TABLES

TABLE I. Rovibrational energies (in cm^{-1}) for the K=0 states of symmetry A_1^+

J=0	J=1	J=2	J=3	J=4	J=5	J=6	$B_p = \frac{B+C}{2}$
-73.1786		-72.6645		-71.4657		-69.5847	0.0856
-49.5922		-49.1315		-48.0581		-46.3753	0.0767
-44.2714		-43.7664		-42.5889		-40.7406	0.0841
-32.4022		-31.9876		-31.0209		-29.5042	0.0691
-30.8921		-30.5278		-29.6792		-28.3496	0.0606
-23.6636		-23.2670		-22.3425		-20.8921	0.0661
-20.5172		-20.1149		-19.2000		-17.7912	
-20.2413		-19.8080		-18.7747		-17.1272	
-15.8469		-15.4410		-14.4940		-13.0059	0.0676
-11.1087		-10.7146		-9.7962		-8.3566	0.0656
-9.3041		-8.9251		-8.0416		-6.6555	0.0631
-6.7030		-6.3208		-5.4285		-4.0259	0.0637
-3.4818		-3.1058		-2.2288		-0.8515	0.0626
-1.3391		-0.9861		-0.1630			0.0588
-0.7512		-0.3336					0.0696
	-27.5267		-26.8651		-25.6790		0.0660
	-11.4386		-10.7839		-9.6065		0.0654

TABLE II. Rovibrational energies (in cm^{-1}) for the K=0 states of symmetry B_1^-

J=0	J=1	J=2	J=3	J=4	J=5	J=6	$B_p = \frac{B+C}{2}$
-66.2618		-65.7592		-64.5876		-62.7494	0.0837
-45.7900		-45.3084		-44.1887		-42.4406	0.0799
-43.1215		-42.6502		-41.5489		-39.8133	0.0787
-28.7973		-28.3866		-27.4292		-25.9265	0.0684
-20.9393		-20.5298		-19.5822		-18.1108	
-20.1456		-19.7066		-18.6762		-17.0454	0.0736
-12.6254		-12.2220		-11.2814		-9.8045	0.0672
-10.8319		-10.4350		-9.5101		-8.0597	0.0661
-4.2495		-3.8537		-2.9306		-1.4814	0.059
-2.3457		-1.9677		-1.0860			0.0630
-0.451		-0.2289					0.0693
	-29.3307		-28.6616		-27.4590		0.0679
	-16.1425		-15.5675		-14.5331		0.0575
	-13.4644		-12.8052		-11.6196		0.0659

TABLE III. Rovibrational energies (in cm^{-1}) for the K=1 states of symmetry A_1^+

J=1	J=2	J=3	J=4	J=5	J=6	$B_p = \frac{B+C}{2}$
-46.9603	-46.6602	-46.2105	-45.6115	-44.8638	-43.9683	0.0749
-36.8082	-36.5233	-36.0963	-35.5279	-34.8186	-33.9695	0.0711
-33.3797	-33.1043	-32.6910	-32.1400	-31.4510	-30.6241	0.0689
-24.4088	-24.1206	-23.6891	-23.1158	-22.4021	-21.5503	
-23.2733	-22.9936	-22.5735	-22.0127	-21.3102	-20.4651	0.0701
-19.8970	-19.6412	-19.2576	-18.7465	-18.1083	-17.3432	0.0639
-17.7080	-17.4460	-17.0529	-16.5286	-15.8731	-15.0861	0.0655
-12.1859	-11.9456	-11.5852	-11.1049	-10.5047	-9.7849	0.0601
-7.7138	-7.4456	-7.0438	-6.5087	-5.8409	-5.0413	0.0669
-6.515	-6.2496	-5.8516	-5.3214	-4.6591	-3.8653	0.0663
-5.3258	-5.0676	-4.6804	-4.1640	-3.5183	-2.7431	0.0645
-3.6453	-3.3977	-3.0265	-2.5317	-1.9134	-1.1717	0.0619
-2.1251	-1.8259	-1.3783	-0.7836	-0.4455		
-1.1347	-0.8653	-0.4603				

