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Assigned Lines of the $A^1\Sigma^+ - X^1\Sigma^+$ Bands of
 ^6LiH , ^6LiD , ^7LiH and ^7LiD

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The lines given here have been assigned to the $A^1\Sigma^+ - X^1\Sigma^+$ transitions of the isotopic variants of lithium hydride. The ^7LiD and most of the ^7LiH lines are taken from the thesis of Jorgensen [1] (which is difficult to obtain). The ^6LiH , ^6LiD and some of the ^7LiH lines are taken from the thesis of Li [2] and are a subset of the observed emission lines reported in companion reports (COQ-2326-17,18,19). Spectral constant determinations from these lines and construction of improved Rydberg-Klein-Rees potential energy curves (including Born-Oppenheimer breakdown) is in progress and will be reported elsewhere (see [2].) These spectra are now being compared with spectra obtained in this laboratory from collisions of fast (~ 5 eV) H atoms with a Li_2 crossed beam.

References

1. T. Jorgensen, Jr., Ph.D. Thesis, Harvard University (1935).
2. K.C. Li, Ph.D. Thesis, University of Iowa (1976).

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Observed $A^1\Sigma^+ - X^1\Sigma^+$ bands of ${}^6\text{LiH}$

J	(3- 0)		(4- 0)	
	R(J)	P(J)	R(J)	P(J)
0	26883.85		27240.51	
1	26880.53	26862.90	27237.63	27215.87
2	26867.93	26838.62	27225.15	27195.62
3	26846.49	26805.13	27203.55	27162.25
4	26815.60	26762.64	27172.64	27115.64
5	26775.34	26711.02	27132.55	27068.07
6	26726.44	26650.43	27083.42	27007.53
7	26668.19	26580.93	27025.17	26938.02
8	26600.79		26957.51	26855.67
9	26524.56	26415.35	26881.73	26772.54
10	26439.00	26319.33	26796.57	26676.68
11		26215.13	26702.43	26572.28
12	26241.46	26102.35	26595.58	26455.31
13	26130.07	25980.49	26488.06	26336.23
14	26009.29	25850.41	26367.85	26208.17
15	25880.27		26239.56	26070.54
16	25742.58	25565.58	26102.35	25924.82
17		25411.59	25957.62*	25770.86
18	25442.32	25249.72	25803.85*	25609.40
19	25279.63	25079.02	25643.18*	25440.28
20	25109.85		25473.13	25262.40
21			25296.49	25075.39
22			25111.90	24886.17
23			24919.78	24685.79
24			24721.17	24484.78
25				24273.06
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J	(5- 0)		(6- 0)	
	R(J)	P(J)	R(J)	P(J)
0	27611.01		27951.26	
1	27608.23*	27589.96	27987.80	27570.05
2	27595.24	27565.80	27575.09	27945.89
3	27573.46	27532.32	27953.31	27912.12*
4	27542.26	27489.76	27922.33	27865.64
5	27502.43	27438.07	27881.89	27817.88
6	27453.16	27377.42	27832.22*	27757.07
7	27394.82	27307.78	27773.89	27687.25
8	27327.44	27229.40	27706.28	27608.23*
9	27251.10	27142.11	27629.57	27521.14
10	27165.81	27046.20	27544.15	27424.52
11	27071.87	26941.64	27449.78	27320.20
12	26969.09	26828.70	27346.74	27206.96
13	26857.59	26707.35	27235.13	27085.56*
14	26737.85	26577.69	27114.92	26955.46
15	26608.92	26440.02	26986.58*	26817.53
16	26472.40	26294.19	26849.40	26671.49
17	26327.64	26140.62	26704.33	26517.67
18	26174.64	25979.18	26551.26	26356.29
19	26013.40	25810.30	26390.65*	26187.15
20	25844.86	25633.94	26221.75	26010.59
21	25668.33	25450.24	26045.46	25827.26
22	25484.82	25260.00*	25861.58*	25636.58
23	25293.68	25061.61*	25670.96	25439.00
24	25095.48	24857.42	25473.13	25234.58
25	24890.44	24646.35	25267.99	25023.56
26	24678.81	24429.04	25056.10	24806.31
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J	(7- 0)		(8- 0)	
	R(J)	P(J)	R(J)	P(J)
0	28378.20		26770.38*	
1	28374.76	28357.31	28766.48	28745.20
2	28362.02	28332.90	28753.58	28724.77
3	28339.97	28255.26	28731.33	28651.04
4	28308.65	28256.49	28699.76	28648.10
5	28268.14	28204.54	28658.56	28595.90
6	28218.42	28143.58	28608.86	28534.66
7	28159.52	28073.58	28549.58	28464.45
8	28091.58	27994.63	28481.48*	28385.08
9	28014.62	27906.82	28403.74	28296.90
10	27928.62	27810.32	28317.29	28200.00
11	27833.96	27704.66*	28222.02	28054.33
12	27730.71*	27591.50	28117.55	27980.15
13	27618.34	27469.62	28004.58*	27857.53
14	27497.71	27335.20	27883.93	27726.66
15	27368.60	27200.70	27754.14	27587.50
16	27231.38	27054.07*	27616.04	27440.38
17	27085.56*	26900.02	27469.62*	27285.58
18	26932.42	26737.85*	27315.67	27122.57
