Experimental Energy Levels of the Water Molecule

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Experimentally derived energy levels are presented for 12248 vibration–rotation states of the $H_2{}^{16}O$ isotopomer of water, more than doubling the number in previous, disparate, compilations. For each level an error and reference to source data is given. The levels have been checked using energy levels derived from sophisticated variational calculations. These levels span 107 vibrational states including members of all polyads up to and including 8ν. Band origins, in some cases estimates, are presented for 101 vibrational modes. © *2001 American Institute of Physics.*

Key words: band origins; energy levels; rotation; vibration; water.

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1. Introduction

Water is arguably the single most important molecule. It is considered fundamental to life, ubiquitous in the Universe, is the dominant greenhouse gas, responsible for about 70% of the known absorption of sunlight in the Earth's atmosphere, and is the major product of nearly all combustion processes. It is therefore no surprise that the high resolution spectrum of water has been the subject of decades of intensive study. However the rotation–vibration spectrum of water is both dense and complicated. This means that although there have been a great many successes in the spectral analysis of water, there remains much to be done. For example, after nearly 30 yr of trying a particularly dense absorption spectrum of water recorded in sunspots has now been successfully analyzed [Polyansky *et al.* (1997a)]. But this work only assigned about the strongest 15% of the observed transitions.

A compact way of representing successful spectral assignments is via energy levels. Unlike other parameterizations, this method does not rely on any underlying model or effective Hamiltonian. Tables of vibration–rotation energy levels are built by setting the (000) 0_{00} ground energy level as the zero of energy and using transition frequencies to define the relative energies of the excited states. Cleary measurements of new transitions connecting particular states allow the precision with which the energies of these states are determined to be systematically improved. There are many partial tabulations of water rotation–vibration energy levels in the literature (see citations below) but there has been no comprehensive one for a considerable time, if ever.

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Spectral analysis of water has taken on a new vigor with the use of variational calculations to perform the theoretical analysis replacing traditional perturbation based methods [Partridge and Schwenke (1997), Schwenke (1998), Polyansky *et al.* (1997a), (1997b), (1997c), (1997d), (1997e), (1998), Carleer *et al.* (1999), Zobov *et al.* (1999), (2000a), (2000b), Bykov *et al.* (2001), Haus *et al.* (2001), Schermaul *et al.* (2001)]. Studies using variational calculations have greatly extended the range, both in vibrational and rotational quanta, of energy levels that have been determined. The result has been an almost threefold increase in the number of energy levels of the main isotopomer of water, $H_2^{16}O$, that can be determined directly from experimental data.

Tabulations of experimental rotation–vibration energy levels are important for a number of purposes. They are necessary for spectral analysis, where the use of combination differences provides the most secure way of making assignments. They can be used to compute partition functions and other thermodynamic quantities [e.g., Vidler and Tennyson (2000)]. Energy levels are important for developing theoretical models, either by fits to effective Hamiltonians [(Polyansky (1985), Tyuterev *et al.* (1995), Coudert (1997)] or, in conjunction with variational calculations, by fits which yield spectroscopically determined (effective) potential energy surfaces [Carter and Handy (1987), Jensen (1989), Halonen and Carrington (1988), Kauppi and Halonen (1990), Jensen *et al.* (1994), Paulse and Tennyson (1994), Polyansky *et al.* (1994), (1996a), Partridge and Schwenke (1997), Kain *et al.* (2001)]. Furthermore the tabulated energy levels can be used to test ideas on the underlying level structure [Child *et al.* (1999)] or as the starting point for further theoretical investigations, such as the search for ortho–para switching transitions [Chapovsky (1999)]. Probably the most important use for detailed tabulations of energy rules is that, given a knowledge of selection rules, they allow for detailed and accurate spectra to be predicted for a whole variaty of situations which have yet to be probed. See Nela *et al.* (2000) for an example.

In this paper we present a tabulation of 12 248 experimentally determined energy levels of water belonging to 107 different vibrational states. These data are derived using published energy levels supplemented by data from analyzing 24 000 newly assigned transitions. Only the main and most important isotopomer of water, $H_2^{16}O$, is considered since this is the only one for which sufficient data are available to justify the comprehensive treatment given here. For each energy level derived, we also present an error based on stated measurement errors, the number of transitions used to obtain the level, which gives a measure of certainty, and reference(s) to data used in obtaining the level. As a check on the levels they have been compared with independent determinations made using variational calculations and both the best available spectroscopically determined potential [Partridge and Schwenke (1997)] and the best available *ab initio* procedure [Polyansky *et al.* (1999), Zobov *et al.* (2000b)].

2. Notation

As a triatomic asymmetric top molecule, water has three vibrational modes and three rotational modes. The vibrational states can be labeled by both normal mode and local mode notation. In the more standard normal mode notation which is valid for low levels of the stretching excitation, $(v_1 v_2 v_3)$ represents vibrational quanta in normal modes ν_1 (symmetric stretch), ν_2 (bend), and ν_3 (asymmetric stretch), respectively. In local mode notation [Halonen (1998)] $(mn)^{\pm} v_2$, m and n represent quanta of local stretch in symmetric $+$ or asymmetric $-$ symmetry combinations. Note if $m=n$ then the combination has to be symmetric and by convention the superscript is dropped. Previous spectral studies [Carleer *et al.* (1999), Zobov *et al.* (2000b)] have demonstrated that local modes give a much better description of the higher states. This situation is complicated by the prediction [Rose and Kellman (1996)] that it is only the predominantly stretching states for which this is true. However such highly excited bending states have yet to be observed.

In water there is a near coincidence of the frequencies of the symmetric stretch and asymmetric stretch modes, which in turn lie close to two quanta excitations of the bending mode. This means that the infrared and optical spectrum of water has a pronounced structure due to the closeness of several interacting vibrational states. It is conventional to label groups of interacting vibrations by a polyad number n where $n=v_1+v_2/2+v_3$ for even v_2. Polyads with even v_2 are labeled $n\nu$ and those with an extra quantum of v_2 bend are labeled $n\nu+\delta$. Polyads $n\nu$ and $n\nu+\delta$ each contain $(n+1)(n+2)/2$ vibrational states.

Rotational levels of water are labeled using standard asymmetric top notation as $J_{K_a K_c}$, where J is the rotational angular momentum, K_a is the projection of J along the A axis and K_c is its projection along the C axis. Since the A moment inertia is small K_a is a key rotational quantum number. High K_a states have in the past proved difficult to analyze as standard expansion techniques diverge for even low values of K_a [Polyansky (1985)]. The use of variational calculations, discussed below, has largely resolved the problems with high K_a states [Polyansky *et al.* (1997a)] and similar ones with the higher bending states [Polyansky *et al.* (1997d)].

Most of the labels used to characterize vibration–rotation energy levels are approximate. The only rigorous quantum numbers for water are the rotational angular momentum J, the (rotational) parity which is given by $p=(-1)^{(J+K_a+K_c)}$, and the symmetry of interchanging the two H atoms. This latter quantum number splits a spectrum into two, essentially distinct, series based on nuclear spin statistics. Ortho states have a nuclear spin statistical weight three times that of the para states $K_a+K_c+v_3$ is odd for ortho states and even for para states.

3. Method

The starting point for this study was the many published spectra of both hot [Camy-Peyret and Flaud (1975), (1976), Flaud and Camy-Peyret (1976), Flaud *et al.* (1976), (1977), (1979), Camy-Peyret *et al.* (1977), (1980), Pine *et al.* (1983), Polyansky *et al.* (1996b), Esplin *et al.* (1998), Lanquetin *et al.* (1999)] and cold [Camy-Peyret *et al.* (1985), Johns (1985), Mandin *et al.* (1986), (1988), Guelachvili and Rao (1986), Belov *et al.* (1987), Nakano *et al.* (1988), Chevillard *et al.* (1989), Toth (1991), (1993a), (1993b), (1994a), (1994b), (1998), (1999), Pearson *et al.* (1991), Matsushima *et al.* (1995), Paso and Horneman (1995), Flaud *et al.* (1997), Mikailenko *et al.* (1997), Harder and Brault (1997), Chen *et al.* (2000)] $H_2{}^{16}O$ vapor. In particular we used those which gave reliable tabulations of energy levels [Camy-Peyret and Flaud (1975), (1976), Flaud and Camy-Peyret (1976), Chevillard *et al.* (1989), Flaud *et al.* (1977), (1997), Toth (1994a), (1994b), (1997), (1998), (1999), Lanquetin (1997), Lanquetin *et al.* (1999)]. A compilation of the earlier work is given by Flaud *et al.* (1981).

In selecting which previous tabulations of energy levels to start from, only those which also estimate statistical errors were considered. To these previous energy level studies, we added the transitions assigned by us using variational calculations [Polyansky *et al.* (1997b), (1997c), (1997d), (1997e), (1998), Carleer *et al.* (1999), Zobov *et al.* (1999), (2000a), (2000b)]. Energy levels [Bykov *et al.* (2001)] and newly assigned transitions [Giver (2000), Haus *et al.* (2001), Schermaul *et al.* (2001)] which became available during the course of the work were also included.

The most rigorous method of obtaining experimental energy levels from transition data is to use the method of overdetermined linear equations as described by Flaud *et al.* (1976). This method may well not be practicable for the large dataset considered here; however since the method requires all the transition data, plus errors, as input, and since much of the transition data recorded in earlier studies was not available to us, an alternative approach was in any case necessary.

Gas phase water spectra were divided into catagories depending on whether the water was ''hot'' ($T \geqslant 1000$ K) or ''cold,'' approximately room temperature. The cold spectra were processed first. For the cold spectra, which covered the frequency region above 13 200 cm^{-1}, all transition data were reprocessed. The transitions of Mandin *et al.* (1986), with extra assignments by Polyansky *et al.* (1998), and Camy-Peyret *et al.* (1985) were taken electronically from HITRAN [Rothman *et al.* (1998)] and merged with more recent data of Carleer *et al.* (1999) and Zobov *et al.* (2000a) (2000b) to obtain reduced errors for individual frequencies. Energy levels were then generated starting from the recent low-lying energy levels of Lanquetin *et al.* (1999) whose data essentially reproduces those of Toth (1998). These low-lying levels have been determined to such high accuracy that the error in the upper state energy levels is almost entirely determined by the residual errors in the transition frequencies used. There were few problems with this step of the work, which covered data for the polyads $3\nu+\delta$, 4ν, $4\nu+\delta$, 5ν, $5\nu+\delta$, 6ν, 7ν, $7\nu+\delta$ and 8ν.

To this data were added the energy levels determined by Bykov *et al.* (2001) and some newly determined transitions due to Haus *et al.* (2001) and Schermaul *et al.* (2001). Finally the new assignments to the transitions of Mandin *et al.* (1986) due to Giver (2000), who interpreted Schwenke's (1998) work, were added. This last dataset has to be treated carefully as the new assignments do not all satisfy combination differences. Tables 8–17 present our energy levels derived from the cold spectra using 7955 assigned transitions of which 4044 were used to obtain energy levels in the original studies [Camy-Peyret *et al.* (1985), Mandin *et al.* (1986)] once allowance is made for misassignments.

For the ''hot'' spectra, transition data were taken from our analysis of spectra of hot water recorded both in the laboratory [Polyansky *et al.* (1997c), (1997d), (1997e), Zobov *et al.* (1999), (2000a)] and sunspots [Polyansky *et al.* (1997b), (1997c), Zobov *et al.* (2000a), note that the correctly calibrated laboratory data of Zobov *et al.* (2000a) was used]. These data were merged to give an improved linelist containing over 21 000 transitions. It should be noted that the laboratory data where available is of much higher accuracy than that obtained from sunspots. Energy levels were taken from the cited compilations. These were augmented by the extensive tabulations in the thesis of Lanquetin (1997). Lanquetin's data, when confirmed by us, are of higher accuracy than ours and therefore contain important information. However the data could not be used uncritically as it contains a significant fraction of incorrect levels presumably arising from misassigned transitions. As the levels published by Lanquetin *et al.* (1999), all of which are correct, have larger errors than the corresponding errors in the thesis, we increased the errors stated in the thesis by 50%. Some other levels taken from previous compilations were also found to be incorrect and were removed during the course of processing the data.

Determining energy levels from the hot spectra was altogether more complicated as, in particular, some of these spectra are very rich in combination transitions [Zobov *et al.* (1999)] which lead to complicated crosslinkages between the energy levels of different states. We therefore adopted a bottom up approach to the problem: vibrational states were treated from the lowest upwards in order of their band origins which are given in Table 2. Thus the high lying rotational states of (000), for which of course only pure rotational transitions are relevant, were determined first. Next the levels (010) were determined, first by considering transitions from (000) and then by treating pure rotational transitions within (010). Third the levels of (020) were determined, first from vibrational transitions from (000) and (010), then by treating pure rotational transitions within (020) and finally by considering difference bands involving levels of the (100) and (001) states. As, of course, many of these had yet to be determined at this stage of the calculation, it was necessary to iterate on the difference transitions step of the calculations. This was a common feature of all states up to and including those in the 2ν polyad and final levels could only be obtained after several iterations. After these iterations were complete we were left with a number of transitions which still had not been processed. A check was performed to see which of these transitions could be coupled into the energy levels that had been determined. After this step we still had a dataset of 194 transitions for which the energy of neither the lower nor the upper level had been determined. These ''unattached'' transitions contain information on further water levels which hopefully will be used when further data become available.

In principle the hot and cold spectra do not link distinct sets of energy levels. In practice, besides the previously well determined low-lying rotational levels of (000) and (010), the only vibrational state present in both datasets was the state (061). Even for this vibrational state, the sets of spectra were distinct and no individual rotational level was involved in both hot and cold spectra.

Once a complete, initial set of energy levels had been constructed various consistency checks were performed. The most severe of these was to test the levels against the completely independent results of variational calculations. For reasons well documented elsewhere [Polyansky *et al.* (1997b), (1999), Zobov *et al.* (2000a), (2000b)] comparisons were made with energy levels calculated using both the best available spectroscopically determined potential energy surface [Partridge and Schwenke (1997)] and the best available *ab initio* procedure. In practice for low-lying levels, which in any case were well constrained by Partridge and Schwenke's levels, the ZVPT *ab initio* results [Polyansky *et al.* (1999)] were used while at higher energies, where Partridge and Schwenke's levels become erratic, the more recent calculations of Zobov *et al.* (2000a) (2000b) were employed. Nearly all our levels gave energies which agreed well with those from the variational calculations; the few which lay outside the reasonable error limits of the variational calculations were removed from the compilation. Some levels, both from this study and previous ones, for which there is only marginal agreement with the variational calculations have been flagged using ? in the tables.

After this work had been substantially completed the energy levels for the lowest five vibrational states due to Lanquetin *et al.* (2001) became available. These were used to resolve some discrepancies in the previous data. In general, our results give excellent agreement with those of Lanquetin *et al.* (2001). The one notable exception is for high J states with $J=K_a$. For many of these states our energies are systematically slightly lower. We note that our energies agree better with previous studies by the same group [Lanquetin (1997); Lanquetin *et al.* (1999)].

Table 1 summarizes our results. It presents the number of rotational energy levels (term values) obtained for each vibrational state. Figure 1 shows the proportion of vibrational states, as a function of polyad number, for which this term value data are available.

Band origins ω_0 for each vibrational state are given in Table 1. In cases where transitions to the 0_{00} level have not been observed an estimate of the band origin is given where possible. These estimates were obtained by estimating a systematic band error for the variationally calculated energy levels and then using this to correct the 0_{00} from the variational calculation. This procedure has proved very reliable [Polyansky *et al.* (1998), Carleer *et al.* (1999)]. It is difficult to give precise errors, but the estimates given in Table 1 should be accurate to approximately plus or minus one unit in the final digit.

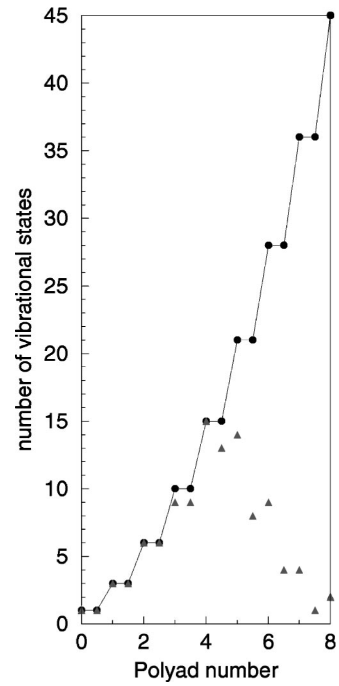

FIG. 1. Coverage of vibrational bands by polyad: possible (dots) and observed (triangles) vibrational bands in each polyad. The integer n on the x axis denotes the polyad $n\nu$ and $n+0.5$ represents the polyad $n\nu+\delta$.

Table 1 gives the source of the literature energy levels used to seed our compilation. In practice for most of the lower states, some levels were also taken from other sources. Information on this is given in the full tabulations. Table 1 provides a key to the papers used to provide energy levels retained in our final compilation. This compilation is given in Tables 2–17, with each table presenting the results for one polyad.

4. Errors and Tables

There are two types of errors which affect the energy levels compiled here: statistical and systematic. The main source of systematic errors is incorrect data, primarily misassigned transitions. Although comparisons with the variational calculation removed the glaring systematic errors this method is not guaranteed to remove all such problems.

One indicator of the reliability of a particular assignment is the number of transitions used to determine that level, N. Levels for which $N=1$ have not been confirmed by combination differences and therefore must be treated with more caution than those levels for which $N>1$ which have therefore been confirmed using combination differences. However two points should be noted. First not all authors provide values for N; in this case a value of -1 is recorded in our tables, and the true value of N is fairly large in nearly all of these cases. Second our definition of N differs from that used by some other workers. We have used N to record only transitions going to a particular level, i.e., where the level is the upper one. Literature N's often represent all transitions to and from a particular level. There are many levels, particular high lying rotational states, whose energies rely on a series of single transitions linking states. The assignment of a single transition to a particular level is not confirmed because further transitions are assigned from that level. Hence in such cases we believe that a value $N=1$ is appropriate. Where our data are combined with previous estimates, the value N may well be a hybrid between two definitions. The values of N taken from the literature can be found in the original reference if required. Finally it should be noted that even levels confirmed by combination differences may have incorrect (vibrational) labels. Although we believe such cases are rare, the possibility of a few such levels cannot be completely ruled out. We note that vibrational labels are actually not crucial for most applictions.

Statistical errors are altogether easier to deal with. Errors were propagated through the calculations using standard statistical procedures. In all cases when processing the data, the error of the lower level was kept fixed and used to determine the error of the upper level. The overdetermined linear equation method [Flaud *et al.* (1976)] is more even handed than this although, in practice, the upper levels have the dominant errors in nearly all cases we considered.

It should be noted that in the course of processing the data we found a small number of seemingly correctly assigned transitions which gave energy levels outside the range one would expect from the error analysis. These transitions were simply dropped from the analysis. The most likely explanation for this anomaly is that for studies which only give an average error, instead of a line by line error, the error for some lines, particularly blended ones, is significantly larger than the average value.

It is a well known property of asymmetric top molecules such as water that as the rotational angular momentum J increases, neighboring levels with either $K_a \sim J$ or $K_c \sim J$ appear as quasidegenerate pairs. This means that in many cases it is impossible to separate between these pairs at the accuracy of the experimental data analyzed here. The *ab initio* variational calculations used here show this degeneracy structure to a high degree of accuracy. The calculations due to Partridge and Schwenke (1997) do not show this structure due to problems with convergence [Polyansky *et al.* (1997c)]. The *ab initio* calculations were therefore used as a guide for which levels should be considered degenerate. Data for levels which were assumed to be degenerate were processed together. In such cases the lower statistical weight para levels, which are given by $K_a+K_c+v_3$ even, are flagged as ''d'' for degenerate in the tables.

Tables 2–17 present our final results tabulated by vibrational state. The tables give the rotational term values relative to the ground state in cm^{-1}. Note $J_{K_aK_c}$ combinations for which no levels were determined have been omitted from the tables to save space. For each entry, we also give the statistical error with which the level was determined, in units of 0.001 cm^{-1}, the number of transitions to the level N defined above, and reference(s) to the source data. Vibrational state labels are given at the head of each column in normal mode and local mode notation in that order. These tables can be downloaded in electronic form via web page www.tampa.phys.ucl.ac.uk/jonny/waterlevels.html or by anonymous ftp from ftp.tampa.phys.ucl.ac.uk and looking in directory pub/astrodata/water/levels.

The tables present all available energy level data with one exception. Bykov *et al.* (2001) give a value of 14 585.1745 $\pm$0.0049 cm^{-1} for the 7_{07} level of the bending overtone state with $v_2=10$ (00 10 in local mode notation) based on three transitions. Although we have no particular reason to suspect this result is incorrect, we were not able to confirm it with the available variational linelists and are cautious since there is a history of incorrect results for high lying bending states obtained from the analysis of perturbations [see Polyansky *et al.* (1996a)].

The highest energy levels considered here contain over 21 000 cm^{-1} in rotational energy or over 25 000 cm^{-1} in vibrational energy. These values represent approximately 47% and 56% of the dissociation energy of water. They are significantly above 11 100 cm^{-1}, the energy at which the water molecule can go linear [Tarczay *et al.* (1999), Kain *et al.* (2000)]. However, despite the high energies probed in this study, we had little difficulty assigning a vibrational quantum number to all the states considered. Vibrational quantum numbers can be somewhat indeterminate in regions where rotational levels from two vibrational states interact, usually called perturbations [see Polyansky *et al.* (1997d) for example], but in no case did we find any general loss of quantum numbers, behavior which is often associated with the onset of chaos in a quantum mechanical system.

5. Summary

We have taken advantage of recent advances in the spectroscopy of water to determine 12 248 rotation–vibration energy levels of $H_2{}^{16}O$. These levels belong to 107 different vibrational states of water. Accurate values or reliable estimates of the vibrational band origins for 101 vibrational states have also been determined. These energy levels give a consolidated tabulation of energy levels as well as a significant increase in their number. For the states up to and including the $3\nu+\delta$ polyad we give 9335 levels, of which 4933 are new, and above this we give 2913 levels, of which 1667 levels are new. This represents a more than doubling of the energy levels in both regions. We believe this dataset of energy levels will be useful for many applications.

The levels tabulated here have already been used to determine the partition function of water as a function of temperature, and related thermodynamic quantities, to much higher accuracy than any previous determination [Vidler and Tennyson (2000)]. The levels have also been used to help fix the height of the barrier to linearity in water [Kain *et al.* (2000)] and are presently being used to characterize a full, spectroscopically determined potential for the water molecule. The successful determination of this potential will undoubtedly lead to the assignment of further water transitions and hence the determination of yet more rotation–vibration energy levels. It is our intention to maintain and distribute an updated list of these levels as further data become available.

TABLE 1. Summary of results. Given are vibrational band origin ω_0, number of rotational term values determined, and reference for the starting energies for each vibrational state. The key lists references used in all tables

$v_1v_2v_3$	$mn^{\pm}v_2$	$\omega_0/\mathrm{cm}^{-1}$	Levels		$v_1v_2v_3$	$mn^{\pm}v_2$	$\omega_0/\mathrm{cm}^{-1}$	Levels
000	00 0	0.0	1026	b	071	$10^{-}7$	13 835.372	12
010	00 1	1 594.746	916	b,g	250	$20^{+}5$		1
020	00 2	3 151.630	750	c	151	$20^{-}5$	14 648.2	23
100	$10^{+}0$	3 657.053	757	c,f	052	11 5		1
001	$10^{-}0$	3 755.929	829	c,f	330	$30^{+}3$	15 108.239	30
030	00 3	4 666.790	489	h	231	$30^{-}3$	15 119.028	72
110	$10^{+}1$	5 234.978	445	i	132	$21^{+}3$	15 377.7	19
011	$10^{-}1$	5 331.265	582	f	033	$21^{-}3$	15 534.709	64
040	00 4	6 134.015	250	j	410	$40^{+}1$	15 344.503	74
120	$10^{+}2$	6 775.093	166	j	311	$40^{-}1$	15 347.956	93
021	$10^{-}1$	6 871.520	346	j,g	212	$31^{+}1$	15 742.795	58
200	$20^{+}0$	7 201.540	203	j	113	$31^{-}1$	15 832.765	85
101	$20^{-}0$	7 249.818	299	j	340	$30^{+}4$	16 534.3	30
002	11 0	7 445.045	237	j,g	241	$30^{-}4$	16 546.3	35
050	00 5	7 542.437	105		142	$21^{+}4$	16 796.0	40
130	$10^{+}3$	8 273.976	55	k	043	$21^{-}4$	16 967.5	18
031	$10^{-}3$	8 373.853	229	k,g	420	$40^{+}2$	16 823.	51
210	$20^{+}1$	8 761.582	58	k	321	$40^{-}2$	16 821.635	62
111	$20^{-}1$	8 806.999	209	k,g	222	$31^{+}2$	17 227.3	40
060	00 6	8 869.954	37		123	$31^{-}2$	17 312.539	45
012	11 1	9 000.136	148	k	500	$50^{+}0$	16 898.4	81
041	$10^{-}4$	9 833.585	144	m	401	$50^{-}0$	16 898.842	87
220	$20^{+}2$	10 284.367	33	m	302	$41^{+}0$	17 458.354	63
121	$20^{-}2$	10 328.731	86	m	203	$41^{-}0$	17 495.528	79
022	11 2	10 521.8	47	m	104	$32^{+}0$	17 748.1	46
300	$30^{+}0$	10 599.686	83	m	053	$21^{-}5$	18 350.3	11
201	$30^{-}0$	10 613.355	120	m	430	$40^{+}3$	18 271.	4
102	$21^{+}0$	10 868.876	73	m	331	$40^{-}3$	18 265.820	50
003	$21^{-}0$	11 032.406	95	m	133	$31^{-}3$	18 758.6	23
070	00 7		3		034	22 3	18 977.2	8
051	$10^{-}5$	11 242.8	64	n	510	$50^{+}1$	18 392.974	34
230	$20^{+}3$	11 767.390	37	n	411	$50^{-}1$	18 393.314	50
131	$20^{-}3$	11 813.207	85	n	213	$41^{-}1$	18 989.960	46
032	11 3	12 007.776	42	n	063	$21^{-}5$	19 721.	3
310	$30^{+}1$	12 139.315	73	n	341	$40^{-}4$	19 679.1	31
211	$30^{-}1$	12 151.255	122	n,o	520	$50^{+}2$	19 864.	11
112	$21^{+}1$	12 407.662	72	n,o	421	$50^{-}2$	19 863.3	15
013	$21^{-}1$	12 565.007	88	n,o	223	$41^{-}2$	20 442.3	13
080	00 8		1	l	600	$60^{+}0$	19 781.	35
160	$10^{+}6$		4		501	$60^{-}0$	19 781.105	53
061	$10^{-}6$	12 586.	26		402	$51^{+}0$	20 533.6	25
240	$20^{+}4$	13 205.1	44		303	$51^{-}0$	20 543.137	32
141	$20^{-}4$	13 256.2	49		431	$50^{-}3$	21 312.	11
042	11 4	13 453.6	39		610	$60^{+}1$	21 221.569	9
320	$30^{+}2$	13 640.7	77		511	$60^{-}1$	21 221.828	22
221	$30^{-}2$	13 652.656	96		115	$42^{-}1$	22 513.	5
122	$21^{+}2$	13 910.896	66		620	$60^{+}2$	22 631.390	3
023	$21^{-}2$	14 066.194	83		521	$60^{-}2$	22 629.288	10
400	$40^{+}0$	13 828.277	100		700	$70^{+}0$	22 529.296	42
301	$40^{-}0$	13 830.938	121		601	$70^{-}0$	22 529.441	37
202	$31^{+}0$	14 221.161	102		611	$70^{-}1$	23 940.	9
103	$31^{-}0$	14 318.812	114		800	$80^{+}0$		20
004	22 0	14 537.504	72		701	$80^{-}0$	25 120.278	24
170	$10^{+}7$	13 661.1	6		Total			12 248

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$

J	K_a	K_c	000 or 00 0				010 or 00 1			
0	0	0					1 594.74633	0.24	−1	b
1	0	1	23.79436	0.01	−1	b	1 618.55709	0.09	−1	b
1	1	1	37.13711	0.03	−1	b	1 634.96710	0.12	−1	b
1	1	0	42.37174	0.02	−1	b	1 640.50582	0.09	−1	b
2	0	2	70.09079	0.03	−1	b	1 664.96469	0.11	−1	b
2	1	2	79.49639	0.02	−1	b	1 677.06139	0.10	−1	b
2	1	1	95.17591	0.03	−1	b	1 693.64982	0.12	−1	b
2	2	1	134.90163	0.02	−1	b	1 742.30564	0.09	−1	b
2	2	0	136.16390	0.03	−1	b	1 743.48622	0.07	−1	b
3	0	3	136.76166	0.03	−1	b	1 731.89667	0.09	−1	b
3	1	3	142.27846	0.03	−1	b	1 739.48358	0.07	−1	b
3	1	2	173.36580	0.03	−1	b	1 772.41346	0.08	−1	b
3	2	2	206.30140	0.04	−1	b	1 813.78749	0.09	−1	b
3	2	1	212.15636	0.03	−1	b	1 819.33514	0.06	−1	b
3	3	1	285.21933	0.04	−1	b	1 907.45143	0.06	−1	b
3	3	0	285.41858	0.03	−1	b	1 907.61580	0.03	−1	b
4	0	4	222.05274	0.04	−1	b	1 817.45101	0.09	−1	b
4	1	4	224.83838	0.03	−1	b	1 821.59684	0.06	−1	b
4	1	3	275.49702	0.04	−1	b	1 875.46972	0.04	−1	b
4	2	3	300.36228	0.03	−1	b	1 908.01637	0.03	−1	b
4	2	2	315.77952	0.04	−1	b	1 922.90113	0.05	−1	b,a
4	3	2	382.51690	0.03	−1	b	2 004.81575	0.08	−1	b
4	3	1	383.84251	0.04	−1	b	2 005.91716	0.07	−1	b
4	4	1	488.10771	0.04	−1	b	2 129.59934	0.06	−1	b
4	4	0	488.13417	0.04	−1	b	2 129.61867	0.07	−1	b,a
5	0	5	325.34790	0.03	−1	b	1 920.76653	0.08	−1	b,a
5	1	5	326.62546	0.04	−1	b	1 922.82908	0.05	−1	b
5	1	4	399.45753	0.03	−1	b	2 000.86307	0.08	−1	b
5	2	4	416.20873	0.04	−1	b	2 024.15276	0.07	−1	b,a
5	2	3	446.51069	0.03	−1	b	2 053.96866	0.06	−1	b
5	3	3	503.96812	0.04	−1	b	2 126.40773	0.07	−1	b,a
5	3	2	508.81210	0.03	−1	b	2 130.49443	0.06	−1	b
5	4	2	610.11448	0.04	−1	b	2 251.69528	0.05	−1	b,a
5	4	1	610.34125	0.04	−1	b	2 251.86254	0.07	−1	b,a
5	5	1	742.07308	0.06	−1	b	2 406.14097	0.08	−1	b,a
5	5	0	742.07635	0.05	−1	b	2 406.14318	0.06	−1	b,a
6	0	6	446.69659	0.04	−1	b	2 041.78048	0.10	−1	b
6	1	6	447.25237	0.03	−1	b	2 042.75332	0.06	−1	b,a
6	1	5	542.90577	0.04	−1	b	2 146.26375	0.10	−1	b,a
6	2	5	552.91143	0.03	−1	b	2 161.28604	0.08	−1	b,a
6	2	4	602.77351	0.04	−1	b	2 211.19064	0.09	−1	b,a
6	3	4	648.97876	0.04	−1	b	2 271.71231	0.07	−1	b,a
6	3	3	661.54894	0.04	−1	b	2 282.58958	0.09	−1	b,a
6	4	3	756.72487	0.04	−1	b	2 398.38159	0.06	−1	b,a
6	4	2	757.78023	0.05	−1	b	2 399.16554	0.08	−1	b,a
6	5	2	888.59890	0.04	−1	b	2 552.85743	0.07	−1	b,a
6	5	1	888.63271	0.05	−1	b	2 552.87979	0.08	−1	b,a
6	6	1	1045.05811	0.04	−1	b	2 733.96290	0.08	−1	b,a
6	6	0	1045.05842	0.05	−1	b	2 733.96305	0.09	−1	b,a
7	0	7	586.24358	0.04	−1	b	2 180.64294	0.09	−1	b,a
7	1	7	586.47920	0.04	−1	b	2 181.08989	0.09	−1	b,a
7	1	6	704.21410	0.04	−1	b	2 309.73025	0.09	−1	b,a
7	2	6	709.60823	0.05	−1	b	2 318.53989	0.09	−1	b,a
7	2	5	782.40990	0.04	−1	b	2 392.59258	0.08	−1	b,a
7	3	5	816.69428	0.05	−1	b	2 439.95449	0.09	−1	b,a
7	3	4	842.35669	0.04	−1	b	2 462.87535	0.08	−1	b,a
7	4	4	927.74395	0.05	−1	b	2 569.50804	0.08	−1	b,a
7	4	3	931.23724	0.04	−1	b	2 572.13934	0.07	−1	b,a
7	5	3	1 059.64676	0.06	−1	b	2 724.04156	0.09	−1	b,a
7	5	2	1 059.83560	0.04	−1	b	2 724.16734	0.08	−1	b,a
7	6	2	1 216.18988	0.06	−1	b	2 905.43078	0.09	−1	b,a
7	6	1	1 216.19465	0.05	−1	b,a	2 905.43370	0.08	−1	b,a
7	7	1	1 394.81424	0.07	−1	b	3 109.91156	0.11	−1	b
7	7	0	1 394.81437	0.06	−1	b	3 109.91172	0.09	−1	b,a
8	0	8	744.06370	0.05	−1	b	2 337.46345	0.11	−1	b,a
8	1	8	744.16273	0.04	−1	b	2 337.66694	0.09	−1	b,a
8	1	7	882.89037	0.05	−1	b	2 490.35413	0.10	−1	b,a
8	2	7	885.60032	0.04	−1	b	2 495.16587	0.08	−1	b,a
8	2	6	982.91176	0.05	−1	b	2 595.81299	0.10	−1	b,a
8	3	6	1 006.11607	0.04	−1	b	2 630.19268	0.08	−1	b,a
8	3	5	1 050.15772	0.05	−1	b	2 670.78971	0.08	−1	b,a
8	4	5	1 122.70869	0.04	−1	b	2 764.69760	0.09	−1	b,a
8	4	4	1 131.77566	0.05	−1	b	2 771.69021	0.10	−1	b,a
8	5	4	1 255.16692	0.04	−1	b	2 919.63318	0.08	−1	b,a
8	5	3	1 255.91165	0.05	−1	b,a	2 920.13216	0.09	−1	b,a
8	6	3	1 411.61161	0.05	−1	b,a	3 101.12390	0.09	−1	b,a
8	6	2	1 411.64199	0.06	−1	b	3 101.14225	0.11	−1	b,a
8	7	2	1 590.69028	0.08	−1	b,a	3 306.29544	0.09	−1	b,a
8	7	1	1 590.69066	0.09	−1	b,a	3 306.29563	0.10	−1	b,a
8	8	1	1 789.04301	0.08	−1	b	3 530.95767	0.24	−1	b,a
8	8	0	1 789.04303	0.10	−1	b	3 530.95630	0.30	−1	b
9	0	9	920.16846	0.05	−1	b	2 512.28304	0.10	−1	b,a
9	1	9	920.21006	0.06	−1	b	2 512.37578	0.10	−1	b,a
9	1	8	1 079.07969	0.05	−1	b	2 688.08005	0.10	−1	b,a
9	2	8	1 080.38552	0.06	−1	b	2 690.59371	0.08	−1	b,a
9	2	7	1 201.92162	0.05	−1	b	2 818.39819	0.09	−1	b,a
9	3	7	1 216.23135	0.05	−1	b	2 841.43092	0.10	−1	b,a
9	3	6	1 282.91926	0.04	−1	b	2 904.67057	0.09	−1	b,a
9	4	6	1 340.88498	0.06	−1	b	2 983.32318	0.10	−1	b,a
9	4	5	1 360.23551	0.04	−1	b,a	2 998.76650	0.09	−1	b,a
9	5	5	1 474.98089	0.06	−1	b	3 139.47596	0.11	−1	b,a
9	5	4	1 477.29757	0.05	−1	b,a	3141.04619	0.10	−1	b,a
9	6	4	1 631.24560	0.06	−1	b,a	3 320.92990	0.10	−1	b,a
9	6	3	1 631.38323	0.05	−1	b,a	3 321.01355	0.09	−1	b,a
9	7	3	1 810.58350	0.09	−1	b,a	3 526.62520	0.14	−1	b,a
9	7	2	1 810.58808	0.07	−1	b,a	3526.62762	0.13	−1	b,a
9	8	2	2 009.80532	0.20	−1	b,a	3 752.41625	0.22	−1	b
9	8	1	2 009.80521	0.10	−1	b,a	3 752.41648	0.11	−1	b,a
9	9	1	2 225.46907	0.24	−1	b	3 994.26043	0.36	−1	b
9	9	0	2 225.46931	0.20	−1	b	3 994.26039	0.23	−1	b,a
10	0	10	1 114.53231	0.09	−1	b	2 705.09681	0.12	−1	b,a
10	1	10	1 114.55008	0.07	−1	b	2 705.13972	0.11	−1	b,a
10	1	9	1 293.01826	0.07	−1	b	2 903.14619	0.11	−1	b,a
10	2	9	1 293.63421	0.05	−1	b	2 904.42853	0.10	−1	b,a
10	2	8	1 437.96871	0.07	−1	b	3 058.39855	0.11	−1	b,a
10	3	8	1 446.12842	0.05	−1	b	3 072.72654	0.09	−1	b,a
10	3	7	1 538.14960	0.07	−1	b,a	3 162.25900	0.11	−1	b,a
10	4	7	1 581.33618	0.05	−1	b,a	3 224.54680	0.10	−1	b,a
10	4	6	1 616.45319	0.07	−1	b,a	3 253.73816	0.12	−1	b,a
10	5	6	1 718.71903	0.05	−1	b	3 383.26563	0.10	−1	b,a
10	5	5	1 724.70555	0.07	−1	b,a	3 387.40085	0.11	−1	b,a
10	6	5	1 874.97320	0.05	−1	b,a	3 564.70528	0.10	−1	b,a
10	6	4	1 875.46198	0.07	−1	b,a	3 565.00375	0.11	−1	b,a
10	7	4	2 054.34551	0.08	−1	b,a	3 770.71168	0.11	−1	b,a
10	7	3	2 054.36884	0.10	−1	b,a	3 770.72467	0.14	−1	b,a
10	8	3	2 254.28402	0.12	−1	b,a	3997.50862	0.16	−1	b,a
10	8	2	2 254.28472	0.14	−1	b,a	3 997.50858	0.19	−1	b
10	9	2	2 471.25522	0.17	−1	b,a	4 240.94229	0.21	−1	b,a
10	9	1	2 471.25507	0.23	−1	b	4 240.94254	0.33	−1	b
10	10	1	2 701.88882	0.21	−1	b,a	4 497.19311	0.40	−1	b,a
10	10	0	2 701.88875	0.55	−1	b	4 497.19293	0.86	−1	b
11	0	11	1 327.11014	0.08	−1	b	2 915.87451	0.12	−1	b,a
11	1	11	1 327.11771	0.09	−1	b	2 915.89443	0.13	−1	b,a
11	1	10	1 524.84813	0.08	−1	b	3 135.76492	0.11	−1	b,a
11	2	10	1 525.13611	0.07	−1	b	3 136.41263	0.12	−1	b,a
11	2	9	1 690.66458	0.06	−1	b	3 314.85590	0.10	−1	b,a

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$—Continued

J	K_a	K_c	000 or 00 0				010 or 00 1			
11	3	9	1 695.06879	0.07	−1	b,a	3 323.26995	0.12	−1	b,a
11	3	8	1 813.22360	0.06	−1	b	3 441.03980	0.11	−1	b,a
11	4	8	1 843.02979	0.07	−1	b,a	3 487.39941	0.11	−1	b,a
11	4	7	1 899.00837	0.06	−1	b,a	3 535.87070	0.11	−1	b,a
11	5	7	1 985.78508	0.07	−1	b,a	3 650.50930	0.11	−1	b,a
11	5	6	1 998.99553	0.05	−1	b,a	3 659.90424	0.11	−1	b,a
11	6	6	2 142.59785	0.10	−1	b,a	3 832.25202	0.15	−1	b,a
11	6	5	2 144.04649	0.06	−1	b,a	3 833.14469	0.11	−1	b,a
11	7	5	2 321.81321	0.14	−1	b,a	4 038.35173	0.12	−1	b,a
11	7	4	2 321.90597	0.11	−1	b,a	4 038.40363	0.13	−1	b,a
11	8	4	2 522.26155	0.15	−1	b	4 265.97469	0.20	−1	b,a
11	8	3	2 522.26537	0.13	−1	b,a	4 265.97666	0.17	−1	b,a
11	9	3	2 740.42090	0.24	−1	b	4 510.90187	0.44	−1	b,a
11	9	2	2 740.42101	0.18	−1	b,a	4 510.90191	0.32	−1	b,a
11	10	2	2 972.82768	0.25	−1	b,a	4 769.23250	0.68	−1	b
11	10	1	2 972.82748	0.20	−1	b,a	4 769.23307	0.35	−1	b,a
11	11	1	3 216.19376	0.71	−1	b	5 037.34025	3.09	−1	b
11	11	0	3 216.19348	0.33	−1	b	5 037.34055	0.52	−1	b,a
12	0	12	1 557.84462	0.11	−1	b	3 144.56943	0.17	−1	b,a
12	1	12	1 557.84798	0.09	−1	b	3 144.57901	0.14	−1	b,a
12	1	11	1 774.61642	0.10	−1	b	3 386.05260	0.14	−1	b,a
12	2	11	1 774.75137	0.08	−1	b	3 386.37978	0.12	−1	b,a
12	2	10	1 960.20758	0.09	−1	b,a	3 587.66682	0.12	−1	b,a
12	3	10	1 962.50716	0.08	−1	b,a	3 592.42416	0.12	−1	b,a
12	3	9	2 105.86807	0.09	−1	b,a	3 738.54349	0.13	−1	b,a
12	4	9	2 124.95181	0.09	−1	b,a	3 770.87921	0.11	−1	b,a
12	4	8	2 205.65297	0.09	−1	b,a	3 843.41068	0.12	−1	b,a
12	5	8	2 275.37322	0.09	−1	b,a	3 940.51979	0.10	−1	b,a
12	5	7	2 300.68524	0.10	−1	b,a	3 959.25356	0.13	−1	b,a
12	6	7	2 433.80074	0.08	−1	b,a	4 123.28562	0.11	−1	b,a
12	6	6	2 437.50200	0.12	−1	b,a	4 125.59933	0.13	−1	b,a
12	7	6	2 612.80004	0.09	−1	b,a	4 329.32473	0.12	−1	b,a
12	7	5	2 613.10485	0.14	−1	b,a	4 329.49594	0.15	−1	b,a
12	8	5	2 813.51243	0.13	−1	b,a	4 557.54664	0.15	−1	b,a
12	8	4	2 813.52887	0.16	−1	b,a	4 557.55513	0.22	−1	b,a
12	9	4	3 032.69001	0.21	−1	b,a	4 803.82054	0.31	−1	b,a
12	9	3	3 032.69035	0.26	−1	b,a	4 803.81998	0.43	−1	b,a
12	10	3	3 266.76462	0.21	−1	b,a	5 064.14145	0.44	−1	b,a
12	10	2	3 266.76462	0.30	−1	b	5 064.14077	1.06	−1	b
12	11	2	3 512.40506	0.59	−1	b	5 334.86081	0.52	−1	b,a
12	11	1	3 512.40445	0.80	−1	b	5 334.86081	0.52		d
12	12	1	3 766.38718	1.24	−1	b	5 612.49366	0.78	−1	b,a
12	12	0	3 766.38720	1.11	−1	b,a	5 612.49366	0.78		d
13	0	13	1 806.67040	0.11	−1	b	3 391.12648	0.14	−1	b,a
13	1	13	1 806.67153	0.18	−1	b	3 391.13096	0.17	−1	b,a
13	1	12	2 042.31092	0.10	−1	b	3 654.04914	0.13	−1	b,a
13	2	12	2 042.37432	0.12	−1	b	3 654.21533	0.14	−1	b,a
13	2	11	2 246.88509	0.10	−1	b,a	3 877.08898	0.12	−1	b,a
13	3	11	2 248.06471	0.12	−1	b,a	3 879.72104	0.13	−1	b,a
13	3	10	2 414.72373	0.08	−1	b,a	4 052.81123	0.13	−1	b,a
13	4	10	2 426.19663	0.13	−1	b,a	4 074.03883	0.15	−1	b,a
13	4	9	2 533.79348	0.10	−1	b,a	4 174.03902	0.11	−1	b,a
13	5	9	2 586.53005	0.12	−1	b,a	4 252.44845	0.14	−1	b,a
13	5	8	2 629.33480	0.10	−1	b,a	4 285.64792	0.14	−1	b,a
13	6	8	2 748.09971	0.12	−1	b,a	4 437.40004	0.18	−1	b,a
13	6	7	2 756.41570	0.12	−1	b,a	4 442.71346	0.13	−1	b,a
13	7	7	2 927.07551	0.16	−1	b,a	4 643.38059	0.30	−1	b,a
13	7	6	2 927.94173	0.14	−1	b,a	4 643.87099	0.16	−1	b,a
13	8	6	3 127.80314	0.16	−1	b,a	4 871.94834	0.35	−1	b,a
13	8	5	3 127.86214	0.13	−1	b,a	4 871.97947	0.17	−1	b,a
13	9	5	3 347.78054	0.25	−1	b,a	5 119.37295	0.56	−1	b,a
13	9	4	3 347.78375	0.14	−1	b,a	5 119.37527	0.39	−1	b,a
13	10	4	3 583.37485	0.27	−1	b,a	5 381.55271	0.38		d
13	10	3	3 583.37482	0.36	−1	b,a	5 381.55271	0.38	−1	b,a
13	11	3	3 831.17889	1.33	−1	b	5 654.78085	0.57		d
13	11	2	3 831.17948	0.43	−1	b,a	5 654.78085	0.57	−1	b,a
13	12	2	4 087.98148	1.43		d	5 935.60006	0.53		d
13	12	1	4 087.98148	1.43	−1	b	5 935.60006	0.53	−1	b,a
13	13	1	4 350.59138	1.17		d	6 220.62745	0.89		d
13	13	0	4 350.59138	1.17	−1	b,a	6 220.62745	0.89	−1	b,a
14	0	14	2 073.51524	0.17	−1	b	3 655.48373	0.26	−1	b,a
14	1	14	2 073.51583	0.15	−1	b	3 655.48544	0.17	−1	b,a
14	1	13	2 327.88411	0.18	−1	b	3 939.74669	0.18	−1	b,a
14	2	13	2 327.91443	0.12	−1	b	3 939.83227	0.15	−1	b,a
14	2	12	2 550.88259	0.16	−1	b,a	4 183.38928	0.16	−1	b,a
14	3	12	2 551.48381	0.10	−1	b,a	4 184.83164	0.11	−1	b,a
14	3	11	2 739.42862	0.12	−1	b,a	4 382.77998	0.22	−1	b,a
14	4	11	2 746.02378	0.12	−1	b,a	4 396.05175	0.15	−1	b,a
14	4	10	2 880.83438	0.16	−1	b,a	4 525.23956	0.34	−1	b,a
14	5	10	2 918.24526	0.12	−1	b,a	4 585.34952	0.17	−1	b,a
14	5	9	2 983.39662	0.25	−1	b,a	4 638.35105	0.36	−1	b,a
14	6	9	3 084.83610	0.12	−1	b,a	4 774.04454	0.15	−1	b,a
14	6	8	3 101.44132	0.25	−1	b,a	4 784.99993	0.33	−1	b,a
14	7	8	3 264.33786	0.14	−1	b,a	4 980.22302	0.33	−1	b,a
14	7	7	3 266.51447	0.25	−1	b,a	4 981.46951	0.40	−1	b,a
14	8	7	3 464.88784	0.17	−1	b,a	5 208.89642	0.34	−1	b,a
14	8	6	3 465.07006	0.35	−1	b,a	5 208.99236	0.44	−1	b,a
14	9	6	3 685.40827	0.50	−1	b,a	5 457.23793	0.38	−1	b,a
14	9	5	3 685.41921	0.27	−1	b,a	5 457.24342	0.59	−1	b,a
14	10	5	3 922.33059	0.46	−1	b,a	5 721.09870	0.40	−1	b,a
14	10	4	3 922.33098	0.31	−1	b	5 721.09870	0.40		d
14	11	4	4 172.15275	0.65	−1	b,a	5 996.69076	0.47	−1	b,a
14	11	3	4 172.15275	0.65		d	5 996.69076	0.47		d
14	12	3	4 431.63846	0.56	−1	b,a	6 280.56345	0.52	−1	b,a
14	12	2	4 431.63783	1.43	−1	b	6 280.56345	0.52		d
14	13	2	4 697.66249	1.15	−1	b,a	6 569.41205	0.87	−1	b,a
14	13	1	4 697.66249	1.15		d	6 569.41205	0.87		d
14	14	1	4 967.04228	1.19	−1	b,a	6 859.88558	0.95	−1	b,a
14	14	0	4 967.04228	1.19		d	6 859.88558	0.95		d
15	0	15	2 358.30187	0.16	−1	b	3 937.57223	0.29	−1	b,a
15	1	15	2 358.30166	0.30	−1	b	3 937.57275	0.37	−1	b,a
15	1	14	2 631.26931	0.17	−1	b	4 243.11011	0.18	−1	b,a
15	2	14	2 631.28362	0.23	−1	b	4 243.15431	0.21	−1	b,a
15	2	13	2 872.27461	0.17	−1	b,a	4 506.73424	0.15	−1	b,a
15	3	13	2 872.58063	0.16	−1	b,a	4 507.52284	0.21	−1	b,a
15	3	12	3 080.17910	0.12	−1	b,a	4 728.22157	0.17	−1	b,a
15	4	12	3 083.86557	0.27	−1	b,a	4 736.24179	0.24	−1	b,a
15	4	11	3 244.60100	0.15	−1	b,a	4 894.58616	0.21	−1	b,a
15	5	11	3 269.53978	0.21	−1	b,a	4 938.25431	0.33	−1	b,a
15	5	10	3 360.60059	0.18	−1	b,a	5 015.70449	0.24	−1	b,a
15	6	10	3 443.19219	0.21	−1	b,a	5 132.52219	0.41	−1	b,a
15	6	9	3 472.88160	0.22	−1	b,a	5 152.96490	0.34	−1	b,a
15	7	9	3 624.18159	0.22	−1	b,a	5 339.48893	0.41	−1	b,a
15	7	8	3 629.09674	0.25	−1	b,a	5 342.34736	0.34	−1	b,a
15	8	8	3 824.49868	0.37	−1	b,a	5 568.09099	0.42	−1	b,a
15	8	7	3 824.99826	0.24	−1	b,a	5 568.35491	0.35	−1	b,a
15	9	7	4 045.28622	0.45	−1	b,a	5 817.08049	0.62	−1	b,a
15	9	6	4 045.32246	0.47	−1	b,a	5 817.09708	0.36	−1	b,a
15	10	6	4 283.30678	0.60	−1	b,a	6 082.41205	0.41		d
15	10	5	4 283.30827	0.66	−1	b,a	6 082.41205	0.41	−1	b,a
15	11	5	4 534.96553	0.89	−1	b,a	6 360.19730	0.49		d
15	11	4	4 534.96419	0.60	−1	b,a	6 360.19730	0.49	−1	b,a
15	12	4	4 796.97154	0.65		d	6 646.95446	0.53		d
15	12	3	4 796.97154	0.65	−1	b,a	6 646.95446	0.53	−1	b,a
15	13	3	5 066.22855	3.00	−1	b	6 939.43017	0.74		d
15	13	2	5 066.22960	0.87	−1	b,a	6 939.43017	0.74	−1	b,a
15	14	2	5 339.67281	1.23		d	7 234.42102	1.17		d

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$—Continued

J	K_a	K_c	000 or 00 0				010 or 00 1			
15	14	1	5 339.67281	1.23	−1	b,a	7 234.42102	1.17	−1	b,a
15	15	1	5 614.08846	1.31		d	7 528.56244	1.01		d
15	15	0	5 614.08846	1.31	−1	b,a	7 528.56244	1.01	−1	b,a
16	0	16	2 660.94624	0.53	−1	b	4 237.32098	0.54	−1	b
16	1	16	2 660.94627	0.27	−1	b	4 237.32150	0.30	−1	b,a
16	1	15	2 952.38678	0.33	−1	b	4 564.08626	0.27	−1	b,a
16	2	15	2 952.39403	0.22	−1	b	4 564.11014	0.21	−1	b,a
16	2	14	3 211.05589	0.30	−1	b,a	4 847.18945	0.35	−1	b,a
16	3	14	3 211.21305	0.19	−1	b,a	4 847.62251	0.21	−1	b,a
16	3	13	3 437.27756	0.21	−1	b,a	5 089.33666	0.28	−1	b,a
16	4	13	3 439.30718	0.21	−1	b,a	5 094.08503	0.33	−1	b,a
16	4	12	3 623.76505	0.29	−1	b,a	5 280.09648	0.44	−1	b,a
16	5	12	3 639.53827	0.24	−1	b,a	5 310.24006	0.33	−1	b,a
16	5	11	3 758.39730	0.34	−1	b,a	5 415.48892	0.45	−1	b,a
16	6	11	3 822.24632	0.18	−1	b,a	5 512.01510	0.33	−1	b,a
16	6	10	3 870.20160	0.36	−1	b,a	5 546.73966	0.46	−1	b,a
16	7	10	4 006.07360	0.20	−1	b,a	5 720.71987	0.38	−1	b,a
16	7	9	4 016.13481	0.33	−1	b,a	5 726.70933	0.40	−1	b,a
16	8	9	4 206.33190	0.25	−1	b,a	5 949.21710	0.38	−1	b,a
16	8	8	4 207.56202	0.40	−1	b,a	5 949.86981	0.43	−1	b,a
16	9	8	4 427.12168	0.41	−1	b,a	6 198.57230	0.41	−1	b,a
16	9	7	4 427.22722	0.42	−1	b,a	6 198.62490	0.54	−1	b,a
16	10	7	4 665.97469	0.48	−1	b,a	6 465.12776	0.47	−1	b,a
16	10	6	4 665.98229	0.71	−1	b,a	6 465.13189	0.77	−1	b,a
16	11	6	4 919.25343	0.57	−1	b,a	6 744.90051	0.47	−1	b,a
16	11	5	4 919.25343	0.57		d	6 744.90051	0.47		d
16	12	5	5 183.59178	0.71	−1	b,a	7 034.35282	0.52	−1	b,a
16	12	4	5 183.59178	0.71		d	7 034.35282	0.52		d
16	13	4	5 455.89009	1.04	−1	b,a	7 330.24992	0.75	−1	b,a
16	13	3	5 455.89009	1.04		d	7 330.24992	0.75		d
16	14	3	5 733.15446	1.12	−1	b,a	7 629.48605	0.90	−1	b,a
16	14	2	5 733.15446	1.12		d	7 629.48605	0.90		d
16	15	2	6 012.34646	1.35	−1	b,a	7 928.90614	1.09	−1	b,a
16	15	1	6 012.34646	1.35		d	7 928.90614	1.09		d
16	16	1	6 290.18445	1.42	−1	b,a	8 225.08579	1.05	−1	b,a
16	16	0	6 290.18445	1.42		d	8 225.08579	1.05		d
17	0	17	2 981.35975	0.41	−1	b	4 554.65287	0.57	−1	b,a
17	1	17	2 981.35959	0.68	−1	b	4 554.65234	1.24	−1	b
17	1	16	3 291.14910	0.76	−1	b	4 902.61440	0.26	−1	b,a
17	2	16	3 291.15252	1.61	−1	b	4 902.62701	0.35	−1	b,a
17	2	15	3 567.17413	0.28	−1	b,a	5 204.74894	0.32	−1	b,a
17	3	15	3 567.25537	0.50	−1	b,a	5 204.98858	0.43	−1	b,a
17	3	14	3 810.93697	0.19	−1	b,a	5 466.40320	0.39	−1	b,a
17	4	14	3 812.04716	0.35	−1	b,a	5 469.18519	0.40	−1	b,a
17	4	13	4 017.90866	0.21	−1	b,a	5 680.55057	0.39	−1	b,a
17	5	13	4 027.50637	0.59	−1	b,a	5 700.48262	0.57	−1	b,a
17	5	12	4 174.28779	0.30	−1	b,a	5 835.28710	0.41	−1	b,a
17	6	12	4 221.03999	0.42	−1	b,a	5 911.62893	0.44	−1	b,a
17	6	11	4 291.90712	0.31	−1	b,a	5 965.71543	0.35	−1	b,a
17	7	11	4 409.34441	0.65	−1	b,a	6 123.35892	0.47	−1	b,a
17	7	10	4 428.11435	0.43	−1	b,a	6 134.89913	0.36	−1	b,a
17	8	10	4 610.02320	0.58	−1	b,a	6 351.91737	0.50	−1	b,a
17	8	9	4 612.79114	0.45	−1	b,a	6 353.40366	0.39	−1	b,a
17	9	9	4 830.61441	0.64	−1	b,a	6 601.37949	0.48	−1	b,a
17	9	8	4 830.89466	0.40	−1	b,a	6 601.51792	0.40	−1	b,a
17	10	8	5 070.01057	0.97	−1	b,a	6 868.87947	0.84	−1	b,a
17	10	7	5 070.03221	0.55	−1	b,a	6 868.89110	0.72	−1	b,a
17	11	7	5 324.66530	0.69		d	7 150.40813	5.94	−1	b
17	11	6	5 324.66530	0.69	−1	b,a	7 150.40865	0.52	−1	b,a
17	12	6	5 591.12082	0.98		d	7 442.34190	0.60		d
17	12	5	5 591.12082	0.98	−1	b,a	7 442.34190	0.60	−1	b,a
17	13	5	5 866.24176	0.77		d	7 741.43559	0.75		d
17	13	4	5 866.24176	0.77	−1	b,a	7 741.43559	0.75	−1	b,a
17	14	4	6 147.08292	1.28		d	8 044.65063	0.96		d
17	14	3	6 147.08292	1.28	−1	b,a	8 044.65063	0.96	−1	b,a
17	15	3	6 430.72415	1.26		d	8 348.98056	1.10		d
17	15	2	6 430.72415	1.26	−1	b,a	8 348.98056	1.10	−1	b,a
17	16	2	6 714.12254	1.49		d	8 651.27772	1.10		d
17	16	1	6 714.12254	1.49	−1	b,a	8 651.27772	1.10	−1	b,a
17	17	1	6 993.88390	1.51		d	8 948.00249	1.08		d
17	17	0	6 993.88390	1.51	−1	b,a	8 948.00249	1.08	−1	b,a
18	0	18	3 319.44787	1.51	−1	b	4 889.48789	0.83	−1	b
18	1	18	3 319.44909	0.77	−1	b	4 889.48821	0.42	−1	b,a
18	1	17	3 647.46058	1.05	−1	b	5 258.63110	1.06	−1	b,a
18	2	17	3 647.46124	0.57	−1	b	5 258.63163	0.56	−1	b,a
18	2	16	3 940.54496	0.61	−1	b,a	5 579.35856	0.50	−1	b,a
18	3	16	3 940.58776	0.42	−1	b,a	5 579.49226	0.38	−1	b,a
18	3	15	4 201.25211	0.80	−1	b,a	5 859.61612	0.53	−1	b,a
18	4	15	4 201.85895	0.63	−1	b,a	5 861.23943	0.38	−1	b,a
18	4	14	4 427.16549	0.49	−1	b,a	6 095.51466	0.55	−1	b,a
18	5	14	4 432.86039	0.50	−1	b,a	6 108.28173	0.44	−1	b,a
18	5	13	4 606.16815	0.71	−1	b,a	6 272.74487	3.23	−1	b
18	6	13	4 638.64543	0.48	−1	b,a	6 330.45102	0.38	−1	b,a
18	6	12	4 735.84590	1.00	−1	b,a	6 408.45890	0.80	−1	b,a
18	7	12	4 833.20900	0.49	−1	b,a	6 546.72205	0.39	−1	b,a
18	7	11	4 865.22718	0.71	−1	b,a	6 567.28038	0.54	−1	b,a
18	8	11	5 035.12689	0.48	−1	b,a	6 775.78710	0.43	−1	b,a
18	8	10	5 040.85917	0.68	−1	b,a	6 778.91798	0.53	−1	b,a
18	9	10	5 255.44890	0.49	−1	b,a	7 025.15626	0.44	−1	b,a
18	9	9	5 256.11788	0.73	−1	b,a	7 025.49358	0.62	−1	b,a
18	10	9	5 495.09073	0.56	−1	b,a	7 293.30834	0.45	−1	b,a
18	10	8	5 495.14973	0.79	−1	b,a	7 293.33841	0.79	−1	b,a
18	11	8	5 750.85028	0.71	−1	b,a	7 576.33340	0.55	−1	b,a
18	11	7	5 750.85390	0.86	−1	b,a	7 576.33677	1.26	−1	b,a
18	12	7	6 019.18161	0.72	−1	b,a	7 870.51087	0.56	−1	b,a
18	12	6	6 019.18161	0.72		d	7 870.50014	7.95	−1	b
18	13	6	6 296.89734	1.19	−1	b,a	8 172.56423	0.77	−1	b,a
18	13	5	6 296.89734	1.19		d	8 172.56423	0.77		d
18	14	5	6 581.05776	1.08	−1	b,a	8 479.48551	0.97	−1	b,a
18	14	4	6 581.05776	1.08		d	8 479.48551	0.97		d
18	15	4	6 868.83367	1.43	−1	b,a	8 788.37697	1.05	−1	b,a
18	15	3	6 868.83367	1.43		d	8 788.37697	1.05		d
18	16	3	7157 .35379	2.41	−1	b,a	9 096.29708	1.16	−1	b,a
18	16	2	7 157.35379	2.41		d	9 096.29708	1.16		d
18	17	2	7 443.53817	1.60	−1	b,a	9 400.06473	1.14	−1	b,a
18	17	1	7 443.53817	1.60		d	9 400.06473	1.14		d
18	18	1	7 723.83106	1.61	−1	b,a	9 695.96483	1.40	−1	b,a
18	18	0	7 723.83106	1.61		d	9 695.96483	1.40		d
19	0	19	3 675.11377	0.84	−1	b	5 241.74308	0.64	−1	b,a
19	1	19	3 675.11340	1.15	−1	b	5 241.74171	1.71	−1	b
19	1	18	4 021.21906	1.35	−1	b	5 632.04390	0.49	−1	b,a
19	2	18	4 021.21571	1.39	−1	b,a	5 632.04754	1.00	−1	b,a
19	2	17	4 331.06769	0.57	−1	b,a	5 970.93005	0.45	−1	b,a
19	3	17	4 331.08851	0.83	−1	b,a	5 971.01108	1.06	−1	b,a
19	3	16	4 608.22397	0.65	−1	b,a	6 269.06344	0.49	−1	b,a
19	4	16	4 608.55753	0.82	−1	b,a	6 270.01208	0.51	−1	b,a
19	4	15	4 851.82112	0.43	−1	b,a	6 525.05479	0.44	−1	b,a
19	5	15	4 855.15286	0.69	−1	b,a	6 533.06368	0.56	−1	b,a
19	5	14	5 052.66915	0.58	−1	b,a	6 725.86227	0.46	−1	b,a
19	6	14	5 074.22241	0.79	−1	b,a	6 767.59821	0.58	−1	b,a
19	6	13	5 199.59680	0.72	−1	b,a	6 872.99719	0.41	−1	b,a
19	7	13	5 276.80340	0.76	−1	b,a	6 990.05604	0.62	−1	b,a
19	7	12	5 326.98378	0.61	−1	b,a	7 023.97871	0.39	−1	b,a
19	8	12	5 481.10222	0.78	−1	b,a	7 219.88713	0.70	−1	b,a
19	8	11	5 492.08259	0.60	−1	b,a	7 226.49733	0.50	−1	b,a
19	9	11	5 701.27886	0.87	−1	b,a	7 469.54832	0.83	−1	b,a
19	9	10	5 702.78184	0.65	−1	b,a	7 470.30485	0.51	−1	b,a
19	10	10	5 940.89024	0.84	−1	b,a	7 738.05349	1.15	−1	b,a

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$—Continued

J	K_a	K_c	000 or 00 0				010 or 00 1			
19	10	9	5 941.04185	0.61	−1	b,a	7 738.12753	0.51	−1	b,a
19	11	9	6 197.45583	1.19	−1	b,a	8 022.29186	1.24	−1	b,a
19	11	8	6 197.46763	0.72	−1	b,a	8 022.29694	0.54	−1	b,a
19	12	8	6 467.39492	1.27	−1	b,a	8 318.46453	1.57	−1	b,a
19	12	7	6 467.40592	1.03	−1	b,a	8 318.45452	1.33	−1	b,a
19	13	7	6 747.42814	9.55	−1	b	8 623.21150	6.14	−1	b,a
19	13	6	6 747.46511	1.10	−1	b,a	8 623.22343	1.42	−1	b,a
19	14	6	7 034.68781	1.34		d	8 933.56762	0.98		d
19	14	5	7 034.68781	1.34	−1	b,a	8 933.56762	0.98	−1	b,a
19	15	5	7 326.28927	1.27		d	9 246.68983	1.04		d
19	15	4	7 326.28927	1.27	−1	b,a	9 246.68983	1.04	−1	b,a
19	16	4	7 619.52807	1.52		d	9 559.78220	1.75		d
19	16	3	7 619.52807	1.52	−1	b,a	9 559.78220	1.75	−1	b,a
19	17	3	7 911.55421	2.02		d	9 869.93576	1.19		d
19	17	2	7 911.55421	2.02	−1	b,a	9 869.93576	1.19	−1	b,a
19	18	2	8 199.22084	1.72		d	10 173.89737	1.16		d
19	18	1	8 199.22084	1.72	−1	b,a	10 173.89737	1.16	−1	b,a
19	19	1	8 478.75428	1.69		d	10 467.71828	1.27		d
19	19	0	8 478.75428	1.69	−1	b,a	10 467.71828	1.27	−1	b,a
20	0	20	4 048.25008	1.67		d	5 611.33160	7.22	−1	b
20	1	20	4 048.25008	1.67	−1	b	5 611.33065	0.76	−1	b,a
20	1	19	4 412.31554	3.61	−1	b	6 022.79657	0.53		d
20	2	19	4 412.31755	1.16	−1	b,a	6 022.79657	0.53	−1	b,a
20	2	18	4 738.62182	0.94	−1	b,a	6 379.34335	0.80	−1	b,a
20	3	18	4 738.63444	0.74	−1	b,a	6 379.38990	0.47	−1	b,a
20	3	17	5 031.79418	0.97	−1	b,a	6 694.74467	0.65	−1	b,a
20	4	17	5 031.97867	0.78	−1	b,a	6 695.29973	0.50	−1	b,a
20	4	16	5 292.10256	0.78	−1	b,a	6 969.40281	0.62	−1	b,a
20	5	16	5 294.03791	0.65	−1	b,a	6 974.36507	0.42	−1	b,a
20	5	15	5 513.23567	0.81	−1	b,a	7193.22208	0.64	−1	b,a
20	6	15	5 527.04593	0.69	−1	b,a	7 222.25685	0.45	−1	b,a
20	6	14	5 680.78823	1.01	−1	b,a	7 357.05014	0.63	−1	b,a
20	7	14	5 739.22983	0.59	−1	b,a	7 452.52983	0.42	−1	b,a
20	7	13	5 812.07351	1.12	−1	b,a	7 504.57630	0.73	−1	b,a
20	8	13	5 947.30617	0.71	−1	b,a	7 685.11313	0.43	−1	b,a
20	8	12	5 966.82348	1.10	−1	b,a	7696.34562	0.91	−1	b,a
20	9	12	6 167.71566	1.02	−1	b,a	7 934.16754	0.47	−1	b,a
20	9	11	6 170.83183	0.78	−1	b,a	7 935.76375	0.74	−1	b,a
20	10	11	6 407.07836	0.77	−1	b,a	8 202.75072	0.52	−1	b,a
20	10	10	6 407.44259	0.89	−1	b,a	8 202.92960	1.26	−1	b,a
20	11	10	6 664.14154	0.76	−1	b,a	8 487.90142	0.60	−1	b,a
20	11	9	6 664.17280	1.21	−1	b,a	8 487.92287	1.48	−1	b,a
20	12	9	6 935.42569	1.06	−1	b,a	8 785.78440	1.40	−1	b,a
20	12	8	6 935.42803	1.47	−1	b,a	8 785.79503	1.53	−1	b,a
20	13	8	7 217.56239	1.29	−1	b,a	9 092.98639	1.03	−1	b,a
20	13	7	7 217.56239	1.29		d	9 092.99803	8.92	−1	b
20	14	7	7 507.58026	1.26	−1	b,a	9 406.51529	1.13	−1	b,a
20	14	6	7 507.54493	9.91	−1	b	9 406.47492	5.23	−1	b,a
20	15	6	7 802.70883	1.45	−1	b,a	9 723.51309	1.08	−1	b,a
20	15	5	7 802.70883	1.45		d	9 723.51309	1.08		d
20	16	5	8 100.29052	1.35	−1	b,a	10 041.36500	1.38	−1	b,a
20	16	4	8100.29052	1.35		d	10 041.36500	1.38		d
20	17	4	8 397.64768	1.55	−1	b,a	10 357.33288	1.90	−1	b,a
20	17	3	8 397.64768	1.55		d	10 357.33288	1.90		d
20	18	3	8 691.92677	1.83	−1	b,a	10 668.49959	1.49	−1	b,a
20	18	2	8 691.92677	1.83		d	10 668.49959	1.49		d
20	19	2	8 979.88084	1.82	−1	b,a	10 971.50541	1.47	−1	b,a
20	19	1	8 979.88084	1.82		d	10 971.50541	1.47		d
20	20	1	9 257.45868	1.76	−1	b,a	11 262.09231	1.55	−1	b,a
20	20	0	9 257.45868	1.76		d	11 262.09231	1.55		d
21	0	21	4 438.74920	1.37	−1	b,a	5 998.16475	0.69	−1	b,a
21	1	21	4 438.74920	1.37		d	5 998.16475	0.69		d
21	1	20	4 820.64363	1.01	−1	b,a	6 430.79589	0.52	−1	b,a
21	2	20	4 820.64370	5.07	−1	b	6 430.69607	1.10	−1	b,a
21	2	19	5 163.08236	0.87	−1	b,a	6 804.47421	0.49	−1	b,a
21	3	19	5 163.08878	1.28	−1	b,a	6 804.50918	5.62	−1	b
21	3	18	5 471.86495	0.81	−1	b,a	7 136.57957	0.52	−1	b,a
21	4	18	5 471.96618	1.21	−1	b,a	7 136.91704	0.75	−1	b,a
21	4	17	5 748.12159	0.73	−1	b,a	7 428.75773	0.52	−1	b,a
21	5	17	5 749.24314	0.88	−1	b,a	7 431.80099	0.64	−1	b,a
21	5	16	5 987.87828	0.77	−1	b,a	7 674.13310	0.47	−1	b,a
21	6	16	5 996.51847	0.89	−1	b,a	7 693.71982	0.93	−1	b,a
21	6	15	6 177.35260	0.63	−1	b,a	7 858.38076	0.47	−1	b,a
21	7	15	6 219.62260	0.86	−1	b,a	7 933.29681	0.69	−1	b,a
21	7	14	6 318.55503	0.79	−1	b,a	8 007.87960	0.56	−1	b,a
21	8	14	6 433.11158	0.86	−1	b,a	8 169.37060	0.87	−1	b,a
21	8	13	6 465.23065	0.64	−1	b,a	8 188.71345	0.54	−1	b,a
21	9	13	6 654.29805	0.95	−1	b,a	8 418.26209	1.33	−1	b,a
21	9	12	6 660.35771	0.67	−1	b,a	8 421.76229	0.50	−1	b,a
21	10	12	6 893.30077	3.60	−1	b	8 687.03732	1.22	−1	b,a
21	10	11	6 894.11323	0.69	−1	b,a	8 687.43094	0.80	−1	b,a
21	11	11	7 150.56652	0.97	−1	b,a	8 972.79337	1.55	−1	b,a
21	11	10	7 150.65491	0.83	−1	b,a	8 972.83675	1.08	−1	b,a
21	12	10	7 422.88503	1.49	−1	b,a	9 272.11139	1.73	−1	b,a
21	12	9	7 422.87989	1.07	−1	b,a	9 272.11476	1.08	−1	b,a
21	13	9	7 706.83421	1.20		d	9 581.47925	1.76	−1	b,a
21	13	8	7 706.83421	1.20	−1	b,a	9 581.48119	1.12	−1	b,a
21	14	8	7 999.35610	1.34		d	9 897.86534	8.98	1	a
21	14	7	7 999.35610	1.34	−1	b,a	9 897.57071	1.19	−1	b,a
21	15	7	8 297.67293	14.50	−1	b	10 218.45471	10.00	−1	b
21	15	6	8 297.70726	1.40	−1	b,a	10 218.44110	1.62	−1	b,a
21	16	6	8 599.28031	1.61		d	10 540.66970	1.38		d
21	16	5	8 599.28031	1.61	−1	b,a	10 540.66970	1.38	−1	b,a
21	17	5	8 901.51026	1.48		d	10 861.94801	1.61		d
21	17	4	8 901.51026	1.48	−1	b,a	10 861.94801	1.61	−1	b,a
21	18	4	9 201.76096	1.67		d	11 179.59730	2.01		d
21	18	3	9 201.76096	1.67	−1	b,a	11 179.59730	2.01	−1	b,a
21	19	3	9 497.15137	1.84		d	11 490.68187	1.70		d
21	19	2	9 497.15137	1.84	−1	b,a	11 490.68187	1.70	−1	b,a
21	20	2	9 784.30368	1.90		d	11 791.69537	1.69		d
21	20	1	9 784.30368	1.90	−1	b,a	11 791.69537	1.69	−1	b,a
21	21	1	10 058.81926	1.83		d	12 077.98915	1.76		d
21	21	0	10 058.81926	1.83	−1	b,a	12 077.98915	1.76	−1	b,a
22	0	22	4 846.49605	1.32		d	6 402.15464	0.67		d
22	1	22	4 846.49605	1.32	−1	b,a	6 402.15464	0.67	18	e,a
22	1	21	5 246.07089	5.40	−1	b	6 855.98985	1.29	2	a
22	2	21	5 246.08010	1.01	−1	b,a	6 855.95279	1.65	17	e
22	2	20	5 604.30780	1.52	−1	b,a	7 246.15476	1.50	−1	g,a
22	3	20	5 604.31045	0.90	−1	b,a	7 246.17575	0.53	16	e,a
22	3	19	5 928.30745	1.37	−1	b,a	7 594.48449	0.96	4	e,a
22	4	19	5 928.36583	0.82	−1	b,a	7 594.68529	0.49	16	e,a
22	4	18	6 219.88905	0.99	−1	b,a	7 902.99121	0.74	4	a
22	5	18	6 220.53983	0.81	−1	b,a	7 904.85729	0.49	6	a
22	5	17	6 476.83169	0.97	−1	b,a	8 168.43977	0.76	3	a
22	6	17	6 482.15881	0.70	−1	b,a	8 181.35704	0.65	9	e,a
22	6	16	6 687.82797	0.89	−1	b,a	8 374.96725	0.62	10	e,a
22	7	16	6 717.17353	0.77	−1	b,a	8 431.52047	0.49	18	e,a
22	7	15	6 844.17739	0.90	−1	b,a	8 532.51122	1.25	4	e,a
22	8	15	6 937.40909	1.03	−1	b,a	8 672.45973	0.65	13	e,a
22	8	14	6 986.94763	1.20	−1	b,a	8 703.73959	4.80	2	e
22	9	14	7 160.51088	0.75	−1	b,a	8 922.50636	0.67	10	e,a

