.324)	0.6286	195.413	
1	8	5	3	-	1	9	4	6	-		243582.516(0.324)	0.6286	195.413	
0	5	2	3		0	4	-1	4		243701.020(1.000)	243701.202(0.014)	1.1998	7.876	BEL93
0	5	2	3	+	0	4	1	4	+	243968.068(0.050)	243968.065(0.013)	2.1484	7.824	BAR93
0	14	3	12	+	0	14	2	13	-	243974.550(1.000)	243975.379(0.014)	8.4480	73.595	BEL93
2	13	-1	13		2	12	-1	12		244028.820(1.000)	244027.982(0.174)	78.6879	314.036	BEL93
1	10	3	8		1	10	2	9		244031.191(0.080)	244031.364(0.037)	5.9597	183.277	LIA86
2	13	2	11		2	12	2	10		244145.745(1.000)	244146.319(0.322)	84.1534	328.986	BEL93
2	13	1	13	+	2	12	1	12	+	244175.672(1.000)	244176.040(0.176)	78.5932	307.509	BEL93
1	6	2	4	+	1	5	1	5	+	244208.453(0.050)	244208.415(0.023)	2.0370	154.407	BAR93
2	16	-3	14		2	16	-2	15			244223.733(2.935)	7.6093	348.274	
2	13	-9	4		2	12	-9	3		244312.994(1.000)	244316.022(0.491)	45.4065	444.905	BEL93
2	13	3	10		2	12	3	9		244362.281(1.000)	244361.749(0.207)	80.4793	332.587	BEL93
1	13	0	13	+	1	12	0	12	+	244511.470(0.019)	244511.470(0.019)	83.0515	193.208	BAR93
2	8	3	5		2	7	2	5			244557.997(2.616)	2.3932	298.095	
0	10	1	9		0	9	-1	9			244700.246(0.015)	0.0013	29.702	
0	19	-2	18		0	19	-1	19			244703.604(0.109)	7.0566	119.634	
1	16	3	14		1	16	2	15			244711.460(0.072)	8.8479	235.632	
2	23	2	21	+	2	23	1	22	-		244715.563(2.861)	25.0237	441.531	
1	9	3	7		1	9	2	8		244723.691(0.080)	244723.639(0.036)	5.3095	176.799	LIA86
0	13	0	13		0	12	0	12		244789.257(0.050)	244789.253(0.010)	81.9642	49.621	BAR93
2	9	1	8		2	10	-2	9			244811.594(6.324)	0.0007	297.123	
0	13	0	13	+	0	12	0	12	+	244832.181(0.050)	244832.183(0.010)	81.9045	49.561	BAR93
0	12	-1	12		0	11	0	11		244853.650(0.080)	244853.641(0.011)	9.4195	42.064	LIA86
1	7	2	6	-	1	6	1	5	-	244943.563(0.050)	244943.449(0.022)	2.8000	158.836	BAR93
0	15	-3	13		0	15	-2	14		245039.650(1.000)	245039.980(0.018)	8.6608	83.185	BEL93
0	12	1	12	+	0	11	0	11	+	245168.615(0.050)	245168.586(0.012)	9.4542	42.002	BAR93
2	10	2	8		2	11	-1	11			245193.195(7.741)	0.0034	306.506	
1	8	3	6		1	8	2	7		245328.563(0.080)	245328.546(0.036)	4.6471	170.972	LIA86
0	14	3	11	0	14	-2	13				245454.810(0.017)	0.6891	73.604	
1	13	0	13		1	12	0	12		245583.113(0.050)	245583.119(0.017)	81.5841	191.654	BAR93
2	13	6	8	-	2	12	6	7	-	245682.303(1.000)	245681.550(0.221)	67.6010	374.926	BEL93
2	13	6	7	+	2	12	6	6	+	245682.303(1.000)	245681.553(0.221)	67.6010	374.926	BEL93
1	7	3	5		1	7	2	6		245818.531(0.080)	245818.542(0.037)	3.9754	165.795	LIA86
1	7	-5	3		1	8	-4	4			245923.468(0.320)	0.4218	191.495	
0	19	2	18	-	0	19	1	19	+		245939.534(0.112)	7.1127	119.587	
0	14	-2	13		0	13	2	11			245954.939(0.018)	0.0120	65.400	
1	12	1	12		1	11	0	11		245969.511(0.080)	245969.530(0.034)	9.0946	184.073	LIA86
1	20	-1	19		1	19	-2	17			246000.735(0.265)	0.5164	273.089	
2	13	2	11	+	2	13	1	12	-		246147.888(2.212)	12.3735	319.236	
2	13	-2	12		2	12	-2	11		246169.330(1.000)	246169.004(0.171)	82.9465	311.623	BEL93
1	9	5	4		1	10	4	7			246170.148(0.234)	0.8650	202.982	
1	6	3	4		1	6	2	5		246191.437(0.080)	246191.345(0.038)	3.2919	161.268	LIA86
0	9	1	8		0	8	0	8			246303.989(0.012)	0.0013	23.074	
0	15	3	13	+	0	15	2	14	-	246330.070(1.000)	246330.689(0.016)	9.0505	83.176	BEL93
2	13	10	4		2	12	10	3		246403.214(1.000)	246403.830(0.442)	34.8762	478.137	BEL93
1	3	3	1		1	2	-2	0			246426.637(0.070)	7.1E-8	151.592	
1	5	3	3		1	5	2	4		246459.605(0.050)	246459.468(0.040)	2.5882	157.391	BAR93
1	4	3	2		1	4	2	3			246642.163(0.042)	1.8455	154.162	
1	22	-1	21		1	22	0	22			246676.180(0.556)	7.9804	300.833	
1	3	3	1		1	3	2	2		246760.104(0.050)	246759.932(0.043)	1.0219	151.581	BAR93
2	13	-7	6		2	12	-7	5		247116.740(1.000)	247117.245(0.243)	60.1706	399.646	BEL93
0	14	0	14	+	0	13	1	13	+	247142.114(0.050)	247142.173(0.014)	11.3764	58.256	BAR93
0	12	2	10		0	11	-2	10			247161.764(0.012)	0.0450	48.655	
1	20	3	18	+	1	20	2	19	-		247198.557(0.251)	10.6246	283.257	
1	17	3	15		1	17	2	16		247273.240(1.000)	247271.940(0.095)	9.1367	246.557	BEL93

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c'	P'	ν_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	14	0	14	0	13	-1	13			247341.320(0.050)	247341.312(0.014)	11.3344	58.307	BAR93
0	6	-2	5	0	5	1	4			247432.990(0.050)	247433.001(0.014)	1.9005	11.531	BAR93
1	14	0	14	1	13	1	13			247525.771(0.050)	247525.867(0.032)	11.1379	200.389	BAR93
2	7	2	5	2	6	1	5				247644.091(3.656)	2.2855	289.835	
0	22	2	20	0	21	3	18				247662.634(0.108)	0.0058	163.582	
0	16	-3	14	0	16	-2	15			247918.050(1.000)	247918.012(0.020)	9.4249	93.397	BEL93
2	13	4	10	-	2	12	4	9	-		248081.094(0.187)	75.8795	348.965	
2	13	4	9	+	2	12	4	8	+		248085.321(0.187)	75.8796	348.966	
1	21	-2	19	1	20	3	18				248552.494(0.309)	2.8624	291.743	
0	15	3	12	0	15	-2	14			248863.510(1.000)	248862.406(0.020)	0.3646	83.185	BEL93
2	9	1	9	+	2	8	0	8	+		248886.688(0.689)	7.3597	278.511	
0	8	5	4	+	0	9	4	5	+		248990.557(0.148)	0.6397	54.082	
0	8	5	3	-	0	9	4	6	-		248992.726(0.148)	0.6397	54.082	
2	17	-3	15	2	17	-2	16				248998.811(3.029)	8.0798	359.009	
0	13	-3	11	0	12	3	9				249016.605(0.019)	0.9710	64.369	
0	16	3	14	+	0	16	2	15	-		249109.824(0.019)	9.6339	93.388	
2	13	0	13	+	2	12	0	12	+	249119.349(1.000)	249119.288(0.168)	78.9213	305.485	BEL93
2	19	1	18	-	2	19	0	19	+		249250.982(2.683)	14.0595	376.571	
0	6	2	5	-	0	5	1	4	-	249284.543(0.050)	249284.543(0.014)	2.7118	11.478	BAR93
0	13	2	12	-	0	12	2	11	-	249323.934(0.050)	249323.932(0.009)	80.2223	56.328	BAR93
0	13	-2	12	0	12	2	11			249326.639(0.050)	249326.631(0.009)	80.2291	56.338	BAR93
1	13	2	12	-	1	12	2	11	-	249409.977(0.050)	249409.998(0.017)	80.6624	199.064	BAR93
2	11	4	8	-	2	12	3	9	-		249573.597(6.589)	1.8292	333.004	
2	13	-3	11	2	12	-3	10			249597.344(1.000)	249596.965(0.146)	78.1238	319.272	BEL93
2	5	0	5	2	4	-1	4				249832.028(1.594)	0.0029	270.708	
1	13	-12	2	1	12	-12	1			249875.880(1.000)	249875.175(0.098)	12.2555	417.330	BEL93
2	11	4	7	+	2	12	3	10	+		249901.923(6.595)	1.8287	332.993	
1	19	2	18	1	19	1	19				249986.939(0.277)	7.2351	261.923	
1	13	10	3	+	1	12	10	2	+	249989.280(1.000)	249989.301(0.041)	33.7935	348.945	BEL93
1	13	10	4	-	1	12	10	3	-	249989.280(1.000)	249989.301(0.041)	33.7935	348.945	BEL93
1	24	1	23	-	1	24	1	24	+		250025.549(0.866)	1.6687	331.139	
0	6	2	4	0	5	1	4				250027.590(0.014)	0.8023	11.531	
1	13	9	4	-	1	12	9	3	-	250032.790(1.000)	250032.482(0.032)	43.0621	319.642	BEL93
1	13	9	5	+	1	12	9	4	+	250032.790(1.000)	250032.482(0.032)	43.0621	319.642	BEL93
2	12	2	10	+	2	12	1	11	-		250047.350(2.225)	11.0617	310.584	
1	13	7	6	1	12	7	5			250159.500(1.000)	250159.260(0.024)	58.6853	269.758	BEL93
1	13	6	7	1	12	6	6			250191.650(1.000)	250191.137(0.018)	65.0023	249.773	BEL93
2	24	2	22	+	2	24	1	23	-		250283.855(3.123)	25.7706	457.270	
1	13	-11	3	1	12	-11	2				250300.910(0.070)	23.4314	381.306	
1	13	11	2	-	1	12	11	1	-		250303.603(0.061)	23.4533	380.905	
1	13	11	3	+	1	12	11	2	+		250303.603(0.061)	23.4533	380.905	
1	13	8	5	+	1	12	8	4	+	250388.310(1.000)	250387.383(0.026)	51.2032	292.932	BEL93
1	13	8	6	-	1	12	8	5	-	250388.310(1.000)	250387.383(0.026)	51.2032	292.932	BEL93
0	13	12	2	0	12	12	1			250403.182(0.050)	250403.234(0.026)	12.1822	275.376	BAR93
0	13	11	3	0	12	11	2			250409.238(0.050)	250409.253(0.018)	23.3857	239.489	BAR93
0	13	12	1	1	0	12	12	0	+	250421.029(0.050)	250421.044(0.025)	12.1799	275.364	BAR93
0	13	12	2	-	0	12	12	1	-	250421.029(0.050)	250421.044(0.025)	12.1799	275.364	BAR93
0	13	10	4	0	12	10	3			250430.004(0.050)	250430.001(0.014)	33.6080	206.684	BAR93
0	13	-10	3	0	12	-10	2			250449.411(0.050)	250449.483(0.014)	33.6037	206.642	BAR93
0	13	-9	4	0	12	-9	3			250450.241(0.050)	250450.222(0.013)	42.8555	176.976	BAR93
0	13	11	2	-	0	12	11	1	-	250452.785(0.050)	250452.809(0.017)	23.3764	239.431	BAR93
0	13	11	3	+	0	12	11	2	+	250452.785(0.050)	250452.809(0.017)	23.3764	239.431	BAR93
0	13	-11	2	0	12	-11	1			250454.477(0.050)	250454.548(0.017)	23.3770	239.415	BAR93
0	13	-12	1	0	12	-12	0				250455.623(0.024)	12.1766	275.302	
1	13	-4	9	1	12	-4	8			250455.898(0.050)	250455.895(0.016)	74.7712	218.476	BAR93
0	13	9	5	0	12	9	4			250463.334(0.050)	250463.345(0.013)	42.8489	176.968	BAR93
1	13	8	5	1	12	8	4			250463.334(0.050)	250463.352(0.029)	51.2280	292.447	2
0	13	-8	5	0	12	-8	4			250466.102(0.050)	250466.085(0.012)	51.1293	150.411	BAR93
0	13	10	3	+	0	12	10	2	+	250479.020(0.050)	250479.038(0.014)	33.5941	206.607	BAR93
0	13	10	4	-	0	12	10	3	-	250479.020(0.050)	250479.038(0.014)	33.5941	206.607	BAR93
1	14	0	14	-	1	13	1	13	+	250493.000(0.050)	250492.909(0.035)	10.3012	201.773	BAR93
0	13	9	4	-	0	12	9	3	-	250496.758(0.050)	250496.780(0.013)	42.8382	176.907	BAR93
0	13	9	5	+	0	12	9	4	+	250496.758(0.050)	250496.780(0.013)	42.8382	176.907	BAR93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	13	-7	6		0	12	-7	5		250503.985(0.050)	250503.988(0.011)	58.4226	126.945	BAR93
0	13	8	6		0	12	8	5		250504.551(0.050)	250504.522(0.012)	51.1114	150.358	BAR93
0	13	8	5 +		0	12	8	4 +		250508.860(0.050)	250508.876(0.012)	51.1119	150.339	BAR93
0	13	8	6 -		0	12	8	5 -		250508.860(0.050)	250508.876(0.012)	51.1119	150.339	BAR93
0	13	7	6 -		0	12	7	5 -		250524.481(0.050)	250524.485(0.011)	58.4155	126.902	BAR93
0	13	7	7 +		0	12	7	6 +		250524.481(0.050)	250524.485(0.011)	58.4155	126.902	BAR93
0	13	7	7		0	12	7	6		250550.126(0.050)	250550.131(0.011)	58.4006	126.872	BAR93
0	13	6	8 -		0	12	6	7 -		250559.106(0.050)	250559.093(0.010)	64.7453	106.588	BAR93
0	13	6	7 +		0	12	6	6 +		250559.106(0.050)	250559.097(0.010)	64.7453	106.588	BAR93
1	13	5	8		1	12	5	7			250560.589(0.015)	70.1470	232.404	
0	13	-6	7		0	12	-6	6		250569.522(0.050)	250569.506(0.010)	64.7359	106.584	BAR93
0	13	6	8		0	12	6	7		250603.144(0.050)	250603.152(0.010)	64.7213	106.523	BAR93
0	13	5	9 +		0	12	5	8 +		250636.869(0.050)	250636.685(0.009)	70.0966	89.391	*BAR93
0	13	5	8 -		0	12	5	7 -		250636.869(0.050)	250637.013(0.009)	70.0966	89.391	*BAR93
0	13	-5	8		0	12	-5	7		250673.676(0.050)	250673.675(0.009)	70.0733	89.342	BAR93
0	13	5	9		0	12	5	8		250680.194(0.050)	250680.124(0.009)	70.0755	89.321	*BAR93
1	13	-5	9		1	12	-5	8		250680.194(0.050)	250680.420(0.018)	70.2168	231.854	*BAR93
1	13	-3	10		1	12	-3	9		250738.160(0.050)	250738.126(0.015)	78.0667	207.853	BAR93
1	14	-2	12		1	14	1	14			250760.606(0.128)	0.5934	209.114	
0	13	4	10 -		0	12	4	9 -		250795.662(0.050)	250795.637(0.008)	74.4657	75.310	BAR93
1	13	12	1 +		1	12	12	0 +			250799.188(0.103)	12.1647	415.780	
1	13	12	2 -		1	12	12	1 -			250799.188(0.103)	12.1647	415.780	
1	13	-10	4		1	12	-10	3			250805.267(0.055)	33.5270	348.053	
0	13	4	9 +		0	12	4	8 +		250814.731(0.050)	250814.711(0.008)	74.4657	75.311	BAR93
0	13	4	9		0	12	4	8		250829.156(0.050)	250829.155(0.008)	74.4486	75.267	BAR93
0	13	-4	10		0	12	-4	9		250853.146(0.050)	250853.155(0.008)	74.4285	75.240	BAR93
1	18	3	16		1	18	2	17			250856.160(0.126)	9.4683	258.101	
1	13	7	6 -		1	12	7	5 -		250858.458(0.050)	250858.476(0.021)	58.2773	268.987	BAR93
1	13	7	7 +		1	12	7	6 +		250858.458(0.050)	250858.476(0.021)	58.2773	268.987	BAR93
1	13	9	4		1	12	9	3		250907.081(0.050)	250907.083(0.038)	42.7700	318.105	BAR93
0	13	3	11 +		0	12	3	10 +		250934.555(0.050)	250934.551(0.009)	77.8497	64.347	BAR93
2	8	5	4 +		2	9	4	5 +			250984.005(8.122)	0.5871	327.970	
2	8	5	3 -		2	9	4	6 -			250984.463(8.122)	0.5871	327.970	
1	13	-6	8		1	12	-6	7		251063.790(1.000)	251062.968(0.023)	64.6097	248.241	BEL93
0	13	-3	11		0	12	-3	10		251095.439(0.050)	251095.449(0.009)	76.8731	64.299	BAR93
1	13	4	10		1	12	4	9		251133.916(0.050)	251133.964(0.014)	74.2299	217.798	BAR93
1	13	-9	5		1	12	-9	4		251199.400(1.000)	251198.720(0.040)	42.6184	317.899	BEL93
1	13	12	1		1	12	12	0			251209.232(0.134)	12.1097	415.455	
0	17	-3	15		0	17	-2	16			251231.789(0.025)	10.0752	104.237	
2	13	9	5		2	12	9	4		251233.630(1.000)	251233.585(0.248)	42.4520	443.071	BEL93
1	13	10	3		1	12	10	2			251254.732(0.058)	33.4271	347.039	
2	13	-6	7		2	12	-6	6			251256.637(0.144)	64.0147	374.171	
1	13	6	8 -		1	12	6	7 -		251275.186(0.050)	251275.176(0.019)	64.3963	248.120	BAR93
1	13	6	7 +		1	12	6	6 +		251275.186(0.050)	251275.180(0.019)	64.3963	248.120	BAR93
2	13	-10	3		2	12	-10	2		251301.110(1.000)	251299.753(0.350)	33.5933	468.028	BEL93
1	13	-7	7		1	12	-7	6			251338.246(0.030)	58.1153	267.935	
0	13	3	10		0	12	3	9		251363.741(0.050)	251363.725(0.009)	76.8956	64.369	BAR93
1	13	11	2		1	12	11	1			251368.216(0.086)	23.2234	379.471	
1	13	-8	6		1	12	-8	5		251388.780(1.000)	251388.141(0.033)	50.7926	291.142	BEL93
2	13	12	1 +		2	12	12	0 +		251418.962(1.000)	251419.054(0.538)	12.0556	539.485	BEL93
2	13	12	2 -		2	12	12	1 -		251418.962(1.000)	251419.054(0.538)	12.0556	539.485	BEL93
0	13	3	10 -		0	12	3	9 -		251489.289(0.050)	251489.283(0.009)	77.8507	64.379	BAR93
1	13	3	11 +		1	12	3	10 +		251537.828(0.050)	251537.876(0.014)	77.8126	206.324	BAR93
1	24	1	23 -		1	24	0	24 +			251541.674(0.844)	6.0334	331.089	
1	13	5	9 +		1	12	5	8 +		251560.223(0.050)	251560.013(0.017)	69.6561	230.640	*BAR93
1	13	5	8 -		1	12	5	7 -		251560.223(0.050)	251560.377(0.017)	69.6561	230.640	*BAR93
1	13	4	10 -		1	12	4	9 -		251698.919(0.050)	251698.911(0.015)	74.1204	216.717	BAR93
2	13	1	12		2	12	1	11			251718.513(0.289)	76.7826	326.590	
1	13	4	9 +		1	12	4	8 +		251720.634(0.050)	251720.633(0.015)	74.1204	216.718	BAR93
2	4	2	2		2	5	-3	3			251730.710(6.640)	0.0055	287.223	
2	13	3	11 +		2	12	3	10 +		251743.915(1.000)	251743.311(0.076)	76.2421	332.993	BEL93
2	13	2	12 -		2	12	2	11 -		251769.923(1.000)	251769.536(0.105)	77.5989	318.574	BEL93
1	4	4	1		1	5	3	3			251845.472(0.080)	0.1164	165.612	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	13	3	11		1	12	3	10		251912.621(0.050)	251912.671(0.014)	77.4119	206.274	BAR93
2	13	3	10	-	2	12	3	9	-	251939.701(1.000)	251939.220(0.075)	76.2432	333.004	BEL93
1	13	3	10	-	1	12	3	9	-	252144.263(0.050)	252144.301(0.015)	77.8137	206.359	BAR93
1	13	2	12		1	12	2	11		252289.052(0.050)	252289.149(0.017)	79.5933	198.178	BAR93
2	13	7	6	-	2	12	7	5	-	252330.843(1.000)	252329.725(0.223)	57.9776	389.252	BEL93
2	13	7	7	+	2	12	7	6	+	252330.843(1.000)	252329.726(0.223)	57.9776	389.252	BEL93
0	17	-3	15	+	0	17	2	16	-		252343.725(0.023)	10.1947	104.229	
1	13	-2	11		1	12	-2	10		252681.262(0.050)	252681.240(0.016)	79.6962	199.953	BAR93
0	20	1	19	0	19	2		17			252723.461(0.070)	0.0008	130.414	
1	22	2	21	-	1	22	1	22	+	252866.680(1.000)	252866.349(0.515)	5.8392	302.124	BEL93
2	13	-5	8		2	12	-5	7		253049.506(1.000)	253048.619(0.132)	68.2688	350.733	BEL93
0	16	3	13	0	16	-2		15		253132.660(1.000)	253132.434(0.026)	0.1806	93.397	BEL93
1	21	3	19	+	1	21	2	20	-	253170.590(1.000)	253170.659(0.306)	10.9682	296.598	BEL93
2	13	8	6		2	12	8	5		253252.474(1.000)	253251.668(0.198)	49.7566	410.447	BEL93
2	13	4	9		2	12	4	8			253430.621(0.206)	73.9668	338.808	
0	13	3	10	0	12	-3		10			253442.569(0.019)	0.9694	64.299	
2	13	11	2	-	2	12	11	1	-	253624.292(1.000)	253623.773(0.358)	22.6927	497.669	BEL93
2	13	11	3	+	2	12	11	2	+	253624.292(1.000)	253623.773(0.358)	22.6927	497.669	BEL93
2	11	2	9	+	2	11	1	10	-		254190.398(2.241)	9.8115	302.592	
1	8	2	7		1	7	-1	6			254216.053(0.041)	0.5391	162.492	
1	13	1	12		1	12	1	11	-	254488.911(0.050)	254488.901(0.020)	82.3741	196.186	BAR93
2	18	-3	16		2	18	-2	17			254527.860(3.152)	8.5029	370.366	
2	13	7	7		2	12	7	6		254622.753(1.000)	254621.475(0.177)	56.3817	382.944	BEL93
0	13	2	11	0	12	2		10		254827.184(0.050)	254827.143(0.010)	80.2886	56.900	BAR93
2	13	-4	10		2	12	-4	9			254829.470(0.154)	72.1125	332.325	
0	13	2	11	+	0	12	2	10	+	254850.502(0.050)	254850.487(0.010)	80.2823	56.885	BAR93
1	13	2	11	+	1	12	2	10	+	254877.489(0.050)	254877.516(0.023)	80.7083	199.626	BAR93
2	13	10	3	+	2	12	10	2	+	254924.598(1.000)	254924.081(0.282)	32.3125	461.132	BEL93
2	13	10	4	-	2	12	10	3	-	254924.598(1.000)	254924.081(0.282)	32.3125	461.132	BEL93
0	17	1	16	-	0	16	2	15	-	254964.900(1.000)	254964.425(0.044)	6.8658	93.388	BEL93
0	18	-3	16	0	18	-2		17		255016.270(1.000)	255015.717(0.031)	10.6514	115.704	BEL93
0	13	1	12	0	12	1		11		255326.976(0.050)	255326.956(0.010)	81.6561	52.961	BAR93
1	13	-1	12		1	12	-1	11		255371.937(0.050)	255372.043(0.017)	81.1156	195.266	BAR93
0	13	1	12	-	0	12	1	11	-	255384.744(0.050)	255384.756(0.010)	81.6125	52.918	BAR93
1	19	3	17		1	19	2	18			255438.310(0.164)	9.8972	270.261	
0	20	-2	19	0	20	-1		20		255442.560(1.000)	255443.078(0.136)	7.1492	131.993	BEL93
2	13	2	11	+	2	12	2	10	+	255477.150(1.000)	255476.008(0.131)	77.6207	318.925	BEL93
1	21	2	19	+	1	20	3	18	+		255539.197(0.466)	5.0226	291.503	
1	3	-2	1		1	2	1	2			255542.898(0.053)	0.0026	144.996	
2	13	-11	2		2	12	-11	1			255554.910(0.555)	22.5202	494.970	
2	13	8	6	-	2	12	8	5	-		255657.134(0.819)	48.8910	407.264	
2	13	8	6	-	2	12	8	5	-		255657.134(0.819)	48.8910	407.264	
2	13	8	5	+	2	12	8	4	+		255657.577(0.815)	48.8940	407.264	
2	13	8	5	+	2	12	8	4	+		255657.577(0.815)	48.8940	407.264	
0	17	1	16	0	16	-2		15			255658.378(0.042)	6.8545	93.397	
2	13	9	4	-	2	12	9	3	-	255901.822(1.000)	255901.662(0.300)	41.0434	430.936	BEL93
2	13	9	5	+	2	12	9	4	+	255901.822(1.000)	255901.828(0.300)	41.0433	430.936	BEL93
2	19	0	19		2	18	1	17			255976.233(4.303)	6.8124	386.230	
1	5	-2	3		1	4	-1	3		256037.571(0.050)	256037.643(0.026)	2.3596	150.766	BAR93
0	18	3	16	+	0	18	2	17	-	256060.370(1.000)	256060.154(0.030)	10.7295	115.697	BEL93
2	13	-12	1		2	12	-12	0			256121.352(0.710)	11.6204	527.592	
2	13	6	8		2	12	6	7		256307.684(1.000)	256307.241(0.200)	62.1576	361.823	BEL93
1	10	-1	9		1	9	1	9			256615.469(0.051)	0.4859	171.623	
0	23	1	22	0	23	-1		23			256652.176(0.293)	0.8043	172.719	
0	23	1	22	0	23	-1		23			256652.176(0.293)	0.8043	172.719	
0	20	2	19	-	0	20	1	20	+	256688.810(1.000)	256688.578(0.139)	7.2089	131.946	BEL93
1	13	1	13	+	1	12	0	12	+	256748.520(0.050)	256748.563(0.031)	9.5201	193.208	BAR93
2	25	2	23	+	2	25	1	24	-		257141.937(3.451)	26.3589	473.631	
1	6	2	5		1	5	1	5		257560.000(0.050)	257560.008(0.036)	2.1999	152.677	BAR93
0	23	1	22	-	0	23	1	23	+		257585.141(0.299)	0.7685	172.675	
1	9	-1	8		1	8	0	8		257634.162(0.050)	257634.162(0.043)	0.5443	165.031	BAR93
2	13	5	9		2	12	5	8			258094.266(0.232)	67.3948	347.501	
2	14	11	4		2	13	11	3			258101.713(0.881)	37.5665	519.610	

TABLE II. (Continued.)

ν'	J'	K_a'	$K_c' P'$	ν''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b	
0	15	-2	14	0	14	2	12		258316.114(0.024)	0.0068	74.569		
0	17	3	14	0	17	-2	16		258383.141(0.035)	0.0874	104.237		
2	10	2	8 +	2	10	1	9 -		258458.533(2.261)	8.6292	295.261		
2	16	0	16 +	2	15	1	15 +		258530.425(0.690)	14.4304	333.807		
2	16	0	16 +	2	15	1	15 +		258530.425(0.690)	14.4304	333.807		
0	23	1	22	0	23	0	23	258719.600(1.000)	258719.809(0.286)	7.6235	172.650	BEL93	
2	8	3	5 -	2	9	2	8 -		258882.910(4.242)	1.5287	297.239		
1	21	-1	20	1	20	-2	18		259088.680(0.333)	0.3623	286.230		
2	8	2	6	2	7	1	6		259171.261(3.776)	2.4886	294.338		
2	8	1	7	2	9	-2	8		259287.361(6.262)	0.0001	290.841		
0	19	-3	17	0	19	-2	18	259298.640(1.000)	259298.708(0.039)	11.1749	127.797	BEL93	
2	13	1	12 -	2	12	1	11 -	259375.671(1.000)	259375.471(0.175)	78.6834	310.584	BEL93	
1	17	1	16	1	16	2	15		259414.210(0.088)	5.4398	235.632		
0	23	1	22 -	0	23	0	23 +		259689.502(0.292)	7.7001	172.605		
1	22	3	20 +	1	22	2	21 -		259689.717(0.372)	11.2762	310.559		
2	13	0	13	2	12	0	12	259761.824(1.000)	259761.689(0.184)	73.4459	321.320	BEL93	
2	18	3	15	2	19	-2	18		260281.671(8.499)	0.0100	382.340		
0	19	3	17 +	0	19	2	18 -	260283.430(1.000)	260283.255(0.038)	11.2354	127.791	BEL93	
0	13	-1	13	0	12	0	12		260408.025(0.050)	10.4787	49.621	BAR93	
0	14	-1	14	0	13	-1	13		260530.427(0.050)	260530.407(0.014)	88.0477	58.307	BAR93
0	14	1	14 +	0	13	1	13 +		260544.037(0.050)	260544.027(0.014)	87.9830	58.256	BAR93
0	16	2	14	0	16	-1	16		260620.948(0.069)	0.0008	86.218		
0	13	1	13 +	0	12	0	12 +	260694.050(0.050)	260693.997(0.014)	10.5182	49.561	BAR93	
1	23	-1	22	1	23	1	23		260790.614(0.674)	0.8164	315.161		
1	14	1	14 +	1	13	1	13 +	260826.557(0.050)	260826.541(0.025)	89.2044	201.773	BAR93	
2	18	2	16	2	17	3	14		260909.873(4.550)	2.2052	379.680		
2	14	-8	6	2	13	-8	5	260911.402(1.000)	260911.274(0.311)	64.3883	431.191	BEL93	
1	20	3	18	1	20	2	19		260923.919(0.207)	10.4523	283.039		
2	19	-3	17	2	19	-2	18		260956.785(3.311)	8.8639	382.340		
1	8	2	7 -	1	7	1	6 -	261082.138(0.050)	261082.029(0.023)	3.1144	163.433	BAR93	
1	23	-2	21	1	22	-3	19		261212.606(0.376)	1.6251	320.899		
1	20	2	19	1	20	1	20	261453.390(1.000)	261453.688(0.339)	7.3660	274.318	BEL93	
1	14	1	14	1	13	1	13		261563.799(0.050)	261563.800(0.023)	87.3792	200.389	BAR93
1	13	1	13	1	12	0	12		261889.265(0.050)	261889.199(0.037)	10.2437	191.654	BAR93
2	14	5	10 +	2	13	5	9 +		261957.135(1.000)	261957.029(0.233)	82.5266	370.551	BEL93
2	14	5	9 -	2	13	5	8 -		261957.135(1.000)	261957.116(0.233)	82.5266	370.551	BEL93
2	17	-2	16	2	16	-1	16		261960.812(1.846)	12.7378	350.271		
2	10	-1	10	2	9	-2	8		262115.345(1.662)	5.6037	290.841		
2	14	12	3	2	13	12	2		262182.270(2.752)	25.4737	550.900		
2	14	-1	14	2	13	-1	13	262370.285(1.000)	262369.742(0.182)	85.0700	322.176	BEL93	
1	14	0	14 +	1	13	0	13 +		262730.028(0.050)	262730.002(0.024)	89.4502	201.364	BAR93
2	9	2	7 +	2	9	1	8 -		262736.793(2.283)	7.5173	288.592		
2	14	1	14 +	2	13	1	13 +	262811.644(1.000)	262811.820(0.192)	84.6844	315.653	BEL93	
2	14	-9	5	2	13	-9	4		262886.765(0.813)	55.1242	453.055		
2	14	-9	5	2	13	-9	4		262886.765(0.813)	55.1242	453.055		
0	14	0	14	0	13	0	13	262960.106(0.050)	262960.100(0.013)	88.7551	57.786	BAR93	
1	7	5	3 +	1	8	4	4 +		262988.031(0.329)	0.4252	189.605		
1	7	5	2 -	1	8	4	5 -		262989.006(0.329)	0.4252	189.605		
0	14	0	14 +	0	13	0	13 +	263003.999(0.050)	263003.988(0.013)	88.1889	57.727	BAR93	
2	10	1	10 +	2	9	0	9 +		263200.080(1.000)	263200.014(0.679)	8.2744	284.308	BEL93
2	14	3	11	2	13	3	10		263276.076(1.000)	263275.130(0.211)	87.0029	340.738	BEL93
1	23	-1	22	1	23	0	23		263316.056(0.660)	7.9365	315.077		
0	6	-2	5	0	5	-1	5	263421.701(0.050)	263421.694(0.015)	0.6813	10.998	BAR93	
1	15	-2	13	1	15	1	15		263714.468(0.160)	0.4506	218.452		
0	7	-2	6	0	6	1	5	263736.628(0.050)	263736.650(0.014)	2.5095	15.487	BAR93	
1	14	0	14	1	13	0	13	263831.948(0.050)	263831.947(0.021)	87.8066	199.845	BAR93	
2	4	-3	2	2	3	-2	2		264046.026(1.837)	0.3661	266.787		
0	20	-3	18	0	20	-2	19	264104.170(1.000)	264103.925(0.050)	11.6554	140.514	BEL93	
0	21	1	20	0	20	2	18		264181.912(0.089)	0.0005	143.570		
1	23	2	22 -	1	23	1	23 +	264184.140(1.000)	264183.776(0.611)	5.8268	316.327	BEL93	
2	14	2	12	2	13	2	11	264505.008(1.000)	264504.237(0.389)	89.1758	337.130	BEL93	
2	21	1	20 -	2	21	1	21 +		264527.356(3.449)	0.4284	403.114		
2	14	6	9 -	2	13	6	8 -	264589.069(1.000)	264588.055(0.220)	75.3752	383.121	BEL93	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_2'	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	14	6	8 +	2	13	6	7 +	264589.069(1.000)	264588.061(0.220)	75.3752	383.121	BEL93
0	18	3	15	0	18	-2	17		264738.128(0.046)	0.0421	115.704	
1	6	-5	2	1	7	-4	3		265000.448(0.322)	0.2408	186.357	
0	20	3	18 +	0	20	2	19 -	265033.760(1.000)	265033.178(0.049)	11.7097	140.508	BEL93
2	14	-2	13	2	13	-2	12	265258.157(1.000)	265258.076(0.178)	88.9930	319.834	BEL93
2	26	2	24 +	2	26	1	25 -		265320.398(3.850)	26.7856	490.612	
0	7	2	6 -	0	6	1	5 -	265352.847(0.050)	265352.828(0.014)	3.0243	15.435	BAR93
1	25	1	24 -	1	25	1	25 +		265372.724(0.988)	1.7274	346.560	
2	14	10	5	2	13	10	4	265374.141(1.000)	265375.479(0.458)	45.0735	486.356	BEL93
1	17	1	16 -	1	16	2	15 -	265608.810(1.000)	265608.097(0.150)	6.5836	236.134	BEL93
1	8	5	3	1	9	4	6		265842.147(0.234)	0.6415	196.542	
1	4	3	2	1	3	-2	1		265906.082(0.067)	1.9F-6	153.520	
0	6	2	4	0	5	-1	5	266016.261(0.050)	266016.283(0.014)	1.5712	10.998	BAR93
2	14	-7	7	2	13	-7	6	266172.030(1.000)	266172.522(0.251)	68.4419	407.889	BEL93
0	6	2	4 +	0	5	1	5 +	266505.310(0.050)	266505.291(0.014)	2.2623	10.946	BAR93
0	21	-2	20	0	21	-1	21	266591.060(1.000)	266590.539(0.167)	7.2256	144.960	BEL93
1	25	1	24 -	1	25	0	25 +		266616.415(0.968)	5.9688	346.518	
1	23	3	21 +	1	23	2	22 -		266756.026(0.448)	11.5491	325.140	
0	7	2	5	0	6	1	5	266912.317(0.050)	266912.377(0.013)	0.5052	15.487	BAR93
1	21	3	19	1	21	2	20	267165.120(1.000)	267161.523(0.254)	11.1201	296.434	BEL93
2	14	4	11 -	2	13	4	10 -		267241.413(0.198)	82.8586	357.241	
2	14	4	10 +	2	13	4	9 +		267248.675(0.198)	82.8587	357.241	
2	9	3	6	2	8	2	6		267289.144(2.684)	2.7685	302.983	
1	7	2	5 +	1	6	1	6 +	267622.100(0.050)	267622.007(0.026)	2.0828	158.156	BAR93
2	20	1	19 -	2	20	0	20 +		267629.994(2.941)	13.9340	389.165	
2	20	1	19 -	2	20	0	20 +		267629.994(2.941)	13.9340	389.165	
2	9	2	7	2	10	-1	10		267651.533(7.701)	0.0027	299.584	
2	14	0	14 +	2	13	0	13 +	267700.474(1.000)	267701.815(0.184)	84.9647	313.795	BEL93
0	15	0	15 +	0	14	1	14 +	267725.010(1.000)	267725.096(0.018)	12.5651	66.947	BEL93
0	21	2	20 -	0	21	1	21 +	267845.880(1.000)	267847.786(0.170)	7.2889	144.914	BEL93
0	15	0	15	0	14	-1	14	267893.380(1.000)	267893.848(0.017)	12.5158	66.997	BEL93
1	15	0	15	1	14	1	14		267985.584(0.035)	12.4023	209.114	
1	3	3	1 +	1	2	2	0 +		268058.138(0.054)	2.6930	150.941	
0	14	-3	12	0	13	3	10		268068.715(0.018)	1.0881	72.753	
1	3	3	0 -	1	2	2	1 -		268077.079(0.054)	2.6928	150.940	
0	14	-2	13	0	13	-2	12	268301.439(0.050)	268301.427(0.012)	86.6910	64.654	BAR93
0	14	2	13 -	0	13	2	12 -	268306.582(0.050)	268306.577(0.012)	86.6706	64.645	BAR93
0	7	5	3 +	0	8	4	4 +		268331.595(0.148)	0.4321	48.295	
0	7	5	2 -	0	8	4	5 -		268332.429(0.148)	0.4321	48.295	
1	14	2	13 -	1	13	2	12 -	268383.473(0.050)	268383.499(0.020)	87.1591	207.384	BAR93
2	20	-3	18	2	20	-2	19		268402.051(3.509)	9.1505	394.927	
2	14	-3	12	2	13	-3	11	268776.264(1.000)	268775.978(0.164)	84.5370	327.598	BEL93
1	14	-13	2	1	13	-13	1		268985.528(0.163)	12.3076	464.252	
0	22	2	20 +	0	21	3	19 +		269020.916(0.140)	5.7065	162.866	
1	14	-12	3	1	13	-12	2	269103.830(1.000)	269103.780(0.101)	23.6675	425.665	BEL93
1	14	10	4 +	1	13	10	3 +	269222.210(1.000)	269222.196(0.044)	43.6528	357.284	BEL93
1	14	10	5 -	1	13	10	4 -	269222.210(1.000)	269222.196(0.044)	43.6528	357.284	BEL93
1	14	9	6 +	1	13	9	5 +	269275.687(0.050)	269275.664(0.034)	52.2485	327.982	BAR93
1	14	9	5 -	1	13	9	4 -	269275.687(0.050)	269275.665(0.034)	52.2485	327.982	BAR93
1	14	7	7	1	13	7	6	269412.203(0.050)	269412.253(0.026)	66.7460	278.102	BAR93
0	21	-3	19	0	21	-2	20		269449.009(0.064)	12.0967	153.853	
1	14	6	8	1	13	6	7	269459.895(0.050)	269459.906(0.021)	72.6032	258.118	BAR93
0	16	-2	15	0	15	2	13		269527.210(0.033)	0.0042	84.406	
1	14	11	3 -	1	13	11	2 -		269548.226(0.066)	34.0255	389.254	
1	14	11	4 +	1	13	11	3 +		269548.226(0.066)	34.0255	389.254	
1	14	-11	4	1	13	-11	3		269559.923(0.074)	33.9943	389.655	
0	14	13	1 -	0	13	13	0 -	269645.760(0.050)	269645.696(0.044)	12.2193	322.738	BAR93
0	14	13	2 +	0	13	13	1 +	269645.760(0.050)	269645.696(0.044)	12.2193	322.738	BAR93
0	14	12	3	0	13	12	2		269660.106(0.027)	23.5282	283.729	
1	14	8	6 +	1	13	8	5 +	269660.624(0.050)	269660.642(0.028)	59.7678	301.284	BAR93
1	14	8	7 -	1	13	8	6 -	269660.624(0.050)	269660.642(0.028)	59.7678	301.284	BAR93
0	14	13	2	0	13	13	1		269664.791(0.041)	12.2179	322.698	
0	14	11	4	0	13	11	3	269668.427(0.050)	269668.413(0.020)	33.9289	247.842	BAR93