19	26771.00	26568.70	27153.68	26952.73
20	26601.99	26391.67	26983.84	26775.34*
21	26425.31	26208.17*	26806.63	26590.42
22	26241.46	26017.14*	26621.87	26398.55
23	26050.13	25818.82	26429.71*	26200.08*
24	25851.82	25614.19	26230.98	25954.63
25	25646.82	25403.02	26025.19	25782.84
26	25434.52*	25185.52	25812.70	25584.57
27	25216.69	24962.01	25593.72	25340.35
28	24991.92	24732.35	25368.49	25110.14
29	24761.26	24497.20*	25137.10	24874.13
30	24524.74*	24255.87		24632.78*
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J	I 9- 0)		(10- 0)	
	R(J)	P(J)	R(J)	P(J)
0	29164.58		29559.81	
1	29160.93	29143.84	29556.32	29538.63*
2	29147.84	29119.33	29543.01	29514.51
3	29125.36	29085.44	29520.26	29480.73
4	29093.44	29042.02*	29488.26*	29431.49
5	29052.21	28985.56		29384.67
6	29001.95*	28928.37	29395.32	29322.87
7	28941.95	28857.71	29335.01	29251.62
8	28873.09	28777.57	29265.47	29171.55
9	28795.08	28689.37	29186.80	29082.37
10	28707.96	28591.86	29098.57	28984.02
11	28611.94	28485.92*	29001.95	28877.40
12	28507.20	28370.82	28896.44	28761.81
13	28393.67	28247.51	28782.31	28637.69
14	28271.59	28115.88	28658.96	28505.18
15	28140.98	27976.17*	28527.44	28364.37
16	28002.14	27828.19	28387.36	28215.59
17	27854.96	27672.29	28239.08	28058.75
18	27699.68	27508.86	28082.77	27894.17
19	27536.65	27337.58	27918.53	27721.50
20	27365.85	27159.14	27746.42	27542.26
21	27187.48	26973.37	27566.79	27354.84
22	27001.75	26780.82	27379.56	27160.87
23	26808.77	26580.53	27185.15	26960.01
24	26608.92*	26374.54	26983.84	26752.33
25	26401.44	26162.14*	26775.34	26538.04
26	26188.28*	25942.50	26560.19	26317.41
27	25967.93*	25717.02	26338.23*	26090.56
28	25739.54*	25485.81	26110.59	25857.74
29	25507.67	25248.57	25876.53	25619.22
30	25267.99*	25003.72*	25636.58*	25375.04
31	25023.57	24757.54*	25389.66*	25125.47
32			25138.29	
33				
34				

J	(11- 0)		(12- 0)	
	R(J)	P(J)	R(J)	P(J)
0	29954.86		30347.77	
1	29951.11	29934.54	30343.62	30327.43
2	29937.60	29909.83	30329.86	30302.58
3	29914.48	29875.62	30306.40	30268.15
4	29881.86	29832.14	30273.33	30224.30
5	29839.73	29779.12	30230.65	30170.87
6	29788.17	29716.77	30178.49	30108.08
7	29727.25	29645.16	30116.87	30036.16
8	29657.08	29564.34	30045.61	29954.86
9	29577.45	29474.28	29965.50	29864.29
10	29488.26*	29375.71	29875.82	29764.55
11	29390.94	29267.97	29777.11	29656.07
12	29284.34	29151.62	29669.23	29538.63
13	29168.81	29026.55	29552.15	29412.56
14	29044.58	28893.05	29426.95	29278.07
15	28911.79	28751.20	29292.56	29134.51
16	28770.38	28601.22	29150.13	28984.02
17	28620.93	28443.21	28999.02	28824.28
18	28463.10	28277.34	28839.71	28656.58
19	28297.14	28103.79	28672.34	28481.48
20	28123.64	27922.33	28497.00	28295.26
21	27942.71	27734.24	28313.57	28105.09
22	27754.14	27538.49	28123.64	27912.12
23	27557.80	27335.98	27925.33*	27707.41
24	27354.84	27126.57	27721.50	27495.56
25	27144.42	26910.55	27508.86*	27278.03
26	26927.38	26688.27	27291.71	27054.07
27	26704.33	26459.31		
28	26473.99	26225.07*		
29	26237.86	25984.58		
30	25995.65			
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J	(13- 0)		(14- 0)	
	R(J)	P(J)	R(J)	P(J)
0	30736.52			
1	30732.26	30716.36	31116.90	
2	30718.55	30651.66		31076.06
3	30694.71	30657.23	31078.16	31041.01*
4	30661.09	30612.88	31044.20	30957.21
5	30617.88	30558.95	31000.36	30942.36*
6	30565.06	30455.56	30946.57	30875.13
7	30502.67	30423.29	30883.24	30805.60
8	30430.73	30341.28	30810.43	30722.84
9	30349.35	30250.03	30728.09	30630.60
10	30258.74	30149.64	30636.19	30525.19
11	30158.83	30039.65*	30534.72	30416.63
12	30049.92	29921.71	30424.67	30295.09
13	29931.64	29754.53	30305.05	30170.87
14	29804.94	29658.69	30176.70	30022.51
15	29669.23	29514.51	30039.65*	29867.73
16	29524.75	29361.46	29893.23	29722.39
17	29371.96	29200.83	29738.52	29570.85
18	29210.85	29031.64	29575.17	29395.53
19	29042.02	28855.17	29403.87	29221.23
20	28864.23	28670.37	29224.32	29034.72
21	28679.20	28478.40	29036.80	28835.71*
22	28485.92	28275.08	28841.62	28635.04
23	28286.06	28072.46	28639.04	28430.41
24	28078.52	27855.16	28428.08	28214.24
25	27863.68	27638.81	28210.66	27951.14
26	27641.84	27411.51	27985.69	27761.60