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$—Continued

J	K_a	K_c	000 or 00 0				010 or 00 1			
22	9	13	7 171.56700	0.94	−1	b,a	8 928.27621	1.30	4	e,a
22	10	13	7 399.23604	0.80	−1	b,a	9 190.50865	0.89	3	a
22	10	12	7 400.88246	0.91	−1	b,a	9 191.36642	1.53	4	e,a
22	11	12	7 656.38886	0.78	−1	b,a	9 476.57392	2.43	7	e,a
22	11	11	7 656.56559	2.93	−1	b,a	9 476.75619	1.58	1	a
22	12	11	7 929.41769	2.80	−1	b	9 777.02811	1.39	10	e,a
22	12	10	7 929.45284	1.34	−1	b,a	9 777.06645	1.84	1	a
22	13	10	8 214.89510	1.25	−1	b,a	10 088.26986	1.40	5	e,a
22	13	9	8 214.86073	6.97	−1	b	10 088.29638	1.92	2	e,a
22	14	9	8 509.65117	1.33	−1	b,a	10 407.24801	1.43	6	e,a
22	14	8	8 509.65117	1.33		d	10 407.55682	5.30	1	a
22	15	8	8 810.91478	1.46	−1	b,a	10 731.09238	1.55	1	a
22	15	7	8 810.91478	1.46		d	10 731.09910	9.03	1	a
22	16	7	9 116.12935	1.54	−1	b,a	11 057.31238	1.90	1	a
22	16	6	9 116.09705	14.70	−1	b	11 057.31238	1.90		d
22	17	6	9 422.81756	1.73	−1	b,a	11 383.44112	1.58	6	e,a
22	17	5	9 422.81756	1.73		d	11 383.44112	1.58		d
22	18	5	9 728.48425	1.52	−1	b,a	11 706.96576	1.82	4	e,a
22	18	4	9 728.48425	1.52		d	11 706.96576	1.82		d
22	19	4	10 030.51630	1.67	−1	b,a	12 025.23286	2.24	1	a
22	19	3	10 030.51630	1.67		d	12 025.23286	2.24		d
22	20	3	10 325.98291	1.78	−1	b,a	12 335.26059	1.86	4	e,a
22	20	2	10 325.98291	1.78		d	12 335.26059	1.86		d
22	21	2	10 611.34362	1.86	−1	b,a	12 633.34467	1.96	1	a
22	21	1	10 611.34362	1.86		d	12 633.34467	1.96		d
22	22	1	10 881.77457	1.90	−1	b,a	12 914.37782	2.02	1	a
22	22	0	10 881.77457	1.90		d	12 914.37782	2.02		d
23	0	23	5 271.37112	1.32	−1	b,a	6 823.21496	0.69	17	e,a
23	1	23	5 271.36142	9.22	−1	b	6 823.21496	0.69		d
23	1	22	5 688.50293	1.09	−1	b,a	7 298.21091	0.66	18	e,a
23	2	22	5 688.50293	1.09		d	7 298.21091	0.66		d
23	2	21	6 062.14783	1.14	−1	b,a	7 704.20534	0.73	12	e,a
23	3	21	6 062.14734	1.77	−1	b,a	7 704.26605	1.82	1	a
23	3	20	6 400.97976	0.86	−1	b,a	8 068.29695	0.63	4	a
23	4	20	6 401.01004	1.54	−1	b,a	8 068.42201	1.07	2	a
23	4	19	6 707.33957	0.84	−1	b,a	8 393.27598	0.70	6	e,a
23	5	19	6 707.72015	1.07	−1	b,a	8 394.43453	0.83	3	a
23	5	18	6 980.32159	0.82	−1	b,a	8 676.26106	0.66	9	e,a
23	6	18	6 983.57449	1.04	−1	b,a	8 684.66211	0.77	6	e,a
23	6	17	7 211.46005	1.11	−1	b,a	8 905.22261	0.81	6	e,a
23	7	17	7 231.17154	0.94	−1	b,a	8 946.40805	0.88	2	a
23	7	16	7 386.77781	0.85	−1	b,a	9 076.10312	0.71	7	e,a
23	8	16	7 459.68213	0.93	−1	b,a	9 193.61254	1.59	3	e,a
23	8	15	7 530.92498	0.87	−1	b,a	9 241.17747	0.81	7	e,a
23	9	15	7 685.71725	0.97	−1	b,a	9 445.15042	1.14	2	a
23	9	14	7 704.71749	0.85	−1	b,a	9 455.40275	0.74	8	e,a
23	10	14	7 924.44967	0.93	−1	b,a	9 714.75425	5.17	1	a
23	10	13	7 927.65884	0.81	−1	b,a	9 714.48555	0.84	9	e,a
23	11	13	8 181.26668	1.27	−1	b,a	9 998.88967	1.83	1	a
23	11	12	8 181.67927	0.88	−1	b,a	9 999.14073	1.33	1	a
23	12	12	8 454.68820	2.64	−1	b,a	10 300.15371	1.87	1	a
23	12	11	8 454.75477	1.11	−1	b,a	10 300.21604	2.32	7	e,a
23	13	11	8 741.38370	6.91	−1	b	10 612.95786	2.10	1	a
23	13	10	8 741.38122	2.17	−1	b,a	10 613.03295	1.61	7	e,a
23	14	10	9 038.08371	1.39		d	10 934.28277	2.16	1	a
23	14	9	9 038.08371	1.39	−1	b,a	10 933.94528	1.72	1	a
23	15	9	9 341.97062	1.44		d	11 261.06903	9.65	2	e
23	15	8	9 341.97062	1.44	−1	b,a	11 261.06504	1.66	6	e,a
23	16	8	9 650.48636	1.57		d	11 590.93106	1.85		d
23	16	7	9 650.48636	1.57	−1	b,a	11 590.93106	1.85	1	a
23	17	7	9 961.22807	1.67		d	11 921.46753	2.15		d
23	17	6	9 961.22807	1.67	−1	b,a	11 921.46753	2.15	1	a
23	18	6	10 271.82239	1.84		d	12 250.32082	1.87		d
23	18	5	10 271.82239	1.84	−1	b,a	12 250.32082	1.87	1	a
23	19	5	10 579.82683	1.65		d	12 575.06646	2.00		d
23	19	4	10 579.82683	1.65	−1	b,a	12 575.06646	2.00	4	e,a
23	20	4	10 882.63323	1.79		d	12 892.98164	2.46		d
23	20	3	10 882.63323	1.79	−1	b,a	12 892.98164	2.46	1	a
23	21	3	11 177.24118	1.88		d	13 201.06198	2.11		d
23	21	2	11 177.24118	1.88	−1	b,a	13 201.06198	2.11	1	a
23	22	2	11 459.91647	1.96		d	13 495.39392	2.20		d
23	22	1	11 459.91647	1.96	−1	b,a	13 495.39392	2.20	1	a
23	23	1	11 725.32088	1.98		d	13 770.28395	2.25		d
23	23	0	11 725.32088	1.98	−1	b,a	13 770.28395	2.25	1	a
24	0	24	5 713.25040	1.41		d	7 261.28902	0.78		d
24	1	24	5 713.25040	1.41	−1	b,a	7 261.28902	0.78	12	e,a
24	1	23	6 147.78505	1.12		d	7 757.46841	0.66		d
24	2	23	6 147.78505	1.12	−1	b,a	7 757.46841	0.66	13	e,a
24	2	22	6 536.43427	10.60	−1	b	8 178.43170	2.08	1	a
24	3	22	6 536.44409	0.92	−1	b,a	8 178.38995	0.63	−1	g,a
24	3	21	6 889.71792	1.14	−1	b,a	8 557.85312	1.15	2	a
24	4	21	6 889.73736	0.92	−1	b,a	8 557.94156	0.70	6	e,a
24	4	20	7 210.33075	1.17	−1	b,a	8 897.85271	1.47	1	a
24	5	20	7 210.55339	0.91	−1	b,a	8 898.56956	0.73	3	a
24	5	19	7 498.46778	1.78	−1	b,a	9 197.75908	1.03	2	a
24	6	19	7 500.45468	0.87	−1	b,a	9 203.17602	0.87	2	a
24	6	18	7 748.08136	0.99	−1	b,a	9 448.10077	1.33	1	a
24	7	18	7 761.00114	0.92	−1	b,a	9 477.22800	0.94	2	a
24	7	17	7 944.22913	0.96	−1	b,a	9 636.67115	1.22	2	a
24	8	17	7 999.01829	0.87	−1	b,a	9 732.09030	0.83	7	e,a
24	8	16	8 095.50869	1.32	−1	b,a	9 801.82815	5.08	1	a
24	9	16	8 229.39309	0.92	−1	b,a	9 986.07829	0.87	7	e,a
24	9	15	8 259.96278	1.28	−1	b,a	10 003.28888	1.88	1	a
24	10	15	8 468.50338	0.87	−1	b,a	10 253.87885	1.20	6	e,a
24	10	14	8 474.45217	1.31	−1	b,a	10 256.63173	1.50	2	e,a
24	11	14	8 724.84698	1.13	−1	b,a	10 539.15158	1.26	5	e,a
24	11	13	8 725.70252	1.30	−1	b,a	10 539.82065	5.26	1	a
24	12	13	8 998.36605	1.20	−1	b,a	10 841.06283	1.59	2	a
24	12	12	8 998.47583	1.49	−1	b,a	10 841.25478	2.08	1	a
24	13	12	9 285.94904	1.31	−1	b,a	11 154.96481	2.32	5	e,a
24	13	11	9 285.94588	2.51	−1	b,a	11 155.31124	2.12	1	a
24	14	11	9 584.27727	1.99	−1	b,a	11 478.56019	1.79	6	e,a
24	14	10	9 584.29051	5.08	−1	b,a	11 478.32237	2.32	1	a
24	15	10	9 890.49531	1.56	−1	b,a	11 807.97470	1.99	1	a
24	15	9	9 890.49531	1.56		d	11 807.95025	5.47	1	a
24	16	9	10 201.99770	1.60	−1	b,a	12 141.13666	1.85	4	e,a
24	16	8	10 201.99770	1.60		d	12 141.13666	1.85		d
24	17	8	10 516.41584	1.66	−1	b,a	12 475.69095	2.10	1	a
24	17	7	10 516.41584	1.66		d	12 475.69095	2.10		d
24	18	7	10 831.47174	1.80	−1	b,a	12 809.35083	2.37	1	a
24	18	6	10 831.47174	1.80		d	12 809.35083	2.37		d
24	19	6	11 144.87570	1.96	−1	b,a	13 139.91769	2.12	1	a
24	19	5	11 144.87570	1.96		d	13 139.91769	2.12		d
24	20	5	11 454.22415	1.67	−1	b,a	13 464.88632	2.16	3	e,a
24	20	4	11 454.22415	1.67		d	13 464.88632	2.16		d
24	21	4	11 756.89651	1.89	−1	b,a	13 781.63575	2.65	1	a
24	21	3	11 756.89651	1.89		d	13 781.63575	2.65		d
24	22	3	12 049.80709	1.95	−1	b,a	14 087.00711	2.33	1	a
24	22	2	12 049.80709	1.95		d	14 087.00711	2.33		d
24	23	2	12 328.99405	2.05	−1	b,a	14 376.84448	2.42	1	a
24	23	1	12 328.99405	2.05		d	14 376.84448	2.42		d
24	24	1	12 588.50657	2.06	−1	b,a	14 644.78688	2.47	1	a
24	24	0	12 588.50657	2.06		d	14 644.78688	2.47		d
25	0	25	6 172.00522	1.47	−1	b,a	7 715.65856	1.87	10	e,a
25	1	25	6 172.00522	1.47		d	7 715.65856	1.87		d
25	1	24	6 623.79390	1.20	−1	b,a	8 233.63397	1.35	8	e,a
25	2	24	6 623.79390	1.20		d	8 233.63397	1.35		d
25	2	23	7 027.02346	0.94	−1	b,a	8 668.35794	0.64	6	e,a

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$—Continued

J	K_a	K_c	000 or 00 0				010 or 00 1			
25	3	23	7 027.02346	0.94		d	8 668.52859	2.25	2	a
25	3	22	7 394.35225	0.95	−1	b,a	9 062.97399	0.89	7	e,a
25	4	22	7 394.36360	1.06	−1	b,a	9 063.08238	1.07	2	a
25	4	21	7 729.34050	0.80	−1	b,a	9 417.47391	0.66	4	a
25	5	21	7 729.47703	7.75	−1	b,a	9 417.93744	1.53	1	a
25	5	20	8 031.30597	1.29	−1	b,a	9 732.98390	0.74	6	e,a
25	6	20	8 032.51166	1.20	−1	b,a	9 736.40354	2.04	1	a
25	6	19	8 297.81714	0.92	−1	b,a	10 003.28834	0.92	2	a
25	7	19	8 306.15109	1.38	−1	b,a	10 023.34382	1.41	1	a
25	7	18	8 514.99185	0.91	−1	b,a	10 212.11450	1.30	1	a
25	8	18	8 554.64387	1.14	−1	b,a	10 287.05536	1.58	1	a
25	8	17	8 678.90268	0.92	−1	b,a	10 380.09177	1.38	1	a
25	9	17	8 790.62083	1.06	−1	b,a	10 544.46786	5.17	1	a
25	9	16	8 837.10333	1.20	−1	b,a	10 572.08242	1.25	4	e,a
25	10	16	9 030.87488	1.02	−1	b,a	10 812.60669	2.13	1	a
25	10	15	9 041.37259	1.28	−1	b,a	10 817.71708	1.28	2	a
25	11	15	9 286.77165	1.54	−1	b,a	11 098.38215	1.80	1	a
25	11	14	9 288.43586	0.89	−1	b,a	11 098.56873	1.49	5	e,a
25	12	14	9 560.07830	1.55	−1	b,a	11 398.76127	5.36	1	a
25	12	13	9 560.29720	1.34	−1	b,a	11 399.78838	1.55	2	e,a
25	13	13	9 848.23152	1.66	−1	b,a	11 715.79183	2.31	1	a
25	13	12	9 848.25873	1.39	−1	b,a	11 714.77760	5.94	3	e
25	14	12	10 147.88911	2.46	−1	b,a	12 039.67801	5.43	1	a
25	14	11	10 147.91371	1.48	−1	b,a	12 039.46426	2.35	4	e,a
25	15	11	10 456.11796	1.95		d				
25	15	10	10 456.11796	1.95	−1	b,a	12 371.45141	1.94	3	e,a
25	16	10	10 770.29467	1.69		d	12 707.55746	2.22		d
25	16	9	10 770.29467	1.69	−1	b,a	12 707.55746	2.22	1	a
25	17	9	11 088.04083	1.72		d	13 045.74011	2.10		d
25	17	8	11 088.04083	1.72	−1	b,a	13 045.74011	2.10	1	a
25	18	8	11 407.13959	1.76		d	13 384.12582	2.32	1	a
25	18	7	11 407.13959	1.76	−1	b,a	13 384.12582	2.32		d
25	19	7	11 725.40881	1.91		d	13 719.59180	2.57		d
25	19	6	11 725.40881	1.91	−1	b,a	13 719.59180	2.57	1	a
25	20	6	12 040.64069	2.06		d	14 050.85659	2.34		d
25	20	5	12 040.64069	2.06	−1	b,a	14 050.85659	2.34	1	a
25	21	5	12 350.42445	1.81		d	14 375.24819	2.38		d
25	21	4	12 350.42445	1.81	−1	b,a	14 375.24819	2.38	1	a
25	22	4	12 652.14800	1.98		d	14 690.06263	5.66		d
25	22	3	12 652.14800	1.98	−1	b,a	14 690.06263	5.66	1	a
25	23	3	12 942.61231	2.03		d	14 992.03348	2.54		d
25	23	2	12 942.61231	2.03	−1	b,a	14 992.03348	2.54	1	a
25	24	2	13 217.59834	2.13		d	15 276.74324	2.19		d
25	24	1	13 217.59834	2.13	−1	b,a	15 276.74324	2.19	2	a
25	25	1	13 470.42766	2.13		d	15 537.01552	2.66		d
25	25	0	13 470.42766	2.13	−1	b,a	15 537.01552	2.66	1	a
26	0	26	6 647.49310	2.64		d	8 187.68007	1.14		d
26	1	26	6 647.49310	2.64	12	e	8 187.68007	1.14	11	e,a
26	1	25	7 116.38279	1.87		d	8 726.65106	0.88		d
26	2	25	7 116.38279	1.87	16	e,a	8 726.65106	0.88	9	e,a
26	2	24	7 533.69254	2.70		d	9 174.27166	2.47	1	a
26	3	24	7 533.69254	2.70	1	a	9 174.27631	1.32	3	e,a
26	3	23	7 914.69801	1.46	1	a	9 583.45438	1.46	1	a
26	4	23	7 914.69060	2.55	15	e	9 583.34524	0.96	2	a
26	4	22	8 262.76581	1.35	2	a	9 951.89993	1.78	2	a
26	5	22	8 262.84502	0.94	2	a	9 952.21737	0.87	2	a
26	5	21	8 578.76660	1.07	2	a	10 281.59851	1.56	1	a
26	6	21	8 579.50182	1.05	2	a	10 283.80226	0.80	3	a
26	6	20	8 860.90030	1.71	1	a	10 570.56708	1.72	1	a
26	7	20	8 866.18424	0.90	8	e,a	10 584.15122	0.90	2	a
26	7	19	9 098.06732	1.09	2	a				
26	8	19	9 125.86354	1.04	2	a	10 857.75605	0.80	3	a
26	8	18	9 278.47311	1.71	1	a	10 978.19153	5.19	1	a
26	9	18	9 368.73378	0.96	2	a	11 120.18888	1.06	2	a
26	9	17	9 435.38362	1.51	1	a				
26	10	17	9 611.33220	4.17	6	e	11 388.86771	1.55	3	e,a
26	10	16	9 628.60752	1.45	1	a	11 397.69400	5.27	1	a
26	11	16	9 866.64129	1.04	2	a	11 673.78669	1.49	3	a
26	11	15	9 869.68079	1.43	1	a	11 674.84307	2.35	1	a
26	12	15	10 139.48439	1.27	6	e,a	11 976.46997	1.79	1	a
26	12	14	10 139.93412	1.79	3	e,a	11 975.47755	2.06	1	a
26	13	14	10 427.88349	1.58	7	e,a	12 291.41429	1.84	1	a
26	13	13	10 427.95141	1.84	1	a	12 290.95969	5.45	1	a
26	14	13	10 728.57600	1.60	7	e,a	12 617.27956	5.16	2	e,a
26	14	12	10 728.58150	5.27	1	a	12 617.03298	5.51	1	a
26	15	12	11 038.51280	1.57	7	e,a	12 951.02566	2.55	1	a
26	15	11	11 038.49904	2.65	1	a	12 951.14701	5.52	1	a
26	16	11	11 355.01081	2.02	6	e,a	13 289.82256	2.18	1	a
26	16	10	11 355.01081	2.02		d	13 289.82256	2.18		d
26	17	10	11 675.81153	1.84	5	e,a	13 631.25314	2.44	1	a
26	17	9	11 675.87915	1.97	1	a	13 631.25314	2.44		d
26	18	9	11 998.50966	1.86	6	e,a	13 973.37726	2.33	1	a
26	18	8	11 998.50966	1.86		d	13 973.37726	2.33		d
26	19	8	12 321.17184	1.91	6	e,a	14 313.81137	5.51	1	a
26	19	7	12 321.17184	1.91		d	14 313.81137	5.51		d
26	20	7	12 641.65994	2.02	4	e,a	14 650.71930	5.62	1	a
26	20	6	12 641.65994	2.02		d	14 650.71930	5.62		d
26	21	6	12 957.80670	2.29	1	a	14 981.89217	5.52	1	a
26	21	5	12 957.80670	2.29		d	14 981.89217	5.52		d
26	22	5	13 267.23548	2.06	1	a	15 304.95852	5.54	1	a
26	22	4	13 267.23548	2.06		d	15 304.95852	5.54		d
26	23	4	13 567.28094	2.13	3	e,a	15 617.17689	7.55	1	a
26	23	3	13 567.28094	2.13		d	15 617.17689	7.55		d
26	24	3	13 854.63593	2.26	1	a	15 915.15921	5.61	1	a
26	24	2	13 854.63593	2.26		d	15 915.15921	5.61		d
26	25	2	14 124.79604	2.25	4	e,a	16 194.18227	5.46	1	a
26	25	1	14 124.79604	2.25		d	16 194.18227	5.46		d
26	26	1	14 370.22370	2.29	3	e,a	16 446.13557	2.84	1	a
26	26	0	14 370.22370	2.29		d	16 446.13557	2.84		d
27	0	27	7 139.59254	1.99	14	e,a	8 676.10299	1.02	9	e,a
27	1	27	7 139.59254	1.99		d	8 676.10299	1.02		d
27	1	26	7 625.42754	1.52	14	e,a	9 236.46260	0.80	7	e,a
27	2	26	7 625.42754	1.52		d	9 236.46260	0.80		d
27	2	25	8 056.27630	1.73	3	a	9 695.33495	1.10	3	a
27	3	25	8 056.27630	1.73		d	9 695.35436	2.66	1	a
27	3	24	8 450.54780	1.48	12	e,a	10 119.12126	2.74	1	a
27	4	24	8 450.56331	1.77	1	a	10 119.02359	1.77	1	a
27	4	23	8 811.58617	1.37	1	a	10 500.88622	2.37	1	a
27	5	23	8 811.63196	1.68	1	a	10 501.20468	2.04	1	a
27	5	22	9 140.68761	2.15	7	e,a	10 837.77858	1.28	1	a
27	6	22	9 141.14303	1.95	1	a	10 838.51434	1.86	1	a
27	6	21	9 437.36460	1.34	1	a	11 149.99198	1.34	1	a
27	7	21	9 440.77255	1.98	1	a	11 159.07716	1.99	1	a
27	7	20	9 693.05170	1.02	2	a	11 401.70744	0.90	2	a
27	8	20	9 712.04365	1.04	2	a				
27	8	19	9 892.70425	1.30	4	e,a				
27	9	19	9 962.97353	1.98	1	a	11 711.88599	5.29	1	a
27	9	18	10 053.46663	1.44	1	a	11 774.78742	1.28	1	a
27	10	18	10 208.67538	1.15	2	a				
27	10	17	10 236.30720	1.38	1	a	11 996.73978	1.46	1	a
27	11	17	10 463.97703	1.76	1	a	12 266.48459	5.36	1	a
27	11	16	10 469.61327	4.29	1	a	12 268.85556	1.84	1	a
27	12	16	10 736.17236	1.74	1	a	12 568.14068	2.55	1	a
27	12	15	10 737.11681	1.44	1	a	12 568.00037	1.79	1	a

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$ —Continued

J	K_a	K_c	000 or 00 0				010 or 00 1			
27	13	15	11 024.56818	1.99	2	e,a	12 884.12983	5.41	1	a
27	13	14	11 024.70057	1.54	5	e,a				
27	14	14	11 325.96099	2.10	1	a	13 211.16617	5.54	1	a
27	14	13	11 325.98765	1.78	5	e,a	13 210.76970	2.10	1	a
27	15	13	11 637.27352	5.36	1	a				
27	15	12	11 637.29475	1.78	6	e,a				
27	16	12	11 955.80916	2.83	1	a	13 887.56787	7.45	1	a
27	16	11	11 955.83542	1.77	4	e,a	13 887.49545	5.62	1	a
27	17	11	12 279.23222	2.10		d	14 231.90688	2.40	1	a
27	17	10	12 279.23222	2.10	5	e,a	14 231.90688	2.40		d
27	18	10	12 605.54615	3.98		d	14 577.57449	5.56		d
27	18	9	12 605.54615	3.98	1	a	14 577.57449	5.56	1	a
27	19	9	12 931.87672	1.99		d	14 922.27868	5.51		d
27	19	8	12 931.87672	1.99	1	a	14 922.27868	5.51	1	a
27	20	8	13 257.10311	2.04		d	15 264.25320	7.44		d
27	20	7	13 257.10311	2.04	4	e,a	15 264.25320	7.44	1	a
27	21	7	13 578.90874	2.15		d	15 601.47143	7.52		d
27	21	6	13 578.90874	2.15	2	e,a	15 601.47143	7.52	1	a
27	22	6	13 895.17236	2.49		d	15 931.80770	4.48		d
27	22	5	13 895.17236	2.49	1	a	15 931.80770	4.48	2	a
27	23	5	14 203.51514	2.29		d	16 252.89138	7.46		d
27	23	4	14 203.51514	2.29	1	a	16 252.89138	7.46	1	a
27	24	4	14 501.23669	2.27		d	16 561.93898	9.06		d
27	24	3	14 501.23669	2.27	3	e,a	16 561.93898	9.06	1	a
27	25	3	14 784.89777	5.49		d	16 855.41391	7.51		d
27	25	2	14 784.89777	5.49	1	a	16 855.41391	7.51	1	a
27	26	2	15 049.69158	2.36		d	17 128.28932	7.40		d
27	26	1	15 049.69158	2.36	3	e,a	17 128.28932	7.40	1	a
27	27	1	15 287.07544	2.50		d	17 371.35145	5.75		d
27	27	0	15 287.07544	2.50	1	a	17 371.35145	5.75	1	a
28	0	28	7 648.15125	1.90		d	9 181.13639	0.96		d
28	1	28	7 648.15125	1.90	12	e,a	9 181.13639	0.96	11	e,a
28	1	27	8 150.77169	1.51		d	9 763.18388	0.71		d
28	2	27	8 150.77169	1.51	12	e,a	9 763.18388	0.71	5	a
28	2	26	8 594.55013	1.79		d	10 231.28755	1.81	1	a
28	3	26	8 594.55013	1.79	2	a	10 231.34539	2.00	1	a
28	3	25	9 001.72235	0.93		d				
28	4	25	9 001.72235	0.93	11	e,a	10 669.59036	1.40	2	a
28	4	24	9 375.31030	1.96	1	a	11 064.22348	2.28	1	a
28	5	24	9 375.33989	1.70	1	a	11 063.79320	1.70	1	a
28	5	23	9 716.75173	1.33	2	a	11 424.87078	2.11	1	a
28	6	23	9 717.02087	1.43	2	a	11 425.83117	1.67	1	a
28	6	22	10 027.38485	2.22	1	a				
28	7	22	10 029.51187	1.68	1	a	11 747.31363	1.68	1	a
28	7	21	10 299.90534	1.44	1	a				
28	8	21	10 312.64405	1.43	1	a	12 043.54558	1.35	1	a
28	8	20	10 519.74111	2.22	1	a				
28	9	20	10 572.59107	1.17	2	a				
28	10	19	10 822.54060	1.43	1	a				
28	10	18	10 864.39736	2.22	1	a	12 614.68645	5.15	2	a
28	11	18	11 079.21352	1.58	5	e,a	12 876.17563	1.77	1	a
28	11	17	11 087.99270	1.52	1	a				
28	12	17	11 349.98442	4.40	1	a	13 176.73117	2.10	1	a
28	12	16	11 351.62162	2.03	1	a	13 176.99032	5.46	1	a
28	13	16	11 637.94054	1.75	1	a	13 492.75861	2.05	1	a
28	13	15	11 638.13385	2.01	1	a	13 492.39184	5.61	1	a
28	14	15	11 939.69754	1.75	4	e,a				
28	14	14	11 939.75855	2.23	1	a	13 820.12568	7.36	1	a
28	15	14	12 252.10280	1.95	3	e,a	14 157.37707	2.14	2	a
28	15	13	12 252.13250	2.32	1	a	14 157.18973	7.46	1	a
28	16	13	12 572.33205	1.93	4	e,a				
28	16	12	12 572.35872	7.33	1	a				
28	17	12	12 898.11398	1.94	3	e,a	14 847.12698	7.52	1	a
28	17	11	12 898.10402	5.75	1	a	14 847.18506	8.97	1	a
28	18	11	13 227.02320	2.20	4	e,a	15 196.20229	5.55	1	a
28	18	10	13 227.02320	2.20		d	15 196.20229	5.55		d
28	19	10	13 557.51142	4.10	1	a	15 544.67105	7.48	1	a
28	19	9	13 557.51142	4.10		d	15 544.67105	7.48		d
28	20	9	13 886.70595	2.22	1	a	15 891.19177	7.44	1	a
28	20	8	13 886.70595	2.22		d	15 891.19177	7.44		d
28	21	8	14 213.58668	2.18	2	e,a	16 233.80789	8.97	1	a
28	21	7	14 213.58668	2.18		d	16 233.80789	8.97		d
28	22	7	14 535.89800	2.36	1	a	16 570.58649	9.03	1	a
28	22	6	14 535.89800	2.36		d	16 570.58649	9.03		d
28	23	6	14 851.56256	5.58	1	a	16 899.43740	6.71	1	a
28	23	5	14 851.56256	5.58		d	16 899.43740	6.71		d
28	24	5	15 158.16498	5.50	1	a	17 217.96456	8.98	1	a
28	24	4	15 158.16498	5.50		d	17 217.96456	8.98		d
28	25	4	15 452.99194	2.42	2	e,a	17 523.37409	10.35		d
28	25	3	15 452.99194	2.42		d	17 523.37409	10.35	1	a
28	26	3	15 732.45423	7.42	1	a	17 811.86941	9.03	1	a
28	26	2	15 732.45423	7.42		d	17 811.86941	9.03		d
28	27	2	15 991.42817	5.00	2	e,a	18 078.22408	8.93	1	a
28	27	1	15 991.42817	5.00		d	18 078.22408	8.93		d
28	28	1	16 220.19037	5.59	1	a	18 311.89961	7.62	1	a
28	28	0	16 220.19037	5.59		d	18 311.89961	7.62		d
29	0	29	8 173.02249	1.89	12	e,a	9 702.72221	1.12	6	e,a
29	1	29	8 173.02249	1.89		d	9 702.72221	1.12		d
29	1	28	8 692.26398	1.57	9	e,a	10 312.82326	1.02	2	a
29	2	28	8 692.26398	1.57		d	10 312.93194	0.99	2	a
29	2	27	9 148.28433	1.82	−1	f,a	10 781.89282	1.51	2	a
29	3	27	9 148.28433	1.82		d	10 781.89282	1.51		d
29	3	26	9 567.99354	1.28	10	e,a	11 234.83216	1.07	2	a
29	4	26	9 567.99354	1.28		d	11 234.91541	1.91	1	a
29	4	25	9 953.71416	1.97	1	a	11 641.55919	1.97	1	a
29	5	25	9 953.73017	2.20	1	a	11 641.40036	2.49	1	a
29	5	24	10 300.64016	1.04	2	a				
29	6	24	10 300.71255	1.05	2	a	12 015.49023	2.33	1	a
29	6	23	10 630.78550	1.95	1	a				
29	7	23	10 632.13888	2.43	1	a				
29	7	22	10 918.75574	1.75	1	a				
29	8	22	10 927.18818	1.76	1	a				
29	8	21	11 158.44709	1.54	1	a				
29	9	21	11 196.87490	2.43	1	a				
29	9	20	11 342.27943	1.75	1	a				
29	10	19	11 512.44959	1.53	1	a				
29	11	19					13 501.53332	5.24	1	a
29	11	18	11 724.97706	1.74	1	a				
29	12	18	11 980.27957	1.82	1	a				
29	12	17	11 983.33095	1.81	2	e,a	13 802.27843	5.30	1	a
29	13	17	12 267.64426	2.26	1	a	14 117.44632	7.40	1	a
29	13	16	12 268.17577	4.51	1	a	14 116.84732	5.42	1	a
29	14	16	12 569.38409	5.39	1	a	14 445.54791	7.52	1	a
29	14	15	12 569.57280	2.02	1	a	14 444.91932	5.41	1	a
29	15	15	12 882.61536	2.44	1	a	14 783.39851	8.90	1	a
29	15	14	12 882.67254	1.93	2	e,a				
29	16	14	13 204.16644	2.52	1	a	15 127.88248	8.98	1	a
29	16	13	13 204.29726	2.11	2	e,a	15 127.93048	5.44	1	a
29	17	13	13 532.04293	8.87	1	a				
29	17	12	13 532.06163	4.75	2	e,a				
29	18	12	13 863.54177	5.36		d	15 828.79550	9.03		d
29	18	11	13 863.54177	5.36	1	a	15 828.79550	9.03	1	a
29	19	11	14 196.87669	2.31		d	16 180.71780	7.47		d
29	19	10	14 196.87669	2.31	2	e,a	16 180.71780	7.47	1	a
29	20	10	14 530.48920	4.22		d	16 531.21737	9.00		d
29	20	9	14 530.48920	4.22	1	a	16 531.21737	9.00	1	a
29	21	9	14 861.62532	2.43		d	16 878.60565	8.97		d
29	21	8	14 861.62532	2.43	1	a	16 878.60565	8.97	1	a
29	22	8	15 189.33698	5.45		d	17 220.87118	10.27		d

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$—Continued

J	K_a	K_c	000 or 00 0				010 or 00 1			
29	22	7	15 189.33698	5.45	1	a	17 220.87118	10.27	1	a
29	23	7	15 511.42266	5.53		d	17 557.17554	10.33		d
29	23	6	15 511.42266	5.53	1	a	17 557.17554	10.33	1	a
29	24	6	15 825.76850	7.50		d	17 883.69814	8.37		d
29	24	5	15 825.76850	7.50	1	a	17 883.69814	8.37	1	a
29	25	5	16 130.12885	7.43		d	18 199.13906	10.28		d
29	25	4	16 130.12885	7.43	1	a	18 199.13906	10.28	1	a
29	26	4	16 421.56158	5.55		d	18 500.37007	11.49		d
29	26	3	16 421.56158	5.55	1	a	18 500.37007	11.49	1	a
29	27	3	16 696.39277	8.95		d	18 783.62186	10.32		d
29	27	2	16 696.39277	8.95	1	a	18 783.62186	10.32	1	a
29	28	2	16 949.17494	7.07		d	19 043.16970	10.24		d
29	28	1	16 949.17494	7.07	1	a	19 043.16970	10.24	1	a
29	29	1	17 168.81788	7.50		d	19 267.04640	9.11		d
29	29	0	17 168.81788	7.50	1	a	19 267.04640	9.11	1	a
30	0	30	8 714.05583	1.96		d	10 240.80422	1.20		d
30	1	30	8 714.05583	1.96	11	e,a	10 240.80422	1.20	3	a
30	1	29	9 249.74957	1.66		d	10 863.88979	0.85		d
30	2	29	9 249.74957	1.66	8	e,a	10 863.88979	0.85	3	a
30	2	28	9 717.22916	1.94		d	11 346.62153	1.36		d
30	3	28	9 717.22916	1.94	2	a	11 346.62153	1.36	2	a
30	3	27	10 149.14283	1.54		d	11 814.71698	1.09		d
30	4	27	10 149.14283	1.54	6	e,a	11 814.71698	1.09	2	a
30	4	26	10 546.56317	2.42	1	a	12 232.86510	2.21		d
30	5	26	10 546.57445	2.21	1	a	12 232.86510	2.21	1	a
30	6	25	10 913.68294	1.02	2	a				
30	6	24	11 247.41183	2.63	1	a				
30	7	24	11 248.25376	2.19	1	a				
30	7	23	11 549.77265	2.02	1	a				
30	8	23	11 555.26215	2.01	1	a				
30	9	22	11 835.28406	1.84	1	a				
30	10	21	12 097.46204	2.01	1	a				
30	11	20	12 357.01343	1.83	1	a				
30	12	18					14 443.18584	7.24	1	a
30	13	18	12 913.19893	5.32	1	a	14 757.24004	7.29	1	a
30	13	17	12 914.37313	5.32	1	a				
30	14	17	13 214.88329	4.62	1	a				
30	14	16	13 215.10960	5.49	1	a	15 084.59762	8.93	1	a
30	15	16	13 528.46349	2.24	1	a	15 423.96796	7.36	1	a
30	15	15	13 528.51843	7.35	1	a	15 424.13543	9.03	1	a
30	16	15	13 850.79168	5.36	1	a				
30	16	14	13 851.27320	5.56	1	a				
30	17	14	14 180.73135	2.32	1	a	16 120.48944	7.39	1	a
30	17	13	14 180.77264	5.60	1	a				
30	18	13	14 514.43214	5.71	2	a				
30	18	12	14 514.43214	5.71		d				
30	19	12	14 850.58139	7.33	1	a	16 829.89462	10.32	1	a
30	19	11	14 850.58139	7.33		d	16 829.89462	10.32		d
30	20	11	15 187.27305	5.51	1	a	17 184.02224	8.99	1	a
30	20	10	15 187.27305	5.51		d	17 184.02224	8.99		d
30	21	10	15 523.07569	6.54	1	a	17 535.16250	10.29		d
30	21	9	15 523.07569	6.54		d	17 535.16250	10.29	1	a
30	22	9	15 855.31837	5.56	1	a	17 884.23480	10.27	1	a
30	22	8	15 855.31837	5.56		d	17 884.23480	10.27		d
30	23	8	16 183.12256	7.40	1	a				
30	23	7	16 183.12256	7.40		d				
30	24	7	16 504.32360	7.46	1	a	18 559.35669	11.47	1	a
30	24	6	16 504.32360	7.46		d	18 559.35669	11.47		d
30	25	6	16 816.85425	9.01	1	a	18 883.43508	9.75	1	a
30	25	5	16 816.85425	9.01		d	18 883.43508	9.75		d
30	26	5	17 118.34980	8.96	1	a				
30	26	4	17 118.34980	8.96		d				
30	27	4	17 405.98907	7.47	1	a	19 492.32106	12.53	1	a
30	27	3	17 405.98907	7.47		d	19 492.32106	12.53		d
30	28	3	17 675.82703	10.25	1	a	19 769.73459	11.46	1	a
30	28	2	17 675.82703	10.25		d	19 769.73459	11.46		d
30	29	2	17 922.13026	8.66	1	a	20 022.33431	11.39	1	a
30	29	1	17 922.13026	8.66		d	20 022.33431	11.39		d
30	30	1	18 132.22760	9.01	1	a				
30	30	0	18 132.22760	9.01		d				
31	0	31	9 271.09431	2.05	8	e,a	10 795.33973	1.23	5	e,a
31	1	31	9 271.09431	2.05		d	10 795.33973	1.23		d
31	1	30	9 823.06898	1.76	9	e,a	11 439.90083	1.31		d
31	2	30	9 823.06898	1.76		d	11 439.90083	1.31	1	a
31	2	29	10 301.11362	2.18	1	a	11 925.57718	1.34		d
31	3	29	10 301.11362	2.18		d	11 925.57718	1.34	2	a
31	3	28	10 744.94457	1.46	2	a	12 408.87860	1.48	1	a
31	4	28	10 744.94457	1.46		d				
31	4	27	11 153.62102	2.42	1	a	12 836.65642	2.42	1	a
31	5	27	11 153.62763	2.61	1	a				
31	5	26	11 531.72164	1.43	1	a				
31	6	25	11 876.51865	2.41	1	a				
31	7	25	11 877.04330	2.81	1	a				
31	7	24	12 192.87434	2.25	1	a				
31	13	19					15 411.99718	8.80	1	a
31	14	18	13 875.63534	7.30	1	a				
31	14	17	13 876.10896	7.30	1	a	15 738.95122	8.84	1	a
31	15	17	14 189.27323	7.42	1	a				
31	15	16	14 189.55705	6.81	1	a				
31	17	15	14 843.81745	7.48	1	a				
31	18	14	15 179.41028	7.51	1	a				
31	18	13	15 179.40060	5.51	1	a				
31	19	13	15 517.98683	7.59		d				
31	19	12	15 517.98683	7.59	1	a				
31	20	12	15 857.68924	8.88		d				
31	20	11	15 857.68924	8.88	1	a				
31	24	8	17 193.74311	8.93		d				
31	24	7	17 193.74311	8.93	1	a				
31	25	7	17 513.48070	8.98		d				
31	25	6	17 513.48070	8.98	1	a				
31	26	6	17 823.71851	10.30		d				
31	26	5	17 823.71851	10.30	1	a				
31	27	5	18 121.89332	10.26		d				
31	27	4	18 121.89332	10.26	1	a				
31	28	4	18 405.34954	8.99		d	20 497.90821	13.49	1	a
31	28	3	18 405.34954	8.99	1	a	20 497.90821	13.49		d
31	29	3	18 669.89265	11.41		d				
31	29	2	18 669.89265	11.41	1	a				
31	30	2	18 909.51392	10.00		d	21 014.93795	12.44	1	a
31	30	1	18 909.51392	10.00	1	a	21 014.93795	12.44		d
31	31	1	19 109.72107	10.31		d				
31	31	0	19 109.72107	10.31	1	a				
32	0	32	9 843.97749	2.14		d	11 366.29990	13.65		d
32	1	32	9 843.97749	2.14	6	e,a	11 366.29990	13.65	1	e
32	1	31	10 412.05817	1.86		d				
32	2	31	10 412.05817	1.86	7	e,a				
32	2	30	10 899.64041	2.40		d				
32	3	30	10 899.64041	2.40	1	a				
32	3	29	11 355.16088	1.77		d				
32	4	29	11 355.16088	1.77	1	a				
32	4	28	11 774.63775	2.62		d				
32	5	28	11 774.63775	2.62	1	a				
32	9	24	13 152.15190	11.58	1	e				
32	15	18	14 864.59773	8.85	1	a				
32	15	17	14 865.29623	8.85	1	a				
32	31	2	19 910.56202	11.18	1	a	22 020.29878	13.41	1	a
32	31	1	19 910.56202	11.18		d				
32	32	1	20 100.77228	11.46	1	a				
32	32	0	20 100.77228	11.46		d				

TABLE 2. Term values for the ground and first excited state of $H_2{}^{16}O$—Continued

J	K_a	K_c	000 or 00 0			
33	0	33	10 432.54046	2.29	5	e,a
33	1	33	10 432.54046	2.29		d
33	1	32	11 016.54895	2.06	2	a
33	2	32	11 016.54895	2.06		d
33	2	31	11 512.48648	2.60	1	a
33	3	31	11 512.48648	2.60		d
33	3	30	11 979.55572	2.03	1	a
33	4	30	11 979.55572	2.03		d
33	4	29	12 409.33990	2.81	1	a
33	5	29	12 409.33990	2.81		d
33	33	1	21 105.38800	12.50		d
33	33	0	21 105.38800	12.50	1	a
34	0	34	11 036.61378	2.42		d
34	1	34	11 036.61378	2.42	4	e,a
34	1	33	11 636.36835	2.28		d
34	2	33	11 636.36835	2.28	−1	f,a
35	0	35	11 656.02503	2.62	1	a
35	1	35	11 656.02503	2.62		d

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$

J	K_a	K_c	020 or	00 2			100 or	$10^{+}0$			001 or	$10^{-}0$		
0	0	0	3 151.63007	0.08	−1	c,a	3 657.05323	0.04	−1	c	3 755.92868	0.03	−1	c,a
1	0	1	3 175.44132	0.03	−1	c,a	3 680.45354	0.06	−1	c,a	3 779.49307	0.05	−1	c
1	1	1	3 196.09333	0.02	−1	c,a	3 693.29348	0.05	−1	c	3 791.70090	0.02	−1	c,a
1	1	0	3 201.91343	0.03	−1	c,a	3 698.49117	0.06	−1	c,a	3 796.98161	0.05	−1	c,a
2	0	2	3 221.96117	0.02	−1	c,a	3 725.94197	0.03	−1	c,a	3 825.21298	0.06	−1	c,a
2	1	2	3 237.91735	0.04	−1	c,a	3 734.89681	0.19	−1	c,a	3 833.57663	0.03	−1	c,a
2	1	1	3 255.34595	0.04	−1	c,a	3 750.46434	0.04	−1	c,a	3 849.38533	0.04	−1	c,a
2	2	1	3 316.14534	0.04	−1	c,a	3 788.69434	0.07	−1	c,a	3 885.73775	0.06	−1	c,a
2	2	0	3 317.21064	0.05	−1	c,a	3 789.96940	0.05	−1	c,a	3 887.11416	0.03	−1	c,a
3	0	3	3 289.24253	0.03	−1	c,a	3 791.37207	0.06	−1	c,a	3 890.82932	0.07	−1	c,a
3	1	3	3 299.99106	0.05	−1	c,a	3 796.53970	0.04	−1	c,a	3 895.58800	0.02	−1	c,a
3	1	2	3 334.62654	0.03	−1	c,a	3 827.39264	0.02	−1	c,a	3 926.86209	0.07	−1	c,a
3	2	2	3 387.68065	0.05	−1	c,a	3 858.87558	0.04	−1	c,a	3 956.66578	0.07	−1	c,a
3	2	1	3 392.74934	0.04	−1	c,a	3 864.76372	0.05	−1	c,a	3 962.91780	0.03	−1	c,a
3	3	1	3 500.51110	0.04	−1	c,a	3 935.21126	0.08	−1	c,a	4 030.06989	0.06	−1	c,a
3	3	0	3 500.63869	0.05	−1	c,a	3 935.34470	0.04	−1	c,a	4 030.30616	0.04	−1	c,a
4	0	4	3 375.29782	0.07	−1	c,a	3 875.01704	0.06	−1	c,a	3 974.63090	0.05	−1	c,a
4	1	4	3 381.70424	0.04	−1	c,a	3 877.57516	0.05	−1	c,a	3 977.26146	0.03	−1	c,a
4	1	3	3 438.57499	0.05	−1	c,a	3 927.80275	0.12	−1	c,a	4 027.80399	0.03	−1	c,a
4	2	3	3 482.06447	0.04	−1	c,a	3 951.31505	0.04	−1	c,a	4 050.05215	0.04	−1	c,a
4	2	2	3 495.93919	0.05	−1	c,a	3 966.55932	0.07	−1	c,a	4 066.12251	0.02	−1	c,a
4	3	2	3 597.86602	0.04	−1	c,a	4 030.83892	0.06	−1	c,a	4 125.14862	0.06	−1	c,a
4	3	1	3 598.72702	0.04	−1	c,a	4 031.85358	0.04	−1	c	4 126.46336	0.04	−1	c,a
4	4	1	3 746.76262	0.04	−1	c,a	4 135.01762	0.03	−1	c,a	4 224.81686	0.05	−1	c
4	4	0	3 746.77595	0.04	−1	c,a	4 134.79845	0.06	−1	c,a	4 224.85096	0.08	−1	c,a
5	0	5	3 478.98647	0.03	−1	c,a	3 976.30807	0.05	−1	c,a	4 076.14328	0.04	−1	c,a
5	1	5	3 482.48019	0.05	−1	c,a	3 977.45644	0.06	−1	c,a	4 076.89581	0.03	−1	c,a
5	1	4	3 565.45461	0.03	−1	c,a	4 049.53611	0.07	−1	c,a	4 149.89926	0.04	−1	c,a
5	2	4	3 598.51596	0.05	−1	c,a	4 065.13186	0.06	−1	c	4 165.47381	0.06	−1	c,a
5	2	3	3 626.92216	0.03	−1	c,a	4 095.91994	0.06	−1	c,a	4 195.97092	0.04	−1	c,a
5	3	3	3 719.49286	0.04	−1	c,a	4 150.28736	0.06	−1	c	4 244.30465	0.03	−1	c,a
5	3	2	3 722.73097	0.05	−1	c,a	4 153.93806	0.04	−1	c,a	4 248.15245	0.04	−1	c,a
5	4	2	3 868.87286	0.04	−1	c,a	4 257.78674	0.05	−1	c,a	4 345.27203	0.07	−1	c,a
5	4	1	3 868.98687	0.04	−1	c,a	4 256.24128	0.05	−1	c,a	4 345.55908	0.06	−1	c,a
5	5	1	4 050.50371	0.06	−1	c,a	4 381.90416	0.07	−1	c	4 468.69324	0.08	−1	c,a
5	5	0	4 050.51269	0.08	−1	c,a	4 381.90399	0.03	−1	c,a	4 468.69775	0.09	−1	c
6	0	6	3 600.05235	0.04	−1	c,a	4 095.31531	0.07	−1	c,a	4 195.47720	0.03	−1	c,a
6	1	6	3 601.85888	0.03	−1	c,a	4 095.80318	0.06	−1	c,a	4 195.81803	0.04	−1	c,a
6	1	5	3 713.08244	0.04	−1	c,a	4 190.26212	0.09	−1	c,a	4 290.75699	0.05	−1	c,a
6	2	5	3 736.17076	0.05	−1	c,a	4 199.39098	0.05	−1	c,a	4 296.56345	0.04	−1	c,a
6	2	4	3 784.67912	0.05	−1	c,a	4 249.52442	0.05	−1	c,a	4 350.69931	0.03	−1	c,a
6	3	4	3 864.96604	0.03	−1	c,a	4 292.90989	0.06	−1	c,a	4 387.23468	0.03	−1	c,a
6	3	3	3 873.79365	0.04	−1	c,a	4 308.21128	0.06	−1	c,a	4 408.02880	0.04	−1	c,a
6	4	3	4 015.51500	0.05	−1	c,a	4 394.46433	0.03	−1	c,a	4 490.06386	0.05	−1	c,a
6	4	2	4 016.05274	0.05	−1	c,a	4 401.94198	0.06	−1	c,a	4 491.36969	0.10	−1	c,a
6	5	2	4 197.33874	0.04	−1	c,a	4 526.72014	0.10	−1	c,a	4 613.52635	0.04	−1	c,a
6	5	1	4 197.36095	0.06	−1	c,a	4 526.72048	0.06	−1	c,a	4 613.57321	0.09	−1	c,a
6	6	1	4 407.04634	0.08	−1	c,a	4 677.87637	0.15	−1	c,a	4 759.85260	0.05	−1	c
6	6	0	4 407.15764	0.07	−1	c,a	4 677.87638	0.07	−1	c	4 759.85322	0.15	−1	c,a
7	0	7	3 738.60908	0.04	−1	c,a	4 232.18448	0.03	−1	c,a	4 332.77377	0.08	−1	c,a
7	1	7	3 739.51875	0.03	−1	c,a	4 232.38428	0.06	−1	c,a	4 332.91224	0.04	−1	c,a
7	1	6	3 879.33617	0.04	−1	c,a	4 348.41466	0.03	−1	c,a	4 448.97069	0.05	−1	c,a
7	2	6	3 894.16768	0.04	−1	c,a	4 353.23140	0.08	−1	c,a	4 452.35271	0.06	−1	c,a
7	2	5	3 967.48843	0.05	−1	c,a	4 426.06635	0.08	−1	c,a	4 527.94930	0.07	−1	c,a
7	3	5	4 033.61446	0.05	−1	c,a	4 457.81870	0.07	−1	c,a	4 553.27350	0.04	−1	c,a
7	3	4	4 052.83686	0.05	−1	c,a	4 484.99212	0.06	−1	c,a	4 586.68325	0.04	−1	c,a
7	4	4	4 186.56939	0.08	−1	c,a	4 563.98965	0.03	−1	c,a	4 658.97471	0.05	−1	c,a
7	4	3	4 188.39426	0.04	−1	c,a	4 572.44629	0.03	−1	c,a	4 663.15064	0.08	−1	c,a
7	5	3	4 368.54589	0.04	−1	c,a	4 695.83638	0.10	−1	c,a	4 782.66211	0.06	−1	c,a
7	5	2	4 368.63693	0.06	−1	c,a	4 695.83625	0.04	−1	c,a	4 782.92006	0.10	−1	c,a
7	6	2	4 578.88226	0.07	−1	c,a	4 846.77361	0.04	−1	c,a	4 929.06167	0.08	−1	c,a
7	6	1	4 578.97793	0.06	−1	c,a	4 846.77594	0.10	−1	c,a	4 929.06900	0.25	−1	c
7	7	1	4 812.19277	0.05		d	5 020.02609	0.10	−1	c	5 096.24519	0.10	−1	c,a
7	7	0	4 812.19277	0.05	−1	c,a	5 020.02625	0.10	−1	c,a	5 096.24564	0.30	−1	c
8	0	8	3 894.79895	0.05	−1	c,a	4 387.35723	0.04	−1	c,a	4 488.09050	0.07	−1	c,a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	$10^{+}0$			001 or	$10^{-}0$		
8	1	8	3 895.25287	0.04	−1	c,a	4 387.06285	0.06	−1	c,a	4 488.14566	0.15	−1	c,a
8	1	7	4 062.83796	0.05	−1	c,a	4 523.58890	0.05	−1	c,a	4 624.30275	0.05	−1	c,a
8	2	7	4 071.73333	0.03	−1	c,a	4 525.96410	0.05	−1	c,a	4 625.93694	0.05	−1	c,a
8	2	6	4 173.22550	0.08	−1	c,a	4 622.90614	0.06	−1	c,a	4 725.06224	0.04	−1	c,a
8	3	6	4 224.58640	0.05	−1	c,a	4 643.99909	0.04	−1	c,a	4 741.06700	0.05	−1	c,a
8	3	5	4 259.87638	0.04	−1	c,a	4 689.32852	0.12	−1	c,a	4 792.34025	0.04	−1	c,a
8	4	5	4 381.73528	0.07	−1	c,a	4 756.39403	0.04	−1	c,a	4 851.53777	0.12	−1	c,a
8	4	4	4 386.31306	0.06	−1	c,a	4 769.03852	0.07	−1	c,a	4 861.80324	0.08	−1	c,a
8	5	4	4 564.03471	0.06	−1	c,a	4 889.45706	0.08	−1	c,a	4 976.04330	0.06	−1	c,a
8	5	3	4 564.36666	0.05	−1	c,a	4 889.40405	0.04	−1	c,a	4 977.04413	0.06	−1	c,a
8	6	3	4 774.80475	0.05	−1	c,a	5 039.62739	0.15	−1	c,a	5 122.34742	0.14	−1	c,a
8	6	2	4 775.08814	0.09	−1	c,a	5 039.64214	0.07	−1	c,a	5 122.39302	0.14	−1	c,a
8	7	2	5 008.96271	0.08	−1	c,a	5 213.26941	0.14	−1	c,a	5 289.95805	0.20	−1	c
8	7	1	5 008.96276	0.10	−1	c,a	5 213.26885	0.06	−1	c	5 289.95903	0.14	−1	c,a
8	8	1	5 261.47121	0.22	−1	c,a	5 406.54925	0.18	−1	c,a	5 475.75550	0.42		d
8	8	0	5 261.47121	0.22		d	5 406.54914	0.20	−1	c	5 475.75550	0.42	−1	c,a
9	0	9	4 068.70368	0.04	−1	c,a	4 559.70763	0.04	−1	c,a	4 661.42650	0.10	−1	c,a
9	1	9	4 068.93093	0.04	−1	c,a	4 559.75209	0.08	−1	c,a	4 661.44856	0.07	−1	c,a
9	1	8	4 263.15032	0.04	−1	c,a	4 715.96693	0.05	−1	c,a	4 816.99088	0.07	−1	c,a
9	2	8	4 268.24075	0.04	−1	c,a	4 717.10442	0.07	−1	c,a	4 817.73572	0.07	−1	c,a
9	2	7	4 399.54208	0.03	−1	c,a	4 837.69963	0.06	−1	c,a	4 939.79427	0.04	−1	c,a
9	3	7	4 436.94025	0.08	−1	c,a	4 850.44135	0.05	−1	c,a	4 949.00296	0.07	−1	c,a
9	3	6	4 493.80421	0.05	−1	c,a	4 918.23479	0.09	−1	c,a	5 022.28125	0.08	−1	c,a
9	4	6	4 600.49724	0.05	−1	c,a	4 971.26072	0.04	−1	c,a	5 067.07667	0.05	−1	c,a
9	4	5	4 611.79473	0.07	−1	c,a	4 992.12154	0.11	−1	c,a	5 087.01712	0.04	−1	c,a
9	5	5	4 783.64081	0.10	−1	c,a	5 108.34934	0.05	−1	c,a	5 193.45764	0.06	−1	c,a
9	5	4	4 784.66206	0.08	−1	c,a	5 107.72912	0.05	−1	c,a	5 196.50048	0.06	−1	c,a
9	6	4	4 994.70285	0.31	25	e,a	5 256.38144	0.05	−1	c,a	5 339.64133	0.05	−1	c,a
9	6	3	4 996.33144	0.06	−1	c,a	5 256.44870	0.08	−1	c,a	5 339.84331	0.05	−1	c,a
9	7	3	5 229.57675	0.14	−1	c,a	5 430.18080	0.15	−1	c	5 507.47498	0.07	−1	c,a
9	7	2	5 229.57886	0.14	−1	c,a	5 430.18367	0.04	−1	c,a	5 507.48233	0.15	−1	c
9	8	2	5 483.32302	0.14		d	5 624.38717	0.20	−1	c,a	5 694.04806	0.10	−1	c,a
9	8	1	5 483.32302	0.14	−1	c,a	5 624.38708	0.05	−1	c,a	5 694.04806	0.10		d
9	9	1	5 749.91854	0.46		d	5 836.98570	0.10	−1	c	5 896.27236	0.19	−1	c,a
9	9	0	5 749.91854	0.46	5	a	5 836.98572	0.10	−1	c,a	5 896.27236	0.19		d
10	0	10	4 260.35172	0.04	−1	c,a	4 750.36213	0.03	−1	c,a	4 852.74888	0.14	−1	c,a
10	1	10	4 260.46683	0.04	−1	c,a	4 750.38769	0.05	−1	c,a	4 852.75521	0.06	−1	c,a
10	1	9	4 480.39220	0.06	−1	c,a	4 925.78689	0.07	−1	c,a	5 027.25668	0.07	−1	c,a
10	2	9	4 483.22784	0.05	−1	c,a	4 926.34685	0.04	−1	c,a	5 027.55961	0.10	−1	c,a
10	2	8	4 644.21691	0.05	−1	c,a	5 069.08831	0.03	−1	c,a	5 171.05988	0.09	−1	c,a
10	3	8	4 669.73579	0.06	−1	c,a	5 076.26603	0.04	−1	c,a	5 175.95513	0.05	−1	c,a
10	3	7	4 752.73291	0.09	−1	c,a	5 169.03930	0.06	−1	c,a	5 273.63257	0.05	−1	c,a
10	4	7	4 842.13126	0.07	−1	c,a	5 207.80205	0.05	−1	c,a	5 304.72759	0.06	−1	c,a
10	4	6	4 864.37331	0.10	−1	c,a	5 246.80023	0.07	−1	c,a	5 355.26292	0.10	−1	c,a
10	5	6	5 027.07397	0.07	−1	c,a	5 334.98829	0.05	−1	c,a	5 434.48391	0.07	−1	c,a
10	5	5	5 029.81038	0.14	−1	c,a	5 351.40865	0.05	−1	c,a	5 442.09777	0.05	−1	c,a
10	6	5	5 238.38524	0.24	−1	c,a	5 496.98053	0.07	−1	c,a	5 580.81831	0.06	−1	c,a
10	6	4	5 237.42021	0.10	−1	c,a	5 497.21532	0.05	−1	c,a	5 581.52478	0.05	−1	c,a
10	7	4	5 473.80312	0.30	−1	c,a	5 670.61533	0.05	−1	c,a	5 748.66138	0.10	−1	c,a
10	7	3	5 473.81180	0.59	−1	c,a	5 670.62989	0.24	−1	c,a	5 748.69841	0.06	−1	c,a
10	8	3	5 728.66075	0.41	7	a	5 865.60408	0.18	−1	c,a	5 935.83130	0.15	−1	c,a
10	8	2	5 728.66075	0.41		d	5 865.60490	0.30	−1	c	5 935.83218	0.10	−1	c,a
10	9	2	5 996.63754	0.14	−1	c,a	6 079.97801	0.14	−1	c,a	6 139.32365	0.21		d
10	9	1	5 996.63754	0.14		d	6 079.97800	0.15	−1	c	6 139.32365	0.21	−1	c,a
10	10	1	6 318.91793	0.54	4	a	6 264.74569	0.10	−1	c,a	6 355.73592	0.45		d
10	10	0	6 318.91793	0.54		d	6 264.74570	0.10	−1	c	6 355.73592	0.45	−1	c,a
11	0	11	4 469.73722	0.07	−1	c,a	4 958.90119	0.05	−1	c,a	5 062.01060	0.20	−1	c,a
11	1	11	4 469.79640	0.06	−1	c,a	4 958.93670	0.07	−1	c,a	5 062.01321	0.30	−1	c,a
11	1	10	4 714.81865	0.05	−1	c,a	5 153.18846	0.03	−1	c,a	5 255.20532	0.07	−1	c,a
11	2	10	4 716.37922	0.07	−1	c,a	5 153.53451	0.24	−1	c,a	5 255.34669	0.24	−1	c,a
11	2	9	4 905.65344	0.06	−1	c,a	5 316.80421	0.07	−1	c,a	5 418.80340	0.08	−1	c,a
11	3	9	4 922.08978	0.14	−1	c,a	5 320.88903	0.05	−1	c,a	5 421.26758	0.05	−1	c,a
11	3	8	5 034.38731	0.18	−1	c,a	5 439.05644	0.05	−1	c,a	5 543.63670	0.14	−1	c,a
11	4	8	5 105.72967	0.07	−1	c,a	5 465.05349	0.10	−1	c,a	5 563.39973	0.10	−1	c,a
11	4	7	5 144.40895	0.14	−1	c,a	5 524.56923	0.14	−1	c,a	5 631.83930	0.05	−1	c,a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	10^+0			001 or	10^-0		
11	5	7	5 293.79058	0.18	−1	c,a	5 601.53138	0.10	−1	c,a	5 698.48944	0.08	−1	c,a
11	5	6	5 300.17803	0.07	−1	c,a	5 621.33440	0.10	−1	c,a	5 714.53190	0.10	−1	c,a
11	6	6	5 505.62242	0.45	5	a	5 761.40246	0.10	−1	c,a	5 845.65324	0.14	−1	c,a
11	6	5	5 505.17353	0.10	−1	c,a	5 762.06025	0.14	−1	c,a	5 847.70663	0.18	−1	c,a
11	7	5	5 741.39134	0.38	7	a	5 934.41941	0.14	−1	c,a	6 013.36593	0.07	−1	c,a
11	7	4	5 741.42717	0.38	7	a	5 934.47757	0.08	−1	c,a	6 013.51043	0.10	−1	c,a
11	8	4	5 997.17621	0.37		d	6 129.98120	0.15	−1	c,a	6 200.89204	0.10	−1	c,a
11	8	3	5 997.17621	0.37	8	a	6 129.98364	0.05	−1	c,a	6 200.89858	0.24	−1	c,a
11	9	3	6 266.37219	0.43		d	6 346.10880	0.20	−1	c	6 405.51724	0.30	−1	c,a
11	9	2	6 266.37219	0.43	6	a	6 346.10872	0.18	−1	c,a	6 405.51724	0.30		d
11	10	2	6 589.41338	2.00	−1	c	6 534.17597	0.20	−1	c	6 623.67071	0.37	−1	c,a
11	10	1	6 589.41343	0.37	17	e,a	6 534.17600	0.19	−1	c,a	6 623.67071	0.37		d
11	11	1	6 868.07494	0.50		d	6 785.59920	1.00	−1	c	6 852.16681	0.19	−1	c,a
11	11	0	6 868.07494	0.50	15	e,a	6 785.59881	0.46	−1	c,a	6 852.16681	0.19		d
12	0	12	4 696.83412	0.07	−1	c,a	5 186.33728	0.09	−1	c,a	5 289.15142	0.35	−1	c,a
12	1	12	4 696.86531	0.04	−1	c,a	5 184.73422	0.07	−1	c,a	5 289.15280	0.15	−1	c,a
12	1	11	4 966.63333	0.14	−1	c,a	5 398.25015	0.35	−1	c,a	5 500.85650	0.09	−1	c,a
12	2	11	4 967.49062	0.09	−1	c,a	5 399.33072	0.32	−1	c,a	5 500.91570	0.23	−1	c,a
12	2	10	5 182.09490	0.06	−1	c,a	5 581.10939	0.14	−1	c,a	5 683.33260	0.07	−1	c,a
12	3	10	5 193.88198	0.07	−1	c,a	5 579.48958	0.18	−1	c,a	5 684.53041	0.10	−1	c,a
12	3	9	5 336.32672	0.45	5	a	5 726.06228	0.14	−1	c,a	5 830.25928	0.07	−1	c,a
12	4	9	5 389.55217	0.07	−1	c,a	5 742.03687	0.22	−1	c,a	5 841.86278	0.07	−1	c,a
12	4	8	5 450.88920	0.38	7	a	5 826.13429	0.14	−1	c,a	5 933.54645	0.05	−1	c,a
12	5	8	5 587.51842	0.17	−1	c,a	5 887.76576	0.14	−1	c,a	5 984.67531	0.08	−1	c,a
12	5	7	5 596.42530	0.41	7	a	5 918.17391	0.41	−1	c,a	6 013.44786	0.05	−1	c,a
12	6	7	5 796.13042	0.34	9	a	6 049.84870	0.04	−1	c,a	6 133.77449	0.21	−1	c,a
12	6	6	5 796.45327	0.46	5	a	6 051.27289	0.18	−1	c,a	6 138.88919	0.27	−1	c,a
12	7	6	6 032.08110	0.38	8	a	6 221.43139	0.10	−1	c,a	6 301.40727	0.05	−1	c,a
12	7	5	6 032.19792	0.46	6	a	6 221.62313	0.18	−1	c,a	6 301.87330	0.14	−1	c,a
12	8	5	6 288.55100	0.34	9	a	6 417.29612	0.10	−1	c,a	6 489.01097	0.19	−1	c,a
12	8	4	6 288.55100	0.34		d	6 417.30575	0.38	−1	c,a	6 489.03897	0.32	−1	c,a
12	9	4	6 558.75177	0.39	7	a	6 635.10921	0.18	−1	c,a	6 694.57877	0.10		d
12	9	3	6 558.75177	0.39		d	6 635.10920	0.20	−1	c	6 694.57877	0.10	−1	c,a
12	10	3	6 882.94874	0.38	16	e,a	6 825.89972	0.44	−1	c,a	6 914.35739	0.19		d
12	10	2	6 882.94805	2.00	−1	c	6 825.89900	0.80	−1	c	6 914.35739	0.19	−1	c,a
12	11	2	7 166.44114	0.59	14	e,a	7 077.57868	0.51	5	a	7 145.10804	0.19		d
12	11	1	7 166.44114	0.59		d	7 077.57868	0.51		d	7 145.10804	0.19	−1	c,a
12	12	1	7 464.58662	0.57	8	e,a	7 328.06863	0.57	9	e,a	7 383.68027	0.19		d
12	12	0	7 464.58662	0.57		d	7 328.06863	0.57		d	7 383.68027	0.19	−1	c,a
13	0	13	4 941.60586	0.10	−1	c,a	5 429.11842	0.10	−1	c,a	5 534.11115	0.28	−1	c,a
13	1	13	4 941.62242	0.10	−1	c,a	5 429.12800	0.10	−1	c	5 534.11070	0.18	−1	c,a
13	1	12	5 235.95842	0.05	−1	c,a	5 662.47550	0.45	14	e,a	5 764.18541	0.19	−1	c,a
13	2	12	5 236.43191	0.45	5	a	5 660.40395	0.19	−1	c,a	5 764.20438	0.14	−1	c,a
13	2	11	5 477.00574	0.07	−1	c,a	5 862.33890	0.10	−1	c,a	5 964.91268	0.10	−1	c,a
13	3	11	5 483.12525	0.58	4	a	5 862.46680	0.50	4	a	5 965.47493	0.08	−1	c,a
13	3	10	5 654.76092	0.14	−1	c,a	6 028.85836	0.23	−1	c,a	6 132.64413	0.06	−1	c,a
13	4	10	5 695.88317	0.41	6	a	6 037.87430	0.36	−1	c,a	6 139.02954	0.10	−1	c,a
13	4	9	5 781.95860	0.34	9	a	6 148.68278	0.38	7	a	6 256.02107	0.09	−1	c,a
13	5	9	5 896.77364	0.39	7	a	6 194.30410	0.50	−1	c,a	6 292.11953	0.14	−1	c,a
13	5	8	5 919.00864	0.32	11	a	6 241.53013	0.32	−1	c,a	6 336.03636	0.19	−1	c,a
13	6	8	6 109.52739	0.47	5	a	6 363.56794	0.22	−1	c,a	6 444.63533	0.09	−1	c,a
13	6	7	6 111.46780	0.34	9	a	6 365.37933	0.10	−1	c,a	6 455.74205	0.14	−1	c,a
13	7	7	6 345.58740	0.43	6	a	6 531.47838	0.18	−1	c,a	6 612.54826	0.10	−1	c,a
13	7	6	6 345.92557	0.42	6	a	6 532.02024	0.18	−1	c,a	6 613.83518	0.14	−1	c,a
13	8	6	6 602.46815	0.76	2	a	6 727.31854	0.38	−1	c,a	6 799.95707	0.08	−1	c,a
13	8	5	6 602.46148	0.40	7	a	6 727.35786	0.36	−1	c,a	6 800.05515	0.29	−1	c,a
13	9	5	6 873.41227	0.35		d	6 946.69930	0.88	−1	c,a	7 006.22991	0.48	6	a
13	9	4	6 873.41227	0.35	24	e,a	6 946.70135	0.36	−1	c,a	7 006.23508	1.00	2	a
13	10	4	7 199.11545	0.39		d	7 139.59194	0.46		d	7 227.46694	0.44	−1	c,a
13	10	3	7 199.11545	0.39	17	e,a	7 139.59194	0.46	18	e,a	7 227.48542	0.80	−1	c
13	11	3	7 487.08429	0.42		d	7 391.67623	0.44		d	7 460.35668	0.58	4	a
13	11	2	7 487.08429	0.42	16	e,a	7 391.67623	0.44	6	a	7 460.35668	0.58		d
13	12	2	7 789.13708	0.75		d	7 644.44342	0.62		d	7 701.74421	0.64	4	a
13	12	1	7 789.13708	0.75	10	e,a	7 644.44342	0.62	4	a	7 701.74421	0.64		d
13	13	1	8 095.49183	0.91		d	7 901.19557	0.79		d	7 948.49768	0.74	3	a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or 00 2				100 or 10^+0				001 or 10^-0			
13	13	0	8 095.49183	0.91	2	a	7 901.19557	0.79	8	e,a	7 948.49768	0.74		d
14	0	14	5 204.00841	0.29	−1	c,a	5 690.87848	0.45	−1	c,a	5 796.94256	0.10	−1	c,a
14	1	14	5 204.01803	0.28	−1	c,a	5 690.87995	0.33	−1	c,a	5 796.88636	0.26	−1	c,a
14	1	13	5 522.85389	0.51	4	a	5 940.54202	0.72	−1	c,a	6 045.17181	0.14	−1	c,a
14	2	13	5 523.11748	0.41	6	a	5 940.63739	0.23	−1	c,a	6 045.14240	0.10	−1	c,a
14	2	12	5 786.85252	0.41	6	a	6 161.13296	0.69	5	e,a	6 263.69895	0.14	−1	c,a
14	3	12	5 790.43293	0.38	7	a	6 160.37241	0.34	−1	c,a	6 263.91987	0.28	−1	c,a
14	3	11	5 993.19862	0.47	5	a	6 347.29250	0.62	3	e,a	6 451.08137	0.17	−1	c,a
14	4	11	6 019.83227	0.38	8	a	6 351.85497	0.10	−1	c,a	6 454.13381	0.14	−1	c,a
14	4	10	6 134.91802	0.43	6	a	6 489.62170	0.59	−1	c,a	6 596.22226	0.10	−1	c,a
14	5	10	6 229.89508	0.36	8	a	6 520.60691	0.22	−1	c,a	6 619.78888	0.14	−1	c,a
14	5	9	6 267.88245	0.42	6	a	6 589.74135	0.98	2	e,a	6 705.59373	0.20	−1	c,a
14	6	9	6 445.08440	0.34	10	a	6 676.46964	0.07	−1	c,a	6 777.52832	0.18	−1	c,a
14	6	8	6 450.41585	0.44	10	e,a	6 705.04574	0.35	−1	c,a	6 798.71897	0.23	−1	c,a
14	7	8	6 681.59268	0.37	8	a	6 864.39488	0.25	−1	c,a	6 946.46370	0.12	−1	c,a
14	7	7	6 682.45789	0.48	5	a	6 865.72728	0.25	−1	c,a	6 949.57994	0.17	−1	c,a
14	8	7	6 938.63733	0.39	21	e,a	7 059.80995	0.36	18	e,a	7 133.48057	0.39	−1	c,a
14	8	6	6 938.58536	0.53	13	e,a	7 059.93194	0.71	5	e,a	7 133.78051	0.31	−1	c,a
14	9	6	7 209.99158	0.36	18	e,a	7 280.59514	0.42	14	e,a	7 340.17479	1.03	1	a
14	9	5	7 209.99564	0.72	3	a	7 280.59926	0.73	3	a	7 340.20445	0.41	17	e,a
14	10	5	7 537.48305	0.47	11	e,a	7 474.95109	0.58	15	e,a	7 562.67790	0.44		d
14	10	4	7 537.48305	0.47		d	7 474.94957	5.00	1	a	7 562.67790	0.44	16	e,a
14	11	4	7 829.53995	0.44	11	e,a	7 727.54517	0.55	12	e,a	7 797.54495	0.60		d
14	11	3	7 829.53995	0.44		d	7 727.54517	0.55		d	7 797.54495	0.60	4	a
14	12	3	8 135.31739	0.71	12	e,a	7 982.51445	0.66	−1	s,a	8 041.60931	0.53		d
14	12	2	8 135.31739	0.71		d	7 982.51445	0.66		d	8 041.60931	0.53	13	e,a
14	13	2	8 445.99308	0.92	10	e,a	8 242.31596	0.83	6	e,a	8 291.78909	0.59		d
14	13	1	8 445.99308	0.92		d	8 242.31596	0.83		d	8 291.78909	0.59	12	e,a
14	14	1	8 756.97469	0.98	2	a	8 505.19881	0.82	−1	s,a	8 544.94550	0.76		d
14	14	0	8 756.97469	0.98		d	8 505.19881	0.82		d	8 544.94550	0.76	8	e,a
15	0	15	5 483.99636	0.14	−1	c,a	5 970.20254	0.68	9	e,a	6 077.10437	0.31		d
15	1	15	5 483.99636	0.14		d	5 970.19982	3.00	−1	c	6 077.10437	0.31	−1	c,a
15	1	14	5 827.33862	0.42	6	a	6 238.21410	0.51	−1	c,a	6 343.43380	0.23	−1	c,a
15	2	14	5 827.48679	0.52	4	a	6 238.24178	0.99	−1	s,a	6 342.52748	0.18	−1	c,a
15	2	13	6 113.51123	0.39	7	a	6 474.70427	0.26	−1	c,a	6 578.86996	0.14	−1	c,a
15	3	13	6 115.65653	0.51	5	a	6 475.44705	0.69	5	e,a	6 579.74014	0.10	−1	c,a
15	3	12	6 345.92256	0.36	8	a	6 682.00379	0.18	−1	c,a	6 784.70537	0.38	12	e,a
15	4	12	6 362.64104	0.60	3	a	6 683.43527	0.70	5	e,a	6 786.68808	0.07	−1	c,a
15	4	11	6 510.23821	0.42	6	a	6 847.08987	0.39	10	e,a	6 952.18913	0.19	−1	c,a
15	5	11	6 584.41301	0.35	9	a	6 865.86781	0.78	3	e,a	6 966.58380	0.18	−1	c,a
15	5	10	6 641.88818	0.43	6	a	6 960.38605	0.44	14	e,a	7 074.48314	0.51	4	a
15	6	10	6 803.40263	0.48	5	a	7 032.73679	0.63	3	a	7 131.62961	0.38	7	a
15	6	9	6 813.40930	0.32	22	e,a	7 070.63695	0.44	14	e,a	7 167.33754	0.38	13	e,a
15	7	9	7 039.74412	0.60	7	e,a	7 220.11744	0.74	2	a	7 302.71874	0.17	−1	c,a
15	7	8	7 041.72789	0.40	17	e,a	7 222.96100	0.35	−1	c,a	7 309.47139	0.41	10	e,a
15	8	8	7 296.77493	0.54	−1	s,a	7 414.52296	0.59	6	e,a	7 489.30523	0.33	−1	c,a
15	8	7	7 296.60483	0.35	19	e,a	7 414.85934	0.42	6	a	7 490.10899	0.54	5	a
15	9	7	7 568.14240	0.82	4	e,a	7 636.48452	0.57	−1	s,a	7 696.16462	0.41	8	a
15	9	6	7 568.14848	0.56	16	e,a	7 636.50646	0.45	11	e,a	7 696.22842	0.55	4	a
15	10	6	7 897.60814	1.34	−1	s,a	7 831.69031	0.75		d	7 919.65674	0.45	16	e,a
15	10	5	7 897.60408	0.38	14	e,a	7 831.69031	0.75	8	e,a	7 919.65050	1.44	1	a
15	11	5	8 193.35811	0.48		d	8 084.84151	0.55		d	8 156.30877	0.53	14	e,a
15	11	4	8 193.35811	0.48	12	e,a	8 084.84151	0.55	13	e,a	8 156.30877	0.53		d
15	12	4	8 502.64699	0.55		d	8 341.89666	0.60		d	8 402.87876	0.61	12	e,a
15	12	3	8 502.64699	0.55	11	e,a	8 341.89666	0.60	−1	s,a	8 402.87876	0.61		d
15	13	3	8 817.43629	0.80		d	8 604.60271	0.71		d	8 656.30755	0.60	12	e,a
15	13	2	8 817.43629	0.80	11	e,a	8 604.60271	0.71	−1	s,a	8 656.30755	0.60		d
15	14	2	9 133.40999	0.92		d	8 871.13216	0.82		d	8 913.56293	1.16	1	a
15	14	1	9 133.40999	0.92	8	e,a	8 871.13216	0.82	9	e,a	8 913.56293	1.16		d
15	15	1	9 446.84063	1.01		d	9 138.96061	0.85		d	9 171.47141	0.81	6	e,a
15	15	0	9 446.84063	1.01	2	a	9 138.96061	0.85	−1	s,a	9 171.47141	0.81		d
16	0	16	5 781.51988	0.54		d	6 267.03144	0.24		d	6 375.04870	0.46	−1	c,a
16	1	16	5 781.51988	0.54	4	a	6 267.03144	0.24	−1	c,a	6 375.04870	0.46		d
16	1	15	6 149.40792	0.57	−1	c,a	6 553.20319	0.97	3	e,a	6 659.44701	0.40	23	e,a
16	2	15	6 149.49399	0.54	4	a	6 553.21913	0.66	9	e,a	6 659.44701	0.40		d