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c'	P'	ν_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	14	12	2	+	0	13	12	1	+	269679.569(0.050)	269679.545(0.026)	23.5238	283.717	BAR93
0	14	12	3	-	0	13	12	2	-	269679.569(0.050)	269679.545(0.026)	23.5238	283.717	BAR93
0	14	10	5		0	13	10	4		269692.925(0.050)	269692.895(0.017)	43.4176	215.037	BAR93
0	14	-13	1		0	13	-13	0		269703.792(0.050)	269703.796(0.043)	12.2137	322.658	BAR93
0	14	-10	4		0	13	-10	3		269713.119(0.050)	269713.152(0.018)	43.4121	214.996	BAR93
0	14	11	3	-	0	13	11	2	-	269715.058(0.050)	269715.062(0.019)	33.9157	247.785	BAR93
0	14	11	4	+	0	13	11	3	+	269715.058(0.050)	269715.062(0.019)	33.9157	247.785	BAR93
0	14	-12	2		0	13	-12	1		269716.159(0.050)	269715.930(0.026)	23.5176	283.656	*BAR93
0	14	-11	3		0	13	-11	2		269716.159(0.050)	269716.380(0.019)	33.9165	247.769	*BAR93
0	14	-9	5		0	13	-9	4		269716.979(0.050)	269716.951(0.016)	52.0023	185.330	BAR93
1	14	8	6		1	13	8	5			269726.238(0.032)	59.7966	300.802	
0	14	9	6		0	13	9	5		269731.534(0.050)	269731.498(0.016)	51.9944	185.323	BAR93
0	14	-8	6		0	13	-8	5		269738.156(0.050)	269738.115(0.015)	59.6836	158.766	BAR93
0	14	10	4	+	0	13	10	3	+	269745.098(0.050)	269745.095(0.018)	43.3998	214.962	BAR93
0	14	10	5	-	0	13	10	4	-	269745.098(0.050)	269745.095(0.018)	43.3998	214.962	BAR93
0	14	9	5	-	0	13	9	4	-	269766.778(0.050)	269766.772(0.017)	51.9816	185.263	BAR93
0	14	9	6	+	0	13	9	5	+	269766.778(0.050)	269766.772(0.017)	51.9816	185.263	BAR93
1	14	-4	10		1	13	-4	9		269772.790(0.050)	269772.819(0.019)	81.6689	226.830	BAR93
0	14	8	7		0	13	8	6		269779.552(0.050)	269779.531(0.015)	59.6630	158.714	BAR93
0	14	8	6	+	0	13	8	5	+	269783.577(0.050)	269783.585(0.015)	59.6638	158.695	BAR93
0	14	8	7	-	0	13	8	6	-	269783.577(0.050)	269783.585(0.015)	59.6638	158.695	BAR93
0	14	-7	7		0	13	-7	6		269784.783(0.050)	269784.729(0.014)	66.4534	135.301	BAR93
0	14	7	7	-	0	13	7	6	-	269806.111(0.050)	269806.093(0.014)	66.4457	135.258	BAR93
0	14	7	8	+	0	13	7	7	+	269806.111(0.050)	269806.093(0.014)	66.4457	135.258	BAR93
0	14	7	8	0	0	13	7	7		269834.115(0.050)	269834.093(0.014)	66.4288	135.229	BAR93
0	14	6	9	-	0	13	6	8	-	269852.337(0.050)	269852.295(0.012)	72.3232	114.946	BAR93
0	14	6	8	+	0	13	6	7	+	269852.337(0.050)	269852.303(0.012)	72.3232	114.946	BAR93
0	14	-6	8		0	13	-6	7		269864.173(0.050)	269864.153(0.012)	72.3127	114.942	BAR93
1	14	5	9		1	13	5	8		269873.226(0.050)	269873.269(0.017)	77.3426	240.762	BAR93
0	22	2	20		0	21	-3	19			269896.822(0.136)	5.6944	162.841	
0	14	6	9		0	13	6	8		269899.810(0.050)	269899.806(0.013)	72.2968	114.882	BAR93
0	14	5	10	+	0	13	5	9	+	269950.843(0.050)	269950.812(0.011)	77.2913	97.752	BAR93
0	14	5	9	-	0	13	5	8	-	269951.504(0.050)	269951.466(0.011)	77.2913	97.752	BAR93
1	14	-5	10		1	13	-5	9		269983.231(0.050)	269983.265(0.021)	77.4213	240.215	BAR93
0	14	-5	9		0	13	-5	8		269991.318(0.050)	269991.294(0.011)	77.2660	97.704	BAR93
0	14	5	10		0	13	5	9		269997.516(0.050)	269997.501(0.011)	77.2686	97.683	BAR93
1	14	12	2	+	1	13	12	1	+		270070.808(0.111)	23.4954	424.146	
1	14	12	3	-	1	13	12	2	-		270070.808(0.111)	23.4954	424.146	
1	14	13	1		1	13	13	0			270084.019(0.218)	12.1886	463.221	
1	14	-10	5		1	13	-10	4			270100.458(0.059)	43.3140	356.419	
0	14	4	11	-	0	13	4	10	-	270145.425(0.050)	270145.394(0.011)	81.3460	83.676	BAR93
1	14	-3	11		1	13	-3	10		270148.708(0.050)	270148.691(0.019)	84.6952	216.217	BAR93
0	23	2	21		0	22	3	19			270161.674(0.124)	0.0034	177.942	
1	14	7	7	-	1	13	7	6	-	270171.531(0.050)	270171.541(0.024)	66.2891	277.354	BAR93
1	14	7	8	+	1	13	7	7	+	270171.531(0.050)	270171.541(0.024)	66.2891	277.354	BAR93
0	14	4	10	+	0	13	4	9	+	270177.738(0.050)	270177.704(0.011)	81.3460	83.677	BAR93
0	14	4	10		0	13	4	9		270187.746(0.050)	270187.732(0.011)	81.2993	83.633	BAR93
1	14	9	5		1	13	9	4			270195.045(0.040)	51.9003	326.474	
2	14	-10	4		2	13	-10	3			270195.670(0.389)	43.4943	476.410	
0	14	-4	11		0	13	-4	10		270212.782(0.050)	270212.786(0.011)	81.2777	83.607	BAR93
0	14	3	12	+	0	13	3	11	+	270271.696(0.050)	270271.680(0.011)	84.4832	72.718	BAR93
0	21	3	19	+	0	21	2	20	-		270325.775(0.063)	12.1505	153.849	
1	14	-6	9		1	13	-6	8		270380.489(0.050)	270380.480(0.025)	72.1749	256.616	BAR93
0	14	-3	12		0	13	-3	11		270415.836(0.050)	270415.835(0.011)	83.3923	72.675	BAR93
2	9	2	7		2	8	1	7			270479.517(3.908)	2.7358	299.489	
1	14	4	11		1	13	4	10		270520.139(0.050)	270520.191(0.016)	81.0884	226.175	BAR93
1	14	13	2	+	1	13	13	1	+		270520.751(0.190)	12.1547	462.270	
1	14	13	1	-	1	13	13	0	-		270520.751(0.190)	12.1547	462.270	
1	14	-9	6		1	13	-9	5			270522.876(0.044)	51.7174	326.278	
1	14	12	2		1	13	12	1			270524.626(0.143)	23.3898	423.834	
2	14	9	6		2	13	9	5			270563.754(0.255)	51.5258	451.451	
2	14	9	6		2	13	9	5			270563.754(0.255)	51.5258	451.451	
1	14	10	4		1	13	10	3			270567.400(0.061)	43.1871	355.420	

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	15	0	15	+	1	14	1	14	+		270580.387(0.041)	11.3396	210.473	
2	14	-6	8		2	13	-6	7			270610.455(0.149)	71.5164	382.552	
1	14	6	9	-	1	13	6	8	-	270627.537(0.050)	270627.538(0.021)	71.9372	256.502	BAR93
1	14	6	8	+	1	13	6	7	+	270627.537(0.050)	270627.546(0.021)	71.9372	256.502	BAR93
1	22	-1	21		1	21	-2	19			270653.931(0.418)	0.2471	300.033	
1	14	-7	8		1	13	-7	7		270672.649(0.050)	270672.579(0.032)	66.1091	276.318	BAR93
1	14	11	3		1	13	11	2			270692.054(0.091)	33.6963	387.856	
1	14	-8	7		1	13	-8	6		270725.580(1.000)	270726.168(0.035)	59.2951	299.527	BEL93
2	14	12	2	+	2	13	12	1	+		270745.119(0.570)	23.2930	547.871	
2	14	12	3	-	2	13	12	2	-		270745.119(0.570)	23.2930	547.871	
2	14	1	13		2	13	1	12		270832.712(1.000)	270833.043(0.346)	81.3996	334.986	BEL93
2	7	2	5	+	2	7	1	6	-		270895.005(2.331)	5.4962	277.247	
1	14	3	12	+	1	13	3	11	+	270903.279(0.050)	270903.340(0.017)	84.4558	214.714	BAR93
1	14	5	10	+	1	13	5	9	+	270946.967(0.050)	270946.982(0.020)	76.8129	239.031	BAR93
1	14	5	9	-	1	13	5	8	-	270947.751(0.050)	270947.707(0.020)	76.8129	239.031	BAR93
0	14	3	11		0	13	3	10		270963.262(0.050)	270963.249(0.011)	83.4125	72.753	BAR93
2	14	2	13	-	2	13	2	12	-	271007.876(1.000)	271008.634(0.117)	83.8299	326.973	BEL93
0	14	3	11	-	0	13	3	10	-	271069.513(0.050)	271069.492(0.011)	84.4850	72.767	BAR93
1	14	4	11	-	1	13	4	10	-	271114.462(0.050)	271114.477(0.018)	80.9797	225.113	BAR93
2	6	0	6		2	5	-1	5			271119.102(1.602)	0.0040	274.016	
2	14	3	12	+	2	13	3	11	+		271146.130(0.083)	82.7254	341.391	
1	14	4	10	+	1	13	4	9	+	271151.019(0.050)	271151.035(0.018)	80.9798	225.115	BAR93
2	14	7	7	-	2	13	7	6	-		271335.476(0.227)	66.0476	397.669	
2	14	7	8	+	2	13	7	7	+		271335.478(0.227)	66.0476	397.669	
1	14	2	13		1	13	2	12		271355.480(0.050)	271355.622(0.022)	85.8987	206.594	BAR93
1	14	3	12		1	13	3	11		271429.893(0.050)	271429.950(0.017)	84.0137	214.677	BAR93
2	14	3	11	-	2	13	3	10	-	271431.110(0.050)	271431.058(0.081)	82.7273	341.408	BAR93
0	13	2	11		0	12	-2	11			271673.119(0.015)	0.0226	56.338	
1	14	3	11	-	1	13	3	10	-	271768.433(0.050)	271768.478(0.020)	84.4580	214.769	BAR93
1	9	2	8		1	8	-1	7		271970.844(0.050)	271970.972(0.042)	0.8387	167.727	BAR93
0	10	1	9		0	9	0	9			272132.978(0.012)	0.0009	28.787	
2	14	4	10		2	13	4	9		272137.703(1.000)	272136.029(0.212)	80.9791	347.262	BEL93
0	19	3	16		0	19	-2	18			272324.320(0.062)	0.0203	127.797	
2	10	4	6	+	2	11	3	9	+		272442.289(6.556)	1.5553	325.243	
2	14	-5	9		2	13	-5	8			272582.204(0.138)	75.2828	359.174	
1	14	-2	12		1	13	-2	11		272715.333(0.050)	272715.264(0.020)	85.9834	208.382	BAR93
2	14	8	7		2	13	8	6			272764.073(0.205)	58.0873	418.894	
1	14	1	14	+	1	13	0	13	+	273063.530(0.050)	273063.635(0.038)	10.4940	201.364	BAR93
1	21	2	20		1	21	1	21			273132.437(0.412)	7.4665	287.323	
2	14	11	3	-	2	13	11	2	-	273150.767(1.000)	273151.235(0.375)	32.9268	506.129	BEL93
2	14	11	4	+	2	13	11	3	+	273150.767(1.000)	273151.235(0.375)	32.9268	506.129	BEL93
1	26	4	22	+	1	26	3	23	-		273179.000(0.728)	17.7521	384.441	
0	14	3	11		0	13	-3	11			273310.370(0.018)	1.0860	72.675	
2	3	1	2		2	2	0	2			273510.418(3.507)	1.3821	271.073	
0	24	1	23		0	24	-1	24			273552.311(0.341)	0.8064	187.510	
1	14	1	13	-	1	13	1	12	-	273669.317(0.050)	273669.311(0.025)	88.7442	204.675	BAR93
2	7	1	6		2	8	-2	7			273800.993(6.206)	4.9E-6	285.205	
1	22	3	20		1	22	2	21			273969.500(0.302)	11.8393	310.445	
0	22	1	21		0	21	2	19			274242.744(0.114)	0.0003	157.381	
2	14	7	8		2	13	7	7		274274.522(1.000)	274272.922(0.183)	64.1403	391.437	BEL93
1	22	-2	20		1	21	3	19			274331.463(0.364)	3.6567	305.345	
1	24	3	22	+	1	24	2	23	-		274365.517(0.537)	11.7881	340.338	
1	6	-2	4		1	5	-1	4		274425.182(0.050)	274425.211(0.026)	2.5421	154.013	BAR93
0	24	1	23	-	0	24	1	24	+		274557.630(0.348)	0.7669	187.466	
2	14	10	4	+	2	13	10	3	+		274561.429(0.289)	41.7496	469.635	
2	14	10	5	-	2	13	10	4	-		274561.429(0.289)	41.7496	469.635	
0	14	1	13		0	13	1	12	-	274563.403(0.050)	274563.396(0.013)	87.9835	61.477	BAR93
2	6	2	4	+	2	6	1	5	-		274581.625(2.355)	4.5753	272.573	
0	14	1	13	-	0	13	1	12	-	274626.225(0.050)	274626.248(0.013)	87.9367	61.436	BAR93
0	11	1	10		0	10	-1	10			274640.909(0.017)	0.0010	35.928	
2	14	-4	11		2	13	-4	10			274673.913(0.169)	78.7970	340.826	
1	14	-1	13		1	13	-1	12		274752.799(0.050)	274752.929(0.020)	87.4747	203.785	BAR93
1	4	-2	2		1	3	1	3			274826.648(0.050)	0.0118	146.924	

TABLE II. (Continued.)

v_1'	J'	K_a'	$K_c' P'$	v_1''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	14	2	12 +	1	13	2	11 +	274857.862(0.050)	274857.914(0.029)	87.2208	208.128	BAR93
0	14	2	12	0	13	2	11	274875.382(0.050)	274875.369(0.013)	86.7739	65.400	BAR93
0	14	2	12 +	0	13	2	11 +	274896.001(0.050)	274896.002(0.013)	86.7545	65.386	BAR93
2	14	-11	3	2	13	-11	2	275094.719(1.000)	275095.122(0.556)	32.7153	503.494	BEL93
0	24	1	23	0	24	0	24	275196.510(1.000)	275195.241(0.335)	7.5892	187.455	BEL93
0	22	-3	20	0	22	-2	21	275346.510(1.000)	275346.288(0.082)	12.5003	167.813	BEL93
2	14	2	12 +	2	13	2	11 +	275562.888(1.000)	275561.353(0.149)	83.8621	327.447	BEL93
2	14	9	5 -	2	13	9	4 -	275606.408(1.000)	275606.074(0.307)	49.8249	439.472	BEL93
2	14	9	6 +	2	13	9	5 +	275606.408(1.000)	275606.971(0.307)	49.8246	439.472	BEL93
1	24	2	23 -	1	24	1	24 +		275775.983(0.719)	5.8091	331.139	
2	14	-12	2	2	13	-12	1		275829.931(0.730)	22.4533	536.135	
2	14	8	7 -	2	13	8	6 -		275866.707(1.596)	49.1555	415.792	
2	14	8	7 -	2	13	8	6 -		275866.707(1.596)	49.1555	415.792	
2	14	8	6 +	2	13	8	5 +		275868.508(1.624)	49.1225	415.792	
2	14	8	6 +	2	13	8	5 +		275868.508(1.624)	49.1225	415.792	
2	14	6	9	2	13	6	8	276118.183(1.000)	276118.174(0.210)	69.4621	370.373	BEL93
0	14	-1	14	0	13	0	13	276149.166(0.050)	276149.194(0.016)	11.3764	57.786	BAR93
0	22	3	20 +	0	22	2	21 -	276172.330(1.000)	276172.374(0.081)	12.5564	167.810	BEL93
0	24	1	23 -	0	24	0	24 +		276229.071(0.341)	7.6680	187.411	
2	7	3	5 +	2	8	2	6 +		276375.901(4.214)	1.2365	291.491	
0	14	1	14 +	0	13	0	13 +	276405.893(0.050)	276405.841(0.017)	11.6216	57.727	BAR93
1	9	2	8 -	1	8	1	7 -	276791.200(0.050)	276791.096(0.026)	3.4527	168.684	BAR93
2	21	-3	19	2	21	-2	20		276940.151(3.745)	9.3545	408.124	
2	15	11	5	2	14	11	4		277116.191(0.850)	48.5290	528.220	
2	3	2	1	2	4	-3	2		277200.547(6.789)	0.0022	284.841	
2	11	1	11 +	2	10	0	10 +		277249.240(0.673)	9.2417	290.738	
2	14	5	10	2	13	5	9	277694.054(1.000)	277693.595(0.237)	74.4688	356.110	BEL93
1	14	1	14	1	13	0	13	277869.939(0.050)	277869.880(0.041)	11.4211	199.845	BAR93
2	5	2	3 +	2	5	1	4 -		277894.344(2.378)	3.7010	268.565	
1	24	-1	23	1	24	1	24		277937.624(0.787)	0.8032	329.993	
0	22	-2	21	0	22	-1	22	278114.390(1.000)	278115.197(0.202)	7.2881	158.536	BEL93
1	25	4	21 +	1	25	3	22 -		278349.275(0.629)	16.6674	367.372	
2	14	0	14	2	13	0	13	278529.321(1.000)	278529.706(0.191)	79.6030	329.984	BEL93
1	16	-2	14	1	16	1	16		278581.627(0.204)	0.3118	228.402	
2	7	3	4 -	2	8	2	7 -		278632.109(4.236)	1.2324	291.416	
2	16	2	14	2	16	-3	14		278668.775(7.070)	0.1863	365.716	
2	15	2	13	2	15	-3	13		278921.864(7.056)	0.0355	355.474	
0	15	-1	15	0	14	-1	14		278924.437(0.018)	94.3891	66.997	
0	15	1	15 +	0	14	1	14 +		278939.446(0.018)	94.3170	66.947	
1	7	2	6	1	6	1	6	278954.473(0.050)	278954.522(0.034)	2.1978	156.490	BAR93
2	14	1	13 -	2	13	1	12 -		279097.703(0.187)	84.7948	319.236	
2	17	3	14	2	18	-2	17		279238.885(8.509)	0.0061	370.366	
1	15	1	15 +	1	14	1	14 +		279242.924(0.032)	95.6609	210.473	
0	22	2	21 -	0	22	1	22 +		279386.291(0.206)	7.3551	158.491	
0	8	-2	7	0	7	1	6	279478.334(0.050)	279478.356(0.014)	3.0753	20.099	BAR93
0	17	-2	16	0	16	2	14		279570.364(0.044)	0.0027	94.911	
2	15	-8	7	2	14	-8	6		279894.959(0.301)	73.0985	439.894	
0	17	2	15	0	17	-1	17		279897.517(0.095)	0.0004	96.746	
1	15	1	15	1	14	1	14	279938.450(1.000)	279939.232(0.029)	93.6955	209.114	BEL93
1	24	-1	23	1	24	0	24		279971.444(0.773)	7.9061	329.925	
2	20	0	20	2	19	1	18		280252.997(4.414)	7.3432	398.283	
0	18	1	17 -	0	17	2	16 -	280412.840(1.000)	280413.025(0.053)	7.7282	104.229	BEL93
1	26	1	25 -	1	26	1	26 +		280559.673(1.121)	1.7836	362.588	
2	15	-1	15	2	14	-1	14	280751.338(1.000)	280751.928(0.192)	91.3991	330.927	BEL93
2	4	2	2 +	2	4	1	3 -		280762.748(2.398)	2.8585	265.224	
0	8	2	7 -	0	7	1	6 -		280905.878(0.014)	3.3578	20.049	
1	15	0	15 +	1	14	0	14 +	280913.490(1.000)	280914.020(0.031)	95.8562	210.128	BEL93
2	15	5	11 +	2	14	5	10 +	281001.246(1.000)	281000.176(0.236)	89.8295	379.289	BEL93
2	15	5	10 -	2	14	5	9 -	281001.246(1.000)	281000.356(0.236)	89.8295	379.289	BEL93
2	17	2	15	2	17	-3	15		281011.327(7.048)	0.4567	376.688	
0	18	1	17	0	17	-2	16		281043.841(0.051)	7.7168	104.237	
0	15	0	15	0	14	0	14	281083.430(1.000)	281082.942(0.018)	94.5501	66.557	BEL93
2	15	-9	6	2	14	-9	5		281124.756(2.218)	64.3197	461.824	

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c' P'	ν_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	15	0	15 +	0	14	0	14 +	281127.240(1.000)	281126.950(0.018)	94.4768	66.500	BEL93
1	23	3	21	1	23	2	22		281182.953(0.354)	12.5243	325.073	
0	20	3	17	0	20	-2	19		281266.895(0.083)	0.0098	140.514	
2	11	-1	11	2	10	-2	9		281280.747(1.704)	6.4705	297.123	
2	15	1	15 +	2	14	1	14 +		281420.283(0.209)	90.7660	324.420	
2	14	2	12	2	14	-3	12		281479.406(6.986)	0.0001	336.563	
1	26	1	25 -	1	26	0	26 +		281580.301(1.103)	5.9125	362.554	
0	23	-3	21	0	23	-2	22		281802.921(0.103)	12.8670	182.392	
1	15	0	15	1	14	0	14	282023.480(1.000)	282023.517(0.028)	94.0329	208.646	BEL93
0	26	4	22 +	0	26	3	23 -		282082.824(0.205)	18.4007	242.148	
2	15	3	12	2	14	3	11	282264.663(1.000)	282264.082(0.216)	93.4402	349.520	BEL93
1	6	5	2 +	1	7	4	3 +		282375.903(0.334)	0.2434	184.442	
1	6	5	1 -	1	7	4	4 -		282376.229(0.334)	0.2434	184.442	
1	25	3	23 +	1	25	2	24 -		282509.940(0.638)	11.9950	356.154	
1	10	-1	9	1	9	0	9	282550.593(0.050)	282550.634(0.049)	0.4042	170.758	BAR93
1	22	2	20 +	1	21	3	19 +		282558.377(0.554)	5.5214	305.043	
0	23	3	21 +	0	23	2	22 -	282579.940(1.000)	282579.613(0.102)	12.9268	182.391	BEL93
0	23	1	22	0	22	2	20		282911.666(0.145)	0.0002	171.843	
2	16	12	5	2	15	12	4		282929.214(22.179)	3.5960	569.135	
1	18	-1	17	1	17	2	16	282994.540(1.000)	282994.441(0.104)	6.5431	246.557	BEL93
2	3	2	1 +	2	3	1	2 -		283127.998(2.416)	2.0230	182.551	
1	24	4	20 +	1	24	3	21 -		283283.977(0.535)	15.6572	350.973	
2	15	6	10 -	2	14	6	9 -	283509.569(1.000)	283508.814(0.224)	82.9447	391.947	BEL93
2	15	6	9 +	2	14	6	8 +	283509.569(1.000)	283508.829(0.224)	82.9447	391.947	BEL93
0	8	2	6	0	7	1	6	283806.925(0.050)	283806.953(0.013)	0.2722	20.099	BAR93
1	5	-5	1	1	6	-4	2		284092.944(0.324)	0.0935	181.863	
2	15	-2	14	2	14	-2	13	284237.210(1.000)	284237.870(0.189)	95.0000	328.682	BEL93
2	15	10	6	2	14	10	5	284352.354(1.000)	284354.557(0.477)	54.7952	495.208	BEL93
2	15	12	4	2	14	12	3		284496.016(13.795)	35.7589	559.645	
2	18	-2	17	2	17	-1	17		284834.252(1.802)	14.0869	360.865	
1	11	-1	10	1	10	1	10		284898.092(0.060)	0.4395	177.895	
1	24	-2	22	1	23	-3	20		284905.500(0.401)	1.2313	335.874	
2	2	2	0 +	2	2	1	1 -		284943.027(2.430)	1.1407	260.546	
1	22	2	21	1	22	1	22		285034.583(0.495)	7.5447	300.937	
2	15	-7	8	2	14	-7	7		285237.892(0.259)	76.4770	416.768	
1	5	3	3	1	4	-2	2		285435.084(0.064)	1.8E-5	156.091	
2	15	2	13	2	14	2	12	285446.172(1.000)	285447.267(0.504)	93.4853	345.953	BEL93
1	7	5	2	1	8	4	5		285456.652(0.234)	0.4334	190.748	
2	18	2	16	2	18	-3	16		285620.897(7.045)	0.7638	388.383	
2	13	2	11	2	13	-3	11		285751.147(6.885)	0.0200	337.130	
0	7	-2	6	0	6	-1	6	286062.840(0.050)	286062.795(0.014)	0.3995	14.742	BAR93
2	15	0	15 +	2	14	0	14 +	286190.093(1.000)	286190.887(0.202)	91.0036	322.724	BEL93
2	15	4	12 -	2	14	4	11 -		286415.877(0.211)	89.7520	366.155	
2	15	4	12 -	2	14	4	11 -		286415.877(0.211)	89.7520	366.155	
2	15	4	11 +	2	14	4	10 +		286427.891(0.211)	89.7522	366.155	
2	15	4	11 +	2	14	4	10 +		286427.891(0.211)	89.7522	366.155	
2	22	-3	20	2	22	-2	21		286598.801(4.015)	9.4720	421.929	
1	15	-3	12	1	15	2	14		286646.797(0.138)	0.6639	225.326	
1	16	-3	13	1	16	2	15		286790.670(0.169)	0.9425	235.632	
0	15	-3	13	0	14	3	11	286821.060(1.000)	286821.714(0.019)	0.8288	81.791	BEL93
2	21	1	20 -	2	21	0	21 +		287025.011(3.214)	13.7857	402.364	
2	21	1	20 -	2	21	0	21 +		287025.011(3.214)	13.7857	402.364	
0	15	-2	14	0	14	-2	13		287236.544(0.015)	93.1268	73.604	
0	15	-2	14	0	14	-2	13		287236.544(0.015)	93.1268	73.604	
0	15	2	14 -	0	14	2	13 -		287247.601(0.015)	93.0979	73.595	
0	15	2	14 -	0	14	2	13 -		287247.601(0.015)	93.0979	73.595	
1	14	-3	11	1	14	2	13		287285.219(0.115)	0.4229	215.645	
1	15	2	14 -	1	14	2	13 -	287312.950(1.000)	287313.824(0.025)	93.6368	216.336	BEL93
1	4	3	2 +	1	3	2	1 +		287432.725(0.052)	2.8087	152.872	
1	4	3	1 -	1	3	2	2 -		287527.742(0.052)	2.8078	152.869	
1	25	2	24 -	1	25	1	25 +		287613.713(0.839)	5.7882	346.560	
0	6	5	2 +	0	7	4	3 +	287651.170(1.000)	287651.346(0.148)	0.2470	43.151	BEL93
0	6	5	1 -	0	7	4	4 -	287651.170(1.000)	287651.624(0.148)	0.2470	43.151	BEL93

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c', P'	ν_1''	J''	K_a''	K_c'', P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b
2	22	1	21 -	2	22	1	22 +		287727.402(3.740)	0.3982	416.821	
1	23	4	19 +	1	23	3	20 -		287885.889(0.450)	14.7149	335.246	
1	17	-3	14	1	17	2	16		287898.411(0.209)	1.2099	246.557	
0	16	0	16 +	0	15	1	15 +	288004.720(1.000)	288003.832(0.022)	13.7655	76.252	BEL93
2	15	-3	13	2	14	-3	12	288004.724(1.000)	288004.809(0.182)	90.9374	336.563	BEL93
0	16	0	16	0	15	-1	15	288144.230(1.000)	288144.194(0.022)	13.7081	76.301	BEL93
1	15	-13	3	1	14	-13	2		288201.675(0.170)	23.8209	473.224	
1	16	0	16	1	15	1	15		288221.490(0.040)	13.6712	218.452	
2	6	1	5	2	7	-2	6		288262.469(6.157)	0.0001	280.219	
2	26	2	24	2	26	-3	24		288284.133(7.896)	0.2042	503.978	
1	15	-12	4	1	14	-12	3	288334.450(1.000)	288333.632(0.107)	34.4041	434.641	BEL93
0	25	4	21 +	0	25	3	22 -	288396.300(1.000)	288395.504(0.172)	17.2730	225.090	BEL93
0	18	-2	17	0	17	2	15		288445.181(0.058)	0.0019	106.082	
1	15	10	5 +	1	14	10	4 +	288456.370(1.000)	288455.735(0.049)	53.0427	366.264	BEL93
1	15	10	6 -	1	14	10	5 -	288456.370(1.000)	288455.735(0.049)	53.0427	366.264	BEL93
1	13	-3	10	1	13	2	12		288492.150(0.099)	0.2445	206.594	
2	2	2	1 -	2	2	1	2 +		288495.940(2.456)	1.1204	260.427	
1	15	9	6 -	1	14	9	5 -	288520.930(1.000)	288520.865(0.039)	61.0548	336.964	BEL93
1	15	9	7 +	1	14	9	6 +	288520.930(1.000)	288520.865(0.039)	61.0548	336.964	BEL93
1	15	7	8	1	14	7	7	288667.460(1.000)	288667.688(0.031)	74.5759	287.089	BEL93
1	24	3	22	1	24	2	23		288699.374(0.412)	13.1097	340.317	
1	15	6	9	1	14	6	8	288734.210(1.000)	288733.899(0.025)	80.0340	267.107	BEL93
1	15	11	4 -	1	14	11	3 -	288791.480(1.000)	288791.111(0.073)	44.0328	398.245	BEL93
1	15	11	5 +	1	14	11	4 +	288791.480(1.000)	288791.111(0.073)	44.0328	398.245	BEL93
1	15	-11	5	1	14	-11	4		288819.821(0.080)	43.9933	398.647	
0	24	-3	22	0	24	-2	23	288821.730(1.000)	288821.003(0.128)	13.1973	197.589	BEL93
0	15	14	1 +	0	14	14	0 +		288872.374(0.080)	12.2537	373.823	
0	15	14	2 -	0	14	14	1 -		288872.374(0.080)	12.2537	373.823	
0	15	13	2 -	0	14	13	1 -		288899.484(0.050)	23.6534	331.732	
0	15	13	3 +	0	14	13	2 +		288899.484(0.050)	23.6534	331.732	
0	15	12	4	0	14	12	3		288915.884(0.035)	34.2052	292.724	
0	15	13	3	0	14	13	2		288919.075(0.048)	23.6506	331.693	
0	15	11	5	0	14	11	4		288926.876(0.028)	43.9099	256.837	
1	15	8	7 +	1	14	8	6 +	288936.300(1.000)	288936.530(0.032)	68.0336	310.279	BEL93
1	15	8	8 -	1	14	8	7 -	288936.300(1.000)	288936.530(0.032)	68.0336	310.279	BEL93
0	15	12	3 +	0	14	12	2 +	288936.300(1.000)	288936.992(0.034)	34.1988	292.712	BEL93
0	15	12	4 -	0	14	12	3 -	288936.300(1.000)	288936.992(0.034)	34.1988	292.712	BEL93
0	15	10	6	0	14	10	5		288955.561(0.025)	52.7625	224.033	
0	15	-13	2	0	14	-13	1		288960.739(0.050)	23.6426	331.654	
0	15	-12	3	0	14	-12	2		288975.012(0.034)	34.1899	292.653	
0	15	-10	5	0	14	-10	4		288976.452(0.025)	52.7560	223.993	
0	15	11	4 -	0	14	11	3 -		288976.555(0.028)	43.8930	256.782	
0	15	11	5 +	0	14	11	4 +		288976.555(0.028)	43.8930	256.782	
0	15	-11	4	0	14	-11	3		288977.347(0.028)	43.8941	256.766	
0	15	-9	6	0	14	-9	5		288983.973(0.023)	60.7727	194.327	
0	15	-9	6	0	14	-9	5		288983.973(0.023)	60.7727	194.327	
1	15	8	7	1	14	8	6		288988.776(0.037)	68.0664	309.799	
0	15	9	7	0	14	9	6		289000.017(0.023)	60.7636	194.320	
0	15	10	5 +	0	14	10	4 +	289011.030(1.000)	289010.791(0.026)	52.7413	223.960	BEL93
0	15	10	6 -	0	14	10	5 -	289011.030(1.000)	289010.791(0.026)	52.7413	223.960	BEL93
0	15	-8	7	0	14	-8	6	289011.030(1.000)	289011.337(0.021)	67.9404	167.763	BEL93
0	15	9	6 -	0	14	9	5 -	289037.710(1.000)	289036.980(0.023)	60.7488	194.261	BEL93
0	15	9	7 +	0	14	9	6 +	289037.710(1.000)	289036.980(0.023)	60.7488	194.261	BEL93
0	15	8	8	0	14	8	7		289055.723(0.021)	67.9173	167.713	
0	15	8	7 +	0	14	8	6 +	289059.610(1.000)	289059.354(0.021)	67.9182	167.694	BEL93
0	15	8	8 -	0	14	8	7 -	289059.610(1.000)	289059.354(0.021)	67.9182	167.694	BEL93
2	15	-10	5	2	14	-10	4		289064.639(0.439)	52.9612	485.423	
0	15	-7	8	0	14	-7	7		289067.946(0.018)	74.2564	144.300	
0	15	7	8 -	0	14	7	7 -	289090.980(1.000)	289090.031(0.018)	74.2479	144.258	BEL93
0	15	7	9 +	0	14	7	8 +	289090.980(1.000)	289090.031(0.018)	74.2479	144.258	BEL93
1	15	-4	11	1	14	-4	10		289102.340(0.023)	88.4886	235.829	
0	15	7	9	0	14	7	8	289121.050(1.000)	289120.446(0.019)	74.2294	144.230	BEL93
0	15	6	10 -	0	14	6	9 -	289150.880(1.000)	289149.822(0.016)	79.7335	123.947	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	15	6	9	+	0	14	6	8	+	289150.880(1.000)	289149.839(0.016)	79.7335	123.947	BEL93
0	15	-6	9		0	14	-6	8			289163.244(0.016)	79.7221	123.944	
1	15	5	10		1	14	5	9			289194.589(0.021)	84.4204	249.764	
0	15	6	10		0	14	6	9		289199.490(1.000)	289200.775(0.016)	79.7049	123.885	BEL93
0	7	2	5		0	6	-1	6		289238.500(0.050)	289238.522(0.014)	1.2146	14.742	BAR93
0	15	5	11	+	0	14	5	10	+	289273.880(1.000)	289272.538(0.015)	84.3693	106.756	BEL93
0	15	-5	10	-	0	14	5	9	-	289273.880(1.000)	289273.777(0.015)	84.3693	106.756	BEL93
1	15	-5	11		1	14	-5	10			289291.191(0.025)	84.5080	249.221	
0	15	-5	10		0	14	-5	9			289316.713(0.015)	84.3422	106.710	
0	15	5	11		0	14	5	10			289322.528(0.015)	84.3451	106.689	
1	15	12	3	+	1	14	12	2	+		289338.492(0.121)	34.1587	433.155	
1	15	12	4	-	1	14	12	3	-		289338.492(0.121)	34.1587	433.155	
1	10	2	9		1	9	-1	8		289365.345(0.050)	289365.359(0.043)	1.2146	173.625	BAR93
1	15	13	2		1	14	13	1		289371.810(1.000)	289371.003(0.233)	23.5947	472.230	BEL93
1	15	-10	6		1	14	-10	5		289396.120(1.000)	289395.993(0.065)	52.6379	365.429	BEL93
1	15	9	6		1	14	9	5			289480.588(0.045)	60.6555	335.487	
1	15	7	8	-	1	14	7	7	-		289488.000(0.028)	74.0739	286.366	
1	15	7	9	+	1	14	7	8	+		289488.000(0.028)	74.0739	286.366	
2	15	1	14		2	14	1	13			289490.974(0.426)	85.7050	344.020	
0	15	4	12	-	0	14	4	11	-	289506.030(1.000)	289506.092(0.014)	88.1513	92.687	BEL93
2	10	3	7		2	9	2	7			289527.464(2.778)	3.1369	308.512	
0	24	3	22	+	0	24	2	23	-		289549.365(0.127)	13.2615	197.589	
2	5	-3	3		2	4	-2	3			289556.795(1.943)	0.2247	269.167	
0	15	4	11	+	0	14	4	10	+		289558.730(0.014)	88.1514	92.689	
0	15	4	11		0	14	4	10			289562.284(0.014)	88.0165	92.646	
1	15	1	15	+	1	14	0	14	+		289576.557(0.046)	11.4887	210.128	
0	15	-4	12		0	14	-4	11			289585.321(0.014)	87.9936	92.621	
1	15	-3	12		1	14	-3	11			289595.921(0.023)	91.2710	225.228	
0	15	3	13	+	0	14	3	12	+		289607.911(0.015)	91.0737	81.733	
1	15	-6	10		1	14	-6	9			289699.347(0.028)	79.5736	265.635	
0	15	-3	13		0	14	-3	12		289714.880(1.000)	289716.249(0.015)	90.2453	81.695	BEL93
1	15	13	3	+	1	14	13	2	+		289815.760(0.212)	23.5231	471.294	
1	15	13	2	-	1	14	13	1	-		289815.768(0.214)	23.5223	471.294	
1	15	12	3		1	14	12	2			289837.970(0.153)	34.0064	432.858	
1	15	-9	7		1	14	-9	6			289847.062(0.049)	60.4434	335.302	
1	15	10	5		1	14	10	4			289876.910(0.067)	52.4866	364.445	
1	18	1	17	-	1	17	2	16	-		289888.975(0.180)	7.4123	246.976	
2	15	9	7		2	14	9	6			289895.050(0.262)	60.2321	460.476	
2	15	9	7		2	14	9	6			289895.050(0.262)	60.2321	460.476	
1	15	4	12		1	14	4	11		289921.510(1.000)	289921.745(0.019)	87.8723	235.198	BEL93
0	7	2	5	-	0	6	1	6	+	289942.038(0.050)	289942.050(0.014)	2.3351	14.690	BAR93
1	15	6	10	-	1	14	6	9	-	289984.090(1.000)	289984.781(0.025)	79.3126	265.529	BEL93
1	15	6	9	+	1	14	6	8	+	289984.090(1.000)	289984.799(0.025)	79.3126	265.529	BEL93
0	23	-2	22		0	23	-1	23			289985.294(0.243)	7.3388	172.719	
1	15	-7	9		1	14	-7	8		290007.850(1.000)	290006.939(0.036)	73.8777	285.347	BEL93
1	15	11	4		1	14	11	3			290013.052(0.098)	43.6127	396.885	
1	12	-3	9		1	12	2	11			290043.173(0.087)	0.1288	198.178	
1	15	-8	8		1	14	-8	7		290063.860(1.000)	290064.060(0.039)	67.5035	308.558	BEL93
2	15	12	3	+	2	14	12	2	+		290065.292(0.598)	33.8753	556.902	
2	15	12	4	-	2	14	12	3	-		290065.292(0.598)	33.8753	556.902	
1	18	-3	15		1	18	2	17			290121.289(0.261)	1.4050	258.101	
2	3	2	2	-	2	3	1	3	+		290201.222(2.468)	1.9521	262.313	
2	15	2	14	-	2	14	2	13	-		290218.999(0.132)	90.0388	336.012	
0	24	1	23		0	23	2	21			290221.382(0.183)	0.0001	186.954	
1	15	3	13	+	1	14	3	12	+	290257.120(1.000)	290257.762(0.021)	91.0584	223.750	BEL93
0	25	1	24		0	25	-1	25			290260.419(0.394)	0.8096	202.908	
2	15	7	8	-	2	14	7	7	-	290297.848(1.000)	290297.534(0.236)	73.9056	406.720	BEL93
2	15	7	9	+	2	14	7	8	+	290297.848(1.000)	290297.537(0.236)	73.9056	406.720	BEL93
1	15	5	11	+	1	14	5	10	+	290341.760(1.000)	290341.306(0.023)	83.8557	248.069	BEL93
1	15	5	10	-	1	14	5	9	-	290341.760(1.000)	290342.674(0.023)	83.8557	248.069	BEL93
1	15	4	12	-	1	14	4	11	-		290538.866(0.022)	87.7670	234.157	
2	15	3	13	+	2	14	3	12	+		290550.512(0.091)	89.1633	350.435	
1	15	4	11	-	1	14	4	10	-	290597.420(1.000)	290598.013(0.022)	87.7671	234.159	BEL93