27	27413.37	27178.48	27754.02	27525.71
28	27178.48	26939.55		27262.26
29	26936.65	26694.04		27033.53
30	26689.03	26442.32		
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J	(15- 0)		(1- 1)	
	R(J)	P(J)	R(J)	P(J)
0			24853.51	
1			24850.66	24822.72
2			24839.35	24810.39
3			24818.48*	24777.21
4			24789.48	24736.84
5			24751.38	24687.23
6			24703.54	24629.24
7	31257.87	31181.40	24647.93	24561.94
8	31183.50	31098.08	24583.24	24486.68
9	31099.97	31004.88	24509.39	24402.67
10	31006.88	30902.35	24427.36	24309.58
11	30904.24	30790.66	24335.05	24208.84
12	30792.39	30665.68	24234.51	24099.50
13	30671.11	30539.87		23980.63
14	30540.91	30401.37	24007.30	
15	30401.37	30253.61	23881.82	23720.50
16	30253.61	30097.79	23747.43	
17	30096.67	29933.11	23603.70	23427.29
18	29931.64	29760.50	23452.87	23268.26
19	29757.50	29579.57	23292.07	
20	29575.17	29390.94		22927.68
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J	(2- 1)		(3- 1)	
	R(J)	P(J)	R(J)	P(J)
0	25170.69		25510.61	
1	25167.95	25149.55	25507.67	25485.46*
2	25156.07	25126.63	25495.99	25466.60
3	25135.89	25094.63	25475.89	25434.52
4	25106.68	25053.64	25446.52	25353.69
5	25068.78	25004.23	25408.73	25344.33
6	25022.03	24946.45	25362.40	25266.28
7	24966.56	24880.04	25307.09	25219.52
8	24902.30	24804.65	25243.11	25145.10
9	24829.41	24721.17	25170.69	25061.61
10	24747.95	24629.24	25089.72	24970.14
11	24657.48	24528.97	25000.23	24870.39
12	24559.36	24420.77	24902.30	24762.34
13	24451.89	24303.86	24755.80	24646.35
14	24336.21	24179.16	24681.46*	24522.26
15	24211.81	24046.67	24558.27	24390.45
16	24079.75	23905.66	24427.36	24250.68
17	23939.02	23756.52	24288.28	24103.81
18	23790.51		24141.60	23946.86
19			23987.08	23785.51*
20			23825.07	23617.65
21			23655.63*	23440.74
22			23478.14	23257.31
23			23293.82	23066.50
24				22865.85
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J	(4- 1)		(5- 1)	
	R(J)	P(J)	R(J)	P(J)
0	25867.53		26237.86	
1	25864.82	25847.08	26234.87	26217.18
2	25853.29	25823.67	26223.25	26193.67
3	25832.89	25791.59	26202.95	26162.14*
4	25803.85	25751.11	26173.51	26120.81
5	25765.90	25701.44	26135.60	26071.43
6	25719.40	25643.18	26088.87	26013.40
7	25664.27	25576.86	26033.78	25946.77
8	25600.12	25502.06	25969.83	25871.76
9	25527.94	25418.84	25897.42	25788.60
10	25446.92	25327.34	25816.58	25696.80
11	25357.94	25227.49	25727.23	25596.96
12	25260.00	25119.89	25629.38	25489.46
13	25154.24	25004.23	25523.63	25373.38
14	25040.28	24880.04	25409.86	25249.72
15	24917.74	24748.88	25287.65	25118.28
16	24787.60	24609.84	25157.63	24979.31
17	24649.47	24463.10	25019.74	24832.72
18	24503.67		24874.13	24678.81
19	24350.09	24317.70	24721.17	24518.03
20		23979.14	24560.69	24350.09
21	24020.41*	23803.64	24392.73	24174.74
22	23845.22	23621.69	24218.07	23992.96
23	23662.85	23432.48	24036.32	23804.70
24	23473.45	23237.01	23847.63	23610.16
25	23278.16*	23035.11	23652.62	23408.87
26	23074.36	22826.26	23450.87	23201.85
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J	(6- 1)		(7- 1)	
	R(J)	P(J)	R(J)	P(J)
0	26617.73			
1	26614.77	26557.23	27001.75	
2	26603.11	26573.73	26989.80	26960.01*
3	26582.55	26541.59	26969.09	26925.58*
4	26553.07		26939.55	26887.43
5	26514.98	26450.97	26901.33	26837.61
6	26468.15	26392.90	26854.12	26775.37
7	26412.72	26326.18	26798.30	26712.47
8	26348.59	26250.85	26733.83	26636.55
9	26275.91	26167.45	26660.77	26553.07
10	26194.86	26075.48	26579.25	26460.82
11	26105.16	25975.63	26489.26	26360.28
12	26007.35	25867.53	26390.65*	26252.03
13	25901.29	25751.11*	26284.46	26135.60
14	25786.90	25627.28	26169.59	26010.99
15	25664.27*	25495.99	26046.94	25875.11
16	25534.91*	25356.61	25916.48	25739.54
17	25396.68	25209.99	25778.13	25592.32
18	25251.17	25056.16*	25632.07	25437.68
19	25098.05	24894.73	25478.67	25276.31
20	24937.47	24726.56	25317.93*	25107.85
21	24770.00	24551.58*	25149.84	24932.19
22	24595.17	24369.78	24974.69	24750.12
23	24413.61	24181.56	24792.81	24561.94*
24	24225.14	23987.08	24604.03	24366.53
25	24030.18	23785.51	24409.14	24165.29
26	23828.87	23579.14	24207.48	23956.23
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J	(8- 1)		(11- 1)	
	R(J)	P(J)	R(J)	P(J)
