

Supporting Information for Rovibrational energy levels of the $F^-(H_2O)$ and $F^-(D_2O)$ complexes

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Table 1: The first 300 vibrational energy levels of $F^-(H_2O)$ computed with GENIUSH. The values are in cm^{-1} . The zero-point vibrational energies (ZPVE) are reported first, all other energy values are relative to the ZPVE values.

Nb.	Value	Nb.	Value	Nb.	Value	Nb.	Value	Nb.	Value	Nb.	Value
1	4830.98	51	2111.97	101	2721.05	151	3146.46	201	3433.26	251	3672.54
2	0.00	52	2111.98	102	2728.68	152	3151.29	202	3435.24	252	3674.66
3	423.47	53	2149.33	103	2752.83	153	3151.79	203	3435.98	253	3685.49
4	423.47	54	2151.49	104	2759.63	154	3156.15	204	3451.19	254	3690.01
5	560.74	55	2188.07	105	2791.16	155	3158.31	205	3452.01	255	3691.24
6	560.74	56	2188.60	106	2794.55	156	3169.71	206	3454.93	256	3691.54
7	823.25	57	2236.80	107	2795.41	157	3169.78	207	3464.25	257	3695.26
8	823.25	58	2237.72	108	2817.94	158	3177.26	208	3464.35	258	3696.04
9	972.34	59	2257.86	109	2818.24	159	3187.23	209	3465.78	259	3699.61
10	972.34	60	2258.19	110	2837.26	160	3192.17	210	3469.07	260	3702.41
11	1110.39	61	2276.26	111	2837.32	161	3203.01	211	3469.86	261	3707.79
12	1110.39	62	2276.31	112	2840.08	162	3206.47	212	3475.84	262	3718.48
13	1180.69	63	2299.07	113	2846.76	163	3206.89	213	3492.68	263	3719.78
14	1180.69	64	2299.07	114	2852.04	164	3207.09	214	3496.26	264	3725.39
15	1203.70	65	2332.17	115	2858.10	165	3208.50	215	3511.40	265	3728.38
16	1203.70	66	2332.18	116	2858.13	166	3213.38	216	3515.91	266	3729.52
17	1360.54	67	2367.00	117	2878.80	167	3215.96	217	3515.99	267	3733.53
18	1360.55	68	2374.13	118	2881.84	168	3219.58	218	3529.31	268	3735.13
19	1477.91	69	2420.26	119	2885.37	169	3224.87	219	3532.57	269	3740.30
20	1477.92	70	2421.39	120	2885.43	170	3233.88	220	3533.30	270	3744.53
21	1509.62	71	2460.96	121	2893.92	171	3251.26	221	3539.79	271	3747.36
22	1509.68	72	2461.36	122	2904.18	172	3262.75	222	3544.24	272	3748.17
23	1570.46	73	2472.11	123	2909.84	173	3262.99	223	3555.31	273	3748.78
24	1570.46	74	2472.15	124	2963.09	174	3264.56	224	3557.57	274	3750.50
25	1571.50	75	2484.89	125	2963.24	175	3268.08	225	3567.85	275	3754.83
26	1571.50	76	2503.17	126	2965.03	176	3278.83	226	3571.04	276	3759.17
27	1634.44	77	2545.97	127	2979.97	177	3282.15	227	3572.33	277	3759.56
28	1634.51	78	2546.65	128	2980.81	178	3286.70	228	3578.45	278	3765.94
29	1650.50	79	2560.68	129	2981.45	179	3295.53	229	3586.47	279	3766.73
30	1650.61	80	2562.21	130	2982.38	180	3303.97	230	3591.25	280	3768.38
31	1732.42	81	2566.01	131	2983.69	181	3304.63	231	3591.76	281	3772.49
32	1732.45	82	2567.03	132	2985.90	182	3309.14	232	3593.88	282	3780.69
33	1735.68	83	2598.34	133	2991.32	183	3312.45	233	3595.84	283	3784.18
34	1735.69	84	2601.24	134	3020.01	184	3318.23	234	3602.31	284	3790.31
35	1879.05	85	2613.80	135	3020.01	185	3325.85	235	3604.26	285	3803.97
36	1879.34	86	2615.58	136	3036.40	186	3326.03	236	3608.30	286	3807.43
37	1915.01	87	2621.51	137	3038.63	187	3348.96	237	3617.09	287	3809.44
38	1915.02	88	2621.52	138	3054.57	188	3354.64	238	3617.33	288	3811.10
39	1942.65	89	2622.65	139	3057.60	189	3360.39	239	3618.24	289	3815.19
40	1942.65	90	2632.50	140	3070.28	190	3364.10	240	3629.14	290	3821.24
41	2009.79	91	2632.77	141	3079.71	191	3376.11	241	3630.73	291	3824.72
42	2010.98	92	2634.96	142	3101.22	192	3382.01	242	3632.48	292	3836.13
43	2020.31	93	2640.60	143	3103.04	193	3382.63	243	3634.37	293	3836.19
44	2020.39	94	2649.95	144	3109.84	194	3382.83	244	3644.67	294	3837.51
45	2053.99	95	2657.27	145	3110.79	195	3383.35	245	3646.74	295	3842.15
46	2054.22	96	2657.33	146	3125.42	196	3394.13	246	3651.87	296	3847.09
47	2075.75	97	2688.15	147	3127.13	197	3405.07	247	3662.92	297	3851.02
48	2075.87	98	2704.07	148	3128.90	198	3414.52	248	3665.31	298	3858.03
49	2110.87	99	2708.54	149	3130.80	199	3422.43	249	3669.16	299	3863.36
50	2110.98	100	2708.72	150	3144.97	200	3431.20	250	3671.17	300	3864.23