TABLE II. (Continued.)

v_1	J'	$K_{u'}$	$K_{l'}$	P'	v_2	J''	$K_{u''}$	$K_{l''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	15	3	12		0	14	3	11		290643.960(1.000)	290644.140(0.015)	90.2628	81.791	BEL93
0	15	3	12	-	0	14	3	11	-	290717.050(1.000)	290717.187(0.015)	91.0771	81.809	BEL93
2	15	4	11		2	14	4	10		290845.672(1.000)	290845.392(0.221)	87.9017	356.339	BEL93
2	15	3	12	-	2	14	3	11	-		290953.871(0.089)	89.1664	350.462	
1	15	3	13		1	14	3	12		290971.280(1.000)	290971.893(0.022)	90.5712	223.730	BEL93
2	12	1	12	+	2	11	0	11	+	291104.630(1.000)	291105.822(0.672)	10.2641	297.798	BEL93
1	26	3	24	+	1	26	2	25	-		291177.111(0.754)	12.1720	372.584	
2	12	2	10		2	12	-3	10			291201.794(6.783)	0.0488	319.272	
0	23	2	22	-	0	23	1	23	+	291271.610(1.000)	291272.247(0.248)	7.4096	172.675	BEL93
2	8	2	6		2	9	-1	9			291288.394(7.684)	0.0020	293.267	
2	4	1	3		2	3	0	3			291294.214(4.053)	1.2379	273.048	
0	25	1	24	-	0	25	1	25	+		291335.885(0.402)	0.7663	202.865	
1	15	3	12	-	1	14	3	11	-	291454.670(1.000)	291455.608(0.026)	91.0626	223.834	BEL93
0	25	1	24	0	0	25	0	25		291563.700(1.000)	291561.909(0.388)	7.5656	202.864	BEL93
2	19	2	17		2	19	-3	17			291619.720(7.087)	1.0047	400.772	
0	21	3	18	0	0	21	-2	20			291683.196(0.110)	0.0047	153.853	
1	11	-3	8		1	11	2	10			291734.386(0.078)	0.0620	190.405	
0	24	2	22	0	0	23	3	20			291735.443(0.139)	0.0021	192.977	
1	8	2	6	+	1	7	1	7	+	292041.441(0.050)	292041.361(0.030)	2.0843	162.528	BAR93
1	22	4	18	+	1	22	3	19	-		292081.058(0.374)	13.8322	320.192	
1	10	2	9	-	1	9	1	8	-	292085.370(0.050)	292085.292(0.029)	3.8182	174.587	BAR93
0	15	-1	15	0	0	14	0	14			292113.532(0.021)	12.7037	66.557	
2	15	-5	10		2	14	-5	9			292131.615(0.144)	82.1853	368.266	
2	15	8	8		2	14	8	7		292284.609(1.000)	292283.167(0.211)	66.1308	427.993	BEL93
2	19	2	17		2	18	3	15			292294.834(4.694)	2.7433	391.022	
0	15	1	15	+	0	14	0	14	+	292341.110(1.000)	292341.299(0.021)	12.7556	66.500	BEL93
1	7	-2	5		1	6	-1	5		292356.077(0.050)	292356.137(0.026)	2.6850	157.921	BAR93
2	4	2	3	-	2	4	1	4	+		292478.820(2.484)	2.6947	264.828	
0	25	1	24	-	0	25	0	25	+		292659.220(0.395)	7.6470	202.820	
2	15	11	4	-	2	14	11	3	-	292683.160(1.000)	292683.634(0.391)	42.6167	515.240	BEL93
2	15	11	5	+	2	14	11	4	+	292683.160(1.000)	292683.634(0.391)	42.6167	515.240	BEL93
1	15	1	14	-	1	14	1	13	-	292750.500(1.000)	292749.851(0.030)	95.1003	213.803	BEL93
1	15	-2	13		1	14	-2	12		292893.690(1.000)	292893.093(0.027)	92.2720	217.479	BEL93
1	10	-3	7		1	10	2	9			293405.714(0.070)	0.0213	183.277	
2	25	2	23		2	25	-3	23			293413.028(7.757)	0.1947	487.488	
0	15	3	12		0	14	-3	12			293538.675(0.019)	0.8267	81.695	
0	3	3	1	+	0	2	2	0	+		293546.263(0.016)	2.8445	8.233	
0	3	3	0	-	0	2	2	1	-		293564.456(0.016)	2.8445	8.232	
1	19	-3	16		1	19	2	18			293603.136(0.325)	1.4736	270.261	
0	15	1	14	0	0	14	1	13		293694.670(1.000)	293694.695(0.017)	94.2992	70.636	BEL93
0	15	1	14	-	0	14	1	13	-	293762.790(1.000)	293762.708(0.017)	94.2493	70.597	BEL93
2	15	7	9		2	14	7	8		293938.231(1.000)	293937.222(0.190)	71.6820	400.586	BEL93
1	15	1	15		1	14	0	14		293978.480(1.000)	293977.165(0.047)	12.6212	208.646	BEL93
1	15	-1	14		1	14	-1	13		294024.480(1.000)	294024.141(0.025)	93.8097	212.949	BEL93
2	15	10	5	+	2	14	10	4	+		294204.339(0.295)	50.7434	478.794	
2	15	10	6	-	2	14	10	5	-		294204.340(0.295)	50.7434	478.794	
0	24	4	20	+	0	24	3	21	-	294374.830(1.000)	294373.685(0.142)	16.2263	208.705	BEL93
1	5	-2	3		1	4	1	4			294398.700(0.047)	0.0354	149.486	
2	15	8	7	+	2	14	8	6	+		294525.806(1.987)	65.2957	424.994	
2	15	8	7	+	2	14	8	6	+		294525.806(1.987)	65.2957	424.994	
2	15	8	8	-	2	14	8	7	-		294527.350(1.966)	65.3053	424.994	
2	15	8	8	-	2	14	8	7	-		294527.350(1.966)	65.3053	424.994	
2	15	-4	12		2	14	-4	11		294586.728(1.000)	294587.526(0.188)	85.4161	349.988	BEL93
2	9	4	6	-	2	10	3	7	-		294595.946(6.523)	1.2862	318.144	
2	15	-11	4		2	14	-11	3		294645.630(1.000)	294646.104(0.564)	42.3926	512.670	BEL93
0	9	-2	8	0	0	8	1	7		294664.731(0.050)	294664.757(0.013)	3.5646	25.368	BAR93
2	9	4	5	+	2	10	3	8	+		294707.986(6.525)	1.2861	318.140	
2	7	0	7		2	6	-1	6			294752.447(1.644)	0.0059	277.928	
1	15	2	13	+	1	14	2	12	+	294823.120(1.000)	294823.251(0.037)	93.7136	217.296	BEL93
0	15	2	13	0	0	14	2	12		294919.620(1.000)	294918.124(0.017)	93.2361	74.569	BEL93
1	25	-1	24		1	25	1	25			294921.873(0.910)	0.7909	345.433	
1	9	-3	6		1	9	2	8			294949.380(0.065)	0.0108	176.799	
2	15	9	6	-	2	14	9	5	-		295334.172(0.338)	58.2511	448.666	

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	15	9	6	-	2	14	9	5	-		295334.172(0.338)	58.2511	448.666	
2	15	9	7	+	2	14	9	6	+		295338.755(0.333)	58.2483	448.666	
1	17	-2	15		1	17	1	17		295405.480(1.000)	295405.549(0.263)	0.1970	238.964	BEL93
2	15	-12	3		2	14	-12	2			295554.380(0.747)	32.6580	545.336	
2	15	2	13	+	2	14	2	12	+	295705.329(1.000)	295705.817(0.171)	90.0846	336.638	BEL93
1	21	4	17	+	1	21	3	18	-	295819.610(1.000)	295820.261(0.311)	13.0000	305.809	BEL93
2	15	6	10		2	14	6	9		295935.063(1.000)	295934.921(0.222)	76.6164	379.583	BEL93
0	9	2	8	-	0	8	1	7	-	295956.848(0.050)	295956.818(0.014)	3.7148	25.319	BAR93
0	19	-2	18		0	18	2	16			296166.518(0.076)	0.0014	117.918	
2	16	11	6		2	15	11	5		296210.532(1.000)	296209.182(0.817)	58.8795	537.463	BEL93
0	25	1	24		0	24	2	22			296232.656(0.228)	0.0001	202.708	
1	8	-3	5		1	8	2	7			296305.003(0.062)	0.0038	170.972	
0	25	-3	23		0	25	-2	24		296394.540(1.000)	296397.695(0.158)	13.4923	213.403	BEL93
1	25	3	23		1	25	2	24			296490.713(0.481)	13.5768	356.177	
1	25	-1	24		1	25	0	25			296554.500(0.898)	7.8870	345.379	
2	15	0	15		2	14	0	14		296958.957(1.000)	296958.372(0.217)	85.7687	339.275	BEL93
0	25	3	23	+	0	25	2	24	-		297078.735(0.158)	13.5612	213.404	
1	23	2	22		1	23	1	23			297164.190(0.588)	7.6066	315.161	
2	15	5	11		2	14	5	10		297196.645(1.000)	297196.023(0.242)	81.4671	365.373	BEL93
0	14	2	12		0	13	-2	12			297221.857(0.020)	0.0121	64.654	
0	16	-1	16		0	15	-1	15		297290.570(1.000)	297289.680(0.023)	100.7260	76.301	BEL93
0	16	1	16	+	0	15	1	15	+	297305.250(1.000)	297305.955(0.023)	100.6460	76.252	BEL93
2	23	-3	21		2	23	-2	22			297350.734(4.310)	9.5038	436.339	
1	7	-3	4		1	7	2	6			297449.547(0.062)	0.0012	165.795	
2	11	2	9		2	11	-3	9			297460.334(6.694)	0.0680	311.585	
1	16	1	16	+	1	15	1	15	+	297632.070(1.000)	297632.745(0.040)	102.1130	219.787	BEL93
0	23	2	21	+	0	22	3	20	+		297690.226(0.166)	6.2596	177.022	
2	20	2	18		2	20	-3	18			297770.406(7.155)	1.0929	413.812	
2	16	-9	7		2	15	-9	6			298145.198(8.420)	71.0840	471.201	
1	16	1	16		1	15	1	15		298301.820(1.000)	298301.717(0.037)	99.9993	218.452	BEL93
1	6	-3	3		1	6	2	5			298384.983(0.065)	0.0003	161.268	
2	6	3	3	-	2	7	2	6	-		298407.020(4.233)	0.9413	286.239	
2	24	2	22		2	24	-3	22			298466.489(7.614)	0.7427	471.670	
0	23	2	21		0	22	-3	20			298492.064(0.161)	6.2500	176.997	
1	20	-3	17		1	20	2	19			298508.307(0.406)	1.3865	283.039	
2	15	1	14	-	2	14	1	13	-	298762.252(1.000)	298761.027(0.200)	90.8988	328.546	BEL93
2	6	2	5	-	2	6	1	6	+		298764.030(2.530)	4.0530	271.741	
0	11	1	10		0	10	0	10			298911.113(0.014)	0.0006	35.118	
2	16	-8	8		2	15	-8	7		298917.304(1.000)	298916.456(0.299)	81.5014	449.230	BEL93
1	16	0	16	+	1	15	0	15	+	299077.720(1.000)	299077.519(0.040)	102.2670	219.498	BEL93
1	20	4	16	+	1	20	3	17	-		299078.814(0.259)	12.2098	292.099	
1	5	-3	2		1	5	2	4			299127.709(0.069)	0.0001	157.391	
2	16	3	13		2	17	-2	16			299127.914(8.534)	0.0036	359.009	
2	16	-1	16		2	15	-1	15			299162.102(0.205)	97.6829	340.292	
0	16	0	16		0	15	0	15		299174.310(1.000)	299174.784(0.023)	100.8490	75.933	BEL93
0	16	0	16	+	0	15	0	15	+	299218.210(1.000)	299218.181(0.023)	100.7680	75.878	BEL93
2	12	-1	12		2	11	-2	10			299316.502(1.737)	7.3820	304.052	
1	26	2	25	-	1	26	1	26	+		299668.970(0.971)	5.7657	362.588	
1	4	-3	1		1	4	2	3			299700.423(0.074)	7.6E-6	154.162	
1	3	-3	0		1	2	-2	0			299793.273(0.038)	2.8381	151.592	
0	23	4	19	+	0	23	3	20	-	299911.730(1.000)	299911.484(0.115)	15.2515	192.996	BEL93
2	16	1	16	+	2	15	1	15	+	300001.139(1.000)	300001.210(0.228)	96.8388	333.807	BEL93
2	16	5	12	+	2	15	5	11	+	300077.707(1.000)	300077.061(0.244)	96.9917	388.663	BEL93
2	16	5	11	-	2	15	5	10	-	300077.707(1.000)	300077.413(0.244)	96.9917	388.663	BEL93
1	3	-3	0		1	3	2	2			300126.568(0.079)	4.7E-7	151.581	
1	16	0	16		1	15	0	15		300175.280(1.000)	300175.138(0.036)	100.2630	218.053	BEL93
0	18	2	16		0	18	-1	18			300769.037(0.126)	0.0002	107.885	
0	9	2	7		0	8	1	7		300851.698(0.050)	300851.722(0.013)	0.1392	25.368	BAR93
0	26	1	25		0	25	2	23			301033.552(0.281)	4.0E-5	219.102	
1	8	2	7		1	7	1	7		301333.253(0.050)	301333.284(0.033)	2.1149	160.920	BAR93
2	16	3	13		2	15	3	12		301352.064(1.000)	301350.577(0.224)	99.7868	358.935	BEL93
1	5	5	1	+	1	6	4	2	+		301747.575(0.339)	0.0924	179.926	
1	5	5	0	-	1	6	4	3	-		301747.664(0.339)	0.0924	179.926	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_2''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b	
2	2	2	0		2	3	-3				301763.511(7.217)	0.0004	283.067		
1	19	4	15	+	1	19	3	16	-	301852.720(1.000)	301854.722(0.219)	11.4535	279.058	BEL93	
0	24	-2	23		0	24	-1	24			302168.702(0.289)	7.3796	187.510		
2	16	6	11	-	2	15	6	10	-	302446.961(1.000)	302446.150(0.232)	90.3436	401.404	BEL93	
2	16	6	10	+	2	15	6	9	+	302446.961(1.000)	302446.180(0.232)	90.3436	401.404	BEL93	
2	21	2	19		2	21	-3	19			302494.739(7.225)	0.9595	427.452		
2	23	2	21		2	23	-3	21			302503.698(7.460)	0.3845	456.348		
2	5	1	4		2	6	-2	5			302595.012(6.116)	0.0002	275.884		
0	20	-2	19		0	19	2	17			302762.380(0.098)	0.0011	130.414		
2	16	-2	15		2	15	-2	14		303101.363(1.000)	303100.875(0.205)	100.9770	338.163	BEL93	
2	21	0	21		2	20	1	19			303272.303(4.558)	7.8934	410.959		
2	16	10	7		2	15	10	6		303342.157(1.000)	303342.518(0.500)	64.1300	504.693	BEL93	
0	24	2	23	-	0	24	1	24	+		303473.417(0.294)	7.4542	187.466		
0	22	3	19		0	22	-2	21			303676.678(0.144)	0.0022	167.813		
2	18	0	18		2	17	1	17	+		304078.339(0.680)	17.1816	334.440		
1	18	4	14	+	1	18	3	15	-	304165.490(1.000)	304165.392(0.189)	10.7242	266.686	BEL93	
2	12	2	10		2	11	1	10			304169.150(4.386)	4.0601	318.840		
2	22	2	20		2	22	-3	20			304205.924(7.319)	0.6553	441.636		
2	10	2	8		2	10	-3	8			304285.676(6.622)	0.0744	304.535		
2	16	-7	9		2	15	-7	8		304312.860(1.000)	304313.871(0.268)	84.3191	426.282	BEL93	
0	26	-3	24		0	26	-2	25			304525.385(0.193)	13.7531	229.831		
1	26	3	24		1	26	2	25			304579.635(0.563)	13.9412	372.651		
2	16	0	16	+	2	15	0	15	+	304593.988(1.000)	304594.061(0.223)	97.0384	332.271	BEL93	
1	3	3	1		1	2	2	1		304784.480(1.000)	304783.643(0.045)	2.8717	149.645	BEL93	
2	13	1	13	+	2	12	0	12	+	304842.570(1.000)	304843.521(0.673)	11.3428	305.485	BEL93	
0	22	4	18	+	0	22	3	19	-	304934.120(1.000)	304933.415(0.093)	14.3384	177.962	BEL93	
1	6	3	4		1	5	-2	3			305006.858(0.061)	0.0001	159.306		
1	6	5	1		1	7	4	4			305018.448(0.234)	0.2478	185.598		
1	21	-3	18		1	21	2	20			305035.852(0.505)	1.1565	296.434		
0	26	3	24	+	0	26	2	25	-		305160.158(0.193)	13.8269	229.834		
0	16	-3	14		0	15	3	12			305184.827(0.023)	0.4851	91.486		
1	22	-4	18		1	22	-3	19		305187.620(1.000)	305189.047(0.224)	13.0095	320.899	BEL93	
0	12	1	11		0	11	-1	11			305475.210(0.021)	0.0008	42.771		
2	16	4	13	-	2	15	4	12	-		305604.346(0.227)	96.5727	375.709		
2	16	4	12	+	2	15	4	11	+		305623.591(0.227)	96.5731	375.710		
0	19	1	18	-	0	18	2	17	-	305685.540(1.000)	305686.821(0.063)	8.6605	115.697	BEL93	
1	17	4	13	+	1	17	3	14	-		306043.366(0.167)	10.0162	254.979		
0	16	-2	15		0	15	-2	14			306129.221(0.020)	99.5427	83.185		
0	16	2	15	-	0	15	2	14	-		306145.017(0.020)	99.5077	83.176		
1	16	2	15	-	1	15	2	14	-	306198.800(1.000)	306199.515(0.030)	100.0990	225.920	BEL93	
0	19	1	18		0	18	-2	17			306253.850(1.000)	306253.824(0.060)	8.6482	115.704	BEL93
1	16	1	16	+	1	15	0	15	+	306294.310(1.000)	306295.282(0.057)	12.4990	219.498	BEL93	
1	11	2	10		1	10	-1	9		306435.165(0.050)	306435.217(0.045)	1.6748	180.183	BAR93	
0	26	1	25		0	26	-1	26			306742.864(0.452)	0.8137	218.912		
1	5	3	3	+	1	4	2	2	+	306768.710(1.000)	306768.911(0.050)	2.9726	155.450	BEL93	
1	19	-1	18		1	18	2	17		306817.560(1.000)	306818.743(0.121)	7.6983	258.101	BEL93	
0	5	5	1	+	0	6	4	2	+		306954.206(0.148)	0.0913	38.651		
0	5	5	0	-	0	6	4	3	-		306954.282(0.148)	0.0913	38.651		
1	11	2	10	-	1	10	1	9	-	306984.376(0.050)	306984.310(0.034)	4.2149	181.139	BAR93	
2	16	2	14		2	15	2	13		307032.673(1.000)	307033.031(0.653)	97.4558	355.474	BEL93	
1	5	3	2	-	1	4	2	3	-		307054.850(0.050)	2.9698	155.441		
2	16	-3	14		2	15	-3	13		307286.134(1.000)	307286.120(0.201)	97.3259	346.170	BEL93	
1	25	-2	23		1	24	-3	21			307287.921(0.420)	0.8747	351.537		
2	22	1	21	-	2	22	0	22	+		307344.713(3.501)	13.6265	416.167		
2	22	1	21	-	2	22	0	22	+		307344.713(3.501)	13.6265	416.167		
2	8	2	7	-	2	8	1	8	+		307382.083(2.597)	5.2939	281.163		
1	16	-13	4		1	15	-13	3			307417.891(0.181)	34.6883	487.838		
1	16	4	12	+	1	16	3	13	-	307530.550(1.000)	307531.638(0.152)	9.3250	243.937	BEL93	
1	16	-12	5		1	15	-12	4			307564.679(0.116)	44.5915	444.259		
2	16	1	15		2	15	1	14			307573.181(0.536)	90.3423	353.677		
1	16	10	6	+	1	15	10	5	+	307689.070(1.000)	307689.957(0.059)	62.0506	375.886	BEL93	
1	16	10	7	-	1	15	10	6	-	307689.070(1.000)	307689.957(0.059)	62.0306	373.886	BEL93	
1	16	9	7	-	1	15	9	6	-		307768.165(0.047)	69.5517	346.588		

TABLE II. (Continued.)

v_t'	J'	$K_{a'}$	$K_{c'}$	P'	v_t''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	16	9	8	+	1	15	9	7	+		307768.166(0.047)	69.5517	346.588	
0	26	1	25		0	26	0	26			307771.047(0.446)	7.5499	218.878	
2	19	-2	18		2	18	-1	18			307774.379(1.748)	15.5035	372.073	
0	26	1	25	-	0	26	1	26	+		307885.437(0.461)	0.7662	218.870	
2	16	-10	6		2	15	-10	5			307919.333(0.494)	62.0713	495.065	
1	16	7	9		1	15	7	8		307923.240(1.000)	307925.813(0.038)	82.2178	296.718	BEL93
2	5	1	4		2	4	0	4			307969.620(4.545)	1.1069	275.705	
0	17	0	17	+	0	16	1	16	+	307989.180(1.000)	307989.736(0.028)	14.9718	86.169	BEL93
1	16	6	10		1	15	6	9		308013.330(1.000)	308013.507(0.031)	87.3261	276.738	BEL93
1	16	11	5	-	1	15	11	4	-	308030.350(1.000)	308032.252(0.084)	53.5806	407.878	BEL93
1	16	11	6	+	1	15	11	5	+	308030.350(1.000)	308032.252(0.084)	53.5806	407.878	BEL93
1	16	-11	6		1	15	-11	5		308082.140(1.000)	308080.583(0.089)	53.5336	408.281	BEL93
0	17	0	17		0	16	-1	16		308104.660(1.000)	308104.164(0.028)	14.9054	86.218	BEL93
0	16	14	2	+	0	15	14	1	+		308121.599(0.094)	23.7669	383.459	
0	16	14	3	-	0	15	14	2	-		308121.599(0.094)	23.7669	383.459	
0	16	13	3	-	0	15	13	2	-		308151.881(0.065)	34.4491	341.369	
0	16	13	4	+	0	15	13	3	+		308151.881(0.065)	34.4491	341.369	
0	16	12	5		0	15	12	4			308170.489(0.049)	44.3383	302.361	
0	16	13	4		0	15	13	3			308171.816(0.062)	34.4452	341.330	
0	16	11	6		0	15	11	5			308184.589(0.042)	53.4339	266.475	
0	16	12	4	+	0	15	12	3	+		308193.305(0.049)	44.3302	302.350	
0	16	12	5	-	0	15	12	4	-		308193.305(0.049)	44.3302	302.350	
1	16	8	8	+	1	15	8	7	+		308215.167(0.039)	76.0566	319.917	
1	16	8	9	-	1	15	8	8	-		308215.167(0.039)	76.0566	319.917	
0	16	-13	3		0	15	-13	2			308216.101(0.065)	34.4338	341.293	
0	16	10	7		0	15	10	6			308217.978(0.037)	61.7298	233.672	
1	17	0	17		1	16	1	16			308221.638(0.046)	14.9409	228.402	
0	16	-12	4		0	15	-12	3			308232.782(0.049)	44.3189	302.292	
0	16	11	5	-	0	15	11	4	-	308237.010(1.000)	308237.226(0.042)	53.4137	266.421	BEL93
0	16	11	6	+	0	15	11	5	+	308237.010(1.000)	308237.226(0.042)	53.4137	266.421	BEL93
0	16	-11	5		0	15	-11	4		308237.010(1.000)	308237.389(0.042)	53.4151	266.405	BEL93
0	16	-10	6		0	15	-10	5			308239.355(0.037)	61.7223	233.632	
1	16	8	8		1	15	8	7		308250.360(1.000)	308251.079(0.044)	76.0928	319.439	BEL93
0	16	-9	7		0	15	-9	6		308250.360(1.000)	308251.307(0.033)	69.2371	203.966	BEL93
0	16	9	8		0	15	9	7			308268.921(0.033)	69.2269	203.960	
0	21	-2	20		0	20	2	18			308272.305(0.125)	0.0009	143.570	
0	16	10	6	+	0	15	10	5	+		308276.096(0.037)	61.7054	233.600	
0	16	10	7	-	0	15	10	6	-		308276.096(0.037)	61.7054	233.600	
0	16	-8	8		0	15	-8	7			308285.837(0.028)	75.9552	177.404	
0	16	9	7	-	0	15	9	6	-	308306.760(1.000)	308307.414(0.033)	69.2104	203.903	BEL93
0	16	9	8	+	0	15	9	7	+	308306.760(1.000)	308307.414(0.033)	69.2104	203.903	BEL93
0	16	-1	16		0	15	0	15			308320.270(0.027)	13.8523	75.933	
0	16	8	9		0	15	8	8			308333.173(0.029)	75.9299	177.355	
0	16	8	8	+	0	15	8	7	+		308336.257(0.029)	75.9308	177.336	
0	16	8	9	-	0	15	8	8	-		308336.257(0.029)	75.9308	177.336	
0	16	-7	9		0	15	-7	8			308353.813(0.024)	81.8741	153.942	
0	16	7	9	-	0	15	7	8	-	308375.700(1.000)	308376.469(0.025)	81.8649	153.901	BEL93
0	16	7	10	+	0	15	7	9	+	308375.700(1.000)	308376.469(0.025)	81.8649	153.901	BEL93
0	16	7	10		0	15	7	9			308409.356(0.025)	81.8448	153.874	
1	16	-4	12		1	15	-4	11			308445.917(0.029)	95.2440	245.472	
0	16	6	11	-	0	15	6	10	-		308451.988(0.021)	87.0075	133.592	
0	16	6	10	+	0	15	6	9	+		308452.024(0.021)	87.0075	133.592	
0	16	-6	10		0	15	-6	9			308467.098(0.021)	86.9952	133.589	
0	16	6	11		0	15	6	10			308506.365(0.022)	86.9768	133.532	
0	16	1	16	+	0	15	0	15	+		308520.304(0.027)	13.9119	75.878	
1	11	-1	10		1	10	0	10			308524.119(0.056)	0.2915	177.107	
1	16	5	11		1	15	5	10		308525.184(0.050)	308525.186(0.026)	91.4024	259.410	BAR93
1	16	12	4	+	1	15	12	3	+		308602.194(0.134)	44.2797	442.806	
1	16	12	5	-	1	15	12	4	-		308602.194(0.134)	44.2797	442.806	
0	16	5	12	+	0	15	5	11	+		308602.368(0.019)	91.3525	116.405	
0	16	5	11	-	0	15	5	10	-		308604.615(0.019)	91.3525	116.405	
1	16	-5	12		1	15	-5	11			308604.811(0.030)	91.4988	258.871	
1	21	-4	17		1	21	-3	18			308650.013(0.183)	12.4442	306.609	

TABLE II. (Continued.)