0				
1			28578.22	28561.59
2			28565.76	28537.80
3			28543.71	28505.18
4	27330.78		28512.95	28463.10
5	27291.71		28472.93	28412.28
6	27244.31	27170.26	28424.00	28352.53
7		27102.72	28366.02	28284.02
8		27027.40	28299.26	28206.78
9	27050.18	26943.32	28223.62	28120.75
10	26967.73		28139.22	28026.27
11	26877.24	26749.45	28046.45	27923.42
12	26778.25	26640.13	27944.70	27811.59
13	26671.49	26523.28	27835.27*	27692.46
14	26555.88	26398.55	27716.57	27564.91
15	26432.34	26265.18	27589.96	27429.44
16	26301.09	26125.58	27455.33	
17	26162.16	25977.79	27313.37*	27135.40
18	26015.71	25822.70	27162.25*	26976.55*
19	25861.58	25660.40		26811.18
20	25659.84	25491.17		
21		25315.02		
22		25132.11		
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J	(12- 1)		(13- 1)	
	R(J)	P(J)	R(J)	P(J)
0	28574.61		29363.72	
1	28971.09	28954.47	29359.91	
2	28558.06	28930.58	29346.64	29320.03
3	28935.79	28897.70	29324.20	29286.86
4	28904.40	28855.17	29292.56	29244.18
5	28864.23	28804.26	29251.62	29192.70
6	28814.29	28744.15	29200.83	29132.05
7	28755.81	28675.03	29141.68	29062.34
8	28688.17	28597.57*	29073.15	28984.02
9	28611.94	28510.46	28995.75	28896.44
10	28526.36	28415.19	28909.44	28800.22
11	28432.40	28311.33	28814.29	28695.44
12	28329.68	28198.93	28710.36	28582.12
13	28218.42	28078.52	28597.57	28460.26
14	28099.35	27949.93	28476.83	28330.62
15	27971.12	27813.24	28347.46	28192.93
16	27835.27	27668.61	28209.84	28046.45
17	27690.30	27515.62	28064.03	27892.48
18		27356.62*	27910.49	
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J	(14- 1)		(15- 1)	
	R(J)	P(J)	R(J)	P(J)
0	29748.27		30126.58	
1	29744.34		30122.10	
2	29730.56	25704.38	30108.08	30082.61
3	29707.70	29670.55	30084.89	30045.52*
4	29675.05	29628.62*	30051.94	30005.81
5	29633.55	29575.17*	30009.52	29953.17
6	29582.68	29514.51*	29957.75	29891.71
7	29522.34		29896.64	29820.69
8	29452.83	29365.38	29826.16	29740.58
9	29374.44	29277.07	29746.51	29651.35
10	29286.86	29179.97	29657.08*	
11	29190.49	29074.23	29559.81	
12	29085.44	28959.66	29452.83	29320.32
13	28971.09	28836.77	29337.29	29206.10
14	28848.65	28705.44	29213.02	29073.15
15	28717.58	28565.76	29080.05	28932.08
16	28578.23	28418.36	28938.67	28782.31*
17	28430.41	28262.93	28788.94	28625.38
18	28274.97	28099.35	28631.16	28460.26
19	28111.47	27928.76	28464.45*	28281.19
20	27940.11		28291.23*	28106.64*
21			28110.17	27920.39*
22			27922.33*	
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J	(16- 1)		(1- 2)	
	R(J)	P(J)	R(J)	P(J)
0	30497.05		23526.61	
1	30492.45		23523.90	23506.59*
2	30478.05	30452.57	23513.04	23483.66
3	30454.28	30418.83*	23493.78	23452.87
4	30420.67	30375.90	23466.09	23413.67
5	30377.48	30322.85	23430.00	23366.24
6	30324.88	30260.37	23386.44*	23310.52
7	30262.53	30188.77	23332.69	23246.63
8	30191.18	30108.08*	23271.03	23174.56
9	30110.24	30018.06*	23201.11	23094.38
10	30019.96	29918.29	23122.75	23006.02
11	29920.55	29809.52	23036.08	22909.66
12	29812.11	29692.69	22940.81	22805.09
13	29694.75	29566.81	22837.26	22692.84
14	29568.31	29432.21	22725.32	22572.08
15	29433.23	29289.44	22605.31	22444.00
16	29289.44	29137.96	22476.55	22307.54
17	29137.96*	28978.44	22340.62	22164.25
18	28976.90	28810.96	22196.29	22012.79
19	28808.15	28635.61	22044.30	21853.13*
20	28631.16	28452.53		21687.69
21	28446.69	28261.77		21514.38
22	28254.25	28064.03		
23	28053.55			
24		27845.89		
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J	(2- 2)		(3- 2)	
	R(J)	P(J)	R(J)	P(J)
0	23843.08		24182.82	
1	23840.58	23823.00	24180.45	24162.60
2	23830.05	23800.34	24169.78	24140.20
3	23810.88	23769.75	24150.70	24105.21
4	23783.47	23730.40	24123.48	24070.58
5	23747.43	23683.17	24087.50	24023.07
6	23703.69	23627.53	24043.57	23967.81
7	23651.11	23564.71*	23991.22	23904.13
8	23590.55	23492.33	23930.96	23832.55
9	23521.04	23412.74	23862.36	23752.47
10	23443.85	23325.05	23785.91*	23666.10
11	23358.51	23225.65	23700.72	23571.26
12	23264.75	23126.30	23608.09	23467.90
13	23162.92	23015.15	23506.59	23357.26
14	23053.18	22896.35	23398.12	23235.22
15	22935.25*	22770.10*	23281.63	23113.71
16	22809.54	22635.52	23157.37	22980.60
17	22676.13	22494.46	23025.59	22840.55