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	$10^{+}0$			001 or	$10^{-}0$		
16	2	14	6 456.74014	0.61	3	a	6 807.43140	0.65	7	e,a	6 912.56732	0.46	−1	c,a
16	3	14	6 458.01253	0.39	8	a	6 807.66650	0.50	9	e,a	6 913.06400	1.00	−1	c
16	3	13	6 711.70399	0.54	4	a	7 027.33908	1.31	−1	s,a	7 135.32098	0.24	−1	c,a
16	4	13	6 723.01635	0.37	27	e,a	7 032.23083	0.55	8	e,a	7 136.38611	0.54	8	e,a
16	4	12	6 900.99745	0.72	−1	s,a	7 221.41735	0.83	2	a	7 323.10969	0.25	−1	c,a
16	5	12	6 957.11805	0.52	6	e,a	7 229.29814	0.43	6	a	7 331.49626	0.46	−1	s,a
16	5	11	7 045.43442	0.77	−1	s,a	7 350.72875	1.13	−1	c,a	7 464.48723	0.39	7	a
16	6	11	7 182.25097	0.41	14	e,a	7 406.95201	0.47	5	a	7 506.03975	0.64	−1	c,a
16	6	10	7 199.29778	0.99	4	e,a	7 461.62732	0.65	−1	s,a	7 559.39062	0.28	−1	c,a
16	7	10	7 419.60375	0.34	21	e,a	7 599.09269	0.38	15	e,a	7 680.81567	0.41	7	aa
16	7	9	7 423.75069	0.48	−1	s,a	7 604.12052	0.98	3	e,a	7 694.02684	0.33	10	a
16	8	9	7 676.53085	0.42	13	e,a	7 791.19284	0.42	13	e,a	7 867.09590	0.59	8	e,a
16	8	8	7 676.16025	0.49	8	e,a	7 792.01810	0.64	−1	s,a	7 869.03583	0.40	8	a
16	9	8	7 947.53461	0.35	13	e,a	8 014.05034	0.38	12	e,a	8 073.87099	0.59	6	e,a
16	9	7	7 947.57398	0.85	−1	s,a	8 014.11342	0.64	−1	s,a	8 074.05541	0.49	6	a
16	10	7	8 279.02994	0.45	−1	s,a	8 209.53727	0.79	−1	s,a	8 298.08199	1.10	−1	f,a
16	10	6	8 279.03386	0.83	−1	s,a	8 209.54219	0.87	−1	f,a	8 298.09480	0.50	15	e,a
16	11	6	8 578.07652	0.63	6	e,a	8 463.22394	0.71	−1	s,a	8 536.28603	0.49		d
16	11	5	8 578.09251	1.63	−1	s,a	8 463.22394	0.71		d	8 536.28603	0.49	13	e,a
16	12	5	8 890.66536	0.80	7	e,a	8 722.21449	0.67	9	e,a	8 785.15987	0.60		d
16	12	4	8 890.66536	0.80		d	8 722.21449	0.67		d	8 785.15987	0.60	12	e,a
16	13	4	9 209.33742	0.84	8	e,a	8 987.65250	0.74	−1	s,a	9 041.63759	0.74		d
16	13	3	9 209.33742	0.84		d	8 987.65250	0.74		d	9 041.63759	0.74	9	e,a
16	14	3	9 530.00824	0.90	8	e,a	9 257.63865	0.77	8	e,a	9 302.75595	0.78		d
16	14	2	9 530.00824	0.90		d	9 257.63865	0.77		d	9 302.75595	0.78	9	e,a
16	15	2	9 849.33505	0.96	6	e,a	9 529.69542	0.85	9	e,a	9 565.49902	1.61		d
16	15	1	9 849.33505	0.96		d	9 529.69542	0.85		d	9 565.49902	1.61	1	a
16	16	1	10 163.36257	1.02	2	a	9 801.15702	1.04	−1	s,a	9 826.49055	1.18		d
16	16	0	10 163.36257	1.02		d	9 801.15702	1.04		d	9 826.49055	1.18	4	e,a
17	0	17	6 096.52216	0.49	5	a	6 581.27872	0.40	−1	c,a	6 690.46976	0.44		d
17	1	17	6 096.52216	0.49		d	6 581.27872	0.40		d	6 690.46976	0.44	−1	c,a
17	1	16	6 489.04977	0.48	5	a	6 885.48676	0.61	9	e,a	6 992.76200	1.50	−1	c
17	2	16	6 489.10129	0.75	2	a	6 885.48029	1.24	−1	s,a	6 992.76138	0.43	17	e,a
17	2	15	6 816.75498	0.40	19	e,a	7 156.83347	0.45	9	e,a	7 262.80023	0.42	12	e,a
17	3	15	6 817.51089	0.48	6	e,a	7 156.93741	1.01	−1	s,a	7 262.77749	0.38	15	e,a
17	3	14	7 093.63709	0.54	17	e,a	7 396.52193	0.45	9	e,a	7 502.37085	0.52	8	e,a
17	4	14	7 100.78661	0.75	−1	s,a	7 397.95961	0.87	3	e,a	7 503.07234	0.37	−1	c,a
17	4	13	7 308.76984	0.45	13	e,a	7 597.82341	0.49	−1	c,a	7 708.98007	0.62	3	a
17	5	13	7 349.02764	0.63	−1	s,a	7 610.22218	0.59	−1	s,a	7 713.75385	0.46	11	e,a
17	5	12	7 463.39700	0.50	10	e,a	7 758.39693	0.48	8	e,a	7 871.73703	0.65	3	a
17	6	12	7 581.53770	0.50	−1	s,a	7 799.62089	0.93	−1	s,a	7 899.80795	0.34	−1	c,a
17	6	11	7 622.72785	0.47	−1	s,a	7 876.43450	0.61	7	e,a	8 003.22008	0.67	3	a
17	7	11	7 820.67857	0.77	−1	s,a	7 970.18658	0.75	−1	s,a	8 076.57411	0.37	15	e,a
17	7	10	7 828.55002	0.52	−1	s,a	8 009.69468	0.60	6	e,a	8 103.57217	0.88	5	e,a
17	8	10	8 077.54589	0.63	−1	s,a	8 189.54832	0.68	−1	s,a	8 266.44577	0.44	11	e,a
17	8	9	8 080.50568	0.40	15	e,a	8 191.38409	0.59	9	e,a	8 270.70246	0.49	8	e,a
17	9	9	8 347.84765	0.64	−1	s,a	8 412.97480	1.13	−1	s,a	8 472.99999	0.42	14	e,a
17	9	8	8 347.95880	0.73	8	e,a	8 413.11581	0.44	10	e,a	8 473.47617	0.61	5	e,a
17	10	8	8 681.30924	0.86	−1	s,a	8 608.20340	1.08	−1	f,a	8 697.62774	0.49	14	e,a
17	10	7	8 681.32555	0.41	−1	s,a	8 608.22435	0.99	6	e,a	8 697.66700	0.83	−1	s,a
17	11	7	8 983.31362	0.99	−1	s,a	8 862.35411	0.57		d	8 937.11891	0.55	13	e,a
17	11	6	8 983.29001	0.66	−1	s,a	8 862.35411	0.57	−1	s,a	8 937.12188	1.40	−1	f,a
17	12	6	9 298.91671	1.87	−1	s,a	9 123.09869	0.72		d	9 188.06808	0.59	12	e,a
17	12	5	9 298.91219	0.85	−1	s,a	9 123.09869	0.72	−1	s,a	9 188.06808	0.59		d
17	13	5	9 621.23041	1.15		d	9 391.07256	0.72		d	9 447.36858	0.79	8	e,a
17	13	4	9 621.23041	1.15	6	e,a	9 391.07256	0.72	8	e,a	9 447.36858	0.79		d
17	14	4	9 946.29779	1.27		d	9 664.30568	0.81		d	9 712.09881	0.80	9	e,a
17	14	3	9 946.29779	1.27	−1	s,a	9 664.30568	0.81	−1	s,a	9 712.09881	0.80		d
17	15	3	10 271.11633	0.98		d	9 940.35261	0.87		d	9 979.39601	0.87	6	e,a
17	15	2	10 271.11633	0.98	6	e,a	9 940.35261	0.87	9	e,a	9 979.39601	0.87		d
17	16	2	10 591.80866	1.31		d	10 216.62316	0.88		d	10 245.91679	1.48	2	a
17	16	1	10 591.80866	1.31	5	e,a	10 216.62316	0.88	8	e,a	10 245.91679	1.48		d
17	17	1	10 905.03917	1.43		d	10 490.46052	1.13		d	10 508.85985	1.09	6	e,a
17	17	0	10 905.03917	1.43	1	a	10 490.46052	1.13	5	e,a	10 508.85985	1.09		d
18	0	18	6 428.96531	0.60		d	6 912.85414	0.77		d	7 023.28252	0.38	−1	c,a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or 00 2				100 or	10^+0			001 or	10^-0		
	1	18	6 428.96531	0.60	4	a	6 912.85414	0.77	6	e,a	7 023.28252	0.38		d
18	1	17	6 846.24114	0.78	3	a	7 234.96500	1.20	−1	f,a	7 343.34106	0.47	−1	c,a
18	2	17	6 846.27601	0.58	4	a	7 234.96938	0.88	6	e,a	7 343.34106	0.47		d
18	2	16	7 193.51327	0.57	6	e,a	7 523.10246	1.21	−1	s,a	7 630.00744	0.47	13	e,a
18	3	16	7 193.96643	0.40	20	e,a	7 523.15591	0.72	−1	s,a	7 630.01125	0.71	4	e,a
18	3	15	7 490.99190	0.57	5	e,a	7 779.70828	1.19	−1	s,a	7 885.92678	0.43	11	e,a
18	4	15	7 495.46855	0.37	16	e,a	7 780.40858	0.67	8	e,a	7 885.79682	0.55	5	a
18	4	14	7 730.67364	0.74	−1	s,a	8 001.93603	1.21	1	a	8 110.09334	0.35	15	e,a
18	5	14	7 758.78588	0.43	10	e,a	8 008.11452	0.56	−1	s,a	8 112.86188	0.68	3	a
18	5	13	7 904.22388	0.68	−1	s,a	8 181.44296	1.24	−1	s,a	8 294.08979	0.56	11	e,a
18	6	13	8 000.35916	0.43	12	e,a	8 210.29440	0.54	−1	s,a	8 311.96010	0.66	3	a
18	6	12	8 057.70535	1.14	−1	s,a	8 312.77911	1.12	−1	s,a	8 433.96572	0.54	9	e,a
18	7	12	8 242.39180	0.36	−1	s,a	8 394.96006	0.42	−1	s,a	8 496.42227	0.72	3	a
18	7	11	8 256.09117	1.09	−1	s,a	8 439.89736	0.83	−1	s,a	8 537.65160	0.87	6	e,a
18	8	11	8 499.29572	0.42	11	e,a	8 609.36456	0.57	−1	s,a	8 686.85089	0.71	6	e,a
18	8	10	8 502.27199	0.83	−1	s,a	8 613.05745	5.04	−1	s	8 695.40754	0.46	11	e,a
18	9	10	8 768.73470	1.13	10	e,a	8 832.84415	0.53	11	e,a	8 893.21911	0.90	3	a
18	9	9	8 769.06454	0.85	−1	s,a	8 833.21340	0.81	−1	s,a	8 894.34763	0.42	−1	s,a
18	10	9	9 103.44473	0.76	−1	s,a	9 027.43378	0.79	−1	s,a	9 117.97285	0.77	3	a
18	10	8	9 103.95773	1.29	1	a	9 027.47543	0.90	4	e,a	9 118.08037	0.42	16	e,a
18	11	8	9 408.54490	1.02	−1	s,a	9 281.89384	0.95	8	e,a	9 358.45730	1.21	2	e,a
18	11	7	9 408.52195	1.15	−1	s,a	9 281.89269	1.41	−1	s,a	9 358.46186	0.56	11	e,a
18	12	7	9 726.94238	0.99	−1	s,a	9 544.18189	0.72	−1	s,a	9 611.22367	0.68		d
18	12	6	9 726.94561	1.74	−1	s,a	9 544.18189	0.72		d	9 611.22367	0.68	11	e,a
18	13	6	10 052.65206	0.94	−1	s,a	9 814.47855	0.79	−1	s,a	9 873.10470	0.67		d
18	13	5	10 052.65206	0.94		d	9 814.47855	0.79		d	9 873.10470	0.67	9	e,a
18	14	5	10 381.82375	1.04	−1	s,a	10 090.73035	0.75	7	e,a	10 141.18315	1.14		d
18	14	4	10 381.82375	1.04		d	10 090.73035	0.75		d	10 141.18315	1.14	6	e,a
18	15	4	10 711.74510	1.24	−1	s,a	10 370.51160	1.45	6	e,a	10 412.70545	0.83		d
18	15	3	10 711.74510	1.24		d	10 370.51160	1.45		d	10 412.70545	0.83	8	e,a
18	16	3	11 038.56284	1.32	5	e,a	10 651.31235	1.09	5	e,a	10 684.36010	1.67		d
18	16	2	11 038.56284	1.32		d	10 651.31235	1.09		d	10 684.36010	1.67	3	e,a
18	17	2	11 359.46797	1.09	5	e,a	10 930.53286	1.02	5	e,a	10 953.89394	1.79		d
18	17	1	11 359.46797	1.09		d	10 930.53286	1.02		d	10 953.89394	1.79	1	a
18	18	1	11 670.52189	1.74	1	a	11 205.59477	1.12	6	e,a	11 217.15465	1.39		d
18	18	0	11 670.52189	1.74		d	11 205.59477	1.12		d	11 217.15465	1.39	3	e,a
19	0	19	6 778.79382	0.62	15	e,a	7 261.65654	0.79	6	e,a	7 373.38906	0.54		d
19	1	19	6 778.82250	1.17	1	a	7 261.65654	0.79		d	7 373.38906	0.54	−1	c,a
19	1	18	7 220.96223	0.49	12	e,a	7 601.54855	0.72	5	e,a	7 711.08862	0.50		d
19	2	18	7 221.45790	0.60	5	a	7 601.54855	0.72		d	7 711.08862	0.50	13	e,a
19	2	17	7 586.91598	0.47	15	e,a	7 906.16990	0.79	8	e,a	8 014.10667	0.95	3	e,a
19	3	17	7 587.19721	0.58	5	e,a	7 906.19558	1.31	−1	s,a	8 014.10771	0.54	9	e,a
19	3	16	7 903.92362	0.56	−1	s,a	8 179.04165	0.53	7	e,a	8 285.95767	1.16	2	e,a
19	4	16	7 906.72207	0.64	−1	s,a	8 179.26603	1.40	1	a	8 286.01586	0.49	11	e,a
19	4	15	8 166.58364	0.46	13	e,a	8 419.08577	0.58	6	e,a	8 526.72297	1.42	1	a
19	5	15	8 185.64603	1.12	−1	s,a	8 422.55882	0.78	−1	s,a	8 529.17063	0.44	11	e,a
19	5	14	8 361.94728	0.71	5	e,a	8 618.88404	0.66	6	e,a	8 730.62598	0.64	6	e,a
19	6	14	8 437.83977	1.20	−1	s,a	8 638.31309	1.39	−1	s,a	8 741.60333	0.78	6	e,a
19	6	13	8 517.26028	0.49	6	e,a	8 768.12634	0.79	4	e,a	8 887.12156	0.66	4	a
19	7	13	8 684.07571	1.07	−1	s,a	8 834.48450	1.00	4	e,a	8 934.83514	0.40	12	e,a
19	7	12	8 706.32190	0.48	10	e,a	8 894.25017	0.66	−1	s,a	8 994.56500	0.65	4	a
19	8	12	8 941.39970	1.48	1	a	9 050.62548	0.87	−1	s,a	9 127.71483	0.62	8	e,a
19	8	11	8 946.08135	0.74	4	e,a	9 057.30270	0.46	−1	s,a	9 143.50821	0.69	5	e,a
19	9	11	9 210.12865	1.29	−1	s,a	9 273.32683	1.14	−1	s,a	9 334.15335	0.47	6	a
19	9	10	9 210.69630	0.65	6	e,a	9 274.13587	0.61	−1	s,a	9 336.61438	0.65	4	a
19	10	10	9 546.78531	0.90	−1	s,a	9 466.92399	0.75	−1	s,a	9 558.78593	0.56	8	e,a
19	10	9	9 546.77753	0.87	−1	s,a	9 467.03384	0.69	−1	s,a	9 559.05995	0.69	6	e,a
19	11	9	9 853.31638	1.63	1	a	9 721.51834	1.02	−1	f,a	9 799.94838	0.80	7	e,a
19	11	8	9 853.38266	1.42	−1	s,a	9 721.52345	1.33	5	e,a	9 799.97641	1.26	1	a
19	12	8	10 174.31691	1.51	−1	s,a	9 985.09801	1.24		d	10 054.24710	1.43	7	e,a
19	12	7	10 174.31330	1.10	−1	s,a	9 985.09801	1.24	−1	s,a	10 054.24710	1.43		d
19	13	7	10 503.15427	1.37		d	10 257.48857	0.75		d	10 318.45558	0.67	−1	s,a
19	13	6	10 503.15427	1.37	−1	s,a	10 257.48857	0.75	−1	s,a	10 318.45558	0.67		d
19	14	6	10 836.13700	1.32		d	10 536.50380	3.90		d	10 589.61242	0.98	2	a
19	14	5	10 836.13700	1.32	−1	s,a	10 536.50380	3.90	4	e	10 589.61242	0.98		d

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or 00 2				100 or $10^{+}0$				001 or $10^{-}0$			
19	15	5	11 170.79173	1.42		d	10 819.78460	0.80		d	10 865.04150	0.95	6	e,a
19	15	4	11 170.79173	1.42	−1	s,a	10 819.78460	0.80	8	e,a	10 865.04150	0.95		d
19	16	4	11 503.24344	1.57		d	11 104.81356	1.21		d	11 141.41475	0.97	5	e,a
19	16	3	11 503.24344	1.57	−1	s,a	11 104.81356	1.21	5	e,a	11 141.41475	0.97		d
19	17	3	11 831.09390	1.56		d	11 389.09936	1.54		d	11 416.88159	1.94	1	a
19	17	2	11 831.09390	1.56	4	e,a	11 389.09936	1.54	−1	s,a	11 416.88159	1.94		d
19	18	2	12 150.91395	1.46		d	11 670.08287	1.15		d	11 687.74033	2.05	1	a
19	18	1	12 150.91395	1.46	−1	s,a	11 670.08287	1.15	5	e,a	11 687.74033	2.05		d
19	19	1	12 458.57592	2.01		d	11 945.35607	1.17		d	11 950.21760	1.66	3	e,a
19	19	0	12 458.57592	2.01	1	a	11 945.35607	1.17	4	e,a	11 950.21760	1.66		d
20	0	20	7 145.95796	1.30	1	a	7 627.58736	0.92		d	7 740.68439	0.60	12	e,a
20	1	20	7 145.98045	0.95	19	e,a	7 627.58736	0.92	5	e,a	7 740.68439	0.60		d
20	1	19	7 613.18782	0.84	−1	s,a	7 985.13335	0.62		d	8 095.89984	0.52	11	e,a
20	2	19	7 613.18090	0.45	16	e,a	7 985.13335	0.62	7	e,a	8 095.89984	0.52		d
20	2	18	7 996.82577	1.31	−1	s,a	8 305.94234	0.58		d	8 414.96972	0.62	8	e,a
20	3	18	7 997.00058	0.44	14	e,a	8 305.94234	0.58	9	e,a	8 414.97545	1.28	2	e,a
20	3	17	8 332.50886	0.65	−1	s,a	8 594.60643	1.51	−1	s,a	8 702.37858	0.44	12	e,a
20	4	17	8 334.26287	0.53	8	e,a	8 594.81064	0.64	−1	s,a	8 702.41701	1.53	1	a
20	4	16	8 616.11137	0.80	−1	s,a	8 851.23379	1.23	−1	s,a	8 958.97986	0.46	11	e,a
20	5	16	8 628.59950	0.55	−1	s,a	8 853.24632	0.67	7	e,a	8 959.46476	0.89	3	a
20	5	15	8 835.57693	1.14	−1	s,a	9 070.20254	1.71	1	a	9 181.21997	0.42	12	e,a
20	6	15	8 893.10805	0.56	−1	s,a	9 083.08379	0.68	5	e,a	9 187.64810	2.84	1	e
20	6	14	9 000.98458	0.91	−1	s,a	9 240.06049	1.23	−1	s,a	9 357.72500	0.64	−1	s,a
20	7	14	9 144.96669	0.48	−1	s,a	9 290.56971	0.66	−1	s,a	9 391.35693	0.75	4	a
20	7	13	9 178.19099	1.43	−1	s,a	9 371.36334	1.72	1	a	9 470.98289	0.60	4	a
20	8	13	9 403.30383	0.62	6	e,a	9 514.03793	0.71	3	a	9 588.32684	1.32	1	a
20	8	12	9 411.46955	1.40	−1	s,a	9 524.44108	1.35	−1	s,a	9 615.12575	0.49	9	e,a
20	9	12	9 671.48751	0.80	8	e,a	9 733.83368	3.57	2	a	9 795.37133	0.90	3	a
20	9	11	9 672.69147	2.85	−1	s,a	9 735.56107	1.33	1	a	9 800.33950	1.02	4	e,a
20	10	11	10 009.05815	0.79	−1	s,a	9 926.37898	0.85	5	e,a	10 019.72480	2.42	2	e,a
20	10	10	10 009.10859	1.10	−1	s,a	9 926.50024	1.35	−1	s,a	10 020.36835	0.69	4	e,a
20	11	10	10 317.43230	3.44	2	e	10 180.89506	0.92	−1	s,a	10 261.26190	0.90	4	e,a
20	11	9	10 317.41735	1.48	−1	s,a	10 180.92461	1.25	−1	s,a	10 261.32566	0.69	7	e,a
20	12	9	10 640.58938	1.69	−1	s,a	10 445.51722	1.11	5	e,a	10 516.80654	1.61	1	a
20	12	8	10 640.53952	1.91	1	a	10 445.52148	1.37	−1	f,a	10 516.82079	1.67	1	a
20	13	8	10 972.27751	1.46	−1	s,a	10 719.73068	1.11	−1	s,a	10 783.03341	1.12		d
20	13	7	10 972.29983	1.76	−1	s,a	10 719.73068	1.11		d	10 783.03341	1.12	−1	s,a
20	14	7	11 308.78783	1.24	−1	s,a	11 001.29685	0.82	−1	s,a	11 056.98559	1.20		d
20	14	6	11 308.78783	1.24		d	11 001.29685	0.82		d	11 056.98559	1.20	1	a
20	15	6	11 647.82456	1.02	−1	s,a	11 287.76866	1.21	−1	s,a	11 336.01048	1.08		d
20	15	5	11 647.82456	1.02		d	11 287.76866	1.21		d	11 336.01048	1.08	2	a
20	16	5	11 985.46649	1.72	−1	s,a	11 576.71883	0.85	5	e,a	11 616.74397	1.78		d
20	16	4	11 985.46649	1.72		d	11 576.71883	0.85		d	11 616.74397	1.78	2	a
20	17	4	12 319.62728	1.76	3	e,a	11 865.72507	1.18	4	e,a	11 897.64848	1.06		d
20	17	3	12 319.62728	1.76		d	11 865.72507	1.18		d	11 897.64848	1.06	4	e,a
20	18	3	12 647.26051	1.82	−1	s,a	12 152.31441	1.15	−1	s,a	12 175.22961	2.19		d
20	18	2	12 647.26051	1.82		d	12 152.31441	1.15		d	12 175.22961	2.19	1	a
20	19	2	12 964.88914	1.75	−1	s,a	12 433.98834	1.43	−1	s,a	12 446.35856	2.28		d
20	19	1	12 964.88914	1.75		d	12 433.98834	1.43		d	12 446.35856	2.28	1	a
20	20	1	13 268.06009	2.24	1	a	12 708.61104	1.24	2	a	12 706.95487	1.87		d
20	20	0	13 268.06009	2.24		d	12 708.61104	1.24		d	12 706.95487	1.87	3	e,a
21	0	21	7 530.50899	0.53	15	e,a	8 010.53273	0.85	6	e,a	8 125.05940	0.65		d
21	1	21	7 530.50899	0.53		d	8 010.53273	0.85		d	8 125.05940	0.65	10	e,a
21	1	20	8 022.98862	0.57	11	e,a	8 385.60306	0.88	6	e,a	8 497.66150	0.53		d
21	2	20	8 022.88760	1.13	1	a	8 385.60306	0.88		d	8 497.66150	0.53	10	e,a
21	2	19	8 423.00580	0.55	9	e,a	8 722.25096	0.73	5	e,a	8 832.47619	0.61		d
21	3	19	8 423.48166	1.28	1	a	8 722.27195	1.21	1	a	8 832.47619	0.61	10	e,a
21	3	18	8 776.73869	0.45	8	e,a	9 026.34296	1.14	4	e,a	9 135.07484	0.85	7	e,a
21	4	18	8 777.85162	1.19	1	a	9 026.45222	1.70	1	a	9 135.09343	0.54	8	e,a
21	4	17	9 080.88675	0.51	5	a	9 298.74857	0.69	7	e,a	9 406.91410	2.05	2	e
21	5	17	9 089.15022	0.87	2	a	9 299.92464	1.33	1	a	9 407.22853	0.60	8	e,a
21	5	16	9 323.24911	0.57	4	a	9 535.84965	0.74	3	a	9 646.10544	1.35	2	a
21	6	16	9 365.35834	0.93	2	a	9 544.13640	1.40	1	a	9 649.21776	0.61	5	a
21	6	15	9 502.85181	0.81	2	a	9 726.64740	0.86	3	e,a	9 843.08060	1.33	1	a
21	7	15	9 624.41380	6.51	1	e	9 763.44664	1.50	2	a	9 865.27805	0.48	7	e,a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or 00 2				100 or $10^{+}0$				001 or $10^{-}0$			
21	7	14	9 676.59623	0.79	2	a	9 869.20743	0.62	5	e,a	10 001.32011	1.50	1	a
21	8	14	9 884.50272	1.74	1	a	9 962.12047	1.33	2	a	10 068.01650	1.58	4	e
21	8	13	9 898.41927	1.11	3	a	10 015.05119	0.85	2	a	10 109.64699	1.08	2	a
21	9	13	10 152.81179	1.16	2	a					10 276.36230	0.69	4	e,a
21	9	12	10 155.02739	1.28	1	a	10 217.70127	0.86	4	a	10 285.69426	1.38	1	a
21	10	12	10 490.35455	5.75	1	a	10 405.67950	1.09	3	a	10 500.44985	1.09	3	e,a
21	10	11	10 490.65731	1.28	1	a	10 406.15503	0.87	3	a	10 501.82891	1.34	1	a
21	11	11	10 800.28493	11.90	1	a	10 659.77849	1.67	1	a	10 742.04050	0.99	2	a
21	11	10	10 800.21871	1.46	1	a	10 659.74938	0.89	4	e,a	10 742.18261	3.10	1	a
21	12	10	11 125.34828	1.84	1	a	10 925.08165	1.60	1	a	10 998.49986	0.93	3	a
21	12	9	11 125.52218	3.58	1	a	10 925.07376	0.97	3	e,a	10 998.51963	1.35	1	a
21	13	9	11 459.89206	2.16	1	a	11 200.79832	1.08		d	11 266.47734	1.60	1	a
21	13	8	11 459.63513	1.97	1	a	11 200.79832	1.08	6	e,a	11 266.48185	1.89	1	a
21	14	8	11 799.35932	5.30	1	a	11 484.67729	0.94		d	11 542.94500	1.12	2	a
21	14	7	11 799.35137	1.77	1	a	11 484.67729	0.94	3	a	11 542.91927	1.50	1	a
21	15	7	12 142.41449	1.59		d	11 774.08303	1.06		d	11 825.21659	1.77	1	a
21	15	6	12 142.41449	1.59	1	a	11 774.08303	1.06	2	a	11 825.21659	1.77		d
21	16	6	12 484.83482	1.87		d	12 066.66012	1.77		d	12 109.92590	1.84	1	a
21	16	5	12 484.83482	1.87	1	a	12 066.66012	1.77	4	e,a	12 109.92590	1.84		d
21	17	5	12 824.77241	1.99		d	12 360.03443	1.03		d	12 395.84562	2.14	1	a
21	17	4	12 824.77241	1.99	1	a	12 360.03443	1.03	5	e,a	12 395.84562	2.14		d
21	18	4	13 159.41063	2.02		d	12 651.83771	1.18		d	12 679.52582	1.39	3	e,a
21	18	3	13 159.41063	2.02	1	a	12 651.83771	1.18	3	a	12 679.52582	1.39		d
21	19	3	13 485.76028	2.08		d	12 939.63600	1.47		d	12 958.22874	2.40	1	a
21	19	2	13 485.76028	2.08	1	a	12 939.63600	1.47	2	a	12 958.22874	2.40		d
21	20	2	13 800.22347	2.01		d	13 221.01614	1.66		d	13 228.62382	2.49	1	a
21	20	1	13 800.22347	2.01	1	a	13 221.01614	1.66	2	a	13 228.62382	2.49		d
21	21	1	14 097.90967	2.46		d	13 494.28863	1.53		d	13 486.39363	2.12	1	a
21	21	0	14 097.90967	2.46	1	a	13 494.28863	1.53	2	a	13 486.39363	2.12		d
22	0	22	7 932.54089	0.82	3	a	8 410.38355	0.69		d	8 526.39988	0.64	10	e,a
22	1	22	7 932.56081	1.20	8	e,a	8 410.38355	0.69	8	e,a	8 526.39988	0.64		d
22	1	21	8 450.03209	1.06	2	a	8 802.85124	0.99		d	8 916.25320	0.70	8	e,a
22	2	21	8 450.05521	0.72	3	a	8 802.85124	0.99	2	a	8 916.25320	0.70		d
22	2	20	8 865.21492	0.55		d	9 155.00217	1.27		d	9 266.47886	0.54	9	e,a
22	3	20	8 865.21492	0.55	6	a	9 155.00217	1.27	2	a	9 266.47886	0.54		d
22	3	19	9 236.53479	1.25	1	a	9 474.05835	1.34	2	a	9 583.90859	0.52	9	e,a
22	4	19	9 237.28426	0.56	4	a	9 474.19067	0.97	4	e,a	9 583.91631	1.57	1	a
22	4	18	9 558.58094	0.89	2	a	9 761.66129	1.10	2	a	9 870.50352	0.71	3	a
22	5	18	9 564.03535	0.57	4	a	9 762.38491	0.86	4	e,a	9 870.65533	1.02	4	e,a
22	5	17	9 823.92169	1.36	1	a					10 125.50796	0.70	4	e,a
22	6	17	9 853.82503	0.51	5	a	10 020.82362	0.96	2	a	10 127.32501	0.85	3	a
22	6	16									10 341.84147	0.68	5	a
22	7	16	10 121.25393	1.11	2	a	10 252.73911	0.63	5	a	10 355.81080	0.95	2	a
22	7	15									10 511.96779	1.28	1	a
22	8	15	10 384.20910	1.27	1	a	10 465.35895	0.86	3	a	10 565.96290	1.28	3	a
22	8	14	10 405.72714	6.59	1	a					10 624.96654	0.59	7	e,a
22	9	14	10 654.53543	0.85	5	a	10 714.32524	1.28	2	a	10 776.35117	1.47	1	a
22	9	13	10 657.65095	2.01	1	a					10 793.09025	1.13	4	e,a
22	10	13	10 990.55848	5.16	1	a	10 904.19309	0.67	5	a	11 000.55843	1.37	1	a
22	10	12					10 905.34581	1.07	2	a	11 003.33822	0.75	4	a
22	11	12	11 301.44665	1.62	1	a	11 157.60915	0.81	3	a	11 241.95544	1.16	2	a
22	11	11	11 301.24079	5.84	1	a	11 157.77678	1.54	1	a	11 242.30442	0.97	3	a
22	12	11	11 628.15525	1.77	1	a	11 423.42646	1.17	2	a	11 498.98739	3.25	1	a
22	12	10	11 627.67023	11.36	1	a	11 423.42219	1.95	1	a	11 499.04166	0.94	3	a
22	13	10	11 964.79669	3.72	1	a	11 700.50339	1.07	4	e,a	11 768.40581	5.18	1	a
22	13	9	11 964.75116	2.10	1	a	11 700.50339	1.07		d	11 768.39996	2.16	2	a
22	14	9	12 307.40392	2.21	1	a	11 986.31365	1.07	6	e,a	12 047.04510	2.14	1	a
22	14	8	12 307.32203	2.38	1	a	11 986.31365	1.07		d	12 047.05187	1.34	2	a
22	15	8	12 654.14039	2.03	1	a	12 278.36314	1.08		d	12 332.29069	1.80	1	a
22	15	7	12 654.14039	2.03		d	12 278.36314	1.08	−1	f,a	12 332.28887	1.14	2	a
22	16	7	13 000.93654	1.88	1	a	12 574.25271	1.14	−1	f,a	12 620.68917	1.90		d
22	16	6	13 000.93654	1.88		d	12 574.25271	1.14		d	12 620.68917	1.90	2	a
22	17	6	13 346.14927	2.12	1	a	12 871.65980	1.78	3	a	12 911.05831	1.97		d
22	17	5	13 346.14927	2.12		d	12 871.65980	1.78		d	12 911.05831	1.97	2	e,a
22	18	5	13 687.12832	2.23	1	a	13 168.27845	1.33	3	a	13 200.34624	2.36		d

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	10^+0			001 or	10^-0		
22	18	4	13 687.12832	2.23		d	13 168.27845	1.33		d	13 200.34624	2.36	1	a
22	19	4	14 021.23353	2.25	1	a	13 461.78323	1.43	3	a	13 485.84411	1.71		d
22	19	3	14 021.23353	2.25		d	13 461.78323	1.43		d	13 485.84411	1.71	1	a
22	20	3	14 345.40105	2.30	1	a	13 749.78824	1.68	2	a	13 764.71679	2.60		d
22	20	2	14 345.40105	2.30		d	13 749.78824	1.68		d	13 764.71679	2.60	1	a
22	21	2	14 655.82519	2.25	1	a	14 029.98016	1.82	2	a	14 033.47976	2.68		d
22	21	1	14 655.82519	2.25		d	14 029.98016	1.82		d	14 033.47976	2.68	1	a
22	22	1	14 947.13282	2.65	1	a	14 301.38168	2.22	1	a	14 287.55238	2.34		d
22	22	0	14 947.13282	2.65		d	14 301.38168	2.22		d	14 287.55238	2.34	1	a
23	0	23	8 350.96548	0.72	8	e,a	8 827.02152	1.03	4	e,a	8 944.57941	1.43		d
23	1	23	8 350.97116	1.30	1	a	8 827.02152	1.03		d	8 944.57941	1.43	5	e,a
23	1	22	8 894.67083	0.66	4	a	9 236.75090	0.94	5	e,a	9 351.54766	1.23		d
23	2	22	8 894.69307	1.19	2	a	9 236.75090	0.94		d	9 351.54766	1.23	6	e,a
23	2	21	9 323.13976	0.54	5	a	9 603.99885	1.04	2	a	9 716.81820	2.89		d
23	3	21	9 323.08209	0.96	2	a	9 604.01756	1.61	1	a	9 716.81820	2.89	1	e
23	3	20	9 711.77763	0.80	2	a	9 937.81260	0.95	4	e,a	10 048.73078	1.70	1	a
23	4	20	9 714.80344	1.60	1	a	9 937.85957	1.67	1	a	10 048.74048	0.94	2	a
23	4	19	10 050.70697	0.69	3	a	10 239.99534	1.35	1	a	10 349.57591	1.25	3	e,a
23	5	19	10 054.31446	0.91	2	a	10 240.43039	1.53	1	a	10 349.67051	0.62	4	a
23	5	18	10 337.06046	0.85	2	a	10 509.64887	0.96	2	a	10 619.56669	1.15	2	a
23	6	18					10 513.07532	2.04	1	a	10 620.57806	0.72	4	a
23	6	17	10 557.06889	0.81	3	a	10 739.69634	0.88	3	a	10 853.77922	0.97	2	a
23	7	17									10 862.21872	0.84	5	a
23	7	16	10 733.46529	1.12	1	a					11 041.31810	1.39	1	a
23	8	16									11 081.34255	0.78	4	a
23	8	15	10 936.37490	13.30	1	a	11 062.45550	0.93	2	a	11 179.29529	1.58	2	a
23	9	15									11 295.32745	0.73	6	e,a
23	9	14	11 180.47911	1.62	1	a	11 243.34485	2.15	1	a	11 322.46568	1.54	2	a
23	10	14	11 509.04141	5.39	1	a	11 421.89804	3.80	2	a	11 519.61751	0.84	3	a
23	10	13	11 509.82645	1.60	1	a	11 424.09886	0.76	4	a	11 524.69917	1.65	1	a
23	11	13					11 674.25604	1.80	1	a	11 760.64494	0.96	2	a
23	11	12	11 820.38089	5.26	1	a	11 674.65153	0.99	2	a	11 761.40044	1.64	1	a
23	12	12	12 148.25901	1.91		d	11 940.24583	3.88	2	a	12 017.94595	1.04	2	a
23	12	11	12 148.25901	1.91	1	a	11 940.30193	0.79	3	a	12 018.05810	1.53	1	a
23	13	11	12 487.27440	10.20	1	a	12 218.45476	7.13	1	a	12 288.46530	1.33	2	a
23	13	10	12 487.20966	2.03	1	a	12 218.31046	1.16	3	a	12 288.45580	3.40	1	a
23	14	10	12 832.53189	5.42	1	a	12 505.82666	1.85		d	12 568.96005	2.06	2	a
23	14	9	12 832.50408	3.85	1	a	12 505.82666	1.85	1	a	12 568.96005	2.06		d
23	15	9	13 182.58628	2.42		d	12 800.25144	1.36		d	12 856.85719	1.85	1	a
23	15	8	13 182.58628	2.42	1	a	12 800.25144	1.36	−1	f,a	12 856.85719	1.85		d
23	16	8	13 533.32930	2.26		d	13 099.14498	1.46		d	13 148.52073	1.41	3	a
23	16	7	13 533.32930	2.26	1	a	13 099.14498	1.46	−1	f,a	13 148.52073	1.41		d
23	17	7	13 883.40943	2.13		d	13 400.23273	1.40		d	13 443.12748	2.27	1	a
23	17	6	13 883.40943	2.13	1	a	13 400.23273	1.40	−1	f,a	13 443.12748	2.27		d
23	18	6	14 230.14476	2.34		d	13 701.28706	1.91		d	13 737.32716	2.21	1	a
23	18	5	14 230.14476	2.34	1	a	13 701.28706	1.91	2	a	13 737.32716	2.21		d
23	19	5	14 571.18274	2.44		d	14 000.05771	3.69		d	14 029.01140	2.56	1	a
23	19	4	14 571.18274	2.44	1	a	14 000.05771	3.69	2	a	14 029.01140	2.56		d
23	20	4	14 903.86226	2.47		d	14 294.25824	1.66		d	14 315.42078	1.98	1	a
23	20	3	14 903.86226	2.47	1	a	14 294.25824	1.66	2	a	14 315.42078	1.98		d
23	21	3	15 225.03328	5.51		d	14 581.54327	5.28		d	14 593.59474	5.64	1	a
23	21	2	15 225.03328	5.51	1	a	14 581.54327	5.28	1	a	14 593.59474	5.64		d
23	22	2	15 530.67082	5.48		d	14 859.73557	5.32		d	14 859.94543	2.86	1	a
23	22	1	15 530.67082	5.48	1	a	14 859.73557	5.32	1	a	14 859.94543	2.86		d
23	23	1	15 814.78051	5.66		d	15 128.97854	2.44		d	15 109.56764	2.55	1	a
23	23	0	15 814.78051	5.66	1	a	15 128.97854	2.44	1	a	15 109.56764	2.55		d
24	0	24	8 787.45680	2.07		d	9 260.32144	1.03		d	9 379.49004	0.71	8	e,a
24	1	24	8 787.45680	2.07	3	e	9 260.32144	1.03	6	e,a	9 379.49004	0.71		d
24	1	23	9 356.78306	1.56	1	a	9 687.17416	1.00		d	9 803.42830	1.84	4	e
24	2	23	9 356.79411	0.67	6	e,a	9 687.17416	1.00	5	e,a	9 803.42830	1.84		d
24	2	22	9 794.77398	2.08	1	a	10 069.10723	0.98		d	10 183.35126	1.02	2	a
24	3	22	9 796.21315	0.69	3	a	10 069.10723	0.98	−1	f,a	10 183.35126	1.02		d
24	3	21	10 202.32195	1.47	1	a	10 417.26442	1.95	1	a	10 529.37974	0.95	2	a
24	4	21	10 202.42395	0.87	2	a	10 417.30048	1.38	1	a	10 529.40483	1.97	1	a
24	4	20					10 733.57651	1.83	1	a	10 844.09194	0.72	4	e,a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	$10^{+}0$			001 or	$10^{-}0$		
24	5	20	10 559.67728	0.84	4	a	10 733.84999	1.28	1	a	10 844.14154	1.44	2	a
24	5	19									11 128.33047	0.78	3	a
24	6	19	10 876.51066	0.92	2	a	11 020.47808	1.39	1	a	11 128.87073	1.09	2	a
24	6	18									11 379.07040	1.00	2	a
24	7	18	11 164.80356	0.88	2	a	11 278.64069	1.33	1	a	11 383.90165	1.71	1	a
24	7	17									11 585.61731	0.91	4	a
24	8	17									11 613.34565	1.52	1	a
24	8	16									11 728.51795	1.36	1	a
24	9	16					11 697.82740	1.61	2	a				
24	9	15									11 873.52732	0.95	4	a
24	10	15	12 045.43900	1.43	3	a								
24	10	14									12 066.66992	0.85	3	a
24	11	14	12 357.08612	1.89	1	a	12 209.61398	1.29	1	a	12 297.54361	1.93	1	a,?
24	11	13					12 210.26065	5.46	1	a	12 299.25779	0.93	2	a
24	12	13	12 686.01496	5.35	1	a	12 475.20317	1.40	1	a	12 555.01130	1.92	1	a
24	12	12					12 475.30482	5.31	1	a	12 555.20111	1.04	3	a
24	13	12	13 026.68360	2.15	1	a	12 753.93790	1.78	1	a	12 826.26847	5.23	1	a
24	13	11					12 753.93790	1.78		d	12 826.33117	1.10	2	a
24	14	11	13 374.26161	5.40	1	a	13 042.87683	1.53	1	a	13 108.34499	6.05	1	a
24	14	10	13 374.28426	8.89	1	a	13 043.03389	8.71	1	a	13 108.37238	1.21	2	a
24	15	10	13 727.31049	3.98	1	a	13 339.37638	1.82	−1	f,a	13 398.56313	5.41		d
24	15	9	13 727.31049	3.98		d	13 339.37638	1.82		d	13 398.56313	5.41	1	a
24	16	9					13 640.98587	1.60	2	a	13 693.27593	5.33		d
24	16	8					13 640.98587	1.60		d	13 693.27593	5.33	1	a
24	17	8	14 436.15635	2.47	1	a	13 945.42353	1.60	3	a				
24	17	7	14 436.15635	2.47		d	13 945.42353	1.60		d				
24	18	7	14 788.13071	2.35	1	a	14 250.52172	1.56	3	a	14 290.32805	2.48		d
24	18	6	14 788.13071	2.35		d	14 250.52172	1.56		d	14 290.32805	2.48	1	a
24	19	6	15 135.42276	2.55	1	a	14 554.12180	1.99	2	a	14 587.43269	2.43		d
24	19	5	15 135.42276	2.55		d	14 554.12180	1.99		d	14 587.43269	2.43	1	a
24	20	5	15 475.64109	2.64	1	a	14 854.03725	2.67	3	a	14 880.59843	2.75		d
24	20	4	15 475.64109	2.64		d	14 854.03725	2.67		d	14 880.59843	2.75	1	a
24	21	4	15 806.11592	2.66	1	a	15 148.00868	5.27	1	a	15 167.06970	5.38		d
24	21	3	15 806.11592	2.66		d	15 148.00868	5.27		d	15 167.06970	5.38	1	a
24	22	3	16 123.58953	5.59	1	a	15 433.71801	4.30	2	a	15 443.81787	7.54		d
24	22	2	16 123.58953	5.59		d	15 433.71801	4.30		d	15 443.81787	7.54	1	a
24	23	2	16 423.78541	5.57	1	a	15 709.16781	7.30	1	a	15 707.09072	5.76		d
24	23	1	16 423.78541	5.57		d	15 709.16781	7.30		d	15 707.09072	5.76	1	a
24	24	1	16 699.97761	7.55	1	a	15 976.19511	2.63	1	a	15 951.69689	5.61		d
24	24	0	16 699.97761	7.55		d	15 976.19511	2.63		d	15 951.69689	5.61	1	a
25	0	25	9 241.16416	1.13	2	a	9 710.15633	1.24	3	e,a	9 830.98130	1.62		d
25	1	25	9 241.16416	1.13		d	9 710.15633	1.24		d	9 830.98130	1.62	5	e,a
25	1	24	9 836.42527	0.63	4	a	10 153.99170	2.09	3	e,a	10 271.76113	1.14		d
25	2	24	9 836.45021	1.20	1	a	10 153.99170	2.09		d	10 271.76113	1.14	5	e,a
25	2	23	10 284.00263	0.85	2	a	10 550.09914	2.88	1	a	10 665.85140	2.88		d
25	3	23	10 284.12792	1.63	2	a	10 550.26783	1.40	1	a	10 665.85140	2.88	1	a
25	3	22	10 708.03396	0.90	2	a	10 912.28448	2.74	1	a	11 025.67351	1.79		d
25	4	22	10 708.01738	1.52	1	a	10 912.32966	1.77	1	a	11 025.67351	1.79	4	e,a
25	4	21	11 077.47982	5.14	1	a	11 242.89945	1.37	1	a	11 352.22815	1.68	1	a
25	5	21					11 243.10901	2.09	1	a	11 352.23815	0.76	3	a
25	5	20	11 399.06611	1.36	1	a					11 651.73264	1.46	1	a
25	6	20									11 652.02962	1.45	1	a
25	6	19					11 805.14000	1.67	1	a	11 917.59561	1.98	1	a
25	7	19									11 920.38222	5.08	1	a
25	7	18	11 866.92451	5.08	1	a					12 142.93632	1.48	1	a
25	8	18									12 161.14816	1.44	1	a
25	8	17	12 056.30731	1.33	1	a	12 190.07236	1.66	1	a	12 331.81741	1.98	1	a
25	9	17									12 386.17800	3.56	1	e
25	9	16									12 445.09224	1.81	1	a
25	10	16									12 612.66656	3.28	2	a
25	10	15									12 628.82497	1.77	1	a
25	11	15									12 852.88336	0.97	2	a
25	11	14	12 910.90829	2.15	1	a								
25	12	14					13 027.98108	7.40	1	a	13 109.81538	1.32	2	a
25	12	13	13 240.06962	2.14	1	a	13 028.24890	1.63	1	a	13 110.02422	5.36	1	a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	10^+0			001 or	10^-0		
25	13	13					13 307.04343	7.30	1	a	13 381.20373	1.44	1	a
25	13	12	13 582.41601	5.44	1	a	13 307.06427	1.72	1	a				
25	14	12					13 597.11746	2.04		d	13 664.82573	5.25	1	a
25	14	11	13 932.30537	2.37	1	a	13 597.11746	2.04	1	a	13 664.76589	7.26	1	a
25	15	11	14 287.93052	7.36		d	13 895.47889	5.39		d	13 956.97838	1.51	2	a
25	15	10	14 287.93052	7.36	1	a	13 895.47889	5.39	1	a	13 956.97838	1.51		d
25	16	10	14 645.96493	6.39	1	a	14 199.42013	2.64		d	14 254.37230	7.37	1	a
25	16	9	14 645.94849	4.10	1	a	14 199.42013	2.64	4	a	14 254.37230	7.37		d
25	17	9					14 506.87991	5.33		d	14 556.01831	3.80	2	a
25	17	8					14 506.87991	5.33	1	a	14 556.01831	3.80		d
25	18	8	15 360.71525	2.67		d	14 815.65654	7.29		d				
25	18	7	15 360.71525	2.67	1	a	14 815.65654	7.29	1	a				
25	19	7	15 713.64376	5.53		d	15 123.66418	1.75		d	15 161.01692	5.58	1	a
25	19	6	15 713.64376	5.53	1	a	15 123.66418	1.75	2	a	15 161.01692	5.58		d
25	20	6	16 060.61119	5.61		d	15 428.81037	5.38		d	15 460.09243	5.56	1	a
25	20	5	16 060.61119	5.61	1	a	15 428.81037	5.38	1	a	15 460.09243	5.56		d
25	21	5	16 399.26015	5.65		d	15 728.94793	5.67		d	15 753.91365	2.93	1	a
25	21	4	16 399.26015	5.65	1	a	15 728.94793	5.67	1	a	15 753.91365	2.93		d
25	22	4	16 726.88023	5.66		d	16 021.83560	7.26		d	16 039.71191	7.34	1	a
25	22	3	16 726.88023	5.66	1	a	16 021.83560	7.26	1	a	16 039.71191	7.34		d
25	23	3	17 040.06062	7.50		d	16 305.17972	4.16		d	16 314.38925	9.04	1	a
25	23	2	17 040.06062	7.50	1	a	16 305.17972	4.16	2	a	16 314.38925	9.04		d
25	24	2	17 334.23694	7.49		d	16 577.19152	8.85		d	16 574.05503	5.85	1	a
25	24	1	17 334.23694	7.49	1	a	16 577.19152	8.85	1	a	16 574.05503	5.85		d
25	25	1	17 601.87994	9.06		d	16 842.20405	5.65		d	16 813.24862	7.52	1	a
25	25	0	17 601.87994	9.06	1	a	16 842.20405	5.65	1	a	16 813.24862	7.52		d
26	0	26	9 712.25069	0.90		d	10 176.39630	1.24		d	10 298.93749	1.01	7	e,a
26	1	26	9 712.25069	0.90	3	a	10 176.39630	1.24	5	e,a	10 298.93749	1.01		d
26	1	25	10 333.95393	1.68	1	a	10 637.08963	1.38		d	10 756.40368	1.02	7	e,a
26	2	25	10 334.01339	1.68	1	a	10 637.08963	1.38	4	e,a	10 756.40368	1.02		d
26	2	24	10 786.19698	1.51	2	a	11 046.80894	1.67		d	11 164.14931	1.67	2	a
26	3	24	10 786.26991	1.19	1	a	11 046.80894	1.67	2	a	11 164.14931	1.67		d
26	3	23									11 537.44195	1.25	3	e,a
26	4	23	11 228.59288	0.95	2	a	11 422.78306	1.79	1	a	11 537.57183	2.03	1	a
26	4	22									11 878.78134	1.70	1	a
26	5	22	11 612.35405	5.24	1	a	11 766.30424	1.20	2	a				
26	5	21									12 189.63260	2.37	1	a
26	6	21	11 939.58767	1.69	1	a								
26	6	20									12 469.71380	1.68	1	a
26	7	20					12 365.15257	1.94	1	a	12 471.31789	2.22	1	a
26	7	19									12 712.54493	1.43	1	a
26	8	19									12 723.98924	1.44	1	a
26	8	18									12 911.85883	1.64	1	a
26	9	18									12 956.18123	2.22	1	a
26	9	17									13 034.76236	1.66	2	a
26	10	16									13 211.73255	6.14	1	a
26	11	15									13 431.05576	3.34	2	a
26	12	15	13 811.84047	2.37	1	a								
26	12	14									13 682.87599	5.09	1	a
26	13	14	14 154.52709	2.36	1	a	13 877.30722	1.91	1	a	13 953.52045	7.33	1	a
26	13	13					13 877.56213	7.47	1	a	13 953.86676	3.68	2	a
26	14	13	14 505.90028	7.39	1	a	14 168.17999	5.29	1	a				
26	14	12	14 506.06799	10.23	1	a					14 238.06554	1.75	1	a
26	15	12	14 864.01232	5.53	1	a	14 467.99521	5.40		d	14 531.60041	8.82	1	a
26	15	11					14 467.99521	5.40	1	a	14 531.67958	7.25	1	a
26	16	11	15 224.94824	8.89	1	a	14 774.17024	5.48	1	a	14 831.51504	5.22		d
26	16	10					14 774.17024	5.48		d	14 831.51504	5.22	1	a
26	17	10	15 586.71143	5.06	2	a	15 084.27579	3.86	2	a	15 136.18608	8.90		d
26	17	9	15 586.71143	5.06		d	15 084.27579	3.86		d	15 136.18608	8.90	1	a
26	18	9					15 396.38579	3.79	2	a	15 442.80380	6.28		d
26	18	8					15 396.38579	3.79		d	15 442.80380	6.28	1	a
26	19	8	16 305.39643	5.67	1	a	15 708.38163	5.30	1	a				
26	19	7	16 305.39643	5.67		d	15 708.38163	5.30		d				
26	20	7	16 657.78777	7.45	1	a	16 018.28491	5.30	1	a	16 053.85488	5.67		d
26	20	6	16 657.78777	7.45		d	16 018.28491	5.30		d	16 053.85488	5.67	1	a
26	21	6	17 004.97707	7.52	1	a	16 324.01503	7.35	1	a	16 354.06929	7.48		d

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	$10^{+}0$			001 or	$10^{-}0$		
26	21	6	17 004.97707	7.52	1	a	16 324.01503	7.35	1	a	16 354.06929	7.48		d
26	21	5	17 004.97707	7.52		d	16 324.01503	7.35		d	16 354.06929	7.48	1	a
26	22	5	17 341.06473	7.55	1	a	16 623.53050	7.56	1	a	16 647.80861	5.79		d
26	22	4	17 341.06473	7.55		d	16 623.53050	7.56		d	16 647.80861	5.79	1	a
26	23	4	17 665.11052	7.55	1	a	16 914.59525	8.82	1	a	16 932.28978	8.88		d
26	23	3	17 665.11052	7.55		d	16 914.59525	8.82		d	16 932.28978	8.88	1	a
26	24	3	17 973.45428	9.02	1	a	17 194.83738	6.51	1	a	17 204.35039	10.33		d
26	24	2	17 973.45428	9.02		d	17 194.83738	6.51		d	17 204.35039	10.33	1	a
26	25	2	18 261.16719	9.00	1	a	17 462.74612	10.16	1	a	17 459.97258	7.69		d
26	25	1	18 261.16719	9.00		d	17 462.74612	10.16		d	17 459.97258	7.69	1	a
26	26	1	18 519.68215	10.35	1	a								
26	26	0	18 519.68215	10.35		d								
27	0	27	10 200.84074	0.77	4	e,a	10 658.90546	1.25	4	e,a	10 783.21146	1.03		d
27	1	27	10 200.84074	0.77		d	10 658.90546	1.25		d	10 783.21146	1.03	7	e,a
27	1	26	10 855.16961	0.96	3	a	11 136.31352	1.21	3	e,a	11 257.21642	0.76		d
27	2	26					11 136.31352	1.21		d	11 257.21642	0.76	7	e,a
27	2	25	11 302.07872	2.92	1	a	11 559.01895	1.95	1	a	11 677.99964	1.41		d
27	3	25	11 302.07872	2.92		d					11 677.99964	1.41	2	a
27	3	24	11 761.26756	1.39	1	a	11 948.37768	2.05	1	a	12 064.57056	1.36	1	a
27	4	24									12 064.48352	1.11	4	e,a
27	4	23					12 304.68337	1.56	1	a	12 418.22570	5.37	1	a
27	5	23									12 418.41692	1.97	1	a
27	6	22									12 742.20642	1.02	3	a
27	6	21									13 035.50639	2.43	1	a
27	7	21									13 036.33163	1.95	1	a
27	10	18									13 774.94268	5.20	1	a
27	11	17									14 015.72414	5.24	1	a
27	12	16									14 271.35618	6.66	1	a
27	13	15									14 542.79758	5.30	1	a
27	13	14	14 742.43503	5.53	1	a								
27	14	14									14 827.60784	4.03	2	a
27	14	13	15 095.56430	5.53	1	a	14 755.83490	5.35	1	a	14 827.50248	8.87	1	a
27	15	13	15 454.99878	8.92		d	15 056.75589	7.28		d	15 122.68532	5.30	1	a
27	15	12	15 454.99878	8.92	1	a	15 056.75589	7.28	1	a				
27	16	12					15 364.73162	7.36	1	a	15 424.31355	7.32	1	a
27	16	11	15 818.70756	7.46	1	a	15 364.73162	7.36		d	15 424.31355	7.32		d
27	17	11	16 183.55731	10.20		d	15 677.25885	7.42	1	a	15 731.68703	7.23	1	a
27	17	10	16 183.55731	10.20	1	a	15 677.29114	7.42	1	a	15 731.68703	7.23		d
27	18	10	16 548.16003	7.11		d	15 992.37491	3.99		d	16 041.63748	10.21	1	a
27	18	9	16 548.16003	7.11	1	a	15 992.37491	3.99	1	a	16 041.63748	10.21		d
27	19	9					16 307.98621	3.16		d	16 352.25018	8.03	1	a
27	19	8					16 307.98621	3.16	2	a	16 352.25018	8.03		d
27	20	8					16 622.20707	4.31		d				
27	20	7	17 270.57870	7.56	1	a	16 622.20707	4.31	2	a				
27	21	7					16 933.08309	7.28		d	16 967.56762	7.56	1	a
27	21	6					16 933.08309	7.28	1	a	16 967.56762	7.56		d
27	22	6	17 966.19422	9.03		d	17 238.58378	8.89		d	17 268.16839	8.99	1	a
27	22	5	17 966.19422	9.03	1	a	17 238.58378	8.89	1	a	17 268.16839	8.99		d
27	23	5	18 299.62720	9.05		d	17 536.71294	9.06		d	17 561.17207	7.65	1	a
27	23	4	18 299.62720	9.05	1	a	17 536.71294	9.06	1	a	17 561.17207	7.65		d
27	24	4	18 619.73829	9.06		d	17 825.19402	10.14	1	a	17 843.77288	10.19	1	a
27	24	3	18 619.73829	9.06	1	a	17 825.19402	10.14		d	17 843.77288	10.19		d
27	25	3	18 922.87310	10.31		d	18 101.64745	8.21		d	18 112.76299	11.48	1	a
27	25	2	18 922.87310	10.31	1	a	18 101.64745	8.21	1	a	18 112.76299	11.48		d
27	26	2	19 203.68933	10.30		d	18 364.81015	11.33		d	18 364.05293	9.17	1	a
27	26	1	19 203.68933	10.30	1	a	18 364.81015	11.33	1	a	18 364.05293	9.17		d
27	27	1	19 452.61389	11.49		d								
27	27	0	19 452.61389	11.49	1	a								
28	0	28	10 707.09363	0.92		d	11 157.54576	2.00		d	11 283.66249	0.96	7	e,a
28	1	28	10 707.09363	0.92	4	e,a	11 157.54576	2.00	2	e,a	11 283.66249	0.96		d
28	1	27	11 376.50179	1.91	1	a	11 651.54700	4.90		d	11 774.05353	0.91	3	a
28	2	27	11 376.61216	1.28	1	a	11 651.54700	4.90	−1	f	11 774.05353	0.91		d
28	2	26					12 086.59837	2.19		d	12 207.18357	1.44	2	a
28	3	26					12 086.59837	2.19	1	a	12 207.18357	1.44		d
28	3	25									12 606.59721	0.89	5	e,a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	10^+0			001 or	10^-0		
28	4	25	12 314.18770	1.71	1	a	12 488.99955	2.28	1	a	12 606.55287	1.62	1	a
28	4	24									12 972.72281	1.56	2	a
28	5	24					12 857.53415	1.85	1	a	12 972.72281	1.56		d
28	5	23									13 308.38709	1.37	2	a
28	6	22									13 614.76644	2.19	1	a
28	7	21									13 888.30527	2.01	1	a
28	8	20									14 120.48658	1.84	1	a
28	10	18									14 436.54800	5.23	1	a
28	13	16									15 148.69566	8.33		d
28	13	15									15 148.69566	8.33	1	a
28	14	15	15 699.27438	7.46	1	a								
28	15	14					15 661.32529	7.33	1	a	15 729.10913	10.18	1	a
28	15	13									15 729.25701	6.42	1	a
28	16	13	16 426.78223	10.23	1	a								
28	17	12	16 794.30445	8.98	1	a	16 285.89056	5.70	2	a	16 342.14767	8.86		d
28	17	11	16 794.30445	8.98		d					16 342.14767	8.86	1	a
28	18	11					16 603.39394	8.95	1	a				
28	18	10					16 603.39394	8.95		d				
28	19	10					16 922.17447	6.39	1	a	16 969.31746	11.37		d
28	19	9					16 922.17447	6.39		d	16 969.31746	11.37	1	a
28	20	9					17 240.27925	5.91	1	a	17 282.96240	9.46		d
28	20	8					17 240.27925	5.91		d	17 282.96240	9.46	1	a
28	21	8	18 251.60522	9.06	1	a	17 555.79404	6.60	1	a				
28	21	7	18 251.60522	9.06		d	17 555.79404	6.60		d				
28	22	7					17 866.81055	8.84	1	a	17 900.91721	9.06		d
28	22	6					17 866.81055	8.84		d	17 900.91721	9.06	1	a
28	23	6	18 943.96720	10.32	1	a	18 171.29078	10.20		d	18 201.23515	10.29		d
28	23	5	18 943.96720	10.32		d	18 171.29078	10.20	1	a	18 201.23515	10.29	1	a
28	24	5	19 274.06642	10.34	1	a	18 467.35299	10.35	1	a	18 492.93676	9.14		d
28	24	4	19 274.06642	10.34		d	18 467.35299	10.35		d	18 492.93676	9.14	1	a
28	25	4	19 589.78179	10.35	1	a	18 752.59604	11.30	1	a	18 773.19396	11.36		d
28	25	3	19 589.78179	10.35		d	18 752.59604	11.30		d	18 773.19396	11.36	1	a
28	26	3	19 887.29848	11.46	1	a	19 024.62479	9.61	1	a	19 038.69933	12.52		d
28	26	2	19 887.29848	11.46		d	19 024.62479	9.61		d	19 038.69933	12.52	1	a
28	27	2	20 160.89677	11.45	1	a	19 282.41200	12.38	1	a	19 285.50433	10.45		d
28	27	1	20 160.89677	11.45		d	19 282.41200	12.38		d	19 285.50433	10.45	1	a
28	28	1	20 399.93371	12.53	1	a								
28	28	0	20 399.93371	12.53		d								
29	0	29	11 231.21765	0.93	5	e,a	11 672.25335	2.09	−1	f,a	11 800.14248	0.83		d
29	1	29	11 231.21765	0.93		d	11 672.25335	2.09		d	11 800.14248	0.83	4	a
29	1	28	11 926.21358	1.62	1	a	12 182.58242	1.94	1	a	12 306.76072	1.03		d
29	2	28	11 926.21358	1.62		d	12 182.58242	1.94		d	12 306.76072	1.03	3	a
29	2	27					12 629.25537	2.18	1	a	12 751.53794	1.36		d
29	3	27					12 629.25537	2.18		d	12 751.53794	1.36	2	a
29	3	26	12 878.74832	1.98	1	a					13 163.56498	1.04		d
29	4	26									13 163.56498	1.04	4	e,a
29	8	22									14 496.89376	5.39	1	a
29	9	21									14 758.31656	5.33	1	a
29	14	16									16 054.39749	9.71	1	a
29	14	15									16 054.39749	9.71		d
29	15	14	16 680.82930	8.98	1	a								
29	16	14					16 592.27979	8.87		d				
29	16	13					16 592.27979	8.87	1	a				
29	17	12	17 418.34127	11.38	1	a								
29	18	12									17 282.77371	10.18	1	a
29	18	11									17 282.77371	10.18		d
29	19	11					17 550.53296	6.77		d				
29	19	10					17 550.53296	6.77	2	a				
29	20	10					17 872.21390	8.12		d				
29	20	9					17 872.21390	8.12	1	a				
29	24	6	19 937.03786	11.47		d								
29	24	5	19 937.03786	11.47	1	a								
29	25	5	20 263.32600	11.49		d								
29	25	4	20 263.32600	11.49	1	a								
29	26	4	20 574.28152	11.49		d					19 719.45492	12.41	1	a

TABLE 3. Term values for the first polyad, 1ν, of $H_2{}^{16}O$—Continued

J	K_a	K_c	020 or	00 2			100 or	10^+0			001 or	10^-0		
29	26	3	20 574.28152	11.49	1	a					19 719.45492	12.41		d
29	27	3	20 865.95704	12.50		d								
29	27	2	20 865.95704	12.50	1	a								
29	28	2	21 132.76592	12.49		d								
29	28	1	21 132.76592	12.49	1	a								
29	29	1	21 360.91376	13.49		d								
29	29	0	21 360.91376	13.49	1	a								
30	0	30	11 773.45900	0.99		d	12 202.38606	1.62		d	12 332.49259	2.28	1	a
30	1	30	11 773.45900	0.99	3	a	12 202.38606	1.62	2	a	12 332.49259	2.28		d
30	1	29									12 855.18472	1.17	2	a
30	2	29									12 855.18472	1.17		d
30	2	28									13 310.97193	1.38	2	a
30	3	28									13 310.97193	1.38		d
30	3	27									13 735.17962	1.12	2	a
30	4	27	13 458.65651	2.22	1	a					13 735.17962	1.12		d
30	4	26									14 124.41407	2.62	1	a
30	5	26									14 124.41407	2.62		d
30	7	23									15 113.78031	5.48	1	a
30	8	23									15 113.78031	5.48		d
30	19	11									18 244.63121	11.34	1	a
30	27	3	21 857.93301	13.46		d								
30	28	3	21 857.93301	13.46	1	a								
30	30	1	22 334.88021	14.39	1	a								
30	30	0	22 334.88021	14.39		d								
31	0	31	12 334.08558	1.02	3	a					12 880.58602	1.25		d
31	1	31									12 880.58602	1.25	5	e,a
31	1	30									13 419.16328	2.11		d
31	2	30									13 419.16328	2.11	1	a
31	2	29									13 885.33413	2.60		d
31	3	29									13 885.33413	2.60	1	a
31	4	28									14 321.04720	4.18	1	e
32	0	32									13 444.09735	2.20	−1	f,a
32	1	32									13 444.09735	2.20		d
32	1	31									13 998.54517	2.14	−1	f,a
32	2	31									13 998.54517	2.14		d
32	4	28									15 331.91400	5.73	1	a