v_t'	J'	K_a'	$K_c' P'$	v_t''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	16	-5	11	0	15	-5	10		308650.515(0.019)	91.3235	116.360	
0	16	5	12	0	15	5	11		308655.774(0.019)	91.3268	116.340	
1	16	13	3	1	15	13	2		308656.777(0.250)	34.3651	481.882	
1	15	4	11 +	1	15	3	12 -		308679.127(0.141)	8.6467	233.556	
1	16	-10	7	1	15	-10	6	308690.650(1.000)	308691.822(0.073)	61.5857	375.082	BEL93
1	16	9	7	1	15	9	6	308763.830(1.000)	308763.668(0.053)	69.1060	345.143	BEL93
1	16	7	9 -	1	15	7	8 -	308807.460(1.000)	308808.019(0.034)	81.6742	296.023	BEL93
1	16	7	10 +	1	15	7	9 +	308807.460(1.000)	308808.019(0.034)	81.6742	296.023	BEL93
0	16	4	13 -	0	15	4	12 -	308877.840(1.000)	308877.544(0.019)	94.8956	102.344	BEL93
0	16	3	14 +	0	15	3	13 +	308924.330(1.000)	308924.152(0.019)	97.6289	91.393	BEL93
1	16	2	15	1	15	2	14		308946.165(0.035)	98.5040	225.326	
0	16	4	12	0	15	4	11		308956.451(0.019)	94.5280	102.305	
0	16	4	12 +	0	15	4	11 +		308960.441(0.019)	94.8957	102.348	
0	16	-4	13	0	15	-4	12		308969.546(0.019)	94.5043	102.280	
0	16	-3	14	0	15	-3	13	309007.200(1.000)	309007.253(0.019)	97.1473	91.359	BEL93
1	16	-6	11	1	15	-6	10		309019.766(0.033)	86.8368	275.298	
1	16	-3	13	1	15	-3	12	309090.050(1.000)	309090.037(0.030)	97.7964	234.888	BEL93
1	16	13	3 -	1	15	13	2 -	309103.720(1.000)	309104.709(0.225)	34.2526	480.961	BEL93
1	16	13	4 +	1	15	13	3 +	309103.720(1.000)	309104.716(0.224)	34.2541	480.961	BEL93
2	24	-3	22	2	24	-2	23		309110.783(4.621)	9.4541	451.353	
1	16	12	4	1	15	12	3		309149.067(0.165)	44.0840	442.526	
1	16	-9	8	1	15	-9	7		309171.198(0.057)	68.8662	344.970	
1	16	10	6	1	15	10	5		309183.080(0.075)	61.4120	374.114	
0	8	-2	7	0	7	-1	7	309196.853(0.050)	309196.744(0.014)	0.1980	19.108	BAR93
2	16	7	9 -	2	15	7	8 -	309224.798(1.000)	309223.617(0.254)	81.5890	416.403	BEL93
2	16	7	10 +	2	15	7	9 +	309224.798(1.000)	309223.624(0.254)	81.5890	416.403	BEL93
2	16	9	8	2	15	9	7		309227.614(0.267)	68.6410	470.146	
2	16	9	8	2	15	9	7		309227.614(0.267)	68.6410	470.146	
0	10	-2	9	0	9	1	8	309328.522(0.050)	309328.587(0.013)	4.0144	31.290	DAR93
1	16	11	5	1	15	11	4		309330.973(0.108)	53.0771	406.559	
2	16	-6	10	2	15	-6	9		309335.798(0.160)	86.0614	401.250	
1	16	4	13	1	15	4	12		309339.784(0.024)	94.5954	244.869	
1	16	-7	10	1	15	-7	9		309341.307(0.040)	81.4634	295.021	
1	16	6	11 -	1	15	6	10 -		309347.131(0.031)	86.5536	275.202	
1	16	6	10 +	1	15	6	9 +		309347.168(0.031)	86.5536	275.202	
2	16	12	4 +	2	15	12	3 +		309378.380(0.623)	43.9243	566.578	
2	16	12	5 -	2	15	12	4 -		309378.380(0.623)	43.9243	566.578	
0	21	4	17 +	0	21	3	18 -		309394.906(0.074)	13.4764	163.603	
2	16	2	15 -	2	15	2	14 -		309398.540(0.150)	96.2286	345.693	
1	16	-8	9	1	15	-8	8		309401.730(0.045)	75.4732	318.233	
1	24	2	23	1	24	1	24		309517.855(0.694)	7.6565	329.993	
1	14	4	10 +	1	14	3	11 -	309536.860(1.000)	309536.721(0.134)	7.9783	223.834	BEL93
2	16	4	12	2	15	4	11		309576.424(0.232)	94.7436	366.041	
1	16	3	14 +	1	15	3	13 +	309595.860(1.000)	309596.784(0.026)	97.6280	233.432	BEL93
1	16	5	12 +	1	15	5	11 +	309745.150(1.000)	309743.241(0.029)	90.8061	257.754	BEL93
1	16	5	11 -	1	15	5	10 -	309745.150(1.000)	309745.709(0.029)	90.8061	257.754	BEL93
1	8	-2	6	1	7	-1	6	309793.751(0.050)	309793.780(0.027)	2.7817	162.492	BAR93
2	16	3	14 +	2	15	3	13 +		309954.261(0.102)	95.5630	360.127	
1	16	4	13 -	1	15	4	12 -	309970.800(1.000)	309971.325(0.028)	94.4960	243.848	BEL93
1	17	0	17 +	1	16	1	16 +	310012.490(1.000)	310013.448(0.057)	13.4336	229.715	BEL93
1	16	4	12 +	1	15	4	11 +	310063.840(1.000)	310063.783(0.028)	94.4962	243.853	BEL93
1	13	4	9 +	1	13	3	10 -		310154.164(0.128)	7.3170	214.769	
1	16	1	16	1	15	0	15	310255.460(1.000)	310255.365(0.054)	13.8383	218.053	BEL93
0	16	3	13	0	15	3	12	310399.150(1.000)	310399.249(0.019)	97.1634	91.486	BEL93
0	16	3	13 -	0	15	3	12 -	310439.760(1.000)	310439.975(0.020)	97.6348	91.507	BEL93
2	16	3	13 -	2	15	3	12 -	310512.633(1.000)	310511.926(0.099)	95.5679	360.167	BEL93
0	10	2	9 -	0	9	1	8 -	310523.214(0.050)	310523.181(0.014)	4.0985	31.242	BAR93
1	16	3	14	1	15	3	13	310532.150(1.000)	310532.503(0.028)	97.0879	233.436	BEL93
1	12	4	8 +	1	12	3	9 -	310577.870(1.000)	310577.832(0.124)	6.6604	206.359	BEL93
1	11	4	7 +	1	11	3	8 -	310849.400(1.000)	310849.363(0.121)	6.0058	198.601	BEL93
1	4	4	0 +	1	4	3	1 -	310877.890(1.000)	310877.802(0.121)	1.0107	162.460	BEL93
1	4	4	1 -	1	4	3	2 +	310877.890(1.000)	310879.326(0.121)	1.0107	162.460	RFI 93
1	5	4	1 +	1	5	3	2 -		310941.883(0.120)	1.8568	165.683	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b
1	5	4	2	-	1	5	3	3	+		310947.953(0.120)	1.8568	165.683	
1	6	4	2	+	1	6	3	3	-	311005.990(1.000)	311004.745(0.119)	2.6189	169.552	BEL93
1	10	4	6	+	1	10	3	7	-	311005.990(1.000)	311004.983(0.119)	5.3502	191.494	BEL93
1	6	4	3	-	1	6	3	4	+		311022.863(0.119)	2.6189	169.551	
1	7	4	3	+	1	7	3	4	-		311056.909(0.118)	3.3337	174.067	
1	9	4	5	+	1	9	3	6	-		311075.362(0.118)	4.6900	185.037	
1	8	4	4	+	1	8	3	5	-		311085.845(0.118)	4.0202	179.228	
1	7	4	4	-	1	7	3	5	+		311101.925(0.118)	3.3334	174.065	
2	11	3	8	-	2	10	2	8			311184.259(2.893)	3.4850	314.685	
1	16	3	13	-	1	15	3	12	-	311211.130(1.000)	311211.272(0.033)	97.6355	233.556	BEL93
1	9	4	6	-	1	9	3	7	+		311270.257(0.118)	4.6887	185.030	
1	20	-4	16	-	1	20	-3	17			311278.120(0.160)	11.8983	292.996	
1	10	4	7	-	1	10	3	8	+		311363.215(0.119)	5.3475	191.482	
2	23	1	22	-	2	23	1	23	+		311445.573(4.040)	0.3701	431.142	
1	11	4	8	-	1	11	3	9	+		311468.764(0.120)	6.0005	198.580	
2	9	2	7	-	2	9	-3	7			311510.207(6.569)	0.0708	308.512	
1	12	4	9	-	1	12	3	10	+		311595.834(0.123)	6.6506	206.324	
1	26	-1	25	-	1	26	1	26			311691.782(1.044)	0.7787	361.482	
2	16	-5	11	-	2	15	-5	10		311698.381(1.000)	311698.256(0.152)	88.9977	378.010	BEL93
1	16	1	15	-	1	15	1	14	-	311722.330(1.000)	311722.348(0.036)	101.4430	223.568	BEL93
1	13	4	10	-	1	13	3	11	+		311756.869(0.126)	7.2998	214.714	
2	16	8	9	-	2	15	8	8		311809.370(1.000)	311809.212(0.218)	73.9413	437.742	BEL93
1	14	4	11	-	1	14	3	12	+		311968.005(0.130)	7.9493	223.750	
2	16	11	5	-	2	15	11	4	-	312220.144(1.000)	312221.364(0.408)	51.8644	525.003	BEL93
2	16	11	6	+	2	15	11	5	+	312220.144(1.000)	312221.364(0.408)	51.8644	525.003	BEL93
0	25	2	23	-	0	24	3	21			312235.975(0.155)	0.0013	208.687	
1	15	4	12	-	1	15	3	13	+		312249.110(0.135)	8.5996	233.432	
2	18	0	18	-	2	18	-1	18			312271.390(3.772)	7.0083	372.073	
2	9	2	8	-	2	9	1	9	+		312576.409(2.639)	5.8739	286.813	
1	16	4	13	-	1	16	3	14	+		312623.650(0.140)	9.2506	243.759	
0	16	1	15	0	0	15	1	14		312710.450(1.000)	312710.583(0.021)	100.6040	80.432	BEL93
0	22	-2	21	0	0	21	2	19			312746.376(0.157)	0.0007	157.381	
0	4	3	2	+	0	3	2	1	+		312767.089(0.016)	2.9701	10.163	
0	16	1	15	-	0	15	1	14	-	312784.110(1.000)	312783.763(0.021)	100.5510	80.396	BEL93
0	4	3	1	-	0	3	2	2	-	312858.020(1.000)	312858.398(0.016)	2.9694	10.160	BEL93
1	26	-1	25	-	1	26	0	26			312998.563(1.033)	7.8767	361.438	
1	17	4	14	-	1	17	3	15	+		313118.424(0.148)	9.9018	254.731	
1	16	-2	14	-	1	15	-2	13		313169.940(1.000)	313168.876(0.035)	98.6041	227.248	BEL93
1	16	-1	15	-	1	15	-1	14		313179.790(1.000)	313180.073(0.030)	100.1210	222.757	BEL93
1	19	-4	15	-	1	19	-3	16		313242.370(1.000)	313242.726(0.148)	11.3116	280.055	BEL93
0	20	4	16	+	0	20	3	17	-	313279.680(1.000)	313280.569(0.060)	12.6561	149.917	BEL93
1	22	-3	19	-	1	22	2	21			313404.345(0.627)	0.8440	310.445	
0	8	2	6	0	0	7	-1	7		313525.356(0.050)	313525.340(0.014)	2.1509	19.108	BAR93
2	21	1	20	2	20	2	18	18			313585.508(3.931)	10.6827	413.812	
2	16	7	10	2	15	7	9	9			313614.352(0.200)	79.0483	410.391	
1	18	4	15	-	1	18	3	16	+	313763.410(1.000)	313763.140(0.157)	10.5522	266.346	BEL93
2	16	10	6	+	2	15	10	5	+	313853.331(1.000)	313853.187(0.302)	59.3776	488.607	BEL93
2	16	10	7	-	2	15	10	6	-	313853.331(1.000)	313853.193(0.302)	59.3776	488.607	BEL93
1	19	1	18	-	1	18	2	17	-	313998.270(1.000)	313997.686(0.210)	8.3037	258.445	BEL93
2	16	8	8	+	2	15	8	7	+	314076.361(1.000)	314073.154(0.321)	73.7363	434.818	BEL93
2	16	8	9	-	2	15	8	8	-	314076.361(1.000)	314073.181(0.320)	73.7351	434.818	BEL93
1	18	-2	16	-	1	18	1	18		314158.380(1.000)	314159.399(0.339)	0.1139	250.138	BEL93
0	16	3	13	0	0	15	-3	13			314221.675(0.023)	0.4834	91.359	
2	16	-11	5	2	15	-11	4	4		314227.842(1.000)	314227.578(0.596)	51.6462	522.499	BEL93
1	12	-1	11	-	1	11	1	11			314385.351(0.071)	0.3900	184.780	
0	8	2	6	+	0	7	1	7	+	314392.323(0.050)	314392.318(0.014)	2.3621	19.056	BAR93
0	8	2	6	+	0	7	1	7	+	314392.420(1.000)	314392.318(0.014)	2.3621	19.056	BEL93
1	6	-2	4	-	1	5	1	5			314467.954(0.045)	0.0828	152.677	
2	16	-4	13	2	15	-4	12	12		314582.106(1.000)	314581.082(0.214)	91.9847	359.814	BEL93
1	19	4	16	-	1	19	3	17	+		314589.880(0.168)	11.2001	278.604	
0	25	-2	24	0	0	25	-1	25		314633.449(1.000)	314633.498(0.341)	7.4122	202.908	BEL93
1	18	-4	14	-	1	18	-3	15		314710.760(1.000)	314710.801(0.140)	10.6819	267.778	BEL93
1	16	2	14	+	1	15	2	13	+	314754.950(1.000)	314754.958(0.046)	100.1880	227.131	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c', P'	v_1''	J''	K_a''	K_c'', P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	16	2	14	0	15	2	13	314934.540(1.000)	314934.194(0.022)	99.6795	84.406	BEL93
0	16	2	14 +	0	15	2	13 +	314957.510(1.000)	314957.349(0.022)	99.6471	84.393	BEL93
2	16	0	16	2	15	0	15	315074.810(1.000)	315073.541(0.259)	91.9515	349.180	BEL93
2	16	9	7 -	2	15	9	6 -		315126.070(0.560)	66.3620	458.517	
2	16	9	7 -	2	15	9	6 -		315126.070(0.560)	66.3620	458.517	
2	16	9	8 +	2	15	9	7 +		315149.538(0.498)	66.3353	458.517	
2	16	9	8 +	2	15	9	7 +		315149.538(0.498)	66.3353	458.517	
2	16	-12	4	2	15	-12	3		315300.829(0.768)	42.3542	555.195	
2	17	11	7	2	16	11	6	315381.658(1.000)	315379.937(0.795)	68.7356	547.344	BEL93
0	17	-1	17	0	16	-1	16	315628.270(1.000)	315627.980(0.030)	107.0580	86.218	BEL93
1	20	4	17 -	1	20	3	18 +		315632.494(0.183)	11.8439	291.503	
0	17	1	17 +	0	16	1	16 +	315645.530(1.000)	315645.388(0.030)	106.9690	86.169	BEL93
2	16	6	11	2	15	6	10	315752.074(1.000)	315751.463(0.238)	83.6523	389.455	BEL93
1	17	-4	13	1	17	-3	14	315816.800(1.000)	315816.730(0.134)	10.0252	256.161	BEL93
2	16	2	14 +	2	15	2	13 +	315899.529(1.000)	315898.641(0.196)	96.2919	346.502	BEL93
0	25	2	24 -	0	25	1	25 +		315957.739(0.347)	7.4907	202.865	
1	17	1	17 +	1	16	1	16 +	315998.550(1.000)	315998.153(0.051)	108.5590	229.715	BEL93
2	7	2	5	2	8	-1	8		316042.766(7.687)	0.0012	287.553	
0	23	-2	22	0	22	2	20		316244.784(0.194)	0.0006	171.843	
0	23	-2	22	0	22	2	20		316244.784(0.194)	0.0006	171.843	
2	13	-1	13	2	12	-2	11		316363.960(1.765)	8.3449	311.623	
2	16	5	12	2	15	5	11		316597.697(0.250)	88.4083	375.286	
0	19	4	15 +	0	19	3	16 -		316600.503(0.049)	11.8694	136.902	
2	8	4	5 -	2	9	3	6 -		316631.849(6.499)	1.0228	311.685	
1	17	1	17	1	16	1	16	316649.310(1.000)	316649.259(0.047)	106.2920	228.402	BEL93
1	16	-4	12	1	16	-3	13		316657.973(0.130)	9.3566	245.198	
2	8	4	4 +	2	9	3	7 +		316692.045(6.500)	1.0228	311.683	
2	4	1	3	2	5	-2	4		316737.205(6.083)	0.0002	272.200	
1	21	4	18 -	1	21	3	19 +	316926.220(1.000)	316925.885(0.203)	12.4810	305.043	BEL93
1	17	0	17 +	1	16	0	16 +	317231.360(1.000)	317231.211(0.050)	108.6810	229.475	BEL93
0	17	0	17	0	16	0	16	317249.570(1.000)	317249.650(0.030)	107.1530	85.913	BEL93
0	17	0	17 +	0	16	0	16 +	317292.040(1.000)	317291.859(0.030)	107.0630	85.858	BEL93
1	15	-4	11	1	15	-3	12		317302.093(0.126)	8.6855	234.888	
0	23	3	20	0	23	-2	22		317331.606(0.187)	0.0010	182.392	
1	9	2	7 +	1	8	1	8 +	317580.416(0.050)	317580.297(0.037)	2.0424	167.521	BAR93
2	17	-1	17	2	16	-1	16	317590.426(1.000)	317589.425(0.221)	103.9280	350.271	BEL93
1	14	-4	10	1	14	-3	11		317795.674(0.124)	8.0168	225.228	
2	17	-8	9	2	16	-8	8	317971.803(1.000)	317971.387(0.308)	89.6462	459.201	BEL93
0	10	2	8	0	9	1	8		318167.869(0.012)	0.0725	31.290	
1	13	-4	9	1	13	-3	10	318172.700(1.000)	318171.547(0.122)	7.3520	216.217	BEL93
2	5	3	2 -	2	6	2	5 -		318181.233(4.231)	0.6601	281.707	
1	17	0	17	1	16	0	16	318302.080(1.000)	318301.865(0.046)	106.4960	228.066	BEL93
2	16	1	15 -	2	15	1	14 -	318359.225(1.000)	318358.491(0.215)	96.9959	338.511	BEL93
2	10	2	9 -	2	10	1	10 +		318366.271(2.688)	6.4265	293.087	
1	12	-4	8	1	12	-3	9	318454.380(1.000)	318453.778(0.121)	6.6907	207.853	BEL93
1	22	4	19 -	1	22	3	20 +	318506.930(1.000)	318505.321(0.229)	13.1090	319.221	BEL93
2	14	1	14 +	2	13	0	13 +		318536.054(0.677)	12.4778	313.795	
2	17	1	17 +	2	16	1	16 +	318554.925(1.000)	318554.646(0.249)	102.9030	343.814	BEL93
1	11	-4	7	1	11	-3	8		318660.852(0.120)	6.0314	200.136	
2	5	5	1 +	2	6	4	2 +		318750.455(8.227)	0.0513	312.711	
2	5	5	0 -	2	6	4	3 -		318750.471(8.227)	0.0513	312.711	
1	10	-4	6	1	10	-3	7	318807.850(1.000)	318807.607(0.120)	5.3715	193.064	BEL93
0	24	-2	23	0	23	2	21		318837.774(0.237)	0.0005	186.954	
1	9	-4	5	1	9	-3	6	318906.630(1.000)	318906.379(0.121)	4.7075	186.638	BEL93
1	4	-3	1	1	3	-2	1		318964.342(0.037)	2.9670	153.520	
1	8	-4	4	1	8	-3	5		318967.665(0.122)	4.0344	180.855	
2	8	2	6	2	8	-3	6		318997.465(6.535)	0.0609	302.983	
1	7	-4	3	1	7	-3	4		319000.509(0.123)	3.3449	175.717	
1	4	-4	0	1	4	-3	1		319001.010(0.127)	1.0138	164.159	
1	5	-4	1	1	5	-3	2	319011.920(1.000)	319010.996(0.126)	1.8627	167.369	BEL93
1	6	-4	2	1	6	-3	3	319011.920(1.000)	319012.719(0.124)	2.6274	171.221	BEL93
2	17	5	13 +	2	16	5	12 +	319184.884(1.000)	319184.203(0.261)	104.0340	398.672	BEL93
2	17	5	12 -	2	16	5	11 -	319184.884(1.000)	319184.867(0.261)	104.0340	398.672	BEL93

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c' P'	ν_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	18	4	14 +	0	18	3	15 -	319385.130(1.000)	319385.173(0.042)	11.1093	124.557	BEL93
1	23	4	20 -	1	23	3	21 +		320405.706(0.263)	13.7249	334.038	
2	17	12	6	2	16	12	5		320532.175(12.585)	64.4401	578.573	
2	17	3	14	2	16	3	13	320574.315(1.000)	320573.835(0.241)	106.0180	368.987	BEL93
0	25	-2	24	0	24	2	22		320605.735(0.286)	0.0004	202.708	
2	17	6	12 -	2	16	6	11 -	321402.660(1.000)	321402.094(0.245)	97.5984	411.492	BEL93
2	17	6	11 +	2	16	6	10 +	321402.660(1.000)	321402.153(0.245)	97.5984	411.492	BEL93
1	12	2	11 -	1	11	1	10 -	321513.779(0.050)	321513.746(0.042)	4.6469	188.340	BAR93
0	26	-2	25	0	25	2	23		321639.168(0.340)	0.0004	219.102	
0	17	4	13 +	0	17	3	14 -	321679.830(1.000)	321679.618(0.037)	10.3707	112.878	BEL93
2	25	-3	23	2	25	-2	24		321736.875(4.938)	9.3291	466.969	
2	17	-2	16	2	16	-2	15	321843.178(1.000)	321842.720(0.226)	106.9150	348.274	BEL93
1	25	2	24	1	25	1	25		322085.911(0.812)	7.6977	345.433	
2	17	10	8	2	16	10	7	322340.626(1.000)	322340.889(0.531)	73.1452	514.812	BEL93
1	24	4	21 -	1	24	3	22 +		322660.893(0.305)	14.3257	349.490	
2	17	0	17 +	2	16	0	16 +		322920.996(0.246)	103.0690	342.431	
0	17	-3	15	0	16	3	13		323076.703(0.028)	0.2493	101.840	
0	17	-3	15	0	16	3	13		323076.703(0.028)	0.2493	101.840	
0	19	2	17	0	19	-1	19		323182.575(0.165)	0.0001	119.634	
1	12	2	11	1	11	-1	10		323188.927(0.048)	2.2335	187.398	
1	17	1	17	1	16	0	16	323215.770(1.000)	323215.916(0.068)	13.5214	229.475	BEL93
2	17	-7	10	2	16	-7	9	323401.379(1.000)	323400.884(0.281)	92.0008	436.433	BEL93
2	20	2	18	2	19	3	16		323449.647(4.671)	4.1595	403.023	
0	11	-2	10	0	10	1	9	323507.856(0.050)	323507.915(0.013)	4.4612	37.864	BAR93
0	16	4	12 +	0	16	3	13 -	323537.720(1.000)	323537.746(0.035)	9.6492	101.862	BEL93
2	6	1	5	2	5	0	5		323581.837(4.721)	1.1574	279.041	
0	15	2	13	0	14	-2	13		323838.555(0.028)	0.0069	73.604	
1	4	3	2	1	3	2	2	324039.780(1.000)	324040.437(0.043)	2.9965	151.581	BEL93
1	5	5	0	1	6	4	3		324531.852(0.235)	0.0964	181.092	
1	7	3	5	1	6	-2	4		324611.323(0.059)	0.0005	163.167	
0	11	2	10 -	0	10	1	9 -	324627.500(1.000)	324627.743(0.014)	4.5129	37.818	BEL93
2	22	0	22	2	21	1	20		324685.579(4.721)	8.4012	424.272	
2	11	2	10 -	2	11	1	11 +		324755.082(2.743)	6.9511	299.986	
0	17	-1	17	0	16	0	16	324772.920(1.000)	324773.466(0.033)	15.0152	85.913	BEL93
1	9	2	8	1	8	1	8		324797.835(0.035)	1.9608	165.965	
2	17	4	14 -	2	16	4	13 -	324806.671(1.000)	324806.413(0.245)	103.3300	385.902	BEL93
2	17	4	13 +	2	16	4	12 +	324836.180(1.000)	324836.383(0.245)	103.3310	385.904	BEL93
0	17	1	17 +	0	16	0	16 +	324947.400(1.000)	324947.511(0.034)	15.0833	85.858	BEL93
0	17	-2	16	0	16	-2	15	324977.050(1.000)	324977.348(0.025)	105.9430	93.397	BEL93
0	17	2	16 -	0	16	2	15 -	324996.340(1.000)	324997.159(0.025)	105.9020	93.388	BEL93
0	15	4	11 +	0	15	3	12 -		325017.279(0.033)	8.9416	91.507	
1	17	2	16 -	1	16	2	15 -	325038.670(1.000)	325039.515(0.037)	106.5470	236.134	BEL93
2	17	1	16	2	16	1	15	325277.517(1.000)	325277.648(0.619)	96.2874	363.936	BEL93
1	25	4	22 -	1	25	3	23 +		325303.039(0.358)	14.9085	365.577	
1	6	3	4 +	1	5	2	3 +		326016.083(0.049)	3.1569	158.677	
0	14	4	10 +	0	14	3	11 -		326175.737(0.033)	8.2448	81.809	
2	26	3	23 -	2	26	2	24 +		326196.578(4.929)	23.0211	499.462	
2	2	2	0 +	2	1	1	1 +		326215.263(2.448)	2.0041	259.169	
2	19	0	19 +	2	18	1	18 +		326388.574(0.675)	18.6039	365.684	
0	24	2	22 +	0	23	3	21 +		326537.509(0.194)	6.8697	191.816	
2	7	2	5	2	7	-3	5		326614.195(6.522)	0.0479	287.201	
2	17	-3	15	2	16	-3	14	326617.330(1.000)	326617.798(0.221)	103.7010	356.420	BEL93
1	17	-13	5	1	16	-13	4	326633.860(1.000)	326634.052(0.195)	45.0232	493.092	BEL93
0	12	1	11	0	11	0	11		326678.753(0.017)	0.0004	42.064	
1	6	3	3 -	1	5	2	4 -		326684.995(0.049)	3.1497	158.655	
1	17	1	17	1	16	0	16	326728.480(1.000)	326729.486(0.064)	15.0674	228.066	BEL93
2	17	-10	7	2	16	-10	6	326771.998(1.000)	326772.013(0.550)	70.8820	505.336	BEL93
1	9	-2	7	1	8	-1	7		326777.014(0.030)	2.8308	167.727	
1	17	-12	6	1	16	-12	5	326797.030(1.000)	326796.842(0.131)	54.3259	454.518	BEL93
1	17	10	7 +	1	16	10	6 +	326924.790(1.000)	326924.900(0.072)	70.7435	386.149	BEL93
1	17	10	8 -	1	16	10	7 -	326924.790(1.000)	326924.900(0.072)	70.7435	386.149	BEL93
1	17	9	8 -	1	16	9	7 -	327017.720(1.000)	327017.642(0.059)	77.7934	356.854	BEL93
1	17	9	9 +	1	16	9	8 +	327017.720(1.000)	327017.643(0.059)	77.7934	356.854	BEL93

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	13	4	9	+	0	13	3	10	-	327068.670(1.000)	327067.525(0.033)	7.5564	72.767	BEL93
1	17	7	10		1	16	7	9		327186.560(1.000)	327186.889(0.046)	89.7041	306.989	BEL93
0	24	2	22		0	23	-3	21			327264.128(0.189)	6.8616	191.792	
1	17	11	6	-	1	16	11	5	-	327271.750(1.000)	327271.655(0.100)	62.7496	418.153	BEL93
1	17	11	7	+	1	16	11	6	+	327271.750(1.000)	327271.655(0.100)	62.7496	418.153	BEL93
1	17	6	11		1	16	6	10		327299.570(1.000)	327299.131(0.039)	94.5034	287.012	BEL93
1	17	-11	7		1	16	-11	6			327342.169(0.103)	62.6961	418.557	
0	26	-2	25		0	26	-1	26			327348.480(0.399)	7.4380	218.912	
0	17	14	3	+	0	16	14	2	+		327369.076(0.114)	34.6702	393.737	
0	17	14	4	-	0	16	14	3	-		327369.076(0.114)	34.6702	393.737	
0	17	13	4	-	0	16	13	3	-	327403.110(1.000)	327402.788(0.086)	44.7191	351.647	BEL93
0	17	13	5	+	0	16	13	4	+	327403.110(1.000)	327402.788(0.086)	44.7191	351.647	BEL93
0	17	13	5		0	16	13	4		327422.600(1.000)	327422.911(0.084)	44.7141	351.610	BEL93
0	17	12	6		0	16	12	5		327422.600(1.000)	327423.842(0.069)	54.0235	312.641	BEL93
0	17	11	7		0	16	11	6			327441.499(0.059)	62.5814	276.755	
0	17	12	5	+	0	16	12	4	+		327448.399(0.069)	54.0137	312.631	
0	17	12	6	-	0	16	12	5	-		327448.399(0.069)	54.0137	312.631	
0	17	-13	4		0	16	-13	3			327469.772(0.086)	44.6996	351.574	
0	17	10	8		0	16	10	7			327480.121(0.051)	70.3859	243.953	
0	17	-12	5		0	16	-12	4			327489.152(0.070)	54.0002	312.574	
0	17	-11	6		0	16	-11	5			327496.445(0.060)	62.5597	276.687	
1	17	8	9	+	1	16	8	8	+		327496.663(0.049)	83.8792	330.198	
1	17	8	10	-	1	16	8	9	-		327496.663(0.049)	83.8792	330.198	
0	17	11	6	-	0	16	11	5	-		327497.015(0.060)	62.5582	276.703	
0	17	11	7	+	0	16	11	6	+		327497.015(0.060)	62.5582	276.703	
0	17	-10	7		0	16	-10	6			327501.837(0.052)	70.3775	243.914	
1	17	8	9		1	16	8	8			327513.286(0.054)	83.9186	329.721	
0	17	-9	8		0	16	-9	7		327517.460(1.000)	327518.976(0.045)	77.4494	214.249	BEL93
0	17	9	9		0	16	9	8		327539.730(1.000)	327538.226(0.045)	77.4381	214.243	BEL93
1	17	2	16		1	16	2	15		327539.730(1.000)	327538.755(0.043)	104.8620	235.632	BEL93
0	17	10	7	+	0	16	10	6	+	327539.730(1.000)	327540.979(0.052)	70.3585	243.883	BEL93
0	17	10	8	-	0	16	10	7	-	327539.730(1.000)	327540.979(0.052)	70.3585	243.883	BEL93
0	17	-8	9		0	16	-8	8		327562.110(1.000)	327561.695(0.038)	83.7707	187.687	BEL93
0	17	9	8	-	0	16	9	7	-	327578.120(1.000)	327578.087(0.045)	77.4199	214.187	BEL93
0	17	9	9	+	0	16	9	8	+	327578.120(1.000)	327578.087(0.045)	77.4199	214.187	BEL93
0	17	8	10		0	16	8	9		327613.020(1.000)	327611.957(0.038)	83.7432	187.640	BEL93
0	17	8	9	+	0	16	8	8	+	327613.020(1.000)	327614.370(0.038)	83.7443	187.621	BEL93
0	17	8	10	-	0	16	8	9	-	327613.020(1.000)	327614.370(0.038)	83.7443	187.621	BEL93
0	17	-7	10		0	16	-7	9		327642.580(1.000)	327642.501(0.032)	89.3390	164.228	BEL93
0	17	7	10	-	0	16	7	9	-	327665.700(1.000)	327665.574(0.032)	89.3292	164.187	BEL93
0	17	7	11	+	0	16	7	10	+	327665.700(1.000)	327665.574(0.032)	89.3292	164.187	BEL93
0	17	7	11		0	16	7	10		327701.650(1.000)	327700.984(0.032)	89.3077	164.161	BEL93
0	18	0	18	+	0	17	1	17	+		327703.078(0.036)	16.1799	96.697	
0	12	4	8	+	0	12	3	9	-		327742.097(0.033)	6.8739	64.379	
0	17	6	12	-	0	16	6	11	-	327758.850(1.000)	327759.111(0.028)	94.1690	143.881	BEL93
0	17	6	11	+	0	16	6	10	+	327758.850(1.000)	327759.182(0.028)	94.1690	143.881	BEL93
0	17	-6	11		0	16	-6	10		327775.280(1.000)	327776.032(0.028)	94.1559	143.878	BEL93
0	18	0	18		0	17	-1	17			327794.301(0.035)	16.1036	96.746	
1	17	-4	13		1	16	-4	12			327805.253(0.037)	101.9450	255.761	
0	17	6	12		0	16	6	11		327815.480(1.000)	327816.887(0.028)	94.1366	143.823	RFI 93
1	17	12	5	+	1	16	12	4	+		327861.916(0.151)	53.9539	453.100	
1	17	12	6	-	1	16	12	5	-		327861.916(0.151)	53.9539	453.100	
1	17	5	12		1	16	5	11		327864.100(1.000)	327865.711(0.033)	98.3049	269.702	BEL93
1	17	-5	13		1	16	-5	12		327925.810(1.000)	327924.794(0.037)	98.4100	269.165	BEL93
0	17	5	13	+	0	16	5	12	+		327940.782(0.025)	98.2573	126.699	
1	17	13	4		1	16	13	3			327941.189(0.269)	44.6121	492.178	
0	17	5	12	-	0	16	5	11	-		327944.702(0.025)	98.2573	126.699	
1	17	-10	8		1	16	-10	7			327987.881(0.085)	70.2235	385.379	
1	18	0	18		1	17	1	17			327988.073(0.055)	16.2096	238.964	
0	17	-5	12		0	16	-5	11			327993.296(0.025)	98.2261	126.656	
0	17	5	13		0	16	5	12			327997.818(0.025)	98.2298	126.635	
1	17	9	8		1	16	9	7		328043.900(1.000)	328044.263(0.063)	77.3053	355.442	BEL93
2	17	7	10	-	2	16	7	9	-		328121.662(0.280)	89.1259	426.717	