18	22534.83	22345.45	22885.96	22692.64
19	22385.97	22189.38	22739.34	22538.76
20	22229.82	22026.25	22585.15	22377.25
21		21856.18	22423.78	22205.47
22	21895.34	21679.26	22255.44	22034.51
23		21495.76		21853.13
24		21305.61	21898.80	21665.64
25		21109.44		
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J	(4- 2)		(5- 2)	
	R(J)	P(J)	R(J)	P(J)
0	24539.94		24910.11	
1	24537.93*	24519.84	24907.76	24890.43*
2	24527.05	24457.20	24896.91	24867.44
3	24507.68	24466.42	24877.50	
4	24480.40	24427.36	24850.66*	24797.21*
5	24444.74	24380.03		24750.12
6	24400.72	24324.68	24770.00*	24694.66
7	24348.46	24261.42	24718.09	
8	24288.28		24657.48	24555.36
9	24219.55	24110.50	24589.00	24480.40
10	24142.91	24023.07	24512.38	24352.73*
11	24058.35	23927.99	24427.36*	24297.46
12	23965.92	23825.07	24335.05	
13	23865.16	23715.15	24234.51	24064.21
14	23756.92	23597.67*	24126.07*	23965.52*
15	23641.16	23471.86*	24010.36	23841.52
16	23517.41	23335.58	23887.10	23705.19
17	23386.40	23199.78	23756.52*	23570.00
18	23247.96	23053.18	23618.74*	23423.13
19	23102.25	22899.84	23473.45	23265.79
20	22949.26	22735.34	23320.94	23105.70
21	22789.49	22572.07	23161.45	22943.33
22	22622.57	22398.78	22995.65	22770.10*
23	22445.27	22219.04	22822.76	22591.09
24	22268.96		22643.50	22406.28*
25			22458.38	22214.69
26			22266.64	
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J	(8- 2)		(9- 2)	
	R(J)	P(J)	R(J)	P(J)
0	26069.19		26463.61	
1	26066.45	26050.13*	26460.82*	26443.70
2	26055.31	26026.90*	26449.18*	26421.00
3	26035.60	25995.69	26429.71	26389.65
4	26007.35*	25955.85	26401.44	26350.09
5	25971.16	25908.19	26364.27	26302.08
6	25926.40	25851.82*	26319.33	26245.69
7	25871.76*	25786.90*	26265.18	26180.94
8	25811.42	25715.25	26202.95*	26106.22
9	25741.56	25634.82	26132.93	26026.90
10		25546.38	26054.29	25938.32
11	25578.07	25450.24	25967.93	25841.42
12	25483.97	25346.10	25873.16	25736.70
13	25382.31	25234.56	25770.86	25624.57
14	25272.79		25660.40	25504.76
15	25155.51	24568.50	25542.46	25377.68
16	25031.06	24855.29	25416.89	25243.11
17	24898.76	24714.73	25283.90	25101.57
18	24759.08*	24566.80	25143.50	24952.59
19	24613.91*	24412.23	24996.06	24797.21
20	24459.69			24635.06
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J	(10- 2)		(11- 2)	
	R(J)	P(J)	R(J)	P(J)
0			27254.01	
1	26847.73*		27251.10*	
2	26844.70	26815.60*	27239.17	27211.43
3	26824.45	26785.36*	27218.59	27175.54
4	26795.63	26745.23	27189.45	27139.69
5	26758.35	26696.82	27151.40*	27091.05
6	26712.47*	26640.13	27105.03	27033.53
7	26658.29	26575.03	27050.17	26967.73*
8	26595.39		26986.58*	26894.44
9	26524.56	26420.13	26915.26	26812.37
10	26445.33	26330.54	26835.11	26722.02
11	26357.93	26233.16	26746.79	26623.81
12	26262.61	26127.82	26650.43	26517.67
13	26159.01	26014.71	26545.76	26403.74
14	26047.88	25894.11	26433.43	26281.82
15	25928.83	25765.50*	26313.14	26152.70
16	25802.17	25630.46*	26185.35*	26015.71
17	25668.33	25487.74	26050.13*	25871.76*
18	25526.51*	25337.99	25906.91	25721.21
19	25377.68*	25181.38	25756.65*	25563.17
20	25222.31	25018.07	25600.12*	25396.52
21	25059.72	24848.07*	25435.70	25227.49*
22	24890.43	24671.64	25264.69	25045.36
23	24714.73	24485.31		
24	24532.08	24300.62		
25		24106.20		
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J	(1- 3)		(2- 3)	
	R(J)	P(J)	R(J)	P(J)
0			22560.53	
1			22558.53	22540.74
2			22548.50	22515.11
3	22214.69*		22530.65	22485.50
4	22187.81		22504.99	22452.01
5	22153.60		22471.53*	22406.28*
6		22036.94*	22429.58	22353.86
7		21975.66	22380.14*	22293.27
8	22003.50	21906.91	22322.63	22225.09
9	21937.25	21830.73	22257.36	22145.12
10	21862.21*	21746.31	22184.20	
11	21780.80	21654.51		21974.58
12	21690.60	21555.07*	22014.52	21875.50
13	21592.32	21447.51	21918.28	21770.13
14	21486.32	21333.25	21813.65	21657.16
15	21372.36	21210.53	21701.17*	21536.97
16	21250.62	21081.51	21583.21*	21405.28
17	21121.12	20944.56	21456.73	21274.75
18		20800.60	21322.71	21133.25
19	20839.73	20649.58*	21181.14*	20985.08*
20	20688.21	20450.57	21032.77*	20825.59
21	20530.19*	20326.05	20877.84	20666.29
22	20363.93	20154.33	20715.92	20499.61