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$

J	K_a	K_c	030 or	00 3			110 or	$10^{+}1$			011 or	$10^{-}1$		
0	0	0	4 666.78960	0.90	−1	h,a	5 234.97750	9.80	−1	i	5 331.26744	0.77	4	e,a
1	0	1	4 690.57962	0.44	16	e,a	5 258.40013	0.60	−1	i,a	5 354.87043	0.43	8	e,a
1	1	1	4 717.47412	0.56	8	e,a	5 274.15980	1.60	−1	i	5 369.76235	0.44	8	e,a
1	1	0	4 723.54482	0.45	13	e,a	5 279.67189	0.74	−1	i,a	5 375.36167	0.73	3	e,a
2	0	2	4 737.20246	0.55	9	e,a	5 304.00850	7.00	−1	i	5 400.73656	0.39	16	e,a
2	1	2	4 759.02373	0.33	25	e,a	5 315.50051	0.65	−1	i,a	5 411.41106	0.39	10	e,a
2	1	1	4 777.19995	0.48	12	e,a	5 332.01121	0.93	−1	i,a	5 428.17137	0.37	14	e,a
2	2	1	4 855.29937	0.48	14	e,a	5 378.74500	0.88	−1	i,a	5 472.35049	0.45	7	e,a
2	2	0	4 856.21554	0.65	8	e,a	5 379.94031	0.88	−1	i,a	5 473.65559	0.40	10	e,a
3	0	3	4 804.91291	0.34	26	e,a	5 369.69211	0.42	−1	i,a	5 466.63681	0.69	5	e,a
3	1	3	4 820.76211	0.36	17	e,a	5 376.78376	0.65	−1	i,a	5 473.14450	0.34	16	e,a
3	1	2	4 856.91696	0.38	24	e,a	5 409.55175	0.81	−1	i,a	5 506.31319	0.65	8	e,a
3	2	2	4 926.86303	0.55	7	e,a	5 449.03040	9.80	−1	i	5 544.24710	0.43	11	e,a
3	2	1	4 931.27198	0.42	19	e,a	5 454.59600	0.65	−1	i,a	5 549.70121	0.40	9	e,a
3	3	1	5 065.36184	0.54	9	e,a	5 539.25370	1.70	−1	i	5 629.94265	0.38	12	e,a
3	3	0	5 065.45422	0.47	16	e,a	5 538.80265	0.36	−1	i,a	5 630.14271	0.41	8	e,a
4	0	4	4 891.74327	0.47	14	e,a	5 453.57080	3.20	−1	i	5 550.67068	0.35	16	e,a
4	1	4	4 902.13050	0.35	24	e,a	5 457.36989	0.39	−1	i,a	5 552.97692	0.41	8	e,a
4	1	3	4 961.68639	0.38	17	e,a	5 510.91575	0.98	−1	i,a	5 608.28499	0.34	17	e,a
4	2	3	5 021.39157	0.42	22	e,a	5 541.66204	0.48	−1	i,a	5 633.39050	0.99	3	e
4	2	2	5 033.70987	0.48	11	e,a	5 557.85420	1.60	−1	i	5 653.02580	0.39	13	e,a
4	3	2	5 162.64177	0.42	21	e,a	5 635.01433	0.48	−1	i,a	5 726.25530	0.45	7	e,a
4	3	1	5 163.26295	0.47	12	e,a	5 639.72848	0.50	4	a	5 727.57053	0.39	13	e,a
4	4	1	5 342.18730	0.54	13	e,a	5 756.65823	0.45	−1	i,a	5 842.00035	0.45	8	e,a
4	4	0	5 342.19535	0.66	8	e,a	5 756.66429	1.00	−1	i,a	5 842.02843	0.39	14	e,a
5	0	5	4 996.28385	0.39	20	e,a	5 554.83364	0.43	−1	i,a	5 652.13914	0.44	8	e,a
5	1	5	5 002.56818	0.43	14	e,a	5 556.68750	2.36	−1	i	5 653.56347	0.36	14	e,a
5	1	4	5 090.03917	0.34	24	e,a	5 634.12103	0.49	−1	i,a	5 731.91589	0.41	9	e,a
5	2	4	5 138.18864	0.45	16	e,a	5 655.80130	3.40	−1	i	5 749.66277	0.32	18	e,a
5	2	3	5 164.03104	0.35	23	e,a	5 686.18129	0.50	−1	i,a	5 783.40311	0.38	11	e,a
5	3	3	5 284.19719	0.56	6	e,a	5 754.74520	3.40	−1	i	5 846.51139	0.29	20	e,a
5	3	2	5 286.56298	0.46	19	e,a	5 761.03043	0.39	−1	i,a	5 851.26896	0.41	8	e,a
5	4	2	5 464.26192	0.48	10	e,a	5 877.32541	0.58	−1	i,a	5 962.96342	0.34	15	e,a
5	4	1	5 464.33212	0.38	26	e,a	5 877.39295	0.49	−1	i,a	5 963.18312	0.36	12	e,a
5	5	1	5 678.70441	1.00	1	a	6 026.58053	0.97	−1	i,a	6 106.29763	0.45	14	e,a
5	5	0	5 678.72872	0.48	14	e,a	6 026.58178	0.50	−1	i,a	6 106.29954	0.92	3	e,a
6	0	6	5 117.98718	0.48	9	e,a	5 673.45870	0.57	−1	i,a	5 771.07377	0.33	17	e,a
6	1	6	5 121.60095	0.37	23	e,a	5 674.30982	0.41	−1	i,a	5 771.71529	0.41	9	e,a
6	1	5	5 240.06956	0.47	12	e,a	5 776.78195	1.00	−1	i,a	5 874.74604	0.35	16	e,a
6	2	5	5 276.46416	0.36	22	e,a	5 790.51066	0.41	−1	i,a	5 885.73465	0.50	7	e,a
6	2	4	5 321.65499	0.50	−1	h,a	5 840.95390	8.00	−1	i	5 939.33626	0.29	28	e,a
6	3	4	5 429.69380	0.44	24	e,a	5 897.80098	0.38	−1	i,a	5 990.17951	0.46	9	e,a
6	3	3	5 436.27793	0.53	10	e,a	5 910.31755	1.00	−1	i,a	6 002.29071	0.32	20	e,a
6	4	3	5 610.76443	0.36	23	e,a	6 022.54872	0.41	−1	i,a	6 108.31486	0.37	11	e,a
6	4	2	5 611.09714	0.47	10	e,a	6 022.78427	0.70	−1	i,a	6 109.33663	0.31	21	e,a
6	5	2	5 825.63149	0.65	11	e,a	6 171.33787	0.48	13	e,a	6 251.68172	0.34	13	e,a
6	5	1	5 825.64875	0.56	7	e,a	6 171.35088	0.93	2	e,a	6 251.71465	0.30	26	e,a
6	6	1	6 068.49551	0.41	13	e,a	6 347.25262	0.58	−1	i,a	6 420.05662	0.86	2	e,a
6	6	0	6 068.49551	0.41		d	6 347.25262	0.58		d	6 420.05689	0.41	16	e,a
7	0	7	5 256.84503	0.46	20	e,a	5 809.61348	0.40	−1	i,a	5 907.63562	0.40	9	e,a
7	1	7	5 258.86802	0.41	18	e,a	5 809.97700	10.80	−1	i	5 907.91586	0.36	16	e,a
7	1	6	5 409.69741	0.40	24	e,a	5 937.03674	0.38	−1	i,a	6 034.98875	0.42	8	e,a
7	2	6	5 435.40649	0.76	11	e,a	5 944.92879	0.70	−1	i,a	6 041.07167	0.30	20	e,a
7	2	5	5 505.21083	0.34	26	e,a	6 019.38562	0.45	−1	i,a	6 118.63376	0.40	10	e,a
7	3	5	5 598.57768	0.35	15	e,a	6 063.38819	1.00	−1	i,a	6 156.50259	0.26	22	e,a
7	3	4	5 613.36901	0.35	26	e,a	6 087.85069	0.45	−1	i,a	6 179.83552	0.36	12	e,a
7	4	4	5 781.58056	0.48	11	e,a	6 193.36116	0.50	−1	i,a	6 277.86276	0.23	29	e,a
7	4	3	5 782.70838	0.42	19	e,a	6 193.36493	0.58	−1	i,a	6 281.23448	0.31	13	e,a
7	5	3	5 996.76241	0.43	12	e,a	6 340.23678	0.84	4	e,a	6 421.35945	0.28	22	e,a
7	5	2	5 996.84354	0.40	18	e,a	6 340.33788	0.41	−1	i,a	6 421.53948	0.31	15	e,a
7	6	2	6 240.47851	0.98	−1	h,a	6 516.40690	5.00	1	e	6 589.96992	0.36	20	e,a
7	6	1	6 240.48622	0.45	13	e,a	6 516.40522	0.66	10	e,a	6 589.97319	0.61	4	e,a
7	7	1	6 505.53517	0.38		d	6 716.16742	0.50		d	6 780.42043	0.39	13	e,a
7	7	0	6 505.53517	0.38	15	e,a	6 716.16742	0.50	13	e,a	6 780.42030	1.67	1	e
8	0	8	5 413.00202	0.47	13	e,a	5 963.26087	0.70	−1	i,a	6 061.91910	0.34	16	e,a

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or	00 3			110 or	10^+1			011 or	10^-1		
8	1	8	5 414.12663	0.37	21	e,a	5 963.51900	0.48	11	e,a	6 062.03954	0.50	4	a
8	1	7	5 597.18261	0.53	11	e,a	6 114.05454	0.99	−1	i,a	6 212.03970	0.32	15	e,a
8	2	7	5 614.27003	0.36	24	e,a	6 118.31182	0.50	−1	i,a	6 215.16360	0.35	−1	f,a
8	2	6	5 712.87666	0.55	9	e,a	6 219.05421	0.98	3	e,a	6 318.71683	0.30	21	e,a
8	3	6	5 790.11448	0.31	28	e,a	6 250.55428	0.43	14	e,a	6 344.53798	0.36	11	e,a
8	3	5	5 818.33069	0.35	10	e,a	6 292.71123	0.71	−1	i,a	6 394.24398	0.35	12	e,a
8	4	5	5 976.45877	0.42	21	e,a	6 378.01846	0.32	19	e,a	6 471.16595	0.38	10	e,a
8	4	4	5 979.71917	0.42	12	e,a	6 389.98141	0.68	3	e,a	6 479.89186	0.27	21	e,a
8	5	4	6 191.96498	0.36	24	e,a	6 533.26143	0.42	12	e,a	6 615.26478	0.31	15	e,a
8	5	3	6 192.24396	0.51	8	e,a	6 533.64433	0.68	4	e,a	6 615.96867	0.28	23	e,a
8	6	3	6 436.51545	0.49	13	e,a	6 709.44775	0.54	12	e,a	6 783.92335	0.55	5	e,a
8	6	2	6 436.53812	0.56	9	e,a	6 709.45996	0.70	3	e,a	6 783.95173	0.29	24	e,a
8	7	2	6 702.58293	0.38	16	e,a	6 909.99225	0.45	14	e,a	6 974.98892	0.99	2	e,a
8	7	1	6 702.58293	0.38		d	6 909.99225	0.45		d	6 974.98919	0.33	16	e,a
8	8	1	6 983.97617	0.46	12	e,a	7 131.91715	0.41	12	e,a	7 184.61200	6.64	1	e
8	8	0	6 983.97617	0.46		d	7 131.91715	0.41		d	7 184.60167	0.41	14	e,a
9	0	9	5 586.59070	0.57	15	e,a	6 134.72012	0.48	9	e,a	6 233.94964	0.55	9	e,a
9	1	9	5 587.21743	0.46	18	e,a	6 134.84842	0.58	−1	i,a	6 234.00446	0.35	18	e,a
9	1	8	5 801.55276	0.39	22	e,a	6 307.85367	0.88	4	e,a	6 406.02299	0.41	7	e,a
9	2	8	5 812.38427	0.54	10	e,a	6 310.11846	0.58	−1	i,a	6 407.50392	0.27	24	e,a
9	2	7	5 942.57244	0.42	19	e,a	6 437.47190	0.43	11	e,a	6 537.09264	0.49	8	e,a
9	3	7	6 003.45077	0.45	10	e,a	6 458.16630	50.00	−1	i	6 553.19814	0.26	22	e,a
9	3	6	6 050.75235	0.40	18	e,a	6 523.05674	0.46	9	e,a	6 624.55306	0.36	11	e,a
9	4	6	6 194.97491	0.56	8	e,a	6 594.76963	0.97	3	e,a	6 687.53055	0.25	24	e,a
9	4	5	6 202.42836	0.39	21	e,a	6 613.59905	0.47	10	e,a	6 706.09620	0.33	13	e,a
9	5	5	6 410.99763	0.51	5	e,a	6 750.34718	0.92	3	e,a	6 833.20528	0.26	27	e,a
9	5	4	6 411.87495	0.40	18	e,a	6 751.51625	0.54	8	e,a	6 835.38900	0.30	16	e,a
9	6	4	6 656.39469	0.60	3	a	6 926.25930	0.99	2	e,a	7 001.81504	0.28	22	e,a
9	6	3	6 656.49756	0.40	13	e,a	6 926.32964	0.40	10	e,a	7 001.94353	0.35	14	e,a
9	7	3	6 923.34613	0.38		d	7 127.43304	0.41		d	7 193.32597	0.30	20	e,a
9	7	2	6 923.34613	0.38	13	e,a	7 127.43304	0.41	11	e,a	7 193.33106	0.91	3	e,a
9	8	2	7 205.98139	0.50		d	7 350.86242	0.35		d	7 404.03650	0.30	20	e,a
9	8	1	7 205.98139	0.50	10	e,a	7 350.86242	0.35	14	e,a	7 404.03580	1.67	1	e
9	9	1	7 495.14811	0.61		d	7 596.61335	0.53		d	7 629.95906	0.42	12	e,a
9	9	0	7 495.14811	0.61	7	e,a	7 596.61335	0.53	8	e,a	7 629.95906	0.42		d
10	0	10	5 777.68720	0.39	18	e,a	6 323.81165	0.98	3	e,a	6 423.70932	0.36	18	e,a
10	1	10	5 778.04197	0.42	19	e,a	6 323.90987	0.48	11	e,a	6 423.72101	0.51	9	e,a
10	1	9	6 022.58021	0.48	11	e,a	6 518.72300	20.00	−1	i	6 617.20856	0.28	22	e,a
10	2	9	6 029.24176	0.38	23	e,a	6 520.01478	0.44	11	e,a	6 617.92688	0.38	10	e,a
10	2	8	6 192.10734	0.45	5	a	6 672.77359	1.00	−1	i,a	6 772.10657	0.32	16	e,a
10	3	8	6 237.67858	0.33	24	e,a	6 686.11711	0.71	6	e,a	6 781.40560	0.38	10	e,a
10	3	7	6 309.33218	0.42	6	a	6 776.75800	20.00	−1	i	6 878.47700	0.30	20	e,a
10	4	7	6 436.49776	0.33	21	e,a	6 832.50029	0.48	9	e,a	6 926.08748	0.35	13	e,a
10	4	6	6 451.72068	0.60	3	a	6 864.49386	1.01	−1	i,a	6 959.42524	0.28	19	e,a
10	5	6	6 653.38208	0.33	25	e,a	6 991.56769	0.39	13	e,a	7 074.81555	0.34	13	e,a
10	5	5	6 655.64190	2.01	5	e	6 994.41314	0.71	−1	i,a	7 080.44359	0.27	21	e,a
10	6	5	6 899.91061	0.41	15	e,a	7 166.71375	0.44	11	e,a	7 243.49760	0.35	12	e,a
10	6	4	6 900.28548	0.48	5	a	7 166.96678	0.81	2	a	7 243.95202	0.26	22	e,a
10	7	4	7 167.54091	0.39	15	e,a	7 368.28959	0.45	8	e,a	7 435.23378	0.65	5	e,a
10	7	3	7 167.55036	0.72	2	a	7 368.30249	1.41	1	a	7 435.25638	0.32	19	e,a
10	8	3	7 451.29893	0.51	13	e,a	7 593.15620	0.45	12	e,a	7 646.89170	0.30		d
10	8	2	7 451.29893	0.51		d	7 593.15620	0.45		d	7 646.89170	0.30	17	e,a
10	9	2	7 741.28348	0.53	4	a	7 841.76962	0.39	9	e,a	7 874.39217	0.37		d
10	9	1	7 741.28348	0.53		d	7 841.76962	0.39		d	7 874.39217	0.37	14	e,a
10	10	1	8 119.31186	0.53	7	e,a	8 024.35221	0.65	7	e,a	8 114.02427	0.41		d
10	10	0	8 119.31186	0.53		d	8 024.35221	0.65		d	8 114.02427	0.41	12	e,a
11	0	11	5 986.32981	0.42	20	e,a	6 530.57808	0.66	9	e,a	6 631.16515	0.75	4	e,a
11	1	11	5 986.53491	0.47	10	e,a	6 530.79237	0.99	−1	i,a	6 631.16894	0.33	18	e,a
11	1	10	6 260.43411	0.34	22	e,a	6 746.85892	0.48	11	e,a	6 845.77946	0.68	4	e,a
11	2	10	6 264.46684	0.49	6	e,a	6 747.94780	3.58	2	e	6 846.10623	0.28	23	e,a
11	2	9	6 459.45687	0.37	20	e,a	6 924.15793	0.49	9	e,a	7 023.22530	0.35	13	e,a
11	3	9	6 491.79221	0.50	5	e,a	6 934.46443	0.95	4	e,a	7 028.29542	0.33	17	e,a
11	3	8	6 592.18618	0.40	12	e,a	7 050.55908	0.93	5	e,a	7 152.44540	0.65	3	e,a
11	4	8	6 700.10175	0.61	3	a	7 091.04820	0.68	5	e,a	7 185.85274	0.27	21	e,a
11	4	7	6 727.93855	0.37	14	e,a	7 141.48991	0.49	8	e,a	7 236.88477	0.43	11	e,a

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or	00 3			110 or	10^+1			011 or	10^-1		
11	5	7	6 917.30629	0.49	6	e,a	7 258.05231	1.79	1	a	7 339.51705	0.28	21	e,a
11	5	6	6 923.79019	0.44	15	e,a	7 263.01308	0.49	10	e,a	7 351.93106	0.41	12	e,a
11	6	6	7 166.83076	0.47	5	a	7 430.63876	0.78	2	a	7 508.75032	0.27	20	e,a
11	6	5	7 168.09540	0.52	4	a	7 431.38856	0.32	13	e,a	7 510.08920	0.41	10	e,a
11	7	5	7 434.87577	0.47	5	a	7 632.36535	0.80	2	a	7 700.51150	0.33	17	e,a
11	7	4	7 434.90045	0.42	12	e,a	7 632.40977	0.41	7	e,a	7 700.59561	0.44	9	e,a
11	8	4	7 719.58723	0.48		d	7 858.52748	1.73	1	a	7 912.91173	0.32	16	e,a
11	8	3	7 719.58723	0.48	6	a	7 858.52765	0.34	12	e,a	7 912.91359	1.12	2	e,a
11	9	3	8 010.20202	0.47		d	8 110.04783	0.47		d	8 141.87508	0.32	19	e,a
11	9	2	8 010.20202	0.47	9	e,a	8 110.04783	0.47	8	e,a	8 141.87590	3.33	1	e
11	10	2	8 392.15589	0.40		d	8 293.37281	0.57		d	8 383.60257	0.45	9	e,a
11	10	1	8 392.15589	0.40	14	e,a	8 293.37281	0.57	4	a	8 383.60257	0.45		d
11	11	1	8 698.87125	0.84		d	8 567.65689	0.59		d	8 634.52025	0.52	9	e,a
11	11	0	8 698.87125	0.84	5	e,a	8 567.65689	0.59	8	e,a	8 634.52025	0.52		d
12	0	12	6 212.53355	0.54	11	e,a	6 756.02366	1.00	1	a	6 856.27580	0.32	16	e,a
12	1	12	6 212.65432	0.47	17	e,a	6 753.13530	0.45	7	e,a	6 856.28760	4.81	1	e
12	1	11	6 515.38299	0.46	5	a	6 992.47126	1.03	1	a	7 091.82287	0.34	15	e,a
12	2	11	6 517.81159	0.36	19	e,a	6 996.57523	0.42	9	e,a	7 091.95351	0.60	4	e,a
12	2	10	6 742.18229	0.46	8	e,a	7 191.87500	12.00	−1	i	7 290.62299	0.35	14	e,a
12	3	10	6 767.30270	0.40	20	e,a	7 191.71109	0.52	4	a	7 293.26156	0.41	9	e,a
12	3	9	6 897.10192	0.71	9	e,a	7 342.73810	3.71	1	a	7 443.88136	0.35	16	e,a
12	4	9	6 982.12382	0.34	9	a	7 369.61418	0.71	2	a	7 465.78716	0.47	7	e,a
12	4	8	7 030.88206	0.53	4	a	7 441.44752	0.99	2	e,a	7 554.29907	0.32	15	e,a
12	5	8	7 213.35267	0.38	14	e,a	7 531.13951	0.69	−1	i,a	7 626.54755	0.51	7	e,a
12	5	7	7 216.60538	0.48	5	a	7 558.00808	1.02	1	a	7 650.34860	0.27	23	e,a
12	6	7	7 456.80797	0.42	13	e,a	7 717.81900	0.38	10	e,a	7 797.23992	0.49	8	e,a
12	6	6	7 461.03574	0.55	4	a	7 719.73860	1.48	1	a	7 800.64570	0.31	16	e,a
12	7	6	7 725.04734	0.47	9	e,a	7 919.42803	0.38	11	e,a	7 988.93272	0.40	10	e,a
12	7	5	7 725.12572	0.78	2	a	7 919.57561	1.27	1	a	7 989.21265	0.32	17	e,a
12	8	5	8 010.50097	0.44	9	e,a	8 146.69345	0.59	5	e,a	8 201.82610	0.84	−1	f,a
12	8	4	8 010.50097	0.44		d					8 201.84006	0.39	13	e,a
12	9	4	8 301.52566	0.53	9	e,a	8 401.09266	0.39	11	e,a	8 432.08300	2.70	−1	f
12	9	3	8 301.52566	0.53		d	8 401.09266	0.39		d	8 432.08560	0.39	15	e,a
12	10	3	8 687.68052	0.53	8	e,a	8 584.73734	1.15	1	a	8 675.80291	0.35		d
12	10	2	8 687.68052	0.53		d	8 584.73734	1.15		d	8 675.80291	0.35	13	e,a
12	11	2	8 998.73255	0.83	2	a	8 860.41048	0.82	2	a	8 929.37846	0.49		d
12	11	1	8 998.73255	0.83		d	8 860.41048	0.82		d	8 929.37846	0.49	9	e,a
12	12	1	9 320.01899	0.94	2	a	9 135.82335	0.72	6	e,a	9 189.34414	1.06		d
12	12	0	9 320.01899	0.94		d	9 135.82335	0.72		d	9 189.34414	1.06	4	e,a
13	0	13	6 456.29610	0.66	10	e,a	6 995.85371	0.50	8	e,a	7 099.02649	0.49	8	e,a
13	1	13	6 456.37035	0.74	2	a	6 995.95836	0.98	2	e,a	7 098.99587	0.38	13	e,a
13	1	12	6 787.65282	0.42	23	e,a	7 256.26492	0.51	7	e,a	7 355.38340	0.60	5	e,a
13	2	12	6 789.12054	0.52	8	e,a	7 253.61759	1.02	1	a	7 355.38081	0.35	16	e,a
13	2	11	7 043.83491	0.35	18	e,a	7 475.61775	0.45	11	e,a	7 574.65436	0.45	9	e,a
13	3	11	7 058.42279	0.52	6	e,a	7 475.29922	0.99	2	e,a	7 575.90987	0.36	13	e,a
13	3	10	7 221.18382	0.42	9	e,a	7 651.10907	0.60	3	a	7 751.33987	0.44	8	e,a
13	4	10	7 293.78090	0.73	4	e,a	7 667.35299	1.06	1	a	7 764.87676	0.33	16	e,a
13	4	9	7 359.47255	0.42	12	e,a	7 780.82563	0.52	4	a	7 878.20970	0.40	11	e,a
13	5	9	7 523.00185	0.63	3	a	7 840.67358	1.03	2	e,a	7 935.02442	0.34	14	e,a
13	5	8	7 534.43178	0.39	7	a	7 879.55926	0.58	3	a	7 975.18896	0.64	5	e,a
13	6	8	7 769.34463	1.09	1	a	8 028.06037	0.85	3	e,a	8 108.48930	0.34	15	e,a
13	6	7	7 760.13126	0.40	10	e,a	8 032.32200	0.71	2	a	8 116.11919	0.45	8	e,a
13	7	7	8 037.81719	1.13	1	a	8 229.23567	1.09	1	a	8 300.23542	0.37	16	e,a
13	7	6	8 037.95558	0.42	12	e,a	8 229.64969	0.39	10	e,a	8 301.01450	0.92	4	e,a
13	8	6	8 323.69828	0.44		d	8 457.35791	0.94	2	a	8 513.36697	0.38	15	e,a
13	8	5	8 323.69828	0.44	9	e,a	8 457.37951	0.50	9	e,a	8 513.40180	3.40	−1	f
13	9	5	8 614.89473	0.77		d	8 714.52604	0.43		d	8 744.69885	0.43	−1	f,a
13	9	4	8 614.89473	0.77	2	a	8 714.52604	0.43	9	e,a	8 744.70198	1.19	−1	f,a
13	10	4	9 005.41981	0.49		d	8 898.08509	0.65		d	8 990.25519	0.40	13	e,a
13	10	3	9 005.41981	0.49	7	e,a	8 898.08509	0.65	3	a	8 990.25519	0.40		d
13	11	3	9 320.60954	0.73		d	9 175.16172	0.72		d	9 246.36842	0.54	9	e,a
13	11	2	9 320.60954	0.73	4	e,a	9 175.16172	0.72	6	e,a	9 246.36842	0.54		d
13	12	2	9 646.16997	0.92		d	9 453.16607	0.72		d	9 509.60574	0.71	−1	f,a
13	12	1	9 646.16997	0.92	3	a	9 453.16607	0.72	3	a	9 509.60574	0.71		d
13	13	1	9 974.35427	0.98		d	9 733.20701	0.91		d	9 776.57113	0.82	5	e,a

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or 003				110 or 10^+1				011 or 10^-1			
13	13	0	9 974.35427	0.98	2	a	9 733.20701	0.91	3	e,a	9 776.57113	0.82		d
14	0	14	6 717.61295	0.61	3	a	7 255.21110	1.05	2	e,a	7 358.52426	0.34	17	e,a
14	1	14	6 717.66196	0.48	16	e,a	7 255.25053	0.53	7	e,a	7 356.75230	0.99	5	e
14	1	13	7 077.41612	0.62	3	a	7 533.21475	1.03	1	a	7 636.80001	0.36	13	e,a
14	2	13	7 078.30926	0.48	19	e,a	7 534.33770	0.70	6	e,a	7 636.35815	0.51	6	e,a
14	2	12	7 356.75397	0.53	4	a					7 875.85597	0.35	14	e,a
14	3	12	7 369.36928	0.38	19	e,a	7 775.09746	0.58	5	e,a	7 875.99158	0.47	10	e,a
14	3	11	7 567.31925	0.63	5	e,a	7 975.00528	1.06	1	a	8 074.21064	0.39	14	e,a
14	4	11	7 618.57401	0.39	12	e,a	7 983.48183	0.59	4	e,a	8 082.24699	0.51	6	e,a
14	4	10	7 711.66061	1.17	1	a	8 124.78571	1.18	1	a	8 222.84133	0.37	16	e,a
14	5	10	7 855.03728	0.46	11	e,a	8 168.87912	0.47	7	e,a	8 263.97533	0.43	9	e,a
14	5	9	7 877.47499	0.66	3	a	8 226.81460	1.08	1	a	8 324.34944	0.32	19	e,a
14	6	9	8 103.84975	0.43	9	e,a	8 361.49579	0.53	4	a	8 441.86326	0.59	−1	f,a
14	6	8	8 097.61823	1.18	1	a	8 369.64947	0.86	2	a	8 457.10171	0.39	15	e,a
14	7	8	8 372.56946	0.44	8	e,a	8 561.48912	0.98	3	e,a	8 634.09289	0.72	−1	f,a
14	7	7	8 373.22863	1.48	1	a	8 562.54680	1.31	1	a	8 636.05380	0.45	11	e,a
14	8	7	8 658.80692	0.76	2	a	8 790.21192	0.53	4	a	8 847.24473	0.73	−1	f,a
14	8	6	8 658.84049	1.30	1	a	8 790.28546	1.48	1	a	8 847.41243	0.31	17	e,a
14	9	6	8 949.94969	0.57	4	a	9 049.95858	0.54	4	a	9 079.39410	3.40	−1	f
14	9	5	8 949.94969	0.57		d	9 049.96188	1.37	1	a	9 079.40082	0.43	10	e,a
14	10	5	9 344.89673	0.78	3	e,a	9 233.07006	0.84	2	a	9 326.58818	0.50		d
14	10	4	9 344.89673	0.78		d	9 233.07006	0.84		d	9 326.58818	0.50	11	e,a
14	11	4	9 663.99448	0.81	5	e,a	9 511.51725	0.65	3	a	9 585.08052	0.55		d
14	11	3	9 663.99448	0.81		d	9 511.51725	0.65		d	9 585.08052	0.55	−1	f,a
14	12	3	9 993.66008	0.90	3	a	9 792.02420	0.87	6	e,a	9 851.43942	0.53		d
14	12	2	9 993.66008	0.90		d	9 792.02420	0.87		d	9 851.43942	0.53	−1	f,a
14	13	2	1 0326.60418	1.37	1	a	1 0075.38659	0.73	3	a	10 122.35296	0.77		d
14	13	1	10 326.60418	1.37		d	10 075.38659	0.73		d	10 122.35296	0.77	−1	f,a
14	14	1	10 658.11705	1.00	2	a	10 359.92502	0.98	2	a	10 394.44156	0.79		d
14	14	0	10 658.11705	1.00		d	10 359.92502	0.98		d	10 394.44156	0.79	−1	f,a
15	0	15	6 996.48297	0.57	15	e,a	7 531.83990	0.70	6	e,a	7 636.61492	0.57		d
15	1	15	6 996.51053	0.63	3	a	7 531.83990	0.70		d	7 636.61492	0.57	−1	f,a
15	1	14	7 384.78413	0.45	15	e,a	7 831.73284	0.51	7	e,a	7 934.05180	2.90	−1	f
15	2	14	7 385.33667	0.62	4	e,a	7 831.97351	1.23	1	a	7 935.81029	0.44	−1	f,a
15	2	13	7 690.74924	0.43	8	e,a	8 101.16226	0.52	6	e,a	8 191.81170	0.51	−1	f,a
15	3	13	7 696.86749	0.62	5	e,a					8 193.35737	0.35	−1	f,a
15	3	12	7 924.34243	0.42	12	e,a	8 314.70962	1.05	1	a	8 412.50483	1.26	5	e,a
15	4	12	7 964.26198	1.06	1	a	8 317.40974	1.18	1	a	8 417.24464	0.36	−1	f,a
15	4	11	8 079.37261	0.47	7	e,a	8 488.58334	0.62	3	a	8 584.58292	0.60	−1	f,a
15	5	11	8 210.22808	0.69	4	a	8 516.05758	1.05	2	e,a	8 612.44753	0.41	−1	f,a
15	5	10	8 245.29443	0.61	3	a	8 597.89611	0.72	2	a	8 694.21030	3.30	−1	f,?
15	6	10	8 460.10089	0.66	4	a	8 693.10339	0.53	5	a	8 796.58053	0.68	−1	f,a
15	6	9	8 455.86347	0.54	5	a	8 732.18831	0.61	3	a	8 823.89813	0.47	−1	f,a
15	7	9	8 729.19486	0.90	2	a	8 915.87845	1.32	1	a	8 990.08206	0.67	−1	f,a
15	7	8	8 730.57214	0.53	7	e,a	8 918.31981	0.75	6	e,a	8 994.48648	0.60	4	e,a
15	8	8	9 015.56885	1.78	1	a	9 144.92667	1.65	1	a	9 203.16112	0.50	−1	f,a
15	8	7	9 015.60161	0.62	3	a	9 145.11852	1.05	2	e,a	9 203.60988	0.55	−1	f,a
15	9	7	9 306.35690	1.64	1	a	9 406.99190	0.77		d	9 435.83070	0.93	−1	f,a
15	9	6	9 306.36224	0.69	3	a	9 406.99190	0.77	2	a	9 435.87359	1.24	1	a
15	10	6	9 705.60991	1.65		d	9 589.34213	0.57		d	9 684.43098	0.54	−1	f,a
15	10	5	9 705.60991	1.65	1	a	9 589.34213	0.57	4	a	9 684.43098	0.54		d
15	11	5	10 028.26731	1.28		d	9 869.09581	0.85		d	9 945.11193	0.64	−1	f,a
15	11	4	10 028.26731	1.28	1	a	9 869.09581	0.85	2	a	9 945.11193	0.64		d
15	12	4	10 361.96092	0.90		d	10 151.98327	0.68		d	10 214.41494	1.07	−1	f,a
15	12	3	10 361.96092	0.90	3	a	10 151.98327	0.68	3	a	10 214.41494	1.07		d
15	13	3	10 699.23990	6.06		d	10 438.52159	1.27		d	10 489.06483	0.71	−1	f,a
15	13	2	10 699.23990	6.06	2	e	10 438.52159	1.27	4	e,a	10 489.06483	0.71		d
15	14	2	11 035.56237	1.39		d	10 726.99058	0.77		d	10 765.86297	0.81	−1	f,a
15	14	1	11 035.56237	1.39	1	a	10 726.99058	0.77	3	a	10 765.86297	0.81		d
15	15	1	11 368.97973	1.41		d	11 014.97885	1.00		d	11 042.00291	1.76	1	a
15	15	0	11 368.97973	1.41	1	a	11 014.97885	1.00	2	a	11 042.00291	1.76		d
16	0	16	7 292.90943	0.80	2	a	7 825.72776	0.96		d	7 931.68347	0.46	−1	f,a
16	1	16	7 292.92117	0.60	16	e,a	7 825.72776	0.96	4	e,a	7 931.68347	0.46		d
16	1	15	7 709.84676	0.58	5	e,a	8 146.69409	1.40	1	a	8 249.95492	0.43	−1	f,a
16	2	15	7 710.19787	0.51	15	e,a	8 146.78611	1.04	3	e,a	8 249.85418	0.90	2	a

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or 00 3				110 or $10^{+}1$				011 or $10^{-}1$			
16	2	14	8 038.11956	0.64	3	a	8 423.82266	1.21	1	a	8 526.98506	0.38	−1	f,a
16	3	14	8 042.04720	0.47	10	e,a	8 425.52082	0.73	5	e,a	8 528.06770	0.53	−1	f,a
16	3	13	8 300.04287	0.67	3	a					8 766.54070	0.36	−1	f,a
16	4	13	8 326.86896	0.41	12	e,a	8 668.52650	4.10	3	e,a	8 769.41252	1.03	−1	f,a
16	4	12	8 485.37891	1.22	2	a	8 870.39050	1.21	1	a	8 961.57054	0.36	−1	f,a
16	5	12	8 583.09355	0.53	10	e,a	8 881.62654	0.54	8	e,a	8 979.48202	2.51	−1	f,a
16	5	11	8 634.85544	1.46	1	a	8 990.49618	1.51	1	a	9 106.53699	0.42	−1	f,a
16	6	11	8 837.44125	0.49	6	a	9 074.90354	0.72	2	a	9 171.80935	0.59	6	e,a
16	6	10	8 835.07984	1.21	1	a	9 120.01101	1.11	1	a	9 216.00983	0.39	−1	f,a
16	7	10	9 107.17361	0.50	5	a	9 292.13778	0.79	2	a	9 367.70146	0.65	3	a
16	7	9	9 110.04149	1.20	1	a	9 296.94696	1.13	1	a	9 376.65305	0.39	−1	f,a
16	8	9	9 393.43370	0.49	8	e,a	9 521.15375	0.65	3	a	9 580.75513	1.04	−1	f,a
16	8	8	9 393.68920	1.35	1	a	9 521.60829	1.66	1	a	9 581.86913	0.47	−1	f,a
16	9	8	9 683.78280	0.73	3	a	9 785.17151	1.45	1	a	9 813.69131	1.09	−1	f,a
16	9	7	9 683.80647	1.30	1	a	9 785.18724	2.12	1	a	9 813.77624	0.71	−1	f,a
16	10	7	10 087.24259	5.07	1	a	9 966.56353	0.66	7	e,a	10 063.42901	0.92		d
16	10	6	10 087.24259	5.07		d	9 966.56353	0.66		d	10 063.42901	0.92	−1	f,a
16	11	6	10 413.27036	1.31	1	a	10 247.51016	0.81	3	e,a	10 326.06832	0.65		d
16	11	5	10 413.27036	1.31		d	10 247.51016	0.81		d	10 326.06832	0.65	−1	f,a
16	12	5	10 750.44044	1.62	1	a	10 532.62524	0.91	2	a	10 598.08739	0.67		d
16	12	4	10 750.44044	1.62		d	10 532.62524	0.91		d	10 598.08739	0.67	−1	f,a
16	13	4	11 092.33158	1.36	1	a	10 822.17212	0.91	2	a	10 876.24460	2.90		d
16	13	3	11 092.33158	1.36		d	10 822.17212	0.91		d	10 876.24460	2.90	−1	f
16	14	3	11 432.81680	6.14	1	a	11 114.38534	1.09	4	e,a	11 157.49234	1.37		d
16	14	2	11 432.81680	6.14		d	11 114.38534	1.09		d	11 157.49234	1.37	−1	f,a
16	15	2	11 773.61510	6.46	2	e	11 406.89792	0.96	2	a	11 439.93254	1.00		d
16	15	1	11 773.61510	6.46		d	11 406.89792	0.96		d	11 439.93254	1.00	3	a
16	16	1	12 105.12187	1.73	1	a	11 697.13560	1.36	2	a	11 715.47467	1.45		d
16	16	0	12 105.12187	1.73		d	11 697.13560	1.36		d	11 715.47467	1.45	1	a
17	0	17	7 606.86281	0.62	9	e,a	8 136.83048	0.75	3	e,a	8 244.01440	0.41		d
17	1	17	7 606.89779	1.15	3	e,a					8 244.01440	0.41	−1	f,a
17	1	16	8 052.67029	0.63	10	e,a	8 478.74444	0.56	5	e,a	8 582.94147	0.72		d
17	2	16	8 052.85710	0.78	3	e,a	8 478.78362	1.01	2	a	8 582.94147	0.72	−1	f,a
17	2	15	8 401.63476	0.54	8	e,a	8 775.40895	0.73	5	e,a	8 878.54991	0.61	−1	f,a
17	3	15	8 404.14386	0.66	3	a					8 877.65235	0.88	−1	f,a
17	3	14	8 688.68380	0.48	7	e,a	9 027.62908	1.02	3	e,a	9 136.54485	1.03	4	e,a
17	4	14	8 707.20385	1.11	2	a	9 036.58360	1.65	1	a	9 138.56210	0.43	−1	f,a
17	4	13	8 899.18054	0.64	3	a	9 232.80859	0.76	4	e,a	9 353.06641	0.49	−1	f,a
17	5	13									9 364.28137	0.35	−1	f,a
17	5	12	9 067.08069	0.62	5	e,a	9 401.97392	1.04	2	a	9 516.82335	0.76	4	e,a
17	6	12	9 235.18868	1.01	3	a	9 470.77548	1.13	1	a	9 566.66013	0.42	−1	f,a
17	6	11	9 271.57847	0.56	7	e,a	9 532.51978	0.62	6	e,a	9 631.77520	0.76	2	a
17	7	11	9 506.01663	1.57	1	a	9 689.92800	1.49	1	a	9 766.25641	0.44	6	a
17	7	10	9 511.49152	5.03	1	a	9 699.07392	1.06	2	e,a	9 782.86655	0.80	3	e,a
17	8	10	9 792.37160	7.89	1	e					9 979.71103	0.93	−1	f,a
17	8	9	9 792.84160	0.79	2	a	9 919.62004	0.65	4	a	9 982.26970	5.05	1	a
17	9	9	10 081.90325	1.68	1	a	10 184.07872	1.94	1	a	10 212.64314	0.73	−1	f,a
17	9	8	10 081.99402	0.82	3	a	10 184.15891	1.19	1	a	10 212.90031	1.24	1	a
17	10	8	10 489.02193	1.87	1	a	10 364.39135	1.64	1	a	10 463.20112	1.00	−1	f,a
17	10	7	10 489.04206	1.02	3	a	10 364.47369	0.84	2	a	10 463.21314	1.48	1	a
17	11	7	10 818.31238	3.61		d	10 646.38729	0.82		d	10 727.54230	0.60	−1	f,a
17	11	6	10 818.31238	3.61	2	a	10 646.38729	0.82	4	e,a	10 727.54100	4.20	−1	f
17	12	6	11 158.93682	1.65	1	a	10 933.54709	0.70		d	11 002.05212	1.25	−1	f,a
17	12	5	11 158.92308	1.65	1	a	10 933.54709	0.70	3	a	11 002.05212	1.25		d
17	13	5	11 504.56450	9.67		d	11 225.90690	0.97		d	11 283.48720	2.80	−1	f
17	13	4	11 504.56450	9.67	3	e	11 225.90690	0.97	2	a	11 283.48720	2.80		d
17	14	4	11 849.27450	7.74		d	11 521.65384	0.99		d	11 568.86030	3.30	−1	f
17	14	3	11 849.27450	7.74	1	e	11 521.65384	0.99	2	a	11 568.86030	3.30		d
17	15	3					11 818.45734	1.48		d	11 857.23248	1.69	1	a
17	15	2					11 818.45734	1.48	1	a	11 857.23248	1.69		d
17	16	2	12 535.84447	6.54		d	12 113.79594	1.02		d	12 138.29229	1.42	1	a
17	16	1	12 535.84447	6.54	1	a	12 113.79594	1.02	2	a	12 138.29229	1.42		d
17	17	1	12 865.13235	1.99		d					12 415.71640	4.45	1	e
17	17	0	12 865.13235	1.99	1	a					12 415.71640	4.45		d
18	0	18	7 938.47348	1.11	1	a	8 465.07571	1.11		d	8 573.55356	0.50	−1	f,a

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or 00 3				110 or 10^+1				011 or 10^-1			
18	1	18	7 938.49589	0.63	12	e,a	8 465.07571	1.11	2	e,a	8 573.55356	0.50		d
18	1	17	8 413.32383	1.03	2	a	8 827.88869	1.59	1	a	8 933.12404	0.53	−1	f,a
18	2	17	8 413.43642	0.50	5	a	8 827.92271	0.81	2	a	8 933.12404	0.53		d
18	2	16	8 781.23378	0.81	2	a	9 142.99283	1.45	1	a	9 246.86640	2.30	−1	f
18	3	16	8 782.88510	0.55	4	a	9 143.35795	0.63	3	a	9 246.75880	1.27	−1	f,a
18	3	15	9 091.97266	1.25	1	a	9 417.65481	1.28	2	a	9 522.64715	0.49	−1	f,a
18	4	15	9 105.10082	0.52	5	a	9 421.24854	0.68	4	a	9 525.32079	0.80	3	e,a
18	4	14									9 759.05346	0.60	−1	f,a
18	5	14	9 385.49265	0.56	4	a	9 665.31004	1.08	1	a	9 766.16661	1.16	−1	f,a
18	5	13									9 944.80509	0.44	−1	f,a
18	6	13	9 652.58134	1.06	1	a	9 883.58127	0.83	5	a	9 980.30973	0.78	3	a
18	6	12									10 068.14119	0.54	−1	f,a
18	7	12	9 925.17445	1.09	2	a	10 109.72003	1.16	3	a	10 185.34735	3.56	2	a
18	7	11	9 934.72325	1.42	1	a					10 215.10606	0.53	−1	f,a
18	8	11	10 210.04321	0.77	3	a					10 399.52957	1.26	−1	f,a
18	8	10					10 339.14923	1.80	1	a	10 404.52154	1.04	−1	f,a
18	9	10	10 500.39374	1.27	1	a	10 603.27301	5.25	1	a	10 632.32404	1.30	1	a
18	9	9	10 500.56929	7.95	1	a					10 632.92770	0.83	−1	f,a
18	10	9	10 910.71328	5.07	1	a	10 782.48665	0.85	2	a	10 883.39582	1.40	1	a
18	10	8	10 910.75746	1.54	2	a					10 883.46200	0.80	2	a
18	11	8	11 242.73461	1.59	1	a	11 065.33877	1.66	1	a	11 149.15549	1.69	2	a
18	11	7	11 242.73461	1.59		d	11 065.35104	1.92	1	a	11 149.16524	0.89	2	a
18	12	7	11 586.74736	5.25	1	a	11 354.35215	0.94	2	a	11 425.99529	1.16		d
18	12	6	11 586.71933	5.25	1	a	11 354.35215	0.94		d	11 425.99529	1.16	1	a
18	13	6	11 936.27177	1.80	2	a	11 649.30548	0.92	2	a	11 710.45220	3.10		d
18	13	5	11 936.27177	1.80		d	11 649.30548	0.92		d	11 710.45220	3.10	−1	f
18	14	5	12 284.70532	9.73	1	a	11 948.34899	1.44	1	a	11 999.55341	1.31		d
18	14	4	12 284.70532	9.73		d	11 948.34899	1.44		d	11 999.55341	1.31	−1	f,a
18	15	4	12 638.38831	7.80	1	a	12 249.19789	1.15	2	a	12 293.34623	3.45		d
18	15	3	12 638.38831	7.80		d	12 249.19789	1.15		d	12 293.34623	3.45	1	a
18	16	3					12 549.37385	1.17	2	a				
18	16	2					12 549.37385	1.17		d				
18	17	2	13 321.89639	6.61	1	a	12 846.34528	1.43	1	a	12 864.67327	1.73		d
18	17	1	13 321.89639	6.61		d	12 846.34528	1.43		d	12 864.67327	1.73	1	a
18	18	1	13 647.64870	2.22	1	a					13 141.04283	4.56		d
18	18	0	13 647.64870	2.22		d					13 141.04283	4.56	1	a
19	0	19	8 287.74127	0.80	5	e,a	8 810.40739	0.63	4	a	8 920.21768	0.49		d
19	1	19	8 287.77095	1.17	1	a	8 810.40739	0.63		d	8 920.21768	0.49	−1	f,a
19	1	18	8 791.87527	0.51	7	e,a	9 194.10757	0.86	2	a	9 300.40977	0.85		d
19	2	18	8 791.91905	1.15	1	a	9 194.12903	1.56	1	a	9 300.40977	0.85	−1	f,a
19	2	17	9 176.64456	0.79	2	a	9 527.07176	1.11	1	a	9 631.84807	0.86	2	a
19	3	17	9 177.63989	1.15	1	a	9 527.25161	1.28	1	a	9 631.81269	1.10	−1	f,a
19	3	16	9 509.91976	0.63	3	a	9 820.40544	0.78	4	a	9 924.88019	0.61	5	a
19	4	16	9 518.29659	1.15	1	a					9 924.26327	0.56	−1	f,a
19	4	15	9 765.52909	0.79	4	a	10 069.79637	0.78	3	a	10 179.77689	0.79	−1	f,a
19	5	15					10 082.43160	4.49	1	e	10 185.01673	0.76	−1	f,a
19	5	14	9 961.71901	1.09	2	a	10 273.13213	0.66	3	a	10 387.71245	0.84	3	a
19	6	14									10 412.03251	0.62	−1	f,a
19	6	13	10 145.03532	1.11	1	a	10 424.50264	1.08	1	a	10 553.35469	1.18	1	a
19	7	13									10 623.31139	0.55	4	a
19	7	12	10 380.03431	1.46	1	a					10 669.17373	1.21	2	a
19	8	12									10 839.61103	1.02	−1	f,a
19	8	11	10 653.49233	1.48	1	a	10 779.66340	1.53	1	a	10 849.22760	1.43	2	a
19	9	11									11 072.36255	0.64	5	a
19	9	10									11 073.70156	4.51	−1	f,a
19	10	10									11 323.66700	1.20	−1	f,a
19	10	9	11 351.89848	5.16	1	a	11 220.94010	5.83	1	e				
19	11	9	11 686.24750	2.40	1	a					11 590.53479	0.84	−1	f,a
19	11	8	11 686.28920	5.16	1	a	11 504.02864	1.31	1	a	11 590.57962	1.79	1	a
19	12	8	12 033.20387	1.87	1	a	11 794.55864	1.94		d	11 869.21090	2.71	−1	f,a
19	12	7	12 033.16610	1.87	1	a	11 794.55864	1.94	1	a	11 869.21090	2.71		d
19	13	7	12 386.44649	7.25	1	a	12 091.96640	0.91		d	12 156.50045	1.53	1	a
19	13	6	12 386.44540	5.35	1	a	12 091.96640	0.91	2	a	12 156.50045	1.53		d
19	14	6	12 738.70215	5.32		d	12 394.08633	1.23		d	12 449.32510	6.50	−1	f
19	14	5	12 738.70215	5.32	1	a	12 394.08633	1.23	2	a	12 449.32510	6.50		d

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or	00 3			110 or	$10^{+}1$			011 or	$10^{-}1$		
19	15	5	13 098.03429	9.78		d	12 698.67695	1.76		d	12 747.73618	1.65	1	a
19	15	4	13 098.03429	9.78	1	a	12 698.67695	1.76	1	a				
19	16	4	13 449.56437	7.86		d	13 003.39673	5.35		d				
19	16	3	13 449.56437	7.86	1	a	13 003.39673	5.35	1	a				
19	17	3					13 305.73977	1.54		d				
19	17	2					13 305.73977	1.54	1	a				
19	18	2	14 130.40109	6.68		d	13 603.23254	1.74		d	13 615.84285	2.00	1	a
19	18	1	14 130.40109	6.68	1	a	13 603.23254	1.74	1	a	13 615.84285	2.00		d
19	19	1	14 451.47010	2.43		d					13 890.05575	4.67	1	a
19	19	0	14 451.47010	2.43	1	a					13 890.05575	4.67		d
20	0	20	8 655.01993	1.54	1	a					9 283.92326	0.50	−1	f,a
20	1	20	8 655.20974	0.57	6	e,a	9 172.71941	0.88	2	a	9 283.92326	0.50		d
20	1	19	9 189.70484	1.17	1	a	9 577.31377	1.48	1	a	9 684.73538	0.49	−1	f,a
20	2	19	9 188.37431	0.50	5	a	9 577.32300	1.23	1	a	9 684.73538	0.49		d
20	2	18	9 587.63037	1.15	1	a	9 927.65265	1.62	1	a	10 033.37631	1.22	−1	f,a
20	3	18	9 588.25260	0.57	5	e,a	9 927.59591	0.89	2	a	10 033.38100	5.60	−1	f
20	3	17	9 942.64727	1.19	1	a					10 343.19869	0.43	−1	f,a
20	4	17	9 948.25360	0.66	3	a	10 239.48557	1.13	1	a	10 343.09448	0.98	2	a
20	4	16	10 227.66650	1.50	1	a					10 615.46765	0.79	−1	f,a
20	5	16	10 259.31313	0.79	2	a	10 515.26817	0.81	2	a				
20	5	15									10 844.37693	0.58	6	a
20	6	15	10 542.98437	1.08	2	a	10 760.47261	1.11	4	a	10 862.07476	1.32	2	a
20	6	14	10 627.03488	1.19	1	a					11 022.10401	1.20	2	a
20	7	14	10 822.01725	0.93	2	a	10 982.95206	1.06	4	a				
20	7	13	10 844.05409	1.32	2	a					11 146.45901	0.80	3	a
20	8	13									11 299.47223	1.33	1	a
20	8	12									11 316.53277	0.80	3	a
20	9	12									11 532.46372	1.74	1	a
20	9	11									11 535.02905	0.77	4	a
20	10	10									11 783.94911	1.45	−1	f,a
20	11	10	12 148.83918	5.25	1	a	11 962.49342	5.92	1	a				
20	11	9					11 962.49342	5.92		d	12 051.32621	1.90	1	a
20	12	9	12 498.05767	5.26	1	a	12 254.05098	1.65	1	a	12 331.63421	1.31		d
20	12	8	12 497.98077	2.59	1	a					12 331.63421	1.31	−1	f,a
20	13	8	12 854.52494	2.11	1	a	12 553.40238	1.66	1	a				
20	13	7	12 854.52059	5.34	1	a								
20	14	7	13 210.59688	7.32	1	a	12 858.39867	1.10	2	a				
20	14	6	13 210.59688	7.32		d	12 858.39867	1.10		d				
20	15	6	13 575.03104	7.30	1	a	13 166.51190	1.58	1	a				
20	15	5	13 575.03104	7.30		d	13 166.51190	1.58		d	13 220.37845	6.58	1	a
20	16	5	13 932.23090	9.83	1	a	13 475.42097	1.89	2	a	13 515.32059	1.93		d
20	16	4	13 932.23090	9.83		d	13 475.42097	1.89		d	13 515.32059	1.93	1	a
20	17	4	14 284.17858	7.92	1	a	13 782.86801	5.44	1	a				
20	17	3	14 284.17858	7.92		d	13 782.86801	5.44		d				
20	18	3					14 086.20321	1.83	1	a				
20	18	2					14 086.20321	1.83		d				
20	19	2	14 960.13434	8.35	1	a	14 383.19577	2.01	1	a	14 390.74535	2.24		d
20	19	1	14 960.13434	8.35		d	14 383.19577	2.01		d	14 390.74535	2.24	1	a
20	20	1	15 275.49850	5.56	1	a					14 661.68972	6.84		d
20	20	0	15 275.49850	5.56		d					14 661.68972	6.84	1	a
21	0	21	9 038.83134	0.65	4	a	9 551.92577	0.90	2	a	9 664.57936	0.55		d
21	1	21	9 038.89900	1.64	1	a	9 551.56200	8.43	1	e	9 664.57936	0.55	−1	f,a
21	1	20	9 602.70779	0.61	4	a	9 977.43859	1.93	1	a	10 086.02379	0.51		d
21	2	20	9 602.87233	1.30	1	a					10 086.02379	0.51	−1	f,a
21	2	19	10 013.34041	0.78	3	a	10 344.12290	1.16	1	a	10 451.29034	0.61		d
21	3	19	10 014.07466	1.65	1	a					10 451.29034	0.61	−1	f,a
21	3	18	10 390.24767	0.81	2	a	10 672.15173	1.11	1	a	10 777.50107	1.07	2	a
21	4	18	10 393.83698	1.19	1	a					10 777.46108	0.50	−1	f,a
21	4	17	10 697.27063	1.28	1	a	10 959.25951	0.71	3	a	11 066.55986	1.25	1	a
21	5	17									11 066.47716	0.58	5	a
21	5	16	10 929.88477	1.63	1	a					11 314.53080	1.26	1	a
21	6	16									11 319.80826	1.12	4	a
21	6	15	11 117.75787	1.28	1	a					11 511.02992	0.83	2	a
21	7	15									11 554.53719	0.64	5	a
21	7	14	11 337.94700	1.46	1	a					11 644.76125	1.53	2	a

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or 00 3				110 or 10^+1				011 or 10^-1			
21	8	14									11 778.33564	0.72	5	a
21	8	13									11 806.54901	4.90	1	a
21	9	13									12 011.83602	1.33	3	a
21	9	12									12 017.08585	1.64	1	a
21	10	12									12 262.89006	1.34	1	a
21	11	11									12 531.02181	1.46	−1	f,a
21	12	10									12 812.67713	1.62	−1	f,a
21	12	9	12 980.39943	6.33	1	a					12 812.67470	11.80	−1	f
21	13	9	13 340.23827	5.63	1	a								
21	13	8	13 340.25440	5.35	1	a	13 033.45528	1.93	1	a				
21	14	8	13 700.02250	2.33		d								
21	14	7	13 700.02250	2.33	1	a	13 340.84640	1.94	1	a				
21	15	7	14 069.04037	8.86		d	13 652.23423	1.43		d				
21	15	6	14 069.04037	8.86	1	a	13 652.23423	1.43	2	a				
21	16	6	14 431.36209	8.85		d					14 009.88960	8.26	1	a
21	16	5	14 431.36209	8.85	1	a					14 009.88960	8.26		d
21	17	5	14 789.56904	11.02		d					14 313.08891	2.17	1	a
21	17	4	14 789.56904	11.02	1	a	14 277.11401	2.13	1	a	14 313.08891	2.17		d
21	18	4	15 140.76413	9.37		d	14 586.11549	7.39		d				
21	18	3	15 140.76413	9.37	1	a	14 586.11549	7.39	1	a				
21	19	3					14 889.43620	5.33		d				
21	19	2					14 889.43620	5.33	1	a				
21	20	2	15 809.96632	9.73		d	15 185.02377	5.39		d	15 188.16991	2.45	1	a
21	20	1	15 809.96632	9.73	1	a	15 185.02377	5.39	1	a	15 188.16991	2.45		d
21	21	1	16 118.65998	7.47		d					15 454.97113	8.47	1	a
21	21	0	16 118.65998	7.47	1	a					15 454.97113	8.47		d
22	0	22									10 062.09289	0.52	−1	f,a
22	1	22	9 441.92379	0.85	3	e,a	9 947.93700	0.90	2	a	10 062.09289	0.52		d
22	1	21	10 035.39367	1.51	1	a					10 504.15926	0.52	−1	f,a
22	2	21	10 035.51853	0.58	4	a	10 394.53796	0.89	2	a	10 504.15926	0.52		d
22	2	20									10 885.32594	0.63	−1	f,a
22	3	20	10 454.47721	0.85	2	a	10 776.84384	1.24	1	a	10 885.32594	0.63		d
22	3	19									11 227.65603	1.32	1	a
22	4	19	10 855.12860	1.10	1	a	11 121.89369	0.93	2	a	11 227.63380	1.47	1	a
22	4	18									11 532.08529	0.87	−1	f,a
22	5	18	11 195.48826	1.12	1	a					11 532.20643	1.30	1	a
22	5	17									11 798.28487	0.69	3	a
22	6	17	11 501.70566	1.28	1	a					11 802.11464	1.22	2	a
22	6	16									12 015.52821	0.85	4	a
22	7	15									12 160.48988	0.80	4	a
22	8	15									12 275.48186	1.88	1	a
22	8	14									12 318.89969	1.21	3	a
22	9	13									12 519.83844	2.94	3	a
22	10	12									12 762.70414	5.07	1	a
22	11	11									13 031.51800	6.21	1	e
22	12	10									13 314.29560	4.33	1	e
22	13	10									13 605.80588	5.26		d
22	13	9									13 605.80588	5.26	1	a
22	14	9	14 206.37839	7.32	1	a	13 841.14215	5.36	1	a				
22	14	8	14 206.37839	7.32		d								
22	15	8					14 155.41714	2.02	2	a				
22	15	7					14 155.41714	2.02		d				
22	17	6									14 829.53930	9.66		d
22	17	5									14 829.53930	9.66	1	a
22	18	5									15 135.02799	5.45		d
22	18	4									15 135.02799	5.45	1	a
22	19	4					15 411.83470	8.92	1	a				
22	19	3					15 411.83470	8.92		d				
22	20	3					15 714.21121	7.30	1	a				
22	20	2					15 714.21121	7.30		d				
22	21	2	16 678.84045	10.94	1	a	16 007.53275	7.35	1	a	16 007.14899	5.57		d
22	21	1	16 678.84045	10.94		d	16 007.53275	7.35		d	16 007.14899	5.57	1	a
22	22	1	16 980.11113	8.99	1	a					16 269.01406	9.84		d
22	22	0	16 980.11113	8.99		d					16 269.01406	9.84	1	a
23	0	23	9 863.01871	0.75	4	e,a	10 360.70111	0.90	2	a	10 476.37460	0.50		d

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or	00 3			110 or	10^+1			011 or	10^-1		
23	1	23									10 476.37460	0.50	−1	f,a
23	1	22	10 486.28367	0.70	3	a	10 828.19129	0.75	3	a	10 939.14210	0.64		d
23	2	22	10 486.40925	1.46	1	a					10 939.14210	0.64	−1	f,a
23	2	21	10 907.60765	1.14	1	a	11 225.26852	1.59	1	a	11 335.15402	0.67		d
23	3	21									11 335.15402	0.67	−1	f,a
23	3	20	11 330.26030	1.05	2	a	11 586.33108	1.22	1	a	11 693.60827	1.52	1	a
23	4	20									11 693.50706	0.91	2	a
23	4	19									12 013.56337	1.68	2	a
23	5	19									12 013.64077	1.09	2	a
23	5	18									12 295.81746	1.38	2	a
23	6	18									12 298.03414	0.86	4	a
23	6	17	12 167.38602	5.12	1	a					12 533.21417	1.67	1	a
23	7	17									12 553.29387	1.33	2	a
23	8	16									12 790.17282	0.91	5	a
23	9	15									13 027.25943	1.25	3	a
23	10	14									13 278.06325	5.07	1	a
23	12	12									13 831.43758	7.97	1	a,?
23	13	11									14 126.58524	6.61	1	a,?
23	15	9	15 105.63259	8.87		d								
23	15	8	15 105.63259	8.87	1	a								
23	18	6									15 672.99819	10.87	1	a
23	18	5									15 672.99819	10.87		d
23	19	5									15 979.91152	7.40	1	a
23	19	4									15 979.91152	7.40		d
23	20	4					16 258.75151	10.23		d				
23	20	3					16 258.75151	10.23	1	a				
23	22	2	17 565.76840	12.03		d	16 849.61612	8.89		d	16 846.64634	7.48	1	a
23	22	1	17 565.76840	12.03	1	a	16 849.61612	8.89	1	a	16 846.64634	7.48		d
23	23	1	17 858.89783	10.29		d					17 103.01263	9.89	1	a
23	23	0	17 858.89783	10.29	1	a					17 103.01263	9.89		d
24	0	24	10 302.69639	1.06		d	10 790.07727	0.72		d	10 907.34605	0.87	−1	f,a
24	1	24	10 302.69639	1.06	2	a	10 790.07727	0.72	4	a	10 907.34605	0.87		d
24	1	23	10 955.70087	1.56	1	a					11 390.79706	0.91	−1	f,a
24	2	23	10 955.91507	0.85	2	a	11 278.63578	1.01	2	a	11 390.79706	0.91		d
24	2	22									11 800.40581	0.80	−1	f,a
24	3	22	11 376.36304	1.14	1	a					11 800.40581	0.80		d
24	3	21									12 174.85823	5.09	1	a
24	4	21					12 066.94816	1.58	1	a	12 174.85694	1.47	1	a
24	4	20									12 509.31329	0.87	3	a
24	5	19									12 807.20796	1.24	1	a
24	6	19									12 808.33409	2.27	1	a
24	6	18									13 063.58830	5.08	1	a
24	7	17									13 271.08473	5.08	1	a
24	8	16									13 424.43959	1.61	2	a
24	9	15									13 588.35889	1.53	2	a
24	10	14									13 818.04950	1.63	1	a
24	13	11									14 662.51706	9.41	1	a,?
24	16	9	16 022.55168	10.18	1	a								
24	16	8	16 022.55168	10.18		d								
24	19	6									16 538.98786	11.97		d
24	19	5									16 538.98786	11.97	1	a
24	23	2					17 710.14938	10.20	1	a	17 705.91926	9.00		d
24	23	1					17 710.14938	10.20		d	17 705.91926	9.00	1	a
24	24	1	18 754.17035	11.44	1	a					17 956.25593	11.08		d
24	24	0	18 754.17035	11.44		d					17 956.25593	11.08	1	a
25	0	25	10 761.36587	1.94	3	a	11 235.43975	1.44	1	a	11 356.47717	1.68	1	a
25	1	25	10 761.36587	1.94		d					11 356.47991	0.72	4	a
25	1	24	11 444.60465	1.13	2	a	11 745.74078	1.42	1	a	11 859.04727	0.78		d
25	2	24	11 445.38695	1.31	2	a					11 859.04727	0.78	5	e,a
25	2	23	11 856.47860	0.95	2	a					12 281.07515	1.35		d
25	3	23									12 281.07515	1.35	−1	f,a
25	3	22									12 671.59334	1.77	1	a
25	4	22									12 671.57290	2.74	1	a
25	4	21									13 020.02298	2.04	1	a
25	5	21									13 019.93474	1.37	1	a

TABLE 4. Term values for the $1\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	030 or 00 3				110 or $10^{+}1$				011 or $10^{-}1$			
25	6	20									13 334.09479	1.28	1	a
25	7	19									13 613.87012	1.34	1	a
25	10	16									14 365.51951	5.24	1	a
25	24	2									18 584.04559	10.29	1	a
25	24	1									18 584.04559	10.29		d
25	25	0	19 664.94986	12.48	1	a								
26	0	26	11 239.55068	1.21		d	11 698.33947	0.91		d	11 818.71817	0.77	−1	f,a
26	1	26	11 239.55068	1.21	3	a	11 698.33947	0.91	3	a	11 818.71817	0.77		d
26	1	25									12 343.92097	0.89	−1	f,a
26	2	25									12 343.92097	0.89		d
26	2	24									12 777.75516	1.43	2	a
26	3	24	12 350.22210	0.95	2	a					12 777.75516	1.43		d
26	3	23									13 183.45127	2.92	1	a
26	4	22									13 545.29549	2.30	2	a
26	5	22									13 545.29549	2.30		d
26	7	19									14 404.76097	1.35	1	a
26	25	2									19 480.19609	11.45		d
26	25	1									19 480.19609	11.45	1	a
27	0	27	11 737.77926	1.00	3	a	12 177.93115	0.97	2	a	12 299.11215	0.75		d
27	1	27	11 737.77926	1.00		d	12 177.93115	0.97		d	12 299.11215	0.75	−1	f,a
27	1	26									12 845.22975	0.91		d
27	2	26									12 845.22975	0.91	−1	f,a
27	2	25									13 290.57118	2.06		d
27	3	25									13 290.57118	2.06	2	a
27	4	24									13 710.07970	1.36	1	a
27	5	23									14 084.87620	3.73	2	a
27	26	2									20 393.57577	12.49	1	a
27	26	1									20 393.57577	12.49		d
28	0	28	12 256.52101	0.93		d					12 795.90223	0.75	−1	f,a
28	1	28	12 256.52101	0.93	3	a					12 795.90223	0.75		d
28	1	27									13 363.07168	1.35	−1	f,a
28	2	27									13 363.07168	1.35		d
28	2	26									13 818.60815	5.32	1	a
28	3	26									13 818.60815	5.32		d
29	0	29									13 309.33058	1.41		d
29	1	29									13 309.33058	1.41	−1	f,a
29	1	28									13 897.13085	5.06		d
29	2	28									13 897.13085	5.06	−1	f,a
30	0	30									13 837.64289	2.48	−1	f,a
30	1	30									13 837.64289	2.48		d
30	1	29									14 445.75560	1.65	1	a
30	2	29									14 445.75560	1.65		d