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c'	P'	ν_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	17	7	11	+	2	16	7	10	+		328121.676(0.280)	89.1259	426.717	
1	17	7	10	-	1	16	7	9	-	328131.560(1.000)	328131.744(0.042)	89.1226	306.323	BEL93
1	17	7	11	+	1	16	7	10	+	328131.560(1.000)	328131.744(0.042)	89.1226	306.323	BEL93
1	26	-2	24		1	25	-3	22			328207.086(0.443)	0.5886	367.888	
0	17	3	15	+	0	16	3	14	+	328231.530(1.000)	328231.060(0.025)	104.1550	101.698	BEL93
0	11	4	7	+	0	11	3	8	-		328242.983(0.033)	6.1946	56.641	
0	16	4	13	-	0	16	3	14	+		328251.248(0.034)	9.5911	101.698	
0	17	4	14	-	0	16	4	13	-	328259.000(1.000)	328259.244(0.024)	101.5890	112.647	BEL93
0	17	4	14	-	0	17	3	15	+		328279.432(0.036)	10.2810	112.646	
0	17	-3	15	0	16	-3	14	14		328291.050(1.000)	328291.125(0.025)	103.9110	101.666	BEL93
0	15	4	12	-	0	15	3	13	+		328297.856(0.033)	8.9048	91.393	
1	17	-6	12	1	16	-6	11	11		328342.130(1.000)	328341.965(0.040)	93.9885	285.606	BEL93
2	17	4	13	2	16	4	12	12		328342.130(1.000)	328342.851(0.246)	101.5130	376.367	BEL93
0	17	-4	14	0	16	-4	13	12		328361.960(1.000)	328361.834(0.024)	100.7090	112.586	BEL93
1	26	4	23	-	1	26	3	24	+		328362.019(0.421)	15.4701	382.297	
0	17	4	13	0	16	4	12	12			328376.443(0.024)	100.7330	112.610	
0	17	4	13	+	0	16	4	12	+		328385.961(0.024)	101.5900	112.654	
1	17	13	5	+	1	16	13	4	+		328388.536(0.237)	44.4966	491.272	
1	17	13	4	-	1	16	13	3	-		328388.537(0.237)	44.4966	491.272	
0	14	4	11	-	0	14	3	12	+		328394.675(0.032)	8.2222	81.733	
0	18	4	15	-	0	18	3	16	+	328408.970(1.000)	328410.616(0.039)	10.9739	124.238	BEL93
1	17	12	5	1	16	12	4	4			328457.713(0.180)	53.7180	452.838	
2	23	1	22	-	2	23	0	23	+		328483.159(3.802)	13.4663	430.574	
1	17	10	7	1	16	10	6	6			328485.738(0.086)	70.0295	384.428	
1	17	-9	9	1	16	-9	8	8			328495.188(0.068)	77.0396	355.283	
0	13	4	10	-	0	13	3	11	+	328520.340(1.000)	328520.961(0.032)	7.5430	72.718	BEL93
2	17	2	16	-	2	16	2	15	-	328544.514(1.000)	328545.201(0.172)	102.4020	356.014	BEL93
2	17	9	9	2	16	9	8	8			328561.616(0.272)	76.8059	480.461	
0	10	4	6	+	0	10	3	7	-		328607.492(0.033)	5.5154	49.553	
1	17	11	6	1	16	11	5	5			328645.581(0.121)	62.1696	416.877	
1	17	-3	14	1	16	-3	13	13		328645.920(1.000)	328646.496(0.037)	104.2680	245.198	BEL93
0	12	4	9	-	0	12	3	10	+		328659.875(0.032)	6.8662	64.347	
1	17	-7	11	1	16	-7	10	10		328675.840(1.000)	328675.665(0.047)	88.8987	305.339	BEL93
0	19	4	16	-	0	19	3	17	+	328675.840(1.000)	328676.285(0.044)	11.6685	136.473	BEL93
2	17	12	5	+	2	16	12	4	+		328683.156(0.647)	53.5321	576.897	
2	17	12	6	-	2	16	12	5	-		328683.156(0.647)	53.5321	576.897	
0	26	2	25	-	0	26	1	26	+		328693.853(0.407)	7.5205	218.870	
2	17	-6	11	2	16	-6	10	10			328708.062(0.166)	93.1595	411.569	
1	17	6	12	-	1	16	6	11	-	328714.360(1.000)	328714.787(0.038)	93.6840	285.521	BEL93
1	17	6	11	+	1	16	6	10	+	328714.360(1.000)	328714.861(0.038)	93.6840	285.521	BEL93
1	17	-8	10	1	16	-8	9	9		328738.980(1.000)	328739.079(0.054)	83.2466	328.554	BEL93
1	17	4	14	1	16	4	13	13		328775.480(1.000)	328775.410(0.030)	101.2680	255.187	BEL93
0	11	4	8	-	0	11	3	9	+	328797.190(1.000)	328798.405(0.033)	6.1904	56.622	BEL93
0	9	4	5	+	0	9	3	6	-	328865.500(1.000)	328866.875(0.033)	4.8324	43.113	BEL93
1	17	3	15	+	1	16	3	14	+	328915.570(1.000)	328915.969(0.033)	104.1700	243.759	BEL93
0	10	4	7	-	0	10	3	8	+		328927.157(0.033)	5.5133	49.542	
2	17	2	15	2	16	2	14	14			328960.350(0.762)	101.9910	365.716	
0	9	4	6	-	0	9	3	7	+		329040.026(0.033)	4.8314	43.107	
0	8	4	4	+	0	8	3	5	-		329046.776(0.033)	4.1405	37.319	
0	20	4	17	-	0	20	3	18	+	329110.450(1.000)	329110.727(0.052)	12.3634	149.349	BEL93
0	8	4	5	-	0	8	3	6	+	329133.360(1.000)	329133.774(0.033)	4.1401	37.316	BEL93
1	17	5	13	+	1	16	5	12	+		329152.969(0.036)	97.6808	268.086	
1	17	5	12	-	1	16	5	11	-		329157.251(0.036)	97.6808	268.086	
0	7	4	3	+	0	7	3	4	-		329167.843(0.034)	3.4321	32.172	
0	7	4	4	-	0	7	3	5	+	329206.690(1.000)	329207.545(0.034)	3.4319	32.170	BEL93
0	6	4	2	+	0	6	3	3	-	329248.770(1.000)	329246.400(0.034)	2.6954	27.669	BEL93
0	6	4	3	-	0	6	3	4	+		329262.332(0.034)	2.6954	27.668	
0	5	4	1	+	0	5	3	2	-		329295.115(0.034)	1.9105	23.811	
0	5	4	2	-	0	5	3	3	+		329300.439(0.034)	1.9105	23.810	
0	4	4	0	+	0	4	3	1	-	329322.270(1.000)	329323.628(0.035)	1.0397	20.596	BEL93
0	4	4	1	-	0	4	3	2	+	329322.270(1.000)	329324.961(0.035)	1.0397	20.596	BEL93
2	17	3	15	+	2	16	3	14	+	329354.615(1.000)	329354.777(0.115)	101.9300	370.466	BEL93
1	18	0	18	+	1	17	1	17	+		329397.850(0.067)	14.4870	240.256	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	17	4	14 -	1	16	4	13 -	329410.530(1.000)	329410.743(0.035)	101.1770	254.187	BEL93
1	17	4	13 +	1	16	4	12 +	329550.680(1.000)	329550.955(0.036)	101.1780	254.195	BEL93
0	21	4	18 -	0	21	3	19 +	329750.440(1.000)	329750.450(0.062)	13.0563	162.866	BEL93
2	17	-9	8	2	16	-9	7		329781.287(4.611)	11.5707	481.146	
1	17	3	15	1	16	3	14		330099.235(0.035)	103.5610	243.795	
2	17	3	14 -	2	16	3	13 -		330109.761(0.113)	101.9370	370.525	
0	17	3	14	0	16	3	13	330228.480(1.000)	330228.055(0.025)	103.9290	101.840	BEL93
0	17	3	14 -	0	16	3	13 -	330243.930(1.000)	330244.088(0.025)	104.1650	101.862	BEL93
1	17	1	16 -	1	16	1	15 -	330580.560(1.000)	330580.437(0.042)	107.7730	233.966	BEL93
0	22	4	19 -	0	22	3	20 +	330633.820(1.000)	330633.521(0.075)	13.7447	177.022	BEL93
2	3	1	2	2	4	-2	3		330641.593(6.061)	0.0002	269.167	
2	20	-2	19	2	19	-1	19		330670.257(1.685)	16.9781	383.897	
0	20	1	19 -	0	19	2	18 -	330699.720(1.000)	330699.512(0.073)	9.6605	127.791	BEL93
1	20	-1	19	1	19	2	18	330776.390(1.000)	330776.072(0.140)	8.8907	270.261	BEL93
1	17	3	14 -	1	16	3	13 -	331038.950(1.000)	331039.227(0.044)	104.1830	243.937	BEL93
0	20	1	19	0	19	-2	18	331202.670(1.000)	331202.432(0.070)	9.6465	127.797	BEL93
2	17	-5	12	2	16	-5	11	331283.741(1.000)	331283.607(0.163)	95.7363	388.407	BEL93
2	17	8	10	2	16	8	9	331342.394(1.000)	331342.364(0.226)	81.5606	448.143	BEL93
0	26	2	24	0	25	3	22		331531.545(0.173)	0.0008	225.072	
0	17	1	16	0	16	1	15	331602.530(1.000)	331602.149(0.026)	106.8970	90.863	BEL93
0	17	1	16 -	0	16	1	15	331680.470(1.000)	331680.366(0.027)	106.8420	90.829	BEL93
2	12	2	11 -	2	12	1	12 +		331745.462(2.805)	7.4470	307.509	
2	17	11	6 -	2	16	11	5 -	331764.612(1.000)	331764.750(0.428)	60.7481	535.418	BEL93
2	17	11	7 +	2	16	11	6 +	331764.612(1.000)	331764.750(0.428)	60.7481	535.418	BEL93
0	23	4	20 -	0	23	3	21 +	331798.846(1.000)	331798.846(0.091)	14.4258	191.816	BEL93
0	5	3	3 +	0	4	2	2 +		331916.584(0.016)	3.1477	12.739	
2	12	3	9	2	11	2	9		332160.365(3.029)	3.7948	321.507	
0	5	3	2 -	0	4	2	3 -		332191.587(0.016)	3.1454	12.730	
1	17	-1	16	1	16	-1	15	332214.040(1.000)	332213.950(0.037)	106.4090	233.203	BEL93
2	15	1	15 +	2	14	0	14 +	332253.160(1.000)	332254.522(0.683)	13.6672	322.724	BEL93
2	14	-1	14	2	13	-2	12		332564.699(1.787)	9.3660	319.834	
0	24	3	21	0	24	-2	23		332709.119(0.239)	0.0004	197.589	
0	24	3	21	0	24	-2	23		332709.119(0.239)	0.0004	197.589	
0	9	-2	8	0	8	-1	8		332815.708(0.014)	0.0919	24.095	
2	17	0	17	2	16	0	16	332927.061(1.000)	332926.207(0.306)	98.1569	359.690	BEL93
0	24	4	21 -	0	24	3	22 +		333285.418(0.110)	15.0962	207.247	
2	17	7	11	2	16	7	10	333304.613(1.000)	333303.885(0.213)	86.2711	420.852	BEL93
2	17	8	10 -	2	16	8	9 -	333419.461(1.000)	333418.944(0.271)	81.3806	445.295	BEL93
2	17	8	9 +	2	16	8	8 +	333419.461(1.000)	333419.139(0.271)	81.3816	445.295	BEL93
1	17	-2	15	1	16	-2	14	333473.340(1.000)	333473.181(0.045)	104.9990	237.695	BEL93
2	17	10	7 +	2	16	10	6 +		333508.462(0.312)	67.7167	499.076	
2	17	10	8 -	2	16	10	7 -		333508.483(0.312)	67.7167	499.076	
2	17	-11	6	2	16	-11	5	333868.079(1.000)	333869.962(0.680)	60.5344	532.980	BEL93
0	18	-1	18	0	17	-1	17	333941.280(1.000)	333941.363(0.037)	113.3870	96.746	BEL93
0	18	1	18 +	0	17	1	17 +	333959.740(1.000)	333959.763(0.037)	113.2890	96.697	BEL93
1	23	4	20	1	23	3	21		334200.074(0.194)	13.5567	334.452	
2	6	2	4	2	6	-3	4		334211.349(6.535)	0.0343	293.843	
1	22	4	19	1	22	3	20	334251.850(1.000)	334251.578(0.178)	13.0353	319.584	BEL93
1	18	1	18 +	1	17	1	17 +	334341.480(1.000)	334341.376(0.064)	114.9970	240.256	BEL93
2	25	3	22 -	2	25	2	23 +		334507.861(4.792)	21.6156	482.209	
2	18	11	8	2	17	11	7		334622.349(0.787)	78.1720	557.864	
1	17	2	15 +	1	16	2	14 +	334637.410(1.000)	334637.365(0.057)	106.6440	237.630	BEL93
2	17	-4	14	2	16	-4	13	334667.237(1.000)	334665.557(0.249)	98.5154	370.307	BEL93
1	19	-2	17	1	19	1	19		334762.276(0.434)	0.0599	261.923	
1	24	4	21	1	24	3	22		334801.069(0.218)	14.3407	349.947	
1	26	2	25	1	26	1	26		334854.011(0.943)	7.7324	361.482	
1	21	4	18	1	21	3	19		334903.886(0.164)	12.6094	305.345	
0	17	2	15	0	16	2	14	334904.640(1.000)	334904.548(0.028)	106.1060	94.911	BEL93
0	17	2	15 +	0	16	2	14 +	334931.810(1.000)	334931.386(0.028)	106.0700	94.899	BEL93
1	18	1	18	1	17	1	17	334981.240(1.000)	334980.883(0.059)	112.5730	238.964	BEL93
2	26	-3	24	2	26	-2	25		335035.703(5.254)	9.1359	483.186	
2	17	-12	5	2	16	-12	4		335076.480(0.802)	51.6334	565.712	
2	17	9	8 -	2	16	9	7 -		335091.786(1.872)	74.0532	469.028	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b
0	25	4	22	-	0	25	3	23	+		335131.567(0.132)	15.7526	223.313	
2	17	9	9	+	2	16	9	8	+		335218.959(1.320)	73.7762	469.029	
1	7	-2	5		1	6	1	6		335245.810(1.000)	335245.052(0.044)	0.1596	156.490	BEL93
0	18	0	18		0	17	0	17		335317.990(1.000)	335318.116(0.037)	113.4590	96.495	BEL93
0	18	0	18	+	0	17	0	17	+	335358.840(1.000)	335358.730(0.037)	113.3600	96.442	BEL93
1	18	0	18	+	1	17	0	17	+	335382.660(1.000)	335382.555(0.063)	115.0930	240.056	BEL93
0	17	3	14		0	16	-3	14		335443.680(1.000)	335442.477(0.029)	0.2481	101.666	BEL93
2	17	6	12		2	16	6	11		335561.170(1.000)	335560.428(0.256)	90.5942	399.987	BEL93
1	12	-1	11		1	11	0	11			335566.577(0.064)	0.2050	184.073	
2	24	1	23	-	2	24	1	24	+		335579.281(4.351)	0.3438	446.076	
1	13	2	12	-	1	12	1	11	-	335705.760(1.000)	335705.913(0.053)	5.1189	196.186	BEL93
0	11	2	9		0	10	1	9			335874.229(0.012)	0.0394	37.864	
2	17	5	13		2	16	5	12		335899.794(1.000)	335899.351(0.261)	95.3046	385.847	BEL93
1	25	4	22		1	25	3	23			335967.713(0.257)	15.3729	366.067	
1	20	4	17		1	20	3	18			336001.878(0.149)	12.1482	291.743	
2	18	-1	18		2	17	-1	17		336025.866(1.000)	336024.885(0.241)	110.1400	360.865	BEL93
2	17	2	15	+	2	16	2	14	+	336128.625(1.000)	336126.708(0.225)	102.4870	357.039	BEL93
2	18	-9	9		2	17	-9	8			336285.139(7.300)	88.4225	492.146	
1	18	0	18		1	17	0	17		336415.690(1.000)	336415.694(0.058)	112.7310	238.683	BEL93
2	18	-8	10		2	17	-8	9		337054.733(1.000)	337055.312(0.332)	97.5720	469.807	BEL93
2	18	1	18	+	2	17	1	17	+	337081.082(1.000)	337080.885(0.272)	108.9590	354.440	BEL93
0	13	1	12		0	12	-1	12			337152.069(0.028)	0.0007	50.231	
0	12	-2	11		0	11	1	10		337241.713(0.050)	337241.779(0.014)	4.9270	45.089	MAE87
1	19	4	16		1	19	3	17		337356.930(1.000)	337356.706(0.133)	11.6085	278.782	BEL93
0	26	4	23	-	0	26	3	24	+		337374.219(0.158)	16.3913	240.013	
1	26	4	23		1	26	3	24			337540.843(0.324)	16.3194	382.811	
1	20	1	19	-	1	19	2	18	-		337865.927(0.239)	9.2547	270.539	
2	17	1	16	-	2	16	1	15	-	337883.334(1.000)	337882.691(0.232)	103.0860	349.131	BEL93
2	4	3	1	-	2	5	2	4	-		337932.263(4.231)	0.3965	277.822	
2	18	12	7		2	17	12	6			337942.680(3.931)	72.7424	589.264	
1	5	-3	2		1	4	-2	2		338105.280(1.000)	338103.325(0.036)	3.1493	156.091	BEL93
0	12	2	11	-	0	11	1	10	-		338299.524(0.100)	4.9623	45.044	MAE87
2	18	5	14	+	2	17	5	13	+	338319.123(1.000)	338318.371(0.285)	110.9710	409.319	BEL93
2	18	5	13	-	2	17	5	12	-	338319.123(1.000)	338319.580(0.285)	110.9710	409.319	BEL93
2	7	4	4	-	2	8	3	5	-		338359.122(6.481)	0.7685	305.874	
1	18	4	15		1	18	3	16		338802.340(1.000)	338802.931(0.119)	11.0007	266.469	BEL93
0	9	2	7		0	8	-1	8		339002.830(1.000)	339002.673(0.014)	2.2357	24.095	BEL93
2	13	2	12	-	2	13	1	13	+		339338.958(2.875)	7.9137	315.653	
1	13	2	12		1	12	-1	11			339592.796(0.051)	2.9040	195.266	
0	9	2	7	+	0	8	1	8	+	339976.010(1.000)	339975.542(0.014)	2.3424	24.043	BEL93
0	9	2	7	+	0	8	1	8	+	339976.010(1.000)	339975.542(0.014)	2.3424	24.043	BEL93
2	18	3	15		2	17	3	14		340007.980(1.000)	340007.799(0.280)	112.0640	379.680	BEL93
1	17	4	14		1	17	3	15			340223.128(0.107)	10.3497	254.805	
1	18	1	18	+	1	17	0	17	+	340325.650(1.000)	340326.081(0.082)	14.5542	240.056	BEL93
2	18	6	13	-	2	17	6	12	-	340378.300(1.000)	340378.418(0.264)	104.7300	422.213	BEL93
2	18	6	12	+	2	17	6	11	+	340378.300(1.000)	340378.528(0.264)	104.7300	422.213	BEL93
0	18	-3	16		0	17	3	14		340413.390(1.000)	340411.941(0.036)	0.1227	112.855	BEL93
2	14	3	11		2	15	-2	14			340456.851(8.607)	0.0011	338.163	
2	18	-2	17		2	17	-2	16		340463.170(1.000)	340462.864(0.251)	112.8340	359.009	BEL93
2	18	0	18	+	2	17	0	17	+	341182.929(1.000)	341182.773(0.271)	109.0960	353.202	BEL93
2	18	10	9		2	17	10	8		341351.677(1.000)	341351.541(0.570)	81.8907	525.564	BEL93
0	18	-1	18		0	17	0	17		341464.930(1.000)	341465.178(0.041)	16.1867	96.495	BEL93
1	16	4	13		1	16	3	14		341546.460(1.000)	341546.953(0.098)	9.6762	243.795	BEL93
2	5	2	3		2	5	-3	3			341610.458(6.585)	0.0218	290.221	
0	18	1	18	+	0	17	0	17	+	341615.020(1.000)	341615.414(0.041)	16.2643	96.442	BEL93
2	6	2	4		2	7	-1	7			341834.437(7.708)	0.0007	282.441	
2	18	-7	11		2	17	-7	10		342499.244(1.000)	342499.252(0.298)	99.5476	447.221	BEL93
1	15	4	12		1	15	3	13		342740.070(1.000)	342739.672(0.091)	8.9934	233.436	BEL93
2	24	3	21	-	2	24	2	22	+		343058.671(4.668)	20.2537	465.618	
2	18	1	17		2	17	1	16		343079.843(1.000)	343079.000(0.613)	103.6050	374.787	BEL93
2	3	2	2	-	2	2	1	1	-		343193.412(2.429)	2.2404	260.546	
1	5	3	3		1	4	2	3			343259.748(0.042)	3.1719	154.162	
1	18	1	18		1	17	0	17		343410.530(1.000)	343408.504(0.076)	16.3049	238.683	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	10	-2	8		1	9	-1	8			343417.585(0.034)	2.8302	173.625	
0	18	-2	17		0	17	-2	16		343780.080(1.000)	343779.365(0.032)	112.3290	104.237	BEL93
1	14	4	11		1	14	3	12			343789.820(0.087)	8.3084	223.730	
0	18	2	17	-	0	17	2	16	-	343803.080(1.000)	343802.717(0.032)	112.2840	104.229	BEL93
1	18	2	17	-	1	17	2	16	-	343832.840(1.000)	343833.195(0.046)	112.9830	246.976	BEL93
2	18	4	15	-	2	17	4	14	-	344021.722(1.000)	344021.376(0.267)	110.0320	396.737	BEL93
2	18	4	14	+	2	17	4	13	+	344066.295(1.000)	344066.903(0.267)	110.0330	396.739	BEL93
1	8	3	6		1	7	-2	5			344233.770(0.058)	0.0017	167.673	
2	2	1	1		2	3	-2	2			344265.441(6.056)	0.0001	266.787	
1	10	2	8	+	1	9	1	9	+		344348.206(0.046)	1.9613	173.134	
1	13	4	10		1	13	3	11			344699.579(0.084)	7.6240	214.677	
1	13	-1	12		1	12	1	12			344969.091(0.084)	0.3416	192.278	
1	7	3	5	+	1	6	2	4	+	345111.770(1.000)	345111.822(0.047)	3.3495	162.555	BEL93
1	12	4	9		1	12	3	10		345477.700(1.000)	345478.286(0.081)	6.9411	206.274	BEL93
2	18	-10	8		2	17	-10	7		345633.900(1.000)	345634.046(0.606)	79.4369	516.236	BEL93
1	18	-13	6		1	17	-13	5		345850.840(1.000)	345850.024(0.215)	54.9138	503.988	BEL93
2	18	-3	16		2	17	-3	15			345991.914(0.240)	110.0620	367.315	
1	18	-12	7		1	17	-12	6		346030.500(1.000)	346030.011(0.150)	63.6825	465.419	BEL93
2	16	1	16	+	2	15	0	15	+		346064.845(0.689)	14.9078	332.271	
1	18	2	17		1	17	2	16		346064.930(1.000)	346065.513(0.051)	111.2550	246.557	BEL93
1	11	4	8		1	11	3	9			346138.424(0.080)	6.2586	198.521	
1	18	10	8	+	1	17	10	7	+	346161.070(1.000)	346160.602(0.089)	79.1732	397.054	BEL93
1	18	10	9	-	1	17	10	8	-	346161.070(1.000)	346160.602(0.089)	79.1732	397.054	BEL93
1	18	9	9	-	1	17	9	8	-	346270.160(1.000)	346269.356(0.073)	85.8219	367.762	BEL93
1	18	9	10	+	1	17	9	9	+	346270.160(1.000)	346269.357(0.073)	85.8219	367.762	BEL93
1	18	7	11		1	17	7	10		346450.920(1.000)	346451.189(0.057)	97.0605	317.903	BEL93
1	18	11	7	-	1	17	11	6	-	346509.210(1.000)	346509.344(0.119)	71.6025	429.070	BEL93
1	18	11	8	+	1	17	11	7	+	346509.210(1.000)	346509.344(0.119)	71.6025	429.070	BEL93
1	18	6	12		1	17	6	11			346591.178(0.049)	101.5850	297.930	
1	18	-11	8		1	17	-11	7			346604.524(0.121)	71.5434	429.476	
0	18	14	4	+	0	17	14	3	+		346614.688(0.143)	45.0650	404.657	
0	18	14	5	-	0	17	14	4	-		346614.688(0.143)	45.0650	404.657	
0	18	13	5	-	0	17	13	4	-	346653.110(1.000)	346652.103(0.113)	54.5508	362.568	BEL93
0	18	13	6	+	0	17	13	5	+	346653.110(1.000)	346652.103(0.113)	54.5508	362.568	BEL93
0	18	13	6		0	17	13	5			346672.260(0.111)	54.5447	362.531	
0	18	12	7		0	17	12	6		346675.220(1.000)	346675.863(0.094)	63.3351	323.562	BEL93
1	10	4	7		1	10	3	8			346693.323(0.079)	5.5745	191.417	
0	18	11	8		0	17	11	7			346697.550(0.080)	71.4150	287.677	
0	18	12	6	+	0	17	12	5	+		346702.191(0.094)	63.3239	323.553	
0	18	12	7	-	0	17	12	6	-		346702.191(0.094)	63.3239	323.553	
0	18	-13	5		0	17	-13	4			346721.645(0.113)	54.5274	362.497	
0	18	10	9		0	17	10	8			346741.966(0.069)	78.7823	254.876	
0	18	-12	6		0	17	-12	5			346744.036(0.094)	63.3082	323.498	
0	18	-11	7		0	17	-11	6		346756.600(1.000)	346754.455(0.081)	71.3907	287.611	BEL93
0	18	11	7	-	0	17	11	6	-	346756.600(1.000)	346755.860(0.081)	71.3890	287.627	BEL93
0	18	11	8	+	0	17	11	7	+	346756.600(1.000)	346755.860(0.081)	71.3890	287.627	BEL93
0	18	-10	8		0	17	-10	7			346763.871(0.069)	78.7732	254.838	
1	18	8	10		1	17	8	9			346775.554(0.066)	91.5768	340.645	
1	18	8	10	+	1	17	8	9	+		346781.113(0.061)	91.5345	341.122	
1	18	8	11		1	17	8	10			346781.113(0.061)	91.5345	341.122	
0	18	-9	9		0	17	-9	8			346786.998(0.059)	85.4513	225.173	
0	18	10	8	+	0	17	10	7	+	346806.450(1.000)	346805.407(0.070)	78.7524	254.809	BEL93
0	18	10	9	-	0	17	10	8	-	346806.450(1.000)	346805.408(0.070)	78.7524	254.809	BEL93
0	18	9	10		0	17	9	9		346806.450(1.000)	346807.950(0.059)	85.4391	225.168	BEL93
2	3	2	1	+	2	2	1	2	+		346810.647(2.456)	2.1998	260.427	
0	18	-8	10		0	17	-8	9			346838.995(0.049)	91.4199	198.613	
0	18	9	9	-	0	17	9	8	-	346848.120(1.000)	346849.011(0.059)	85.4194	225.113	BEL93
0	18	9	10	+	0	17	9	9	+	346848.120(1.000)	346849.011(0.059)	85.4194	225.113	BEL93
0	18	8	11		0	17	8	10		346893.420(1.000)	346892.149(0.050)	91.3904	198.568	BEL93
0	18	8	10	+	0	17	8	9	+	346893.420(1.000)	346893.767(0.049)	91.3916	198.549	BEL93
0	18	8	11	-	0	17	8	10	-	346893.420(1.000)	346893.767(0.049)	91.3916	198.549	BEL93
0	18	-7	11		0	17	-7	10		346934.270(1.000)	346934.186(0.041)	96.6763	175.157	BEL93
0	18	7	12	+	0	17	7	11	+	346957.380(1.000)	346957.516(0.041)	96.6661	175.117	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	18	7	11	-	0	17	7	10	-	346957.380(1.000)	346957.518(0.041)	96.6661	175.117	BEL93
0	18	7	12	0	0	17	7	11		346996.970(1.000)	346995.495(0.042)	96.6432	175.092	BEL93
2	18	7	11	-	2	17	7	10	-		346999.536(0.312)	96.5375	437.662	
2	18	7	12	+	2	17	7	11	+		346999.563(0.312)	96.5375	437.662	
0	20	2	18	0	0	20	-1	20		347071.640(1.000)	347071.455(0.212)	2.8E-5	131.993	BEL93
0	18	6	13	-	0	17	6	12	-	347071.640(1.000)	347071.508(0.035)	101.2370	154.814	BEL93
0	18	6	12	+	0	17	6	11	+	347071.640(1.000)	347071.645(0.035)	101.2370	154.814	BEL93
0	18	-6	12	0	0	17	-6	11		347089.940(1.000)	347090.367(0.035)	101.2230	154.812	BEL93
1	18	12	6	+	1	17	12	5	+		347117.708(0.173)	63.2557	464.036	
1	18	12	7	-	1	17	12	6	-		347117.708(0.173)	63.2557	464.036	
0	18	6	13	0	0	17	6	12			347132.652(0.035)	101.2030	154.757	
2	18	4	14	2	2	17	4	13			347154.941(0.262)	108.2180	387.319	
1	9	4	6	1	9	3	7				347155.950(0.078)	4.8856	184.962	
0	19	0	19	+	0	18	1	18	+		347169.534(0.044)	17.3872	107.837	
1	18	-4	14	1	1	17	-4	13		347181.920(1.000)	347182.462(0.046)	108.5990	266.695	BEL93
1	18	5	13	1	1	17	5	12		347217.690(1.000)	347216.828(0.041)	105.1410	280.638	BEL93
1	18	13	5	1	1	17	13	4			347224.079(0.292)	54.4227	503.117	
0	19	0	19	0	0	18	-1	18			347240.383(0.044)	17.3002	107.885	
1	18	-5	14	1	1	17	-5	13		347252.150(1.000)	347251.868(0.045)	105.2540	280.103	BEL93
1	18	-10	9	1	1	17	-10	8			347284.087(0.100)	78.6031	396.319	
0	18	5	14	+	0	17	5	13	+		347288.224(0.031)	105.0970	137.638	
0	18	5	13	-	0	17	5	12	-		347294.834(0.031)	105.0970	137.638	
1	18	9	9	1	1	17	9	8		347323.950(1.000)	347322.376(0.077)	85.2953	366.385	BEL93
0	18	-5	13	0	0	17	-5	12			347345.680(0.031)	105.0620	137.597	
0	18	5	14	0	0	17	5	13			347349.245(0.031)	105.0660	137.576	
1	18	7	12	+	1	17	7	11	+	347459.630(1.000)	347459.306(0.052)	96.4442	317.269	BEL93
1	18	7	11	-	1	17	7	10	-	347459.630(1.000)	347459.308(0.052)	96.4442	317.269	BEL93
0	18	3	16	+	0	17	3	15	+	347519.400(1.000)	347519.147(0.031)	110.6550	112.646	BEL93
1	19	0	19	1	1	18	1	18			347532.601(0.066)	17.4767	250.138	
2	14	2	13	-	2	14	1	14	+		347535.772(2.953)	8.3509	324.420	
1	8	4	5	1	8	3	6				347538.318(0.078)	4.1868	179.155	
0	18	-3	16	0	0	17	-3	15		347563.580(1.000)	347563.293(0.031)	110.5410	112.617	BEL93
0	18	4	15	-	0	17	4	14	-		347650.331(0.030)	108.2410	123.596	
2	18	2	17	-	2	17	2	16	-		347656.976(0.198)	108.5590	366.973	
1	18	-6	13	1	1	17	-6	12			347666.198(0.048)	101.0470	296.558	
1	18	13	6	+	1	17	13	5	+		347666.243(0.260)	54.2851	502.226	
1	18	13	5	-	1	17	13	4	-		347666.244(0.260)	54.2851	502.226	
0	18	-4	15	0	0	17	-4	14		347756.850(1.000)	347756.286(0.030)	106.7260	123.539	BEL93
1	18	12	6	1	1	17	12	5			347763.704(0.198)	62.9825	463.794	
1	18	10	8	1	1	17	10	7		347785.690(1.000)	347784.730(0.101)	78.3905	395.385	BEL93
1	18	-9	10	1	1	17	-9	9			347818.922(0.082)	85.0053	366.241	
0	18	4	14	0	0	17	4	13			347830.918(0.030)	106.7480	123.564	
0	18	4	14	+	0	17	4	13	+		347838.953(0.030)	108.2410	123.608	
1	7	4	4	1	7	3	5				347851.257(0.079)	3.4709	173.994	
2	18	9	10	2	2	17	9	9			347897.293(0.278)	84.7686	491.421	
1	18	11	7	1	1	17	11	6		347957.670(1.000)	347956.642(0.138)	70.9523	427.840	BEL93
2	18	12	6	+	2	17	12	5	+		347978.408(0.683)	62.7697	587.861	
2	18	12	7	-	2	17	12	6	-		347978.408(0.683)	62.7697	587.861	
1	18	-7	12	1	1	17	-7	11		348010.330(1.000)	348010.000(0.057)	96.2087	316.303	BEL93
2	15	-1	15	2	2	14	-2	13			348058.551(1.803)	10.4518	328.682	
1	18	-8	11	1	1	17	-8	10			348075.997(0.066)	90.8564	339.519	
2	18	-6	12	2	2	17	-6	11		348087.540(1.000)	348087.189(0.175)	100.1680	422.533	BEL93
1	18	6	13	-	1	17	6	12	-	348087.540(1.000)	348087.924(0.047)	100.7220	296.486	BEL93
1	18	6	12	+	1	17	6	11	+	348087.540(1.000)	348088.065(0.047)	100.7220	296.486	BEL93
1	6	4	3	1	6	3	4				348104.344(0.079)	2.7261	169.480	
1	18	3	16	+	1	17	3	15	+	348211.590(1.000)	348210.908(0.041)	110.6890	254.731	BEL93
1	18	4	15	1	1	17	4	14		348229.090(1.000)	348229.536(0.038)	107.8970	266.154	BEL93
1	18	-3	15	1	1	17	-3	14		348288.490(1.000)	348288.391(0.046)	110.6740	256.161	BEL93
1	5	4	2	1	5	3	3				348305.909(0.080)	1.9324	165.612	
2	20	0	20	+	2	19	1	19	+		348365.781(0.671)	20.0496	377.545	
1	4	4	1	1	4	3	2				348463.056(0.081)	1.0516	162.389	
1	18	5	14	+	1	17	5	13	+		348570.592(0.045)	104.4930	279.065	
1	18	5	13	-	1	17	5	12	-		348577.770(0.045)	104.4930	279.065	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	19	0	19	+	1	18	1	18	+		348592.689(0.080)	15.5460	251.408	
2	4	2	2		2	4	-3	2			348596.603(6.717)	0.0112	287.223	
2	18	3	16	+	2	17	3	15	+	348748.709(1.000)	348749.064(0.131)	108.2680	381.452	BEL93
1	18	4	15	-	1	17	4	14	-	348855.300(1.000)	348855.624(0.044)	107.8190	265.175	BEL93
2	9	0	9		2	8	-1	8			348937.081(1.898)	0.0067	287.553	
1	18	4	14	+	1	17	4	13	+	349062.310(1.000)	349062.587(0.044)	107.8200	265.188	BEL93
1	18	1	17	-	1	17	1	16	-	349320.220(1.000)	349320.394(0.050)	114.0920	244.993	BEL93
1	10	2	9		1	9	1	9			349377.783(0.040)	1.7522	171.623	
1	14	2	13	-	1	13	1	12	-	349600.920(1.000)	349600.511(0.069)	5.6355	204.675	BEL93
1	18	3	16		1	17	3	15		349649.790(1.000)	349649.733(0.044)	109.9830	254.805	BEL93
2	18	3	15	-	2	17	3	14	-	349753.214(1.000)	349752.089(0.131)	108.2790	381.536	BEL93
0	25	3	22		0	25	-2	24			349845.016(0.302)	0.0002	213.403	
0	18	3	15	-	0	17	3	14	-	350134.530(1.000)	350133.399(0.032)	110.6720	112.878	BEL93
0	18	3	15		0	17	3	14		350134.530(1.000)	350134.351(0.032)	110.5620	112.855	BEL93
2	24	1	23	-	2	24	0	24	+		350322.818(4.116)	13.3125	445.584	
0	18	1	17		0	17	1	16		350362.910(1.000)	350362.811(0.033)	113.1810	101.924	BEL93
2	21	0	21		2	21	-1	21			350371.733(4.503)	6.7927	409.388	
0	18	1	17	-	0	17	1	16	-	350445.940(1.000)	350445.759(0.033)	113.1220	101.893	BEL93
0	13	-2	12		0	12	1	11			350572.208(0.015)	5.4248	52.961	
2	18	0	18		2	17	0	17			350584.887(0.352)	104.3820	370.795	
2	18	2	16		2	17	2	15			350601.484(0.764)	107.4070	376.688	
2	18	8	11		2	17	8	10			350882.649(0.238)	89.0211	459.196	
1	18	3	15	-	1	17	3	14	-	350940.930(1.000)	350940.560(0.056)	110.7100	254.979	BEL93
0	6	3	4	+	0	5	2	3	+		350944.913(0.016)	3.3479	15.962	
1	18	-1	17		1	17	-1	16		351118.650(1.000)	351118.986(0.045)	112.6750	244.285	BEL93
2	18	11	7	-	2	17	11	6	-	351313.380(1.000)	351314.054(0.451)	69.3286	546.484	BEL93
2	18	11	8	+	2	17	11	7	+	351313.380(1.000)	351314.054(0.451)	69.3286	546.484	BEL93
0	16	2	14		0	15	-2	14			351536.204(0.038)	0.0042	83.185	
0	13	2	12	-	0	12	1	11	-	351574.510(1.000)	351574.222(0.016)	5.4515	52.918	BEL93
0	6	3	3	-	0	5	2	4	-		351588.995(0.016)	3.3421	15.941	
2	23	3	20	-	2	23	2	21	+		351698.906(4.558)	18.9483	449.694	
2	21	2	19		2	20	3	17			352132.779(4.434)	6.8495	415.706	
0	19	-1	19		0	18	-1	18		352232.100(1.000)	352231.950(0.046)	119.7120	107.885	BEL93
0	19	1	19	+	0	18	1	18	+		352251.195(0.046)	119.6050	107.837	
2	13	3	10		2	12	2	10			352319.190(3.191)	4.0401	328.986	
1	19	1	19	+	1	18	1	18	+	352664.580(1.000)	352664.627(0.078)	121.4240	251.408	BEL93
2	18	8	11	-	2	17	8	10	-	352693.703(1.000)	352694.260(0.288)	88.9177	456.416	BEL93
2	18	8	10	+	2	17	8	9	+	352693.703(1.000)	352694.646(0.288)	88.9187	456.416	BEL93
2	18	7	12		2	17	7	11		353005.461(1.000)	353004.884(0.231)	93.3754	431.969	BEL93
2	18	10	8	+	2	17	10	7	+	353171.615(1.000)	353170.824(0.329)	75.8108	510.201	BEL93
2	18	10	9	-	2	17	10	8	-	353171.615(1.000)	353170.897(0.329)	75.8108	510.201	BEL93
1	19	1	19		1	18	1	18		353295.710(1.000)	353296.395(0.073)	118.8440	250.138	BEL93
0	19	0	19		0	18	0	18		353387.280(1.000)	353387.444(0.046)	119.7670	107.680	BEL93
0	19	0	19	+	0	18	0	18	+	353425.950(1.000)	353426.218(0.046)	119.6590	107.628	BEL93
2	21	-2	20		2	20	-1	20			353428.320(1.614)	18.4999	396.335	
1	19	0	19	+	1	18	0	18	+	353536.010(1.000)	353536.214(0.078)	121.5000	251.243	BEL93
2	18	-11	7		2	17	-11	6		353615.287(1.000)	353619.136(0.859)	69.0519	544.117	BEL93
1	18	-2	16		1	17	-2	15		353735.310(1.000)	353734.733(0.055)	111.4440	248.818	BEL93
2	19	11	9		2	18	11	8		353928.304(1.000)	353928.235(0.787)	87.2467	569.025	BEL93
0	12	2	10		0	11	1	10			354087.756(0.013)	0.0225	45.089	
1	18	2	16	+	1	17	2	15	+	354458.720(1.000)	354457.618(0.069)	113.0820	248.792	BEL93
2	19	-1	19		2	18	-1	18			354461.245(0.263)	116.3230	372.073	
1	19	0	19		1	18	0	18		354524.990(1.000)	354525.411(0.072)	118.9660	249.905	BEL93
1	21	-1	20		1	20	2	19			354736.319(0.158)	10.1140	283.039	
0	18	2	16		0	17	2	15		354813.010(1.000)	354812.882(0.035)	112.5180	106.082	BEL93
0	18	2	16	+	0	17	2	15	+	354845.880(1.000)	354844.330(0.035)	112.4780	106.071	BEL93
2	18	-4	15		2	17	-4	14			354850.370(0.295)	105.0190	381.471	
2	18	-12	6		2	17	-12	5			354889.687(0.864)	60.5668	576.889	
2	3	2	1		2	3	-3	1			354938.310(7.130)	0.0032	273.002	
2	18	5	14		2	17	5	13		355106.035(1.000)	355105.944(0.278)	102.1640	397.051	BEL93
2	18	6	13		2	17	6	12		355354.314(1.000)	355353.257(0.279)	97.4617	411.180	BEL93
0	21	1	20	-	0	20	2	19	-		355371.022(0.083)	10.7236	140.508	
0	13	1	12		0	12	0	12			355454.086(0.023)	0.0003	49.621	

TABLE II. (Continued.)

v_t	J'	K_a'	K_c'	P'	v_t''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	25	2	23	+	0	24	3	22	+		355473.752(0.223)	7.5421	207.247	
2	18	9	9	-	2	17	9	8	-		355513.372(8.094)	80.7137	480.206	
1	14	2	13		1	13	-1	12			355576.375(0.057)	3.6909	203.785	
2	19	1	19	+	2	18	1	18	+	355579.590(1.000)	355580.448(0.298)	115.0070	365.684	BEL93
0	21	1	20	0	20	-2	19			355810.580(1.000)	355810.290(0.081)	10.7070	140.514	BEL93
0	25	2	23	0	24	-3	22				356124.091(0.218)	7.5348	207.223	
2	19	-8	11		2	18	-8	10		356163.709(1.000)	356163.876(0.370)	105.3100	481.050	BEL93
2	18	9	10	+	2	17	9	9	+		356206.006(4.326)	78.2578	480.211	
2	18	2	16	+	2	17	2	15	+	356375.830(1.000)	356375.191(0.257)	108.6710	368.251	BEL93
2	19	-9	10		2	18	-9	9			356387.831(2.340)	97.7018	503.364	
2	19	12	8		2	18	12	7			356474.301(1.870)	81.1495	600.537	
2	7	1	6		2	7	-1	7			356689.410(5.741)	0.0634	282.441	
1	8	-2	6	1	7	1	7	7			356911.011(0.046)	0.2649	160.920	
0	10	-2	9	0	9	-1	9				356934.371(0.014)	0.0429	29.702	
2	6	1	5		2	6	-1	6			356962.670(5.743)	0.0424	277.928	
0	19	-3	17	0	18	3	15			357094.860(1.000)	357094.800(0.045)	0.0604	124.535	BEL93
1	20	-2	18	1	20	1	20				357101.327(0.549)	0.0280	274.318	
1	6	-3	3	1	5	-2	3			357200.860(1.000)	357200.495(0.035)	3.3555	159.306	BEL93
0	18	3	15	0	17	-3	15				357285.703(0.037)	0.1219	112.617	
2	18	1	17	-	2	17	1	16	-		357325.836(0.253)	109.1700	360.401	
2	19	5	15	+	2	18	5	14	+	357477.344(1.000)	357476.671(0.318)	117.8180	420.604	BEL93
2	19	5	14	-	2	18	5	13	-	357477.344(1.000)	357478.809(0.318)	117.8180	420.604	BEL93
2	3	3	1	+	2	4	2	2	+		357480.490(4.229)	0.1653	274.589	
2	1	1	0		2	2	-2	1			357528.972(6.086)	3.2E-5	265.061	
1	19	1	19	+	1	18	0	18	+	357606.870(1.000)	357608.153(0.096)	15.5977	251.243	BEL93
2	8	1	7		2	8	-1	8			357836.047(5.743)	0.0849	287.553	
1	3	-3	0	1	2	2	1				358150.279(0.081)	5.4E-8	149.645	
0	19	-1	19	0	18	0	18			358378.580(1.000)	358379.012(0.050)	17.3629	107.680	BEL93
0	19	1	19	+	0	18	0	18	+	358507.800(1.000)	358507.879(0.050)	17.4508	107.628	BEL93
2	5	1	4		2	5	-1	5			358592.041(5.743)	0.0250	274.016	
2	19	-2	18		2	18	-2	17		358965.629(1.000)	358965.012(0.280)	118.7340	370.366	BEL93
2	19	6	14	-	2	18	6	13	-		359376.676(0.289)	111.7560	433.567	
2	19	6	13	+	2	18	6	12	+		359376.876(0.289)	111.7560	433.567	
2	19	0	19	+	2	18	0	18	+		359391.120(0.299)	115.1190	364.583	
2	6	4	3	-	2	7	3	4	-		359781.802(6.468)	0.5278	300.710	
2	19	3	16		2	18	3	15		359798.202(1.000)	359798.262(0.370)	117.7480	391.022	BEL93
1	11	-2	9	1	10	-1	9				359885.545(0.040)	2.7735	180.183	
2	25	1	24	-	2	25	1	25	+		360021.520(4.672)	0.3191	461.622	
2	17	1	17	+	2	16	0	16	+		360025.431(0.694)	16.1956	324.431	
2	22	3	19	-	2	22	2	20	+		360285.085(4.462)	17.7065	434.437	
1	19	1	19	1	18	0	18			360290.320(1.000)	360289.204(0.089)	17.5481	249.905	BEL93
2	19	10	10		2	18	10	9		360379.366(1.000)	360381.184(0.642)	90.3201	536.950	BEL93
2	9	1	8		2	9	-1	9			360418.035(5.750)	0.1027	293.267	
2	4	2	3	-	2	3	1	2	-		360746.620(2.414)	2.5246	262.551	
2	16	2	14		2	15	1	14			360910.068(4.671)	9.1689	353.677	
2	19	1	18		2	18	1	17		361317.758(1.000)	361318.334(0.546)	111.3090	386.230	BEL93
2	13	3	10		2	14	-2	13			361419.591(8.651)	0.0006	328.682	
1	21	1	20	-	1	20	2	19	-		361432.865(0.266)	10.2604	283.257	
2	4	1	3		2	4	-1	4			361463.628(5.737)	0.0128	270.708	
2	19	-7	12		2	18	-7	11		361608.326(1.000)	361609.177(0.320)	106.9790	458.645	BEL93
1	6	3	4	1	5	2	4			362425.830(1.000)	362425.433(0.040)	3.3674	157.391	BEL93
0	19	-2	18	0	18	-2	17			362534.660(1.000)	362534.219(0.039)	118.7040	115.704	BEL93
0	19	2	18	-	0	18	2	17	-	362561.100(1.000)	362560.780(0.039)	118.6550	115.697	BEL93
1	19	2	18	-	1	18	2	17	-	362579.860(1.000)	362580.370(0.056)	119.4090	258.445	REF 93
1	15	2	14	-	1	14	1	13	-		363245.025(0.089)	6.2015	213.803	
2	19	4	16	-	2	18	4	15	-	363247.797(1.000)	363248.210(0.293)	116.6840	408.212	BEL93
2	19	4	15	+	2	18	4	14	+	363315.895(1.000)	363315.863(0.294)	116.6860	408.216	BEL93
0	14	-2	13	0	13	1	12			363546.630(1.000)	363546.679(0.017)	5.9637	61.477	BEL93
1	13	-1	12	1	12	0	12				363679.632(0.075)	0.1408	191.654	
1	9	3	7	1	8	-2	6				363852.618(0.059)	0.0050	172.826	
1	8	3	6	+	1	7	2	5	+	363985.880(1.000)	363984.072(0.046)	3.5445	167.083	BEL93
2	19	9	11	+	2	18	9	10	+		364135.788(17.399)	9.5929	492.065	
2	9	1	8		2	8	0	8			364256.203(4.873)	1.6191	293.139	

TABLE II. (Continued.)

v_1'	J'	$K_{a'}$	$K_{c'}$	P'	v_1''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st/ cm ⁻¹	Ref. ^b
2	10	1	9		2	10	-1	10			364412.160(5.765)	0.1124	299.584	
0	14	2	13	-	0	13	1	12	-	364495.800(1.000)	364496.043(0.019)	5.9858	61.436	BEL93
2	19	-10	9		2	18	-10	8		364514.578(1.000)	364515.506(0.660)	87.7697	527.765	BEL93
1	19	2	18	1	18	2	17	6		364565.720(1.000)	364566.641(0.061)	117.6620	258.101	BEL93
1	19	-13	7	1	18	-13	6	6		365067.140(1.000)	365065.658(0.241)	64.4296	515.524	BEL93
1	19	-12	8	1	18	-12	7	7		365264.670(1.000)	365264.037(0.176)	72.7204	476.962	BEL93
2	19	-3	17	2	18	-3	16	16			365393.937(0.259)	116.4030	378.856	
1	19	10	9	+	1	18	10	8	+	365396.100(1.000)	365397.097(0.110)	87.3807	408.601	BEL93
1	19	10	10	-	1	18	10	9	-	365396.100(1.000)	365397.097(0.110)	87.3807	408.601	BEL93
2	3	1	2		2	3	-1	3			365431.611(5.721)	0.0054	268.007	
1	19	9	10	-	1	18	9	9	-	365523.700(1.000)	365523.360(0.092)	93.6704	379.313	BEL93
1	19	9	11	+	1	18	9	10	+	365523.700(1.000)	365523.362(0.092)	93.6704	379.313	BEL93
1	19	7	12	1	18	7	11	11		365719.130(1.000)	365718.998(0.070)	104.3070	329.459	BEL93
2	16	2	15	-	2	16	1	16	+		365731.818(3.136)	9.1364	343.814	
1	19	11	8	-	1	18	11	7	-	365745.940(1.000)	365745.357(0.143)	80.1889	440.628	BEL93
1	19	11	9	+	1	18	11	8	+	365745.940(1.000)	365745.357(0.143)	80.1889	440.628	BEL93
0	10	2	8		0	9	1	9			365773.653(0.015)	2.2196	29.702	
0	19	14	5	+	0	18	14	4	+		365858.322(0.178)	55.0315	416.219	
0	19	14	6	-	0	18	14	5	-		365858.322(0.178)	55.0315	416.219	
2	19	7	12	-	2	18	7	11	-		365864.800(0.349)	103.8400	449.237	
2	19	7	13	+	2	18	7	12	+		365864.852(0.349)	103.8400	449.237	
1	19	-11	9	1	18	-11	8	8			365867.575(0.143)	80.1251	441.038	
1	19	6	13	1	18	6	12	12			365890.065(0.060)	108.5840	309.491	
0	19	13	6	-	0	18	13	5	-	365899.150(1.000)	365899.724(0.146)	64.0132	374.132	BEL93
0	19	13	7	+	0	18	13	6	+	365899.150(1.000)	365899.724(0.146)	64.0132	374.132	BEL93
0	19	13	7	0	18	13	6	6			365919.759(0.144)	64.0062	374.095	
0	19	12	8	0	18	12	7	7			365926.472(0.123)	72.3319	335.126	
0	19	11	9	0	18	11	8	8		365954.040(1.000)	365952.687(0.105)	79.9840	299.241	BEL93
0	19	12	7	+	0	18	12	6	+	365954.040(1.000)	365954.596(0.123)	72.3194	335.118	BEL93
0	19	12	8	-	0	18	12	7	-	365954.040(1.000)	365954.596(0.123)	72.3194	335.118	BEL93
0	19	-13	6	0	18	-13	5	5		365971.660(1.000)	365971.612(0.146)	63.9863	374.063	BEL93
0	19	-12	7	0	18	-12	6	6			365997.344(0.123)	72.3019	335.064	
0	19	10	10	0	18	10	9	9			366003.491(0.090)	86.9603	266.442	
0	19	-11	8	0	18	-11	7	7		366013.220(1.000)	366011.358(0.105)	79.9573	299.178	BEL93
0	19	11	8	-	0	18	11	7	-	366013.220(1.000)	366013.696(0.106)	79.9554	299.194	BEL93
0	19	11	9	+	0	18	11	8	+	366013.220(1.000)	366013.696(0.106)	79.9554	299.194	BEL93
2	19	4	15	2	18	4	14	14			366020.194(0.282)	114.8650	398.899	
0	19	-10	9	0	18	-10	8	8			366025.433(0.090)	86.9504	266.405	
1	19	8	11	1	18	8	10	10		366037.660(1.000)	366038.063(0.080)	99.0934	352.213	BEL93
0	19	-9	10	0	18	-9	9	9			366055.394(0.075)	93.2760	236.741	
1	19	8	11	+	1	18	8	10	+	366069.430(1.000)	366068.600(0.076)	99.0488	352.690	BEL93
1	19	8	12	-	1	18	8	11	-	366069.430(1.000)	366068.600(0.076)	99.0488	352.690	BEL93
0	19	10	10	-	0	18	10	9	-	366069.430(1.000)	366069.346(0.090)	86.9279	266.377	BEL93
0	19	10	9	+	0	18	10	8	+	366069.430(1.000)	366069.349(0.090)	86.9279	266.377	BEL93
0	19	9	11	0	18	9	10	10			366078.106(0.076)	93.2629	236.737	
0	19	-8	11	0	18	-8	10	10		366119.580(1.000)	366117.819(0.063)	98.9288	210.182	BEL93
0	19	9	10	-	0	18	9	9	-	366119.580(1.000)	366120.196(0.076)	93.2418	236.683	BEL93
0	19	9	11	+	0	18	9	10	+	366119.580(1.000)	366120.196(0.076)	93.24124	1241883	BEL93
0	19	8	12	0	18	8	11	11		366174.760(1.000)	366173.823(0.063)	98.8989	210.139	BEL93
0	19	8	11	+	0	18	8	10	+	366174.760(1.000)	366174.522(0.063)	98.8389	210.120	BEL93
0	19	8	12	-	0	18	8	11	-	366174.760(1.000)	366174.522(0.063)	98.8350	210.120	BEL93
0	19	-7	12	0	18	-7	11	11		366229.740(1.000)	366229.040(0.052)	103.9060	186.729	BEL93
0	19	7	13	+	0	18	7	12	+	366252.570(1.000)	366252.468(0.052)	103.8960	186.690	BEL93
0	19	7	12	-	0	18	7	11	-	366252.570(1.000)	366252.472(0.052)	103.8960	186.690	BEL93
0	19	7	13	0	18	7	12	12		366293.340(1.000)	366293.052(0.052)	103.8710	186.667	BEL93
1	19	12	7	+	1	18	12	6	+		366369.672(0.199)	72.2438	475.615	
1	19	12	8	-	1	18	12	7	-		366369.672(0.199)	72.2438	475.615	
0	19	6	14	-	0	18	6	13	-	366389.880(1.000)	366389.502(0.044)	108.2250	166.391	BEL93
0	19	6	13	+	0	18	6	12	+	366389.880(1.000)	366389.755(0.044)	108.2250	166.391	BEL93
1	8	3	5	-	1	7	2	6	-		366396.299(0.046)	3.5148	167.006	
0	19	-6	13	0	18	-6	12	12		366411.310(1.000)	366410.430(0.044)	108.2110	166.390	BEL93
0	20	0	20	+	0	19	1	19	+		366417.251(0.054)	18.5924	119.587	
0	19	6	14	0	18	6	13	13		366454.180(1.000)	366453.978(0.044)	108.1900	166.336	BEL93

TABLE II. (Continued.)