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J	(3- 3)		(6- 3)	
	R(J)	P(J)	R(J)	P(J)
0	22899.84*		24007.30	
1	22898.31	22880.49	24005.44	23987.68*
2	22888.47	22858.81	23995.22	23965.52*
3	22870.73	22829.33	23977.24	23936.24
4	22844.90	22791.57	23951.31	23898.76
5	22811.34	22746.82	23917.40	23853.40
6	22770.10*	22694.08	23875.61	23800.34*
7	22720.44	22633.46	23826.20	23735.54
8	22663.35	22565.25	23768.74	23671.26
9	22598.68*	22485.50*	23703.69*	23595.60*
10	22525.92	22406.38*	23631.14	23511.73
11	22445.55*	22316.00	23550.28*	23421.00
12	22357.91	22217.79	23462.50*	23322.53
13	22262.05		23367.52	23217.65
14	22159.12	21999.84*	23264.75	23105.49
15	22048.96	21880.67	23154.80	22986.14
16	21931.00	21754.51	23038.01	22860.07
17	21805.94	21620.91	22913.91	22727.40
18	21673.68	21480.61		22587.86
19	21534.54	21334.44*		22442.15
20	21388.35	21181.14*	22500.59	22290.29
21	21235.48	21020.97	22350.64	
22	21075.86	20854.97		
23	20909.83	20683.22*		
24	20737.60			
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J	(13- 3)		(1- 4)	
	R(J)	P(J)	R(J)	P(J)
0			21004.98	
1			21003.46	20986.23*
2			20994.02	20964.68
3	26718.90	26681.30	20977.45	20936.26
4		26642.42	20952.73*	20900.45
5	26653.64		20921.15	20857.37
6		26539.44	20881.38	20806.45
7	26555.06		20834.28	20748.78*
8	26493.31		20779.51	20682.22
9	26423.65	26324.11	20717.20	
10			20647.36*	20530.19
11	26259.82		20569.12	20442.87
12	26165.77	26037.47	20483.88	20346.39
13		25926.40	20390.93	20246.44
14	25954.54	25808.52	20290.51	20137.72
15	25837.74	25682.77	20182.79	20021.46
16	25713.42	25549.52	20067.25	19898.31
17	25581.50		19944.64	19766.26
18	25442.32	25263.40	19814.76	19631.27
19		25110.14	19677.75	19487.55
20			19533.88	
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J	(2- 4)		(3- 4)	
	R(J)	P(J)	R(J)	P(J)
0	21321.65			
1	21320.13	21302.33		
2	21311.19	21281.59		
3	21294.52	21253.18		
4	21270.43	21217.27		
5	21238.69	21174.40	21578.89	
6	21199.53	21123.80	21539.13*	
7	21152.74	21066.04	21493.42	21406.41*
8	21098.74	21000.86	21439.89*	21341.97*
9	21037.15	20928.57	21378.45	21265.01*
10	20968.15	20849.53	21309.82	21190.26
11	20891.69	20763.05	21234.07	21104.00
12	20808.04	20669.72*	21151.06	21011.15
13	20717.20*	20565.12*	21060.72	20911.25
14	20617.78	20461.72	20963.36	20804.48*
15	20512.68	20347.05	20858.56	20691.31*
16	20399.93	20226.11	20747.72	20571.03
17	20280.18	20098.26	20630.12*	20444.52
18	20153.26	19963.85	20504.46	20311.57
19	20020.54	19823.04	20372.77	20172.39
20	19879.19*	19675.79	20234.37	20026.81
21	19732.23*	19522.26	20089.70	19875.33
22	19584.73		19938.77	19717.89
23	19427.60		19781.62	19554.61
24			19618.51	19385.62
25			19449.52	
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J	(5- 4)		(6- 4)	
	R(J)	P(J)	R(J)	P(J)
0	22388.64			
1	22387.18	22265.46	22767.06	22745.46
2	22378.20	22348.66	22757.86	22728.56
3	22361.16*	22320.12	22741.32	22700.17
4	22337.42	22284.47	22716.87	22664.39
5	22305.63	22241.36	22685.04	22620.88*
6	22266.64	22190.75	22645.89	22570.37
7	22220.20		22598.68*	22512.53*
8	22165.93*		22544.91	22447.72*
9		21996.25	22483.63	22375.20
10		21916.83	22415.03	22295.62
11	21960.96		22339.14	22209.47
12	21878.51		22256.19	
13	21788.40	21638.30	22165.93	22016.27
14		21531.96		21909.59
15	21588.15	21418.84	21965.32	21796.59
16	21477.66	21299.54	21854.75	21676.80
17	21360.63		21737.82*	21550.86
18	21236.93	21041.63	21613.85	21418.84*
19	21106.73	20903.50	21483.55	21280.40
20	20970.19	20759.45	21347.14	21136.16
21			21204.49	20986.23
22		20453.46	21055.74	20830.98
23			20901.32	20669.72*
24			20741.71*	
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J	(9- 4)		(10- 4)	
	R(J)	P(J)	R(J)	P(J)
0	23540.15*			
1	23940.15	23922.69*		
2	23530.96*	23901.97		
3	23913.03	23873.21		
4	23888.30	23836.81	24282.87	
5	23855.12	23753.00	24249.39	
6	23815.02	23741.80		24136.12
7	23766.85*	23683.17	24160.14	24077.27
8	23711.85	23616.91	24103.81	
9	23649.14	23543.83*	24040.62	23936.24
10		23462.50	23969.56	
11	23501.02	23374.65	23890.92	23766.85
12	23416.36	23280.04		
13		23178.41	23713.04	23568.88
14	23225.83	23069.98	23613.13	23455.32
15	23120.26	22954.74		23343.28