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$

J	K_a	K_c	040 or	00 4			120 or	$10^{+}2$			021 or	$10^{-}2$		
0	0	0	6 134.01482	0.40	−1	j	6 775.09297	0.10	−1	j	6 871.52035	0.14	−1	j,a
1	0	1	6 157.75249	0.08	−1	j,a	6 798.51896	0.05	−1	j	6 895.14778	0.15	−1	j,a
1	1	1	6 194.79360	0.40	−1	j	6 818.31085	0.40	−1	j	6 913.66819	0.08	−1	j,a
1	1	0	6 201.06682	0.19	−1	j,a	6 824.11748	0.05	−1	j	6 919.57157	0.05	−1	j,a
2	0	2	6 204.44363	0.19	−1	j,a	6 844.23519	0.05	−1	j	6 941.16296	0.04	−1	j,a
2	1	2	6 236.05916	0.22	−1	j,a	6 859.37401	0.10	−1	j	6 955.08587	0.05	−1	j,a
2	1	1	6 254.85487	0.05	−1	j,a	6 876.76046	0.05	−1	j	6 972.73796	0.04	−1	j,a
2	2	1	6 359.04798	0.32	−1	j,a	6 935.00618	0.07	−1	j,a	7 027.35021	0.10	−1	j,a
2	2	0	6 359.78195	0.46	−1	j,a	6 936.07676	0.06	−1	j	7 028.54944	0.04	−1	j,a
3	0	3	6 272.62857	0.09	−1	j,a	6 910.24989	0.09	−1	j	7 007.42871	0.10	−1	j,a
3	1	3	6 297.47336	0.40	−1	j	6 920.29347	0.09	−1	j	7 016.72574	0.04	−1	j,a
3	1	2	6 334.89381	0.31	−1	j,a	6 954.83343	0.05	−1	j,a	7 051.49003	0.06	−1	j,a
3	2	2	6 430.62122	0.20	−1	j,a	7 005.35052	0.06	−1	j	7 098.06992	0.05	−1	j,a
3	2	1	6 434.18854	0.19	−1	j,a	7 010.23276	0.07	−1	j,a	7 103.61322	0.10	−1	j,a
3	3	1	6 604.31943	0.10	−1	j	7 114.61172	0.07	−1	j	7 201.79316	0.21	−1	j,a
3	3	0	6 604.37842	0.39	−1	j,a	7 114.63500	0.09	−1	j,a	7 201.95274	0.10	−1	j,a
4	0	4	6 360.50922	0.42	−1	j,a	6 994.57575	0.09	−1	j,a	7 091.91860	0.09	−1	j,a
4	1	4	6 378.56143	0.18	−1	j,a	7 000.45122	0.08	−1	j,a	7 096.72208	0.08	−1	j,a
4	1	3	6 440.39401	1.11	1	a	7 057.11848	0.12	−1	j	7 154.47825	0.11	−1	j,a
4	2	3	6 525.29910	0.21	−1	j,a	7 098.14619	0.09	−1	j,a	7 191.37356	0.08	−1	j,a
4	2	2	6 535.45725	0.15	−1	j,a	7 112.63971	0.18	−1	j	7 205.41955	0.07	−1	j,a
4	3	2	6 701.47936	0.30	−1	j,a	7 211.74696	0.20	−1	j,a	7 298.39153	0.09	−1	j,a
4	3	1	6 701.88407	0.23	−1	j,a	7 211.44360	0.80	−1	j	7 299.46107	0.07	−1	j,a
4	4	1	6 919.93672	0.35	−1	j,a	7 354.09523	0.15	−1	j,a	7 435.15543	0.15	−1	j,a
4	4	0	6 919.94144	0.50	−1	j	7 354.10723	0.18	−1	j	7 435.17337	0.07	−1	j,a
5	0	5	6 466.51401	0.38	−1	j,a	7 096.13063	0.25	−1	j,a	7 193.64422	0.10	−1	j,a
5	1	5	6 478.79941	0.14	−1	j,a	7 099.26985	0.20	−1	j	7 196.14190	0.15	−1	j,a
5	1	4	6 570.06667	0.11	−1	j,a	7 181.82055	0.05	−1	j,a	7 279.72429	0.04	−1	j,a
5	2	4	6 642.48533	0.20	−1	j,a	7 212.60109	0.13	−1	j	7 306.48906	0.10	−1	j,a
5	2	3	6 664.35385	0.11	−1	j,a	7 241.70880	0.30	−1	j	7 338.98792	0.10	−1	j,a
5	3	3	6 822.86883	0.23	−1	j,a	7 328.62054	0.27	−1	j	7 419.03131	0.04	−1	j,a
5	3	2	6 824.41888	0.14	−1	j,a	7 333.78865	0.12	−1	j	7 423.00097	0.09	−1	j,a
5	4	2	7 041.95766	0.21	−1	j,a	7 474.50948	0.13	−1	j	7 556.37375	0.09	−1	j,a
5	4	1	7 041.99351	0.19	−1	j,a	7 474.61447	0.09	−1	j,a	7 556.52670	0.13	−1	j,a
5	5	1	7 295.48626	0.58		d	7 650.32973	0.13	−1	j	7 723.60395	0.10	−1	j,a
5	5	0	7 295.48626	0.58	6	e,a	7 650.33383	0.21	−1	j,a	7 723.62644	0.24	−1	j,a
6	0	6	6 589.73539	0.06	−1	j,a	7 214.73489	0.10	−1	j	7 312.49249	0.08	−1	j,a
6	1	6	6 597.73011	0.18	−1	j,a	7 216.29753	0.16	−1	j	7 313.71117	0.07	−1	j,a
6	1	5	6 722.49989	0.25	−1	j	7 326.70489	0.12	−1	j	7 424.84076	0.08	−1	j,a
6	2	5	6 781.50530	0.20	−1	j,a	7 347.84152	0.06	−1	j,a	7 442.48162	0.07	−1	j,a
6	2	4	6 820.80448	0.77	2	a	7 397.14981	0.19	−1	j	7 495.31415	0.10	−1	j,a
6	3	4	6 968.22262	0.21	−1	j,a	7 472.52588	0.06	−1	j,a	7 563.21223	0.09	−1	j,a
6	3	3	6 972.60022	0.10	−1	j	7 482.87545	0.15	−1	j	7 573.80142	0.17	−1	j,a
6	4	3	7 188.25215	0.14	−1	j,a	7 619.12542	0.24	−1	j,a	7 701.96693	0.05	−1	j,a
6	4	2	7 188.40787	0.74	2	a	7 619.60789	0.20	−1	j,a	7 702.71255	0.07	−1	j,a
6	5	2	7 442.33600	0.52	4	a	7 795.06854	0.30	−1	j,a	7 868.61994	0.14	−1	j
6	5	1	7 442.38137	0.81	2	a	7 795.09863	0.36	−1	j	7 869.35417	0.06	−1	j,a
6	6	1	7 722.60588	0.53	5	e,a	7 999.17504	0.36	−1	j,a	8 063.01241	0.20	−1	j
6	6	0	7 722.60588	0.53		d	7 999.17565	0.10	−1	j	8 063.01260	0.18	−1	j,a
7	0	7	6 729.89705	0.10	−1	j,a	7 350.15159	0.13	−1	j,a	7 448.62093	0.07	−1	j,a
7	1	7	6 734.97864	0.15	−1	j,a	7 351.22677	0.15	−1	j	7 449.20122	0.12	−1	j,a
7	1	6	6 895.86324	0.33	−1	j,a	7 489.65811	0.15	−1	j	7 587.74125	0.15	−1	j,a
7	2	6	6 941.63552	0.07	−1	j,a	7 503.01105	0.50	−1	j	7 598.35038	0.10	−1	j,a
7	2	5	7 003.91883	0.29	−1	j,a	7 577.11839	0.38	−1	j,a	7 676.29721	0.10	−1	j,a
7	3	5	7 137.09907	0.64	3	a	7 638.99658	0.25	−1	j	7 730.18509	0.10	−1	j,a
7	3	4	7 147.21578	0.46	17	e,a	7 659.65633	0.16	−1	j,a	7 752.54692	0.10	−1	j,a
7	4	4	7 358.67650	0.64	4	e,a	7 787.89031	0.15	−1	j	7 871.76011	0.14	−1	j,a
7	4	3	7 359.61327	0.51	10	e,a	7 789.54465	0.20	−1	j	7 874.25665	0.14	−1	j,a
7	5	3	7 613.06409	0.97	4	e,a	7 963.77454	0.18	−1	j	8 039.68258	0.09	−1	j,a
7	5	2	7 613.37910	0.53	7	e,a	7 963.93127	0.20	−1	j,a	8 039.38666	0.14	−1	j,a
7	6	2	7 894.76443	0.54		d	8 168.54750	0.70	−1	j	8 233.40762	0.24	−1	j,a
7	6	1	7 894.76443	0.54	4	a	8 168.54865	0.30	−1	j,a	8 233.41177	0.10	−1	j
7	7	1	8 193.65364	0.53		d	8 397.20975	0.08	−1	j	8 448.75235	0.38	−1	j,a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	040 or	00 4			120 or	10^+2			021 or	10^-2		
7	7	0	8 193.65364	0.53	9	e,a	8 397.28975	0.08	−1	j,a	8 448.75140	0.80	−1	j
8	0	8	6 887.06029	0.19	−1	j,a	7 503.35170	0.30	−1	j	7 602.16348	0.14	−1	j,a
8	1	8	6 890.27331	0.19	−1	j,a	7 503.87138	0.15	−1	j,a	7 602.44406	0.12	−1	j,a
8	1	7	7 088.36156	0.75	2	a	7 669.39727	0.25	−1	j	7 767.34344	0.12	−1	j,a
8	2	7	7 122.19022	0.39	−1	j,a	7 677.36074	0.08	−1	j	7 773.29044	0.22	−1	j,a
8	2	6	7 212.27293	0.54	4	a	7 779.41329	0.29	−1	j	7 879.25124	0.10	−1	j,a
8	3	6	7 328.88068	0.40	−1	j,a	7 827.79608	0.21	−1	j	7 919.20015	0.10	−1	j,a
8	3	5	7 348.90597	1.00	1	a	7 864.05607	0.19	−1	j	7 958.42343	0.14	−1	j,a
8	4	5	7 552.97463	0.42	10	e,a	7 980.85436	0.12	−1	j,a	8 065.43278	0.10	−1	j,a
8	4	4	7 554.92077	0.55	4	a	7 985.02308	0.15	−1	j	8 072.00802	0.17	−1	j,a
8	5	4	7 807.15083	0.95	5	e,a	8 156.19124	0.32	−1	j	8 233.73024	0.17	−1	j,a
8	5	3	7 808.30710	0.67	3	a	8 157.95435	0.80	−1	j,?	8 233.79566	0.15	−1	j,a
8	6	3	8 090.81123	0.73	5	e,a	8 361.71175	0.48	2	a	8 427.77119	0.10	−1	j,a
8	6	2	8 090.82172	1.40	1	a					8 427.79355	0.06	−1	j,a
8	7	2	8 390.80382	0.54	5	e,a	8 591.35884	0.54	5	e,a	8 643.78675	0.20	−1	j
8	7	1	8 390.80382	0.54		d	8 591.35884	0.54		d	8 643.78679	0.18	−1	j,a
8	8	1	8 700.21985	1.11	3	e,a	8 840.22244	0.59	4	e,a	8 874.29368	0.59		d
8	8	0	8 700.21985	1.11		d	8 840.22244	0.59		d	8 874.29368	0.59	3	a
9	0	9	7 061.38019	0.38	−1	j,a	7 673.77775	0.08	−1	j,a	7 773.18417	0.10	−1	j,a
9	1	9	7 063.42090	0.34	−1	j,a	7 674.13782	0.65	−1	j	7 772.93111	0.08	−1	j,a
9	1	8	7 298.57468	0.52	4	a	7 865.59837	0.26	−1	j,a	7 963.50243	0.27	−1	j,a
9	2	8	7 322.53470	0.62	3	a	7 870.33453	0.15	−1	j	7 966.67856	0.14	−1	j,a
9	2	7	7 444.12525	0.46	12	e,a	8 001.63078	0.19	−1	j,a	8 101.59120	0.14	−1	j,a
9	3	7	7 542.76335	1.17	1	a					8 128.66703	0.08	−1	j,a
9	3	6	7 577.86372	0.47	8	e,a	8 094.84371	0.33	−1	j	8 200.22526	0.59	3	a
9	4	6	7 770.74959	1.20	2	a	8 187.03942	1.01	1	a	8 281.94092	0.17	−1	j,a
9	4	5	7 775.63689	0.38	15	e,a	8 206.89025	0.59	3	a	8 296.87437	0.10	−1	j,a
9	5	5					8 375.67360	2.23	2	e	8 451.79180	0.15	−1	j
9	5	4	8 027.02597	0.53	4	a	8 376.21276	1.00	−1	j,?	8 452.76116	0.19	−1	j,a
9	6	4	8 310.52857	1.16	1	a	8 578.53990	5.02	1	e	8 645.95950	0.20	−1	j,a
9	6	3	8 310.56088	0.53	4	a	8 578.57695	0.61	3	a	8 646.05346	0.24	−1	j,a
9	7	3	8 611.49360	0.55		d					8 862.43001	0.32	−1	j,a
9	7	2	8 611.49360	0.55	4	a	8 809.04053	0.55	5	e,a	8 862.43796	0.95	−1	j,a
9	8	2	8 921.85189	0.63		d	9 059.25603	1.01		d	9 093.03540	0.18	−1	j,a
9	8	1	8 921.85189	0.63	3	a	9 059.25603	1.01	1	a	9 093.03525	0.20	−1	j
9	9	1	9 306.82308	1.49		d	9 227.58720	1.49		d	9 375.82640	1.03	1	a
9	9	0	9 306.82308	1.49	1	a	9 227.58720	1.49	1	a	9 375.82640	1.03		d
10	0	10	7 253.00051	0.10	−1	j,a	7 861.63595	0.25	−1	j	7 961.69020	0.25	−1	j
10	1	10	7 254.31955	0.22	−1	j,a	7 862.04408	0.15	−1	j,a	7 961.72543	0.24	−1	j,a
10	1	9	7 525.71151	0.78	2	a	8 078.45131	0.20	−1	j	8 176.46631	0.09	−1	j,a
10	2	9	7 542.14636	0.45	15	e,a	8 080.85147	1.00	−1	j,?	8 178.09916	0.20	−1	j,a
10	2	8	7 697.54838	0.74	2	a	8 239.87467	3.00	−1	j,?	8 341.40922	0.10	−1	j,a
10	3	8	7 777.99995	0.51	10	e,a	8 256.88904	0.73	2	a	8 358.61757	0.15	−1	j,a
10	3	7	7 833.56479	0.83	2	a					8 452.13788	0.14	−1	j,a
10	4	7	8 011.31907	0.46	9	e,a	8 428.88558	0.60	3	a	8 521.99709	0.55	−1	j,a
10	4	6	8 020.86484	0.92	2	a					8 549.24274	0.14	−1	j,a
10	5	6	8 276.81340	0.78	2	a	8 613.87771	0.61	3	a	8 693.52239	0.19	−1	j,a
10	5	5	8 269.37398	1.10	1	a					8 696.61302	0.21	−1	j,a
10	6	5	8 553.59442	0.54	4	a	8 818.74309	0.76	3	e,a	8 887.79211	0.37	−1	j,a
10	6	4	8 553.74000	1.07	1	a					8 888.12154	0.30	−1	j,a
10	7	4	8 855.39459	0.55	4	a	9 049.97770	0.78	3	e,a	9 104.45244	0.25	−1	j
10	7	3	8 855.39459	0.55		d					9 104.46789	0.14	−1	j,a
10	8	3	9 166.56912	0.64	3	a	9 301.09324	0.80	2	a	9 334.66487	1.01		d
10	8	2	9 166.56912	0.64		d	9 301.09324	0.80		d	9 334.66487	1.01	1	a
10	9	2					9 470.68619	1.01	2	e,a,?	9 620.27473	0.72		d
10	9	1					9 470.68619	1.01		d	9 620.27473	0.72	2	a
10	10	1	9 920.58735	1.80	1	a	9 800.94762	1.80	1	a	9 876.08128	1.08		d
10	10	0	9 920.58735	1.80		d	9 800.94762	1.80		d	9 876.08128	1.08	1	a
11	0	11	7 462.03717	0.36	−1	j,a	8 067.04710	0.08	−1	j,a	8 167.69927	0.41	−1	j,a
11	1	11	7 462.90921	0.75	2	a					8 167.68928	0.18	−1	j,a
11	1	10	7 769.57162	0.51	8	e,a	8 308.26722	0.74	2	a	8 406.50233	0.27	−1	j,a
11	2	10	7 780.61578	0.75	2	a					8 407.29036	0.26	−1	j,a
11	2	9	7 970.45787	0.61	4	a					8 597.05354	0.24	−1	j,a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	040 or	00 4			120 or	10^+2			021 or	10^-2		
11	3	9	8 032.91626	1.10	1	a					8 607.32000	0.25	−1	j,a
11	3	8	8 114.76786	0.43	6	a					8 730.16217	0.50	−1	j
11	4	8	8 273.19378	0.64	3	a					8 782.72250	0.22	−1	j,a
11	4	7	8 292.02662	0.47	9	e,a	8 731.32849	1.12	1	a	8 827.49564	1.01	1	a
11	5	7	8 539.05517	1.14	1	a					8 958 .39668	0.24	−1	j,a
11	5	6	8 535.23258	0.48	5	a	8 881.89530	0.55	4	a	8 965.40364	1.01	1	a
11	6	6	8 819.64945	0.89	2	a					9 153.03475	0.38	−1	j,a
11	6	5	8 820.14291	0.49	6	e,a	9083.39370	0.64	3	a	9 154.00889	0.56	−1	j,a
11	7	5	9 122.19448	1.46	1	a					9 369.59893	0.44	−1	g,a
11	7	4	9 122.17937	0.77	2	a	9 313.93690	0.81	2	a				
11	8	4	9 433.12308	1.48	1	a					9 598.77967	0.46	6	a
11	8	3	9 433.99667	0.55	4	a	9 565.72469	1.27	1	a				
11	9	3	9 810.82789	5.54		d	9 885.17657	1.07		d	9 887.89849	1.46	1	a
11	9	2	9 810.82789	5.54	1	a	9 885.17657	1.07	1	a	9 887.89849	1.46		d
11	10	2	10 193.84100	6.30		d	10 068.80862	1.16		d	10 147.07078	0.80	2	a
11	10	1	10 193.84100	6.30	1	e	10 068.80862	1.16	1	a	10 147.07078	0.80		d
11	11	1	10 532.70160	2.06		d	10 355.10720	2.06		d	10 419.10640	0.79	2	a
11	11	0	10 532.70160	2.06	1	a	10 355.10720	2.06	1	a	10 419.10640	0.79		d
12	0	12	7 688.56000	5.00	−1	j					8 391.19329	0.08	−1	j,a
12	1	12	7 689.16450	0.52	11	e,a	8 286.27111	1.20	1	a	8 391.13033	0.15	−1	j,a
12	1	11	8 030.31363	0.78	2	a					8 653.81241	0.25	−1	j,a
12	2	11	8 037.66120	0.47	11	e,a	8 546.42100	1.12	1	a	8 654.09529	0.27	−1	j,a
12	2	10	8 259.83930	2.56	5	e					8 868.71798	0.14	−1	j,a
12	3	10	8 313.00601	0.95	4	e,a	8 774.16083	1.05	1	a	8 874.36402	0.59	3	a
12	3	9	8 419.67964	0.84	2	a					9 025.95569	0.14	−1	j,a
12	4	9	8 570.13032	0.75	4	e,a	8 970.12380	6.43	1	e	9 064.05401	1.01	1	a
12	4	8	8 589.01650	1.11	1	a					9 131.71985	0.19	−1	j,a
12	5	8	8 825.76944	0.54	5	e,a	9 164.06652	0.61	3	a	9 245.74566	0.69	−1	g,a
12	5	7	8 824.53672	0.83	2	a					9 262.47803	0.46	9	e,a
12	6	7	9 108.59850	1.07	1	a	9 368.55148	0.80	2	a	9 441.38360	1.02	1	a
12	6	6	9 109.77145	1.52	1	a					9 443.85390	0.46	7	e,a
12	7	6	9 411.49539	1.08	1	a	9 600.55122	0.80	2	a	9 657.59940	3.20	−1	g
12	7	5									9 657.81824	0.41	−1	g,a
12	8	5	9 723.73565	1.06	1	a	9 852.68737	1.29	1	a				
12	8	4									9 885.10990	0.52	5	e,a
12	9	4	10 097.22325	1.62	1	a	10 026.72099	1.09	2	e,a,?	10 178.07617	0.63		d
12	9	3	10 097.22325	1.62		d	10 026.72099	1.09		d	10 178.07617	0.63	3	a
12	10	3	10 489.77710	5.45	2	e					10 440.57146	1.06		d
12	10	2	10 489.77710	5.45		d					10 440.57146	1.06	1	a
12	11	2	10 833.52237	6.38	1	a					10 715.87837	1.13		d
12	11	1	10 833.52237	6.38		d					10 715.87837	1.13	1	a
12	12	1	11 179.18354	2.29	1	a					10 996.92100	0.90		d
12	12	0	11 179.18354	2.29		d					10 996.92100	0.90	2	a
13	0	13	7 932.69419	0.52	12	e,a	8 526.94876	1.09	1	a	8 632.49491	0.59	3	a
13	1	13	7 933.10053	1.03	2	e,a					8 632.09874	0.32	−1	j,a
13	1	12	8 308.23443	0.76	2	a	8 820.42729	1.02	2	e,a	8 918.64956	0.77	2	a
13	2	12	8 313.09204	0.80	2	a					8 918.43706	0.08	−1	j,a
13	2	11	8 571.20469	0.48	6	a	9 058.82170	6.73	1	e	9 157.03470	0.60	3	a
13	3	11	8 605.54319	1.10	1	a					9 159.19189	0.99	2	a
13	3	10	8 745.85618	0.76	2	a					9 339.14617	0.72	2	a
13	4	10	8 870.58645	1.12	3	a					9 364.93604	0.42	11	e,a
13	4	9	8 911.50949	0.54	4	a					9 476.50830	5.20	1	e
13	5	9	9 133.86820	7.12	1	e	9 456.31598	1.06	1	a	9 554.75430	0.46	8	e,a
13	5	8	9 137.27421	1.25	1	a					9 590.35116	1.01	1	a
13	6	8									9 752.48802	0.46	6	e,a
13	6	7	9 422.84021	0.63	7	e,a	9 682.73024	1.05	2	e,a	9 757.91327	0.99	2	e,a
13	7	7									9 968.18929	0.62	3	a
13	7	6	9 723.03734	1.26	1	a	9 909.83810	1.28	1	a	9 968.79442	1.43	1	a
13	8	6									10 193.38276	1.06	2	e,a
13	8	5	10 035.43651	1.06	1	a					10 193.39383	1.41	2	e,a
13	9	5									10 490.57941	1.13	1	a
13	9	4					10 338.18324	1.46	1	a	10 490.57941	1.13		d
13	10	4					10 671.59182	1.09		d	10 756.13472	0.66	3	a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	040 or	00 4			120 or	10^+2			021 or	10^-2		
13	10	3					10 671.59182	1.09	1	a	10 756.13472	0.66		d
13	11	3	11 157.10594	5.54		d					11 034.59305	1.46	1	a
13	11	2	11 157.10594	5.54	1	a					11 034.59305	1.46		d
13	12	2	11 506.38331	6.46		d					11 318.29040	7.22	1	e
13	12	1	11 506.38331	6.46	1	a					11 318.29040	7.22		d
13	13	1	11 857.34222	2.50		d								
13	13	0	11 857.34222	2.50	1	a								
14	0	14	8 194.49389	0.57	4	a					8 889.17792	0.34	−1	j,a
14	1	14	8 194.77880	0.60	10	e,a	8 785.15502	0.81	3	e,a	8 886.68602	1.07	1	a
14	1	13	8 603.62709	1.12	1	a					9 204.50246	0.98	3	a
14	2	13	8 606.84956	0.49	9	e,a					9 200.32081	1.00	2	e,a
14	2	12	8 896.83265	1.07	1	a					9 456.00109	0.58	6	e,a
14	3	12	8 919.71946	0.60	8	e,a					9 461.63674	0.72	2	a
14	3	11									9 667.69980	0.39	10	e,a
14	4	11	9 192.05652	0.53	6	a	9 586.93202	1.14	2	a	9 684.37859	0.72	2	a
14	4	10	9 258.37187	1.21	1	a					9 818.56806	0.42	11	e,a
14	5	10	9 470.53238	0.48	6	a	9 790.56132	1.01	1	a	9 884.47214	0.73	−1	g,a
14	5	9									9 934.93616	0.52	6	e,a
14	6	9	9 752.76783	0.51	6	e,a					10 086.08262	1.08	1	a
14	6	8									10 096.41951	0.60	4	a
14	7	8	10 056.24873	1.18	1	a	10 241.07552	1.45	1	a	10 301.00394	1.02	2	a
14	7	7									10 302.56004	1.06	1	a
14	8	7					10 492.57810	6.77	3	e	10 523.70790	6.28	1	e
14	9	6					10 669.95737	1.46	1	a	10 825.26960	0.76		d
14	9	5									10 825.26960	0.76	2	a
14	10	5									11 093.67992	1.07		d
14	10	4									11 093.67992	1.07	1	a
14	11	4									11 374.28092	1.10		d
14	11	3									11 374.28092	1.10	2	e,a
14	13	2									11 953.72809	7.29		d
14	13	1									11 953.72809	7.29	1	a
15	0	15	8 474.07591	0.56	7	e,a	9 059.40000	7.49	1	e	9 165.03960	0.80	2	a
15	1	15	8 474.26080	0.82	2	a					9 164.94958	0.48	5	a
15	1	14	8 916.71187	0.56	5	e,a	9 394.64720	7.02	1	e	9 497.98098	1.03	1	a
15	2	14	8 918.89860	1.18	1	a					9 500.22166	0.52	9	e,a
15	2	13	9 231.85227	0.63	3	a	9 685.76030	1.16	1	a	9 778.35609	1.06	1	a
15	3	13									9 781.06161	0.52	4	a
15	3	12	9 463.29057	0.62	4	a	9 916.68475	0.83	2	a	10 011.39857	1.04	1	a
15	4	12	9 543.23885	1.15	2	a					10 022.09592	0.43	9	e,a
15	4	11	9 626.50565	1.07	1	a					10 184.26545	0.76	2	a
15	5	11	9 820.01569	1.57	1	a					10 234.29441	0.73	4	a
15	5	10									10 306.97007	0.76	2	a
15	6	10									10 439.49651	0.97	−1	g,a
15	6	9	10 119.01136	1.12	1	a					10 459.62786	5.02	1	a
15	7	9									10 655.63015	0.74	−1	g,a
15	7	8	10 411.30494	0.78	2	a					10 659.19816	1.08	1	a
15	8	8									10 919.68128	0.78	2	a
15	9	7									11 181.35528	1.07	1	a
15	10	6									11 451.83411	1.08	1	a
15	10	5									11 451.83411	1.08		d
15	11	5									11 736.32069	1.46	1	a
15	11	4									11 736.32069	1.46		d
15	14	2									12619.17511	7.36	1	a
15	14	1									12619.17511	7.36		d
16	0	16	8 771.45993	0.83	2	a					9 457.78956	0.74	5	e,a
16	1	16	8 771.67201	0.57	4	a	9 351.08661	1.07	1	a	9 457.78956	0.74		d
16	1	15									9 814.84603	0.71	6	e,a
16	2	15	9 249.27272	0.63	4	e,a	9 712.28778	1.11	2	e,a	9 814.45240	1.06	1	a
16	2	14	9 584.49673	0.84	2	a					10 115.56191	0.61	4	e,a
16	3	14	9 597.10743	0.63	3	a					10 117.70941	0.74	2	a
16	3	13									10 369.86354	0.74	5	e,a
16	4	13	9 907.07240	1.11	2	a	10 276.08625	1.13	2	a	10 376.87965	0.74	2	a
16	4	12									10 567.49565	0.53	6	e,a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	040 or 00 4				120 or $10^{+}2$				021 or $10^{-}2$			
16	5	12	10 190.49250	1.47	1	a					10 602.68520	1.01	3	a
16	5	11									10 700.40264	0.61	3	a
16	6	11					10 736.19263	0.64	4	a	10 814.36260	5.02	1	a
16	6	10									10 847.71503	0.61	4	a
16	7	9									11 038.94295	1.03	3	e,a
16	9	7									11 558.75624	1.04	2	a
17	0	17	9 087.02301	0.59	4	a	9 659.71660	7.63	1	e	9 767.69044	0.54		d
17	1	17									9 767.69044	0.54	9	e,a
17	1	16	9 597.13360	0.57	5	e,a					10 148.69113	0.96	2	a
17	2	16	9 598.06523	1.16	1	a					10 148.49517	0.54	8	e,a
17	2	15	9 951.89147	1.08	1	a					10 469.02361	1.12	1	a
17	3	15	9 960.71986	1.19	1	a					10 472.50198	1.05	4	e,a
17	3	14	10 242.79814	1.07	1	a					10 743.63836	1.02	2	a
17	4	14	10 289.11045	1.20	1	a					10 748.63512	0.53	5	a
17	4	13									10 965.14674	5.03	1	a
17	5	13									10 989.24998	1.09	1	a
17	6	12									11 209.08298	0.61	4	a
17	7	11									11 428.20142	0.76	2	a
17	10	8									12 230.81156	1.44	1	a
18	0	18									10 094.67991	0.51	7	e,a
18	1	18	9 421.57417	0.68	3	a	9 985.45769	0.90	2	a	10 094.67991	0.51		d
18	1	17	9 964.95246	1.27	1	a					10 499.72194	0.48	7	e,a
18	2	17	9 965.37994	0.80	2	a					10 499.22079	5.10	1	a
18	2	16	10 333.40135	1.20	1	a					10 838.69335	0.62	−1	g,a
18	3	16	10 339.80446	1.14	1	a	10 734.37956	1.24	1	a	10 837.68300	1.09	1	a
18	3	15									11 132.86274	0.77	3	a
18	4	15	10 688.42829	0.80	2	a					11 137.48933	1.12	1	a
18	4	14									11 376.77216	1.07	2	a
18	5	14									11 393.33677	5.03	1	a
18	5	13									11 562.56056	0.58	4	a
18	6	13									11 622.97056	5.03	1	a
18	6	12									11 695.91245	0.62	4	a
18	7	11									11 868.24286	0.76	2	a
19	0	19	9 777.90532	1.33	2	a					10 438.75558	0.51		d
19	1	19	9 772.38433	1.50	1	a					10 438.75558	0.51	−1	g,a
19	1	18	10 350.41739	1.10	1	a					10 867.91510	0.63		d
19	2	18	10 351.35459	1.43	1	a					10 867.91510	0.63	−1	g,a
19	2	17	10 729.20985	0.82	2	a	11 117.48611	1.18	1	a	11 223.99301	5.06	1	a
19	3	17									11 223.86943	0.54	−1	g,a
19	3	16	11 079.50960	1.13	1	a								
19	4	16									11 546.61152	3.57	2	a
19	4	15									11 802.03524	1.12	2	a
19	5	15									11 813.29112	0.76	3	a
19	5	14									12 009.27858	3.38	1	a
19	7	13									12 280.59548	1.01	4	a
19	8	12									12 554.97541	1.04	3	a
20	0	20	10 144.06800	1.54	1	a					10 799.84938	0.69	4	e,a
20	1	20	10 144.30471	0.85	2	a					10 799.84938	0.69		d
20	1	19	10 755.58357	1.53	1	a	11 147.29731	1.86	1	a	11 253.35746	0.67	−1	g,a
20	2	19	10 756.14354	0.63	4	a	11 147.74594	0.85	3	a	11 253.35746	0.67		d
20	2	18									11 623.36057	1.11	1	a
20	3	18	11 141.07013	0.86	3	a								
20	3	17									11 957.95435	0.77	3	a
20	4	16									12 241.11163	1.09	2	a
20	5	15									12 470.85010	1.08	2	a
20	6	14									12 626.54400	1.08	2	a
20	7	13									12 789.80263	5.03	1	a
21	0	21	10 535.41594	1.12	2	a					11 177.97621	0.62		d
21	1	21	10 535.54730	1.83	1	a					11 177.97621	0.62	5	e,a
21	1	20	11 179.33073	1.12	1	a					11 655.96493	1.64	1	a
21	2	20									11 655.88791	0.62	−1	g,a
21	2	19	11 558.32663	1.15	1	a								
21	3	19									12 056.32279	5.03	1	a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	040 or	00 4			120 or	10^+2			021 or	10^-2		
21	3	18	11 970.69699	1.20	1	a								
21	4	18									12 392.96375	5.02	1	a
21	6	16									12 956.66447	1.10	2	a
21	7	15									13 206.16099	1.50	1	a
22	0	22									11 573.13456	0.60	5	e,a
22	1	22	10 947.08647	0.86	2	a					11 573.13456	0.60		d
22	1	21									12 075.40177	1.11	−1	g,a
22	2	21	11 623.02038	1.17	1	a					12 075.60124	1.20	1	a
22	2	20									12 492.31590	5.05	1	a
22	3	19									12 844.77339	1.18	1	a
22	4	18									13 161.04649	5.05	1	a
22	5	17									13 430.37036	1.27	2	a
22	6	16									13 648.12295	5.07	1	a
22	7	15									13 797.73986	3.60	2	a
23	0	23	11 379.87957	1.32	1	a					11 984.64013	0.88		d
23	1	23									11 984.64013	0.88	−1	g,a
23	1	22	12 084.66883	1.16	1	a					12 512.40886	1.20		d
23	2	22									12 512.40886	1.20	1	a
23	3	21									12 920.49436	5.04	1	a
23	5	19									13 639.66840	5.05	1	a
24	0	24									12 413.77697	0.76	−1	g,a
24	1	24	11 834.90676	1.19	1	a	12 296.72521	1.35	1	a	12 413.77697	0.76		d
24	1	23									12 966.37456	1.19	1	a
24	2	23	12 569.26819	1.22	1	a								
24	3	21									13 791.92696	5.08	1	a
24	4	20									14 133.22428	5.04	1	a
25	0	25	12 312.17000	1.46	1	a					12 859.73584	0.97		d
25	1	25									12 859.73584	0.97	−1	g,a
25	1	24									13 437.51912	1.24		d
25	2	24									13 437.51912	1.24	−1	g,a
25	3	23									13 871.30654	1.49	2	a
25	4	22									14 287.18841	5.09	1	a
26	0	26									13 322.79392	1.70	−1	g,a
26	1	26	12 811.07304	1.37	2	a					13 322.79392	1.70		d
26	1	25									13 926.08390	1.24	2	a
26	2	24									14 367.28459	5.12	1	a
27	0	27									13 803.79416	1.28		d
27	1	27									13 803.79416	1.28	−1	g,a
27	3	25									14 875.89444	5.38	1	a
28	0	28									14 298.94621	3.64	2	a
29	1	29									14 814.11468	1.36	2	a
J	K_a	K_c	200 or	20^+0			101 or	20^-0			002 or	11 0		
0	0	0	7 201.54020	0.20	−1	j	7 249.81837	0.10	−1	j	7 445.04530	0.10	−1	j
1	0	1	7 224.58070	0.10	−1	j	7 273.00000	0.15	−1	j	7 468.34147	0.05	−1	j,a
1	1	1	7 236.80764	0.04	−1	j	7 284.74246	0.14	−1	j,a	7 479.63551	0.10	−1	j
1	1	0	7 241.99452	0.04	−1	j	7289.98113	0.10	−1	j	7 484.93647	0.24	−1	j,a
2	0	2	7 269.31333	0.07	−1	j	7 317.91734	0.10	−1	j,a	7 513.42981	0.04	−1	j,a
2	1	2	7 277.68819	0.08	−1	j	7 325.22803	0.06	−1	j	7 520.93445	0.15	−1	j
2	1	1	7 293.20514	0.06	−1	j	7 341.80267	0.05	−1	j	7 536.81233	0.15	−1	j
2	2	1	7 329.42025	0.08	−1	j	7 376.57916	0.06	−1	j	7 570.46362	0.15	−1	j
2	2	0	7 331.62289	0.03	−1	j	7 377.97676	0.08	−1	j,a	7 571.93542	0.15	−1	j,a
3	0	3	7 333.55302	0.05	−1	j	7 382.25822	0.06	−1	j	7 577.97301	0.10	−1	j,a
3	1	3	7 338.25124	0.04	−1	j	7 386.24441	0.06	−1	j,a	7 582.01625	0.07	−1	j,a
3	1	2	7 368.97355	0.11	−1	j	7 418.05827	0.05	−1	j	7 613.42341	0.11	−1	j
3	2	2	7 398.40734	0.08	−1	j	7 445.57945	0.08	−1	j,a	7 640.38676	0.10	−1	j
3	2	1	7 405.23814	0.06	−1	j	7 451.87300	0.10	−1	j	7 647.07771	0.10	−1	j,a
3	3	1	7 472.95248	0.12	−1	j	7 517.49036	0.07	−1	j	7 709.66650	0.21	−1	j,a
3	3	0	7 473.06138	0.06	−1	j	7 517.74505	0.11	−1	j,a	7 709.93668	0.14	−1	j,a
4	0	4	7 415.59915	0.04	−1	j	7 464.43707	0.04	−1	j,a	7 660.31994	0.10	−1	j,a
4	1	4	7 417.84285	0.05	−1	j	7 466.23546	0.05	−1	j	7 662.18625	0.17	−1	j,a
4	1	3	7 467.77336	0.04	−1	j	7 517.21214	0.04	−1	j,a	7 713.08143	0.21	−1	j
4	2	3	7 489.35345	0.05	−1	j,a	7 536.56616	0.10	−1	j	7 732.30376	0.24	−1	j,a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	200 or	20^+0			101 or	20^-0			002 or	11 0		
4	2	2	7 505.81263	0.10	−1	j	7 552.36533	0.08	−1	j,a	7 749.46651	0.10	−1	j,a
4	3	2	7 568.20455	0.08	−1	j	7 611.81050	0.11	−1	j	7 805.30314	0.27	−1	j,a
4	3	1	7 568.89106	0.06	−1	j	7 613.43068	0.18	−1	j,a	7 807.07468	0.22	−1	j
4	4	1	7 665.53547	0.10	−1	j	7 707.63904	0.15	−1	j,a	7 897.44589	0.09	−1	j,a
4	4	0	7 665.57165	0.06	−1	j	7 707.71847	0.15	−1	j,a	7 897.48763	0.15	−1	j
5	0	5	7 514.94703	0.22	−1	j	7 563.94605	0.13	−1	j,a	7 760.14129	0.08	−1	j,a
5	1	5	7 515.91321	0.08	−1	j	7 564.67259	0.05	−1	j,a	7 760.90267	0.28	−1	j,a
5	1	4	7 587.38639	0.25	−1	j	7 636.97312	0.07	−1	j,a	7 833.39552	0.15	−1	j,a
5	2	4	7601.30928	0.05	−1	j	7 648.76662	0.06	−1	j,a	7 845.23463	0.12	−1	j,a
5	2	3	7 632.64666	0.07	−1	j,a	7 677.25956	0.08	−1	j	7 878.11177	0.09	−1	j,a
5	3	3	7 688.64954	0.06	−1	j	7 729.55317	0.11	−1	j,a	7 924.59756	0.37	−1	j,a
5	3	2	7 690.43440	0.05	−1	j	7 735.32680	0.13	−1	j	7 930.85259	0.28	−1	j,a
5	4	2	7 784.28334	0.04	−1	j	7 825.81951	0.08	−1	j	8 017.62015	0.30	−1	j
5	4	1	7 784.49351	0.04	−1	j	7 826.30458	0.09	−1	j	8 017.96992	0.29	−1	j,a
5	5	1	7 906.96499	0.08	−1	j	7 945.96683	0.15	−1	j,a	8 132.69778	0.29	−1	j
5	5	0	7 906.99020	0.11	−1	j	7 945.96816	0.15	−1	j	8 132.70282	0.37	−1	j,a
6	0	6	7 631.70601	0.10	−1	j	7 680.92649	0.17	−1	j,a	7 877.87210	0.37	−1	j,a
6	1	6	7 632.08765	0.08	−1	j	7 681.21295	0.07	−1	j,a	7 877.85312	0.35	−1	j,a
6	1	5	7 725.44900	0.05	−1	j	7 774.99747	0.06	−1	j,a	7 972.56235	0.16	−1	j,a
6	2	5	7 733.30321	0.10	−1	j	7 781.21931	0.11	−1	j,a	7 978.19540	0.33	−1	j,a
6	2	4	7 784.02997	0.08	−1	j	7 836.64253	0.07	−1	j,a	8 031.11063	0.23	−1	j
6	3	4	7 821.68963	0.15	−1	j	7 870.45834	0.10	−1	j,a	8 066.81021	0.30	−1	j,a
6	3	3	7 838.91123	0.05	−1	j	7 884.53730	0.07	−1	j,a	8 082.31748	0.37	−1	j,a
6	4	3	7 926.99458	0.10	−1	j	7 967.29952	0.12	−1	j	8 161.88794	0.12	−1	j,a
6	4	2	7 927.92019	0.07	−1	j	7 969.67463	0.14	−1	j,a	8 163.47664	0.20	−1	j
6	5	2	8 049.32582	0.07	−1	j	8 087.95786	0.15	−1	j	8 277.37781	0.28	−1	j,a
6	5	1	8 049.49192	0.08	−1	j	8 087.97649	0.10	−1	j,a	8 277.43732	0.24	−1	j,a
6	6	1	8 195.79741	0.10	−1	j,a	8 230.65477	0.70	−1	j	8 413.77322	0.20	−1	j,a
6	6	0	8 195.79962	0.20	−1	j	8 230.65535	0.57	−1	j,a	8 413.77323	0.20	−1	j
7	0	7	7 765.97418	0.08	−1	j,a	7 815.54783	0.10	−1	j	8 012.21257	0.07	−1	j,a
7	1	7	7 766.14441	0.08	−1	j	7 815.66024	0.11	−1	j,a	8 014.15008	0.06	−1	j
7	1	6	7 880.50415	0.08	−1	j	7 929.98612	0.15	−1	j	8 125.81303	0.15	−1	j,a
7	2	6	7 884.46324	0.15	−1	j	7 932.92207	0.15	−1	j,a	8 130.39719	0.15	−1	j,a
7	2	5	7 957.66894	0.06	−1	j,a	8 007.96041	0.08	−1	j	8 205.80745	0.19	−1	j,a
7	3	5	7 985.28545	0.09	−1	j	8 032.64541	0.08	−1	j,a	8 231.02487	0.35	−1	j
7	3	4	8 014.57415	0.20	−1	j	8 060.70538	0.06	−1	j	8 261.12741	0.33	−1	j,a
7	4	4	8 093.58025	0.07	−1	j	8 135.40313	0.07	−1	j,a	8 329.89150	0.21	−1	j,a
7	4	3	8 096.59406	0.20	−1	j,a	8 138.81135	0.05	−1	j	8 334.95526	0.14	−1	j,a
7	5	3	8 215.32474	0.23	−1	j	8 253.97657	0.06	−1	j,a	8 446.08937	0.07	−1	j,a
7	5	2	8 215.95394	0.08	−1	j,a	8 254.10772	0.18	−1	j	8 446.41069	0.10	−1	j,a
7	6	2	8 362.40093	0.15	−1	j,a	8 395.94644	0.08	−1	j,a	8 584.00390	0.80	−1	j
7	6	1	8 362.43766	0.24	−1	j,a	8 395.94161	0.20	−1	j	8 584.01353	0.15	−1	j
7	7	1	8 530.40775	0.40		d	8 559.71577	0.24	−1	j,a	8 738.82599	1.50		d
7	7	0	8 530.40775	0.40	−1	j	8 559.71585	0.25	−1	j	8 738.82599	1.50	−1	j
8	0	8	7 917.72269	0.15	−1	j	7 967.85239	0.11	−1	j,a	8 165.24895	0.15	−1	j,a
8	1	8	7 917.95666	0.20	−1	j	7 967.89844	0.16	−1	j	8 164.70853	0.46	−1	j,a
8	1	7	8 052.18858	0.15	−1	j	8 101.78876	0.12	−1	j,a	8 298.47723	0.24	−1	j,a
8	2	7	8 054.11663	0.06	−1	j	8 103.11394	0.12	−1	j,a	8 301.74849	0.10	−1	j,a
8	2	6	8 150.83307	0.16	−1	j	8 202.56374	0.08	−1	j,a	8 399.44989	0.15	−1	j
8	3	6	8 169.51747	0.06	−1	j,a	8 216.20810	0.08	−1	j	8 416.57470	0.29	−1	j,a
8	3	5	8 216.20398	0.20	−1	j	8 261.53081	0.08	−1	j,a	8 465.52432	0.24	−1	j,a
8	4	5	8 283.72181	0.08	−1	j	8 324.19162	0.08	−1	j	8 520.96603	0.15	−1	j,a
8	4	4	8 291.54653	0.35	−1	j	8 334.85257	0.05	−1	j,a	8 533.35253	0.35	−1	j
8	5	4	8 404.50384	0.24	−1	j,a	8 444.04992	0.08	−1	j	8 638.70344	0.30	−1	j,a
8	5	3	8 406.58207	0.15	−1	j,a	8 444.70816	0.05	−1	j,a	8 639.92941	0.20	−1	j
8	6	3	8 552.70901	0.10	−1	j,a	8 585.41532	0.35	−1	j	8 777.54724	0.45	−1	j,a
8	6	2	8 552.99273	0.08	−1	j	8 585.39269	0.15	−1	j,a	8 777.59955	0.40	−1	j
8	7	2	8 721.13771	0.35	−1	j	8 748.42950	0.40	−1	j	8 926.52845	1.00	−1	j
8	7	1	8 721.13876	0.40	−1	j	8 748.42936	0.37	−1	j,a	8 926.52845	1.00	−1	j
8	8	1	8 912.73417	1.01	1	a	8 943.39755	0.30	−1	j	9 105.96467	0.45	−1	j,a
8	8	0	8 912.73417	1.01		d	8 943.39755	0.29	−1	j,a	9 105.96488	0.50	−1	j
9	0	9	8 087.39507	0.11	−1	j	8 137.85565	0.25	−1	j	8 335.48808	0.10	−1	j,a
9	1	9	8 087.45205	0.10	−1	j	8 138.00841	0.15	−1	j,a	8 335.53984	0.37	−1	j,a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	200 or	20^+0			101 or	20^-0			002 or	11 0			
9	1	8	8 240.86016	0.07	−1	j,a	8 290.67268	0.13	−1	j		8 488.02991	0.20	−1	j,a
9	2	8	8 241.83115	0.24	−1	j,a	8 291.62793	0.09	−1	j,a		8 486.87365	0.45	−1	j,a
9	2	7	8 361.78497	0.32	−1	j,a	8 412.63183	0.10	−1	j		8 610.00995	0.35	−1	j,a
9	3	7	8 369.43182	0.30	−1	j	8 419.79333	0.08	−1	j,a					
9	3	6	8 441.58262	0.15	−1	j,a	8 503.73297	1.00	1	a		8 692.96920	0.28	−1	j,a
9	4	6	8 482.46671	1.00	1	a	8 535.72792	0.15	−1	j,a		8 734.21303	0.25	−1	j
9	4	5	8 513.54626	0.10	−1	j,a	8 558.23387	0.11	−1	j		8 757.78227	0.19	−1	j,a
9	5	5	8 624.84747	1.00	1	a	8 657.91049	0.08	−1	j,a		8 854.92162	0.25	−1	j
9	5	4	8 621.78419	0.19	−1	j,a	8 660.38128	0.44	−1	j		8 858.59761	0.19	−1	j,a
9	6	4	8 766.62760	0.50	−1	j	8 798.64155	0.31	−1	j,a		8 994.46200	0.40	−1	j
9	6	3	8 768.72906	0.19	−1	j,a	8 798.60388	0.20	−1	j		8 994.68878	0.32	−1	j,a
9	7	3					8 961.05814	0.37	−1	j,a		9 139.67506	3.00	−1	j
9	7	2	8 935.28681	1.00	1	a	8 961.01895	0.30	−1	j		9 139.68412	0.37	−1	j,a
9	8	2	9 128.70157	0.71		d	9 161.85161	0.37	−1	j,a					
9	8	1	9 128.70157	0.71	3	e,a	9 161.84776	0.40	−1	j					
9	9	1										9 513.41505	0.50	−1	j
9	9	0										9 513.41468	0.45	−1	j,a
10	0	10	8 274.56469	0.06	−1	j	8 325.28023	0.18	−1	j,a		8 523.78433	0.20	−1	j
10	1	10	8 273.90423	0.07	−1	j,a	8 325.35652	0.24	−1	j,a		8 523.79353	0.38	−1	j,a
10	1	9	8 446.74640	0.06	−1	j	8 496.90207	0.08	−1	j,a		8 696.04484	0.30	−1	j,a
10	2	9	8 447.62743	0.20	−1	j,a	8 496.73922	0.11	−1	j,a		8 694.33306	0.19	−1	j,a
10	2	8	8 588.50472	0.15	−1	j,a	8 639.11372	0.20	−1	j		8 836.85154	0.37	−1	j,a
10	3	8	8 593.17871	0.24	−1	j,a	8 642.34526	0.43	−1	j		8 840.04549	0.24	−1	j,a
10	3	7	8 686.90064	0.10	−1	j	8 744.81582	0.08	−1	j,a		8 940.59265	0.37	−1	j,a
10	4	7	8 719.84405	0.12	−1	j,a	8 768.83885	0.20	−1	j,a		8 968.65415	0.29	−1	j,a
10	4	6	8 762.22283	0.27	−1	j,a	8 807.71838	0.15	−1	j,a		9 016.22840	0.80	−1	j
10	5	6	8 859.76147	0.23	−1	j,a	8 894.95898	0.15	−1	j		9 094.22390	0.20	−1	j,a
10	5	5	8 862.24945	0.35	−1	j	8 901.99142	0.09	−1	j,a					
10	6	5	9 003.96945	0.80	−1	j	9 035.69754	0.20	−1	j		9 234.67413	0.37	−1	j,a
10	6	4					9 035.78522	0.18	−1	j		9 235.45197	0.37	−1	j,a
10	7	4	9 172.66682	1.00	1	a	9 197.45514	0.40	−1	j		9 377.08612	1.04	1	a
10	7	3	9 172.73456	1.01	1	a	9 197.31197	0.23	−1	j,a					
10	8	3	9 367.98192	0.99	2	e,a	9 403.03113	0.40	−1	j		9 571.37750	1.02	1	a
10	8	2	9 367.98192	0.99		d	9 403.01507	0.45	−1	j,a					
10	9	2					9 551.36555	1.07		d		9 751.64756	1.02	1	a
10	9	1					9 551.36555	1.07	1	a		9 751.64756	1.02		d
10	10	1	9 742.80239	1.10	1	a	9 783.24165	0.72		d					
10	10	0	9 742.80239	1.10		d	9 783.24165	0.72	2	a					
11	0	11	8 478.78402	0.13	−1	j,a	8 530.58419	0.40	−1	j		8 729.67158	0.38	−1	j,a
11	1	11	8 478.87945	0.13	−1	j,a	8 530.59642	0.45	−1	j,a		8 729.68222	0.50	−1	j
11	1	10	8 669.96417	0.06	−1	j,a	8 719.46789	0.26	−1	j		8 918.28009	1.00	1	a
11	2	10	8 669.12118	0.15	−1	j,a	8 720.23627	0.16	−1	j,a		8 918.51321	1.03	1	a
11	2	9	8 831.35058	0.10	−1	j,a	8 882.66345	0.15	−1	j,a		9 079.85432	0.35	−1	j,a
11	3	9					8 883.03745	0.24	−1	j,a		9 076.57778	0.30	−1	j
11	3	8	8 954.07786	0.15	−1	j	9 007.83016	0.33	−1	j,a		9 205.75342	0.35	−1	j,a
11	4	8					9 022.49294	0.23	−1	j,a		9 223.38417	0.70	−1	j
11	4	7	9 035.75414	0.71	2	a	9 086.44760	0.60	−1	j		9 292.69667	0.56	−1	j,a
11	5	7					9 154.44999	0.32	−1	j,a					
11	5	6	9 128.79102	0.99	2	e,a	9 170.24304	0.24	−1	j,a		9 374.78190	0.24	−1	j,a
11	6	6					9 296.35661	0.24	−1	j,a					
11	6	5	9 262.70831	0.99	2	e,a	9 297.19338	0.24	−1	j,a		9 500.21718	0.80	−1	j,a
11	7	5					9 457.53262	0.35	−1	j,a					
11	7	4	9 433.41853	0.71	3	e,a	9 457.15002	0.55	−1	j					
11	8	4	9 630.39792	1.05		d						9 836.46540	6.43		d
11	8	3	9 630.39792	1.05	1	a						9 836.46540	6.43	1	e
11	9	3					9 811.33935	1.00	2	e,a		10 013.04835	0.73		d
11	9	2					9 811.33935	1.00		d		10 013.04835	0.73	2	a
11	10	2	10 006.58121	1.12		d	10 048.42203	0.74	2	a					
11	10	1	10 006.58121	1.12	1	a	10 048.42203	0.74		d					
11	11	1	10 244.80733	1.13		d									
11	11	0	10 244.80733	1.13	2	e,a									

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	200 or	20^+0			101 or	20^-0			002 or	11 0		
12	8	4	9 915.67165	1.06		d								
12	9	4					10 094.25441	5.02	1	a				
12	9	3					10 094.25441	5.02		d				
12	10	3	10 292.45858	1.09	1	a								
12	10	2	10 292.45858	1.09		d								
12	11	1					10 559.76150	0.86	2	a				
12	12	1	10 772.25795	1.26	2	e,a								
12	12	0	10 772.25795	1.26		d								
13	0	13	8 940.55162	0.15	−1	j,a	8 993.46495	0.40	−1	j	9 194.17355	0.40	−1	j
13	1	13	8 940.55222	0.72	−1	j,a	8 993.46333	0.19	−1	j,a	9 194.17379	0.37	−1	j,a
13	1	12	9 167.42019	0.24	−1	j,a	9 219.17744	0.45	−1	j	9 418.98489	0.71	3	e,a
13	2	12	9 167.50000	1.00	−1	j	9 219.10238	0.33	−1	j,a				
13	2	11					9 416.30742	0.30	−1	j	9 615.06245	1.00	2	e,a
13	3	11					9 416.95179	0.15	−1	j,a	9 615.89050	5.13	1	e
13	3	10					9 578.39670	0.80	−1	j	9 783.75903	0.71	3	e,a
13	4	10					9 587.30465	0.32	−1	j,a				
13	4	9	9 649.37070	6.12	1	e	9 712.55986	1.16	1	a	9 909.24095	1.01	2	e,a
13	5	9					9 737.39594	0.51	−1	j,a				
13	5	8	9 740.14906	1.00	1	a					9 995.11003	1.01	2	e,a
13	6	8					9 886.09405	0.72	2	a				
13	6	7	9 858.00769	0.72	3	e,a					10 104.30248	0.72	4	e,a
13	7	7					10 048.15472	0.72	4	e,a				
13	7	6	10 025.36732	0.60	3	a								
13	8	5	10 223.64359	1.07	2	e,a								
13	10	4	10 600.14869	0.78		d	10 645.42610	6.64	1	e				
13	10	3	10 600.14869	0.78	3	e,a	10 645.42610	6.64		d				
13	11	3	10 840.23115	1.18		d								
13	11	2	10 840.23115	1.18	2	e,a								
13	12	2	11 083.10653	1.30		d	11 104.86349	1.32	1	a				
13	12	1	11 083.10653	1.30	1	a								
14	0	14	9 197.37590	1.00	−1	j	9 251.04067	0.59	−1	j,a	9 452.48992	1.05	1	a
14	1	14	9 197.37526	0.62	−1	j,a	9 251.04100	2.00	−1	j	9 452.39211	0.41	−1	j,a
14	1	13					9 494.68677	0.42	−1	j,a	9 695.40334	1.03	1	a
14	2	13	9 442.36817	1.02	1	a	9 494.68775	0.30	−1	j	9 695.31784	0.99	3	e,a
14	2	12					9 709.39858	0.38	−1	j,a	9 909.16120	5.22	1	e
14	3	12	9 658.22410	0.99	2	e,a								
14	3	11					9 893.58855	0.08	−1	j	10 099.01293	1.07	1	a
14	4	11	9 846.21025	1.00	1	a	9 896.69380	6.19	1	e	10 094.85453	0.72	3	e,a
14	4	10					10 042.20096	1.07	1	a				
14	5	10	10 008.79225	0.74	2	a	10 059.05698	3.09	−1	g,a	10 266.81884	1.09	1	a
14	5	9					10 133.01085	1.07	1	a	10 337.35586	1.12	1	a
14	6	9	10 181.87420	1.04	2	e,a					10 422.00088	0.74	6	e,a
14	6	8					10 230.67448	0.73	5	e,a				
14	7	8									10 594.17602	0.73	3	e,a
14	7	7					10 376.92305	0.61	−1	g,a				
14	8	7									10 763.84200	6.77	1	e
14	8	6					10 523.52714	0.76	2	a				
14	10	5	10 929.11750	3.97	2	e,a								
14	10	4	10 929.11750	3.97		d								
14	11	4	11 170.62163	1.16	1	a								
14	11	3					11 202.83848	6.71	1	a				
14	13	1					11 682.82493	1.66	1	a				
15	0	15	9 471.45055	0.75	3	e,a	9 525.92583	0.40	−1	j	9 728.41594	0.60	5	e,a
15	1	15					9 525.92599	0.35	−1	j,a				
15	1	14	9 734.35649	1.07	1	a	9 787.38010	5.08	1	e	9 988.70356	1.07	1	a
15	2	14					9 787.37670	0.36	−1	j,a	9 989.04179	1.06	2	e,a
15	2	13	9 967.15843	0.78	3	e,a	10 019.27135	0.40	−1	j	10 219.60186	1.08	2	e,a
15	3	13	9 967.38615	1.19	1	a	10 019.25290	0.38	−1	j,a				
15	3	12	10 168.04277	1.03	1	a	10 221.53730	3.60	−1	g				
15	4	12	10 171.76977	1.14	1	a	10 223.76814	1.14	1	a				
15	4	11	10 331.64614	1.03	1	a					10 593.27472	0.73	3	e,a
15	5	11					10 399.77543	0.61	3	a				
15	5	10	10 452.68682	1.09	2	e,a					10 720.82315	0.60	4	e,a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	200 or 20^+0				101 or 20^-0				002 or 11 0			
15	6	10					10 561.73258	0.76	2	a	10 772.93490	7.11	1	e
15	6	9	10 552.81940	6.23	1	e					10 811.02929	1.02	2	e,a
12	0	12	8 701.04500	1.50	−1	j	8 753.24941	0.33	−1	j,a	8 953.16005	0.90	−1	j
12	1	12	8 701.04648	0.37	−1	j,a	8 753.22920	0.45	−1	j,a	8 953.15987	0.50	−1	j,a
12	1	11	8 909.05180	0.15	−1	j,a	8 960.78803	0.23	−1	j,a	9 159.98796	0.71	2	a
12	2	11	8 909.81648	0.25	−1	j	8 961.13575	0.25	−1	j	9 160.06494	1.00	2	e,a
12	2	10	9 090.59427	0.20	−1	j	9 141.59622	0.27	−1	j,a	9 342.21245	1.00	1	a
12	3	10	9 090.88971	0.54	−1	j,a	9 141.37257	0.20	−1	j,a	9 339.32370	1.00	1	a
12	3	9					9 288.39745	0.23	−1	j,a	9 486.86189	0.98	2	e,a
12	4	9	9 246.27866	1.01	1	a	9 295.64684	0.51	−1	j,a	9 497.92946	0.99	2	e,a
12	4	8					9 404.10017	1.07	1	a	9 591.49727	0.98	3	e,a
12	5	8	9 375.95592	0.59	3	a	9 435.56112	0.40	−1	j	9 638.95440	6.14	1	e
12	5	7					9 464.60342	0.08	−1	j,a				
12	6	7	9 547.81839	0.70	4	e,a	9 580.07650	0.50	−1	j	9 784.01486	0.70	4	e,a
12	6	6					9 583.27629	0.33	−1	j,a				
12	7	6	9 716.54102	0.99	2	e,a					9 923.20277	0.99	2	e,a
12	7	5	9 717.42638	1.07	1	a	9 740.39797	0.46	−1	j,a				
12	8	5	9 915.67165	1.06	1	a								
15	7	9					10 729.71837	0.75	2	a	10 951.28087	1.19	1	a
15	7	8									10 951.45356	1.09	1	a
15	8	8					10 875.75901	3.93	2	e,a				
15	8	7					10 875.55240	6.28	1	e	11 117.03796	1.06	1	a
15	9	7					11 078.33527	1.12	1	a				
15	10	5	11 279.80928	1.18	3	e,a					11 495.26910	6.39	1	e
15	11	4	11 521.79888	5.04	1	a								
16	0	16	9 762.63607	1.05	2	a	9 818.03407	0.64	−1	j,a	10 021.54308	1.09	1	a
16	1	16	9 762.69542	0.76	3	e,a	9 818.03755	2.20	−1	j	10 021.65922	1.08	3	e,a
16	1	15					10 097.18225	0.77	−1	j,a				
16	2	15	10 043.43172	0.79	3	e,a	10 097.18100	3.00	−1	j	10 299.49596	1.08	2	e,a
16	2	14					10 345.96721	0.75	4	e,a				
16	3	14	10 293.47767	1.10	1	a					10 547.31916	1.07	2	e,a
16	3	13					10 565.32560	5.01	1	a				
16	4	13	10 514.39392	1.02	3	a					10 766.65833	1.05	2	e,a
16	4	12					10 751.96328	0.78	2	a				
16	5	12					10 754.32460	6.34	1	e	10 955.31689	5.01	1	a
16	5	11					10 905.11180	2.20	−1	g				
16	6	11	10 871.83084	1.08	2	a					11 144.02350	0.78	3	e,a
16	6	10					10 992.93352	1.16	2	e,a				
16	7	9					11 106.40827	1.09	1	a				
16	8	9									11 490.56960	7.38	1	e
16	10	7									11 868.78230	6.37	1	e
16	12	4					12 170.08753	4.11	2	e,a				
17	0	17	10 071.02632	1.26	1	a	10 127.28250	1.00		d	10 331.80966	1.05	3	e,a
17	1	17	10 071.02632	1.26		d	10 127.28250	1.00	−1	j				
17	1	16					10 424.44000	3.00	−1	j	10 627.23923	1.09	3	e,a
17	2	16					10 424.01324	0.69	3	a				
17	2	15	10 636.17846	1.11	1	a	10 689.44040	14.30	−1	g	10 891.47459	1.09	2	e,a
17	3	15					10 689.44138	0.82	2	a				
17	3	14	10 872.64309	0.80	3	a	10 924.82632	1.47	−1	g,a				
17	4	14					10 925.48206	1.17	2	a				
17	4	13									11 326.45323	1.05	3	e,a
17	5	13					11 132.26705	1.11	3	e,a				
17	5	12	11 235.39007	1.11	2	a					11 504.31130	6.34	1	e
17	6	12					11 316.46248	1.11	2	a				
17	6	11	11 355.78764	1.08	1	a					11 620.27105	1.14	1	a
18	0	18	10 396.34310	1.27		d	10 453.57585	1.14	1	a	10 659.25545	1.13		d
18	1	18	10 396.34310	1.27	1	a	10 453.57585	1.14		d	10 659.25545	1.13	3	e,a
18	1	17					10 767.78050	1.09	−1	g,a				
18	2	17	10 712.39420	0.83	2	a	10 767.78200	3.30	−1	g	10 971.92676	1.11	3	e,a
18	2	16					11 049.60609	0.81	−1	g,a				
18	3	16	10 996.01232	1.14	1	a	11 049.58119	1.62	−1	g,a				
18	3	15					11 301.82012	1.06	−1	g,a				
17	8	9	11 606.64608	1.14	1	a								

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	200 or 20^+0				101 or 20^-0				002 or 11 0			
18	4	15									11 503.37432	1.11	1	a
18	4	14					11 523.22553	1.13	2	a	11 723.14699	1.74	1	a
18	5	14									11 725.99604	1.09	2	a
18	5	13					11 709.59939	1.20	1	a				
18	6	13	11 669.79109	1.23	2	a					11 916.46575	1.27	1	a
18	6	12									12 047.27192	1.20	1	a
19	0	19	10 738.57169	1.16	1	a	10 796.81431	0.88		d	11 003.71316	1.14	3	e,a
19	1	19					10 796.81431	0.88	3	e,a	11 003.71316	1.14		d
19	1	18					11 128.39137	1.18		d				
19	2	18					11 128.39137	1.18	1	a				
19	2	17					11 426.30580	4.90	−1	g,?	11 630.08510	1.18	1	a
19	3	17					11 426.32000	1.08	−1	g,a				
19	3	16									11 897.40367	1.09	2	a
19	4	16					11 694.17123	1.10	−1	g,a	11 896.59392	1.83	1	a
19	4	15									12 133.12662	1.10	1	a
19	5	14									12 328.93352	1.09	1	a
19	7	13					12 339.90678	1.20	1	a				
20	0	20					11 156.92409	1.31	2	e,a	11 365.05919	1.19		d
20	1	20					11 156.92409	1.31		d	11 365.05919	1.19	1	a
20	1	19					11 505.63869	1.33	1	a	11 712.06830	6.66		d
20	2	19					11 505.63869	1.33		d	11 712.06830	6.66	1	e
20	2	18					11 819.34050	5.90	−1	g,?				
20	3	18					11 819.34050	5.90	−1	g	12 024.25863	1.17	1	a
20	3	17					12 102.66155	1.32	−1	g,a	12 305.73578	1.32	1	a
20	4	17									12 306.00585	1.14	1	a
20	4	16									12 558.23288	2.28	1	a
20	5	16									12 558.64257	1.17	1	a
20	5	15					12 577.64267	1.24	1	a				
20	6	15									12 782.10004	1.17	2	a
20	7	13					12 872.01204	1.18	1	a				
20	8	13									13 192.49329	1.87	2	a
21	0	21					11 533.64536	0.85		d	11 743.03943	1.19	1	a
21	1	21					11 533.64536	0.85	3	e,a	11 743.03943	1.19		d
21	1	20					11 899.60080	1.20		d				
21	2	20					11 899.60080	1.20	−1	g,a				
21	2	19					12 228.72193	1.39		d	12 434.75588	1.14	1	a
21	3	19					12 228.72193	1.39	−1	g,a				
21	3	18					12 527.68510	1.03		d	12 731.38508	5.03	1	a
21	4	18					12 527.68510	1.03	−1	g,a	12 731.06704	1.86	1	a
21	4	17									12 997.41769	1.23	1	a
22	0	22					11 927.07908	1.73	2	e,a	12 138.03158	1.75		d
22	1	22					11 927.07908	1.73		d	12 138.03158	1.75	1	a
22	1	21					12 310.05549	1.03	2	a				
22	2	21					12 310.05549	1.03		d				
22	2	20					12 654.48183	1.72	−1	g,a				
22	3	20					12 654.48183	1.72		d	12 861.46442	3.06	1	a
22	3	19					12 967.82402	1.31	−1	g,a				
22	5	17					13 505.98627	1.39	1	a				
22	6	16					13 724.79183	1.33	1	a				
23	0	23					12 337.01814	1.21		d	12 549.42295	1.21	2	e,a
23	1	23					12 337.01814	1.21	2	e,a	12 549.42295	1.21		d
23	1	22					12 736.89031	1.40		d	12 946.95630	2.09	1	a
23	2	22					12 736.89031	1.40	2	e,a	12 946.95630	2.09		d
23	2	21					13 096.12898	3.05		d				
23	3	21					13 096.12898	3.05	−1	g,a				
23	3	20					13 423.97317	1.58		d				
23	4	20					13 423.97317	1.58	−1	g,a				
23	5	19					13 720.44584	5.16	1	a				
24	0	24					12 763.30375	1.37	−1	g,a				
24	1	24					12 763.30375	1.37		d	12 977.24281	1.90	1	a
24	1	23					13 179.97406	2.30	2	e,a				
24	2	23					13 179.97406	2.30		d	13 391.35217	1.52	1	a
24	2	22					13 553.61362	3.04	1	a				
24	3	22					13 553.61362	3.04		d	13 762.29244	3.04	1	a

TABLE 5. Term values for the 2ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	200 or 20^+0				101 or 20^-0				002 or 11 0			
24	3	21					13 895.97773	2.92	1	a				
24	4	21									14101.99261	2.05	1	a
25	0	25					13 205.83760	13.72		d				
25	1	25					13 205.83760	13.72	1	e				
25	1	24					13 639.20965	1.68		d	13 851.92932	1.41	2	e,a
25	2	24					13 639.20965	1.68	2	e,a	13 851.92932	1.41		d
25	2	23					14 026.67952	2.94		d				
25	3	23					14 026.67952	2.94	−1	g,a				
25	4	22					14 383.30220	5.30	−1	g				
26	0	26					13 664.50267	1.58	2	e,a				
26	1	26					13 664.50267	1.58		d	13 881.70520	8.19	1	e
26	1	25					14 114.46209	1.57	1	a	14 328.53779	5.06		d
26	2	25					14 114.46209	1.57		d	14 328.53779	5.06	1	a
26	2	24					14 515.15560	5.60	−1	g				
26	3	24					14 515.15560	5.60		d	14 728.38286	1.73	1	a
27	0	27					14 139.14751	2.24		d				
27	1	27					14 139.14751	2.24	1	a				
27	2	25					15 018.80089	5.46		d				
27	3	25					15 018.80089	5.46	1	a				
28	0	28					14 629.33023	5.07	1	a				
28	2	26					15 537.45460	5.45	1	a				

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 6. Term values for the $2\nu+\delta$ polyad of $H_2{}^{16}O$

J	K_a	K_c	050 or	00 5			130 or	10^+3			210 or	20^+0		
0	0	0	7 542.43660	4.88	3	e	8 273.97570	0.90	1	k	8 761.58200	0.90	1	k
1	0	1	7 566.01221	1.02	1	a	8 297.37480	0.60	2	k	8 784.65950	0.60	2	k
1	1	1	7 622.73380	10.21	2	e	8 323.29340	0.50	3	k	8 799.64110	0.60	3	k
1	1	0	7 629.08353	0.76	2	a	8 329.36750	0.90	2	k	8 805.15890	0.60	2	k
2	0	2					8 343.18160	0.50	3	k	8 829.53010	0.60	3	k
2	1	2	7 663.69870	6.28	2	e	8 364.05870	0.40	4	k	8 840.27590	0.50	3	k
2	1	1					8 382.24290	0.50	3	k	8 856.77820	0.60	3	k
2	2	1	7 828.73049	1.07	1	a	8 456.95150	0.40	4	k	8 899.83650	0.40	4	k
2	2	0	7 829.25059	1.01	1	a	8 457.76620	0.60	3	k	8 902.69810	0.50	4	k
3	0	3	7 681.29313	0.73	6	e,a	8 409.60320	0.50	3	k	8 894.03430	0.50	3	k
3	1	3					8 424.60730	0.50	4	k	8 900.49960	0.50	4	k
3	1	2	7 763.11363	1.05	4	e,a	8 460.76830	0.40	4	k	8 933.20540	0.60	4	k
3	2	2					8 527.32140	0.40	5	k	8 969.75930	0.40	5	k
3	2	1	7 902.88024	1.08	1	a	8 532.12310	0.40	5	k	8 976.54900	0.40	4	k
3	3	1					8 660.64910	0.60	4	k	9 057.76730	0.60	3	k
3	3	0	8 122.43917	1.04	3	e,a	8 660.73730	0.40	5	k	9 057.92400	0.40	5	k
4	0	4					8 494.66560	0.50	3	k	8 976.30240	0.60	3	k
4	1	4	7 805.63201	0.53	13	l,a	8 504.37140	0.40	4	k	8 979.65800	0.50	4	k
4	1	3					8 563.89420	1.70	3	k	9 033.02700	0.60	3	k
4	2	3	7 995.21227	0.73	2	a	8 620.26550	0.40	5	k	9 061.15320	0.40	4	k
4	2	2	8 002.51464	1.03	1	a	8 633.09570	0.40	5	k	9 077.35730	0.50	4	k
4	3	2	8 219.44360	1.01	2	e,a	8 756.53090	0.40	6	k	9 152.60240	0.40	6	k
4	3	1	8 219.67825	1.02	1	a	8 757.14080	0.40	5	k	9 153.64650	0.60	5	k
4	4	1	8 486.17785	0.64	3	a	8 929.44620	0.50	5	k	9 268.01360	0.90	1	k
4	4	0	8 486.17026	1.01	1	a	8 929.45380	0.80	4	k				
5	0	5	7 878.54857	0.46	15	l,a	8 596.89530	0.60	3	k	9 075.60410	0.60	3	k
5	1	5	7 905.81001	1.11	1	a	8 602.79150	0.60	3	k	9 077.17750	0.60	3	k
5	1	4	7 999.96001	0.60	7	e,a	8 690.10700	0.40	4	k	9 154.15910	0.40	4	k
5	2	4					8 735.08010	0.40	5	k	9 173.56810	0.50	5	k
5	2	3	8 129.11856	0.78	2	a	8 761.66090	0.40	5	k	9 204.64810	0.40	6	k
5	3	3	8 340.59185	1.24	1	a	8 876.34710	0.60	4	k	9 271.29640	0.60	5	k
5	3	2	8 341.48469	0.59	3	a	8 878.58650	0.40	5	k	9 275.07950	0.40	5	k
5	4	2	8 608.18988	1.29	1	a								
5	4	1	8 608.24408	1.19	1	a								
5	5	1	8 906.92402	0.56		d	9 257.21960	0.90	5	k				
5	5	0	8 906.92402	0.56	4	a	9 257.23790	0.90	4	k				
6	0	6	8 004.48535	1.03	1	a	8 715.98060	0.60	3	k	9 191.65910	2.00	3	k
6	1	6	8 025.11695	1.02	1	a	8 719.40560	0.50	3	k	9 192.64290	0.60	4	k
6	1	5					8 837.42730	0.60	4	k				
6	2	5	8 252.83437	0.61	5	e,a	8 870.98700	0.50	4	k	9 306.12160	0.50	4	k
6	2	4					8 917.09310	0.90	2	k				
6	3	4	8 485.61537	0.78	2	a	9 021.07019	0.41	7	k,a	9 414.25490	0.40	6	k
6	3	3	8 488.14622	1.19	1	a					9 423.64930	0.90	1	k
6	4	3	8 754.17674	0.62	3	a	9 193.90213	1.07	1	a	9 529.08130	12.10	1	e
6	4	2	8 754.37891	1.40	1	a								
6	5	2	9 054.28188	0.90	2	a	9 402.23440	0.40	8	k				
6	6	1	9 374.32638	0.64	3	a								
6	6	0	9 374.32638	0.64		d								
7	0	7	8 147.58478	0.60	3	a	8 851.85420	0.80	3	k	9 325.43870	0.60	3	k
7	1	7	8 162.72258	1.02	1	a	8 853.88400	0.90	2	k	9 325.11420	0.90	2	k,?
7	1	6	8 331.67109	0.61	3	a	9 003.74570	0.50	4	k	9 451.28030	2.00	3	k
7	2	6	8 414.43096	1.19	1	a					9 457.95710	0.90	2	k
7	2	5	8 463.41894	0.47	8	e,a	9 097.93372	0.63	6	k,a				
7	3	5	8 654.12309	1.19	1	a					9 567.77180	0.50	7	k
7	3	4	8 660.11387	1.08	1	a								
7	4	3	8 924.61625	1.38	1	a	9 363.46259	1.06	1	a				
7	5	3	9 225.77959	1.72	1	a	9 572.94970	0.40	7	k				
7	5	2	9 226.17517	0.79	2	a					9 842.80820	0.50	6	k
7	6	2	9 546.54997	0.78		d								
7	6	1	9 546.54997	0.78	2	a								
7	7	1	9 879.70553	0.93		d								

TABLE 6. Term values for the $2\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	050 or	00 5			130 or	10^+3			210 or	20^+0		
7	7	0	9 879.70553	0.93	2	a								
8	0	8					9 004.70290	0.60	2	k	9 476.36790	0.90	2	k
8	1	8	8 318.67754	0.54	4	a	9 006.03610	0.90	3	k	9 476.50600	0.90	2	k
8	2	7	8 597.21463	1.05	4	e,a	9 203.11570	0.60	4	k	9 628.38990	0.90	2	k
8	3	6	8 845.55800	0.61	3	a					9 753.92820	0.60	5	k
8	3	5	8 857.82280	1.56	1	a								
8	4	5	9 117.28571	1.13	1	a								
8	5	4	9 421.22358	0.64	3	a					10 031.37050	18.16	1	e
8	6	3	9 742.48438	0.84	3	a								
8	6	2	9 742.48438	0.84		d								
8	7	2	10 076.79599	1.12	1	a								
8	7	1	10 076.79599	1.12		d								
8	8	1	10 409.94293	1.17	1	a								
8	8	0	10 409.94293	1.17		d								
9	0	9	8 484.75527	0.62	3	a	9 174.68190	0.90	3	k	9 644.46850	0.90	3	k
9	1	9	8 492.84227	1.01	1	a	9 175.83240	2.80	2	k	9 644.81580	0.90	1	k
9	1	8	8 747.35193	1.10	1	a					9 814.77250	0.52	4	k,a
9	2	7	8 901.07008	1.10	1	a								
9	3	6	9 081.61237	0.57	4	a								
9	4	5	9 336.73949	1.07	1	a								
9	5	4	9 645.80988	1.08	1	a								
9	6	3	9 961.84398	0.82	2	a								
9	7	3	10 297.15538	1.19		d								
9	7	2	10 297.15538	1.19	1	a								
10	0	10	8 678.98795	1.27	1	a					9 830.16540	0.90	1	k
10	1	10	8 685.04799	0.62	3	a					9 830.84704	0.68	3	k,a
10	2	9	9 023.99364	0.76	3	a					10 024.70081	0.68	2	k,a
10	3	8	9 293.69001	1.07	1	a	9 809.14854	1.07	1	a	10 182.83895	1.05	1	a
10	4	7	9 570.54765	1.11	1	a					10 320.68700	0.60	4	k
10	5	6	9 884.17765	0.67	8	l,a								
10	7	4	10 540.65642	0.80	2	a								
11	0	11	8 890.77377	0.62	3	a					10 033.06062	1.03	2	a,?
11	1	11	8 895.19917	5.10	1	a					10 032.45410	0.90	1	k
11	1	10	9236.64523	1.14	2	a								
11	2	9	9430.47446	1.09	1	a								
11	3	8	9607.14309	1.11	1	a								
11	4	7	9844.32567	1.12	1	a								
11	6	5	10 469.57189	1.47	1	a								
12	0	12	9 120.33404	1.27	1	a								
12	1	12	9 123.57764	1.18	2	e,a								
12	1	11	9 507.40839	2.75	1	a								
12	2	11	9 529.84749	0.53	6	a								
12	3	10	9 832.63183	0.83	4	a								
13	0	13	9 367.38264	1.23	2	e,a								
13	1	12	9 795.53860	1.11	1	a								
14	1	14	9 635.01375	0.81	2	a	10 279.16105	1.48	1	a				
14	2	13	10 112.99060	0.81	3	a								
15	0	15	9 917.03222	0.82	2	a								
15	1	14	10 425.26429	0.81	2	a								
16	1	16	10 222.75565	1.18	1	a								
16	2	15	10 773.16963	0.82	2	a								
16	4	13	11467.96993	1.18	1	a								
17	0	17	10 543.83941	0.82	2	a								
17	1	16	11127.79418	1.47	1	a								
18	2	17	11511.11115	1.15	1	a								
J	K_a	K_c	031 or	10^-3			111 or	20^-1			012 or	11 1		
0	0	0	8 373.85210	0.67	2	k,a	8 807.00058	0.67	2	k,a	9 000.13650	0.90	1	k
1	0	1	8 397.48510	0.60	3	k	8 830.23180	0.50	3	k	9 023.49010	0.60	2	k
1	1	1	8 421.18569	0.52	3	k,a	8 844.53720	0.60	2	k	9 037.19850	0.90	3	k
1	1	0	8 427.36780	0.60	2	k	8 850.10680	0.90	2	k	9 042.83570	0.90	2	k