ν'	J'	K_a'	K_c'	P'	ν''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	20	0	20		0	19	-1	19		366470.530(1.000)	366470.520(0.053)	18.4939	119.634	BEL93
1	19	13	6		1	18	13	5		366505.420(1.000)	366505.270(0.318)	63.8660	514.699	BEL93
1	19	5	14		1	18	5	13		366580.530(1.000)	366579.221(0.050)	111.9210	292.220	BEL93
1	19	-10	10		1	18	-10	9		366580.530(1.000)	366580.344(0.119)	86.7651	407.903	BEI 93
1	19	-4	15		1	18	-4	14		366580.530(1.000)	366580.412(0.056)	115.2090	278.276	BEL93
1	19	-5	15		1	18	-5	14			366586.823(0.055)	112.0420	291.686	
1	19	9	10		1	18	9	9			366598.033(0.094)	93.1088	377.970	
0	19	5	15 +		0	18	5	14 +			366645.088(0.039)	111.8810	149.222	
0	19	5	14 -		0	18	5	13 -		366655.200(1.000)	366655.901(0.039)	111.8810	149.223	BEL93
0	19	-5	14		0	18	-5	13			366708.341(0.039)	111.8390	149.183	
0	19	5	15		0	18	5	14			366710.632(0.039)	111.8430	149.162	
2	19	2	18 -		2	18	2	17 -		366731.061(1.000)	366731.929(0.228)	114.7030	378.569	BEL93
0	19	3	17 +		0	18	3	16 +		366785.370(1.000)	366783.881(0.038)	117.1340	124.238	BEL93
1	19	7	13 +		1	18	7	12 +			366790.819(0.065)	103.6590	328.859	
1	19	7	12 -		1	18	7	11 -			366790.823(0.065)	103.6590	328.859	
0	10	2	8 +		0	9	1	9 +			366810.256(0.015)	2.2786	29.650	
0	19	-3	17		0	18	-3	16		366817.310(1.000)	366817.210(0.038)	117.0840	124.210	BEL93
1	20	0	20		1	19	1	19			366873.092(0.080)	18.7423	261.923	
1	19	13	7 +		1	18	13	6 +		366937.790(1.000)	366937.939(0.288)	63.7087	513.823	BEL93
1	19	13	6 -		1	18	13	5 -		366937.790(1.000)	366937.942(0.288)	63.7087	513.823	BEL93
1	19	-6	14		1	18	-6	13		366992.740(1.000)	366992.754(0.058)	108.0270	308.155	BEL93
0	19	4	16 -		0	18	4	15 -		367049.800(1.000)	367049.550(0.037)	114.8570	135.193	BEL93
1	19	12	7		1	18	12	6			367066.836(0.221)	71.9359	475.394	
1	19	10	9		1	18	10	8		367079.630(1.000)	367079.915(0.120)	86.5356	406.986	BEL93
1	19	-9	11		1	18	-9	10			367142.268(0.098)	92.7960	377.843	
0	19	-4	16		0	18	-4	15		367148.720(1.000)	367149.022(0.037)	113.1320	135.139	BEL93
2	19	9	11		2	18	9	10		367235.199(1.000)	367235.004(0.286)	92.5619	503.025	BEL93
2	19	12	7 +		2	18	12	6 +		367263.840(1.000)	367263.021(0.749)	71.6922	599.468	BEL93
2	19	12	8 -		2	18	12	7 -		367263.840(1.000)	367263.021(0.749)	71.6922	599.468	BEI 93
1	19	11	8		1	18	11	7		367263.840(1.000)	367263.924(0.159)	79.4743	439.446	BEL93
0	19	4	15 +		0	18	4	14 +		367325.440(1.000)	367323.692(0.037)	114.8570	135.210	BEL93
0	19	4	15		0	18	4	14		367325.440(1.000)	367326.724(0.037)	113.1510	135.166	BEL93
1	19	-7	13		1	18	-7	12		367343.640(1.000)	367344.307(0.068)	103.4130	327.911	BEL93
1	19	-8	12		1	18	-8	11		367412.310(1.000)	367412.366(0.080)	98.3286	351.130	BEL93
1	19	6	14 -		1	18	6	13 -		367468.620(1.000)	367466.683(0.058)	107.6840	308.097	BEL93
1	19	6	13 +		1	18	6	12 +		367468.620(1.000)	367466.943(0.058)	107.6840	308.097	BEL93
2	19	-6	13		2	18	-6	12			367473.511(0.186)	107.1010	434.144	
1	19	3	17 +		1	18	3	16 +			367477.339(0.049)	117.1870	266.346	
1	20	0	20 +		1	19	1	19 +		367622.220(1.000)	367622.739(0.095)	16.6132	263.172	BEL93
1	19	4	16		1	18	4	15		367701.960(1.000)	367702.567(0.047)	114.4880	277.770	BEL93
1	19	1	18 -		1	18	1	17 -		367942.190(1.000)	367941.905(0.059)	120.4010	256.645	BEL93
1	19	5	15 +		1	18	5	14 +		367997.190(1.000)	367996.110(0.055)	111.2520	290.692	BEL93
1	19	5	14 -		1	18	5	13 -		368006.830(1.000)	368007.779(0.055)	111.2520	290.693	BEL93
2	4	2	2 +		2	3	1	3 +			368034.240(2.469)	2.4333	262.313	
1	19	-3	16		1	18	-3	15		368048.970(1.000)	368048.488(0.057)	116.9980	267.778	BEL93
2	19	0	19		2	18	0	18			368120.894(0.394)	110.6160	382.490	
2	19	3	17 +		2	18	3	16 +		368133.214(1.000)	368133.733(0.151)	114.5800	393.085	BEL93
1	19	4	16 -		1	18	4	15 -		368304.190(1.000)	368304.079(0.054)	114.4280	276.812	BEL93
1	19	4	15 +		1	18	4	14 +		368602.420(1.000)	368602.223(0.055)	114.4290	276.831	BEL93
2	21	3	18 -		2	21	2	19 +			368683.924(4.381)	16.5312	419.852	
0	26	3	23		0	26	-2	25			368749.345(0.376)	4.8E-5	229.831	
0	19	1	18		0	18	1	17		368989.430(1.000)	368989.347(0.040)	119.4570	113.611	BEL93
0	19	1	18 -		0	18	1	17 -		369076.710(1.000)	369076.513(0.040)	119.3950	113.582	BEL93
1	19	3	17		1	18	3	16		369149.260(1.000)	369148.792(0.053)	116.3370	266.469	BEL93
2	19	3	16 -		2	18	3	15 -		369444.223(1.000)	369443.643(0.154)	114.5970	393.202	BEL93
0	14	1	13		0	13	-1	13			369609.441(0.036)	0.0005	58.307	
2	11	1	10		2	11	-1	11			369762.231(5.787)	0.1108	306.506	
0	7	3	5 +		0	6	2	4 +		369790.380(1.000)	369790.016(0.015)	3.5580	19.835	BEL93
1	19	-1	18		1	18	-1	17		369889.290(1.000)	369889.815(0.054)	118.9220	255.997	BEL93
0	19	3	16 -		0	18	3	15 -		370108.790(1.000)	370108.361(0.039)	117.1600	124.557	BEL93
0	19	3	16		0	18	3	15		370120.210(1.000)	370120.412(0.039)	117.1140	124.535	BEL93
2	19	8	12		2	18	8	11		370431.166(1.000)	370429.925(0.253)	96.3485	470.900	BEL93
0	20	-1	20		0	19	-1	19		370502.210(1.000)	370501.877(0.056)	126.0360	119.634	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	19	-5	14		2	18	-5	13			370516.735(0.196)	109.0410	411.162	
0	20	1	20	+	0	19	1	19	+	370521.990(1.000)	370521.816(0.056)	125.9170	119.587	BEL93
2	19	11	8	-	2	18	11	7	-		370869.476(0.482)	77.6543	558.203	
2	19	11	9	+	2	18	11	8	+		370869.477(0.482)	77.6543	558.203	
1	19	3	16	-	1	18	3	15	-	370912.800(1.000)	370912.893(0.071)	117.2220	266.686	BEL93
1	20	1	20	+	1	19	1	19	+	370969.910(1.000)	370970.037(0.095)	127.8380	263.172	BEL93
1	15	2	14		1	14	-1	13		371056.870(1.000)	371057.789(0.067)	4.5819	212.949	BEL93
0	7	3	4	-	0	6	2	5	-	371082.170(1.000)	371082.283(0.015)	3.5455	19.794	BEL93
2	23	0	23		2	23	-1	23			371125.541(5.116)	6.4373	437.336	
2	19	2	17		2	18	2	16		371392.744(1.000)	371392.760(0.705)	112.9780	388.383	BEL93
0	20	0	20		0	19	0	19		371462.440(1.000)	371462.088(0.056)	126.0770	119.468	BEL93
0	20	0	20	+	0	19	0	19	+	371499.120(1.000)	371498.912(0.056)	125.9580	119.417	BEL93
1	20	1	20		1	19	1	19		371596.380(1.000)	371596.157(0.089)	125.1040	261.923	BEL93
1	20	0	20	+	1	19	0	19	+	371695.060(1.000)	371694.678(0.095)	127.8980	263.036	BEL93
2	19	8	12	-	2	18	8	11	-	371912.481(1.000)	371912.672(0.320)	96.3577	468.181	BEL93
2	19	8	11	+	2	18	8	10	+	371912.481(1.000)	371913.329(0.320)	96.3589	468.181	BEL93
0	21	2	19	0	21	-1	21				372356.776(0.267)	7.5E-6	144.960	
1	11	2	9	+	1	10	1	10	+		372443.183(0.058)	1.8485	179.367	
1	20	0	20		1	19	0	19		372636.720(1.000)	372636.886(0.088)	125.1980	261.731	BEL93
2	19	7	13		2	18	7	12		372716.670(1.000)	372715.758(0.256)	100.3810	443.744	BEL93
2	25	1	24	-	2	25	0	25	+		372738.060(4.444)	13.1704	461.198	
2	19	10	9	+	2	18	10	8	+	372842.247(1.000)	372841.194(0.356)	83.6995	521.981	BEL93
2	19	10	10	-	2	18	10	9	-	372842.247(1.000)	372841.428(0.356)	83.6995	521.981	BEL93
2	20	-1	20		2	19	-1	19		372893.627(1.000)	372892.852(0.290)	122.4820	383.897	BEL93
0	13	2	11	0	12	1	11				372918.696(0.014)	0.0134	52.961	
0	20	-3	18	0	19	3	16				373020.956(0.057)	0.0303	136.880	
2	20	11	10		2	19	11	9		373287.897(1.000)	373287.714(0.791)	96.0067	580.831	BEL93
2	19	-11	8		2	18	-11	7		373518.265(1.000)	373524.776(1.838)	76.9157	555.912	BEL93
1	19	-2	17		1	18	-2	16		373899.400(1.000)	373899.272(0.067)	117.9100	260.617	BEL93
2	20	1	20	+	2	19	1	19	+	374054.572(1.000)	374054.060(0.328)	121.0470	377.545	BEL93
2	18	1	18	+	2	17	0	17	+		374185.319(0.700)	17.5251	353.202	
1	19	2	17	+	1	18	2	16	+	374205.570(1.000)	374205.179(0.081)	119.5020	260.616	BEL93
2	19	5	15		2	18	5	14		374226.300(1.000)	374225.985(0.300)	108.9910	408.896	BEL93
0	19	2	17		0	18	2	16		374645.710(1.000)	374645.489(0.042)	118.9140	117.918	BEL93
0	19	2	17	+	0	18	2	16	+	374682.450(1.000)	374682.111(0.043)	118.8720	117.908	BEL93
2	19	-12	7		2	18	-12	6			374750.001(0.974)	69.2105	588.727	
1	11	2	10		1	10	1	10			375038.461(0.047)	1.5074	177.895	
1	20	1	20	+	1	19	0	19	+	375041.240(1.000)	375041.976(0.113)	16.6529	263.036	BEL93
2	19	6	14		2	18	6	13		375121.240(1.000)	375120.496(0.305)	104.2700	423.033	BEL93
2	19	-4	16		2	18	-4	15		375142.068(1.000)	375140.699(0.354)	111.5030	393.307	BEL93
2	20	12	9		2	19	12	8			375287.598(2.183)	89.6685	612.428	
2	20	-8	12		2	19	-8	11		375292.038(1.000)	375292.904(0.422)	112.8850	492.930	BEL93
0	20	-1	20		0	19	0	19		375494.590(1.000)	375493.445(0.060)	18.5411	119.468	BEL93
2	20	-9	11		2	19	-9	10			375596.400(1.156)	105.5120	515.251	
0	20	1	20	+	0	19	0	19	+		375603.477(0.060)	18.6402	119.417	
2	17	2	16	-	2	17	1	17	+		375722.372(3.241)	9.4854	354.440	
2	10	1	9		2	9	0	9			376139.111(4.890)	1.8501	299.193	
0	15	-2	14	0	14	1	13			376219.770(1.000)	376219.827(0.022)	6.5507	70.636	BEL93
1	7	-3	4		1	6	-2	4		376243.000(1.000)	376242.328(0.034)	3.5727	163.167	BEL93
2	12	1	11		2	12	-1	12			376369.757(5.815)	0.0972	314.036	
1	12	-2	10		1	11	-1	10			376394.791(0.047)	2.6498	187.398	
1	14	-1	13		1	13	1	13			376543.362(0.100)	0.2959	200.389	
2	1	1	0		2	1	-1	1			376563.182(5.540)	0.0004	264.426	
2	19	2	17	+	2	18	2	16	+	376628.987(1.000)	376628.247(0.292)	114.8450	380.139	BEL93
2	20	5	16	+	2	19	5	15	+		376656.609(0.357)	124.5850	432.528	
2	20	5	15	-	2	19	5	14	-		376660.290(0.357)	124.5850	432.528	
2	19	1	18	-	2	18	1	17	-	376679.656(1.000)	376679.873(0.277)	115.2470	372.320	BEL93
1	16	2	15	-	1	15	1	14	-		376694.689(0.113)	6.8212	223.568	
2	19	9	10	-	2	18	9	9	-		376709.054(5.728)	86.6350	492.065	
2	20	3	17	-	2	20	2	18	+		376775.562(4.316)	15.4214	405.940	
1	4	-3	1		1	3	2	2			377098.697(0.077)	1.4E-6	151.581	
0	15	2	14	-	0	14	1	13	-	377115.930(1.000)	377117.395(0.023)	6.5703	70.597	BEL93
2	20	-2	19		2	19	-2	18		377358.255(1.000)	377357.123(0.313)	124.6210	382.340	BEL93

MICROWAVE SPECTRUM OF ACETALDEHYDE

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TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	20	1	20		1	19	0		19		377359.950(0.105)	18.7958	261.731	
2	20	0	20	+	2	19	0		19 +	377558.329(1.000)	377557.655(0.330)	121.1380	376.571	BEL93
2	20	6	15	-	2	19	6		14 -	378398.381(1.000)	378398.256(0.318)	118.6900	445.554	BEL93
2	20	6	14	+	2	19	6		13 +	378398.381(1.000)	378398.609(0.318)	118.6900	445.554	BEL93
1	22	-1	21		1	21	2		20	378571.060(1.000)	378570.695(0.174)	11.3664	296.434	BEL93
2	10	0	10		2	9	-1		9		379122.256(2.099)	0.0050	293.267	
2	20	10	11		2	19	10		10	379372.802(1.000)	379376.140(0.717)	97.3686	548.971	BEL93
1	9	-2	7		1	8	1		8		379603.876(0.050)	0.3902	165.965	
1	9	-2	7		1	8	1		8		379603.876(0.050)	0.3902	165.965	
0	22	1	21	-	0	21	2		20 -	379632.190(1.000)	379632.036(0.094)	11.8427	153.849	BEL93
2	20	9	11	-	2	19	9		10 -		379666.558(5.682)	2.9202	504.630	
0	19	3	16	0	0	18	-3		16		379842.822(0.048)	0.0599	124.210	
0	22	1	21	0	0	21	-2		20	380009.920(1.000)	380008.982(0.091)	11.8225	153.853	BEL93
2	20	1	19		2	19	1		18	380034.686(1.000)	380034.564(0.477)	118.6460	398.283	BEL93
2	20	3	17		2	19	3		16	380230.088(1.000)	380230.216(0.565)	122.6750	403.023	BEL93
2	24	0	24		2	24	-1		24		380308.679(5.437)	6.2204	452.229	
0	17	2	15	0	0	16	-2		15		380311.532(0.051)	0.0028	93.397	
2	20	-7	13		2	19	-7		12	380730.930(1.000)	380730.731(0.349)	114.3110	470.707	BEL93
2	5	4	2	-	2	6	3		3 -		380902.709(6.459)	0.3082	296.192	
2	5	4	1	+	2	6	3		4 +		380908.152(6.459)	0.3082	296.192	
1	21	-2	19		1	21	1		21		381049.201(0.686)	0.0109	287.323	
0	20	-2	19		0	19	-2		18	381242.930(1.000)	381241.351(0.048)	125.0690	127.797	BEL93
0	20	2	19	-	0	19	2		18 -		381270.861(0.048)	125.0150	127.791	
1	20	2	19	-	1	19	2		18 -		381281.302(0.067)	125.8240	270.539	
1	7	3	5		1	6	2		5	381519.530(1.000)	381519.268(0.039)	3.5687	161.268	BEL93
0	11	-2	10		0	10	-1		10		381566.900(0.015)	0.0206	35.928	
2	12	3	9		2	13	-2		12		382315.918(8.697)	0.0003	319.834	
2	20	4	17	-	2	19	4		16 -	382485.860(1.000)	382485.537(0.323)	123.2880	420.329	BEL93
1	9	3	7	+	1	8	2		6 +		382554.612(0.045)	3.7392	172.269	
2	20	4	16	+	2	19	4		15 +	382583.838(1.000)	382584.110(0.324)	123.2910	420.335	BEL93
1	20	2	19		1	19	2		18	383063.110(1.000)	383062.905(0.073)	124.0620	270.261	BEL93
2	20	-10	10		2	19	-10		9	383424.794(1.000)	383424.875(0.712)	95.9070	539.924	BEL93
1	10	3	8		1	9	-2		7		383435.975(0.062)	0.0134	178.627	
2	13	1	12		2	13	-1		13		384060.288(5.845)	0.0735	322.176	
1	20	-13	8		1	19	-13		7	384281.160(1.000)	384280.796(0.274)	73.6264	527.701	BEL93
0	26	2	24	+	0	25	3		23 +		384405.480(0.253)	8.2815	223.313	
2	19	3	16	-	2	19	2		17 +		384456.322(4.265)	14.3736	392.702	
1	20	-12	9		1	19	-12		8	384499.300(1.000)	384498.729(0.208)	81.4871	489.145	BEL93
1	20	10	10	+	1	19	10		9 +	384634.340(1.000)	384634.417(0.135)	95.3989	420.789	BEL93
1	20	10	11	-	1	19	10		10 -	384634.340(1.000)	384634.417(0.135)	95.3989	420.789	BEL93
1	22	1	21	-	1	21	2		20 -		384648.409(0.290)	11.3144	296.598	
2	26	1	25	-	2	26	1		26 +		384663.279(5.009)	0.2957	477.781	
2	20	7	13	-	2	19	7		12 -	384723.457(1.000)	384724.522(0.390)	111.0470	461.441	BEL93
2	20	7	14	+	2	19	7		13 +	384723.457(1.000)	384724.613(0.390)	111.0470	461.441	BEL93
1	20	9	11	-	1	19	9		10 -	384779.690(1.000)	384779.695(0.113)	101.3660	391.505	BEL93
1	20	9	12		1	19	9		11 +	384779.690(1.000)	384779.699(0.113)	101.3660	391.505	BEL93
2	20	-3	18		2	19	-3		17	384802.309(1.000)	384802.388(0.278)	122.7200	391.044	BEL93
2	20	4	16		2	19	4		15	384943.853(1.000)	384944.118(0.304)	121.4610	411.108	BEL93
0	26	2	24		0	25	-3		23		384978.866(0.248)	8.2743	223.290	
1	20	11	9	-	1	19	11		8 -	384980.662(1.000)	384979.741(0.170)	88.5485	452.828	BEL93
1	20	11	10	+	1	19	11		9 +	384980.662(1.000)	384979.741(0.170)	88.5485	452.828	BEL93
1	20	7	13		1	19	7		12	384990.380(1.000)	384990.614(0.084)	111.4590	341.658	BEL93
0	20	14	6	+	0	19	14		5 +		385099.858(0.221)	64.6337	428.422	
0	20	14	7	-	0	19	14		6 -		385099.858(0.221)	64.6337	428.422	
1	20	-11	10		1	19	-11		9		385131.231(0.171)	88.4806	453.242	
0	20	13	7	-	0	19	13		6 -		385145.548(0.184)	73.1616	386.337	
0	20	13	8	+	0	19	13		7 +		385145.548(0.184)	73.1616	386.337	
0	20	13	8		0	19	13		7		385165.307(0.182)	73.1537	386.301	
0	20	12	9	0	0	19	12		8	385175.520(1.000)	385175.590(0.156)	81.0612	347.332	BEL93
1	20	6	14		1	19	6		13		385196.216(0.073)	115.5140	321.695	
0	20	12	8	+	0	19	12		7 +	385206.780(1.000)	385205.527(0.157)	81.0475	347.325	BEL93
0	20	12	9	-	0	19	12		8 -	385206.780(1.000)	385205.527(0.157)	81.0475	347.325	BEL93
0	20	11	10		0	19	11		9	385206.780(1.000)	385206.854(0.133)	88.3280	311.448	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	20	-13	7		0	19	-13	6			385219.563(0.185)	73.1314	386.270	
0	14	1	13		0	13	0	13			385228.229(0.031)	0.0002	57.786	
0	20	-12	8		0	19	-12	7			385248.991(0.157)	81.0282	347.272	
0	20	10	11		0	19	10	10			385264.664(0.113)	94.9522	278.651	
0	20	-11	9		0	19	-11	8		385268.930(1.000)	385267.094(0.134)	88.2991	311.386	BEL93
0	20	11	9	-	0	19	11	8	-	385268.930(1.000)	385270.461(0.134)	88.2971	311.403	BEL93
0	20	11	10	+	0	19	11	9	+	385268.930(1.000)	385270.461(0.134)	88.2971	311.403	BEL93
0	20	-10	10		0	19	-10	9		385286.750(1.000)	385286.497(0.113)	94.9415	278.614	BEL93
1	20	8	12		1	19	8	11		385301.270(1.000)	385301.012(0.097)	106.4890	364.422	BEL93
0	20	-9	11		0	19	-9	10			385324.184(0.094)	100.9500	248.951	
0	20	10	10	+	0	19	10	9	+		385332.771(0.114)	94.9174	278.588	
0	20	10	11	-	0	19	10	10	-		385332.773(0.114)	94.9174	278.588	
0	20	9	12		0	19	9	11			385348.710(0.095)	100.9360	248.948	
1	20	8	12	+	1	19	8	11	+	385359.040(1.000)	385359.191(0.093)	106.4429	364.900	BEL93
1	20	8	13	-	1	19	8	12	-	385359.040(1.000)	385359.191(0.093)	106.4429	364.900	BEL93
0	20	9	11	-	0	19	9	10	-		385391.654(0.095)	100.9139	248.896	
0	20	9	12	+	0	19	9	11	+		385391.654(0.095)	100.9139	248.896	
0	20	-8	12		0	19	-8	11			385398.249(0.078)	106.3180	222.395	
0	20	8	12	+	0	19	8	11	+	385457.270(1.000)	385456.713(0.078)	106.2869	222.335	BEL93
0	20	8	13	-	0	19	8	12	-	385457.270(1.000)	385456.713(0.078)	106.2869	222.335	BEL93
0	20	8	13		0	19	8	12		385457.270(1.000)	385457.050(0.078)	106.2860	222.353	BEL93
0	21	0	21	+	0	20	1	20	+		385474.631(0.065)	19.7949	131.946	
0	21	0	21		0	20	-1	20		385512.820(1.000)	385512.974(0.064)	19.6842	131.993	BEL93
0	20	-7	13		0	19	-7	12		385527.890(1.000)	385527.239(0.064)	111.0450	198.945	BEL93
0	20	7	14	+	0	19	7	13	+	385550.960(1.000)	385550.604(0.064)	111.0330	198.907	RFI 93
0	20	7	13	-	0	19	7	12	-	385550.960(1.000)	385550.611(0.064)	111.0330	198.907	BEL93
0	20	7	14		0	19	7	13		385594.700(1.000)	385593.818(0.064)	111.0080	198.885	BEL93
2	20	0	20		2	19	0	19		385594.700(1.000)	385595.097(0.432)	116.8530	394.769	BEL93
1	20	12	8	+	1	19	12	7	+	385617.790(1.000)	385617.959(0.231)	80.9651	487.835	BEL93
1	20	12	9	-	1	19	12	8	-	385617.790(1.000)	385617.960(0.231)	80.9651	487.835	BEL93
0	20	6	15	-	0	19	6	14	-	385714.020(1.000)	385713.413(0.053)	115.1460	178.612	BEL93
0	20	6	14	+	0	19	6	13	+	385714.020(1.000)	385713.863(0.053)	115.1460	178.612	BEL93
0	20	-6	14		0	19	-6	13		385737.000(1.000)	385736.549(0.054)	115.1310	178.612	BEL93
2	20	2	19	-	2	19	2	18	-		385768.213(0.263)	120.8340	390.802	
0	20	6	15		0	19	6	14		385781.690(1.000)	385781.185(0.054)	115.1090	178.560	BEL93
1	20	13	7		1	19	13	6			385784.580(0.350)	72.9971	526.924	
1	20	9	11		1	19	9	10			385871.281(0.114)	100.7720	390.199	
1	20	-10	11		1	19	-10	10			385876.534(0.141)	94.7423	420.131	
1	20	-5	16		1	19	-5	15		385930.590(1.000)	385930.515(0.066)	118.7820	303.914	BEL93
1	20	5	15		1	19	5	14		385953.500(1.000)	385953.599(0.062)	118.6530	304.448	BEL93
1	16	2	15		1	15	-1	14			385979.812(0.081)	5.5498	222.757	
1	20	-4	16		1	19	-4	15			386003.470(0.068)	121.7730	290.504	
0	20	5	16	+	0	19	5	15	+		386011.700(0.047)	118.6180	161.452	
0	20	3	18	+	0	19	3	17	+		386020.783(0.046)	123.5940	136.473	
0	20	5	15	-	0	19	5	14	-	386027.220(1.000)	386028.917(0.047)	118.6180	161.453	BEL93
1	21	0	21		1	20	1	20			386030.549(0.097)	20.0075	274.318	
0	20	-3	18		0	19	-3	17		386046.640(1.000)	386046.568(0.046)	123.5770	136.446	BEL93
0	20	-5	15		0	19	-5	14		386082.700(1.000)	386082.044(0.047)	118.5600	161.415	BEL93
0	20	5	16		0	19	5	15		386082.700(1.000)	386082.515(0.047)	118.5650	161.395	BEL93
1	20	7	14	+	1	19	7	13	+	386126.530(1.000)	386126.376(0.079)	110.7830	341.093	BEL93
1	20	7	13	-	1	19	7	12	-	386126.530(1.000)	386126.384(0.079)	110.7830	341.093	BEL93
1	20	13	8	+	1	19	13	7	+	386203.380(1.000)	386203.548(0.321)	72.8217	526.062	BEL93
1	20	13	7	-	1	19	13	6	-	386203.380(1.000)	386203.555(0.321)	72.8217	526.062	BEL93
2	18	?	17	-	?	18	1	18	+		386298.464(3.357)	9.8059	365.684	
1	20	-6	15		1	19	-6	14		386322.190(1.000)	386321.956(0.070)	114.9400	320.397	BEL93
1	20	12	8		1	19	12	7			386366.909(0.248)	80.6251	487.638	
1	20	10	10		1	19	10	9		386370.210(1.000)	386371.170(0.143)	94.4972	419.230	BEL93
1	20	1	19	-	1	19	1	18	-		386448.612(0.069)	126.7010	268.919	
0	20	4	17	-	0	19	4	16	-	386454.510(1.000)	386455.224(0.045)	121.4420	147.436	BEL93
1	20	-9	12		1	19	-9	11			386465.080(0.118)	100.4380	390.089	
2	20	12	8	+	2	19	12	7	+		386536.062(0.873)	80.3431	611.719	
2	20	12	9	-	2	19	12	8	-		386536.062(0.873)	80.3431	611.719	
0	20	-4	17		0	19	-4	16		386542.980(1.000)	386542.596(0.045)	120.1620	147.386	BEL93

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c'	P'	ν_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	20	11	9		1	19	11	8			386567.206(0.185)	87.7748	451.697	
1	9	3	6	-	1	8	2	7	-		386567.706(0.046)	3.6860	172.142	
2	20	9	12		2	19	9	11			386575.339(0.298)	100.2120	515.275	
2	20	9	12		2	19	9	11			386575.339(0.298)	100.2120	515.275	
1	20	-7	14		1	19	-7	13		386678.440(1.000)	386678.593(0.081)	110.5280	340.164	BEL93
1	20	3	18	+	1	19	3	17	+	386711.310(1.000)	386711.208(0.060)	123.6690	278.604	BEL93
1	20	-8	13		1	19	-8	12		386748.460(1.000)	386748.058(0.097)	105.6840	363.385	BEL93
0	20	4	16	+	0	19	4	15	+		386845.100(0.045)	121.4430	147.463	
1	20	6	15	-	1	19	6	14	-		386851.177(0.071)	114.5790	320.354	
1	20	6	14	+	1	19	6	13	+		386851.637(0.071)	114.5790	320.354	
0	20	4	16		0	19	4	15		386864.780(1.000)	386864.498(0.045)	120.1770	147.419	BEL93
2	20	-6	14		2	19	-6	13			386867.336(0.200)	113.9700	446.402	
1	20	4	17		1	19	4	16		387193.590(1.000)	387193.684(0.057)	121.0360	290.035	BEL93
2	9	-3	7		2	8	-2	7			387194.685(2.357)	0.1427	285.205	
1	20	5	16	+	1	19	5	15	+	387429.720(1.000)	387429.411(0.067)	117.9660	302.967	BEL93
1	20	5	15	-	1	19	5	14	-	387447.440(1.000)	387447.870(0.067)	117.9660	302.968	BEL93
0	20	1	19		0	19	1	18		387482.990(1.000)	387482.828(0.048)	125.7250	125.919	BEL93
2	20	3	18	+	2	19	3	17	+	387504.375(1.000)	387505.015(0.174)	120.8690	405.364	BEL93
2	11	1	10		2	10	0	10			387527.163(4.889)	2.1353	305.913	
0	20	1	19	-	0	19	1	18	-	387573.530(1.000)	387573.470(0.048)	125.6600	125.894	BEL93
1	20	4	17	-	1	19	4	16	-	387753.530(1.000)	387753.822(0.065)	121.0090	289.097	BEL93
1	20	-3	17		1	19	-3	16		387968.180(1.000)	387968.076(0.070)	123.2280	280.055	BEL93
0	21	-3	19		0	20	3	17		388084.260(1.000)	388082.797(0.072)	0.0157	149.896	BEL93
1	4	4	1	-	1	3	3	0	-		388165.903(0.121)	3.8680	159.882	
1	4	4	0	+	1	3	3	1	+		388166.123(0.121)	3.8680	159.882	
1	20	4	16	+	1	19	4	15	+	388173.530(1.000)	388173.916(0.067)	121.0110	289.127	BEL93
0	8	3	6	+	0	7	2	5	+	388378.460(1.000)	388379.225(0.015)	3.7716	24.361	BEL93
1	20	-1	19		1	19	-1	18		388523.600(1.000)	388523.970(0.065)	125.1510	268.335	BEL93
1	20	3	18		1	19	3	17		388548.190(1.000)	388548.513(0.063)	122.6110	278.782	BEL93
2	19	1	19	+	2	18	0	18	+		388582.994(0.704)	18.8909	364.583	
0	16	-2	15		0	15	1	14		388654.180(1.000)	388654.354(0.027)	7.1919	80.432	BEL93
0	21	-1	21		0	20	-1	20		388753.220(1.000)	388753.222(0.067)	132.3560	131.993	BEL93
0	21	1	21	+	0	20	1	20	+	388773.460(1.000)	388773.709(0.067)	132.2270	131.946	BEL93
2	25	0	25		2	25	-1	25			388851.140(5.760)	5.9969	467.736	
2	20	3	17	-	2	19	3	16	-	389189.524(1.000)	389188.947(0.183)	120.8930	405.526	BEL93
2	15	3	12		2	14	2	12			389207.847(3.612)	4.1785	345.953	
1	21	1	21	+	1	20	1	20	+	389259.260(1.000)	389259.594(0.114)	134.2360	275.546	BEL93
0	16	2	15	-	0	15	1	14	-		389499.705(0.029)	7.2102	80.396	
0	21	0	21		0	20	0	20		389543.830(1.000)	389544.330(0.067)	132.3880	131.858	BEL93
0	21	0	21	+	0	20	0	20	+	389578.630(1.000)	389579.196(0.067)	132.2580	131.809	BEL93
1	21	0	21	+	1	20	0	20	+	389858.340(1.000)	389858.895(0.114)	134.2840	275.435	BEL93
1	21	1	21		1	20	1	20		389880.100(1.000)	389880.898(0.107)	131.3550	274.318	BEL93
2	20	8	13		2	19	8	12			389983.844(0.273)	103.5640	483.256	
1	17	2	16	-	1	16	1	15	-	390010.390(1.000)	390011.856(0.141)	7.4981	233.966	BEL93
0	20	3	17	-	0	19	3	16	-	390165.570(1.000)	390165.034(0.048)	123.6350	136.902	BEL93
2	20	-5	15		2	19	-5	14			390167.856(0.220)	115.6260	423.521	
0	20	3	17		0	19	3	16		390183.710(1.000)	390183.926(0.048)	123.6190	136.880	BEL93
2	20	11	9	-	2	19	11	8	-	390430.993(1.000)	390431.173(0.522)	85.7639	570.573	BEL93
2	20	11	10	+	2	19	11	9	+	390430.993(1.000)	390431.174(0.522)	85.7639	570.573	BEL93
0	8	3	5	-	0	7	2	6	-	390710.360(1.000)	390710.373(0.015)	3.7473	24.287	BEL93
1	21	0	21		1	20	0	20		390753.900(1.000)	390753.614(0.107)	131.4270	274.160	BEL93
1	20	3	17	-	1	19	3	16	-	390950.980(1.000)	390949.824(0.088)	123.7200	279.058	BEL93
2	20	2	18		2	19	2	17		390950.980(1.000)	390953.074(0.706)	117.7890	400.772	BEL93
2	20	8	13	-	2	19	8	12	-	391079.793(1.000)	391080.290(0.364)	103.7110	480.587	BEL93
2	20	8	12	+	2	19	8	11	+	391079.793(1.000)	391081.375(0.364)	103.7130	480.587	BEL93
2	22	0	22	+	2	21	1	21	+		391309.853(0.671)	22.9906	403.114	
2	21	-1	21		2	20	-1	20		391316.102(1.000)	391315.422(0.320)	128.6200	396.335	BEL93
2	18	3	15	-	2	18	2	16	+		391640.927(4.228)	13.3825	380.139	
2	20	7	14		2	19	7	13		392434.934(1.000)	392434.082(0.288)	107.3040	456.177	BEL93
0	14	2	12		0	13	1	12			392467.109(0.017)	0.0083	61.477	
2	21	1	21	-	2	20	1	20	+	392503.363(1.000)	392502.618(0.362)	127.0800	390.022	BEL93
2	20	10	10	+	2	19	10	9	+	392521.800(1.000)	392520.870(0.396)	91.4148	534.418	BEL93
2	20	10	11	-	2	19	10	10	-	392521.800(1.000)	392521.578(0.396)	91.4147	534.418	BEL93

TABLE II. (Continued.)