16	23007.33	22833.34	23392.24	23220.76
17		22705.45	23272.44	23091.64
18			23145.21	22956.67
19			23011.32	22814.94
20			22871.82	22667.61
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J	(1- 5)		(2- 5)	
	R(J),	P(J)	R(J)	P(J)
0	19809.35			
1	19808.07	19790.52		
2	19799.78	19770.42		
3	19784.12*	19743.27		
4	19761.55	19709.12		
5	19731.64	19667.86		
6	19694.56	19619.65	20012.57	
7	19650.20	19564.45	19968.78	
8	19558.69	19502.30	19917.90	19820.00
9	19539.93	19433.17	19860.03	19751.76
10	19473.85		19794.55	19675.79*
11	19400.56		19723.00	19594.37
12			19644.08	19505.63*
13			19559.12	19410.28
14			19465.35	
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J	(4- 5)		(5- 5)	
	R(J)	P(J)	R(J)	P(J)
0	20823.04		21193.10	
1	20821.92	20804.48*	21191.69*	21173.58*
2	20813.67	20784.03	21183.59	21153.99*
3	20798.39	20756.88	21168.27	21127.07
4	20775.90	20723.05	21145.78	21092.98
5	20746.59	20682.65	21116.14	21051.88
6	20709.84*	20634.57*	21079.51	21003.46*
7	20666.57	20579.11	21035.87	20946.98
8		20517.63	20985.08*	20887.26
9	20558.59*	20449.32	20927.83	20819.07
10	20494.13	20374.34	20863.45	20742.78
11	20422.87	20292.75	20792.10	20662.61*
12	20345.03	20204.67	20714.38	20572.97
13	20260.56	20110.04*	20630.12*	20475.53
14	20169.19	20009.44	20538.58	20378.71
15	20071.33	19902.38	20440.99	20271.68
16	19967.01	19789.22	20336.85	20158.64
17	19856.34	19670.02	20226.11*	20039.55
18	19738.85*	19544.78		19914.34
19	19616.36	19412.76	19987.16	19784.12*
20			19858.44	19647.60
21			19723.99	19505.63
22			19583.63	
23			19437.47	
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J	(8- 5)		(6- 6)	
	R(J)	P(J)	R(J)	P(J)
0	22352.14			
1	22350.64	22333.41	20420.83*	20401.60
2	22341.99	22313.04	20411.57	20382.39
3	22326.06	22286.03*	20397.32	20356.33
4	22302.89	22251.20	20376.23	20323.60
5	22272.63	22209.47*		20264.68
6	22235.19	22161.00	20314.17	20238.60*
7	22190.75		20273.14	20166.59
8		22042.84		20127.59
9		21973.21	20171.43	20062.25
10		21897.18	20111.17*	19991.70
11	21842.39	21815.04	20043.78	
12	21862.21*		19970.34	19830.66
13	21777.43	21629.66	19890.94	19741.07
14	21684.85	21527.69		19645.52
15	21585.24	21418.84		
16		21304.89		
17	21368.95	21184.60		
18	21250.62	21058.25		
19	21127.07	20926.31		
20	20997.32	20788.80		
21	20861.73	20646.17		
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J	(7- 6)		(9- 7)	
	R(J)	P(J)	R(J)	P(J)
0				
1			20481.79	
2		20769.50	20474.48	20446.01
3			20460.66	
4		20710.53	20439.58*	20385.36
5	20734.92	20671.61	20413.72	20351.88
6	20700.46	20625.61	20380.82	20307.44
7	20659.21		20341.44	20257.41
8		20513.92	20295.69	20200.62
9	20556.34	20448.48	20243.74	
10	20495.33	20377.00	20185.48	20065.37
11	20427.89	20299.10	20121.14	19954.54
12	20354.04	20215.11	20050.69	19914.34
13	20274.06	20125.09	19974.44	19826.20
14	20187.72	20029.17	19892.03	19736.53
15	20095.36	19927.38	19804.02	19635.16
16	19996.92	19820.00		
17	19892.64	19706.82		
18	19782.58	19588.37		
19	19666.80	19464.37		
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Observed $A^1\Sigma^+ - X^1\Sigma^+$ bands of ^6LiD

J	(5- 0)		(6- 0)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2				
3	27266.42	27242.76		2751E.48
4	27248.58	27218.14	27524.33	27493.99
5	27225.43	27187.99	27501.31	27464.22
6	27197.18	27153.45	27473.07	27429.19
7	27163.94	27113.36	27439.41	27385.37*
8	27124.87	27067.58	27400.46	27342.64
9	27080.87	27017.30	27356.46	27293.13
10	27031.71	26961.90	27307.16	27237.50
11	26977.02	26901.14	27253.08*	27176.72
12	26917.67	26835.29	27193.07	27110.95
13	26852.67	26764.76	27128.42	27040.19
14	26783.03	26688.58	27058.68	26964.32
15	26708.91*	26607.57	26984.39*	26883.60
16	26628.06	26522.44	26904.06	26798.24*
17	26543.92		26819.27	26707.48
18	26454.06		26729.14*	26612.22
19			26634.73	
20			26535.21	26407.62
21				26298.22
22				
23				
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J	(7- 0)		(8- 0)	
	R(J)	P(J)	R(J)	P(J)
0	27846.39			
1	27844.37		28132.26	
2	27837.20		28124.89	28108.09
3	27824.73	27801.03	28112.24	28088.42*
4	27806.85	27776.48	28094.47	28064.18
5	27783.79	27746.47	28071.14	28034.26
6	27755.34	27711.63	28042.65	27999.24