TABLE 6. Term values for the $2\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	031 or	$10^{-}3$			111 or	$20^{-}1$			012 or	11 1		
2	0	2	8 443.64823	0.33	7	k,a	8 875.30880	0.40	4	k	9 068.75110	0.50	3	k
2	1	2	8 462.46374	0.45	4	k,a	8 885.20710	0.50	4	k	9 078.28383	0.52	3	k,a
2	1	1	8 480.83927	0.45	5	k,a	8 903.49710	0.50	4	k	9 095.16400	0.50	3	k
2	2	1	8 549.96529	0.45	4	k,a	8 944.63260	0.60	3	k	9 135.84320	0.40	4	k
2	2	0	8 551.02413	0.35	6	k,a	8 945.96440	0.40	4	k	9 137.25440	0.50	4	k
3	0	3	8 510.37532	0.41	6	k,a	8 939.96360	0.40	5	k	9 133.58136	0.38	7	k,a
3	1	3	8 523.10867	0.30	9	k,a	8 945.66310	0.40	5	k	9 139.06960	0.50	4	k
3	1	2	8 560.14393	0.45	5	k,a	8 979.67480	0.40	5	k	9 172.50908	0.35	6	k,a
3	2	2	8 620.95235	0.38	8	k,a	9 014.02145	0.37	6	k,a	9 205.96930	0.50	5	k
3	2	1	8 625.99780	0.50	4	k	9 020.17450	0.40	6	k	9 212.46990	0.40	5	k
3	3	1	8 746.52774	0.38	6	k,a	9 098.39681	0.45	6	k,a	9 287.20500	0.50	5	k
3	3	0	8 746.64775	0.52	3	k,a	9 098.60980	0.50	4	k	9 287.43844	0.37	6	k,a
4	0	4	8 595.58629	0.32	8	k,a	9 022.33550	0.40	5	k	9 216.15290	0.40	6	k
4	1	4	8 603.49050	0.41	5	k,a	9 025.15130	0.50	4	k	9 218.85999	0.45	4	k,a
4	1	3	8 664.10414	0.32	8	k,a	9 079.71636	0.33	9	k,a	9 273.23620	0.50	5	k
4	2	3	8 714.61020	0.50	4	k	9 105.43140	0.40	6	k	9 298.21224	0.35	7	k,a
4	2	2	8 728.47301	0.31	8	k,a	9 121.51920	0.30	7	k	9 315.18390	0.50	4	k
4	3	2	8 843.24183	0.41	5	k,a	9 193.12330	0.50	4	k	9 383.11752	0.37	7	k,a
4	3	1	8 844.04993	0.38	6	k,a	9 194.53100	0.30	7	k	9 384.65000	0.50	5	k
4	4	1	9 006.59110	0.90	2	k	9 305.50350	0.60	3	k	9 490.95320	0.45	4	k,a
4	4	0	9 006.60270	0.67	4	k,a	9 305.52270	0.40	4	k	9 490.98526	0.53	4	k,a
5	0	5	8 697.99562	0.41	6	k,a	9 121.74360	0.50	5	k	9 316.19140	0.40	5	k
5	1	5	8 702.48357	0.62	4	k,a	9 123.03275	0.37	6	k,a	9 317.08550	0.50	4	k
5	1	4	8 791.00921	0.41	5	k,a	9 200.98510	0.50	5	k	9 394.97591	0.35	6	k,a
5	2	4	8 830.17285	0.33	8	k,a	9 218.04206	0.37	7	k,a	9 411.68780	0.50	5	k
5	2	3	8 858.60070	0.50	3	k	9 249.24240	0.40	6	k	9 444.69030	0.40	5	k
5	3	3	8 964.05460	0.40	5	k	9 310.99560	0.30	8	k	9 502.70100	0.40	6	k
5	3	2	8 967.10910	2.10	2	k	9 316.37300	0.40	5	k	9 508.22698	0.37	7	k,a
5	4	2	9 127.95803	0.41	6	k,a	9 424.37010	0.40	7	k	9 611.53740	0.40	5	k
5	4	1	9 128.09220	0.50	3	k	9 424.54430	0.40	6	k	9 611.80836	0.35	7	k,a
5	5	1	9 324.06556	0.41	5	k,a	9 563.99603	0.53	5	k,a	9 745.19930	0.90	3	k
5	5	0	9 324.10426	0.45	6	k,a	9 563.99580	2.80	3	k	9 745.19880	0.46	5	k,a
6	0	6	8 817.24372	0.43	6	k,a	9 238.33233	0.37	6	k,a	9 432.51340	0.50	4	k
6	1	6	8 819.66372	0.45	4	k,a	9 238.88190	0.50	4	k	9 433.50400	0.40	4	k
6	1	5	8 938.68295	0.34	10	k,a	9 340.97213	0.33	9	k,a	9 535.42800	0.50	5	k
6	2	5	8 966.79071	0.52	4	k,a	9 350.94940	0.40	6	k	9 545.36911	0.33	8	k,a
6	2	4	9 014.07348	0.37	5	k,a	9 399.99110	0.40	6	k	9 599.18130	0.50	4	k
6	3	4	9 108.54500	0.50	4	k	9 452.73250	0.40	5	k	9 645.24622	0.35	9	k,a
6	3	3	9 116.88102	0.33	7	k,a	9 465.10660	0.30	8	k				
6	4	3	9 273.62669	0.67	4	k,a	9 567.30990	0.50	4	k	9 756.30720	0.40	8	k
6	4	2	9 274.14685	0.35	6	k,a	9 568.20890	0.30	7	k	9 757.54980	0.50	5	k
6	5	2	9 470.21220	0.50	4	k	9 706.60130	0.50	6	k	9 891.15833	0.37	5	k,a
6	5	1	9 470.65531	0.35	10	k,a	9 706.60649	0.37	8	k,a	9 891.19680	0.60	3	k
6	6	1	9 692.49828	0.67	3	k,a	9 871.16430	0.90	3	k	10 047.51816	0.57	4	k,a
6	6	0	9 692.50019	0.42	5	k,a	9 871.16457	0.52	4	k,a	10 047.51920	2.70	2	k
7	0	7	8 953.42554	0.46	5	k,a	9 372.20590	0.60	4	k	9 566.89918	0.36	7	k,a
7	1	7	8 954.71519	0.38	6	k,a	9 372.47429	0.35	6	k,a	9 566.50140	1.70	3	k
7	1	6	9 104.93016	0.67	4	k,a	9 497.96040	0.40	6	k	9 692.27287	0.45	5	k,a
7	2	6	9 123.59432	0.32	8	k,a	9 503.24634	0.46	8	k,a	9 700.32760	0.50	5	k
7	2	5	9 199.66906	0.52	3	k,a	9 584.89900	0.40	7	k	9 776.24018	0.35	6	k,a
7	3	5	9 276.04899	0.33	9	k,a	9 615.94790	0.40	8	k	9 809.81210	0.50	6	k
7	3	4	9 294.37270	6.20	2	k	9 644.30910	0.50	6	k	9 836.47750	0.60	2	k
7	4	4	9 443.39020	0.33	9	k,a	9 734.09050	0.40	6	k	9 924.98380	0.90	3	k
7	4	3	9 445.16412	0.86	5	k,a	9 737.30960	0.40	7	k	9 929.01743	0.37	9	k,a
7	5	3	9 640.52090	0.35	7	k,a	9 873.22566	0.38	7	k,a	10 060.91150	0.70	4	k
7	5	2	9 638.45770	0.40	6	k	9 873.28550	0.50	5	k	10 061.12070	0.40	6	k
7	6	2	9 863.13656	0.57	5	k,a	10 037.13184	0.60	5	k,a	10 213.72280	0.70	4	k
7	6	1	9 863.13572	1.00	1	a	10 037.12860	5.76	3	e	10 213.72506	0.52	5	k,a
7	7	1	10 105.30647	0.57	3	k,a	10 232.29500	2.60	4	k	10 395.45640	0.90		d
7	7	0	10 105.30600	0.90	1	k	10 232.29500	2.60		d	10 395.45640	0.90	2	k
8	0	8	9 106.70786	0.47	5	k,a	9 523.47787	0.45	5	k,a	9 718.20360	0.90	2	k

TABLE 6. Term values for the $2\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	031 or	$10^{-}3$			111 or	$20^{-}1$			012 or	11 1		
8	5	4	9 834.83567	0.71	2	a	10 063.87950	0.50	5	k	10 254.42081	0.52	8	k,a
8	5	3	9 833.43181	0.38	9	k,a	10 064.24208	0.37	7	k,a	10 255.20050	0.50	6	k
8	6	3	10 057.62849	1.00	1	a	10 227.14790	0.70	4	k	10 404.09999	0.91	4	k,a
8	6	2	10 057.64592	0.52	4	k,a	10 227.02780	0.40	4	k				
8	7	2	10 300.53760	1.70	3	k	10 426.42760	0.60	4	k	10 587.95563	0.52	3	k,a
8	7	1	10 300.54008	0.42	6	k,a	10 426.42760	0.50	5	k	10 587.95570	3.30	1	k
8	8	1	10 551.81042	1.08		d	10 640.05400	2.90	2	k	10 786.81360	0.76	2	a
8	8	0	10 551.81042	1.08	1	a	10 640.05850	0.90	2	k	10 786.81360	0.76		d
9	0	9	9 277.20974	0.57	4	k,a	9 692.21430	0.50	3	k	9 887.66152	0.47	4	k,a
9	1	9	9 277.47856	0.39	6	k,a	9 692.60492	0.46	4	k,a	9 887.75250	0.90	1	k
9	1	8	9 487.84825	0.67	3	k,a	9 861.63050	0.50	3	k	10 056.76390	0.60	3	k
9	2	8	9 494.68515	0.42	6	k,a	9 864.45900	0.50	4	k	10 056.48780	0.70	3	k
9	2	7	9 630.12870	0.98	2	e,a	9 992.97660	0.50	4	k	10 187.41355	0.43	8	k,a
9	3	7	9 676.38091	0.35	8	k,a	10 005.08149	0.37	6	k,a	10 201.02630	0.90	6	k
9	3	6	9 731.67818	1.00	1	a	10 074.68970	0.50	5	k	10 274.56496	0.46	7	k,a
9	4	6	9 852.74860	0.58	3	a	10 136.83970	0.40	6	k				
9	4	5					10 155.67762	0.50	5	k,a	10 353.02790	0.90	3	k
9	5	5	10 052.95819	1.00	1	a	10 278.37430	0.40	5	k	10 471.48890	0.60	3	k
9	5	4					10 279.85650	0.50	4	k	10 473.85790	0.60	5	k
9	6	4	10 275.91160	0.72	2	a	10 441.17741	0.40	5	k,a				
9	6	3	10 275.85047	1.05	1	a	10 440.83600	1.00	2	k	10 618.53063	1.00	1	a
9	7	3	10 519.22563	0.59	3	a	10 643.91770	0.80	5	k	10 804.13528	1.00		d
9	7	2					10 643.91480	7.07	2	e	10 804.13528	1.00	1	a
9	8	2	10 770.06619	1.01	1	a	10 859.12770	0.90	1	k	11 002.10421	1.01		d
9	8	1	10 770.06619	1.01		d	10 859.12780	1.00	2	k	11 002.10421	1.01	1	a
9	9	1									11 220.89557	1.08		d
9	9	0									11 220.89557	1.08	1	a
10	0	10	9 465.00049	0.46	4	k,a	9 878.80370	0.50	3	k	10 074.34840	1.00	1	k
10	1	10	9 465.08417	0.90	3	k,a	9 877.81280	0.60	3	k	10 074.46200	0.90	1	k
10	1	9	9 703.96950	0.71	2	a	10 068.88028	0.46	4	k,a				
10	2	9	9 707.81682	1.00	1	a	10 068.08380	0.70	3	k	10 263.84307	0.72	2	a
10	2	8	9 872.59967	0.52	5	k,a	10 224.78957	0.40	5	k,a	10 417.85520	5.15	1	e
10	3	8	9 908.51970	1.01	1	a	10 229.02450	0.60	4	k	10 426.59044	1.00	1	a
10	3	7	9 987.72168	0.70	4	e,a	10 338.21443	0.50	6	k,a				
10	4	7	10 095.31912	1.00	1	a	10 371.19010	0.70	5	k	10 567.73565	1.02	2	e,a
10	4	6	10 114.14161	0.71	3	e,a	10 404.67680	0.40	5	k				
10	5	6					10 516.22920	0.50	4	k	10 711.75415	1.00	1	a
10	5	5	10 294.34849	0.70	3	e,a	10 520.71738	0.60	4	k,a				
10	6	4	10 517.59247	1.03	1	a	10 678.43070	0.50	4	k,a				
10	7	4	10 761.10088	0.54	4	a	10 884.55620	9.97	1	e				
10	7	3	10 761.10088	0.54		d	10 884.56060	0.90	2	k				
10	8	3	11 081.13737	5.01		d	11 101.44520	10.06	1	e				
10	8	2	11 011.13737	5.01	1	a	11 101.44440	7.81	3	e				
10	9	2	11 357.09297	1.01		d								
10	9	1	11 357.09297	1.01	1	a								
11	0	11	9 670.14691	0.70	3	e,a	10 081.44740	0.90	2	k	10 278.41466	0.73	2	a
11	1	11	9 670.07147	0.50	5	k,a	10 081.41513	0.70	3	k,a	10 278.42470	5.22	2	e
11	1	10	9 936.88379	0.71	3	e,a	10 294.58020	0.70	3	k	10 487.96651	1.00	1	a
11	2	10	9 938.86190	0.52	6	e,a	10 292.35080	0.90	3	k				
11	2	9	10 135.07964	0.98	2	e,a	10 467.61180	0.70	4	k	10 664.66628	1.00	1	a
11	3	9	10 159.12104	0.70	3	e,a	10 471.38050	0.60	4	k				
11	3	8	10 273.80949	5.02	1	a					10 795.67892	0.99	2	e,a
11	4	8	10 356.52446	0.73	2	a	10 626.25723	0.48	8	k,a				
11	4	7	10 390.49066	1.07	1	a					10 883.51322	1.00	1	a
11	5	7	10 559.27556	0.71	2	a	10 776.73456	0.50	5	k,a				
11	5	6	10 560.63926	1.08	1	a					10 988.11417	1.00	1	a
11	6	6	10 782.05465	1.01	1	a	10 940.80730	0.60	3	k				
11	7	5	11 026.08126	1.07	1	a	11 148.82946	0.89	4	k,a				
11	8	4					11 366.78760	2.90	1	k				
11	8	3					11 366.79040	8.37	2	e				
12	0	12	9 892.86904	0.69	3	k,a	10 301.73989	0.53	3	k,a	10 500.06775	1.04	1	a

TABLE 6. Term values for the $2\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	031 or	$10^{-}3$			111 or	$20^{-}1$			012 or	11 1		
12	1	12	9 892.45547	1.01	1	a	10 301.45680	0.70	2	k	10 499.81409	1.02	1	a
12	1	11	10 187.03428	0.59	3	a	10 532.25845	0.69	5	k,a				
12	2	11	10 187.61713	0.74	2	a	10 533.70525	0.69	4	k,a	10 729.98714	1.00	2	e,a
12	2	10	10 412.54110	0.98	2	a	10 731.08177	0.90	4	k,a				
12	3	10	10 428.47556	1.16	1	a	10 731.51600	1.00	1	k	10 926.76670	0.99	2	e,a
12	3	9	10 574.99360	1.14	2	e,a	10 887.61690	0.71	3	k,a				
12	4	9	10 638.92957	1.08	1	a								
12	4	8	10 695.25882	1.05	1	a	10 981.49733	0.69	3	k,a				
12	5	7					11 078.88707	0.68	4	k,a				
12	6	7	11 069.44092	5.02	1	a								
12	6	6	11 071.47188	0.73	2	a	11 224.94515	1.52	−1	g,a				
12	7	5	11 313.36358	1.08	1	a								
13	0	13					10 539.78960	1.00	2	k	10 738.73031	1.01	1	a
13	1	13	10 132.35623	0.53	6	e,a	10 539.79060	0.70	2	k				
13	1	12	10 455.95733	1.12	1	a	10 791.41050	1.00	1	k	10 988.99885	1.01	1	a
13	2	12	10 453.99124	0.76	4	e,a	10 789.76270	0.90	1	k				
13	2	11	10 705.38493	1.08	1	a	11 004.18580	2.10	−1	g	11 203.62328	1.01	1	a
13	3	11	10 715.58736	1.07	1	a	11 009.05809	0.89	4	k,a				
13	3	10	10 893.20882	1.10	1	a					11 385.13565	0.71	3	e,a
13	4	10	10 941.30589	0.73	3	e,a	11 194.83525	0.98	−1	g,a				
13	5	9	11 155.40018	1.06	1	a	11 362.33463	5.00	1	a				
13	5	8									11 608.15695	3.54	2	a
13	6	8	11 379.54141	1.06	1	a	11 532.67290	0.90	1	k				
13	7	7	11 622.86080	1.06	2	a								
13	7	6									11 902.17711	0.99	2	a
14	0	14	10 387.09158	0.62	5	e,a	10 794.89920	0.90	2	k				
14	1	14	10 392.31046	1.01	1	a	10 794.90070	7.11	2	e	10 994.16373	0.77	2	a
14	1	13	10 733.31707	1.08	1	a	11 067.08360	0.90	1	k				
14	2	13	10 738.00625	0.79	2	a					11 265.39881	0.97	3	a
14	2	12	11 014.12912	0.61	3	a	11 301.69752	2.51	2	k,a				
14	3	11	11 228.25193	0.54	6	e,a	11 495.13635	3.48	3	e,a				
14	4	11									11 701.61512	1.06	1	a
14	4	10	11 373.27113	0.74	4	a								
14	5	9	11 526.94744	1.06	2	a	11 751.89580	8.66	1	e				
14	6	8					11 865.42756	1.60	−1	g,a				
14	7	7	11 955.69479	0.78	2	a								
15	0	15	10 661.68959	1.13	1	a	11 067.07500	3.00	1	k	11 267.61997	1.08	2	e,a
15	1	15	10 660.85417	0.63	6	e,a	11 067.07551	0.89	2	k,a				
15	1	14	11 036.72618	1.15	1	a					11 558.06136	1.07	1	a
15	2	14	11 039.93591	0.78	2	a	11 359.68363	1.29	2	k,a				
15	2	13									11 810.70204	1.05	2	a
15	3	13	11 347.28628	1.07	1	a	11 612.45620	1.90	−1	g				
15	3	12	11 579.66620	1.14	1	a					12 026.72035	1.06	1	a
15	4	12	11 603.25957	1.04	2	a	11 836.58953	1.70	−1	g,a				
15	5	11	11 836.34218	1.08	3	a	12 028.99960	1.11	2	a				
15	5	10									12 324.48831	5.02	1	a
15	6	10	12 063.92584	0.76	2	a								
16	0	16	10 953.11617	0.62	4	e,a	11 356.27444	1.01	2	k,a	11 557.13161	5.02	1	a
16	1	16	10 952.84407	0.75	2	a	11 356.27420	10.08	1	e	11 556.97480	1.06	2	a
16	1	15	11 356.00155	0.64	4	e,a	11 669.34973	0.76	−1	g,a				
16	2	15					11 669.33520	1.42	1	a	11 869.37930	5.02	1	a
16	2	14	11 680.44671	1.08	1	a	11 942.07110	1.20	2	a				
16	3	14	11 685.90727	1.11	1	a								
16	3	13	11 944.00077	0.78	2	a	12 177.70880	2.30	−1	g				
16	4	13	11 960.62564	5.06	1	a					12 379.23069	5.01	1	a
16	4	12	12 134.72476	1.29	2	a	12 373.04740	1.26	1	a				
16	5	11	12 284.50762	1.12	1	a								
16	6	11									12 761.60972	5.02	1	a
17	0	17	11 261.84962	1.17	1	a	11 662.42310	10.39	1	e	11 864.63197	1.07	1	a
17	1	17	11 261.54534	0.81	2	a	11 662.43093	2.52	2	k,a				
17	1	16	11 692.45186	5.06	1	a	11 995.91777	1.15		d	12 195.83326	1.10	2	a

TABLE 6. Term values for the $2\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	031 or	$10^{-}3$			111 or	$20^{-}1$			012 or	11 1		
17	2	16	11 690.67816	1.16	1	a	11 995.91777	1.15	−1	g,a				
17	2	15	12 036.69748	5.03	1	a								
17	3	15	12 043.34741	1.08	1	a	12 286.92585	1.01	−1	g,a				
17	3	14	12 323.80580	6.71	3	e								
17	4	14	12 335.15431	1.04	2	a	12 541.26996	2.17	−1	g,a				
17	4	13									12 951.48860	1.17	1	a
17	5	13	12 592.50902	1.10	2	a								
17	6	12					12 968.36988	5.07	1	a				
17	7	11	13 076.70599	1.42	2	a								
17	7	10									13 372.01508	1.13	1	a
18	0	18	11 587.35905	0.81	2	a	11 985.44143	0.80		d				
18	1	18					11 985.44143	0.80	−1	g,a	12 188.87291	1.09	2	a
18	1	17	12 046.29407	1.11	1	a	12 339.37985	2.09	−1	g,a				
18	2	17	12 045.86855	5.04	1	a	12 339.38150	3.20	−1	g				
18	2	16	12 409.35672	5.02	1	a	12 648.37601	2.24	−1	g,a				
18	3	15	12 716.71166	5.03	1	a								
18	4	15									13 117.04134	1.15	1	a
18	4	14	12 961.90700	1.10	1	a	13 154.08711	1.27	1	a				
18	5	13	13 132.86220	3.60	2	a								
18	6	12	13 304.75621	5.02	1	a								
19	0	19					12 325.24264	1.16		d				
19	1	19	11 930.44375	0.72	3	a	12 325.24264	1.16	−1	g,a				
19	1	18	12 417.64593	5.07	1	a	12 699.67134	1.28		d	12 900.91252	1.09	2	a
19	2	18	12 417.31152	1.13	2	a	12 699.67134	1.28	−1	g,a				
19	2	17									13 224.57238	1.58	1	a
19	3	17	12 788.00096	5.02	1	a								
19	4	16	13 135.19598	1.13	1	a								
19	4	15									13 765.05108	1.28	1	a
19	5	15	13 421.67313	3.57	2	a								
19	6	14	13 672.46403	3.20	3	a								
20	0	20	12 291.00190	1.13	1	a	12 681.81078	1.15	−1	g,a	12 887.58638	1.11		d
20	1	20					12 681.81078	1.15		d	12 887.58638	1.11	2	a
20	1	19	12 807.18620	5.03	1	a	13 076.27643	2.38	−1	g,a				
20	2	19	12 806.32808	5.13	1	a	13 076.27643	2.38		d	13 278.63525	1.09	2	a
20	2	18	13 203.40576	1.23	2	a								
20	3	17	13 548.38968	5.02	1	a	13 726.08118	5.12	1	a				
20	4	16	13 838.40449	5.03	1	a								
20	5	15	14 065.17479	3.59	2	a								
20	6	14	14 229.09924	5.07	1	a								
21	0	21	12 668.11938	5.07	1	a	13 055.13260	2.70		d	13 262.24535	5.04	1	a
21	1	21	12 667.72054	1.49	2	a	13 055.13260	2.70	−1	g				
21	1	20					13 469.97962	2.30		d	13 673.55228	5.05	1	a
21	2	20	13 212.91819	1.13	2	a	13 469.97962	2.30	−1	g,a				
21	2	19									14 036.22951	5.04	1	a
21	3	19	13 621.08801	5.03	1	a								
21	4	18	13 980.31609	5.03	1	a								
22	0	22	13 063.91020	1.20	2	a	13 444.45945	1.22	−1	g,a				
22	1	22	13 063.74415	5.17	1	a	13 444.45945	1.22		d	13 653.23962	1.75	1	a
22	1	21	13 637.17634	1.20	1	a	13 880.25612	2.52	−1	g,a				
22	2	21					13 880.25612	2.52		d				
22	2	20	14 042.46715	5.03	1	a								
22	3	19	14 439.35953	5.06	1	a								
22	5	17	15 036.49232	5.07	1	a								
22	7	15	15 416.89578	5.12	1	a								
23	0	23					13 850.22084	1.14		d	14 060.46470	5.05	1	a
23	1	23	13 477.07490	1.31	4	a	13 850.22084	1.14	−1	g,a				
23	1	22					14 307.33456	2.65		d				
23	2	22	14 079.37900	5.04	1	a	14 307.33456	2.65	−1	g,a				
23	3	21	14 493.69322	5.05	1	a								
24	0	24	13 908.65423	1.24	2	a	14 272.65261	1.54	−1	g,a				
24	1	24					14 272.65261	1.54		d				

TABLE 6. Term values for the $2\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	031 or	10^-3			111 or	20^-1		
24	1	23	14 539.63950	5.04	1	a	14 750.74752	2.76	−1	g,a
24	2	23					14 750.74752	2.76		d
25	0	25					14 711.82630	3.60		d
25	1	25	14 358.71381	3.62	2	a	14 711.82630	3.60	−1	g
25	1	24					15 210.86120	3.20		d
25	2	24	15 022.56608	5.28	1	a	15 210.86120	3.20	−1	g
25	3	23	15 431.31706	5.14	1	a				
26	0	26	14 830.51263	5.06	1	a				
26	1	25					15 687.19180	3.50	−1	g
26	2	25					15 687.19180	3.50		d
27	1	27	15 308.80747	5.08	1	a				

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 7. Term values for the 3ν polyad of $H_2{}^{16}O$

J	K_a	K_c	060 or 00 6				121 or 20^-2				003 or 21^-0			
0	0	0	8 869.95380	14.29	1	e	10 328.73090	0.90	1	m	11 032.40580	0.90	1	m
1	0	1	8 893.46480	8.71	1	e	10 351.99000	0.50	3	m	11 055.47160	0.60	2	m
1	1	1	8 998.09960	11.38	1	e	10 369.71620	0.60	2	m	11 065.77450	0.60	2	m
1	1	0	9 004.61700	9.25	2	e	10 375.59420	0.60	2	m	11 071.11250	0.60	2	m
2	0	2					10 397.21510	0.40	4	m	11 099.97360	0.40	4	m
2	1	2	9 038.46090	12.78	1	e	10 410.23160	0.50	4	m	11 106.58290	0.50	4	m
2	1	1					10 427.68630	0.40	4	m	11 122.56700	0.50	3	m
2	2	1					10 480.32290	0.50	3	m	11 153.27110	0.50	3	m
2	2	0					10 481.55460	0.40	4	m	11 154.86830	0.40	4	m
3	0	3	9 008.73880	7.51	1	e	10 462.21960	0.50	4	m	11 163.47670	0.40	5	m
3	1	3					10 470.34530	0.40	5	m	11 166.86320	0.40	5	m
3	1	2	9 139.07571	1.47	1	a	10 504.04540	0.50	5	m	11 198.42730	0.50	4	m
3	2	2					10 549.94380	0.40	5	m	11 222.53880	0.40	5	m
3	2	1	9 344.38004	1.42	1	a	10 555.72220	0.40	6	m	11 229.70580	0.50	5	m
3	3	1					10 650.03290	0.50	4	m	11 287.11980	0.60	4	m
3	3	0	9 628.77606	1.19	1	a	10 650.22330	0.60	3	m	11 287.43830	0.50	4	m
4	0	4					10 544.99178	0.38	6	m,a	11 244.47150	0.40	6	m
4	1	4					10 549.40090	0.50	5	m	11 245.89620	0.40	5	m
4	1	3					10 607.67320	0.40	6	m	11 296.74570	0.40	6	m
4	2	3					10 641.68970	0.50	5	m	11 313.46230	0.50	5	m
4	2	2					10 657.17180	0.40	7	m	11 331.55920	0.40	6	m
4	3	2	9 725.73788	1.56	1	a	10 745.13950	0.40	6	m	11 382.13280	0.40	6	m
4	3	1					10 746.14750	0.40	5	m	11 384.18510	0.50	5	m
4	4	1	10 049.28101	0.90	2	a	10 877.34490	0.90	3	m	11 467.56250	0.50	4	m
4	4	0					10 877.36950	0.50	4	m	11 467.61580	0.50	3	m
5	0	5	9 210.16115	0.90	2	a	10 644.62040	0.60	5	m	11 343.62460	0.40	6	m
5	1	5					10 646.78080	0.40	5	m	11 343.16140	0.40	5	m
5	1	4	9 377.22587	1.27	1	a	10 730.20360	0.40	5	m	11 414.79490	0.40	6	m
5	2	4					10 754.75300	0.40	6	m	11 424.99850	0.50	6	m
5	2	3	9 565.52032	1.16	1	a	10 785.65425	0.50	6	m,a	11 459.21180	0.50	5	m
5	3	3					10 863.67100	0.40	6	m	11 500.44780	0.40	6	m
5	3	2	9 847.22887	1.18	1	a	10 867.74690	0.50	5	m	11 507.57540	0.50	5	m
5	4	2					10 996.30880	0.40	8	m	11 587.40260	0.40	6	m
5	4	1	10 171.29165	1.34	1	a	10 996.54780	0.50	4	m	11 587.83570	0.50	4	m
5	5	1					11 158.50020	0.90	3	m	11 693.64300	0.60	3	m
5	5	0					11 158.49530	5.06	5	e	11 693.64380	8.40	2	m
6	0	6					10 761.04630	0.40	5	m	11 457.55740	0.60	2	m
6	1	6	9 400.64060	1.70	8	l	10 762.04620	0.60	5	m	11 458.61520	0.50	5	m
6	1	5	9 533.58280	6.40	5	l	10 872.35220	0.50	5	m	11 550.31070	0.40	5	m
6	2	5					10 888.31160	0.50	6	m	11 556.14500	0.50	6	m
6	2	4					10 939.54810	0.40	7	m	11 610.45106	0.37	8	m,a
6	3	4	9 991.01874	1.27	1	a	11 005.25820	0.50	6	m	11 641.21140	0.50	6	m
6	3	3					11 016.23570	0.40	7	m	11 658.49540	0.40	6	m
6	4	3	10 316.38200	1.28	1	a	11 140.07560	0.40	6	m	11 731.15190	0.60	5	m
6	4	2					11 140.14050	0.60	8	m	11 733.06220	0.40	6	m
6	5	2	10 666.25030	1.27	1	a	11 301.20600	0.70	3	m	11 840.42310	0.60	4	m
6	5	1					11 301.15020	0.50	5	m	11 840.48600	0.40	5	m
6	6	1					11 492.88140	0.50	5	m	11 963.85840	2.70	3	m
6	6	0					11 493.01790	0.60	3	m	11 963.85810	0.50	3	m
7	0	7	9 487.94880	1.17	1	a	10 894.48540	0.50	3	m	11 590.59270	0.50	4	m
7	1	7					10 894.82300	0.40	5	m	11 590.45690	0.50	3	m
7	1	6	9 714.76092	1.11	1	a	11 031.86410	0.50	5	m	11 702.55970	0.50	5	m
7	2	6					11 041.32040	0.40	6	m	11 706.22580	0.40	6	m
7	2	5					11 116.49570	0.50	5	m	11 782.47340	0.40	6	m
7	3	5					11 170.31900	0.40	7	m	11 803.36460	0.40	7	m
7	3	4					11 192.12800	0.50	5	m	11 836.22950	0.50	5	m
7	4	4					11 306.78690	0.40	7	m	11 898.35150	0.50	4	m
7	4	3					11 308.69624	0.50	5	m,a	11 904.20170	0.50	6	m
7	5	3					11 467.97200	0.40	5	m	12 009.57850	0.80	5	m
7	5	2	10 837.70831	1.30	1	a	11 467.63490	0.50	4	m	12 009.90050	0.50	4	m
7	6	2					11 662.33610	0.50	4	m	12 127.13280	0.50	3	m
7	6	1					11 662.44540	0.70	3	m	12 127.14300	1.70	3	m
7	7	1	11 564.21694	1.54		d	11 914.64590	0.70	3	m	12 276.49440	0.50	4	m
7	7	0	11 564.21694	1.54	1	a	11 914.64620	2.10	2	m	12 276.49380	2.10	2	m
8	0	8					11 045.39010	0.50	5	m	11 741.00880	0.50	4	m

TABLE 7. Term values for the 3ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	060 or	00 6			121 or	20^-2			003 or	21^-0		
8	1	8	9 697.22629	1.40	2	a	11 045.14718	0.50	5	m,a	11 741.00210	0.60	4	m
8	1	7					11 207.74880	0.40	6	m	11 871.62180	0.40	5	m
8	2	7					11 213.90350	0.50	4	m	11 877.54220	0.50	4	m
8	2	6					11 322.45120	0.50	5	m	11 972.45730	0.30	7	m
8	3	6	10 348.16648	1.11	1	a	11 354.57240	0.50	5	m	11 985.89550	0.50	4	m
8	3	5									12 038.67370	0.40	6	m
8	4	5					11 497.16260	0.60	5	m	12 088.28060	0.50	5	m
8	4	4					11 502.97190	0.40	7	m,a	12 102.73220	0.40	5	m
8	5	4									12 201.79200	0.60	3	m
8	5	3					11 659.29070	0.40	7	m				
8	6	3	11 395.48980	0.70	4	l								
8	6	2									12 314.45960	0.60	4	m
9	0	9					11 212.03327	0.69	4	m,a	11 908.90980	0.70	3	m
9	1	9					11 213.85593	0.53	6	m,a	11 908.89500	0.60	3	m
9	1	8	10 143.70032	1.49	1	a	11 399.99970	0.50	4	m	12 057.71130	0.50	5	m
9	2	8					11 397.13551	1.05	1	a	12 057.47690	0.50	4	m
9	2	7					11 537.97610	0.50	5	m				
9	3	7					11 560.20150	0.50	3	m	12 188.46840	0.90	3	m
9	3	6	10 574.32035	1.04	2	a					12 263.00270	0.60	4	m
9	4	6					11 710.30093	0.60	4	m,a	12 300.07350	0.40	5	m
9	5	5					11 873.48860	0.50	5	m	12 416.94510	0.50	4	m
10	0	10					11 398.12530	0.60	3	m	12 094.21780	0.60	3	m
10	1	10	10 069.20122	1.18	1	a	11 398.16410	2.80	2	m	12 094.21850	2.80	3	m
10	1	9					11 609.12759	1.11	1	a	12 260.97780	0.90	3	m
10	2	9	10 483.28901	1.41	2	a								
10	2	8					11 772.07017	5.02	1	a	12 400.97300	0.90	2	m
10	3	7									12 506.27910	0.60	5	m
10	4	6									12 579.27530	0.60	3	m
11	0	11	10 259.45464	1.08	2	a					12 296.93720	2.90	2	m
11	1	11					11 598.29460	0.90	2	m	12 296.94250	0.90	2	m
11	1	10	10 656.51034	1.48	1	a								
11	2	10									12 481.40650	0.90	4	m
12	0	12									12 517.01320	0.90	2	m
12	1	12	10 518.07060	1.18	1	a					12 517.02270	3.00	1	m
13	0	13	10 756.28972	1.28	1	a								
13	1	13									12 754.58910	0.90	1	m
J	K_a	K_c	041 or	10^-4			022 or	11 2			201 or	30^-0		
0	0	0	9 833.58450	0.90	1	m					10 613.35470	2.90	1	m
1	0	1	9 857.19780	0.60	2	m					10 636.50070	0.50	3	m
1	1	1	9 888.89285	0.53	3	m,a					10 647.41650	0.60	2	m
1	1	0	9 895.32980	0.60	2	m					10 652.60740	0.60	2	m
2	0	2	9 903.49144	0.47	5	m,a					10 680.54470	0.50	4	m
2	1	2	9 929.71270	0.50	3	m					10 687.62930	0.50	4	m
2	1	1	9 949.07617	0.45	4	m,a					10 703.08300	0.50	4	m
2	2	1	10 039.41980	0.60	2	m	10 670.63280	0.60	3	m	10 737.01320	0.50	3	m
2	2	0	10 040.30240	0.60	3	m					10 738.43160	0.40	4	m
3	0	3	9 970.75320	0.60	4	m	10 655.81360	0.50	3	m	10 743.62130	0.50	4	m
3	1	3	9 990.39918	0.41	5	m,a					10 747.26080	0.40	5	m
3	1	2	10 028.81700	0.60	3	m	10 698.77310	0.60	3	m	10 777.55870	0.40	5	m
3	2	2	10 110.53981	0.42	5	m,a					10 805.02430	0.40	5	m
3	2	1	10 114.79890	0.50	5	m					10 811.48330	0.50	5	m
3	3	1	10 265.82060	0.60	3	m					10 874.51600	0.40	4	m
3	3	0	10 265.90240	0.60	2	m	10 837.23720	1.07	1	a	10 874.77170	0.50	5	m
4	0	4	10 056.98760	0.42	6	m,a					10 824.12410	0.30	7	m
4	1	4	10 070.39650	0.60	3	m	10 742.86140	0.60	4	m	10 825.65930	0.40	6	m
4	1	3	10 133.66021	0.42	5	m,a					10 874.03870	0.40	6	m
4	2	3	10 204.49140	0.50	4	m					10 894.53590	0.40	6	m
4	2	2	10 216.46164	0.45	5	m,a					10 911.10120	0.40	6	m
4	3	2	10 362.56920	0.50	3	m					10 967.43820	0.40	6	m
4	3	1	10 363.12513	0.42	7	m,a					10 969.11660	0.40	7	m
4	4	1	10 559.53870	0.90	2	m	11 061.27350	0.50	4	m	11 060.29620	0.90	1	m
4	4	0	10 559.55880	0.90	2	m	11 061.29920	0.60	3	m	11 060.33390	0.50	4	m
5	0	5	10 160.65583	0.53	3	m,a	10 838.49225	1.06	1	a	10 921.68260	0.50	5	m
5	1	5	10 169.05845	0.47	5	m,a					10 922.25660	0.40	6	m

TABLE 7. Term values for the 3ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	041 or $10^{-}4$				022 or 11 2				201 or $30^{-}0$			
5	1	4	10 262.18920	0.60	3	m	10 924.03998	1.06	1	a	10 996.06460	0.50	3	m
5	2	4	10 320.58955	0.35	6	m,a					11 004.78310	0.40	6	m
5	2	3	10 345.90780	0.60	3	m					11 036.37650	0.40	7	m
5	3	3	10 483.42750	0.38	6	m,a					11 083.35950	0.40	7	m
5	3	2	10 485.54440	0.50	3	m					11 089.34680	0.40	5	m
5	4	2	10 680.98984	0.45	5	m,a	11 182.21660	0.50	5	m	11 176.88020	0.40	5	m
5	4	1	10 681.10330	0.60	3	m	11 182.41634	0.52	5	m,a	11 177.13150	0.40	7	m
5	5	1	10 911.28990	1.70	4	m					11 293.87120	0.30	7	m
5	5	0	10 911.31900	4.43	1	e					11 293.75670	0.50	4	m
6	0	6	10 281.05578	0.43	6	m,a					11 036.43730	0.40	6	m
6	1	6	10 286.13399	0.53	3	m,a	10 955.86203	1.06	1	a	11 036.65430	0.50	6	m
6	1	5	10 412.57340	0.47	5	m,a					11 129.88240	0.40	6	m
6	2	5	10 458.06280	0.90	3	m					11 134.03070	0.60	5	m
6	2	4	10 502.68673	0.52	4	m,a					11 185.34000	0.30	8	m
6	3	4					11 195.81059	1.03	1	a	11 221.59690	0.40	7	m
6	3	3	10 633.97601	0.55	8	m,a					11 236.58180	0.30	8	m
6	4	3									11 317.03820	0.50	6	m
6	4	2	10 827.02657	0.45	5	m,a	11 328.27210	0.50	5	m	11 318.54540	0.40	7	m
6	5	2									11 433.75210	0.50	5	m
6	5	1	11 057.88191	1.19	1	a					11 433.84300	0.50	6	m
6	6	1	11 312.23069	1.08		d	11 663.23884	1.08	1	a	11 575.15040	0.90	2	m
6	6	0	11 312.23069	1.08	1	a	11 663.23884	1.08		d	11 575.15470	0.50	5	m
7	0	7	10 418.10133	0.70	3	m,a					11 168.55350	0.50	5	m
7	1	7	10 421.04385	0.47	5	m,a					11 167.50520	0.40	5	m
7	1	6	10 582.77280	0.90	2	m	11 226.25978	1.05	1	a	11 281.49970	0.40	6	m
7	2	6	10 616.12441	0.52	5	m,a					11 283.14090	0.40	6	m
7	2	5	10 685.39120	0.90	2	m					11 355.19940	0.40	8	m
7	3	5	10 795.88208	0.74	2	a	11 361.00380	0.50	5	m	11 381.23220	0.40	8	m
7	3	4	10 809.31827	1.06	1	a	11 386.13253	0.74	2	a	11 410.56670	0.40	8	m
7	4	4									11 480.49870	0.40	8	m
7	4	3					11 499.42300	0.60	6	m	11 485.34690	0.50	6	m
7	5	3									11 597.34350	0.40	7	m
7	5	2									11 597.70810	0.50	5	m
7	6	2	11 483.15112	1.10	1	a					11 739.17330	0.40	6	m
7	6	1	11 483.15112	1.10		d					11 739.17400	1.70	3	m
7	7	1	11 752.27925	1.07	1	a	12 035.01037	1.07		d	11 862.10450	0.60	3	m
7	7	0	11 752.27925	1.07		d	12 035.01037	1.07	1	a	11 862.10710	2.90	2	m
8	0	8	10 571.95558	0.48	4	m,a					11 317.25620	0.50	5	m
8	1	8	10 573.60060	0.90	2	m	11 239.87759	1.06	1	a	11 317.88020	0.50	3	m
8	1	7	10 770.96395	0.69	4	m,a					11 449.51340	0.40	6	m
8	2	7	10 794.02320	0.90	2	m	11 407.05027	1.03	1	a	11 450.21260	0.60	5	m
8	2	6									11 555.12220	0.60	6	e
8	3	6					11 547.84270	0.40	6	m	11 561.14070	0.40	8	m
8	3	5	11 012.13523	1.06	1	a					11 609.56270	0.40	6	m
8	4	5									11 666.66060	0.50	7	m
8	4	4	11 192.66532	0.76	2	a					11 678.77693	0.37	8	m,a
8	5	4									11 784.42520	0.50	4	m
8	5	3									11 785.71010	0.45	6	m,a
8	6	3									11 926.46520	0.90	3	m
8	6	2									11 926.48510	0.60	4	m
8	7	2									12 052.36230	5.76	3	e
8	7	1									12 052.36350	0.50	4	m
9	0	9	10 742.80912	0.69	3	m,a					11 484.61120	0.60	5	m
9	1	9	10 743.65272	0.69	3	m,a					11 484.48930	0.50	3	m
9	1	8	10 976.01036	1.11	1	a	11 596.70581	1.04	1	a	11 634.98430	0.50	6	m
9	2	8	10 991.10229	0.76	2	a					11 634.94967	0.37	8	m,a
9	2	7					11 732.01787	1.05	1	a	11 755.76710	0.70	5	m
9	3	7	11 197.16287	0.74	2	a					11 761.36660	0.40	7	m
9	3	6	11 242.15879	1.08	1	a	11 826.24859	5.01	1	a	11 830.97250	0.50	5	m
9	4	6	11 412.38672	1.05	1	a					11 874.49311	0.50	9	m,a
9	4	5					11 921.16506	3.54	2	a	11 899.27864	0.60	6	m,a
9	5	5									11 994.67820	0.40	5	m
9	5	4									11 998.48300	0.60	5	m
9	6	4	11 895.87831	1.08	1	a					12 137.48510	0.40	4	m
9	6	3									12 137.61330	0.50	4	m

TABLE 7. Term values for the 3ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	041 or 10^-4				022 or 11 2				201 or 30^-0			
9	7	3	12 165.45277	1.07		d								
9	7	2	12 165.45277	1.07	1	a								
10	0	10	10 930.85571	0.59	4	m,a					11 668.72150	0.80	3	m
10	1	10					11 593.18328	0.75	2	a	11 668.72550	0.90	4	m
10	1	9	11 197.63349	0.75	2	a					11 836.76909	0.37	6	m,a
10	2	9									11 836.29260	0.70	4	m
10	2	8	11 371.58450	0.76	2	a					11 980.55930	0.37	7	m,a
10	3	8	11 432.56414	1.12	1	a					11 979.85430	0.60	6	m
10	3	7									12 071.87100	0.40	8	m
10	4	7					12 142.53842	1.04	1	a				
10	4	6	11 659.10105	5.01	1	a					12 145.91580	0.40	6	m
10	5	5									12 236.90185	1.41	1	a
11	0	11	11 136.43574	1.14	1	a	11 795.68087	1.05	1	a	11 870.06810	2.80	2	m
11	1	11	11 135.98329	0.77	2	a					11 870.07430	0.50	4	m
11	1	10					12 027.60256	1.06	1	a	12 056.25150	1.00	3	m
11	2	10	11 440.87190	0.76	2	a					12 056.20470	0.50	4	m
11	3	9	11 685.06020	1.05	2	a					12 216.99820	0.40	5	m
11	4	8	11 910.43761	1.03	2	a					12 353.46480	0.60	3	m
12	0	12	11 361.30606	1.20	1	a					12 088.61290	0.90	2	m
12	1	12	11 358.28489	1.24	1	a	12 015.45115	1.07	1	a	12 088.55540	0.70	2	m
12	1	11	11 696.97631	0.76	2	a					12 292.81900	0.60	3	m
12	2	11	11 692.95083	1.12	1	a	12 270.13052	5.01	1	a	12 292.79910	0.70	3	m
12	2	10	11 925.58263	0.75	2	a					12 467.95360	0.70	5	m
12	3	10					12 488.26237	1.03	2	a				
12	3	9	12 087.93664	1.05	2	a								
12	4	9	12 193.31540	5.05	1	a								
12	4	8	12 226.36463	1.09	1	a								
13	0	13	11 591.31920	5.04	1	a	12 254.83627	5.01	1	a	12 324.28020	2.90	2	m
13	1	13	11 598.16755	1.11	1	a					12 324.28530	0.90	2	m
13	1	12	11 955.52308	1.18	1	a	12 534.04184	5.01	1	a				
13	2	12	11 962.97525	1.11	1	a					12 546.58990	0.80	4	m
13	2	11					12 766.71318	5.01	1	a				
13	3	11	12 244.95788	5.01	1	a					12 738.40660	0.90	1	m
13	4	10	12 496.24744	1.07	1	a								
13	4	9					13 077.90041	5.01	1	a				
14	0	14	11 850.96176	0.83	2	a					12 577.00680	0.90	2	m,?
14	1	14	11 856.26659	5.04	1	a	12 505.50338	5.03	1	a	12 577.00820	2.90	2	m
14	1	13	12 245.75305	1.10	1	a								
14	2	13					12 808.55990	5.02	1	a				
14	2	12	12 540.28375	0.76	2	a								
14	3	11	12 751.63019	1.04	3	a								
14	4	11	12 823.49026	5.11	1	a								
14	4	10	12 911.64216	5.02	1	a								
14	5	9	13 103.88607	5.04	1	a								
15	0	15					12 776.01968	5.02	1	a				
15	1	15	12 135.72016	1.17	1	a								
15	1	14					13 098.06184	3.56	2	a				
15	2	14	12 557.10488	1.12	1	a								
15	2	13	12 869.57569	5.04	1	a								
15	3	13	12 882.22604	5.02	1	a								
15	4	12	13 162.78976	5.02	1	a								
15	5	11	13 425.77086	5.03	1	a								
16	0	16	12 417.56253	1.27	2	a					13 133.65007	0.98	2	m,a
16	1	16	12 411.60172	5.13	1	a					13 133.65000	3.00	1	m,?
16	1	15	12 876.29583	5.04	1	a								
16	2	15	12 882.19597	5.06	1	a								
16	2	14	13 214.20367	5.03	1	a								
16	3	14	13 224.81400	5.04	1	a								
16	3	13	13 483.60746	5.02	1	a								
16	4	12	13 668.14297	4.11	2	a								
17	0	17	12 727.03692	5.12	1	a								
17	1	17	12 724.91657	5.04	1	a								
17	1	16					13 743.36534	5.03	1	a				
17	2	15	13 573.87230	5.07	1	a								
17	3	15	13 584.07843	5.03	1	a								

TABLE 7. Term values for the 3ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	041 or $10^{-}4$				022 or 11 2			
18	0	18	13 054.29855	3.58	2	a				
18	1	18	13 053.40921	5.13	1	a				
18	1	17	13 577.31917	5.03	1	a				
18	2	17					14 086.47213	5.07	1	a
18	2	16	13 948.58862	1.27	1	a				
18	3	16	13 960.15941	5.13	1	a				
18	3	15	14 270.15648	5.04	1	a				
18	5	13	14 685.63133	5.12	1	a				
19	0	19					14 027.92142	5.03	1	a
19	1	19	13 399.85674	1.15	1	a				
19	2	18	13 953.59522	5.03	1	a				
19	4	16	14 705.04494	5.04	1	a				
20	0	20	13 762.96968	1.18	2	a				
20	1	19	14 350.77383	5.04	1	a				
20	3	17	15 111.96817	3.61	2	a				
20	4	16	15 396.30516	5.16	1	a				
21	1	21	14 144.86337	5.07	1	a				
21	2	20	14 764.99311	5.03	1	a				
22	0	22	14 548.11267	5.06	1	a				
22	1	21	15 198.25152	5.05	1	a				
23	1	23	14 970.49854	5.11	1	a				
24	0	24	15 415.87550	5.36	1	a				
25	1	25	15 881.65645	5.14	1	a				

J	K_a	K_c	220 or $20^{+}2$				300 or $30^{+}0$				102 or $21^{+}0$			
0	0	0	10 284.36700	2.90	1	m	10 599.68630	8.80	1	m	10 868.87570	0.90	1	m
1	0	1	10 307.44770	0.60	2	m	10 622.41720	0.60	2	m	10 891.67580	0.60	2	m
1	1	1	10 324.80550	0.80	3	m	10 633.55480	0.50	3	m	10 902.92800	0.50	3	m
1	1	0	10 330.73090	0.90	2	m	10 639.07350	0.60	2	m	10 908.13480	0.60	2	m
2	0	2	10 352.42360	0.60	2	m	10 666.47790	0.50	4	m	10 935.82030	0.60	2	m
2	1	2	10 365.17500	0.60	4	m	10 673.87740	0.50	4	m	10 943.32350	0.40	4	m
2	1	1	10 382.84910	0.50	3	m	10 689.61750	0.50	3	m	10 958.91890	0.60	3	m
2	2	1	10 439.09930	0.50	3	m	10 724.20810	0.40	4	m	10 992.45370	0.40	4	m
2	2	0	10 440.10560	0.60	2	m	10 725.48310	0.50	4	m	10 993.88060	0.50	4	m
3	0	3	10 417.22700	0.60	2	m	10 729.62230	0.50	5	m	10 999.02170	0.60	3	m
3	1	3	10 425.12390	0.60	4	m	10 733.55630	0.50	4	m	11 003.08090	0.50	4	m
3	1	2	10 460.05610	0.50	4	m	10 764.34790	0.50	4	m	11 033.93830	0.50	4	m
3	2	2	10 509.53480	0.60	4	m	10 792.70220	0.90	2	m	11 060.84770	0.50	5	m
3	2	1	10 513.74650	0.50	4	m	10 798.52720	0.40	5	m	11 067.34600	0.40	5	m
3	3	1	10 612.24550	0.50	4	m	10 862.65440	0.50	5	m	11 129.71830	0.80	6	m
3	3	0	10 612.38700	0.50	4	m	10 862.87290	0.50	5	m	11 129.98050	0.50	4	m
4	0	4	10 499.87440	0.60	3	m	10 810.16590	0.50	4	m	11 079.65370	0.50	3	m
4	1	4	10 504.03290	0.60	4	m	10 811.90360	0.50	4	m	11 081.52450	0.40	5	m
4	1	3	10 561.03140	0.90	3	m	10 861.68800	0.60	5	m	11 131.52300	0.50	4	m
4	2	3	10 598.53960	0.50	4	m	10 883.22590	0.40	5	m	11 150.78350	0.40	5	m
4	2	2	10 614.40100	0.50	4	m	10 898.07710	0.50	4	m	11 167.49800	0.50	5	m
4	3	2					10 955.97340	0.40	7	m	11 223.08670	0.40	6	m
4	3	1					10 957.42210	0.50	4	m	11 224.82980	0.50	5	m
4	4	1					11 048.38330	0.50	6	m	11 314.99390	0.40	5	m
4	4	0					11 048.41280	0.90	3	m	11 314.99060	0.50	5	m
5	0	5	10 599.23824	2.44	4	m,a	10 907.68330	0.80	6	m	11 177.35800	0.50	4	m
5	1	5	10 601.26660	0.60	4	m	10 908.36800	0.80	4	m	11 178.18740	0.40	8	m
5	1	4					10 979.34040	0.50	5	m	11 249.28830	0.40	6	m
5	2	4	10 712.11950	2.80	2	m,?	10 988.98630	0.40	6	m	11 261.31540	0.40	6	m
5	2	3	10 742.04990	0.40	5	m	11 023.39860	0.40	5	m	11 293.29660	0.40	6	m
5	3	3	10 824.97460	0.60	4	m	11 072.43940	0.40	6	m	11 338.71470	0.40	7	m
5	3	2					11 077.67010	0.60	5	m	11 345.72340	0.40	5	m
5	4	2					11 165.48540	0.60	7	m	11 432.32240	0.50	6	m
5	4	1					11 165.71980	0.50	5	m	11 432.37530	0.40	6	m
5	5	1					11 283.56540	0.90	4	m	11 546.93690	0.60	5	m
5	5	0					11 283.57680	0.50	5	m	11 546.92690	0.60	5	m
6	0	6	10 715.43480	0.60	3	m	11 022.34850	0.50	4	m	11 292.10460	0.60	3	m
6	1	6	10 716.30920	0.60	4	m	11 022.59320	0.60	3	m	11 292.49870	0.60	5	m
6	1	5					11 114.90090	2.10	4	m	11 384.88280	0.50	3	m
6	2	5					11 120.51550	0.40	5	m	11 391.47680	0.40	5	m

TABLE 7. Term values for the 3ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	220 or	20^+2			300 or	30^+0			102 or	21^+0		
6	2	4					11 172.75430	0.40	5	m	11 442.95390	0.40	7	m
6	3	4					11 211.50715	0.37	7	m,a	11 478.69340	0.40	6	m
6	3	3					11 224.77930	0.60	5	m	11 493.85270	0.40	6	m
6	4	3					11 306.10480	0.40	7	m	11 573.95920	0.40	8	m
6	4	2					11 307.40560	0.50	6	m	11 574.72200	0.50	7	m
6	5	2					11 423.92980	0.40	5	m	11 687.27720	0.40	4	m
6	5	1					11 424.03170	0.60	4	m	11 687.20200	0.50	6	m
6	6	1					11 565.66770	0.40	7	m	11 822.32080	0.60	4	m
6	6	0					11 565.66390	2.90	2	m	11 822.30160	8.40	2	m
7	0	7	10 848.45330	0.90	3	m	11 154.20663	0.52	5	m,a	11 424.33600	0.90	2	m
7	1	7	10 848.86620	0.90	3	m	11 154.39830	0.50	4	m	11 424.53180	0.60	4	m
7	1	6	10 985.87060	0.50	4	m	11 266.98390	0.40	5	m	11 537.08940	0.40	5	m
7	2	6					11 268.69430	0.50	6	m	11 540.44410	0.50	4	m
7	2	5					11 343.82231	0.40	7	m,a	11 615.22410	0.40	8	m
7	3	5	11 131.04010	0.60	4	m	11 372.56720	0.40	5	m	11 639.41410	0.50	4	m
7	3	4					11 398.86560	0.50	7	m	11 668.44730	0.40	6	m
7	4	4					11 470.16130	0.50	5	m				
7	4	3					11 474.05620	0.50	5	m	11 742.67740	0.40	8	m
7	5	3					11 587.72050	0.70	6	m	11 852.31920	0.50	5	m
7	5	2					11 588.15430	0.60	6	m	11 852.16350	0.50	7	m
7	6	2									11 986.98050	0.70	3	m,?
8	0	8					11 303.52275	0.60	5	m,a	11 574.16520	0.80	4	m
8	1	8					11 302.92449	0.45	6	m,a	11 574.36450	0.50	4	m
8	1	7					11 435.46260	0.70	4	m	11 705.86460	0.50	4	m
8	2	7					11 436.44716	0.45	6	m,a	11 707.69960	0.50	4	m
8	2	6					11 533.97280	0.70	4	m	11 805.16580	0.50	4	m
8	3	6	11 310.07600	0.90	3	m	11 542.18640	0.50	6	m	11 820.41810	0.40	4	m
8	3	5					11 599.22710	0.60	5	m	11 865.21120	0.50	4	m
8	4	5					11 655.84540	0.40	7	m				
8	4	4					11 666.90370	0.50	6	m				
8	5	4					11 774.82890	0.40	6	m	12 038.16990	0.40	6	m
8	6	3					11 915.39680	0.40	7	m				
8	7	2					12 042.61460	0.50	8	m				
9	0	9					11 469.83407	0.52	4	m,a	11 743.61630	0.40	4	m
9	1	9					11 469.91880	0.70	4	m	11 743.69700	2.90	1	m
9	1	8					11 620.74440	0.50	4	m	11 891.75540	0.40	5	m
9	2	7					11 739.05250	0.80	4	m	12 012.05680	0.40	7	m
9	3	6					11 815.13783	0.40	5	m,a				
9	4	5					11 886.57740	0.60	4	m				
9	5	4					11 988.67180	0.40	5	m				
10	0	10					11 653.77033	1.09		d				
10	1	10					11 653.77033	1.09	1	a				
10	2	9					11 822.60990	0.50	4	m				
10	3	8					11 963.35251	1.01	2	a	12 241.30770	0.50	6	m

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 8. Term values for the $3\nu+\delta$ polyad of $H_2{}^{16}O$

J	K_a	K_c	070 or	00 7			230 or	20^+3			032 or	11 3		
0	0	0					11 767.39000	3.00	1	n	12 007.77570	0.10	1	n
1	0	1					11 790.43340	0.50	2	n	12 031.20530	3.70	2	n
1	1	1					11 814.73300	1.80	2	n	12 052.65590	2.30	2	n
1	1	0	10 341.05470	1.00	2	l	11 820.83770	0.10	2	n	12 058.93590	0.80	2	n
2	0	2					11 835.48290	0.50	2	n	12 076.84320	0.10	2	n
2	1	2	10 374.89190	1.80	3	l	11 854.76990	0.60	3	n	12 093.30450	1.30	3	n
2	1	1					11 873.03610	0.70	3	n	12 112.03690	0.50	2	n
2	2	1					11 943.11780	0.60	3	n	12 174.69180	3.10	3	n
2	2	0					11 944.09960	3.00	3	n	12 175.86140	0.90	2	n
3	0	3					11 900.65010	0.30	3	n	12 142.52910	1.20	3	n
3	1	3					11 914.21290	1.80	3	n	12 153.55020	0.10	1	n
3	1	2					11 950.49840	0.60	3	n	12 190.72690	1.30	3	n
3	2	2					12 012.61360	1.20	3	n	12 245.13390	0.10	1	n
3	2	1					12 017.27410	0.80	5	n	12 250.71220	1.30	3	n
3	3	1					12 138.71000	3.00	1	n	12 360.82990	0.10	2	n
3	3	0					12 138.84710	1.30	3	n	12 360.97060	1.70	2	n
4	0	4					11 983.90200	0.80	2	n	12 226.15630	1.80	2	n
4	1	4					11 992.47220	1.20	3	n	12 231.63830	4.00	2	n
4	1	3					12 052.14290	3.00	1	n	12 293.67730	0.10	1	n
4	2	3					12 104.80390	3.10	4	n	12 337.94970	0.10	1	n
4	2	2					12 117.31670	2.00	3	n	12 353.13350	0.40	2	n
4	3	2					12 234.29850	1.90	2	n	12 457.05840	0.40	2	n
4	3	1					12 233.96180	3.00	1	n	12 458.03570	0.10	2	n
4	4	1					12 394.06340	3.00	1	n	12 607.29530	0.10	2	n
4	4	0					12 394.08480	3.00	1	n	12 607.30550	0.10	1	n
5	0	5					12 083.94200	0.50	2	n	12 326.57160	0.50	2	n
5	1	5					12 088.98310	0.20	2	n	12 329.92780	0.10	1	n
5	1	4					12 176.28090	0.20	3	n	12 418.98440	0.50	3	n
5	2	4									12 452.25920	5.00	3	n
5	2	3					12 244.56430	0.80	4	n	12 483.00730	1.80	2	n
5	3	3									12 577.12930	0.10	1	n
5	3	2									12 580.70830	0.10	1	n
5	4	2									12 726.45380	0.10	1	n
5	4	1									12 726.61510	0.60	3	n
6	0	6					12 200.38060	1.80	2	n	12 443.61420	0.10	1	n
6	1	6					12 203.30530	0.10	2	n	12 446.28130	1.60	3	n
6	2	5					12 350.47710	0.70	2	n				
6	4	3									12 869.59340	0.30	3	n
6	4	2									12 870.19300	2.60	3	n
7	0	7					12 333.34500	0.10	2	n				
7	1	7									12 577.83840	0.10	1	n
7	1	6					12 483.84230	0.50	2	n				
7	2	5					12 573.66350	3.00	1	n				
7	4	4					12 826.39160	1.70	4	n				
7	4	3									13 038.30290	0.10	2	n
8	1	8	11 039.20050	0.80	3	l								
8	2	7									12 911.25440	0.80	2	n
8	3	6					12 844.61560	0.10	2	n				
8	4	5									13 226.49100	3.60	3	n

J	K_a	K_c	131 or	10^-3			310 or	30^+1			112 or	21^+1		
0	0	0	11 813.20720	3.00	1	n	12 139.31540	3.00	1	n	12 407.66210	3.00	1	n
1	0	1	11 836.45590	0.10	2	n	12 162.10650	0.10	2	n	12 430.52290	0.40	2	n
1	1	1	11 859.11860	0.40	2	n	12 176.43960	0.10	2	n	12 444.09440	0.40	2	n
1	1	0	11 865.28740	0.10	2	n	12 181.59830	0.10	2	n	12 449.64630	0.10	2	n
2	0	2	11 881.79880	0.40	2	n	12 206.34750	1.40	2	n	12 474.85010	0.10	2	n
2	1	2	11 899.40800	0.30	3	n	12 215.57850	0.10	2	n	12 484.26280	0.10	2	n
2	1	1	11 917.84840	0.30	3	n	12 232.62690	2.90	2	n	12 500.88940	0.40	3	n
2	2	1	11 983.97090	0.50	2	n	12 274.40360	1.90	2	n	12 541.68490	0.10	4	n
2	2	0	11 985.06540	0.20	2	n	12 275.67610	3.00	1	n	12 543.05160	0.30	3	n
3	0	3	11 947.21530	0.50	2	n	12 269.78880	0.70	3	n	12 538.38970	0.20	3	n
3	1	3	11 959.19590	0.10	3	n	12 275.19370	0.10	2	n	12 543.70750	0.20	2	n
3	1	2	11 995.73170	0.50	2	n	12 308.11700	0.30	2	n	12 576.65200	0.10	4	n
3	2	2	12 053.75200	0.40	3	n	12 342.95660	0.10	2	n	12 610.27760	0.60	3	n
3	2	1	12 058.95650	0.40	3	n	12 348.85780	0.30	3	n	12 616.58960	0.30	3	n

TABLE 8. Term values for the $3\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	131 or	10^-3			310 or	30^+1			112 or	21^+1		
3	3	1	12 174.51550	0.10	2	n	12 425.46420	1.60	2	n	12 691.42890	0.10	2	n
3	3	0	12 174.63830	0.30	2	n	12 425.66250	0.60	2	n	12 691.71410	0.20	2	n
4	0	4	12 030.62010	0.10	2	n	12 350.54280	2.30	3	n	12 619.75310	0.60	2	n
4	1	4	12 037.87130	0.30	2	n	12 353.21940	0.70	2	n	12 621.74200	0.60	3	n
4	1	3	12 097.32940	0.10	2	n	12 406.58540	0.70	2	n	12 675.36710	0.30	2	n
4	2	3	12 145.81920	0.50	2	n	12 433.31580	0.20	2	n	12 700.52960	1.20	3	n
4	2	2	12 160.06970	0.70	3	n	12 448.80980	1.80	3	n	12 717.05810	0.90	2	n
4	3	2	12 269.60190	0.30	2	n	12 519.01700	0.10	2	n	12 785.45740	0.10	4	n
4	3	1	12 270.43870	0.30	3	n	12 520.32780	0.20	3	n	12 786.60330	0.10	3	n
4	4	1	12 426.90930	1.90	3	n	12 629.99260	2.30	2	n	12 893.32060	0.40	3	n
4	4	0	12 426.95170	0.60	2	n	12 630.02520	1.20	2	n	12 893.32180	0.80	2	n
5	0	5	12 130.78840	0.10	2	n	12 448.05520	2.20	3	n	12 716.31320	0.50	3	n
5	1	5	12 134.82420	0.10	2	n	12 449.22500	1.60	2	n	12 717.80770	0.30	2	n
5	1	4	12 223.91220	0.40	3	n	12 525.84940	1.90	2	n	12 794.76090	0.40	3	n
5	2	4	12 259.46820	0.60	4	n	12 544.98100	0.20	3	n	12 811.53530	1.70	2	n
5	2	3	12 288.57740	0.30	2	n	12 575.02850	0.60	3	n	12 843.76950	0.30	3	n
5	3	3	12 388.32440	0.30	2	n	12 635.75720	0.80	3	n	12 902.44770	0.10	2	n
5	3	2	12 391.51050	1.60	4	n	12 640.54840	1.00	2	n	12 907.32590	0.20	2	n
5	4	2	12 545.69790	0.70	7	n	12 747.81050	0.10	2	n	13 010.78270	2.70	3	n
5	4	1	12 546.13070	0.90	4	n	12 748.04070	0.20	2	n	13 010.83920	0.70	2	n
5	5	1	12 737.29360	1.30	2	n	12 883.60160	2.50	2	n	13 143.64760	1.00	3	n
5	5	0	12 737.18490	1.00	2	n	12 883.63530	0.60	2	n	13 143.56620	0.30	4	n
6	0	6	12 247.43030	0.10	2	n	12 562.36720	3.00	1	n	12 830.84940	0.10	2	n
6	1	6	12 249.62060	0.10	2	n	12 562.84040	0.80	2	n	12 831.52200	0.40	2	n
6	1	5	12 368.20490	0.10	2	n	12 663.43580	3.00	1	n	12 932.36990	0.40	2	n
6	2	5	12 394.09750	0.20	2	n	12 671.73350	0.10	3	n	12 942.33990	0.90	3	n
6	2	4	12 442.42240	1.00	2	n	12 725.92260	3.00	1	n	12 996.75380	2.90	2	n
6	3	4	12 530.15880	1.10	4	n	12 775.07590	0.50	3	n	13 042.34980	0.40	3	n
6	3	3	12 538.92170	1.00	3	n	12 787.53470	2.80	4	n	13 054.54110	0.90	3	n
6	4	3	12 691.03180	0.30	2	n	12 889.69600	0.80	2	n	13 152.05810	1.40	4	n
6	4	2	12 689.44740	1.00	3	n	12 890.63930	1.70	2	n	13 152.61510	2.40	2	n
6	5	2	12 881.38510	0.80	3	n	13 024.31550	0.20	2	n	13 283.88140	4.30	4	n
6	5	1	12 881.17120	0.70	3	n	13 024.73750	3.00	1	n	13 283.46710	2.20	2	n
6	6	1	13 095.68950	3.00	1	n					13 450.41870	3.70	2	n
6	6	0	13 095.68910	3.00	1	n					13 450.41910	3.00	1	n
7	0	7	12 380.69230	1.70	2	n	12 692.21330	2.20	4	n	12 962.37990	0.60	3	n
7	1	7	12 381.98730	0.50	2	n	12 693.91250	3.00	1	n	12 962.80380	1.50	2	n
7	1	6	12 530.97140	0.90	2	n	12 817.63870	1.70	4	n	13 086.60060	0.90	3	n
7	2	6	12 550.26920	0.30	2	n	12 819.51610	2.20	2	n	13 092.16020	4.40	3	n
7	2	5	12 623.07800	1.10	2	n	12 899.31060	0.40	2	n	13 169.28250	0.10	2	n
7	3	5	12 695.37260	0.60	4	n	12 936.04220	0.60	3	n	13 204.48420	2.80	3	n
7	3	4	12 713.42270	2.40	3	n	12 961.57600	3.80	3	n	13 230.45240	0.80	4	n
7	4	4	12 857.26440	0.50	3	n	13 055.98820	0.40	2	n	13 316.81050	1.40	3	n
7	4	3	12 857.16940	1.50	3	n	13 058.60750	0.90	3	n	13 319.32800	1.00	3	n
7	5	3	13 049.26280	1.90	4	n	13 188.23400	3.00	1	n	13 448.72220	0.10	1	n
7	5	2	13 048.02710	0.20	2	n	13 189.52670	0.10	2	n	13 447.52460	0.90	2	n
7	6	2	13 263.90120	2.20	4	n								
7	6	1	13 263.89640	3.00	1	n								
7	7	1	13 492.33030	0.30	2	n								
7	7	0	13 492.33030	0.30		d								
8	0	8	12 530.76960	0.10	2	n	12 841.75190	0.70	2	n	13 112.16421	3.00	−1	o,?
8	1	8	12 532.05840	0.20	2	n	12 842.03321	0.60	−1	o,?	13 109.65280	0.40	2	n
8	1	7	12 710.47460	0.10	2	n	12 987.91900	5.50	2	n	13 257.36810	2.80	2	n
8	2	7	12 714.69700	2.50	2	n	12 989.13860	5.30	3	n	13 260.78290	3.40	5	n
8	2	6	12 824.10550	0.70	2	n	13 092.49320	3.00	1	n	13 362.47150	3.00	1	n
8	3	6	12 880.88710	1.80	3	n	13 119.89070	0.90	4	n	13 388.70050	2.20	4	n
8	3	5					13 161.54520	3.00	1	n	13 435.52350	1.70	2	n
8	4	5	13 047.62680	2.90	3	n	13 236.93440	3.40	2	n	13 504.37010	1.90	3	n
8	4	4	13 049.64070	0.80	5	n	13 252.60760	1.80	3	n				
8	5	4					13 374.04270	1.10	2	n				
8	5	3					13 378.16150	3.00	1	n				
8	6	3	13 455.60890	3.00	1	n								
8	6	2	13 455.61290	0.70	3	n								
9	0	9	12 697.94420	0.50	2	n	13 008.72910	0.80	2	n	13 275.81430	1.90	3	n
9	1	9	12 689.00460	1.90	2	n	13 006.37360	0.20	2	n				

TABLE 8. Term values for the $3\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	131 or	10^-3			310 or	30^+1			112 or	21^+1		
9	1	8									13 443.24200	1.80	2	n
9	2	8	12 907.78530	0.50	3	n								
9	2	7									13 572.93290	0.10	1	n
9	3	7	13 087.90360	3.40	3	n	13 313.41870	1.50	2	n				
9	3	6					13 385.15960	4.80	3	n				
9	4	6	13 260.92450	3.20	3	n								
9	6	4	13 670.82960	1.00	2	n								
10	0	10	12 883.19970	1.50	2	n								
10	1	9	13 121.56480	1.40	2	n								
10	2	9									13 645.03310	1.90	3	n
10	3	7	13 400.34780	2.00	2	n								
10	4	6	13 516.06780	0.20	2	n								
11	1	11	13 080.68620	2.00	2	n								

J	K_a	K_c	051 or	10^-5			211 or	30^-1			013 or	21^-1		
0	0	0					12 151.25480	3.00	1	n	12 565.00710	3.00	1	n
1	0	1					12 173.76450	0.10	2	n	12 588.15580	0.20	2	n
1	1	1					12 187.81600	0.10	2	n	12 600.57510	0.20	2	n
1	1	0					12 193.34570	0.20	2	n	12 606.26330	0.60	2	n
2	0	2	11 312.79346	1.00	1	a	12 218.98490	0.10	4	n	12 632.86720	0.10	2	n
2	1	2					12 227.88070	0.20	3	n	12 641.20500	0.20	3	n
2	1	1	11 372.63578	1.05	1	a	12 244.39990	0.10	4	n	12 658.23710	0.50	3	n
2	2	1					12 285.36600	0.30	3	n	12 695.10100	0.70	2	n
2	2	0					12 286.72510	0.10	3	n	12 696.65110	0.20	2	n
3	0	3					12 282.16060	0.10	4	n	12 696.73700	0.20	2	n
3	1	3	11 414.63194	1.02	1	a	12 287.24820	0.30	4	n	12 701.23420	0.20	3	n
3	1	2					12 319.85760	0.30	4	n	12 734.91950	0.10	3	n
3	2	2	11 567.22510	1.02	1	a	12 353.73120	0.30	4	n	12 764.66110	0.20	4	n
3	2	1					12 360.00400	0.20	4	n	12 771.71020	0.20	3	n
3	3	1	11 763.17033	1.07	1	a	12 435.33520	0.20	4	n	12 839.84820	0.20	2	n
3	3	0					12 435.55400	0.10	2	n	12 840.12800	0.10	2	n
4	0	4	11 468.06805	1.07	1	a	12 362.86270	0.20	4	n	12 777.50160	0.20	3	n
4	1	4					12 365.28290	0.10	3	n	12 779.93420	0.30	2	n
4	1	3	11 558.32919	1.01	1	a	12 418.08450	0.40	4	n	12 834.47580	0.20	2	n
4	2	3					12 443.76730	0.40	4	n	12 856.00530	0.50	3	n
4	2	2	11 670.88746	1.02	1	a	12 460.17590	0.50	5	n	12 874.10580	0.40	4	n
4	3	2					12 528.75740	0.40	5	n	12 935.37470	1.00	3	n
4	3	1					12 530.20600	0.20	4	n	12 937.18870	0.20	3	n
4	4	1					12 637.86560	0.10	2	n	13 034.63880	0.30	2	n
4	4	0	12 098.80062	1.06	1	a	12 637.89790	0.50	2	n	13 034.67900	0.60	2	n
5	0	5					12 460.36390	1.00	3	n	12 875.52780	0.40	3	n
5	1	5					12 461.39870	0.10	3	n	12 876.76970	0.60	2	n
5	1	4					12 536.49210	0.10	3	n	12 954.30670	0.40	3	n
5	2	4	11 778.20167	1.02	1	a	12 554.87980	0.40	4	n	12 968.11470	0.10	3	n
5	2	3					12 586.59330	0.10	3	n	13 002.84580	0.20	2	n
5	3	3					12 645.32980	0.30	5	n	13 054.37900	0.30	3	n
5	3	2					12 650.59070	0.20	4	n	13 060.74320	0.50	3	n
5	4	2					12 755.13600	0.40	5	n	13 157.07050	0.70	3	n
5	4	1					12 755.39310	0.10	2	n	13 157.34210	1.30	3	n
5	5	1	12 490.17451	1.16	1	a	12 892.32760	0.70	2	n	13 277.82400	3.00	2	n
5	5	0					12 892.32680	3.00	1	n	13 277.82380	3.00	1	n
6	0	6	11 696.38558	1.01	1	a	12 574.73760	0.40	3	n	12 990.50770	0.20	3	n
6	1	6					12 575.20460	0.10	3	n	12 989.63060	0.60	2	n
6	1	5	11 841.34029	0.73	2	a	12 678.17750	0.40	4	n	13 091.86740	0.20	2	n
6	2	5					12 683.24730	0.50	2	n	13 099.99270	2.00	2	n
6	2	4	11 953.58136	1.04	1	a	12 737.55660	0.20	3	n	13 155.86400	0.10	2	n
6	3	4					12 784.40640	0.20	5	n	13 196.15580	0.60	2	n
6	3	3					12 797.94390	0.20	4	n	13 211.91350	1.50	3	n
6	4	3					12 896.05630	0.40	4	n	133 02.27680	3.40	2	n
6	4	2					12 897.23380	0.40	4	n	13 303.47720	0.50	2	n
6	5	2					13 033.43300	0.10	2	n	13 419.59930	2.20	2	n
6	5	1					13 033.46310	0.70	3	n	13 419.66100	0.60	3	n
6	6	1					13 200.58220	4.10	3	n	13 567.21470	1.20	2	n
6	6	0					13 200.58280	1.70	3	n	13 567.21310	3.00	1	n
7	0	7					12 706.17340	0.10	2	n	13 122.64040	0.60	2	n

TABLE 8. Term values for the $3\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	051 or $10^{-}5$				211 or $30^{-}1$				013 or $21^{-}1$			
7	1	7	11 842.17686	1.02	1	a	12 706.85480	0.20	3	n	13 122.68430	0.10	2	n
7	1	6	12 015.56810	5.06	1	a	12 831.97310	0.30	2	n	13 245.86250	0.10	3	n
7	2	6	12 076.44335	1.07	1	a	12 833.57500	0.20	4	n	13 251.40420	1.10	2	n
7	2	5					12 910.76240	0.30	3	n	13 330.48440	0.40	2	n
7	3	5					12 945.03740	0.50	4	n	13 358.92800	1.40	3	n
7	3	4					12 972.43670	0.50	3	n	13 390.41670	3.20	2	n
7	4	4	12 533.13790	2.10	2	n	13 060.37700	0.30	5	n	13 470.74550	0.90	2	n
7	4	3					13 064.23230	0.60	2	n	13 474.63760	3.00	1	n
7	5	3					13 198.19260	0.30	3	n	13 585.22200	0.90	3	n
7	5	2					13 198.34660	1.50	3	n	13 585.52850	3.00	1	n
7	6	2					13 366.36840	0.20	3	n	13 733.83790	1.00	2	n
7	6	1					13 366.36620	2.20	2	n	13 733.83580	3.60	2	n
7	7	1					13 576.56810	1.50	2	n				
7	7	0					13 576.56650	3.00	1	n				
8	0	8	11 991.75340	0.73	2	a	12 855.24090	0.10	2	n	13 272.01250	0.70	2	n
8	1	8					12 854.16030	0.10	2	n	13 272.01540	2.50	2	n
8	1	7	12 209.22840	5.03	1	a	12 999.12110	0.10	−1	o	13 416.22540	1.70	2	n
8	2	7					13 001.51650	0.20	3	n	13 415.71480	1.00	2	n
8	2	6	12 342.39281	1.10	1	a	13 103.48730	0.20	3	n	13 523.80020	3.00	1	n
8	3	6					13 126.70460	0.10	3	n	13 543.45460	3.00	1	n
8	3	5	12 501.00734	5.02	1	a	13 172.71490	0.30	4	n	13 594.52000	1.90	2	n
8	4	5					13 247.31280	0.20	2	n	13 662.17160	3.00	1	n
8	4	4					13 257.44680	0.20	4	n	13 672.25430	2.70	2	n
8	5	4					13 386.56720	1.60	4	n				
8	5	3	12 999.12140	0.40	4	n	13 387.17950	0.10	3	n	13 775.71150	0.30	2	n
8	6	3					13 555.69360	1.10	2	n				
8	6	2					13 555.72860	1.00	4	n				
8	7	2					13 683.56990	0.20		d				
8	7	1					13 683.56990	0.20	2	n				
8	8	1					13 965.53235	3.00	−1	o				
8	8	0					13 965.53235	3.00	−1	o				
9	0	9					13 019.39410	0.40	2	n	13 438.55830	1.90	−1	n
9	1	9	12 167.47511	0.72	2	a	13 020.09800	0.10	2	n	13 438.57360	1.40	2	n
9	1	8	12 420.83768	5.06	1	a	13 187.08660	1.90	4	n	13 603.68760	1.10	2	n
9	2	8	12 456.70588	1.10	1	a	13 187.12300	0.10	2	n	13 603.55680	2.00	3	n
9	2	7					13 321.71310	1.00	3	n	13 733.60580	3.00	1	n
9	3	7	12 705.84410	0.60	2	n	13 327.67110	1.30	3	n	13 749.13350	0.80	2	n
9	3	6					13 396.32980	1.30	4	n				
9	4	6	12 949.89631	5.02	1	a	13 457.83950	0.10	3	n	13 876.07220	3.00	1	n
9	4	5					13 477.70810	1.30	4	n				
9	5	5					13 598.33090	0.70	3	n				
9	5	4					13 599.92730	0.60	2	n				
9	6	4					13 768.45560	3.00	1	n				
9	6	3					13 768.57890	2.50	2	n				
9	7	3					13 897.92630	0.10	2	n				
9	7	2					13 897.92430	2.60	2	n				
10	0	10	12 355.85833	1.06	1	a	13 202.27330	0.10	2	n	13 622.36760	0.30	2	n
10	1	10	12 356.29771	5.06	1	a	13 202.21590	0.10	2	n	13 622.37430	1.30	2	n
10	1	9	12 649.53044	1.12	1	a	13 386.68600	0.20	2	n	13 808.70149	0.60	−1	o,?
10	2	9					13 390.04450	0.10	2	n	13 808.29711	0.60	−1	o,?
10	2	8	12 822.74179	1.17	1	a	13 545.79900	0.40	3	n				
10	3	8					13 547.73140	3.00	1	n				
10	3	7					13 639.56650	1.30	3	n				
10	4	7					13 688.45810	3.00	1	n				
10	4	6					13 724.59670	1.20	4	n				
10	5	6					13 832.97830	3.00	1	n				
10	5	5					13 838.71340	1.60	4	n				
11	0	11					13 401.91630	5.00	2	n	13 822.89600	2.00	−1	o
11	1	11	12 562.60574	1.00	2	a	13 401.92720	1.20	2	n	13 822.89560	1.00	−1	o
11	1	10	12 894.94914	5.06	1	a	13 609.00610	1.10	2	n				
11	2	10					13 607.89880	0.90	3	n	14 028.06360	0.80	−1	o
11	3	9	13 186.78039	5.09	1	a	13 786.81200	1.00	2	n				
11	4	8					13 939.97100	0.60	2	n				
11	5	7	13 716.94817	5.03	1	a	14 089.83800	3.00	1	n				
12	0	12	12 776.73921	1.13	1	a	13 618.49016	3.00	−1	o	14 038.99916	3.00	−1	o,?