v_t'	J'	$K_{a'}$	$K_{c'} P'$	v_t''	J''	$K_{a''}$	$K_{c''} P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	14	1	13	2	14	-1	14		392523.588(5.876)	0.0452	330.927	
1	21	1	21 +	1	20	0	20 +	392607.040(1.000)	392606.892(0.131)	17.7221	275.435	BEL93
2	21	11	11	2	20	11	10	392689.096(1.000)	392689.271(0.800)	104.4910	593.283	BEL93
0	21	-1	21	0	20	0	20	392784.720(1.000)	392784.578(0.071)	19.7197	131.858	BEL93
1	14	-1	13	1	13	0	13		392849.442(0.090)	0.0947	199.845	
0	21	1	21 +	0	20	0	20 +	392877.790(1.000)	392878.274(0.071)	19.8309	131.809	BEL93
1	13	-2	11	1	12	-1	11	393190.850(1.000)	393190.751(0.056)	2.4502	195.266	BEL93
2	20	-5	16	2	19	5	15	393270.182(1.000)	393270.694(0.328)	115.7880	421.379	BEL93
2	20	-11	9	2	19	-11	8		393399.204(13.757)	80.7387	568.372	
1	20	2	18 +	1	19	2	17 +	393871.000(1.000)	393871.190(0.094)	125.9040	273.098	BEL93
0	11	2	9	0	10	-1	10		393933.214(0.016)	2.1386	35.928	
1	20	-2	18	1	19	-2	17	393934.890(1.000)	393935.208(0.079)	124.3690	273.089	BEL93
2	6	2	5 -	2	5	1	4 -		393987.872(2.372)	3.1675	268.565	
2	21	12	10	2	20	12	9		394171.600(2.794)	98.1404	624.946	
0	20	2	18	0	19	2	17	394390.910(1.000)	394390.757(0.051)	125.2950	130.414	BEL93
0	20	2	18 +	0	19	2	17 +	394433.240(1.000)	394432.836(0.051)	125.2510	130.406	BEL93
2	21	-8	13	2	20	-8	12		394438.670(0.486)	120.3200	505.449	
2	21	-9	12	2	20	-9	11		394581.396(0.993)	113.0830	527.780	
1	21	1	21	1	20	0	20	394603.710(1.000)	394603.963(0.122)	20.0475	274.160	BEL93
2	20	-12	8	2	19	-12	7		394668.117(1.149)	77.6093	601.227	
2	20	9	12 +	2	19	9	11 +		394822.803(2.497)	97.0406	504.239	
2	20	6	15	2	19	6	14	394853.104(1.000)	394852.208(0.336)	111.0330	435.546	BEL93
0	11	2	9 +	0	10	1	10 +		395007.118(0.016)	2.1764	35.876	
1	8	-3	5	1	7	-2	5		395210.227(0.034)	3.7935	167.673	
2	20	-4	17	2	19	-4	16	395535.622(1.000)	395533.798(0.424)	117.9760	405.821	BEL93
2	26	1	25 -	2	26	0	26 +		395598.984(4.790)	13.0434	477.416	
2	21	-2	20	2	20	-2	19	395651.459(1.000)	395650.915(0.348)	130.5020	394.927	BEL93
2	21	0	21 +	2	20	0	20 +	395693.639(1.000)	395693.241(0.365)	127.1530	389.165	BEL93
2	21	5	17 +	2	20	5	16 +		395856.136(0.403)	131.2810	445.092	
2	21	5	16 -	2	20	5	15 -		395862.324(0.403)	131.2810	445.092	
2	4	2	2	2	5	-1	5		395923.234(7.800)	0.0001	274.016	
1	5	-3	2	1	4	2	3		395927.989(0.072)	1.4E-5	154.162	
2	20	1	19 -	2	19	1	18 -	395937.131(1.000)	395936.667(0.304)	121.3170	384.885	BEL93
1	4	-4	0	1	3	-3	0	395974.060(1.000)	395973.140(0.128)	3.8879	161.592	BEL93
2	2	1	1	2	2	-2	1		396005.152(6.084)	0.0002	278.271	
1	26	-5	22	1	26	-4	22		396775.322(0.508)	11.0607	394.363	
1	26	-5	22	1	26	-4	22		396775.322(0.508)	11.0607	394.363	
2	20	2	18 +	2	19	2	17 +	396871.542(1.000)	396869.708(0.332)	121.0110	392.702	BEL93
2	26	0	26	2	26	-1	26		396884.183(6.080)	5.7801	483.854	
2	21	6	16 -	2	20	6	15 -	397444.607(1.000)	397444.442(0.352)	125.5420	458.176	BEL93
2	21	6	15 +	2	20	6	14 +	397444.607(1.000)	397445.048(0.352)	125.5420	458.177	BEL93
2	19	2	18 -	2	19	1	19 +		397449.944(3.486)	10.0987	377.545	
2	17	3	14 -	2	17	2	15 +		398264.029(4.204)	12.4417	368.251	
2	21	10	12	2	20	10	11		398469.470(0.835)	106.7350	561.626	
2	12	1	11	2	11	0	11		398658.762(4.860)	2.4887	313.292	
1	25	-5	21	1	25	-4	21	398809.710(1.000)	398810.949(0.451)	12.4946	377.542	BEL93
0	22	2	20	0	22	-1	22		398948.413(0.331)	6.6E-7	158.536	
2	21	1	20	2	20	1	19	399120.452(1.000)	399120.518(0.436)	125.4680	410.959	BEL93
1	5	-5	1	1	5	-4	1		399586.027(0.323)	1.0238	178.010	
1	6	-5	2	1	6	-4	2		399753.529(0.322)	1.9041	181.863	
2	21	-7	14	2	20	-7	13	399863.548(1.000)	399863.855(0.384)	121.5560	483.407	BEL93
0	21	-2	20	0	20	-2	19	399900.690(1.000)	399900.683(0.057)	131.4250	140.514	BEL93
0	21	2	20 -	0	20	2	19 -		399932.916(0.057)	131.3660	140.508	
1	21	2	20 -	1	20	2	19 -		399936.686(0.080)	132.2290	283.257	
1	7	-5	3	1	7	-4	3		399941.834(0.320)	2.7010	186.357	
1	24	-5	20	1	24	-4	20	400135.860(1.000)	400136.179(0.416)	13.1713	361.393	BEL93
1	8	-5	4	1	8	-4	4	400151.090(1.000)	400147.611(0.318)	3.4459	191.495	BEL93
1	17	2	16	1	16	-1	15	400338.060(1.000)	400338.495(0.102)	6.5643	233.203	BEL93
1	9	-5	5	1	9	-4	5		400367.018(0.317)	4.1569	197.275	
1	8	3	6	1	7	2	6		400524.300(0.038)	3.7672	165.795	
1	10	-5	6	1	10	-4	6		400595.680(0.315)	4.8452	203.699	
1	10	3	8 +	1	9	2	7 +	400744.160(1.000)	400743.778(0.046)	3.9325	178.114	BEL93
1	11	-5	7	1	11	-4	7	400829.700(1.000)	400828.674(0.314)	5.5184	210.765	BEL93

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	17	-2	16		0	16	1	15		400920.900(1.000)	400921.119(0.035)	7.8922	90.863	BEL93
1	23	-5	19		1	23	-4	19		400962.740(1.000)	400963.246(0.390)	13.1178	345.907	BEL93
1	12	-5	8		1	12	-4	8			401060.493(0.313)	6.1817	218.476	
2	15	1	14		2	15	-1	15			401262.634(5.912)	0.0198	340.292	
1	13	-5	9		1	13	-4	9		401286.530(1.000)	401285.018(0.312)	6.8390	226.830	BEL93
1	22	-5	18		1	22	-4	18		401476.700(1.000)	401477.043(0.368)	12.6789	331.079	BEL93
1	14	-5	10		1	14	-4	10			401495.464(0.312)	7.4931	235.829	
1	21	2	20		1	20	2	19		401559.200(1.000)	401559.648(0.086)	130.4420	283.039	BEL93
1	15	-5	11		1	15	-4	11			401684.315(0.313)	8.1465	245.472	
1	12	2	11		1	11	1	11			401688.998(0.055)	1.2446	184.780	
0	17	2	16	-	0	16	1	15	-	401713.920(1.000)	401713.100(0.036)	7.9101	90.829	BEL93
2	4	4	1	-	2	5	3	2	-		401723.787(6.453)	0.1234	292.321	
2	4	4	0	+	2	5	3	3	+		401725.599(6.453)	0.1234	292.320	
2	21	4	18	-	2	20	4	17	-	401731.981(1.000)	401731.603(0.358)	129.8490	433.087	BEL93
2	21	3	18		2	20	3	17		401750.728(1.000)	401750.608(0.896)	126.4500	415.706	BEL93
1	21	-5	17		1	21	-4	17			401790.395(0.351)	12.0863	316.904	
1	16	-5	12		1	16	-4	12		401843.880(1.000)	401843.209(0.315)	8.8009	255.761	BEL93
2	21	4	17	+	2	20	4	16	+	401873.095(1.000)	401872.701(0.360)	129.8540	433.097	BEL93
1	12	2	10	+	1	11	1	11	+		401946.198(0.074)	1.7129	186.219	
1	17	-5	13		1	17	-4	13			401962.749(0.317)	9.4576	266.695	
1	20	-5	16		1	20	-4	16			401965.611(0.338)	11.4406	303.379	
2	3	1	2		2	3	-2	2			401996.716(6.053)	0.0004	280.196	
1	18	-5	14		1	18	-4	14			402032.156(0.322)	10.1176	278.276	
1	19	-5	15		1	19	-4	15			402038.566(0.329)	10.7799	290.504	
1	23	-1	22		1	22	2	21			402165.265(0.187)	12.6461	310.445	
0	22	-3	20		0	21	3	18			402175.706(0.090)	0.0084	163.582	
2	21	-10	11		2	20	-10	10		402369.296(1.000)	402368.836(0.761)	103.8700	552.714	BEL93
0	15	1	14		0	14	-1	14		402772.450(1.000)	402773.729(0.048)	0.0005	66.997	BEL93
1	11	3	9		1	10	-2	8			402936.913(0.066)	0.0323	185.080	
2	11	3	8		2	12	-2	11			402973.553(8.743)	0.0001	311.623	
2	21	0	21		2	20	0	20			403053.870(0.469)	123.1070	407.631	
0	20	3	17		0	19	-3	17		403206.560(1.000)	403209.537(0.062)	0.0300	136.446	BEL93
2	20	1	20	+	2	19	0	19	+		403245.934(0.709)	20.2873	376.571	
1	18	2	17	-	1	17	1	16	-	403264.330(1.000)	403264.613(0.173)	8.2348	244.993	BEL93
0	23	1	22	-	0	22	2	21	-	403427.300(1.000)	403427.920(0.105)	13.0089	167.810	BEL93
1	21	-13	9		1	20	-13	8		403496.170(1.000)	403495.260(0.315)	82.5493	540.519	BEL93
2	21	7	14	-	2	20	7	13	-	403583.682(1.000)	403585.141(0.434)	118.1690	474.274	BEL93
2	21	7	15	+	2	20	7	14	+	403583.682(1.000)	403585.298(0.434)	118.1690	474.274	BEL93
1	21	-12	10		1	20	-12	9			403733.841(0.246)	90.0210	501.971	
0	23	1	22		0	22	-2	21		403745.080(1.000)	403744.882(0.102)	12.9843	167.813	BEL93
1	21	10	11	+	1	20	10	10	+	403872.860(1.000)	403872.590(0.163)	103.2530	433.619	BEL93
1	21	10	12	-	1	20	10	11	-	403872.860(1.000)	403872.591(0.163)	103.2530	433.619	BEL93
2	21	4	17		2	20	4	16		403930.830(1.000)	403931.047(0.331)	128.0110	423.949	BEL93
1	21	9	12	-	1	20	9	11	-	404038.540(1.000)	404038.395(0.137)	108.9290	404.340	BEL93
1	21	9	13	+	1	20	9	12	+	404038.540(1.000)	404038.403(0.137)	108.9290	404.340	BEL93
2	21	-3	19		2	20	-3	18			404189.015(0.298)	129.0060	403.880	
1	21	11	10	-	1	20	11	9	-	404212.453(1.000)	404212.555(0.203)	96.7130	465.670	BEL93
1	21	11	11	+	1	20	11	10	+	404212.453(1.000)	404212.555(0.203)	96.7130	465.670	BEL93
1	21	7	14		1	20	7	13		404266.200(1.000)	404266.347(0.101)	118.5300	354.500	BEL93
2	16	3	13	-	2	16	2	14	+		404280.976(4.189)	11.5444	357.039	
0	21	14	7	+	0	20	14	6	+		404339.180(0.270)	73.9235	441.268	
0	21	14	8	-	0	20	14	7	-		404339.180(0.270)	73.9235	441.268	
0	22	0	22	+	0	21	1	21	+	404369.800(1.000)	404368.806(0.077)	20.9948	144.914	BEL93
0	21	13	8	-	0	20	13	7	-		404389.470(0.228)	82.0405	399.184	
0	21	13	9	+	0	20	13	8	+		404389.470(0.228)	82.0405	399.184	
0	22	0	22		0	21	-1	21		404393.720(1.000)	404394.663(0.077)	20.8711	144.960	BEL93
1	21	-11	11		1	20	-11	10			404395.386(0.204)	96.6422	466.088	
0	21	13	9		0	20	13	8			404408.802(0.226)	82.0319	399.149	
0	21	12	10		0	20	12	9		404423.210(1.000)	404423.136(0.194)	89.5608	360.180	BEL93
0	21	12	9	+	0	20	12	8	+		404454.896(0.195)	89.5460	360.174	
0	21	12	10	-	0	20	12	9	-		404454.896(0.195)	89.5460	360.174	
0	21	11	11		0	20	11	10			404459.993(0.166)	96.4790	324.297	
0	21	-13	8		0	20	-13	7			404465.389(0.229)	82.0074	399.120	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b
0	21	-12	9		0	20	-12	8			404498.889(0.194)	89.5251	360.123	
1	21	6	15		1	20	6	14		404510.770(1.000)	404510.070(0.087)	122.3840	334.544	BEL93
0	21	-11	10		0	20	-11	9			404521.603(0.166)	96.4480	324.238	
0	21	10	12		0	20	10	11		404525.660(1.000)	404525.461(0.140)	102.7840	291.502	BEL93
0	21	11	10	-	0	20	11	9	-	404525.660(1.000)	404526.088(0.166)	96.4459	324.254	BEL93
0	21	11	11	+	0	20	11	10	+	404525.660(1.000)	404526.088(0.166)	96.4459	324.254	BEL93
0	21	-10	11		0	20	-10	10		404547.310(1.000)	404547.039(0.140)	102.7730	291.466	BEL93
1	21	8	13		1	20	8	12		404564.060(1.000)	404564.621(0.116)	113.7810	377.275	BEL93
0	21	-9	12		0	20	-9	11			404593.388(0.116)	108.4940	261.804	
0	21	10	12	-	0	20	10	11	-		404595.639(0.140)	102.7471	291.441	
0	21	10	11	+	0	20	10	10	+		404595.640(0.140)	102.7471	291.441	
0	21	9	13		0	20	9	12		404620.040(1.000)	404619.774(0.116)	108.4800	261.802	BEL93
1	21	8	13	+	1	20	8	12	+		404652.939(0.114)	113.7339	377.755	
1	21	8	14	-	1	20	8	13	-		404652.939(0.114)	113.7339	377.755	
0	21	9	12	-	0	20	9	11	-	404663.540(1.000)	404663.396(0.116)	108.4562	261.751	BEL93
0	21	9	13	+	0	20	9	12	+	404663.540(1.000)	404663.396(0.116)	108.4562	261.751	BEL93
0	21	-8	13		0	20	-8	12		404680.640(1.000)	404680.369(0.095)	113.6050	235.250	BEL93
0	21	8	14	-	0	20	8	13	-	404741.270(1.000)	404740.414(0.095)	113.5721	235.192	BEL93
0	21	8	13	+	0	20	8	12	+	404741.270(1.000)	404740.415(0.095)	113.5721	235.192	BEL93
0	21	8	14		0	20	8	13		404741.270(1.000)	404741.902(0.096)	113.5710	235.211	BEL93
2	21	2	20	-	2	20	2	19	-	404763.182(1.000)	404764.099(0.302)	126.9530	403.670	BEL93
0	21	-7	14		0	20	-7	13		404829.000(1.000)	404828.960(0.078)	118.1040	211.805	BEL93
1	21	1	20	-	1	20	1	19	-		404848.240(0.081)	132.9960	281.809	
0	21	7	15	+	0	20	7	14	+	404851.740(1.000)	404852.098(0.078)	118.0930	211.768	BEL93
0	21	7	14	-	0	20	7	13	-	404851.740(1.000)	404852.113(0.078)	118.0930	211.768	BEL93
1	21	12	9	+	1	20	12	8	+		404862.766(0.267)	89.4574	500.698	
1	21	12	10	-	1	20	12	9	-		404862.768(0.267)	89.4574	500.698	
0	21	7	15		0	20	7	14		404898.090(1.000)	404897.959(0.078)	118.0670	211.747	BEL93
1	22	0	22		1	21	1	21			405026.952(0.117)	21.2737	287.323	
0	21	6	16	-	0	20	6	15	-	405044.120(1.000)	405043.565(0.065)	122.0090	191.478	BEL93
0	21	6	15	+	0	20	6	14	+	405044.120(1.000)	405044.343(0.065)	122.0090	191.478	BEL93
1	21	13	8		1	20	13	7			405061.810(0.386)	81.8605	539.793	
0	21	-6	15		0	20	-6	14		405069.170(1.000)	405069.061(0.065)	121.9930	191.478	BEL93
2	16	3	13		2	15	2	13			405111.157(3.870)	3.9964	355.474	
0	21	6	16		0	20	6	15		405114.850(1.000)	405114.604(0.065)	121.9710	191.428	BEL93
1	21	9	12		1	20	9	11		405141.960(1.000)	405142.192(0.137)	108.3070	403.070	BEL93
1	21	-10	12		1	20	-10	11		405172.720(1.000)	405172.526(0.168)	102.5610	433.003	BEL93
0	21	3	19	+	0	20	3	18	+	405225.870(1.000)	405225.514(0.055)	130.0380	149.349	BEL93
0	21	-3	19		0	20	-3	18		405246.000(1.000)	405245.766(0.055)	130.0370	149.323	BEL93
1	22	0	22	+	1	21	1	21	+		405280.812(0.132)	18.7837	288.530	
1	21	-5	17		1	20	-5	16		405283.280(1.000)	405283.871(0.079)	125.4790	316.788	BEL93
1	21	5	16		1	20	5	15		405340.260(1.000)	405340.703(0.074)	125.3430	317.322	BEL93
1	26	5	21	-	1	26	4	22	+		405377.969(0.530)	15.9086	393.553	
0	21	5	17	+	0	20	5	16	+	405388.440(1.000)	405388.302(0.057)	125.3140	174.328	BEL93
0	21	5	16	-	0	20	5	15	-	405414.980(1.000)	405415.050(0.057)	125.3140	174.330	BEL93
1	21	-4	17		1	20	-4	16			405459.087(0.080)	128.2730	303.379	
1	21	13	9	+	1	20	13	8	+		405463.047(0.361)	81.6688	538.945	
1	21	13	8	-	1	20	13	7	-		405463.062(0.361)	81.6688	538.945	
0	21	5	17		0	20	5	16		405466.000(1.000)	405465.320(0.057)	125.2240	174.273	BEL93
1	21	7	15	+	1	20	7	14	+	405466.000(1.000)	405466.051(0.096)	117.8290	353.973	BEL93
1	21	7	14	-	1	20	7	13	-	405466.000(1.000)	405466.065(0.096)	117.8290	353.973	BEL93
0	21	-5	16		0	20	-5	15		405466.000(1.000)	405467.728(0.057)	125.2190	174.293	BEL93
2	19	-1	19		2	18	-2	17			405651.878(1.777)	15.5030	370.366	
1	21	-6	16		1	20	-6	15			405654.167(0.084)	121.7960	333.283	
1	21	10	11		1	20	10	10			405658.395(0.170)	102.3010	432.118	
1	21	12	9		1	20	12	8			405663.729(0.280)	89.0880	500.526	
1	21	-9	13		1	20	-9	12		405787.550(1.000)	405787.193(0.141)	107.9530	402.980	BEL93
2	21	12	9	+	2	20	12	8	+		405796.903(1.075)	88.7573	624.612	
2	21	12	10	-	2	20	12	9	-		405796.903(1.075)	88.7573	624.612	
0	21	1	20		0	20	1	19		405849.440(1.000)	405849.208(0.057)	131.9890	138.844	BEL93
0	21	4	18	-	0	20	4	17	-	405865.490(1.000)	405865.237(0.054)	128.0000	160.327	BEL93
1	21	11	10		1	20	11	9			405866.274(0.215)	95.8857	464.591	
1	21	3	19	+	1	20	3	18	+	405908.710(1.000)	405908.787(0.071)	130.1350	291.503	BEL93

MICROWAVE SPECTRUM OF ACETALDEHYDE

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TABLE II. (Continued.)

v_c'	J'	K_a'	$K_c' P'$	v_c''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	21	9	13	2	20	9	12		405919.357(0.315)	107.7400	528.170	
2	21	9	13	2	20	9	12		405919.357(0.315)	107.7400	528.170	
0	21	-4	18	0	20	-4	17	405942.070(1.000)	405941.316(0.054)	127.2960	160.280	BEL93
0	21	1	20	0	20	1	19	405942.070(1.000)	405942.371(0.057)	131.9200	138.822	BEL93
1	21	-7	15	1	20	-7	14	406012.500(1.000)	406012.876(0.097)	117.5670	353.062	BEL93
1	21	-8	14	1	20	-8	13	406082.910(1.000)	406082.938(0.116)	112.9400	376.286	BEL93
1	21	6	16	1	20	6	15	406242.070(1.000)	406241.481(0.085)	121.4180	333.258	BEL93
1	21	6	15	1	20	6	14	406242.070(1.000)	406242.273(0.085)	121.4180	333.258	BEL93
2	21	-6	15	2	20	-6	14		406268.945(0.219)	120.7860	459.306	
0	21	4	17	0	20	4	16	406408.710(1.000)	406408.764(0.054)	128.0020	160.367	BEL93
0	21	4	17	0	20	4	16	406443.690(1.000)	406443.338(0.054)	127.3070	160.323	BEL93
1	22	-2	20	1	22	1	22		406473.852(0.845)	0.0030	300.937	
0	9	3	7	0	8	2	6	406631.980(1.000)	406632.057(0.015)	3.9854	29.543	BEL93
1	21	4	18	1	20	4	17	406699.100(1.000)	406699.261(0.069)	127.5270	302.950	BEL93
0	12	-2	11	0	11	-1	11		406720.786(0.018)	0.0102	42.771	
2	21	3	19	2	20	3	18		406858.776(0.202)	127.1360	418.290	
1	21	5	17	1	20	5	16	406870.300(1.000)	406870.252(0.080)	124.6430	315.890	BEL93
1	21	5	16	1	20	5	15	406898.750(1.000)	406898.734(0.080)	124.6430	315.892	BEL93
0	22	-1	22	0	21	-1	21	406988.260(1.000)	406987.956(0.079)	138.6750	144.960	BEL93
0	22	1	22	0	21	1	21	407009.070(1.000)	407008.849(0.080)	138.5330	144.914	BEL93
1	21	-1	20	1	20	-1	19	407023.620(1.000)	407023.153(0.078)	131.3670	281.295	BEL93
1	10	3	7	1	9	2	8		407023.738(0.047)	3.8428	177.917	
1	21	4	18	1	20	4	17	407202.880(1.000)	407202.179(0.078)	127.5660	302.031	BEL93
1	22	1	22	1	21	1	21	407535.470(1.000)	407535.104(0.135)	140.6150	288.530	BEL93
1	5	4	2	1	4	3	1	407568.560(1.000)	407568.670(0.120)	3.9602	162.460	BEL93
1	5	4	1	1	4	3	2	407568.560(1.000)	407570.214(0.120)	3.9602	162.460	BEL93
1	25	5	20	1	25	4	21		407577.936(0.460)	15.1776	376.657	
2	18	2	16	2	17	1	16		407621.073(4.253)	9.4318	374.787	
0	22	0	22	0	21	0	21	407634.870(1.000)	407634.911(0.080)	138.6990	144.852	BEL93
2	4	1	3	2	4	-2	3		407648.119(6.058)	0.0005	282.765	
0	22	0	22	0	21	0	21	407667.730(1.000)	407667.884(0.080)	138.5560	144.804	BEL93
1	21	4	17	1	20	4	16	407782.040(1.000)	407782.212(0.081)	127.5690	302.075	BEL93
1	21	3	19	1	20	3	18	407796.770(1.000)	407797.252(0.074)	128.8210	291.743	BEL93
1	22	0	22	1	21	0	21	408028.560(1.000)	408028.808(0.136)	140.6530	288.439	BEL93
1	21	-3	18	1	20	-3	17	408087.560(1.000)	408087.194(0.086)	129.3790	292.996	BEL93
1	22	1	22	1	21	1	21	408151.380(1.000)	408151.571(0.127)	137.5940	287.323	BEL93
0	26	5	21	0	26	4	22	408609.040(1.000)	408611.052(0.243)	16.2544	251.558	BEL93
1	22	0	22	1	21	0	21	408877.540(1.000)	408877.302(0.127)	137.6500	287.195	BEL93
2	21	2	19	2	20	2	18		408913.348(0.899)	121.3530	413.812	
2	21	3	18	2	20	3	17	408993.144(1.000)	408992.004(0.219)	127.1700	418.508	BEL93
1	15	-1	14	1	14	1	14		409003.703(0.122)	0.2536	209.114	
1	24	5	19	1	24	4	20		409431.939(0.408)	14.4596	360.422	
2	21	8	14	2	20	8	13	409545.273(1.000)	409543.796(0.300)	110.6830	496.264	BEL93
2	16	1	15	2	16	-1	16		409673.713(5.976)	0.0039	350.271	
2	7	2	6	2	6	1	5		409681.766(2.346)	3.5138	272.573	
2	13	1	12	2	12	0	12		409725.217(4.796)	2.9211	321.320	
2	22	-1	22	2	21	-1	21	409727.193(1.000)	409725.819(0.354)	134.7390	409.388	BEL93
2	21	-5	16	2	20	-5	15	409845.768(1.000)	409844.353(0.252)	122.1760	436.536	BEL93
2	21	11	10	2	20	11	9		409999.274(0.573)	93.6895	583.597	
2	21	11	11	2	20	11	10		409999.275(0.573)	93.6895	583.597	
0	18	2	16	0	17	-2	16		410147.066(0.067)	0.0019	104.237	
2	21	8	14	2	20	8	13	410201.937(1.000)	410202.490(0.419)	110.9870	493.632	BEL93
2	21	8	13	2	20	8	12	410201.937(1.000)	410204.290(0.418)	110.9890	493.632	BEL93
0	22	-1	22	0	21	0	21	410228.500(1.000)	410228.204(0.083)	20.8978	144.852	BEL93
1	22	1	22	1	21	0	21		410283.101(0.151)	18.8076	288.439	
0	21	3	18	0	20	3	17	410295.130(1.000)	410294.427(0.058)	130.0970	149.917	BEL93
0	22	1	22	0	21	0	21		410307.927(0.083)	21.0218	144.804	
0	21	3	18	0	20	3	17	410317.420(1.000)	410316.984(0.058)	130.0980	149.896	BEL93
0	9	3	6	0	8	2	7		410520.098(0.015)	3.9416	29.419	
1	14	-2	12	1	13	-1	12		410533.973(0.068)	2.1761	203.785	
2	10	-3	8	2	9	-2	8		410540.553(2.444)	0.1487	290.841	
2	22	1	22	2	21	1	21		410927.164(0.399)	133.1050	403.114	
1	23	5	18	1	23	4	19		410984.272(0.369)	13.7525	344.849	

TABLE II. (Continued.)

ν_1'	J'	K_a'	K_c'	P'	ν_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
1	21	3	18	-	1	20	3	17	-	411040.810(1.000)	411040.765(0.108)	130.2090	292.099	BEL93
0	25	5	20	-	0	25	4	21	+	411102.760(1.000)	411101.471(0.216)	15.4927	234.710	BEL93
1	22	1	22		1	21	0	21		412002.280(1.000)	412001.920(0.142)	21.3036	287.195	BEL93
2	22	11	12		2	21	11	11		412118.721(1.000)	412119.701(0.819)	112.7330	606.381	BEL93
2	21	7	15		2	20	7	14		412158.309(1.000)	412156.374(0.326)	114.1580	469.267	BEL93
2	21	10	11	+	2	20	10	10	+	412213.960(1.000)	412211.694(0.451)	98.9827	547.511	BEL93
2	21	10	12	-	2	20	10	11	-	412213.960(1.000)	412213.742(0.451)	98.9823	547.511	BEL93
2	21	5	17		2	20	5	16		412253.299(1.000)	412253.101(0.361)	122.5550	434.497	BEL93
1	22	5	17	-	1	22	4	18	+		412276.738(0.342)	13.0547	329.935	
2	23	0	23	+	2	22	1	22	+		412291.264(0.677)	24.4780	416.821	
2	6	2	4	+	2	5	1	5	+		412550.142(2.510)	2.8831	267.971	
0	15	2	13	0	0	14	1	13			412821.838(0.021)	0.0053	70.636	
2	5	1	4		2	5	-2	4			413045.399(6.081)	0.0006	285.977	
2	22	12	11		2	21	12	10			413056.690(3.348)	106.4970	638.094	
2	21	9	13	+	2	20	9	12	+		413087.323(5.007)	106.2150	517.409	
2	21	9	13	+	2	20	9	12	+		413087.323(5.007)	106.2150	517.409	
0	18	-2	17	0	0	17	1	16		413098.010(1.000)	413098.334(0.044)	8.6556	101.924	BEL93
2	21	9	12	-	2	20	9	11	-		413191.684(3.444)	107.9700	517.295	
2	21	9	12	-	2	20	9	11	-		413191.684(3.444)	107.9700	517.295	
0	24	5	19	-	0	24	4	20	+	413196.560(1.000)	413195.742(0.195)	14.7456	218.525	BEL93
1	21	5	16	-	1	21	4	17	+	413348.820(1.000)	413347.610(0.323)	12.3648	315.677	BEL93
1	21	2	19	+	1	20	2	18	+	413448.220(1.000)	413447.853(0.108)	132.2880	286.236	BEL93
2	22	-9	13		2	21	-9	12			413511.313(1.071)	120.5290	540.942	
2	22	-8	14		2	21	-8	13		413597.794(1.000)	413597.649(0.561)	127.6310	518.606	BEL93
2	22	0	22	+	2	21	0	21	+	413807.794(1.000)	413807.508(0.403)	133.1640	402.364	BEL93
1	21	-2	19		1	20	-2	18		413828.680(1.000)	413828.772(0.091)	130.8070	286.230	BEL93
0	18	2	17	-	0	17	1	16	-		413835.451(0.045)	8.6736	101.893	
2	22	-2	21		2	21	-2	20		413861.040(1.000)	413860.907(0.385)	136.3820	408.124	BEL93
1	26	5	22	+	1	26	4	23	-		413882.923(0.423)	15.7827	393.250	
1	25	5	21	+	1	25	4	22	-		414022.837(0.389)	15.0898	376.428	
0	21	2	19	0	0	20	2	18		414038.270(1.000)	414038.543(0.060)	131.6620	143.570	BEL93
1	9	-3	6		1	8	-2	6			414078.359(0.033)	4.0127	172.826	
0	21	2	19	+	0	20	2	18	+	414085.750(1.000)	414086.139(0.061)	131.6150	143.563	BEL93
1	18	2	17		1	17	-1	16		414189.640(1.000)	414190.058(0.126)	7.6043	244.285	BEL93
1	20	5	15	-	1	20	4	16	+	414230.640(1.000)	414231.088(0.310)	11.6817	302.075	BEL93
1	24	5	20	+	1	24	4	21	-		414241.147(0.362)	14.3992	360.253	
1	23	5	19	+	1	23	4	20	-		414515.073(0.341)	13.7117	344.725	
2	21	6	16		2	20	6	15		414539.225(1.000)	414538.475(0.370)	117.7600	448.717	BEL93
1	6	-3	3		1	5	2	4			414619.070(0.068)	0.0001	157.391	
2	21	-12	9		2	20	-12	8			414655.624(1.403)	85.7993	614.392	
1	22	5	18	+	1	22	4	19	-		414824.575(0.325)	13.0275	329.846	
0	23	5	18	-	0	23	4	19	+	414948.330(1.000)	414946.369(0.179)	14.0112	203.000	BEL93
1	19	5	14	-	1	19	4	15	+		414957.134(0.302)	11.0041	289.127	
2	22	5	18	+	2	21	5	17	+		415073.679(0.454)	137.9120	458.296	
2	22	5	17	-	2	21	5	16	-		415083.856(0.454)	137.9120	458.297	
2	21	1	20	-	2	20	1	19	-		415088.259(0.337)	127.3790	398.092	
1	21	5	17	+	1	21	4	18	-		415152.460(0.313)	12.3471	315.614	
0	23	-3	21	0	0	22	3	19		415208.830(1.000)	415204.244(0.113)	0.0047	177.942	BEL93
1	5	-4	1		1	4	-3	1		415239.320(1.000)	415238.562(0.127)	3.9873	164.159	BEL93
1	20	5	16	+	1	20	4	17	-	415484.010(1.000)	415484.387(0.305)	11.6703	302.031	BEL93
1	18	5	13	-	1	18	4	14	+		415551.577(0.298)	10.3312	276.831	
1	19	5	15	+	1	19	4	16	-	415808.150(1.000)	415808.798(0.299)	10.9970	289.097	BEL93
0	15	1	14	0	0	14	0	14			415962.823(0.041)	0.0001	66.557	
2	21	4	18		2	20	-4	17			416014.949(0.504)	124.4430	419.014	
1	17	5	12	-	1	17	4	13	+		416036.394(0.295)	9.6619	265.188	
1	18	5	14	+	1	18	4	15	-		416116.768(0.296)	10.3269	276.812	
1	17	5	13	+	1	17	4	14	-		416401.800(0.295)	9.6594	265.175	
0	22	5	17	-	0	22	4	18	+	416402.020(1.000)	416402.203(0.169)	13.2880	188.133	BEL93
1	16	5	11	-	1	16	4	12	+	416430.650(1.000)	416430.098(0.295)	8.9952	254.195	BEL93
2	22	6	17	-	2	21	6	16	-	416516.790(1.000)	416516.463(0.390)	132.3240	471.434	BEL93
2	22	6	16	+	2	21	6	15	+	416516.790(1.000)	416517.483(0.390)	132.3240	471.434	BEL93
1	16	5	12	+	1	16	4	13	-		416659.574(0.295)	8.9937	254.187	
1	15	5	10	-	1	15	4	11	+	416747.770(1.000)	416748.173(0.297)	8.3297	243.853	BEL93

TABLE II. (Continued.)

ν_1'	J'	K_a'	$K_c' P'$	ν_2''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	26	5	22 +	0	26	4	23 -	416784.650(1.000)	416783.893(0.234)	16.1488	251.266	BEL93
1	15	5	11 +	1	15	4	12 -	416887.060(1.000)	416887.658(0.296)	8.3288	243.848	BEL93
1	14	5	9 -	1	14	4	10 +	417002.680(1.000)	417003.511(0.299)	7.6641	234.159	BEL93
2	21	2	19 +	2	20	2	18 +	417085.144(1.000)	417083.642(0.374)	127.1690	405.940	BEL93
1	14	5	10 +	1	14	4	11 -		417085.217(0.299)	7.6636	234.157	
1	13	5	8 -	1	13	4	9 +	417205.810(1.000)	417206.840(0.302)	6.9966	225.115	BEL93
0	25	5	21 +	0	25	4	22 -	417240.600(1.000)	417239.896(0.210)	15.4192	234.492	BEL93
1	13	5	9 +	1	13	4	10 -		417252.712(0.302)	6.9964	225.113	
2	17	1	16	2	17	-1	17		417361.936(6.098)	0.0003	360.865	
1	12	5	7 -	1	12	4	8 +		417367.095(0.306)	6.3252	216.718	
1	12	5	8 +	1	12	4	9 -		417391.610(0.306)	6.3251	216.717	
1	11	5	6 -	1	11	4	7 +		417491.759(0.311)	5.6470	208.969	
1	11	5	7 +	1	11	4	8 -		417504.120(0.311)	5.6470	208.969	
2	22	10	13	2	21	10	12		417524.743(0.833)	114.9010	574.917	
2	22	10	13	2	21	10	12		417524.743(0.833)	114.9010	574.917	
1	10	5	5 -	1	10	4	6 +		417587.141(0.316)	4.9583	201.868	
1	10	5	6 +	1	10	4	7 -		417592.952(0.316)	4.9583	201.868	
0	21	5	16 -	0	21	4	17 +		417607.431(0.161)	12.5747	173.923	
1	9	5	4 -	1	9	4	5 +		417658.601(0.321)	4.2539	195.413	
1	9	5	5 +	1	9	4	6 -		417661.108(0.321)	4.2539	195.413	
1	8	5	3 -	1	8	4	4 +		417710.732(0.326)	3.5262	189.605	
1	8	5	4 +	1	8	4	5 -		417711.702(0.326)	3.5262	189.605	
0	24	5	20 +	0	24	4	21 -		417736.070(0.192)	14.6950	218.365	
1	7	5	2 -	1	7	4	3 +		417747.494(0.331)	2.7638	184.442	
1	7	5	3 +	1	7	4	4 -		417747.819(0.331)	2.7638	184.442	
1	6	5	1 -	1	6	4	2 +		417772.309(0.336)	1.9478	179.926	
1	6	5	2 +	1	6	4	3 -		417772.398(0.336)	1.9478	179.926	
1	5	5	0 -	1	5	4	1 +		417788.124(0.341)	1.0210	176.055	
1	5	5	1 +	1	5	4	2 -		417788.142(0.341)	1.0210	176.055	
2	6	1	5	2	6	-2	5		418237.056(6.115)	0.0005	289.835	
0	23	5	19 +	0	23	4	20 -		418251.003(0.178)	13.9769	202.884	
2	22	1	21	2	21	1	20		418454.943(0.421)	131.9050	424.272	
1	11	3	9 +	1	10	2	8 +		418476.012(0.048)	4.1250	184.621	
0	22	-2	21	0	21	-2	20		418512.614(0.067)	137.7730	153.853	
0	22	2	21 -	0	21	2	20 -		418547.354(0.067)	137.7100	153.849	
1	22	2	21 -	1	21	2	20 -		418547.627(0.096)	138.6230	296.598	
2	13	3	10 -	2	13	2	11 +		418549.932(4.183)	9.0493	327.447	
0	20	5	15 -	0	20	4	16 +		418601.145(0.157)	11.8699	160.367	
2	17	3	14	2	16	2	14		418651.961(4.137)	3.7083	365.716	
0	22	5	18 +	0	22	4	19 -		418766.748(0.168)	13.2651	188.051	
2	22	-7	15	2	21	-7	14		419008.345(0.427)	128.7240	496.745	
0	21	5	17 +	0	21	4	18 -		419268.753(0.161)	12.5596	173.865	
0	19	5	14 -	0	19	4	15 +		419417.328(0.154)	11.1727	147.463	
1	9	3	7	1	8	2	7		419430.344(0.037)	3.9563	170.972	
2	20	-1	20	2	19	-2	18		419579.718(1.745)	16.9347	382.340	
2	21	-11	10	2	20	-11	9		419604.356(22.751)	35.8483	581.494	
0	20	5	16 +	0	20	4	17 -		419745.688(0.157)	11.8602	160.327	
0	19	5	15 +	0	19	4	16 -		420189.212(0.154)	11.1666	147.436	
2	22	0	22	2	21	0	21		420533.794(0.506)	129.4150	421.075	
2	14	1	13	2	13	0	13		420796.571(4.694)	3.4286	329.984	
2	12	3	9 -	2	12	2	10 +		422086.721(4.189)	8.2641	318.925	
1	12	3	10	1	11	-2	9		422287.951(0.073)	0.0715	192.188	
1	22	-13	10	1	21	-13	9		422708.858(0.363)	91.2353	553.979	
1	15	-1	14	1	14	0	14		423041.636(0.110)	0.0624	208.646	
0	23	0	23 +	0	22	1	22 +		423124.709(0.091)	22.1924	158.491	
0	23	0	23	0	22	-1	22		423140.270(0.091)	22.0550	158.536	
2	10	3	7	2	11	-2	10		423237.932(8.788)	3.3E-5	304.052	
0	12	2	10	0	11	-1	11		423566.763(0.019)	2.0158	42.771	
0	22	14	8 +	0	21	14	7 +		423576.169(0.327)	82.9433	454.755	
0	22	14	9 -	0	21	14	8 -		423576.169(0.327)	82.9433	454.755	
0	22	13	9 -	0	21	13	8 -		423631.383(0.278)	90.6867	412.673	
0	22	13	10 +	0	21	13	9 +		423631.383(0.278)	90.6867	412.673	
0	22	13	10	0	21	13	9		423650.139(0.276)	90.6774	412.638	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c' P'	v_1''	J''	K_a''	K_c'' P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	22	12	11	0	21	12	10		423669.029(0.237)	97.8619	373.670	
0	22	12	10 +	0	21	12	9 +		423702.613(0.238)	97.8462	373.665	
0	22	12	11 -	0	21	12	10 -		423702.613(0.238)	97.8462	373.665	
2	3	2	1	2	4	-1	4		423706.959(7.865)	3.4E-5	270.708	
0	22	-13	9	0	21	-13	8		423708.980(0.278)	90.6509	412.611	
0	22	11	12	0	21	11	11		423712.046(0.202)	104.4630	337.789	
0	22	-12	10	0	21	-12	9		423746.950(0.237)	97.8239	373.615	
0	22	-11	11	0	21	-11	10		423774.826(0.201)	104.4300	337.731	
0	22	11	11 -	0	21	11	10 -		423780.511(0.202)	104.4280	337.747	
0	22	11	12 +	0	21	11	11 +		423780.511(0.202)	104.4280	337.747	
0	22	10	13	0	21	10	12		423785.853(0.170)	110.4790	304.995	
0	22	-10	12	0	21	-10	11		423807.032(0.169)	110.4670	304.960	
0	22	10	12 +	0	21	10	11 +		423857.919(0.170)	110.4400	304.937	
0	22	10	13 -	0	21	10	12 -		423857.919(0.170)	110.4400	304.937	
0	22	-9	13	0	21	-9	12		423863.027(0.140)	115.9270	275.300	
0	22	9	14	0	21	9	13		423891.309(0.141)	115.9110	275.298	
0	22	9	13 -	0	21	9	12 -		423935.432(0.140)	115.8874	275.249	
0	22	9	14 +	0	21	9	13 +		423935.432(0.140)	115.8874	275.249	
0	22	-8	14	0	21	-8	13		423964.259(0.115)	120.8040	248.749	
0	22	8	14 +	0	21	8	13 +		424025.705(0.114)	120.7694	248.693	
0	22	8	15 -	0	21	8	14 -		424025.705(0.114)	120.7694	248.693	
0	22	8	15	0	21	8	14		424028.451(0.115)	120.7680	248.711	
0	22	1	21	0	21	1	20		424099.375(0.068)	138.2510	152.382	
0	22	-7	15	0	21	-7	14		424134.379(0.093)	125.0960	225.309	
0	22	7	16 +	0	21	7	15 +		424157.130(0.093)	125.0840	225.272	
0	22	7	15 -	0	21	7	14 -		424157.157(0.093)	125.0840	225.272	
0	22	1	21 -	0	21	1	20 -		424193.930(0.068)	138.1780	152.362	
0	22	7	16	0	21	7	15		424205.640(0.093)	125.0570	225.253	
1	22	13	9	1	21	13	8		424336.750(0.429)	90.4927	553.304	
0	22	6	17 -	0	21	6	16 -		424380.278(0.077)	128.8220	204.989	
0	22	6	16 +	0	21	6	15 +		424381.585(0.077)	128.8220	204.989	
0	22	3	20 +	0	21	3	19 +		424393.953(0.065)	136.4660	162.866	
0	22	-6	16	0	21	-6	15		424408.312(0.078)	128.8060	204.990	
0	22	-3	20	0	21	-3	19		424409.893(0.065)	136.4750	162.841	
0	22	6	17	0	21	6	16		424454.571(0.077)	128.7830	204.942	
0	10	3	8 +	0	9	2	7 +		424464.314(0.015)	4.1977	35.383	
1	22	-5	18	1	21	-5	17		424647.892(0.093)	132.1390	330.306	
0	12	2	10 +	0	11	1	11 +		424662.300(0.019)	2.0439	42.720	
1	22	5	17	1	21	5	16		424741.319(0.088)	131.9980	330.842	
2	8	2	7 -	2	7	1	6 -		424764.077(2.317)	3.8752	277.247	
0	22	5	18 +	0	21	5	17 +		424775.020(0.068)	131.9750	187.851	
0	22	5	17 -	0	21	5	16 -		424815.665(0.068)	131.9750	187.853	
0	22	5	18	0	21	5	17		424859.224(0.067)	131.8040	187.798	
0	22	-5	17	0	21	-5	16		424866.663(0.068)	131.7980	187.818	
1	22	-4	18	1	21	-4	17		424961.244(0.094)	134.6550	316.904	
1	22	3	20 +	1	21	3	19 +		425066.685(0.084)	136.5870	305.043	
2	11	3	8 -	2	11	2	9 +		425070.057(4.195)	7.4941	311.071	
0	23	-1	23	0	22	-1	22		425207.904(0.093)	144.9910	158.536	
0	23	1	23 +	0	22	1	22 +		425229.070(0.093)	144.8370	158.491	
2	22	2	20	2	21	2	19		425230.743(1.152)	125.2710	427.452	
0	19	-2	18	0	18	1	17		425269.743(0.054)	9.4843	113.611	
0	22	4	19 -	0	21	4	18 -		425277.024(0.064)	134.5360	173.865	
0	22	-4	19	0	21	-4	18		425345.239(0.064)	134.1990	173.821	
1	22	-1	21	1	21	-1	20		425394.024(0.094)	137.5730	294.877	
1	24	-1	23	1	23	2	22		425428.407(0.198)	13.9503	325.073	
0	23	0	23	0	22	0	22		425733.563(0.093)	145.0090	158.449	
1	4	4	1	1	3	3	1		425743.562(0.082)	4.0315	159.812	
0	23	0	23 +	0	22	0	22 +		425764.752(0.094)	144.8540	158.403	
0	19	2	18 -	0	18	1	17 -		425950.472(0.055)	9.5032	113.582	
0	22	4	18 +	0	21	4	17 +		426020.894(0.065)	134.5380	173.923	
0	22	4	18	0	21	4	17		426066.762(0.065)	134.2080	173.881	
1	22	4	19	1	21	4	18		426209.386(0.082)	133.9110	316.516	
1	22	5	18 +	1	21	5	17 +		426318.235(0.096)	131.2870	329.462	