TABLE IV. Rovibrational energies (in cm^{-1}) for the K=1 states of symmetry B_1^-

J=1	J=2	J=3	J=4	J=5	J=6	$B_p = \frac{B+C}{2}$
-44.0461	-43.7598	-43.3309	-42.7597	-42.0468	-41.1931	0.0714
-36.6882	-36.3882	-35.9385	-35.3394	-34.5914	-33.6951	0.0749
-33.1878	-32.9234	-32.5268	-31.9982	-31.3375	-30.5450	0.0661
-24.0696	-23.7711	-23.3237	-22.7276	-21.9833	-21.0914	0.0745
-21.8501	-21.5959	-21.2149	-20.7076	-20.0745	-19.3162	0.0635
-20.0351	-19.7626	-19.3540	-18.8095	-18.1296	-17.3148	0.0681
-18.4476	-18.1889	-17.8007	-17.2828	-16.6351	-15.8573	0.0647
-11.3026	-11.0653	-10.7093	-10.2348	-9.6416	-8.9299	0.0593
-7.1534	-6.8805	-6.4725	-5.9323	-5.2654	-4.4802	
-6.9115	-6.6565	-6.2730	-5.7588	-5.1088	-4.3155	
-4.7555	-4.5061	-4.1322	-3.6338	-3.0110	-2.2640	0.0623
-4.0619	-3.8002	-3.4078	-2.8847	-2.2312	-1.4475	0.0654
-2.1583	-1.8731	-1.4489	-0.8898	-0.2003		
-1.6794	-1.3968	-0.9694	-0.3935			

TABLE V. Rovibrational energies (in cm^{-1}) for the K=2 states of symmetry A_1^+

J=2	J=3	J=4	J=5	J=6	$B_p = \frac{B+C}{2}$
-70.8441	-70.3318	-69.6491	-68.7964	-67.7741	0.0853
-55.7028	-55.2007	-54.5317	-53.6960	-52.6942	0.0836
-47.0820	-46.6259	-46.0184	-45.2598	-44.3507	0.0759
-33.8266	-33.3847	-32.7962	-32.0616	-31.1816	0.0735
-29.5727	-29.1515	-28.5900	-27.8883	-27.0467	0.0702
-22.8463	-22.4465	-21.9140	-21.2493	-20.4530	0.0665
-20.6375	-20.2494	-19.7354	-19.0960	-18.3314	
-20.2240	-19.7226	-19.0518	-18.2120	-17.2043	0.0837
-17.0345	-16.6243	-16.0774	-15.3937	-14.5730	0.0684
-13.7615	-13.3569	-12.8176	-12.1438	-11.3357	0.0674
-11.3718	-10.9734	-10.4430	-9.7813	-8.9891	0.0663
-10.8158	-10.4271	-9.9085	-9.2599	-8.4809	0.0648
-5.8719	-5.4795	-4.9563	-4.3024	-3.5178	0.0654
-3.5559	-3.1532	-2.6172	-1.9486	-1.1483	0.0670
-2.5525	-2.1693	-1.6581	-1.0185	-0.2500	0.0639
-0.1593					

TABLE VI. Rovibrational energies (in cm^{-1}) for the K=2 states of symmetry B_1^-

J=2	J=3	J=4	J=5	J=6	$B_p = \frac{B+C}{2}$
-57.0889	-56.5801	-55.9022	-55.0553	-54.0400	0.0847
-33.6218	-33.1661	-32.5590	-31.8009	-30.8924	0.0759
-28.4848	-28.0851	-27.5525	-26.8873	-26.0902	0.0666
-20.2234	-19.7177	-19.0452	-18.2416	-17.4731	
-19.7218	-19.3446	-18.8409	-18.1762	-17.1854	
-16.5982	-16.1846	-15.6332	-14.9441	-14.1173	0.0689
-12.8905	-12.4919	-11.9609	-11.2976	-10.5025	0.0664
-11.3680	-10.9667	-10.4320	-9.7641	-8.9634	0.0669
-9.1873	-8.8067	-8.2993	-7.6653	-6.9048	0.0634
-3.5990	-3.1898	-2.6445	-1.9634	-1.1470	0.0682