TABLE 8. Term values for the $3\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	051 or	$10^{-}5$			211 or	$30^{-}1$			013 or	$21^{-}1$		
12	1	12	12 786.51540	5.11	1	a	13 618.49016	3.00		d	14 038.99916	3.00	−1	o,?
12	2	10	13 392.91421	5.02	1	a								
12	3	9	13 553.94128	5.06	1	a								
13	0	13					13 852.01490	3.00	−1	o				
13	1	13	13 028.15903	1.14	2	a	13 852.01539	3.00	−1	o				
13	2	12	13 447.95326	1.11	1	a								
13	4	10	14 031.83093	5.03	1	a								
14	0	14	13 280.53329	5.03	1	a	14 102.35655	0.60	−1	o				
14	1	14					14 102.35655	0.60	−1	o				
14	1	13	13 733.04653	5.03	1	a								
14	2	13	13 742.68221	5.14	1	a								
14	2	12	14 024.21174	5.04	1	a								
14	3	11	14 232.81814	1.18	1	a								
15	0	15					14 369.86485	1.00	−1	o				
15	1	15	13 565.91241	1.15	1	a	14 369.86485	1.00	−1	o				
15	2	14	14 056.13520	5.04	1	a								
15	3	13	14 391.51603	5.04	1	a								
15	4	12	14 705.93433	5.12	1	a								
16	0	16	13 854.24384	4.11	2	a								
16	1	15	14 380.07980	5.03	1	a								
16	2	14	14 707.85218	5.11	1	a								
16	3	13	14 983.59279	5.11	1	a								
17	1	17	14 174.32941	5.05	1	a								
17	2	16	14 744.83412	5.06	1	a								
18	1	17	15 100.25988	5.12	1	a								
19	1	19	14 851.32178	5.07	1	a								
19	2	18	15 484.78008	5.04	1	a								
20	0	20	15 234.78268	5.12	1	a								
21	1	21	15 632.80972	5.07	1	a								
22	0	22	16 058.89488	5.17	1	a								

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 9. Term values for the 4ν polyad of $H_2{}^{16}O$

J	K_a	K_c	240 or 20^+4				141 or 20^-4				042 or 11 4			
1	0	1	13 227.62799	4.00	1	a								
1	1	1	13 262.55592	4.00	1	a	13 310.10666	4.00	1	a				
1	1	0	13 269.26975	11.00	1	a					13 513.00782	5.40	1	p
2	0	2					13 324.81350	4.00	1	a				
2	1	2	13 302.27163	3.58	1	a					13 546.76151	3.19	2	a
2	1	1	13 321.53467	4.00	1	a								
2	2	1	13 414.18076	2.42	2	p,a	13 455.48509	4.69	2	p,a	13 647.52540	4.00	1	a
2	2	0					13 456.40189	3.31	2	a	13 648.13614	0.97	2	p,a
3	0	3	13 338.41586	2.83	2	a					13 589.13779	3.41	2	p
3	1	3	13 361.19154	1.00	1	p	13 409.40278	8.00	1	a				
3	1	2	13 399.20712	4.00	1	a					13 645.64387	1.52	2	p,a
3	2	2					13 525.38562	1.83	3	p,a	13 717.85866	2.86	2	p,a
3	2	1	13 487.38463	3.11	1	p					13 722.53478	8.00	1	a
3	3	1					13 673.94787	2.35	2	a				
3	3	0	13 640.01391	4.00	1	a					13 859.74456	3.58	1	a
4	0	4	13 422.67755	4.00	1	a								
4	1	4	13 439.11633	2.83	2	a					13 685.56792	2.39	1	p
4	1	3					13 551.03590	5.20	1	p				
4	2	3					13 617.35554	0.98	3	p				
4	2	2	13 587.21412	4.00	1	a								
4	3	2									13 954.61358	2.08	3	p,a
4	3	1	13 734.90013	3.47	1	a	13 769.63362	0.92	4	p,a	13 954.79342	1.23	5	a
4	4	1	13 932.56851	4.00	1	a	13 960.35131	0.80	6	p,a				
4	4	0					13 959.31048	1.18	5	p,a				
5	0	5	13 524.05779	3.65	1	a					13 775.72505	1.24	1	p
5	1	5	13 535.31040	4.00	1	a								
5	1	4									13 877.31562	4.00	1	a
5	2	4					13 730.81107	1.42	1	p				
5	3	3					13 887.64738	1.86	4	p,a	14 073.45143	4.00	1	a
5	3	2					13 890.02068	1.99	2	p	14 076.12379	0.79	6	p,a
5	4	2	14 050.21544	2.14	4	p,a	14 080.94414	3.32	2	a				
5	4	1	14 051.13433	1.23	2	p,q	14 079.95481	2.95	2	p,a	14 256.90613	1.44	2	p,a
5	5	1	14 283.43562	5.05		d	14 300.70015	1.56	4	p,a	14 473.08660	1.47	5	p,a
5	5	0	14 283.43562	5.05	1	p	14 300.69062	0.87	3	p,a	14 473.08247	4.00		d
6	0	6									13 894.49408	6.04	1	p
6	1	5	13 774.96873	9.00	1	a					14 025.62734	1.55	1	p
6	2	5	13 818.41797	2.09	1	p								
6	2	4	13 865.78698	8.57	1	p								
6	3	4	13 992.95624	2.82	1	p					14 215.89628	1.66	5	p,a
6	3	3					14 035.92605	1.30	3	p				
6	4	3	14 197.51237	1.29	4	p,a	14 220.48490	2.19	3	p,a	14 401.14320	4.00	1	a
6	4	2					14 224.05098	1.33	5	p,q				
6	5	2	14 426.46601	0.75	6	p,a					14 617.91627	3.00	2	p,a
6	5	1					14 444.92409	0.74	7	a				
6	6	1					14 687.24583	1.04		d				
6	6	0					14 687.24583	1.04	3	p,a				
7	0	7									14 026.30487	4.00	1	a
7	1	7									14 030.12109	3.20	1	p
7	1	6	13 941.72862	3.58	1	a	13 991.53329	4.09	1	p				
7	2	6	13 971.89433	7.55	1	p	14 019.51449	2.70	1	p				
7	2	5									14 288.10269	1.00	2	p,q
7	3	5	14 155.73466	3.99	1	p	14 191.57220	2.06	3	p,a	14 381.40045	3.71	1	a
7	3	4	14 166.90527	2.56	1	p	14 207.64695	1.63	1	p	14 403.50624	2.87	1	p
7	4	4	14 361.44997	9.00	1	q	14 388.48842	0.83	3	p	14 568.67662	4.00	1	a
7	4	3									14 570.47305	8.33	1	p
7	5	3	14 593.26239	2.11	2	p,a	14 612.92213	2.10	4	p,a	14 746.96383	0.71	2	p
7	5	2	14 593.15126	1.92	4	p,a	14 612.77479	1.29	6	p,a				
7	6	2					14 854.39861	0.81	4	p,a				
8	1	8	13 933.69770	3.71	1	a					14 180.04490	4.22	1	p
8	1	7					14 175.36770	2.22	1	p				
8	2	7	14 144.66608	1.53	1	p								
8	3	6	14 335.49661	1.99	2	a	14 382.82353	3.65	1	a				
8	3	5					14 408.79533	18.16	1	p				
8	4	5	14 549.69874	1.83	1	p					14 757.90587	1.00	1	p
8	4	4					14 580.25713	4.00	1	a	14 764.25419	1.77	2	a

TABLE 9. Term values for the 4ν polyad of $H_2{}^{16}O$ —Continued

J	K_a	K_c	240 or 20^+4				141 or 20^-4				042 or 11 4			
8	5	4									14 978.70792	0.91	2	p
8	5	3	14 783.25248	4.57	2	p,a	14 804.24940	2.21	4	p,a				
8	6	3					15 044.50020	1.70	3	p,a				
8	6	2					15 044.43699	1.71	4	a				
8	7	1					15 204.10022	0.93	4	p,q				
9	0	9									14 346.09439	5.55	1	p
9	2	7	14 471.73809	1.72	1	p	14 530.87053	1.77	2	p,a				
9	3	7	14 549.44480	4.00	1	a	14 589.65811	3.65	1	a				
9	3	6									14 835.39819	1.51	2	a
9	4	6					14 793.35269	0.97	2	p,a				
9	4	5									14 982.39819	2.29	2	p
9	5	4	14 995.82928	0.94	4	p,a	15 019.25554	1.89	2	p				
9	6	4					15 257.18345	1.39	4	p,a				
9	6	3					15 257.20770	1.02	2	p				
9	7	3					15 416.54364	0.96	2	p				
11	3	9					15 064.22765	1.00	2	p,a				
12	3	10	15 283.50594	5.00	1	q								

J	K_a	K_c	320 or 30^+2				122 or 21^+2				004 or 22 0			
0	0	0					13 910.89642	9.00	1	a	14 537.50415	1.15	1	p
1	0	1	13 663.46825	0.97	1	a	13 933.78521	1.70	2	a	14 560.30553	2.19	2	a
1	1	1	13 681.82730	0.30	1	a	13 950.93171	3.65	1	a	14 569.78841	2.83	2	a
1	1	0					13 956.80063	1.79	1	a	14 575.14088	2.39	2	a
2	0	2	13 707.90559	0.50	2	a	13 978.26033	2.77	3	a	14 604.18442	0.93	3	p,a
2	1	2	13 722.09365	0.48	4	a	13 990.84527	1.60	4	a	14 610.05471	1.67	4	a
2	1	1	13 738.73390	12.00	1	q	14 008.45630	3.19	2	a	14 626.08190	2.16	3	a
2	2	1	13 789.80501	0.91	3	p,a	14 058.21605	1.84	4	a	14 654.33867	1.83	4	a
2	2	0	13 791.01759	3.65	1	a	14 059.51821	2.40	3	p,a	14 656.04391	0.93	3	p,a
3	0	3	13 771.84974	1.46	3	a	14 042.09282	1.36	3	a	14 666.60035	0.89	4	p,a
3	1	3	13 780.01096	2.35	3	a	14 048.22524	2.52	2	p,a?	14 669.46747	2.03	4	p,a
3	1	2	13 814.97269	2.33	3	a	14 084.96802	1.68	4	a	14 701.08793	1.95	3	a
3	2	2	13 858.33555	2.58	3	a	14 126.94135	0.98	4	p,a	14 722.78295	1.97	4	a
3	2	1	13 864.04904	1.14	4	p,a	14 132.90607	1.44	5	a	14 730.37646	1.17	4	p,a
3	3	1	13 955.34794	1.74	4	p,a	14 223.54844	2.60	3	a	14 783.47936	0.93	4	p,a
3	3	0	13 955.57662	1.61	2	a	14 223.69446	2.10	2	a	14 783.84578	1.92	3	a
4	0	4	13 853.20109	3.50	2	a	14 123.39816	2.52	3	a	14 746.10290	2.12	3	a
4	1	4	13 857.67235	1.69	3	p,a	14 127.63475	1.85	4	p,a	14 747.56088	0.48	5	a
4	1	3	13 914.36036	3.12	3	a	14 184.81524	1.88	4	a	14 798.07274	2.19	3	a
4	2	3	13 948.79041	1.11	4	p,a	14 217.46517	1.85	4	a	14 812.54513	1.75	5	a
4	2	2	13 963.98293	3.50	4	p,a	14 233.35437	1.88	3	p,a	14 831.45103	1.72	4	p,a
4	3	2	14 049.01798	1.17	7	a	14 317.40043	1.51	5	p,a	14 877.44953	2.25	2	a
4	3	1	14 049.98493	1.40	4	p,a	14 318.47559	3.30	3	p,a	14 879.78920	2.44	3	p,a
4	4	1	14 177.16131	0.89	3	a	14 444.73560	1.96	3	p,a	14 957.50499	2.19	3	a
4	4	0	14 177.18391	1.11	4	a	14 444.67697	1.07	2	p,a	14 957.57225	0.97	2	p,a
5	0	5	13 950.91491	1.15	4	p,a	14 220.54505	1.25	3	p,a	14 842.55613	1.72	3	a
5	1	5	13 953.13055	9.00	1	a	14 223.24387	3.01	2	a	14 842.96482	0.97	2	p,a
5	1	4	14 035.02901	2.23	2	a	14 306.04962	1.79	4	a	14 914.33561	2.10	4	p,a
5	2	4	14 060.90756	1.42	4	p,a	14 328.94596	0.91	4	p,a	14 922.48318	2.30	3	p,a
5	2	3	14 090.59842	1.39	5	a	14 360.38474	1.33	6	p,a	14 957.82222	1.98	4	p,a
5	3	3	14 165.53805	0.89	4	p,a	14 434.29172	0.94	4	p,a	14 994.40826	2.70	2	a
5	3	2	14 169.56850	0.81	7	a	14 438.25077	0.84	6	p,a	15 002.42539	2.04	3	a
5	4	2	14 294.00392	1.13	2	p,a	14 562.14850	3.80	1	a	15 075.73446	4.00	1	a
5	4	1	14 294.31012	1.10	6	p,a	14 561.87623	0.91	4	p,a	15 076.27815	2.24	3	a
5	5	1	14 445.31681	2.09	3	p,a								
5	5	0	14 445.46924	0.91	5	p,a	14 722.50420	0.95	3	p,a	15 175.59420	3.33	1	a
6	0	6	14 064.77498	3.40	2	a	14 334.96524	4.00	1	a	14 956.21052	2.54	3	p,a
6	1	6	14 066.08700	1.34	3	p,a	14 336.46426	1.12	3	p,a	14 956.25613	2.23	3	p,a
6	1	5	14 174.59754	2.51	3	p,a	14 446.56870	1.60	1	p	15 047.80459	2.68	3	p,a
6	2	5	14 184.23601	0.89	4	a	14 460.57418	0.88	3	p,a	15 051.59231	2.15	3	a
6	2	4	14 241.11518	0.67	4	a	14 513.54052	1.80	2	p,a	15 105.97868	1.79	5	p,a
6	3	4	14 304.87078	1.34	6	p,a	14 573.54504	2.28	3	a	15 133.41407	3.48	2	a

TABLE 9. Term values for the 4ν polyad of $H_2{}^{16}O$ —Continued

J	K_a	K_c	320 or 30^+2				122 or 21^+2				004 or 220			
6	3	3	14 315.24360	0.88	6	p,a	14 582.22007	0.93	3	p,a	15 152.46558	2.83	2	a
6	4	3	14 434.53400	1.36	6	p,a	14 703.56359	2.15	2	a	15 217.77022	2.31	3	a
6	4	2	14 435.67999	11.77	1	p					15 220.15921	4.00	1	a
6	5	2	14 585.97519	0.60	4	p	14 865.81166	2.83	1	a	15 317.91884	2.01	2	p,a
6	5	1					14 865.83346	3.80	1	a	15 318.01979	2.42	2	p,a
6	6	1					15 048.99380	2.56	2	a	15 436.41018	0.97	2	p,a
6	6	0									15 436.41738	4.00		d
7	0	7	14 197.05070	0.87	3	a	14 465.60292	2.50	3	a	15 085.13795	1.10	6	p,a
7	1	7					14 469.48281	1.44	2	p	15 087.09824	1.98	3	p,a
7	1	6	14 331.01358	0.90	3	p,a	14 600.26327	1.43	4	p,a	15 199.65486	1.65	5	p,a
7	2	6					14 611.76832	1.31	4	p,a	15 199.02991	3.54	2	p,a
7	2	5	14 417.89242	0.99	2	p,a	14 690.60777	1.19	6	p,a	15 277.54876	2.00	4	a
7	3	5	14 463.64833	1.30	4	p,a					15 293.30610	4.00	1	a
7	3	4	14 492.25199	0.34	5	a	14 758.04268	0.97	2	p,a	15 328.81986	2.80	3	p,a
7	4	4	14 598.18552	3.47	1	a					15 383.09353	4.00	1	a
7	4	3	14 601.69016	1.79	1	a	14 868.75538	1.21	4	p,a	15 390.40615	2.83	2	a
7	5	3					15 033.30798	4.00	1	a				
7	5	2					15 033.01331	1.25	3	p,a	15 483.65447	4.00	1	a
7	6	2	14 850.06828	0.98	2	p	15 214.70291	3.65		d				
7	6	1	14 850.28557	2.83	1	a	15 214.70291	3.65	1	a	15 603.33742	4.00	1	a
7	7	0	15 038.60195	0.97	2	p,a								
8	0	8	14 342.61237	3.58	1	a					15 233.85905	3.15	2	p,a
8	1	8	14 347.90679	4.00	1	a	14 613.59494	1.70	4	p,a	15 233.17908	1.77	4	p,a
8	1	7	14 503.35565	1.30	3	p,a					15 363.01269	4.00	1	a
8	2	7	14 505.84201	1.54	3	p,a	14 779.36148	1.67	3	p,a	15 364.37448	1.15	4	p,a
8	3	6	14 648.80636	2.11	4	a	14 917.01026	2.83	2	a	15 472.94078	8.38	1	p
8	3	5					14 962.45042	0.97	2	p,a	15 528.91619	3.23	1	p
8	4	5	14 788.31509	1.27	6	p,a	15 057.48667	0.97	2	p,a	15 570.86234	4.00	1	a
8	4	4	14 793.38502	1.27	1	p								
8	5	4	14 996.71985	1.45	6	p,a	15 226.48606	4.00	1	a	15 671.18025	4.00	1	a
8	5	3	14 997.53616	0.99	2	p								
8	6	3					15 402.93232	1.38	1	p	15 792.57723	4.00	1	a
9	0	9	14 507.65428	3.80	1	a					15 399.56367	4.00	1	a
9	1	9	14 505.75006	1.00	1	p								
9	1	8	14 691.65053	3.31	2	p,a					15 542.39746	1.19	4	p,a
9	2	8	14 692.11331	3.50	1	p					15 548.23171	4.00	1	a
9	2	7	14 829.70532	2.63	2	p,a					15 669.81175	1.65	1	p
9	3	7	14 850.68615	2.19	4	p,a								
9	3	6	14 912.97433	3.31	2	p,a	15 183.16928	1.65	3	p				
9	4	6	14 996.55148	2.24	2	p,a								
9	5	5	15 207.44945	2.37	1	p								
9	5	4	15 209.56379	2.81	2	p,a								
10	1	10	14 685.90724	3.65	1	a								
10	2	9	14 896.99420	2.26	3	p,a	15 163.47406	10.00	1	q				
10	3	8	15 071.40698	2.62	2	p,a								
10	4	7	15 228.20333	2.70	2	a								

J	K_a	K_c	221 or	30^-2			023 or	21^-2			400 or	40^+0		
0	0	0	13 652.65605	7.00	1	a	14 066.19395	6.00	1	a	13 828.27732	6.00	1	a
1	0	1	13 675.41815	0.30	2	a	14 089.41055	3.58	1	a	13 850.65498	0.49	2	a
1	1	1	13 692.39875	0.30	2	a	14 104.56304	1.61	2	a	13 861.66876	1.35	2	p,a
1	1	0	13 698.22309	0.35	2	a	14 110.58587	2.39	2	a	13 866.69938	2.62	2	a
2	0	2	13 719.33225	0.21	4	a	14 134.33534	1.23	4	p,a	13 893.99551	1.17	3	a
2	1	2	13 732.38583	0.25	4	p,a	14 144.99295	2.45	3	a	13 901.43572	0.21	4	a
2	1	1	13 749.67931	0.17	4	a	14 163.03291	1.45	3	a	13 916.48179	1.29	3	a
2	2	1	13 799.45413	0.28	3	a	14 207.79060	2.37	2	a	13 949.39621	0.65	4	a
2	2	0	13 800.72174	0.30	4	a	14 209.25384	1.74	3	p,a	13 950.76124	1.69	4	a
3	0	3	13 784.08585	0.27	5	p,a	14 198.48911	2.35	2	a	13 956.07497	0.69	3	a
3	1	3	13 791.08979	0.21	5	p,a	14 204.77736	1.97	2	a	13 960.49278	0.25	4	a
3	1	2	13 825.82652	0.25	5	p,a	14 240.49569	1.19	2	p,a	13 990.06504	0.40	3	a
3	2	2	13 867.97307	0.17	4	a	14 277.60165	0.86	4	p,a	14 016.56624	0.78	5	a

TABLE 9. Term values for the 4ν polyad of $H_2{}^{16}O$ —Continued

J	K_a	K_c	221 or	30^-2			023 or	21^-2			400 or	40^+0		
3	2	1	13 873.90391	0.40	6	p,a	14 284.36037	2.26	3	a	14 022.80317	1.01	4	a
3	3	1	13 963.83297	0.15	5	a	14 365.79561	0.87	2	p,a	14 084.32898	1.47	4	a
3	3	0	13 963.79178	0.69	2	a	14 366.03481	2.06	2	a	14 084.46768	0.77	5	a
4	0	4	13 864.94053	0.34	5	a	14 279.88307	1.33	3	a	14 035.25467	0.94	2	p,a
4	1	4	13 868.70413	0.21	5	p,a	14 283.17169	1.54	3	p,a	14 036.36616	0.26	5	a
4	1	3	13 925.21342	0.25	5	a	14 341.26615	1.42	3	a	14 085.85746	0.91	4	a
4	2	3	13 957.82623	0.35	5	a	14 369.35331	1.47	3	p,a	14 104.90103	0.21	7	p,a
4	2	2	13 974.16331	0.17	6	a	14 387.02777	1.75	4	p,a	14 120.91133	0.85	5	p,a
4	3	2	14 057.20697	0.23	4	p,a	14 462.09128	2.35	2	a	14 176.12256	0.32	6	a
4	3	1	14 058.29034	0.17	6	p,a	14 463.56260	2.06	3	a	14 177.68615	1.25	5	p,a
4	4	1	14 183.09284	0.44	4	p,a					14 268.01116	0.63	6	p,a
4	4	0	14 183.13989	0.35	3	a	14 577.46986	1.00	2	p,a	14 268.04624	1.72	3	a
5	0	5	13 962.44351	0.25	5	p,a	14 377.87779	2.83	1	a	14 131.13438	0.56	5	p,a
5	1	5	13 964.27879	0.21	5	p,a	14 379.71954	1.48	3	p,a	14 131.49046	3.47	1	a
5	1	4	14 045.68065	0.42	5	p,a	14 462.90780	0.93	3	p,a	14 201.61902	0.28	5	a
5	2	4	14 067.97123	0.25	6	p,a	14 482.07284	0.89	4	p,a	14 213.49849	0.42	5	a
5	2	3	14 101.09984	0.79	5	a	14 516.55134	2.74	3	p,a	14 244.43105	0.72	7	p,a
5	3	3	14 173.91187	0.21	6	p,a	14 581.92529	2.50	2	a	14 290.61795	0.74	6	a
5	3	2	14 178.09225	0.53	5	a					14 296.26782	0.47	7	p,a
5	4	2	14 300.34271	0.19	5	a	14 696.20218	1.15	2	p,a	14 383.40979	0.79	6	p,a
5	4	1	14 300.61485	0.27	4	a	14 696.42399	2.83	2	p,a	14 383.72038	0.64	5	a
5	5	1	14 450.67148	2.27	3	a	14 839.78357	0.97	2	p,a	14 505.95400	0.92	3	p,a
5	5	0	14 450.67315	4.00	1	a	14 839.78182	4.00		d	14 505.96108	1.99	2	a
6	0	6	14 076.48399	0.21	4	p,a	14 492.54409	2.40	1	a	14 244.86833	0.48	2	a
6	1	6	14 077.47720	0.26	3	a	14 492.89187	3.12	1	a	14 243.67204	1.47	2	p,a
6	1	5	14 187.33866	0.43	4	a	14 602.73752	1.95	3	a	14 335.29654	0.82	5	p,a
6	2	5	14 198.92802	0.90	5	p,a	14 614.68660	1.07	3	p,a	14 341.50801	0.26	6	a
6	2	4	14 253.91835	0.40	7	p,a	14 671.09051	1.10	3	p,a	14 391.22787	0.76	6	p,a
6	3	4	14 313.17338	0.76	5	a	14 724.66563	1.27	3	p,a	14 427.34450	0.41	7	p,a
6	3	3	14 323.93495	0.24	6	a	14 737.98871	1.97	3	a	14 441.02398	1.05	5	p,a
6	4	3	14 441.46256	0.92	6	a	14 838.82108	3.71	1	a	14 522.11640	1.03	7	p,a
6	4	2	14 442.30461	0.21	7	p,a	14 839.85021	1.26	2	p,a	14 523.58909	1.27	6	a
6	5	2	14 648.42410	0.87	2	p,a					14 645.94101	1.64	4	a
6	5	1	14 648.45766	0.79	4	a	14 983.01353	2.35	2	p,a	14 645.96430	0.69	4	p,a
6	6	1					15 148.55149	4.00		d	14 747.61350	1.78	3	p,a
6	6	0					15 148.55149	4.00	1	a	14 747.61350	1.78		d
7	0	7	14 207.31309	0.47	3	a	14 624.10386	4.00	1	a	14 373.32847	0.48	3	a
7	1	7	14 209.05874	0.35	3	a	14 624.30544	2.91	3	p,a	14 373.37001	0.96	3	p,a
7	1	6	14 342.32143	0.83	4	a	14 759.11979	1.00	1	p	14 481.36816	0.42	7	a
7	2	6	14 348.37498	0.43	6	p,a	14 769.04329	2.26	3	p,a	14 483.96091	0.43	5	p,a
7	2	5	14 428.37277	0.88	4	p,a	148 48.07684	4.00	1	a	14 558.94875	0.64	6	p,a
7	3	5	14 474.47130	0.43	6	p,a	14 889.90760	4.00	1	a	14 584.65834	0.81	4	a
7	3	4	14 500.21452	0.95	4	a	14 916.45907	4.00	1	a	14 613.07935	1.17	7	p,a
7	4	4	14 605.96697	0.55	4	a	15 004.37901	1.48	4	p,a	14 683.89274	1.77	5	a
7	4	3	14 608.87436	1.15	4	a	15 008.35300	4.00	1	a	14 686.82531	1.21	6	a
7	5	3	14 811.90147	0.63	4	a	15 149.95466	2.32	2	p,a	14 809.53184	1.98	4	p,a
7	5	2	14 812.11241	1.25	4	a					14 809.74869	1.97	5	a
7	6	2					15 315.84965	10.49	1	p	14 910.12442	2.72	2	a
7	6	1									14 910.15709	1.64	4	p,a
7	7	1					15 496.39643	4.00	1	a	15 075.76534	3.08		d
7	7	0									15 075.76534	3.08	2	p,a
8	0	8	14 356.07667	0.28	4	a	14 772.51947	2.22	2	a	14 520.09996	3.65	1	a
8	1	8	14 353.48966	0.88	3	a					14 520.09372	2.46	2	a
8	1	7	14 514.39638	0.40	5	p,a	14 931.30074	4.00	1	a	14 649.04706	1.44	4	p,a
8	2	7	14 516.97973	0.99	3	p,a	14 932.66158	0.91	2	p	14 649.75273	0.87	4	a
8	2	6	14 628.79710	1.04	5	p,a	15 045.00699	1.76	3	p,a	14 745.26263	0.96	2	a
8	3	6	14 656.01791	0.98	5	p,a	15 077.42106	4.00	1	a	14 762.31125	0.74	5	a
8	3	5	14 699.42912	0.82	5	p,a	15 121.24888	1.29	3	p,a	14 809.25000	1.13	3	p,a
8	4	5	14 792.98392	1.71	4	a	15 193.50302	4.00	1	a	14 868.16255	0.29	7	p,a
8	4	4	14 801.20585	1.08	4	a	15 202.14081	4.00	1	a	14 878.19256	0.90	4	p,a
8	5	4	14 998.92894	1.71	3	p,a	15 340.86321	1.63	2	p	14 936.65469	1.37	5	p,a

TABLE 9. Term values for the 4ν polyad of $H_2^{16}O$ —Continued

J	K_a	K_c	221 or	30^-2			023 or	21^-2			400 or	40^+0		
8	5	3	14 999.71105	1.42	3	a	15 341.71328	2.22	2	p,a				
8	6	3									15 096.02236	1.99	2	p,a
8	6	2					15 506.65357	2.83	2	a	15 096.23950	1.00	1	p
8	7	2					15 686.05806	2.86		d	15 224.03374	3.69	2	p,a
8	7	1					15 686.05806	2.86	2	p,a				
8	8	1					14 957.05068	1.00	1	p				
9	0	9	14 515.23742	2.52	2	p,a					14 683.78655	1.55	2	a
9	1	9	14 518.57846	0.47	3	a	14 938.06174	4.00	1	a	14 683.87120	1.27	1	p
9	1	8	14 703.07054	1.18	3	p,a					14 831.32663	1.49	3	p,a
9	2	8	14 703.04982	0.72	4	p,a	15 120.89965	4.00	1	a				
9	2	7	14 841.40144	2.45	2	p,a					14 948.30083	1.33	4	a
9	3	7	14 857.30182	1.26	5	a	15 268.23427	1.03	3	p	14 959.07538	1.52	3	a
9	3	6	14 923.35142	2.58	3	a					15 027.90710	1.24	5	p,a
9	4	6	15 002.98552	1.60	4	a	15 405.19728	4.00	1	a	15 074.21368	1.69	3	p,a
9	4	5	15 019.63040	1.60	3	p,a	15 447.97999	2.67	2	a	15 094.79490	2.16	3	p,a
9	5	5	15 209.32724	0.87	3	p,q	15 555.42422	3.19	1	p	15 145.87523	0.97	2	p,a
9	5	4					15 557.96662	8.75	1	p	15 145.10554	0.91	4	p,a
9	6	4									15 304.94409	4.00	1	a
9	6	3									15 305.46189	1.12	3	p,a
9	6	3									15 432.52001	0.99	2	p
9	9	1					16 364.91785	0.38	2	p				
9	9	0					16 364.91785	0.38		d				
10	0	10	14 697.15174	1.46	3	p,a								
10	1	10	14 697.97430	1.83	3	p,a								
10	1	9	14 911.61032	2.25	3	p,a					15 031.05850	8.11	2	a
10	2	9	14 906.82909	2.47	3	p,a								
10	2	8	15 075.00076	2.22	4	p,a					15 167.60991	2.92	1	p
10	3	8	15 076.58995	1.62	2	p,a					15 169.22284	2.70	2	a
10	3	7	15 170.41388	1.98	3	p,a					15 266.43140	4.00	1	a
10	4	7	15 228.73366	5.34	2	p,a					15 301.08412	2.05	4	p,a
10	4	6	15 264.16274	1.69	4	p,a					15 340.93067	0.99	2	p
10	5	6									15 377.12925	2.50	2	p,a
10	7	4									15 664.44451	2.05	2	p
11	0	11	14 896.42278	3.73	2	p,a					15 063.70809	1.58	2	a
11	1	11	14 896.64494	0.97	3	p,a	15 317.12285	2.80	2	p,a				
11	1	10	15 122.92401	3.58	1	a								
11	2	10	15 131.90379	2.46	2	a	15 545.67533	3.60	2	p,a	15 247.77628	3.65	1	a
11	2	9	15 311.19592	0.99	2	p								
12	1	12	15 111.09262	12.00	1	a								
12	1	11	15 361.57559	2.88	2	p,a								
12	2	10	15 568.94248	10.00	1	a								

J	K_a	K_c	301 or	40^-0			202 or	31^+0			103 or	31^-0		
0	0	0	13 830.93785	1.00	1	a	14 221.16122	3.00	1	a	14 318.81265	0.50	1	a
1	0	1	13 853.27030	0.50	1	a	14 243.51917	0.69	2	a	14 341.42794	0.49	2	a
1	1	1	13 864.28134	0.35	3	p,a	14 254.56480	2.24	2	a	14 351.58168	0.44	2	a
1	1	0	13 869.38787	0.21	2	a	14 259.70385	0.44	2	a	14 356.84479	0.35	2	a
2	0	2	13 896.47637	0.24	5	a	14 286.80060	0.82	3	a	14 385.04700	0.34	4	a
2	1	2	13 903.86855	0.19	4	a	14 294.13181	0.42	4	a	14 391.61417	0.29	4	a
2	1	1	13 919.15059	0.19	4	a	14 309.53207	1.32	3	a	14 407.35698	0.29	4	a
2	2	1	13 951.90161	0.34	3	a	14 342.43717	0.62	4	a	14 437.61342	0.35	3	a
2	2	0	13 953.30997	0.40	4	a	14 343.82704	1.11	4	a	14 439.18852	0.35	4	a
3	0	3	13 958.17128	0.21	3	a	14 348.73999	0.39	5	p,a	14 447.21105	0.25	5	a
3	1	3	13 962.25468	0.22	4	a	14 352.67260	1.08	5	a	14 450.77543	0.28	5	a
3	1	2	13 992.67167	0.25	5	a	14 383.13414	0.43	3	a	14 481.79058	0.33	5	a
3	2	2	14 018.93799	0.31	5	a	14 409.43112	1.39	5	a	14 505.96274	0.28	5	a
3	2	1	14 025.35079	0.23	6	p,a	14 415.74955	1.10	5	a	14 512.89206	0.33	4	a
3	3	1	14 086.69761	0.25	4	a	14 477.04390	1.38	5	a	14 569.30680	0.35	4	a
3	3	0	14 086.95115	0.21	4	a	14 477.10878	0.60	5	a	14 569.62073	0.44	3	a
4	0	4	14 038.26486	0.22	6	p,a	14 427.72136	1.30	3	a	14 526.38340	0.28	4	a
4	1	4	14 039.38451	0.27	5	a	14 429.51340	0.63	5	a	14 528.69604	0.34	5	p,a

TABLE 9. Term values for the 4ν polyad of $H_2{}^{16}O$ —Continued

J	K_a	K_c	301 or	40^-0			202 or	31^+0			103 or	31^-0		
4	1	3	14 088.32620	0.23	6	a	14 478.86177	1.31	4	a	14 578.23215	0.33	5	a
4	2	3	14 107.08159	0.19	6	a	14 497.57089	0.73	6	a	14 595.72285	0.41	6	p,a
4	2	2	14 123.54324	0.27	6	a	14 513.48146	1.43	4	a	14 612.93829	0.27	5	a
4	3	2	14 178.40114	0.24	6	a	14 568.49246	0.73	6	p,a	14 667.16444	0.42	5	a
4	3	1	14 180.05373	0.17	6	p,a	14 569.36772	0.99	6	p,a	14 668.37103	0.33	5	a
4	4	1	14 270.32411	0.49	3	a	14 655.50671	0.42	6	p,a	14 747.02902	0.49	4	p,a
4	4	0	14 270.36061	0.33	4	p,a	14 654.69653	0.78	6	a	14 746.81297	0.44	5	p,a
5	0	5	14 133.89541	0.23	5	a	14 523.37529	0.69	2	a	14 622.38091	0.35	3	a
5	1	5	14 134.24694	0.39	5	a	14 524.12529	1.20	3	a	14 622.20199	0.33	3	a
5	1	4	14 203.83610	0.20	6	p,a	14 594.35192	1.07	5	p,a	14 694.04517	0.43	6	a
5	2	4	14 215.41348	0.32	7	p,a	14 605.92294	1.26	6	p,a	14 706.41257	0.34	7	a
5	2	3	14 246.99702	0.34	6	a	14 638.77294	0.46	6	a	14 738.14878	0.43	5	a
5	3	3	14 292.68840	0.24	7	p,a	14 682.73318	1.52	6	a	14 785.26224	0.39	7	a
5	3	2	14 298.67939	0.42	5	a	14 686.37261	0.67	6	a	14 789.62478	0.42	5	p,a
5	4	2	14 385.63998	0.29	5	a	14 770.00482	1.75	5	p,a	14 860.97774	0.41	5	p,a
5	4	1	14 385.94945	0.34	4	a	14 767.46178	0.58	6	p,a	14 861.43662	0.86	4	a
5	5	1	14 508.53264	0.91	3	a					14 970.20628	0.90	3	a
5	5	0	14 508.53444	1.00	1	p	14 891.28960	0.48	5	a	14 970.18666	1.79	2	p,a
6	0	6	14 246.11760	0.19	5	p,a	14 635.84143	2.28	2	a	14 735.37525	0.34	4	a
6	1	6	14 246.96226	0.25	4	a	14 636.13645	0.83	3	a	14 735.47433	0.44	3	a
6	1	5	14 337.32513	0.42	6	a	14 727.27520	1.79	4	a	14 826.93792	0.33	6	p,a
6	2	5	14 343.02581	0.27	6	p,a	14 733.50930	1.12	6	p,a	14 825.21766	0.81	5	p,a
6	2	4	14 393.77202	0.32	7	a	14 785.29808	1.69	5	a	14 886.39855	0.40	6	p,a
6	3	4	14 429.07402	0.28	7	p,a	14 818.98092	1.38	5	p,a	14 925.54472	0.88	4	a
6	3	3	14 443.88184	0.20	6	p,a	14 841.03399	0.54	5	p,a	14 936.72219	0.46	5	a
6	4	3	14 524.28875	0.43	6	p,a	14 909.05366	1.27	4	a	14 998.41585	1.34	5	a
6	4	2	14 525.69878	0.20	7	p,a	14 904.04152	1.43	4	a	15 000.27446	0.72	5	p,a
6	5	2	14 590.47269	1.61	3	a	15 032.13578	1.54	5	p,a	15 109.26598	1.63	5	a
6	5	1	14 590.49972	0.43	4	a	15 031.78118	1.79	1	a	15 108.11757	0.85	4	a
6	6	1	14 749.59669	4.00	1	a	15 166.37468	1.68	2	p,a				
6	6	0	14 749.59656	0.29	2	a					15 238.21113	1.50	3	a
7	0	7	14 376.04709	0.65	3	p,a	14 765.26947	1.21	3	a	14 865.52172	0.47	4	p,a
7	1	7	14 376.11009	0.34	6	p,a	14 765.41965	1.35	3	a	14 865.35711	0.26	3	a
7	1	6	14 487.88950	0.25	4	a	14 876.44298	1.47	4	a	14 976.08433	0.65	4	p,a
7	2	6	14 488.75226	0.24	7	a	14 879.83278	1.85	4	a	14 976.20601	0.43	4	p,a
7	2	5	14 561.41563	0.27	7	p,a	14 953.29456	1.98	3	a	15 054.87382	0.71	5	p,a
7	3	5	14 586.48379	0.28	8	a	14 976.25269	1.06	6	p,a	15 090.69368	0.55	7	p,a
7	3	4	14 615.70722	0.42	5	p,a	15 008.86176	1.27	5	a	15 109.89576	1.45	4	a
7	4	4	14 686.03030	0.42	6	p,a	15 071.34775	0.96	3	p,a	15 159.15722	1.04	4	a
7	4	3	14 690.55494	0.73	4	a	15 063.73181	0.79	5	a	15 164.55430	1.69	4	a
7	5	3	14 753.47131	0.33	4	p,a	15 196.61458	2.14	3	p,a	15 268.47379	1.27	4	a
7	5	2	14 753.61905	0.80	4	a	15 193.53590	1.40	4	p,a	15 269.86247	1.89	4	a
7	6	2	14 911.97920	0.47	4	a	15 329.84931	3.12	1	a	15 399.36145	1.73	4	a
7	6	1	14 911.98768	4.00	1	a	15 329.94922	1.92	3	p,a				
7	7	1	15 058.35688	0.49	3	a					15 553.55287	4.00	1	a
7	7	0					15 423.23860	3.12	1	a	15 553.55287	4.00		d
8	0	8	14 522.82114	0.35	2	a	14 911.77658	2.26	3	p,a	15 012.62057	0.28	3	a
8	1	8	14 522.85500	0.48	4	p,a	14 911.15553	1.40	3	p,a	15 012.65065	0.97	2	a
8	1	7	14 652.52628	0.24	4	a	15 041.80930	2.06	4	p,a	15 141.78276	0.47	5	a
8	2	7	14 653.00396	0.48	5	p,a	15 042.44480	0.90	4	p,a	15 141.64398	1.52	3	a
8	2	6	14 747.43983	0.42	7	a	15 139.70299	1.30	3	p,a	15 243.18226	0.84	6	a
8	3	6	14 763.70369	0.84	4	a	15 153.49120	0.92	3	p,a	15 245.89408	1.25	4	p,a
8	3	5	14 811.97650	0.27	6	p,a	15 204.23602	2.72	2	a	15 307.28995	0.84	5	a
8	4	5	14 870.32762	2.21	4	a	15 255.78992	1.33	4	p,a	15 342.34794	1.59	5	p,a
8	4	4	14 881.58893	0.41	5	p,a	15 276.94562	2.57	2	p,a	15 354.70377	1.81	4	a
8	5	4	14 939.56053	1.91	3	a	15 385.55300	0.85	4	p,a	15 452.68928	1.94	4	a
8	5	3	14 940.62302	0.64	5	a	15 383.88803	2.91	2	p,a	15 455.98230	2.21	3	a
8	6	3	15 097.71817	2.01	4	p,a	15 516.29428	3.33	1	a				
8	6	2	15 097.77485	0.80	5	p,a	15 516.69334	3.58	1	a	15 584.18595	1.95	4	a
8	7	2	15 243.95350	1.96	2	p,a								
8	7	1	15 244.01491	1.04	3	p,a	15 684.31311	4.00	1	a				

TABLE 9. Term values for the 4ν polyad of $H_2^{16}O$ —Continued

J	K_a	K_c	301 or 40^-0				202 or 31^+0				103 or 31^-0			
8	8	1	15 406.53147	0.90		d								
8	8	0	15 406.53147	0.90	3	p,a								
9	0	9	14 686.61120	0.49	3	a	15 074.83965	1.90	2	a	15 176.97134	1.63	2	a
9	1	9	14 687.16530	0.30	3	a	15 074.94752	2.39	2	a	15 176.97182	0.48	3	a
9	1	8	14 834.37769	0.34	3	a	15 224.12878	0.92	4	p,a	15 323.48879	1.12	4	p,a
9	2	8	14 834.41552	0.25	5	p,a	15 223.68657	1.15	3	p,a	15 323.64696	1.11	4	p,a
9	2	7	14 950.18667	0.77	5	p,a	15 342.43184	1.96	4	p,a	15 441.35955	2.39	3	p,a
9	3	7	14 960.46569	0.46	6	p,a	15 349.61608	3.55	3	p,a	15 445.17108	0.89	5	p,a
9	3	6	15 030.71657	1.10	5	p,a	15 422.45530	0.95	3	p,a	15 525.07857	2.14	4	p,a
9	4	6	15 076.39117	0.82	5	p,a	15 461.52778	4.00	1	a	15 552.25000	2.22	3	a
9	4	5	15 099.25207	1.90	3	a	15 491.69406	1.03	4	p,a				
9	5	5	15 148.45623	2.75	2	a	15 600.29207	2.41	3	p,a	15 658.33633	1.00	1	p
9	5	4	15 151.51216	1.75	4	a	15 594.15292	2.48	2	p,a	15 666.88586	0.92	4	p,a
9	6	4	15 306.86357	0.74	5	p,a	15 725.70368	4.00	1	a	15 792.88233	2.75	2	a
9	6	3	15 307.08024	3.65	1	a								
9	7	3	15 453.22017	0.72	5	p,a	15 827.17082	1.14	1	p				
9	7	2	15 453.11896	0.44	3	p,a								
9	8	2	15 612.62331	10.37	1	p								
9	8	1	15 612.62331	10.37		d								
10	0	10	14 867.39214	0.49	3	a	15 255.30959	4.00	1	a	15 358.40284	0.90	3	a
10	1	10	14 867.39214	0.49		d	15 255.36090	3.58	1	a	15 358.37995	1.00	2	p,a
10	1	9	15 033.13048	0.83	4	a					15 522.68541	1.40	4	a
10	2	9	15 033.58030	0.92	3	p,a	15 421.76210	3.65	2	a	15 522.70428	2.23	2	p,a
10	2	8	15 174.17937	0.87	4	a					15 660.71646	2.15	3	a
10	3	8	15 175.36471	2.22	3	a	15 564.07812	3.47	1	a	15 661.81249	0.95	3	p,q
10	3	7	15 269.33032	1.44	3	a					15 767.61613	2.70	2	a
10	4	7	15 303.29551	1.83	3	p,a	15 688.04746	0.89	4	p,a	15 777.99576	1.00	1	p
10	4	6	15 343.54020	1.81	3	a	15 733.28131	4.00	1	a				
10	5	6	15 379.67407	1.96	3	p,a								
10	5	5	15 387.32022	0.97	3	p,a	15 828.62506	4.00	1	a	15 904.30095	1.85	2	p
10	6	5					15 957.79196	3.24	1	p				
10	6	4	15 540.03060	2.31	3	p,a	15 959.49426	3.15	1	p				
10	7	4					16 063.81392	5.78	1	p				
10	8	3					16 257.58990	1.00	1	p				
11	0	11	15 065.15247	1.38	3	p,a					15 556.73871	0.94		d
11	1	11	15 065.34678	0.47	3	p,a					15 556.73857	0.90	4	p,a
11	1	10	15 245.40268	4.00	1	a	15 636.30100	4.00	2	p,a	15 738.46902	4.00	1	a
11	2	10	15 248.71253	0.84	3	p,a					15 738.65677	4.00	1	a
11	2	9	15 407.12280	4.00	1	a					15 895.15273	4.00	1	a
11	3	9	15 408.13570	1.90	4	p,a					15 895.40358	4.00	1	a
11	3	8	15 527.01755	4.00	1	a					16 020.55168	1.72	1	p
11	4	8	15 522.66275	1.08	2	p,a					16 025.85291	4.00	1	a
11	5	6					16 088.09053	3.43	1	p				
11	6	5					16 215.79012	3.99	1	p				
12	0	12	15 279.02333	0.89	3	p,a					15 772.12831	1.33	2	p,q
12	1	12									15 772.13341	1.33		d
12	1	11	15 481.05772	1.61	2	a					15 971.19281	2.08	2	p,a
12	2	11	15 481.53213	1.00	1	p					15 971.23345	4.00	1	a
12	2	10									16 144.72788	4.00	1	a
12	3	10									16 144.95387	4.00	1	a
12	3	9									16 289.91561	1.00	1	p
12	4	8									16 401.81517	4.00	1	a
13	0	13									16 004.43287	4.00		d
13	1	13	15 510.91991	1.49	3	p,a					16 004.43287	4.00	1	a
13	1	12									16 220.93988	4.00		d
13	2	12									16 220.93988	4.00	1	a

J	K_a	K_c	061 or 10^-6				160 or 10^+6				080 or 00 8			
5	5	1	14 066.85331	1.00	1	p								
6	0	6	13 048.53117	1.17	1	a								
6	1	5	13 220.75337	5.04	1	a								

TABLE 9. Term values for the 4ν polyad of $H_2{}^{16}O$ —Continued

J	K_a	K_c	061 or 10^-6				160 or 10^+6				080 or 00 8			
6	2	4	13 371.63534	5.02	1	a								
6	3	4									13 024.54590	0.70	2	l
6	4	2	13 892.93825	4.00	1	a								
7	1	7	13 223.57633	1.14	1	a								
7	2	6	13 508.96225	5.10	1	a								
7	5	2					14 349.77808	0.81	4	a				
7	6	2	14 706.39522	0.84	3	p								
7	7	1					14 916.50222	4.21	2	d				
7	7	0					14 916.50222	4.21	2	p				
8	0	8	13 349.08197	1.18	1	a								
8	2	6	13 752.26583	5.12	1	a								
9	1	9	13 546.36192	1.18	1	a								
9	2	8	13 896.39137	5.06	1	a								
9	8	1					15 762.99721	0.81	2	p				
10	0	10	13 721.45471	5.04	1	a								
10	2	8	14 228.61438	5.12	1	a								
10	4	6	14 700.69630	0.70	2	l								
10	5	5	15 033.53647	2.31	3	a								
11	1	11	13 948.63718	5.14	1	a								
11	2	10	14 365.98343	5.03	1	a								
12	0	12	14 163.05166	5.15	1	a								
12	1	11	14 592.40893	5.12	1	a								
13	1	13	14 424.20015	5.06	1	a								
13	2	12	14 916.58713	5.08	1	a,?								
14	0	14	14 678.92860	5.08	1	a								
15	1	15	14 970.58816	5.14	1	a								
16	0	16	15 278.69295	5.07	1	a								
16	1	15	15 872.79380	5.21	1	a								

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 10. Term values for the $4\nu+\delta$ polyad of $H_2{}^{16}O$

J	K_a	K_c	151 or 20^-5				330 or 30^+3				132 or 21^+3			
1	1	1	14 719.131 98	2.01	2	p,a	15 152.364 71	4.00	1	a				
2	0	2	14 716.578 35	2.75	2	p,a								
2	1	2					15 191.736 85	2.83	2	a				
2	1	1	14 778.915 19	4.00	1	a					15 480.290 62	2.83	2	a
2	2	1	14 895.731 40	4.00	1	a								
2	2	0	14 896.330 58	2.83	2	a								
3	0	3	14 783.283 17	4.00	1	a	15 239.242 73	2.83	2	a				
3	1	3	14 817.986 33	2.83	2	a	15 249.471 10	2.10	2	p,a				
3	1	2	14 857.875 88	4.00	1	a								
3	2	2	14 965.733 32	4.00	1	a								
3	2	1					15 347.567 41	1.00	1	p				
4	0	4	14 869.021 04	3.57	2	p,a	15 320.804 04	1.00	1	p				
4	1	4	14 896.410 87	1.09	1	p	15 326.505 85	3.00	1	p				
4	1	3	14 961.986 01	4.00	1	a								
4	2	3					15 432.329 11	0.97	2	p,a				
4	2	2	15 066.577 24	4.00	1	a					15 717.252 89	2.83	2	a
4	3	2					15 551.106 27	0.82	4	p,a				
4	3	1	15 246.990 18	4.00	1	a								
4	4	0					15 703.099 34	0.97	2	p,a				
5	0	5									15 689.173 64	4.00	1	a
5	1	5	14 993.415 69	3.33	2	p,a								
5	1	4									15 780.134 70	1.00	1	p
5	2	4	15 172.666 20	4.00	1	a								
5	3	2					15 671.786 70	3.43	2	p,a	15 942.019 34	2.31	3	a
5	4	2					15 820.806 39	3.71	1	a	16 095.912 86	4.00	1	a
5	4	1					15 820.592 09	3.81	2	p,a	16 095.376 13	2.83	2	a
5	5	1	15 856.190 65	4.00	1	a					16 278.773 30	4.00		d
5	5	0									16 278.773 30	4.00	1	a
6	0	6	15 093.483 61	2.83	2	a								
6	1	6					15 534.728 87	0.71	2	p	15 804.357 50	4.00	1	a
6	2	5					15 673.970 97	4.00	1	a				
6	2	4					15 729.271 60	4.00	1	a				
6	3	4					15 810.081 74	4.00	1	a	16 078.933 27	0.94	3	p,a
6	3	3					15 816.476 94	4.00	1	a				
6	4	3					15 961.406 58	0.97	2	p,a	16 228.194 45	4.00	1	a
6	4	2	15 743.982 30	0.98	3	p,q	15 961.746 32	0.97	2	p,a	16 238.691 38	4.00	1	a
6	5	2	16 137.056 73	0.99	2	p					16 420.729 48	4.00	1	a
6	5	1									16 420.729 48	4.00		d
7	0	7	15 230.994 82	2.23	1	p								
7	2	6					15 824.291 05	4.00	1	a				
7	2	5					15 907.624 97	0.96	2	p,a				
7	3	5	15 667.080 66	1.00	1	a	15 970.712 47	0.71	2	p				
7	3	4					15 986.997 43	0.96	2	p,a	16 263.852 38	4.00	1	a
7	4	4					16 125.404 75	4.00	1	a				
7	4	3	15 898.063 88	0.99	2	p,q	16 127.444 78	0.87	5	p,a	16 405.981 56	4.00	1	a
7	5	3									16 586.720 77	1.74	2	p,a
7	5	2									16 586.387 67	4.00	1	a
8	1	8					15 800.135 49	1.00	1	p				
8	3	5					16 195.841 13	3.07	2	p,a				
8	4	5					16 312.264 84	4.00	1	a				
J	K_a	K_c	231 or 30^-3				033 or 21^-3				212 or 31^+1			
0	0	0	15 119.028 85	7.00	1	a	15 534.709 35	10.00	1	a	15 742.795 12	15.00	1	a
1	0	1	15 141.861 03	3.58	1	a	15 557.983 43	4.00	1	a	15 765.249 66	2.28	2	a
1	1	1	15 162.673 70	2.21	3	p,a	15 576.908 94	2.49	2	a	15 778.805 41	2.73	2	a
1	1	0	15 168.825 95	2.63	2	a	15 583.259 73	4.00	1	a	15 784.298 82	2.53	2	a
2	0	2	15 186.279 52	1.83	3	p,a	15 603.145 75	2.40	2	a	15 808.718 62	0.93	3	p,a
2	1	2	15 202.221 69	1.65	4	p,a	15 617.163 27	2.00	4	a	15 818.152 11	1.80	4	a
2	1	1	15 220.625 19	1.79	4	p,a	15 636.147 74	2.72	2	a	15 834.625 11	2.83	2	a
2	2	1	15 282.545 22	2.24	2	a	15 691.541 46	2.83	2	a	15 874.730 03	1.90	4	a
2	2	0	15 283.857 82	3.21	2	a	15 692.887 63	2.46	2	a	15 876.039 88	2.31	3	a
3	0	3	15 251.111 45	2.50	2	a	15 667.809 35	3.80	1	a	15 870.960 57	1.97	3	a
3	1	3	15 260.875 28	1.67	5	p,a	15 676.694 27	2.03	3	a	15 876.388 09	0.70	3	p,a
3	1	2	15 297.396 50	1.64	3	p,a	15 714.378 23	3.71	1	a	15 909.025 58	2.13	3	a
3	2	2	15 351.264 89	1.49	6	p,a	15 761.615 45	2.56	2	a	15 941.971 10	2.83	2	a

TABLE 10. Term values for the $4\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	231 or 30^-3				033 or 21^-3				212 or 31^+1			
3	2	1	15 356.785 40	1.95	3	a	15 767.885 48	2.83	2	a	15 947.928 14	2.15	3	a
3	3	1	15 465.535 25	1.39	4	a	15 866.447 11	2.56	2	a	16 021.442 65	0.97	3	p,a
3	3	0	15 465.548 26	2.25	2	a	15 866.634 65	3.80	1	a	16 020.777 63	1.94	4	a
4	0	4	15 332.076 25	1.56	5	p,a	15 749.834 01	2.56	2	a	15 950.153 76	2.26	3	a
4	1	4	15 338.029 25	1.62	4	p,a	15 754.845 02	3.47	1	a	15 952.847 28	2.12	3	a
4	1	3	15 397.862 09	0.92	3	p,a	15 816.377 72	2.56	2	a	16 005.944 97	2.31	3	a
4	2	3	15 441.561 62	2.18	3	a	15 853.811 22	2.83	2	a	16 030.487 04	0.89	5	p,a
4	2	2	15 456.333 00	1.47	4	a	15 870.514 96	1.95	4	a	16 049.087 28	1.94	3	a
4	3	2	15 560.638 67	0.78	6	a	15 961.225 21	2.83	2	a	16 113.268 21	0.91	4	p,a
4	3	1	15 559.940 88	1.53	4	p,a	15 962.400 83	2.25	3	a	16 111.434 61	1.80	4	a
4	4	1	15 707.538 93	3.50	2	a	16 098.735 28	4.00	1	a	16 223.112 47	2.62	2	a
4	4	0	15 707.559 98	1.49	3	a	16 098.776 45	2.40	2	a				
5	0	5	15 429.904 60	2.60	2	a	15 848.259 34	4.00	1	a	16 045.708 29	0.93	3	p,a
5	1	5	15 433.185 84	2.03	3	a	15 851.560 26	2.48	2	a	16 046.944 24	2.24	2	p,a
5	1	4	15 520.185 12	2.15	3	a	15 939.953 33	4.00	1	a	16 123.134 94	2.28	3	a
5	2	4	15 552.255 13	1.82	4	a	15 967.296 24	2.67	2	a	16 139.394 50	2.83	2	a
5	2	3	15 581.804 55	2.83	2	a	16 000.178 62	2.83	2	a	16 172.022 42	2.31	3	a
5	3	3	15 676.336 09	1.42	5	a	16 079.477 69	2.31	3	a	16 228.297 30	4.00	1	a
5	3	2	15 679.118 26	2.22	3	a	16 083.379 74	0.97	2	p,a	16 238.908 29	1.78	3	a
5	4	2	15 824.595 70	1.57	5	a	16 217.886 31	1.79	5	a	16 340.506 05	3.58	1	a
5	4	1	15 824.784 53	1.89	4	a	16 218.428 27	4.00	1	a	16 340.077 10	3.65	1	a
5	5	1	16 000.298 08	1.45	3	a	16 383.597 05	2.70	2	a	16 473.152 55	4.00	1	
5	5	0	16 000.195 88	4.00	1	a	16 383.597 05	2.70		d	16 473.152 55	4.00	1	a
6	0	6	15 543.991 47	1.87	3	p,a	15 962.809 83	2.56	2	a	16 157.745 12	4.00	1	a
6	1	6	15 546.453 08	0.93	3	p,a	15 964.085 97	4.00	1	a	16 158.413 36	2.70	2	a
6	1	5	15 662.019 56	2.56	2	a	16 082.499 37	2.25	3	a	16 258.149 42	2.83	2	a
6	2	5	15 683.545 14	2.72	2	a	16 101.628 55	4.00	1	a	16 267.833 39	0.94	3	p,a
6	2	4	15 729.527 06	1.96	4	a	16 156.120 34	2.56	2	a	16 320.498 84	0.71	2	p
6	3	4	15 815.999 37	2.70	2	a	16 220.763 28	4.00	1	a	16 366.293 20	2.00	4	a
6	3	3	15 824.101 45	1.83	4	a	16 241.969 11	2.31	3	a	16 382.061 11	4.00	1	a
6	4	3	15 965.172 16	2.24	3	a	16 362.857 69	2.83	2	a	16 482.574 77	2.62	2	a
6	4	2	15 966.234 91	1.53	6	a	16 361.635 93	4.00	1	a	16 481.206 75	4.00	1	a
6	5	2	16 140.719 34	2.56	2	a					16 613.232 81	0.97	2	p,a
6	5	1	16 140.753 87	1.62	4	a					16 613.366 35	0.97	2	p,a
6	6	1					16 714.348 18	4.00		d	16 776.093 40	4.00	1	a
6	6	0					16 714.354 04	0.97	2	p,a				
7	0	7	15 674.757 94	2.83	2	a	16 093.952 27	1.87	4	a	16 286.442 72	2.67	3	a
7	1	7	15 667.103 73	3.33	2	a	16 094.969 88	2.72	2	a	16 286.765 48	4.00	1	a
7	1	6	15 820.965 93	4.00	1	a	16 241.787 09	4.00	1	a	16 409.516 06	2.83	2	a
7	2	6	15 833.726 45	2.83	2	a	16 249.876 74	2.31	3	a				
7	2	5	15 920.091 81	4.00	1	a	16 333.989 35	4.00	1	a				
7	3	5	15 977.471 03	1.76	5	a	16 385.322 08	2.22	3	a				
7	3	4	15 994.439 15	0.97	2	p,a					16 552.916 65	0.94	3	p,a
7	4	4	16 129.014 46	1.91	4	a	16 529.723 61	2.83	2	a				
7	4	3	16 133.074 52	2.83	2	a					16 646.148 31	4.00	1	a
7	5	3	16 304.381 86	1.81	3	a	16 695.155 35	4.00	1	a				
7	5	2	16 304.602 91	2.25	3	a	16 695.482 99	4.00	1	a	16 776.979 01	4.00	1	a
8	0	8	15 818.402 59	3.80	1	a	16 242.432 20	4.00	1	a	16 431.510 01	4.00	1	a
8	1	8	15 818.629 09	4.00	1	a								
8	1	7	15 997.273 46	2.70	2	a	16 416.981 36	3.65	1	a				
8	2	7	16 002.453 00	2.83	2	a	16 421.706 29	0.97	2	p,a	16 574.907 07	4.00	1	a
8	2	6	16 119.244 01	2.83	2	a	16 537.395 80	2.83	2	a				
8	3	6									16 701.902 70	4.00	1	a
8	3	5	16 201.719 78	1.86	4	p,a	16 621.178 57	2.83	2	a				
8	4	5									16 817.931 68	4.00	1	a
8	4	4	16 324.615 14	2.21	3	a								
8	5	4	16 584.125 92	4.00	1	a					16 963.132 49	0.97	2	p,a
8	5	3	16 584.869 82	2.83	2	a								
9	0	9	15 984.118 35	4.00	1	a								
9	1	9	15 982.619 15	4.00	1	a	16 407.194 40	4.00	1	a				
9	2	8	16 189.340 11	2.83	2	a	16 610.579 77	4.00	1	a				