TABLE II. (Continued.)

v_1'	J'	K_a'	$K_c' P'$	v_2'	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm^{-1}	Ref. ^b
2	4	2	2	2	3	-3	1		426334.366(7.046)	0.0037	287.223	
1	22	5	17 -	1	21	5	16 -		426361.204(0.096)	131.2870	329.465	
1	22	4	19 -	1	21	4	18 -		426646.121(0.092)	134.1020	315.614	
0	24	1	23 -	0	23	2	22 -		426721.419(0.116)	14.2125	182.391	
0	23	2	21	0	23	-1	23		426745.645(0.404)	4.0E-7	172.719	
1	22	3	20	1	21	3	19		426861.694(0.086)	135.0380	305.345	
0	24	1	23	0	23	-2	22		426981.734(0.113)	14.1825	182.392	
1	6	4	3 -	1	5	3	2 -		426982.343(0.119)	4.1035	165.683	
1	6	4	2 +	1	5	3	3 +		426988.520(0.119)	4.1035	165.683	
0	24	-3	22	0	23	3	20		427087.522(0.141)	0.0027	192.977	
1	22	4	18 -	1	21	4	17 +		427432.075(0.097)	134.1070	315.677	
0	21	3	18	0	20	-3	18		427479.954(0.080)	0.0155	149.323	
2	10	3	7 -	2	10	2	8 +		427548.540(4.201)	6.7349	303.882	
0	23	-1	23	0	22	0	22		427801.197(0.097)	22.0751	158.449	
1	11	3	8 -	1	10	2	9 -		427831.240(0.051)	3.9806	184.330	
0	23	1	23 +	0	22	0	22 +		427869.114(0.097)	22.2127	158.403	
1	22	5	17	1	22	4	19		428013.523(0.304)	13.1500	330.733	
1	22	-3	19	1	21	-3	18		428422.210(0.107)	135.5290	306.609	
1	11	-2	9	1	10	1	10		428488.789(0.067)	0.6577	177.895	
1	15	-2	13	1	14	-1	13		428674.137(0.084)	1.8461	212.949	
1	13	2	12	1	12	1	12		429189.844(0.066)	0.9819	192.278	
1	21	5	16	1	21	4	18		429481.590(0.282)	12.5442	316.516	
2	9	3	6 -	2	9	2	7 +		429575.994(4.208)	5.9824	297.356	
2	18	3	15	2	17	2	15		429699.410(4.382)	3.5507	376.688	
0	22	3	19 -	0	21	3	18 -		430482.385(0.069)	136.5510	163.603	
0	22	3	19	0	21	3	18		430506.096(0.069)	136.5610	163.582	
0	10	3	7 -	0	9	2	8 -		430566.904(0.015)	4.1234	35.191	
1	20	5	15	1	20	4	17		430840.148(0.266)	11.8802	302.950	
1	22	3	19 -	1	21	3	18 -		431171.279(0.130)	136.6890	305.809	
2	8	3	5 -	2	8	2	6 +		431208.387(4.213)	5.2318	291.491	
1	19	5	14	1	19	4	16		432080.233(0.255)	11.1983	290.035	
2	13	3	11 +	2	13	2	12 -		432239.727(4.301)	8.8598	326.973	
2	12	3	10 +	2	12	2	11 -		432265.952(4.279)	8.1379	318.574	
2	14	3	12 +	2	14	2	13 -		432377.223(4.330)	9.5774	336.012	
0	13	-2	12	0	12	-1	12		432397.321(0.021)	0.0053	50.231	
2	11	3	9 +	2	11	2	10 -		432425.906(4.262)	7.4128	310.819	
2	7	3	4 -	2	7	2	5 +		432501.181(4.218)	4.4777	286.284	
2	10	3	8 +	2	10	2	9 -		432690.301(4.249)	6.6845	303.707	
2	15	3	13 +	2	15	2	14 -		432708.736(4.366)	10.2894	345.693	
1	10	-3	7	1	9	-2	7		432810.385(0.033)	4.2252	178.627	
2	24	0	24 +	2	23	1	23 +		432965.370(0.689)	25.9728	431.142	
2	9	3	7 +	2	9	2	8 -		433030.928(4.240)	5.9526	297.239	
1	7	-3	4	1	6	2	5		433150.274(0.064)	0.0004	161.268	
1	18	5	13	1	18	4	15		433203.579(0.248)	10.5128	277.770	
2	16	3	14 +	2	16	2	15 -		433264.457(4.411)	10.9938	356.014	
2	8	3	6 +	2	8	2	7 -		433421.004(4.235)	5.2153	291.416	
2	6	3	3 -	2	6	2	4 +		433507.160(4.223)	3.7121	281.732	
2	21	-1	21	2	20	-2	19		433538.017(1.703)	18.4207	394.927	
2	11	-3	9	2	10	-2	9		433548.871(2.522)	0.1588	297.123	
0	22	2	20	0	21	2	19		433579.593(0.071)	138.0140	157.381	
0	22	2	20 +	0	21	2	19 +		433632.589(0.071)	137.9660	157.375	
2	7	3	5 +	2	7	2	6 -		433835.492(4.231)	4.4692	286.239	
0	16	2	14	0	15	1	14		434061.337(0.026)	0.0034	80.432	
2	17	3	15 +	2	17	2	16 -		434074.034(4.466)	11.6884	366.973	
1	17	5	12	1	17	4	14		434216.288(0.243)	9.8285	266.154	
2	6	3	4 +	2	6	2	5 -		434251.396(4.230)	3.7082	281.707	
2	5	3	2 -	2	5	2	3 +		434274.761(4.226)	2.9227	277.835	
1	6	-4	2	1	5	-3	2		434504.079(0.126)	4.1404	167.369	
2	5	3	3 +	2	5	2	4 -		434648.022(4.230)	2.9212	277.822	
2	22	-12	10	2	21	-12	9		434724.368(1.739)	93.8094	628.223	
2	4	3	1 -	2	4	2	2 +		434846.864(4.228)	2.0872	274.589	
2	4	3	2 +	2	4	2	3 -		435007.205(4.230)	2.0867	274.584	
1	16	5	11	1	16	4	13		435125.987(0.240)	9.1465	255.187	

TABLE II. (Continued.)

v_c'	J'	$K_{a'}$	$K_{c'} P'$	v_c''	J''	$K_{a''}$	$K_{c''} P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
2	18	3	16 +	2	18	2	17 -		435166.122(4.533)	12.3706	378.569	
2	3	3	0 -	2	3	2	1 +		435259.969(4.230)	1.1573	271.995	
2	3	3	1 +	2	3	2	2 -		435313.507(4.231)	1.1572	271.993	
1	15	5	10	1	15	4	12		435940.585(0.238)	8.4662	244.869	
2	7	2	5 +	2	6	1	6 +		435961.769(2.541)	3.0749	271.741	
0	16	1	15	0	15	-1	15		436559.874(0.063)	0.0004	76.301	
2	19	3	17 +	2	19	2	18 -		436567.926(4.613)	13.0375	390.802	
2	22	-11	11	2	21	-11	10		436650.506(39.582)	87.9919	595.491	
1	14	5	9	1	14	4	11		436667.741(0.237)	7.7866	235.198	
0	23	-2	22	0	22	-2	21		437078.000(0.079)	144.1150	167.813	
0	23	2	22 -	0	22	2	21 -		437115.026(0.079)	144.0460	167.810	
1	13	5	8	1	13	4	10		437314.662(0.236)	7.1058	226.175	
0	20	-2	19	0	19	1	18		437521.746(0.065)	10.3789	125.919	
0	25	-3	23	0	24	3	21		437763.234(0.175)	0.0017	208.687	
1	12	5	7	1	12	4	9		437888.037(0.235)	6.4218	217.798	
0	20	2	19 -	0	19	1	18 -		438144.819(0.066)	10.3991	125.894	
1	10	3	8	1	9	2	8		438242.017(0.037)	4.1290	176.799	
1	11	5	6	1	11	4	8		438394.024(0.235)	5.7316	210.067	
2	5	2	3	2	4	-3	2		438476.351(6.658)	0.0102	290.221	
1	10	5	5	1	10	4	7		438838.265(0.235)	5.0312	202.982	
2	19	3	16	2	18	2	16		438896.188(4.558)	3.8769	388.383	
1	9	5	4	1	9	4	6		439225.899(0.234)	4.3155	196.542	
1	8	5	3	1	8	4	5		439561.577(0.235)	3.5766	190.748	
1	7	5	2	1	7	4	4		439849.471(0.235)	2.8028	185.598	
1	6	5	1	1	6	4	3		440093.284(0.235)	1.9754	181.092	
1	5	5	0	1	5	4	2		440296.253(0.235)	1.0619	177.230	
0	19	2	17	0	18	-2	17		441013.190(0.086)	0.0014	115.704	
1	13	3	11	1	12	-2	10		441396.527(0.082)	0.1466	199.953	
0	24	0	24 +	0	23	1	23 +		441764.595(0.106)	23.3882	172.675	
0	24	0	24	0	23	-1	23		441771.786(0.106)	23.2363	172.719	
0	11	3	9 +	0	10	2	8 +		441793.287(0.016)	4.4082	41.885	
1	16	-1	15	1	15	1	15		442244.544(0.150)	0.2148	218.452	
0	23	1	22	0	22	1	21		442248.515(0.079)	144.5130	166.529	
0	23	1	22 -	0	22	1	21 -		442343.238(0.079)	144.4360	166.512	
0	23	14	9 +	0	22	14	8 +		442810.704(0.390)	91.7282	468.884	
0	23	14	10 -	0	22	14	9 -		442810.704(0.390)	91.7282	468.884	
0	23	13	10 -	0	22	13	9 -		442871.180(0.334)	99.1303	426.803	
0	23	13	11 +	0	22	13	10 +		442871.180(0.334)	99.1303	426.803	
0	23	13	11	0	22	13	10		442889.217(0.331)	99.1203	426.770	
0	23	12	12	0	22	12	11		442913.187(0.284)	105.9900	387.802	
0	23	12	11 +	0	22	12	10 +		442948.589(0.285)	105.9740	387.798	
0	23	12	12 -	0	22	12	11 -		442948.589(0.285)	105.9740	387.798	
0	23	-13	10	0	22	-13	9		442950.226(0.334)	99.0921	426.745	
0	23	11	13	0	22	11	12		442962.954(0.242)	112.3020	351.922	
2	9	3	6	2	10	-2	9		442971.098(8.830)	7.7E-6	297.123	
0	23	12	11	0	22	-12	10		442993.086(0.285)	105.9500	387.750	
0	23	-11	12	0	22	-11	11		443026.703(0.241)	112.2670	351.867	
0	23	11	12 -	0	22	11	11 -		443033.663(0.242)	112.2654	351.883	
0	23	11	13 +	0	22	11	12 +		443033.663(0.242)	112.2654	351.883	
0	23	10	14	0	22	10	13		443045.809(0.203)	118.0530	319.131	
0	23	-10	13	0	22	-10	12		443066.453(0.202)	118.0400	319.097	
0	23	10	14 -	0	22	10	13 -		443119.574(0.203)	118.0120	319.075	
0	23	10	13 +	0	22	10	12 +		443119.575(0.203)	118.0120	319.075	
0	23	-9	14	0	22	-9	13		443133.121(0.167)	123.2610	289.439	
0	23	9	15	0	22	9	14		443163.324(0.168)	123.2460	289.438	
0	23	9	14 -	0	22	9	13 -		443207.773(0.167)	123.2205	289.390	
0	23	9	15 +	0	22	9	14 +		443207.773(0.167)	123.2205	289.390	
0	23	-8	15	0	22	-8	14		443250.005(0.136)	127.9250	262.891	
0	23	8	16 -	0	22	8	15 -		443312.662(0.136)	127.8895	262.837	
0	23	8	15 +	0	22	8	14 +		443312.663(0.136)	127.8895	262.837	
0	23	8	16	0	22	8	15		443316.766(0.137)	127.8880	262.855	
0	24	-1	24	0	23	-1	23		443414.717(0.108)	151.3060	172.719	
0	24	1	24 +	0	23	1	23 +		443436.036(0.109)	151.1380	172.675	

TABLE II. (Continued.)

v_1'	J'	K_a'	K_c'	P'	v_1''	J''	K_a''	K_c''	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	23	-7	16		0	22	-7	15		443443.678(0.111)	443443.678(0.111)	132.0280	239.456	
0	23	7	17	+	0	22	7	16	+	443465.881(0.110)	443465.881(0.110)	132.0160	239.421	
0	23	7	16	-	0	22	7	15	-	443465.931(0.110)	443465.931(0.110)	132.0160	239.421	
0	23	7	17		0	22	7	16		443517.031(0.111)	443517.031(0.111)	131.9880	239.403	
0	23	3	21	+	0	22	3	20	+	443522.266(0.076)	443522.266(0.076)	142.8810	177.022	
0	23	-3	21		0	22	-3	20		443534.633(0.076)	443534.633(0.076)	142.8950	176.997	
0	23	6	18	-	0	22	6	17	-	443723.869(0.091)	443723.869(0.091)	135.5910	219.145	
0	23	6	17	+	0	22	6	16	+	443726.012(0.091)	443726.012(0.091)	135.5910	219.145	
0	23	-6	17		0	22	-6	16		443754.656(0.092)	443754.656(0.092)	135.5740	219.147	
0	23	6	18		0	22	6	17		443801.434(0.091)	443801.434(0.091)	135.5510	219.100	
0	24	0	24		0	23	0	23		443839.419(0.108)	443839.419(0.108)	151.3200	172.650	
0	24	0	24	+	0	23	0	23	+	443868.956(0.109)	443868.956(0.109)	151.1510	172.605	
0	23	5	19	+	0	22	5	18	+	444171.845(0.080)	444171.845(0.080)	138.6060	202.019	
0	23	5	18	-	0	22	5	17	-	444232.366(0.080)	444232.366(0.080)	138.6060	202.023	
0	23	5	19		0	22	5	18		444263.926(0.079)	444263.926(0.079)	138.2720	201.970	
0	23	-5	18		0	22	-5	17		444280.690(0.080)	444280.690(0.080)	138.2660	201.990	
0	23	4	20	-	0	22	4	19	-	444687.590(0.076)	444687.590(0.076)	141.0510	188.051	
0	23	-4	20		0	22	-4	19		444750.967(0.076)	444750.967(0.076)	140.8940	188.008	
1	5	4	2		1	4	3	2		444923.493(0.081)	444923.493(0.081)	4.1313	162.389	
0	24	-1	24		0	23	0	23		445482.350(0.111)	445482.350(0.111)	23.2514	172.650	
0	24	1	24	+	0	23	0	23	+	445540.397(0.112)	445540.397(0.112)	23.4035	172.605	
0	23	4	19	+	0	22	4	18	+	445688.200(0.076)	445688.200(0.076)	141.0550	188.133	
0	23	4	19		0	22	4	18		445741.800(0.076)	445741.800(0.076)	140.9020	188.093	
0	16	1	15		0	15	0	15		447590.464(0.056)	447590.464(0.056)	0.0001	75.933	
2	22	-1	22		2	21	-2	20		447612.922(1.653)	447612.922(1.653)	19.9508	408.124	
2	20	3	17		2	19	2	17		447733.643(4.590)	447733.643(4.590)	5.1298	400.772	
1	25	-1	24		1	24	2	23		448293.861(0.206)	448293.861(0.206)	15.2747	340.317	
0	25	1	24	-	0	24	2	23	-	449493.694(0.128)	449493.694(0.128)	15.4437	197.589	
0	25	1	24		0	24	-2	23		449701.580(0.125)	449701.580(0.125)	15.4075	197.589	
0	21	2	20	-	0	20	1	19	-	450504.265(0.078)	450504.265(0.078)	11.3597	138.822	
0	23	3	20	-	0	22	3	19	-	450710.132(0.081)	450710.132(0.081)	142.9970	177.962	
0	23	3	20		0	22	3	19		450732.929(0.081)	450732.929(0.081)	143.0130	177.942	
0	11	3	8	-	0	10	2	9	-	450915.578(0.015)	450915.578(0.015)	4.2881	41.600	
2	2	2	0		2	3	-1	3		451506.669(7.933)	451506.669(7.933)	5.2E-6	268.007	
0	22	3	19		0	21	-3	19		452740.283(0.102)	452740.283(0.102)	0.0083	162.841	
0	23	2	21		0	22	2	20		453005.135(0.082)	453005.135(0.082)	144.3510	171.843	
0	23	2	21	+	0	22	2	20	+	453063.263(0.082)	453063.263(0.082)	144.3010	171.839	
2	25	0	25	+	2	24	1	24	+	453352.078(0.708)	453352.078(0.708)	27.4729	446.076	
2	3	1	2		2	2	-2	1		453736.427(6.080)	453736.427(6.080)	0.0001	280.196	
1	7	-4	3		1	6	-3	3		453765.800(0.125)	453765.800(0.125)	4.3229	171.221	
1	16	-1	15		1	15	0	15		454198.192(0.137)	454198.192(0.137)	0.0403	218.053	
0	13	2	11		0	12	-1	12		454743.809(0.024)	454743.809(0.024)	1.8673	50.231	
1	12	-2	10		1	11	1	11		454894.863(0.080)	454894.863(0.080)	0.7814	184.780	
0	24	-2	23		0	23	-2	22		455598.125(0.092)	455598.125(0.092)	150.4500	182.392	
0	24	2	23	-	0	23	2	22	-	455637.205(0.092)	455637.205(0.092)	150.3760	182.391	
0	24	2	22		0	24	-1	24		455637.626(0.488)	455637.626(0.488)	2.9E-7	187.510	
0	13	2	11	+	0	12	1	12	+	455852.177(0.024)	455852.177(0.024)	1.8906	50.180	
0	17	2	15		0	16	1	15		456255.303(0.034)	456255.303(0.034)	0.0023	90.863	
1	14	2	13		1	13	1	13		457366.809(0.080)	457366.809(0.080)	0.7370	200.389	
2	21	3	18		2	20	2	18		458531.177(4.442)	458531.177(4.442)	7.6010	413.812	
0	12	3	10	+	0	11	2	9	+	458543.509(0.017)	458543.509(0.017)	4.6181	49.052	
0	14	-2	13		0	13	-1	13		458592.724(0.027)	458592.724(0.027)	0.0028	58.307	
0	25	0	25	+	0	24	1	24	+	460307.890(0.123)	460307.890(0.123)	24.5828	187.466	
0	25	0	25		0	24	-1	24		460308.373(0.123)	460308.373(0.123)	24.4156	187.510	
0	24	1	23		0	23	1	22		460314.852(0.092)	460314.852(0.092)	150.7770	181.280	
0	24	1	23	-	0	23	1	22	-	460408.525(0.092)	460408.525(0.092)	150.6950	181.267	
0	25	-1	25		0	24	-1	24		461609.863(0.125)	461609.863(0.125)	157.6190	187.510	
0	25	1	25	+	0	24	1	24	+	461631.225(0.125)	461631.225(0.125)	157.4360	187.466	
0	25	0	25		0	24	0	24		461951.304(0.125)	461951.304(0.125)	157.6290	187.455	
0	25	0	25	+	0	24	0	24	+	461979.331(0.125)	461979.331(0.125)	157.4460	187.411	
0	24	14	10	+	0	23	14	9	+	462042.665(0.462)	462042.665(0.462)	100.3070	483.655	
0	24	14	11	-	0	23	14	10	-	462042.665(0.462)	462042.665(0.462)	100.3070	483.655	
2	8	3	5		2	9	-2	8		462052.077(8.867)	462052.077(8.867)	6.8E-7	290.841	

TABLE II. (Continued.)

ν_i'	J'	$K_{a'}$	$K_{c'}$	P'	ν_i''	J''	$K_{a''}$	$K_{c''}$	P''	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	24	13	11	-	0	23	13	10	-	462108.752(0.396)	462108.752(0.396)	107.3967	441.576	
0	24	13	12	+	0	23	13	11	+	462108.752(0.396)	462108.752(0.396)	107.3967	441.576	
0	24	13	12	0	0	23	13	11		462125.931(0.393)	462125.931(0.393)	107.3860	441.543	
0	24	12	13	0	0	23	12	12		462155.528(0.337)	462155.528(0.337)	113.9670	402.576	
0	24	-13	11	0	0	23	-13	10		462189.016(0.395)	462189.016(0.395)	107.3560	441.520	
0	24	12	12	+	0	23	12	11	+	462192.732(0.338)	462192.732(0.338)	113.9500	402.573	
0	24	12	13	-	0	23	12	12	-	462192.732(0.338)	462192.732(0.338)	113.9500	402.573	
0	24	11	14	0	0	23	11	13		462212.657(0.286)	462212.657(0.286)	120.0130	366.698	
0	24	-12	12	0	0	23	-12	11		462237.212(0.337)	462237.212(0.337)	113.9250	402.527	
0	24	-11	13	0	0	23	-11	12		462277.174(0.286)	462277.174(0.286)	119.9770	366.644	
0	24	11	13	-	0	23	11	12	-	462285.475(0.287)	462285.475(0.287)	119.9745	366.661	
0	24	11	14	+	0	23	11	13	+	462285.475(0.287)	462285.475(0.287)	119.9745	366.661	
0	24	10	15	0	0	23	10	14		462305.298(0.240)	462305.298(0.240)	125.3210	333.910	
0	24	-10	14	0	0	23	-10	13		462325.276(0.239)	462325.276(0.239)	125.5080	333.876	
0	24	10	15	-	0	23	10	14	-	462380.570(0.240)	462380.570(0.240)	125.4790	333.856	
0	24	10	14	+	0	23	10	13	+	462380.572(0.240)	462380.572(0.240)	125.4790	333.856	
0	24	9	15	0	0	23	9	14		462435.364(0.291)	462435.364(0.291)	130.4950	304.220	
0	24	9	15	-	0	23	9	14	-	462480.432(0.197)	462480.432(0.197)	130.4689	304.174	
0	24	9	16	+	0	23	9	15	+	462480.432(0.197)	462480.432(0.197)	130.4689	304.174	
0	24	-8	16	0	0	23	-8	15		462537.690(0.160)	462537.690(0.160)	134.9780	277.676	
0	24	8	17	-	0	23	8	16	-	462601.367(0.160)	462601.367(0.160)	134.9420	277.624	
0	24	8	16	+	0	23	8	15	+	462601.369(0.160)	462601.369(0.160)	134.9420	277.624	
0	24	8	17	0	0	23	8	16		462606.918(0.161)	462606.918(0.161)	134.9410	277.643	
0	24	3	22	+	0	23	3	21	+	462606.956(0.089)	462606.956(0.089)	149.2830	191.816	
0	24	-3	22	0	0	23	-3	21		462616.208(0.089)	462616.208(0.089)	149.3020	191.792	
0	24	-7	17	0	0	23	-7	16		462757.039(0.130)	462757.039(0.130)	138.9080	254.248	
0	24	7	18	+	0	23	7	17	+	462778.537(0.129)	462778.537(0.129)	138.8960	254.213	
0	24	7	17	-	0	23	7	16	-	462778.625(0.129)	462778.625(0.129)	138.8960	254.213	
0	24	7	18	0	0	23	7	17		462832.302(0.130)	462832.302(0.130)	138.8680	254.197	
0	24	6	19	-	0	23	6	18	-	463074.646(0.106)	463074.646(0.106)	142.3210	233.946	
0	24	6	18	+	0	23	6	17	+	463078.081(0.106)	463078.081(0.106)	142.3210	233.946	
0	24	-6	18	0	0	23	-6	17		463108.462(0.107)	463108.462(0.107)	142.3040	233.949	
0	22	2	21	-	0	21	1	20	-	463109.248(0.091)	463109.248(0.091)	12.3809	152.362	
0	24	6	19	0	0	23	6	18		463155.553(0.107)	463155.553(0.107)	142.2800	233.903	
0	25	-1	25	0	0	24	0	24		463252.794(0.128)	463252.794(0.128)	24.4270	187.455	
0	25	1	25	+	0	24	0	24	+	463302.666(0.128)	463302.666(0.128)	24.5943	187.411	
0	24	5	20	+	0	23	5	19	+	463578.596(0.093)	463578.596(0.093)	145.2090	216.835	
0	24	5	19	-	0	23	5	18	-	463667.045(0.093)	463667.045(0.093)	145.2090	216.841	
0	24	5	20	0	0	23	5	19		463678.370(0.093)	463678.370(0.093)	144.5990	216.789	
0	24	-5	19	0	0	23	-5	18		463712.524(0.093)	463712.524(0.093)	144.5940	216.810	
1	6	4	3	1	5	3	3	3		464070.309(0.080)	464070.309(0.080)	4.2852	165.612	
0	24	4	21	-	0	23	4	20	-	464093.529(0.088)	464093.529(0.088)	147.5470	202.884	
0	24	-4	21	0	0	23	-4	20		464154.006(0.088)	464154.006(0.088)	147.4720	202.844	
0	24	4	20	+	0	23	4	19	+	465417.672(0.088)	465417.672(0.088)	147.5540	203.000	
0	24	4	20	0	0	23	4	19		465476.434(0.088)	465476.434(0.088)	147.4810	202.961	
1	26	-1	25	1	25	2	24	24		470720.698(0.212)	470720.698(0.212)	16.6143	356.177	
0	17	1	16	0	16	1	16	16		470872.343(0.081)	470872.343(0.081)	0.0003	86.218	
0	24	3	21	-	0	23	3	20	-	470955.470(0.095)	470955.470(0.095)	149.4370	192.996	
0	24	3	21	0	0	23	3	20		470975.638(0.094)	470975.638(0.094)	149.4560	192.977	
0	12	3	9	-	0	11	2	10	-	471640.917(0.016)	471640.917(0.016)	4.4308	48.646	
0	26	1	25	-	0	25	2	24	-	471743.629(0.140)	471743.629(0.140)	16.6933	213.404	
0	24	2	22	0	0	23	2	21		472306.698(0.094)	472306.698(0.094)	150.6740	186.954	
0	24	2	22	+	0	23	2	21	+	472369.548(0.095)	472369.548(0.095)	150.6230	186.952	
0	20	2	18	0	19	-2	18	18		472869.728(0.110)	472869.728(0.110)	0.0011	127.797	
2	26	0	26	+	2	25	1	25	+	473473.575(0.734)	473473.575(0.734)	28.9771	461.622	
0	25	-2	24	0	24	-2	23	23		474074.659(0.106)	474074.659(0.106)	156.7790	197.589	
0	25	2	24	-	0	24	2	23	-	474115.547(0.106)	474115.547(0.106)	156.6990	197.589	
2	22	3	19	2	21	2	19	19		474138.198(4.348)	474138.198(4.348)	9.6911	427.452	
0	13	3	11	+	0	12	2	10	+	474652.185(0.018)	474652.185(0.018)	4.8292	56.885	
0	23	2	22	-	0	22	1	21	-	476030.345(0.105)	476030.345(0.105)	13.4566	166.512	
1	17	-1	16	1	16	1	16	16		476156.777(0.186)	476156.777(0.186)	0.1797	228.402	
0	25	1	24	0	24	1	23	23		478317.971(0.106)	478317.971(0.106)	157.0450	196.635	
0	25	1	24	-	0	24	1	23	-	478409.480(0.106)	478409.480(0.106)	156.9580	196.625	

TABLE II. (Continued.)

v_1'	J'	K_a'	$K_c' P'$	v_2''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	26	0	26 +	0	25	1	25 +		478771.251(0.141)	25.7767	202.865	
2	4	1	3	2	3	-2	2		479003.242(6.050)	0.0002	282.765	
0	23	3	20	0	22	-3	20		479063.319(0.129)	0.0046	176.997	
0	18	2	16	0	17	1	16		479466.036(0.044)	0.0015	101.924	
0	26	1	26 +	0	25	1	25 +		479815.931(0.143)	163.7310	202.865	
0	17	1	16	0	16	0	16		480017.829(0.073)	4.3E-5	85.913	
2	7	3	4	2	8	-2	7		480378.724(8.898)	7.5E-8	285.205	
0	25	14	11 +	0	24	14	10 +		481271.931(0.540)	108.7050	499.067	
0	25	14	12 -	0	24	14	11 -		481271.931(0.540)	108.7050	499.067	
0	25	13	12 -	0	24	13	11 -		481343.989(0.464)	115.5063	456.990	
0	25	13	13 +	0	24	13	12 +		481343.989(0.464)	115.5063	456.990	
0	25	13	13	0	24	13	12		481360.177(0.461)	115.4950	456.958	
0	25	12	14	0	24	12	13		481395.969(0.395)	121.8110	417.992	
0	25	-13	12	0	24	-13	11		481425.240(0.463)	115.4640	456.937	
0	25	12	13 +	0	24	12	12 +		481434.948(0.397)	121.7930	417.990	
0	25	12	14 -	0	24	12	13 -		481434.948(0.397)	121.7930	417.990	
0	25	11	15	0	24	11	14		481461.095(0.335)	127.6120	382.116	
0	25	-12	13	0	24	-12	12		481479.238(0.395)	121.7670	417.945	
0	25	-11	14	0	24	-11	13		481526.181(0.334)	127.5750	382.064	
0	25	11	14 -	0	24	11	13 -		481535.877(0.336)	127.5727	382.081	
0	25	11	15 +	0	24	11	14 +		481535.877(0.336)	127.5727	382.081	
0	25	10	16	0	24	10	15		481564.287(0.281)	132.8970	349.331	
0	25	-10	15	0	24	-10	14		481583.477(0.279)	132.8840	349.297	
0	25	10	16 -	0	24	10	15 -		481640.869(0.280)	132.8540	349.280	
0	25	10	15 +	0	24	10	14 +		481640.873(0.280)	132.8540	349.280	
0	25	3	23 +	0	24	3	22 +		481644.918(0.102)	155.6740	207.247	
0	25	-3	23	0	24	-3	22		481651.350(0.102)	155.6960	207.223	
0	25	9	17	0	24	9	16		481674.755(0.230)	137.6850	319.644	
0	25	-9	16	0	24	-9	15		481708.836(0.231)	137.6680	319.645	
0	25	9	16 -	0	24	9	15 -		481753.418(0.230)	137.6413	319.600	
0	25	9	17 +	0	24	9	16 +		481753.418(0.230)	137.6413	319.600	
0	25	-8	17	0	24	-8	16		481827.398(0.187)	141.9720	293.105	
0	25	8	18 -	0	24	8	17 -		481891.901(0.186)	141.9350	293.055	
0	25	8	17 +	0	24	8	16 +		481891.904(0.186)	141.9350	293.055	
0	25	8	18	0	24	8	17		481898.978(0.187)	141.9340	293.074	
0	25	-7	18	0	24	-7	17		482074.649(0.151)	145.7430	269.684	
0	25	7	19 +	0	24	7	18 +		482095.286(0.150)	145.7300	269.650	
0	25	7	18 -	0	24	7	17 -		482095.437(0.150)	145.7300	269.650	
0	25	7	19	0	24	7	18		482151.629(0.151)	145.7010	269.635	
0	25	6	20 -	0	24	6	19 -		482432.903(0.123)	149.0180	249.393	
0	25	6	19 +	0	24	6	18 +		482438.297(0.123)	149.0180	249.393	
0	25	-6	19	0	24	-6	18		482470.116(0.124)	148.9990	249.397	
0	25	6	20	0	24	6	19		482517.298(0.124)	148.9760	249.353	
1	13	-2	11	1	12	1	12		482787.799(0.095)	0.8874	192.278	
0	25	5	21 +	0	24	5	20 +		482994.893(0.107)	151.7880	232.299	
0	25	5	21	0	24	5	20		483100.668(0.107)	150.8210	232.255	
0	25	5	20 -	0	24	5	19 -		483121.940(0.107)	151.7890	232.307	
0	25	-5	20	0	24	-5	19		483165.850(0.108)	150.8160	232.278	
0	25	4	22 -	0	24	4	21 -		483491.067(0.102)	154.0280	218.365	
0	25	-4	22	0	24	-4	21		483549.704(0.102)	153.9880	218.326	
0	25	4	21 +	0	24	4	20 +		485216.211(0.102)	154.0380	218.525	
0	25	4	21	0	24	4	20		485278.335(0.102)	153.9990	218.488	
0	15	-2	14	0	14	-1	14		485298.862(0.035)	0.0015	66.997	
0	25	2	23	0	25	-1	25		485503.934(0.582)	6.2E-6	202.908	
1	17	-1	16	1	16	0	16		486237.004(0.171)	0.0255	228.066	
0	14	2	12	0	13	-1	13		487513.155(0.032)	1.7056	58.307	
0	14	2	12 +	0	13	1	13 +		488630.035(0.033)	1.7263	58.256	
0	24	2	23 -	0	23	1	22 -		489324.312(0.119)	14.5790	181.267	
0	14	3	12 +	0	13	2	11 +		490073.379(0.021)	5.0446	65.386	
0	25	3	22 -	0	24	3	21 -		491194.392(0.109)	155.8700	208.705	
0	25	3	22	0	24	3	21		491210.556(0.109)	155.8920	208.687	

TABLE II. (Continued)

ν_t'	J'	K_a'	$K_c' P'$	ν_t''	J''	K_a''	$K_c'' P''$	Observed frequency (unc.)/ MHz	Calculated frequency (unc.)/ MHz	Line strength ^a	Energy lower st./ cm ⁻¹	Ref. ^b
0	25	2	23	0	24	2	22		491476.171(0.107)	156.9830	202.708	
0	25	2	23 +	0	24	2	22 +		491543.200(0.108)	156.9300	202.709	
0	26	2	25 -	0	25	2	24 -		492552.045(0.121)	163.0180	213.404	
0	13	3	10 -	0	12	2	11 -		492828.276(0.018)	4.5471	56.328	
2	3	3	1 +	2	2	2	0 +		493563.892(4.231)	3.2749	270.050	
2	3	3	0 -	2	2	2	1 -		493574.677(4.231)	3.2748	270.050	
1	5	-5	1	1	4	-4	0		495823.579(0.324)	4.9578	174.800	
0	26	1	25 -	0	25	1	24 -		496365.483(0.121)	163.2250	212.583	
2	5	4	1 +	2	5	3	2 -		496978.315(6.459)	2.0323	292.321	
2	5	4	2 -	2	5	3	3 +		496980.124(6.459)	2.0323	292.320	
2	6	3	3	2	7	-2	6		497871.803(8.922)	5.4E-7	280.219	
2	4	4	0 +	2	4	3	1 -		498441.358(6.453)	1.1087	289.094	
2	4	4	1 -	2	4	3	2 +		498441.810(6.453)	1.1087	289.094	

^aIn cases where the line strength is less than 0.0001, exponential notation is used. These values also incorporate the dipole moment factor as discussed in the text.

^bAn asterisk (*) preceding the reference indicates that the measured line is not included in the fit.

3.1 References to the Tables

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