TABLE 10. Term values for the $4\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	231 or 30^-3				033 or 21^-3				212 or 31^+1			
9	3	7	16 361.018 13	0.97	2	p,a	16 776.810 05	4.00	1	a				
9	4	6	16 524.304 83	0.97	2	p,a								
J	K_a	K_c	410 or 40^+1				311 or 40^-1				113 or 31^-1			
0	0	0	15 344.503 22	8.00	1	a	15 347.956 45	0.50	1	a	15 832.764 85	2.00	1	a
1	0	1	15 366.987 90	1.43	2	a	15 370.421 50	0.50	1	a	15 855.475 97	2.83	1	a
1	1	1	15 380.624 17	2.67	2	a	15 383.695 25	0.25	4	p,a	15 867.773 30	0.85	2	a
1	1	0	15 386.052 72	1.51	2	a	15 389.157 17	0.40	3	p,a	15 873.401 15	1.83	2	a
2	0	2	15 410.600 18	2.10	2	a	15 413.948 21	0.21	4	a	15 899.319 84	0.67	4	a
2	1	2	15 420.188 50	0.66	4	p,a	15 423.192 09	0.43	4	a	15 907.672 05	0.85	4	p,a
2	1	1	15 436.442 40	2.83	1	a	15 439.547 26	0.23	5	p,a	15 924.481 63	0.66	3	a
2	2	1	15 476.579 56	0.90	2	a	15 479.130 74	0.44	3	a	15 961.011 60	1.77	3	a
2	2	0	15 477.916 13	1.77	3	a	15 480.500 11	0.26	3	a	15 962.538 90	0.83	3	a
3	0	3	15 473.103 88	0.83	3	a	15 476.221 59	0.35	4	a	15 961.825 59	1.35	3	a
3	1	3	15 478.853 56	0.89	3	a	15 481.695 25	0.21	5	p,a	15 966.761 00	0.81	4	a
3	1	2	15 510.973 23	1.07	4	a	15 514.060 08	0.42	5	p,a	15 999.798 74	1.62	3	a
3	2	2	15 544.113 27	2.24	2	a	15 546.633 86	0.28	5	a	16 030.923 61	1.04	5	a
3	2	1	15 550.286 42	1.17	4	a	15 552.917 46	0.55	5	a	16 037.039 88	1.73	4	a
3	3	1	15 624.327 00	2.02	2	a	15 626.529 32	0.28	3	a	16 103.972 57	0.90	2	a
3	3	0	15 624.538 70	0.90	3	a	15 626.746 67	0.48	4	a	16 104.251 06	1.90	2	a
4	0	4	15 552.639 73	1.63	2	a	15 556.895 37	0.28	6	p,a	16 041.223 40	0.78	5	a
4	1	4	15 555.300 55	0.35	5	p,a	15 556.927 89	0.65	5	a	16 041.325 64	1.67	3	a
4	1	3	15 608.164 15	2.35	2	a	15 611.175 52	0.39	6	p,a	16 097.536 62	0.79	5	a
4	2	3	15 632.915 33	0.83	5	a	15 635.390 23	0.64	4	a	16 123.002 54	1.79	3	a
4	2	2	15 648.995 95	2.06	3	a	15 651.793 76	0.34	5	p,a	16 137.678 69	0.82	6	p,a
4	3	2	15 716.744 55	1.36	4	a	15 719.015 93	0.77	5	a	16 195.870 52	1.95	3	a
4	3	1	15 718.153 50	3.12	2	p,a	15 720.388 66	0.39	7	p,a	16 197.609 71	1.37	4	a
4	4	1	15 826.087 27	0.85	3	p,a	15 828.141 02	2.41	3	a	16 296.809 27	2.56	2	a
4	4	0	15 826.106 45	2.40	1	a	15 828.167 09	0.81	4	a	16 296.877 51	1.62	2	a
5	0	5	15 648.732 32	0.89	3	a	15 651.844 32	0.44	3	a	16 137.109 86	1.63	2	a
5	1	5	15 649.334 96	1.85	4	a	15 652.547 01	0.34	5	a	16 137.674 41	0.82	3	a
5	1	4	15 725.889 82	1.30	3	a	15 728.728 04	0.81	5	a	16 215.145 75	1.71	4	a
5	2	4	15 742.068 65	1.50	5	a	15 744.480 89	0.34	4	a	16 224.353 61	1.64	3	a
5	2	3	15 773.896 08	0.82	6	p,a	15 776.398 90	0.66	4	a	16 263.911 99	1.81	4	a
5	3	3	15 832.063 31	1.91	4	a	15 834.223 96	0.40	6	p,a	16 310.703 16	1.45	5	a
5	3	2	15 837.149 89	1.32	4	a	15 839.474 84	1.16	5	a	16 316.589 54	1.71	4	a
5	4	2	15 942.400 37	2.95	2	a	15 944.635 46	0.78	5	a	16 412.724 64	0.87	4	p,a
5	4	1	15 942.613 44	1.61	2	a	15 944.790 91	1.27	5	a	16 413.180 56	2.24	3	a
5	5	1	16 088.893 01	0.93		d	16 090.300 22	1.72	3	a	16 538.737 57	2.31	2	a
5	5	0	16 088.893 01	0.93	3	p,a	16 090.359 13	2.62	2	a	16 538.737 57	2.31		d
6	0	6					15 764.629 17	0.25	4	p,a	16 249.655 26	0.91	3	a
6	1	6	15 761.361 82	0.87	4	a	15 764.480 03	0.86	3	p,a	16 250.008 00	1.77	3	a
6	1	5	15 861.904 47	2.54	3	a	15 864.493 35	0.42	5	p,a	16 350.123 40	1.29	5	a
6	2	5	15 870.653 25	0.86	5	a	15 872.979 62	1.14	4	a	16 354.069 54	1.92	4	a
6	2	4	15 922.233 83	2.22	3	a	15 924.821 62	0.43	5	a	16 413.849 51	1.39	4	a
6	3	4	15 969.789 07	1.60	4	a	15 971.898 64	1.17	5	p,a	16 447.904 62	2.06	3	a
6	3	3	15 982.683 49	2.22	3	a	15 985.181 74	0.73	5	a	16 461.491 56	2.11	3	a
6	4	3	16 082.115 00	1.83	3	a	16 084.031 08	1.35	6	a	16 551.918 06	2.27	3	a
6	4	2	16 083.354 76	4.00	1	a	16 085.471 68	1.05	5	a	16 553.916 17	1.85	4	a
6	5	2	16 230.206 54	3.33	1	a	16 231.260 18	0.58	3	p				
6	5	1	16 230.212 74	3.58	1	a	16 231.880 18	1.34	4	a	16 678.411 56	2.22	3	a
6	6	1	16 344.163 75	4.00	1	a					16 829.378 62	3.80		d
6	6	0	16 344.163 75	4.00		d	16 340.749 71	2.06	2	a	16 829.378 62	3.80	1	a
7	0	7	15 889.119 15	1.63	2	a	15 892.170 41	0.90	3	a	16 379.056 80	1.94	3	a
7	1	7	15 889.852 20	3.47	1	a	15 893.059 50	0.44	3	a	16 378.408 74	1.48	3	a
7	1	6	16 015.341 08	1.83	3	a	16 018.550 96	0.90	3	a	16 501.210 05	2.70	2	a
7	2	6	16 017.459 37	2.83	2	a	16 020.197 36	0.80	4	a	16 502.947 49	0.83	4	p,a
7	2	5	16 092.065 50	0.87	4	p,a	16 094.794 60	1.75	3	a	16 584.094 27	2.70	2	a
7	3	5	16 128.007 98	3.47	1	a	16 131.551 36	1.24	4	a	16 608.111 51	3.32	2	a
7	3	4	16 154.911 01	1.90	4	a	16 157.659 61	1.86	3	a	16 651.304 77	4.00	1	a
7	4	4	16 245.088 43	3.58	1	a	16 246.961 72	1.41	5	a				

TABLE 10. Term values for the $4\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	410 or $40^{+}1$				311 or $40^{-}1$				113 or $31^{-}1$			
7	4	3	16 248.581 90	2.06	2	a	16 250.901 40	1.76	4	a	16 720.077 47	2.83	2	a
7	5	3	16 395.033 48	4.00	1	a	16 395.869 61	1.76	4	a	16 841.851 56	2.31	3	a
7	5	2	16 395.022 83	4.00	1	a	16 398.185 39	4.00	1	a				
7	6	2					16 506.622 19	1.77	4	a	16 992.721 37	4.00	1	a
7	6	1	16 606.135 46	0.94	3	p,a								
8	0	8	16 035.769 25	3.12	1	a	16 038.795 45	0.68	3	a	16 524.555 70	1.90	2	a
8	1	8	16 035.873 95	2.10	3	a	16 039.069 23	2.46	2	p,a	16 525.023 24	4.00	1	a
8	1	7					16 182.977 42	0.91	3	a	16 668.482 54	2.46	2	a
8	2	7	16 177.543 42	1.31	4	a	16 184.652 33	1.88	3	a	16 668.827 32	3.12	1	a
8	2	6					16 282.993 73	0.83	5	p,a	16 777.374 62	0.94	3	p,a
8	3	6	16 307.365 78	2.15	3	a	16 309.235 15	2.15	3	a	16 787.696 70	2.83	2	a
8	3	5	16 352.585 14	4.00	1	a	16 355.579 87	1.48	5	p,a	16 847.240 45	0.94	3	p,a
8	4	5	16 430.711 91	0.94	3	p,a	16 433.252 85	2.22	3	a	16 902.024 52	2.83	2	a
8	4	4	16 440.061 90	4.00	1	a	16 442.026 50	1.80	4	a				
8	5	4									17 029.280 77	1.00	1	p
8	5	3					16 492.005 65	1.90	4	a	17 029.289 92	4.00	1	a
9	0	9	16 198.665 61	3.10	2	p,a	16 201.600 66	10.00	1	a	16 688.088 84	3.65	1	a
9	1	9	16 198.682 43	3.65	1	a	16 201.647 16	0.83	3	a	16 688.103 36	2.06	2	a
9	1	8					16 365.996 59	2.62	2	a	16 846.682 12	1.00	1	p
9	2	8	16 363.462 51	2.83	2	a	16 367.333 44	1.61	4	a	16 851.489 19	2.67	2	a
9	2	7	16 483.103 04	4.00	1	a					16 980.792 34	4.00	1	a
9	3	7					16 508.049 66	1.71	4	a	16 987.316 50	4.00	1	a
9	3	6	16 573.455 43	0.71	2	p	16 576.906 34	2.40	3	p,a				
9	4	6	16 638.294 23	4.00	1	a	16 641.066 90	2.67	2	a	17 109.234 83	2.09	3	p,a
9	4	5	16 657.074 96	4.00	1	a								
9	5	5					16 701.352 67	4.00	1	a	17 239.658 25	4.00	1	a
10	0	10					16 381.113 20	1.43	2	a	16 868.095 04	3.47	1	a
10	1	10					16 381.109 98	12.00	1	a	16 868.052 03	3.80	1	a
10	1	9					16 566.389 91	2.06	2	a	17 051.050 94	4.00	1	a
10	2	9					16 567.038 08	2.56	2	a	17 051.171 04	4.00	1	a
10	2	8									17 205.483 21	4.00	1	a
10	3	8					16 726.425 32	3.71	1	a				
10	3	7					16 819.081 95	2.83	2	a				
10	4	7					16 870.079 34	4.00	1	a				
11	0	11					16 577.332 35	3.47	1	a				
11	1	11					16 577.410 18	2.03	2	a	17 064.347 03	4.00	1	a
11	1	10					16 784.403 54	4.00	1	a	17 267.008 01	1.00	1	p
11	2	10					16 782.976 19	4.00	1	a	17 267.713 66	1.00	1	p
11	3	8									17 570.849 26	1.00	1	p
12	0	12					16 790.304 16	2.56	2	a				
12	1	12					16 790.163 06	4.00	1	a				
12	1	11					17 013.368 55	4.00	1	a				
12	2	11					17 018.467 97	4.00	1	a				
J	K_a	K_c	071 or $10^{-}7$				170 or $10^{+}7$							
0	0	0	13 835.372 35	1.00	1	a								
2	0	2	13 904.450 44	2.25	2	p,a	13 730.529 61	1.32	2	p,a				
3	0	3					13 800.804 50	1.07	2	p				
4	0	4	14 062.997 58	5.08	1	a	13 895.666 07	4.00	1	a	052 or 11 5			
5	2	3									15 771.387 05	0.71	2	p
6	0	6	14 306.547 83	5.14	1	a								
7	1	7	14 548.808 39	5.19	1	a	14 429.633 69	1.41	4	p,a	250 or $20^{+}5$			
7	5	2									16 301.366 54	0.98	2	p
7	6	1	16 435.315 15	0.99	2	p								
8	0	8	14 622.519 21	0.85	3	p,a								
8	1	7	14 945.111 42	5.22	1	a								
9	0	9					14 685.605 01	0.28	4	p,a				

TABLE 10. Term values for the $4\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	071 or $10^{-}7$				170 or $10^{+}7$			
9	1	9	14 888.200 59	20.04	1	a				
9	2	8	15 323.815 58	2.83	2	a				
9	3	7					15 596.848 47	0.71	2	p
10	1	9	15 426.183 39	5.22	1	a				
11	1	11	15 303.078 62	3.04	2	p,a				

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 11. Term values for the 5ν polyad of $H_2{}^{16}O$

J	K_a	K_c	340 or 30^+4				241 or 30^-4				043 or 21^-4			
1	0	1					16 569.09526	0.97	2	p,a				
1	1	1					16 597.11831	2.83	2	a	17 015.61174	10.00	1	r
1	1	0					16 603.59042	4.00	1	a				
2	0	2					16 613.65053	0.94	3	p,a				
2	1	2					16 636.53491	4.00	1	a				
2	1	1					16 655.68503	0.93	4	p,a	17 075.58937	3.71	2	a
2	2	0									17 147.13460	4.00	1	a
3	0	3	16 665.70385	0.94	3	p,a	16 677.70615	4.00	1	a				
3	1	3					16 694.64287	0.94	3	p,a	17 114.69139	10.00	1	r
3	1	2	16 721.11141	2.83	2	a	16 732.89302	4.00	1	a				
3	2	2	16 795.43846	4.00	1	a								
3	2	1	16 800.56607	4.00	1	a								
3	3	1	16 937.39498	4.00	1	a	16 943.37489	2.31	3	a	17 343.26828	4.00	1	a
3	3	0					16 943.58466	4.00	1	a				
4	0	4	16 747.98666	4.00	1	a	16 760.07704	4.00	1	a				
4	1	4					16 771.60172	4.00	1	a	17 193.03469	2.83	2	a
4	1	3									17 257.65673	2.31	3	a
4	2	3	16 885.90557	4.00	1	a								
4	2	2					16 907.96437	0.97	2	p,a				
4	3	2	17 032.09526	2.31	3	a	17 038.41131	2.72	3	a	17 438.46233	10.00	1	r
4	3	1	17 031.43432	4.00	1	a	17 037.69236	2.31	3	a				
4	4	1	17 210.45200	2.31	3	a	17 213.06665	4.00	1	a				
4	4	0	17 210.42490	4.00	1	a	17 213.21648	4.00	1	a	17 600.99425	4.00	1	a
5	0	5	16 846.93449	4.00	1	a								
5	1	5									17 288.39518	4.00	1	a
5	1	4	16 947.01516	4.00	1	a	16 958.92824	4.00	1	a	17 383.72611	3.71	1	r
5	2	4	16 997.17102	4.00	1	a								
5	2	3	17 023.11045	4.00	1	a								
5	3	3	17 148.69224	2.31	3	a	17 154.76719	2.31	3	a	17 558.32850	4.00	1	a
5	3	2	17 149.30246	2.31	3	a								
5	4	2					17 330.28404	2.72	3	a				
5	4	1	17 327.78235	2.31	3	a	17 330.53108	2.31	3	a				
5	5	1					17 659.62435	10.00	1	r	17 912.56035	10.00	1	r
5	5	0	17 657.78373	3.71	1	r	17 659.62435	10.00		d	17 912.56035	10.00		d
6	0	6									17 399.11533	0.92	4	p,a
6	1	6									17 402.37546	10.00	1	r
6	2	4	17 172.63846	10.00	1	r	17 184.49328	0.97	2	p,a				
6	3	4	17 288.06766	2.00	4	a	17 294.26120	10.00	1	r				
6	3	3	17 291.68555	4.00	1	a	17 299.28973	2.19	5	a				
6	4	3	17 468.33305	1.79	5	a	17 470.74050	2.83	2	a				
6	4	2	17 469.48095	3.71	1	r	17 472.11039	2.31	3	a	17 864.72533	4.00	1	a
6	5	1					17 801.58394	2.83	2	a				
7	0	7	17 090.64118	4.00	1	a								
7	1	7					17 100.36078	4.00	1	a				
7	1	6	17 255.35048	4.00	1	a								
7	2	6									17 710.12576	4.00	1	a
7	2	5	17 340.13528	2.75	2	a	17 368.07404	4.00	1	a				
7	3	5	17 450.13759	10.00	1	r								
7	3	4	17 457.86718	2.31	3	a	17 466.30490	4.00	1	a				
7	4	4	17 633.16291	0.88	4	p,r	17 634.52926	2.31	3	a				
7	4	3					17 639.19130	2.83	2	a				
J	K_a	K_c	142 or 21^+4				222 or 31^+2				104 or 32^+0			
1	0	1					17 249.80712	2.83	2	a	17 770.35365	2.67	2	a
1	1	1	16 846.48390	10.00	1	r	17 265.33973	3.71	1	r	17 780.07273	4.00	1	a
1	1	0	16 852.64516	2.83	2	a	17 271.14302	4.00	1	a	17 785.30306	0.95	3	p,a
2	0	2					17 293.42144	2.83	2	a	17 813.22247	2.83	2	a
2	1	2	16 885.69123	2.83	2	a	17 304.41002	2.24	3	a	17 819.33882	2.00	4	a
2	1	1	16 904.11089	4.00	1	a	17 321.85344	4.00	1	a	17 834.99847	3.71	2	r,a
2	2	1	16 996.32085	4.00	1	a	17 371.50597	2.72	3	r,a	17 863.99823	2.22	3	a
2	2	0					17 372.65308	2.63	2	r	17 865.61473	2.72	3	r,a
3	0	3	16 927.65208	2.31	3	a	17 355.99155	2.31	3	a	17 874.25555	2.31	3	a
3	1	3	16 944.23825	2.22	3	a	17 362.22181	3.55	2	r,a	17 877.32125	2.83	2	a
3	1	2	16 979.99742	2.31	3	a	17 396.87471	2.31	3	a	17 908.25080	2.31	3	a

TABLE 11. Term values for the 5ν polyad of $H_2^{16}O$—Continued

J	K_a	K_c	142 or	21^+4			222 or	31^+2			104 or	32^+0		
3	2	2	17 064.69114	3.48	2	r	17 438.81588	4.00	1	a	17 930.76026	2.83	2	a
3	2	1	17 069.27611	2.31	3	a	17 443.34717	2.31	3	a	17 937.94590	2.24	3	a
3	3	1					17 535.11290	10.00	1	r	17 992.43005	4.00	1	a
3	3	0					17 535.04201	4.00	1	a	17 992.75638	2.75	2	a
4	0	4	17 009.99809	2.31	3	a	17 435.56970	4.00	1	a	17 952.00714	3.71	2	r,a
4	1	4	17 019.28015	2.83	2	a	17 438.24711	2.83	2	a	17 953.31028	2.31	3	a
4	1	3	17 097.76898	2.72	3	r,a	17 494.83907	7.07	2	r	18 003.10723	2.83	2	a
4	2	3	17 153.64155	2.00	4	a	17 527.58876	2.31	3	a	18 018.40446	1.96	5	r,a
4	2	2	17 168.86346	10.00	1	r	17 544.18615	3.71	2	r,a				
4	3	2	17 302.22711	4.00	1	a	17 621.78321	4.00	1	a	18 083.92195	2.83	2	a
4	3	1					17 628.79164	4.00	1	a	18 086.04676	4.00	1	a
4	4	1	17 486.12336	3.71	1	r	17 752.56717	2.31	3	a	18 165.84447	4.00	1	a
4	4	0									18 165.92824	4.00	1	a
5	0	5	17 108.78447	2.31	3	a	17 531.66504	2.31	3	a	18 046.28280	2.25	3	r,a
5	1	5	17 113.72309	4.00	1	a	17 532.00959	10.00	1	r	18 046.79464	3.71	2	r,a
5	1	4	17 198.94000	2.25	3	a	17 613.63490	2.83	2	a	18 117.11093	1.96	5	r,a
5	2	4	17 265.16718	2.31	3	a								
5	2	3	17 295.56412	2.00	4	a	17 668.93123	2.31	3	a	18 159.82519	3.71	1	r
5	3	3	17 419.06948	10.00	1	r	17 738.93301	3.71	1	r	18 197.92351	4.00	1	a
5	3	2					17 747.26050	3.48	2	r	18 205.30562	2.83	2	a
5	4	2					17 868.88727	3.71	1	r				
5	4	1					17 870.39189	2.72	3	r,a	18 281.27431	4.00	1	a
5	5	1					18 022.23917	10.00	1	r				
5	5	0					18 022.41691	2.83	2	a	18 383.94974	4.00	1	a
6	0	6	17 223.09722	2.31	3	a					18 157.36682	4.00	1	a
6	1	6	17 225.03379	2.67	2	a	17 642.75144	4.00	1	a	18 157.29308	3.71	2	r,a
6	1	5	17 363.87159	2.31	3	a								
6	2	5	17 396.57868	2.83	2	a	17 766.68565	7.07	2	r	18 251.96455	2.83	2	a
6	2	4	17 447.09415	2.31	2	a								
6	3	4					17 877.76101	3.71	2	r,a	18 333.43920	2.72	3	r,a
6	4	3					18 008.55729	3.71	2	r,a	18 419.06268	4.00	1	a
6	5	2					18 160.31830	3.71	1	r	18 522.48469	4.00	1	a
6	5	1					18 161.52090	3.71	1	r				
6	6	1					18 400.41935	10.00	1	r				
7	0	7	17 370.89011	2.05	3	a					18 284.67112	4.00	1	a
7	1	7	17 373.49475	2.31	3	a					18 285.05218	4.00	1	a
7	1	6	17 526.74031	2.83	2	a					18 393.77660	4.00	1	a
7	2	6	17 547.29412	2.72	3	r,a								
7	2	5	17 619.63384	2.63	2	r,?					18 471.65605	4.00	1	a
7	3	4									18 523.23541	4.00	1	a
7	4	3									18 587.34322	4.00	1	a
8	0	8	17 517.12484	2.31	3	a					18 430.11664	4.00	1	a
8	1	8	17 493.43296	2.83	2	a					18 429.93024	4.00	1	a
8	1	7	17 640.74942	2.83	2	a								
8	2	7									18 557.97591	4.00	1	a
8	3	6	17 897.16017	3.71	1	r								
9	0	9	17 681.03104	2.83	2	a								
9	1	9	17 677.36893	2.83	2	a								
9	1	8	17 910.60032	10.00	1	r								

J	K_a	K_c	420 or	40^+2			321 or	40^-2			302 or	41^+0		
0	0	0					16 821.63545	1.00	1	a	17 458.35422	12.00	1	a
1	0	1	16 846.06843	4.00	1	a	16 844.00637	1.79	1	a	17 480.26671	1.55	2	a
1	1	1	16 865.11081	2.83	2	a	16 859.33668	0.49	2	a	17 490.72287	2.73	2	a
1	1	0	16 870.61254	2.65	2	a	16 865.01781	1.27	2	a	17 495.88736	1.83	2	a
2	0	2	16 889.80571	2.31	3	a	16 887.40081	0.67	4	a	17 522.88466	1.93	3	a
2	1	2	16 903.83827	2.83	2	a	16 898.38630	0.84	4	a	17 529.62646	1.68	4	a
2	1	1	16 921.83218	4.00	1	a	16 915.37928	0.33	4	a	17 545.03905	1.88	3	a
2	2	1	16 956.77560	1.48	3	a	16 959.64955	0.92	4	a	17 575.41705	1.86	3	a
2	2	0	16 957.90798	2.00	3	a	16 960.65536	0.42	4	a	17 578.51350	2.67	2	a
3	0	3	16 952.40619	1.58	2	a	16 949.57731	1.33	4	a	17 583.75976	1.79	3	a
3	1	3	16 961.97039	2.06	4	p,a	16 956.33144	0.35	4	a	17 587.19609	1.97	4	r,a
3	1	2	16 997.88718	2.31	3	a	16 989.86214	0.79	4	a	17 617.62627	1.70	4	a
3	2	2	17 023.73340	1.97	3	a	17 026.53027	0.40	4	a	17 641.43773	1.88	5	r,a
3	2	1	17 030.41810	0.99	4	a	17 033.13962	1.10	4	a	17 649.62360	1.40	5	a

TABLE 11. Term values for the 5ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	420 or	40^+2			321 or	40^-2			302 or	41^+0		
3	3	1	17 164.05231	8.00	1	a	17 165.48295	0.48	2	a	17 709.00122	2.46	2	a
3	3	0	17 164.15114	1.63	2	a	17 165.69753	0.94	2	a	17 709.08002	1.35	4	r,a
4	0	4	17 030.56157	3.33	1	a	17 028.54808	0.81	4	a	17 661.30525	2.12	3	a
4	1	4	17 038.44650	0.87	4	a	17 032.48065	0.91	3	a	17 662.79089	1.78	3	a
4	1	3	17 079.14005	0.97	2	p,a	17 086.97285	0.43	3	a	17 711.93782	2.16	3	a
4	2	3	17 111.71444	4.00	1	a	17 114.41842	1.18	5	a	17 728.36839	1.43	6	r,a
4	2	2	17 127.77933	2.31	3	a	17 130.82270	0.53	5	a	17 746.39957	2.09	5	r,a
4	3	2	17 255.89749	1.63	2	a	17 257.53469	1.49	3	a	17 800.91261	1.40	4	a
4	3	1	17 257.24086	2.67	2	a	17 259.07035	0.76	5	a	17 801.49595	2.00	3	a
4	4	1	17 373.42744	2.83	2	a	17 374.86616	12.00	1	a	17 887.29183	2.06	2	a
4	4	0	17 373.43827	4.00	1	a	17 374.89123	2.35	2	a	17 887.30632	3.47	1	a
5	0	5	17 128.64705	0.47	3	a	17 123.83753	1.71	4	a	17 755.22870	1.94	3	a
5	1	5	17 132.49431	2.00	4	a	17 124.54974	2.03	3	a	17 755.86009	1.94	4	a
5	1	4	17 220.23444	2.83	2	a	17 204.55330	1.28	4	a	17 825.55273	1.72	4	a
5	2	4	17 219.74766	2.03	2	a	17 222.35578	0.63	5	p,a	17 835.21393	1.90	3	a
5	2	3	17 250.93702	2.31	3	a	17 254.10175	1.82	4	a	17 866.87136	1.61	4	a
5	3	3	17 369.43474	2.46	2	a	17 372.47710	0.90	4	a	17 916.77623	1.76	4	r,a
5	3	2	17 375.54021	2.13	4	a	17 377.28833	2.14	3	a	17 918.76600	1.75	4	a
5	4	2	17 490.19102	4.00	1	a	17 491.71871	2.18	3	a	18 001.81074	3.71	1	a
5	4	1	17 490.35649	2.25	3	a	17 491.90018	3.80	1	a	18 001.97518	2.10	3	a
5	5	1					17 555.60683	3.71	1	r	18 113.96598	4.00	1	a
5	5	0	17 556.45711	3.71	1	r					18 113.82246	4.00	1	a
6	0	6	17 241.48661	1.50	3	a	17 235.39137	0.76	5	p,a	17 865.70584	2.83	2	a
6	1	6	17 244.05052	2.14	3	a	17 234.96706	2.17	3	a	17 865.75330	2.19	3	a
6	1	5	17 336.62791	2.83	2	a	17 340.34778	0.64	6	p,a	17 956.12365	2.25	4	r,a
6	2	5	17 346.82919	1.61	4	a	17 349.28689	1.61	4	a	17 960.42512	1.87	4	a
6	2	4	17 397.46773	2.25	4	r,a	17 401.27004	0.88	4	a	18 014.83794	7.07	2	r
6	3	4	17 507.79187	4.00	1	a	17 508.37619	3.29	3	a	18 039.89987	1.83	5	r,a
6	3	3					17 522.09069	1.70	4	a	18 061.99755	2.83	2	a
6	4	3	17 630.91010	10.00	1	r	17 631.79448	10.00	1	r	18 139.42486	2.31	2	a
6	4	2	17 631.02517	3.71	1	r	17 632.92197	3.71	1	r	18 140.17202	2.72	2	a
6	5	2	17 802.71411	3.71	1	r					18 251.67609	2.83	2	a
6	5	1	17 801.02348	10.00	1	r					18 252.37546	3.71	2	r,a
6	6	1									18 336.58690	10.00	1	r
6	6	0									18 336.58690	10.00		d
7	0	7	17 358.89693	2.83	2	a	17 354.75096	2.83	2	a				
7	1	7	17 353.46089	4.00	1	a	17 362.30386	1.97	2	a	17 992.72185	2.83	2	a
7	1	6	17 490.87446	2.00	4	a	17 491.93191	2.02	2	a	18 102.64722	1.94	4	a
7	2	6	17 494.30561	2.31	3	a	17 494.74889	1.41	3	a	18 104.40878	7.07	2	r
7	2	5	17 637.40498	2.00	4	a	17 568.44581	1.94	4	a				
7	3	5	17 666.95213	4.00	1	a	17 668.46050	3.71	1	r	18 204.23971	3.71	1	a
7	3	4	17 691.03682	3.12	1	a					18 231.00318	2.63	2	r
7	4	4					17 795.69461	3.71	1	r	18 300.10572	3.71	1	r
7	4	3									18 303.36558	2.63	2	r
7	5	3					17 860.62160	10.00	1	r	18 412.29571	3.71	1	r
7	5	2									18 413.14070	3.71	1	r
8	0	8					17 509.28254	1.50	3	a				
8	1	8					17 495.10434	3.71	1	r	18 136.48454	2.63	2	r
8	1	7					17 654.62756	1.61	2	a				
8	2	7					17 656.29214	2.72	3	a				
8	2	6					17 753.74520	1.67	4	a				
8	3	6									18 380.96370	2.46	2	a
8	3	5					17 885.45974	1.66	4	a				
8	4	5									18 457.24243	2.63	2	r
8	5	4									18 596.25524	10.00	1	r
8	5	3									18 509.21295	10.00	1	r
9	1	8					17 834.41508	3.71	1	r				
9	2	8					17 836.36141	2.83	2	a				
10	0	10					17 857.35155	2.46	2	a				
10	1	10					17 857.25698	12.00	1	a				
J	K_a	K_c	500 or	50^+0			401 or	50^-0			203 or	41^-0		
0	0	0					16 898.84185	0.50	1	a	17 495.52845	1.00	1	a
1	0	1	16 920.52715	3.71	1	r	16 920.93915	2.35	2	a	17 517.77224	2.06	2	a
1	1	1	16 931.91222	4.00	1	a	16 932.30300	0.35	2	a	17 527.68489	0.69	2	a

TABLE 11. Term values for the 5ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	500 or	50^+0			401 or	50^-0			203 or	41^-0		
1	1	0	16 936.98994	2.02	2	a	16 937.39744	0.44	2	a	17 532.90048	1.95	2	a
2	0	2	16 963.52392	1.62	3	a	16 964.06050	0.35	2	a	17 560.58935	0.44	4	a
2	1	2	16 971.11004	0.80	3	a	16 971.45992	0.68	3	a	17 566.22267	1.30	3	a
2	1	1	16 986.33879	2.70	2	a	16 986.73377	0.29	4	a	17 583.48471	0.66	4	a
2	2	1	17 021.81090	1.41	4	a	17 021.79652	0.48	2	a	17 612.29440	1.49	3	a
2	2	0	17 023.13184	2.72	2	a	17 023.13986	0.35	2	a	17 613.87557	0.83	3	a
3	0	3	17 024.20378	0.47	3	a	17 024.63421	0.43	4	a	17 621.54498	1.34	4	r,a
3	1	3	17 029.07998	0.87	3	a	17 029.25846	0.34	5	a	17 624.09125	0.66	3	a
3	1	2	17 059.29290	1.24	4	a	17 059.65620	0.42	5	a	17 656.53345	1.27	4	a
3	2	2	17 088.62954	2.25	3	a	17 088.47278	0.33	5	a	17 677.96014	0.99	5	r,a
3	2	1	17 094.70227	1.51	4	a	17 094.61332	0.93	3	a	17 684.86714	1.37	4	a
3	3	1	17 107.26259	2.06	2	a	17 108.52145	0.44	4	a	17 742.13480	0.86	4	a
3	3	0	17 107.49795	1.39	3	a	17 108.76353	0.89	3	a	17 742.45012	1.48	3	a
4	0	4	17 102.88293	0.89	3	a	17 103.10359	0.35	5	a	17 699.13900	0.44	4	a
4	1	4	17 105.22826	0.48	2	a	17 105.42736	0.48	4	a	17 699.25786	1.66	3	a
4	1	3	17 154.30239	1.55	3	a	17 154.61616	0.34	5	a	17 750.96018	0.78	6	a
4	2	3	17 176.62822	0.87	4	a	17 176.21151	0.79	4	a	17 764.57719	1.47	4	a
4	2	2	17 192.26298	1.90	5	a	17 192.14239	0.42	4	a	17 781.30826	0.98	4	a
4	3	2	17 197.96565	1.45	3	a	17 199.16103	0.78	4	a	17 832.25170	1.48	5	a
4	3	1	17 199.48386	2.01	3	a	17 200.68132	0.42	4	a	17 834.29554	1.20	5	r,a
4	4	1	17 297.83278	1.51	3	a	17 298.48120	1.98	3	a	17 918.32833	2.56	2	a
4	4	0	17 297.88341	1.56	3	a	17 298.51075	0.47	3	a	17 918.37571	1.50	3	a
5	0	5	17 197.84651	0.49	3	a	17 199.02161	0.47	4	a	17 793.20392	1.47	3	a
5	1	5	17 197.95207	1.54	4	a	17 199.12409	0.43	5	a	17 793.36202	0.47	4	r,a
5	1	4	17 269.28007	0.89	4	a	17 269.45793	0.86	4	a	17 864.41321	1.27	5	a
5	2	4	17 285.33052	1.61	4	a	17 284.16345	0.43	5	a	17 871.42741	0.82	4	a
5	2	3	17 315.94979	1.36	4	a	17 315.30138	1.11	6	a	17 900.90657	1.67	4	a
5	3	3	17 310.67856	1.39	4	a	17 311.80902	0.62	5	a	17 944.75009	1.33	5	a
5	3	2	17 316.54207	1.23	6	a	17 317.68770	1.08	4	a	17 951.78157	0.88	4	p,a
5	4	2	17 411.52658	2.83	2	a	17 411.46907	0.75	6	a	18 031.76899	1.78	4	a
5	4	1	17 411.77159	2.83	2	a	17 411.78064	1.46	3	a	18 032.24505	1.80	4	a
5	5	1	17 508.84702	3.48	2	r	17 509.03405	0.91	3	a	18 143.45827	2.00	3	a
5	5	0	17 508.81406	2.06	2	a	17 509.03405	0.91		d				
6	0	6	17 309.42813	0.93	2	a	17 310.19137	0.44	3	a	17 903.01414	0.85	4	a
6	1	6	17 309.37376	3.12	1	a	17 310.22454	0.88	3	a	17 903.83506	1.51	2	a
6	1	5	17 402.41173	1.99	2	a	17 402.34488	0.86	3	a	17 994.80062	1.33	4	a
6	2	5	17 412.79484	0.88	4	a	17 411.45943	1.71	4	a	17 997.51501	2.04	3	a
6	2	4	17 447.25362	2.83	1	a	17 461.38905	0.85	5	a	18 057.27215	1.24	6	a
6	3	4	17 445.45331	0.85	5	a	17 447.08632	2.23	3	a	18 078.97700	1.84	4	a
6	3	3	17 459.56039	2.31	3	a	17 460.58780	0.77	4	a	18 095.76628	1.64	4	a
6	4	3	17 546.86380	0.82	4	p,a	17 547.51737	1.78	4	a	18 168.43818	2.31	3	a
6	4	2	17 548.31334	1.79	4	a	17 549.00058	1.04	5	a	18 170.41757	1.81	4	a
6	5	2	17 645.02008	2.00	3	a	17 645.01414	2.06	4	a	18 281.98190	3.71	1	r
6	5	1	17 645.07089	3.37	2	a	17 645.06770	1.56	5	a	18 281.73831	2.00	4	a
6	6	1	17 773.70996	2.83	2	a	17 778.88630	1.62		d				
6	6	0	17 773.70996	2.83		d	17 778.88630	1.62	2	a				
7	0	7	17 436.58237	10.00	1	r	17 437.83930	1.58	2	a	18 030.95690	2.35	2	a
7	1	7	17 437.44130	1.77	3	a	17 438.09252	0.44	2	a	18 031.21454	0.90	3	a
7	1	6	17 552.91130	1.67	5	a	17 552.24477	10.00	1	r	18 137.32084	3.71	1	r
7	2	6	17 560.54324	2.00	3	a	17 557.38602	1.45	3	a	18 141.74329	1.64	4	a
7	2	5	17 564.79801	2.27	3	a	17 628.02577	2.12	3	a	18 220.05500	2.19	3	a
7	3	5	17 600.79011	1.90	4	a	17 601.84597	1.41	5	a	18 234.11618	1.71	5	a
7	3	4	17 628.07301	1.97	4	a	17 628.31373	2.11	3	a	18 265.19471	2.31	3	a
7	4	4	17 705.66255	2.72	2	a	17 705.97754	1.42	5	a	18 327.93691	2.19	3	a
7	4	3	17 710.27072	1.31	5	a	17 710.04006	1.86	4	a	18 333.92147	2.31	3	a
7	5	3	17 803.97126	2.62	2	a	17 803.74931	1.99	4	a	18 440.36894	3.71	1	r
7	5	2	17 804.22031	1.86	4	a	17 804.04539	1.92	4	a	18 439.60165	10.00	1	r
7	6	2					17 936.79254	2.05	3	a	18 527.15820	3.71	1	r
7	6	1	17 931.42441	2.83	2	a	17 938.89788	10.00	1	r				
7	7	1	18 084.66811	10.00		d	18 083.75779	0.91	4	p,a	18 644.22013	0.97	1	p,r
7	7	0	18 084.66811	10.00	1	r								
8	0	8	17 582.22918	3.71	1	a	17 582.98420	0.94	2	a	18 175.33611	1.41	3	a
8	1	8	17 582.63544	0.94	2	a	17 583.15041	1.61	2	a	18 175.22194	3.71	1	r
8	1	7	17 711.73432	2.83	1	a	17 713.38990	1.65	4	a	18 302.56787	2.25	3	r,a
8	2	7	17 725.72853	2.10	3	a	17 720.19677	3.65	1	a	18 303.36173	3.71	1	r

TABLE 11. Term values for the 5ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	500 or 50^+0				401 or 50^-1				203 or 41^-0			
8	2	6					17 813.85574	2.15	3	a	18 401.19284	1.58	6	a
8	3	6	17 776.68990	10.00	1	r,?	17 776.77050	2.70	2	a	18 410.71471	3.71	1	r
8	3	5	17 823.55561	3.71	1	r	17 824.60170	1.69	4	a				
8	4	5	17 893.95173	3.48	2	a	17 889.01757	2.63	2	r				
8	4	4	17 896.56976	10.00	1	r	17 898.54525	1.98	3	a	18 523.96175	3.71	1	r
8	5	4	17 983.96324	10.00	1	r					18 561.02976	10.00	1	r
8	5	3	17 984.88731	3.71	1	r	17 986.30860	2.18	4	a	18 562.01860	10.00	1	r
8	6	3					18 117.96643	1.00	2	p,r				
8	6	2					18 118.08775	3.71	1	r	18 714.10862	3.71	1	r
8	7	2	18 261.20765	10.00	1	r								
8	7	1	18 261.20765	10.00		d								
9	0	9	17 741.28469	2.40	1	a	17 744.71626	1.60	2	a	18 336.30694	2.40	1	a
9	1	9					17 743.57411	0.93	2	a	18 336.29252	1.92	3	a
9	1	8	17 829.06029	3.71	1	r	17 897.31865	3.65	1	a				
9	2	8	17 832.01206	10.00	1	r								
9	2	7	17 972.66107	10.00	1	r	17 968.00176	10.00	1	r	18 601.79476	10.00	1	r
9	3	7					17 971.78625	3.76	2	a				
9	3	6	18 091.86069	10.00	1	r,?	18 038.82339	3.71	1	r	18 690.45853	3.71	1	r
9	4	5	18 111.49654	3.71	1	r								
9	5	5					18 188.72971	1.00	2	p,r				
9	5	4	18 188.66283	0.97	2	p,r								
10	0	10					17 923.20196	2.03	2	a	18 513.95641	2.74	2	a
10	1	10									18 513.89273	3.76	1	a
10	1	9					18 098.73979	2.63	2	a	18 676.73526	3.71	1	r
10	2	9									18 675.23030	3.71	1	r
10	2	8					18 179.06462	10.00	1	r	18 814.68127	3.71	1	r
10	3	7									18 915.89779	3.71	1	r
11	1	11					18 118.40709	2.27	2	a				
11	2	10					18 318.45673	3.58	1	a				

J	K_a	K_c	123 or 31^-2			
0	0	0	17 312.53895	5.00	1	a
1	0	1	17 335.30492	3.33	1	a
1	1	1	17 349.86615	2.63	2	a
1	1	0	17 355.82390	3.12	1	a
2	0	2	17 379.31535	2.32	2	a
2	1	2	17 389.61106	3.62	2	a
2	1	1	17 407.34938	2.12	3	a
2	2	1	17 451.79728	2.39	2	r,a
2	2	0	17 453.24374	2.49	2	a
3	0	3	17 442.09983	2.48	2	r,a
3	1	3	17 449.45095	1.89	4	r,a
3	1	2	17 483.38159	2.54	2	r,a
3	2	2	17 519.19761	2.06	3	a
3	2	1	17 525.33628	2.68	2	a
3	3	1	17 607.54260	2.56	2	a
3	3	0	17 607.78261	3.65	1	a
4	0	4	17 521.73620	1.94	3	a
4	1	4	17 523.99420	3.33	1	a
4	1	3	17 582.25497	3.76	1	a
4	2	3	17 608.95930	3.71	1	r
4	2	2	17 621.79855	2.83	2	a
4	3	2	17 701.15299	2.18	3	r,a
4	3	1	17 701.86949	2.02	4	r,a
4	4	0	17 816.19844	2.72	2	a
5	0	5	17 617.97651	3.33	1	a
5	1	5	17 618.55695	2.25	2	a
5	1	4	17 701.55402	3.80	1	a
5	2	4	17 721.44879	2.56	2	a
5	2	3	17 756.48327	4.00	1	a
5	3	3	17 816.12683	1.89	4	a
5	3	2	17 821.54824	3.71	1	r
5	4	2	17 932.76996	2.17	4	r,a
5	4	1	17 932.74076	3.71	1	r
5	5	1	18 073.20450	4.00	1	a

TABLE 11. Term values for the 5ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	123 or	31^-2		
5	5	0	18 073.22578	3.71	1	r
6	0	6	17 730.94397	2.39	2	r,a
6	1	5	17 838.71090	2.46	2	a
6	2	5	17 847.10523	10.00	1	r
6	2	4	17 908.17951	1.75	4	r,a
6	3	3	17 968.46006	2.31	3	a
6	4	3	18 073.01734	4.00	1	a
6	4	2	18 074.16205	2.31	3	a
6	5	1	18 212.25796	1.97	4	a
6	6	1	18 429.89571	3.71		d
6	6	0	18 429.89571	3.71	1	r

[a]This work.
[b]Lanquetin *et al.* (1999).
[c]Toth (1999).
[d]Level fixed as degenerate.
[e]Lanquetin (1997).
[f]Flaud and Camy-Peyret (1976).
[g]Camy-Peyret *et al.* (1997).
[h]Flaud *et al.* (1977).
[i]Camy-Peyret and Flaud (1975).
[j]Toth (1994b).
[k]Mandin *et al.* (1998).
[l]Bykov *et al.* (2001).
[m]Chevillard *et al.* (1989).
[n]Flaud *et al.* (1997).
[o]Toth (1994b).
[p]Schermaul *et al.* (2001).
[q]Giver (2000).
[r]Haus *et al.* (2001).
[?]Doubtful level.

TABLE 12. Term values for the $5\nu+\delta$ polyad of $H_2{}^{16}O$

J	K_a	K_c	053 or 21^-5				133 or 31^-3				510 or 50^+1			
0	0	0									18 392.974 02	10.00	1	a
1	0	1									18 415.043 38	2.40	2	a
1	1	1	18 416.939 85	4.00	1	a	18 800.374 54	4.00	1	a				
1	1	0					18 806.663 56	4.00	1	a	18 433.996 29	2.46	2	a
2	0	2	18 418.605 81	2.31	3	a	18 825.629 81	2.83	2	a	18 458.326 13	2.83	2	a
2	1	2	18 456.673 46	4.00	1	a					18 467.747 07	1.79	3	a
2	1	1	18 477.231 10	2.83	2	a	18 858.625 89	2.31	3	a	18 483.983 86	2.83	2	a
2	2	1					18 912.984 60	4.00	1	a	18 525.516 51	2.83	2	a
2	2	0					18 914.314 47	2.83	2	a				
3	0	3	18 484.936 43	2.83	2	a	18 888.915 84	4.00	1	a	18 520.525 75	1.83	3	a
3	1	3	18 515.714 33	2.31	3	a	18 897.411 84	2.83	2	a	18 525.692 41	4.00	1	a
3	1	2	18 555.423 69	2.31	3	a	18 935.380 33	4.00	1	a	18 557.819 79	1.94	3	a
3	2	2					18 981.152 72	2.31	3	a	18 592.989 93	2.83	2	a
3	2	1					18 987.345 46	4.00	1	a	18 598.814 32	2.31	3	a
3	3	1					19 085.282 48	2.83	2	a	18 681.458 15	4.00	1	a
3	3	0					19 085.489 29	4.00	1	a	18 681.625 93	4.00	1	a
4	0	4	18 570.500 97	2.83	2	a	18 969.118 69	2.83	2	a				
4	1	4	18 593.291 21	4.00	1	a	18 974.035 84	4.00	1	a	18 600.881 07	3.39	2	a
4	1	3	18 662.975 88	2.83	2	a	19 035.423 22	2.83	2	a	18 653.773 20	2.83	2	a
4	2	3					19 070.724 60	4.00	1	a	18 679.632 26	2.31	3	a
4	2	2									18 696.981 71	2.83	2	a
4	3	2									18 774.203 86	4.00	1	a
4	3	1					19 179.754 96	2.83	2	a				
4	4	1									18 902.235 11	4.00	1	a
5	0	5									18 693.432 26	2.31	3	a
5	1	5	18 689.002 97	4.00	1	a	19 068.115 08	2.83	2	a	18 695.329 98	2.31	3	a
5	1	4									18 769.598 44	2.83	2	a
5	2	4					19 180.908 49	2.83	2	a	18 789.384 41	2.83	2	a
5	2	3									18 821.948 19	4.00	1	a
6	0	6					19 177.564 05	4.00	1	a	18 807.904 48	2.83	2	a
6	1	6									18 806.088 20	2.83	2	a
6	1	5					19 296.498 97	4.00	1	a	18 903.840 42	2.31	3	a
6	2	5									18 917.851 25	2.83	2	a
6	3	4									19 027.955 23	4.00	1	a
7	0	7									18 937.400 52	4.00	1	a
7	1	7					19 306.505 06	4.00	1	a				
7	1	6									19 064.825 46	2.31	3	a
7	2	6									19 055.902 25	2.31	3	a
8	2	7									19 224.869 89	2.83	2	a
J	K_a	K_c	331 or 40^-3				411 or 50^-1				213 or 41^-1			
0	0	0	18 265.819 75	7.00	1	a	18 393.314 15	2.00	1	a	18 989.960 75	3.00	1	a
1	0	1	18 288.199 55	3.71	1	a	18 415.590 19	3.12	1	a	19 012.113 41	4.00	1	a
1	1	1	18 308.249 91	2.32	2	a	18 429.455 58	1.27	2	a	19 024.434 26	1.43	2	a
1	1	0	18 314.322 99	2.58	2	a	18 434.952 61	2.01	2	a	19 030.006 65	2.83	2	a
2	0	2	18 331.718 51	1.93	3	a	18 458.843 10	0.68	3	a	19 054.261 46	1.56	3	a
2	1	2	18 346.949 30	2.05	3	a	18 468.653 87	1.74	3	a	19 063.260 92	1.83	3	a
2	1	1	18 365.110 59	1.92	3	a	18 485.243 88	1.12	3	a	19 079.245 52	1.98	3	a
2	2	1	18 420.567 74	4.00	1	a	18 525.747 68	2.37	2	a	19 116.490 55	2.83	2	a
2	2	0	18 422.090 30	2.24	2	a	18 527.063 71	0.88	3	a	19 118.013 02	1.62	3	a
3	0	3	18 394.236 16	2.54	2	a	18 520.987 75	1.86	3	a	19 118.421 26	2.83	2	a
3	1	3	18 405.280 35	1.87	3	a	18 526.663 80	0.83	3	a	19 121.053 10	1.35	3	a
3	1	2	18 440.397 51	2.04	3	a	18 560.555 89	1.86	3	a	19 156.602 91	2.83	2	a
3	2	2	18 487.670 57	1.83	4	a	18 593.134 52	1.51	4	a	19 182.990 77	1.43	4	a
3	2	1	18 493.711 95	2.06	3	a	18 599.087 19	1.69	4	a	19 189.865 03	2.31	3	a
3	3	1	18 588.552 48	1.63	4	a	18 680.166 00	1.38	4	a	19 258.193 00	1.63	2	a
3	3	0	18 588.632 38	2.12	3	a	18 680.347 29	2.50	2	a	19 258.465 61	2.83	2	a
4	0	4	18 473.780 86	2.46	2	a	18 601.047 16	0.82	4	a	19 196.589 71	1.83	2	a
4	1	4	18 478.482 97	2.58	2	a	18 602.203 98	2.70	2	a	19 197.275 34	2.83	2	a
4	1	3	18 538.941 55	2.09	3	a	18 653.375 87	1.33	3	a	19 251.346 28	2.83	2	a
4	2	3	18 575.917 50	2.31	3	a	18 678.708 94	2.83	2	a	19 270.500 34	2.31	3	a
4	2	2	18 590.196 09	1.57	5	a	18 697.353 55	1.22	4	a	19 287.923 87	2.00	4	a
4	3	2	18 685.334 24	2.24	3	a,?	18 772.582 74	2.04	3	a	19 349.384 52	2.83	2	a
4	3	1	18 682.881 58	1.78	3	a	18 773.798 04	1.70	4	a	19 351.169 40	2.31	3	a
4	4	1	18 806.529 22	4.00	1	a					19 451.055 63	4.00	1	a

TABLE 12. Term values for the $5\nu+\delta$ polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	331 or $40^{-}3$				411 or $50^{-}1$				213 or $41^{-}1$			
4	4	0	18 806.531 44	1.55	2	a					19 451.116 15	2.83	2	a
5	0	5	18 569.361 84	2.60	2	a	18 693.871 78	2.48	2	a	19 291.404 99	4.00	1	a
5	1	5	18 571.651 53	2.22	2	a	18 696.550 52	1.56	3	a	19 290.944 92	2.21	2	a
5	1	4	18 658.962 38	2.83	2	a	18 769.608 26	2.31	3	a	19 366.363 65	2.83	2	a
5	2	4	18 684.376 60	1.85	4	a	18 789.461 64	1.66	3	a	19 378.937 88	2.31	3	a
5	2	3	18 716.205 76	2.31	3	a	18 821.142 70	2.31	3	a	19 410.793 13	4.00	1	a
5	3	3	18 793.164 29	1.71	5	a	18 887.937 86	2.00	4	a	19 463.178 17	2.31	3	a
5	3	2	18 799.627 71	2.31	3	a	18 892.316 76	2.31	3	a	19 469.481 98	4.00	1	a
5	4	2	18 921.113 85	1.74	4	a	19 021.497 69	2.83	2	a	19 565.912 65	2.83	2	a
5	4	1	18 921.477 44	2.31	3	a	19 021.647 73	2.83	2	a				
5	5	1	19 034.046 49	2.83	2	a					19 698.297 70	4.00	1	a
5	5	0	19 034.136 57	4.00	1	a					19 698.297 70	4.00		d
6	0	6	18 682.146 15	2.00	3	a	18 806.267 98	1.41	3	a	19 402.964 67	2.83	2	a
6	1	6	18 683.284 20	4.00	1	a	18 805.924 50	2.83	2	a	19 402.652 11	2.83	2	a
6	1	5	18 798.437 90	2.31	3	a	18 903.959 76	1.77	3	a	19 499.006 36	2.83	2	a
6	2	5	18 812.171 05	2.83	2	a	18 917.911 58	2.31	3	a				
6	2	4	18 862.389 96	4.00	1	a	18 969.611 51	2.31	3	a	19 555.548 47	2.83	2	a
6	3	4	18 928.969 39	2.31	3	a	19 025.682 42	2.31	3	a				
6	3	3	18 943.347 67	2.00	4	a	19 036.896 41	2.00	4	a	19 614.525 39	2.83	2	a
6	4	2					19 163.119 87	2.83	2	a	19 705.549 70	2.83	2	a
7	0	7	18 808.765 95	2.83	2	a	18 936.581 07	2.83	2	a	19 531.334 77	4.00	1	a
7	1	7	18 810.857 38	2.83	2	a	18 936.896 84	2.83	2	a	19 531.091 51	2.83	2	a
7	1	6	18 958.245 87	4.00	1	a	19 064.829 66	4.00	1	a				
7	2	6	18 959.974 37	2.31	3	a	19 055.752 73	2.83	2	a	19 649.054 35	2.83	2	a
7	2	5	19 041.940 55	4.00	1	a	19 139.583 22	2.83	2	a	19 742.663 39	4.00	1	a
7	3	5	19 084.902 44	2.00	4	a	19 185.095 00	2.83	2	a	19 755.042 46	4.00	1	a
7	4	4					19 220.745 21	2.31	3	a				
8	0	8	18 950.687 29	2.83	2	a	19 078.119 44	4.00	1	a				
8	1	7					19 231.630 70	2.83	2	a				
9	1	9					19 240.136 36	2.83	2	a				

J	K_a	K_c	430 or $40^{+}3$				034 or 22 3			
2	1	2	18 352.432 65	2.83	2	a	19 057.748 82	4.00	1	a
3	0	3	18 400.283 30	2.54	2	a				
3	1	3					19 113.642 59	2.83	2	a
4	1	4	18 485.055 28	4.00	1	a	19 190.283 48	2.83	2	a
4	2	2	18 608.071 29	2.83	2	a				
5	0	5					19 282.353 48	2.83	2	a
5	1	5					19 284.079 92	2.83	2	a
5	1	4					19 373.897 52	4.00	1	a
6	0	6					19 393.604 70	2.83	2	a
6	1	6					19 395.201 19	4.00	1	a

[a]This work.
[d]Level fixed as degenerate.
[?]Doubtful level.

TABLE 13. Term values for the 6ν polyad of $H_2{}^{16}O$

J	K_a	K_c	063 or 21^-6				520 or 50^+2				223 or 41^-3			
1	0	1					19 886.265 22	2.83	2	a	20 465.236 35	4.00	1	a
1	1	1									20 479.870 47	2.83	2	a
2	0	2					19 930.682 41	2.83	2	a	20 508.256 67	2.83	2	a
2	1	2					19 942.081 45	2.00	4	a				
2	1	1	19 840.545 83	2.83	2	a	19 958.673 28	2.83	2	a	20 535.744 16	2.31	3	a
2	2	1									20 578.301 71	2.83	2	a
2	2	0									20 579.514 78	2.83	2	a
3	0	3					19 992.817 23	2.31	3	a	20 569.791 26	4.00	1	a
3	1	3									20 575.663 72	4.00	1	a
3	1	2	19 919.629 17	2.83	2	a	20 033.377 32	2.31	3	a				
3	2	2									20 644.765 08	2.31	3	a
3	3	1									20 726.885 19	4.00	1	a
4	0	4					20 074.060 20	2.83	2	a	20 647.876 28	2.83	2	a
4	1	4					20 076.466 05	2.00	4	a				
4	1	3	20 025.630 61	2.83	2	a	20 129.024 76	4.00	1	a	20 707.154 43	2.83	2	a
5	0	5					20 168.421 03	2.83	2	a				
5	1	5									20 741.420 82	2.83	2	a
6	2	5					20 381.509 08	2.31	3	a				
J	K_a	K_c	341 or 40^-4				421 or 50^-2				402 or 51^+0			
1	0	1	19 701.581 21	4.00	1	a					20 555.211 30	2.83	2	a
1	1	1	19 724.157 16	2.83	2	a	19 903.278 40	2.83	2	a	20 566.201 83	4.00	1	a
1	1	0					19 907.733 48	4.00	1	a	20 570.391 35	2.83	2	a
2	0	2	19 745.206 18	2.83	2	a	19 931.229 62	2.83	2	a				
2	1	2	19 762.488 43	4.00	1	a	19 942.534 99	4.00	1	a	20 603.166 70	2.31	3	a
2	1	1	19 781.694 67	2.31	3	a	19 959.267 34	2.83	2	a				
2	2	1	19 850.975 75	4.00	1	a	20 007.093 84	4.00	1	a	20 650.334 86	2.83	2	a
2	2	0	19 852.671 23	1.66	4	a	20 008.409 87	4.00	1	a	20 651.682 60	4.00	1	a
3	0	3	19 807.960 90	4.00	1	a	19 993.594 98	2.83	2	a	20 657.525 62	4.00	1	a
3	1	3	19 818.976 27	2.83	2	a	20 000.568 38	2.83	2	a	20 660.263 88	4.00	1	a
3	1	2	19 858.129 69	2.83	2	a					20 690.706 71	2.31	3	a
3	2	2	19 917.758 12	1.85	4	a	20 075.019 67	2.83	2	a	20 716.156 04	2.83	2	a
3	2	1	19 923.617 03	2.00	4	a					20 722.263 92	2.31	3	a
3	3	1	20 057.236 58	1.55	2	a					20 783.050 24	4.00	1	a
3	3	0	20 057.484 90	3.47	1	a					20 783.209 50	4.00	1	a
4	0	4	19 887.812 74	2.83	2	a	20 074.398 00	1.79	5	a	20 734.330 18	4.00	1	a
4	1	4	19 893.269 56	2.83	2	a	20 077.036 01	4.00	1	a	20 734.761 44	2.83	2	a
4	1	3	19 958.578 84	2.31	3	a	20 130.545 14	4.00	1	a	20 783.629 28	4.00	1	a
4	2	3	20 005.506 72	2.83	2	a					20 802.895 00	2.83	2	a
4	2	2	20 020.449 19	2.31	3	a								
4	3	2	20 148.776 44	2.83	2	a	20 266.523 83	4.00	1	a	20 873.296 28	4.00	1	a
4	3	1	20 149.931 85	2.31	3	a	20 267.220 18	2.83	2	a				
5	0	5	19 983.073 35	2.83	2	a					20 825.873 85	4.00	1	a
5	1	5	19 985.062 64	2.83	2	a					20 826.641 63	4.00	1	a
5	1	4	20 081.088 36	4.00	1	a					20 895.545 12	4.00	1	a
5	2	4	20 113.254 79	2.00	4	a								
5	2	3	20 142.193 97	2.83	2	a								
5	3	3	20 261.604 82	2.83	2	a								
6	0	6	20 092.854 72	2.83	2	a					20 935.166 86	4.00	1	a
6	1	6									20 935.264 84	4.00	1	a
6	1	5	20 225.199 38	2.83	2	a								
6	2	5	20 239.807 70	4.00	1	a					21 029.457 97	2.83	2	a
6	3	4									21 121.107 09	4.00	1	a
7	1	7	20 226.579 27	2.83	2	a								
J	K_a	K_c	600 or 60^+0				501 or 60^-0				303 or 51^-0			
0	0	0					19 781.104 55	1.00	1	a	20 543.137 15	10.00	1	a
1	0	1	19 803.652 15	2.56	2	a	19 802.587 29	0.97	1	a	20 566.261 57	3.92	1	a
1	1	1	19 814.277 32	4.00	1	a	19 813.668 05	0.69	2	a	20 574.957 03	2.44	2	a
1	1	0	19 818.444 88	2.31	2	a	19 818.653 74	1.27	2	a	20 580.146 35	2.83	2	a
2	0	2	19 843.643 02	2.15	2	a	19 843.959 70	0.35	4	a	20 607.723 51	1.90	3	a
2	1	2	19 851.143 26	0.88	4	a	19 852.030 95	1.72	3	a	20 615.172 74	3.33	1	a
2	1	1	19 866.419 82	3.65	1	a	19 866.663 46	0.40	3	a	20 628.735 43	2.07	3	a

TABLE 13. Term values for the 6ν polyad of $H_2{}^{16}O$—Continued

J	K_a	K_c	600 or 60^+0				501 or 60^-0				303 or 51^-0			
2	2	1	19 900.189 97	4.00	1	a	19 900.384 74	1.51	2	a	20 659.948 30	2.62	2	a
2	2	0					19 901.654 61	0.44	3	a	20 661.480 84	2.25	2	a
3	0	3	19 903.123 89	0.49	2	a	19 903.352 44	1.27	2	a	20 667.721 87	4.00	1	a
3	1	3	19 907.623 89	1.38	4	a	19 907.759 73	0.67	3	a	20 670.082 88	1.92	3	a
3	1	2	19 937.262 91	1.36	4	a	19 937.603 47	1.26	4	a				
3	2	2	19 965.253 50	4.00	1	a	19 965.172 29	0.63	4	a	20 725.293 62	1.97	4	a
3	2	1	19 971.016 71	2.31	3	a	19 970.946 90	1.37	4	a	20 732.162 43	2.31	3	a
3	3	1					20 014.732 87	0.83	3	a	20 793.230 90	2.53	2	a
3	3	0	20 014.805 35	4.00	1	a	20 014.963 80	2.38	3	a	20 793.488 94	4.00	1	a
4	0	4	19 979.098 83	0.91	3	a	19 979.295 54	0.83	3	a	20 741.540 68	2.21	3	a
4	1	4	19 981.443 19	0.47	4	a	19 981.637 60	1.59	2	a	20 744.787 28	2.83	2	a
4	1	3	20 032.973 57	2.31	2	a	20 030.642 92	0.83	3	a	20 792.687 33	2.19	3	a
4	2	3	20 050.625 80	1.79	5	a	20 050.512 78	2.03	3	a	20 811.401 35	4.00	1	a
4	2	2					20 064.736 67	0.77	5	a	20 828.588 83	2.00	4	a
4	3	2	20 102.517 19	2.83	2	a	20 102.815 39	1.73	3	a				
4	3	1	20 104.105 79	2.31	3	a	20 104.397 67	1.17	4	a	20 885.138 61	2.31	3	a
4	4	1					20 201.549 15	4.00	1	a	20 918.948 66	4.00	1	a
4	4	0					20 201.755 64	2.06	2	a	20 919.016 71	4.00	1	a
5	0	5	20 072.582 35	1.63	2	a	20 072.404 82	1.63	2	a	20 835.959 75	2.83	2	a
5	1	5	20 072.401 49	3.58	1	a	20 071.173 05	0.47	4	a	20 836.265 24	2.44	2	a
5	1	4	20 140.623 25	1.60	2	a	20 140.381 58	2.10	3	a	20 911.249 72	4.00	1	a
5	2	4	20 155.653 21	2.83	2	a	20 155.916 42	1.45	4	a	20 917.100 44	2.83	2	a
5	2	3	20 186.960 43	2.31	3	a	20 186.561 96	2.00	4	a				
5	3	3	20 212.312 67	2.31	3	a	20 212.588 74	1.35	5	a				
5	3	2	20 218.073 39	2.31	3	a	20 218.479 91	3.12	1	a				
5	4	2					20 295.594 29	2.00	4	a				
5	4	1					20 295.881 84	2.31	3	a				
5	5	1					20 405.475 14	2.83	2	a				
5	5	0					20 405.475 14	2.83		d				
6	0	6	20 181.035 71	2.31	3	a	20 179.216 63	0.83	3	a	20 944.993 25	2.83	2	a
6	1	6	20 180.366 54	12.00	1	a	20 179.353 02	0.91	3	a	20 945.154 85	4.00	1	a
6	1	5	20 269.312 43	2.31	3	a	20 269.283 36	1.90	4	a	21 037.331 68	2.31	3	a
6	2	5	20 280.357 27	1.49	3	a	20 280.295 21	2.83	2	a	21 040.879 11	4.00	1	a
6	2	4					20 328.906 14	1.64	4	a				
6	3	4	20 343.938 73	2.83	2	a	20 343.519 25	2.31	3	a				
6	3	3					20 357.782 62	1.79	4	a				
6	4	3	20 429.094 89	2.31	3	a	20 428.877 59	2.31	3	a				
6	4	2					20 430.483 10	2.31	3	a				
6	5	2					20 537.353 87	4.00	1	a				
6	5	1					20 537.414 91	2.31	3	a				
7	0	7	20 305.331 85	4.00	1	a	20 304.098 37	1.63	2	a				
7	1	7					20 304.013 22	0.83	3	a	21 070.464 93	2.83	2	a
7	1	6	20 415.940 35	2.27	3	a	20 424.127 09	2.83	2	a				
7	2	6					20 423.005 02	2.83	2	a				
8	0	8					20 444.592 12	2.40	2	a				
8	1	8	20 445.255 01	4.00	1	a	20 445.249 89	2.83	2	a				

[a]This work.
[d]Level fixed as degenerate.

TABLE 14. Term values for the $6\nu+\delta$ polyad of $H_2{}^{16}O$

J	K_a	K_c	600 or 60^+0				501 or 60^-0				303 or 51^-0			
0	0	0					21 221.568 82	12.00	1	a	21 221.828 35	4.00	1	a
1	0	1	21 336.899 09	4.00	1	a	21 243.055 54	3.80	1	a				
1	1	1	21 354.631 90	2.83	2	a					21 258.127 13	2.10	2	a
1	1	0					21 261.634 85	12.00	1	a	21 263.738 93	2.71	2	a
2	0	2	21 380.816 38	2.83	2	a	21 285.040 24	3.86	1	a	21 285.381 76	1.83	2	a
2	1	2	21 394.048 35	4.00	1	a	21 295.497 38	2.52	2	a	21 295.748 81	2.31	3	a
2	1	1	21 411.213 60	2.31	3	a					21 312.495 88	1.92	3	a
2	2	1									21 355.758 50	2.71	2	a
2	2	0									21 356.923 40	1.99	2	a
3	0	3	21 444.287 61	2.83	2	a	21 346.074 94	2.52	2	a	21 346.251 61	2.73	2	a
3	1	3	21 452.354 80	2.31	3	a	21 351.243 59	4.00	1	a	21 351.512 92	1.78	3	a
3	1	2					21 384.171 99	2.83	2	a	21 384.437 59	2.31	3	a
3	2	2	21 534.107 30	4.00	1	a					21 420.828 16	1.75	4	a
3	2	1									21 426.009 85	2.31	3	a
3	3	1									21 462.628 67	4.00	1	a
4	0	4	21 526.566 37	2.83	2	a					21 423.627 96	2.83	2	a
4	1	4					21 416.020 90	2.83	2	a	21 416.180 06	4.00	1	a
4	1	3	21 583.900 81	4.00	1	r					21 477.878 12	2.12	3	a
4	2	2	21 638.664 96	4.00	1	r					21 518.028 07	2.83	2	a
4	3	1									21 553.174 41	2.83	2	a
4	4	0									21 659.936 81	2.83	2	a
5	1	5									21 510.054 50	4.00	1	a
5	2	4									21 610.414 24	2.31	3	a

J	K_a	K_c	115 or 42^-1			
2	1	1	22 601.554 93	4.00	1	a
2	2	1	22 637.077 65	2.83	2	a
2	2	0	22 638.072 89	2.31	3	a
3	2	2	22 713.041 32	4.00	1	a
4	2	2	22 796.938 04	4.00	1	a

[a]This work.
[b]Level fixed as degenerate.
[r]Haus *et al.* (2001).

TABLE 15. Term values for the 7ν polyad of $H_2{}^{16}O$

J	K_a	K_c	700 or 70^+0				601 or 70^-0				521 or 60^-2			
0	0	0	22 529.295 89	4.00	1	a	22 529.441 24	4.00	1	a				
1	0	1	22 550.183 84	2.83	2	a	22 550.317 47	2.83	2	a				
1	1	1					22 560.269 23	2.83	2	a	22 672.814 94	4.00	1	a
1	1	0	22 564.879 55	4.00	1	a	22 565.036 94	2.83	2	a				
2	0	2	22 589.946 96	4.00	1	a	22 590.692 02	2.83	2	a	22 693.593 16	4.00	1	a
2	1	2	22 597.105 71	4.00	1	a	22 597.259 41	2.31	3	a				
2	1	1	22 611.326 39	2.83	2	a	22 611.513 36	2.31	3	a	22 728.515 53	4.00	1	a
2	2	1	22 637.466 44	2.83	2	a	22 645.809 99	2.83	2	a	22 787.457 57	4.00	1	a
2	2	0	22 638.521 57	2.83	2	a	22 646.522 08	2.31	3	a	22 788.755 29	2.83	2	a
3	0	3	22 648.357 49	2.31	3	a	22 651.861 53	2.31	3	a				
3	1	3	22 648.436 38	2.83	2	a	22 651.960 76	2.31	3	a	22 765.082 38	4.00	1	a
3	1	2	22 679.907 79	2.31	3	a	22 680.202 19	2.00	4	a	22 801.936 33	4.00	1	a
3	2	2	22 701.787 22	4.00	1	a	22 700.584 00	2.31	3	a	22 852.328 54	4.00	1	a
3	2	1	22 706.708 15	4.00	1	a								
3	3	1					22 764.559 57	2.83	2	a				
3	3	0	22 763.714 49	2.83	2	a	22 764.863 54	2.83	2	a				
4	0	4	22 722.070 83	2.31	3	a	22 723.720 59	2.31	3	a	22 835.355 19	4.00	1	a
4	1	4	22 722.103 70	2.83	2	a	22 723.735 73	4.00	1	a				
4	1	3	22 769.074 65	4.00	1	a	22 769.737 06	2.31	3	a				
4	2	3	22 783.758 38	2.00	4	a					22 937.897 04	4.00	1	a
4	2	2					22 804.063 74	2.83	2	a				
4	3	2	22 848.921 33	4.00	1	a	22 849.069 73	2.83	2	a				
4	3	1	22 850.561 40	4.00	1	a	22 850.612 30	2.00	4	a				
4	4	1	22 929.717 65	4.00	1	a	22 929.553 02	4.00	1	a				
4	4	0					22 929.600 68	4.00	1	a				
5	0	5	22 812.171 60	4.00	1	a	22 812.261 66	4.00	1	a				
5	1	5	22 812.895 99	4.00	1	a	22 811.510 35	2.31	3	a				
5	1	4	22 876.529 93	2.31	3	a	22 876.067 37	2.31	3	a				
5	2	4	22 885.473 46	2.83	2	a	22 885.153 22	2.83	2	a				
5	2	3	22 915.862 89	2.83	2	a	22 915.735 70	2.31	3	a				
5	3	3	22 955.465 61	2.31	3	a								
5	3	2	22 961.321 78	2.31	3	a								
5	4	2	23 036.650 41	4.00	1	a	23 036.513 88	2.31	3	a				
5	4	1	23 036.966 51	2.83	2	a								
5	5	1	23 138.234 67	4.00	1	d	23 138.180 96	2.00		b				
5	5	0	23 138.234 67	4.00		d	23 138.180 96	2.00	4	a				
6	0	6	22 916.727 59	2.83	2	a	22 917.406 29	2.83	2	a				
6	1	6	22 916.764 24	2.31	3	a	22 915.847 17	4.00	1	a				
6	1	5	23 004.110 45	2.83	2	a	23 004.473 22	2.00	4	a				
6	2	5	23 000.263 79	2.31	3	a	23 000.588 81	4.00	1	a				
6	2	4	23 051.937 35	2.83	2	a	23 052.082 37	4.00	1	a				
6	3	4	23 056.857 60	4.00	1	a								
6	4	3	23 165.285 95	4.00	1	a								
7	0	7	23 038.351 26	4.00	1	a								
7	1	7					23 037.857 38	4.00	1	a				
7	1	6	23 140.406 54	4.00	1	a								
8	1	8	23 175.128 99	4.00	1	a								

J	K_a	K_c	620 or 60^+2			
2	1	2	22 709.422 01	2.83	2	a
3	0	3	22 754.045 55	4.00	1	a
3	1	2	22 801.064 80	2.83	2	a

[a]This work.
[d]Level fixed as degenerate.

TABLE 16. Term values for the $7\nu+\delta$ polyad of $H_2{}^{16}O$

J	K_a	K_c	611 or 70^-1			
1	1	1	23 981.751 74	2.83	2	a
2	0	2	24 009.953 54	2.83	2	a
2	1	2	24 018.391 31	4.00	1	a
2	1	1	24 034.822 94	2.83	2	a
2	2	1	24 071.344 68	2.83	2	a
2	2	0	24 073.061 70	2.83	2	a
3	1	3	24 075.597 99	4.00	1	a
3	2	2	24 138.215 07	4.00	1	a
4	0	4	24 142.240 50	4.00	1	a

[a]This work.

TABLE 17. Term values for the 8ν polyad of $H_2{}^{16}O$

J	K_a	K_c	800 or 80^+0				701 or 80^-0			
0	0	0					25 120.278 45	4.00	1	a
1	0	1					25 140.617 41	4.00	1	a
1	1	1					25 150.162 77	2.83	2	a
1	1	0					25 154.646 95	4.00	1	a
2	0	2					25 180.836 99	4.00	1	a
2	1	2	25 180.012 52	2.83	2	a				
2	1	1					25 199.789 75	2.31	3	a
2	2	1					25 228.302 81	4.00	1	a
2	2	0					25 229.542 52	2.83	2	a
3	0	3	25 236.451 76	4.00	1	a	25 236.441 56	4.00	1	a
3	1	3					25 239.853 08	4.00	1	a
3	1	2	25 266.483 83	4.00	1	a	25 266.506 39	4.00	1	a
3	2	2	25 289.241 58	4.00	1	a	25 289.226 08	4.00	1	a
3	2	1					25 294.902 45	4.00	1	a
3	3	1	25 348.214 00	4.00	1	a	25 348.196 72	4.00	1	a
3	3	0					25 348.383 54	4.00	1	a
4	0	4	25 312.051 77	4.00	1	a	25 310.141 31	2.83	2	a
4	1	4	25 308.656 43	4.00	1	a				
4	1	3					25 353.296 72	4.00	1	a
4	2	3	25 369.399 78	2.83	2	a				
4	2	2	25 383.924 61	4.00	1	a				
4	3	2	25 431.251 91	4.00	1	a				
4	4	1	25 510.314 92	4.00	1	a				
4	4	0					25 510.345 92	4.00	1	a
5	0	5	25 396.736 79	4.00	1	d	25 396.128 75	2.83		b
5	1	5	25 396.747 29	4.00	1	a	25 396.128 75	2.83	2	a
5	1	4	25 458.129 64	4.00	1	a	25 458.201 81	4.00	1	a
5	2	4	25 467.993 02	4.00	1	a	25 468.226 55	4.00	1	a
6	0	6	25 499.121 28	4.00	1	a				
6	1	6	25 499.380 69	2.83	2	a				
6	1	5	25 578.739 10	4.00	1	a	25 585.391 73	4.00	1	a
7	0	7	25 617.627 77	4.00	1	a				
7	1	6	25 714.612 11	4.00	1	a				
7	2	6					25 718.363 78	4.00	1	a

[a]This work.
[d]Level fixed as degenerate.

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