7	27721.50	27671.48	28008.85	27958.89
8	27682.50	27625.78	27969.79	27913.37
9	27638.50	27575.43	27925.57	27862.67
10	27589.18	27519.69	27876.09	27806.78
11	27534.64	27458.80	27821.53	27745.93
12	27475.07	27393.08	27761.62	
13	27409.99*	27322.07		
14	27340.48	27248.09		
15	27285.56	27185.37		
16	27185.66	27079.65		
17	27100.86	26989.38		
18	27010.92	26893.85		
19	26915.37*	26793.83		
20	26815.78*	26688.58*		
21	26711.78	26579.74*		
22	26602.44			
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J	(9- 0)		(10- 0)	
	R(J)	P(J)	R(J)	P(J)
0	28426.18*			
1	28423.94*	28414.02		
2	28416.70	28399.98		28695.18
3	28404.06	28380.72	28698.56	28675.76
4	28386.12	28356.08	28680.95	28651.08
5	28362.77	28326.19	28657.44	28621.03
6	28334.16	28290.99	28628.70	28585.75
7	28300.30	28250.50	28594.64	28545.23
8	28261.36*	28204.87	28555.65*	28495.34
9	28216.69	28154.06	28510.66	28445.47
10	28167.03	28098.05	28460.78	28392.27
11	28112.24	28036.97	28405.78	28331.08
12	28052.26	27970.86	28345.53	28264.69
13	27987.20	27899.58	28280.18	28193.10
14	27917.01	27823.33	28209.76	
15	27841.68	27742.21	28134.16	28035.33
16	27761.62		28053.68	27948.53
17			27968.24	27857.66
18			27877.61	27761.62
19			27782.42	
20				
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J	(11- 0)		(12- 0)	
	R(J)	P(J)	R(J)	P(J)
0				
1	29016.38		29315.01	
2	29009.07		29307.50	
3	28996.30	28973.00	29294.64	29271.75
4	28977.84	28948.34	29276.10	29246.81
5	28954.16	28918.13	29252.43	29216.52
6	28925.41	28882.68	29223.28	29181.03
7	28891.07	28841.86	29188.82	29140.14
8	28851.76	28796.12	29148.98	29093.90
9	28806.67	28744.88	29103.86	29042.56
10	28756.61	28688.48	29053.16*	28986.00
11	28701.21	28627.08	28997.91	28924.12
12	28640.44	28560.23	28936.92	28857.29
13	28575.03	28488.66	28870.90	28785.21
14	28504.21	28411.82	28799.69	28707.57
15	28428.35	28330.05	28723.48	28625.97
16	28347.43	28243.47	28642.21	
17	28261.36	28151.57		
18	28170.77	28055.60		
19	28075.13	27954.53		
20	27974.66	27848.60		
21	27869.37	27738.28		
22	27759.43			
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J	(13- 0)		(14- 0)	
	R(J)	P(J)	R(J)	P(J)
0				
1	29614.07			
2	29606.71		29905.39	
3		29570.63	29892.11	29865.74
4	29574.87	29545.74	29873.46	29844.88*
5	29550.81	29515.41	29849.43	29814.17
6	29521.68	29479.67	29820.15*	29778.41
7	29486.87	29438.81	29784.89	29737.15
8	29446.84	29392.50	29744.58	29690.68
9	29401.51	29340.83	29698.81	29638.70
10	29350.77	29283.95	29647.70	29581.48
11	29294.64	29221.78	29591.21	29518.93*
12	29233.56	29154.55	29529.61	29451.55
13	29167.07	29082.28		29378.80
14	29095.49	29004.68	29390.81	29300.50
15	29018.41	28922.06	29313.53	29217.97
16	28936.92	28834.77	29231.15	29130.07
17	28850.05	28742.40	29143.81	29037.09
18	28758.34	28645.12	29051.34	28939.39
19	28661.66	28543.10	28954.16	28836.70
20	28560.23	28436.25	28851.76	28729.34
21	28453.71	28324.76	28744.88	28617.30
22	28342.64	28208.63	28633.04	28500.59
23	28226.89	28088.42	28516.60	28379.21
24	28106.52	27963.03	28395.40	28253.42
25		27833.83	28269.82	28123.28
26		27699.51	28139.83	27988.72
27			28005.27*	27849.50
28			27866.09	27706.66
29			27722.96	
30				
31				
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J	(15- 0)		(16- 0)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2				
3	30190.15		30486.73	
4	30171.21	30142.82	30467.33	
5	30147.04	30112.36	30443.19	30409.54*
6	30116.71*	30076.11	30413.24	30372.62
7	30081.98	30034.78	30377.59	30331.05
8	30041.57*	29988.05	30336.54	30283.84
9	29995.16	29935.81	30290.22	30221.29
10	29943.70	29878.30	30238.07	30173.57
11	29886.86	29815.40	30180.85	30110.46
12	29824.78	29747.82*	30118.39	30041.57
13	29757.41	29674.21	30050.36	29966.25
14	29684.79	29595.92	29977.59	29885.32
15	29606.71*	29512.50	29898.73	29805.55
16	29523.74*	29424.13	29815.40	29716.27
17	29436.17	29330.74	29726.61	29622.38
18	29343.22	29232.35	29632.75	29523.74
19	29245.20	29128.99	29534.12	29415.67
20	29142.16	29021.14	29430.11	29310.89
21	29034.45	28908.25	29321.87	29197.57
22	28922.06	28790.86	29208.54	29079.14
23	28804.69	28668.79	29090.35	28956.30
24	28682.71	28542.17	28967.41	28828.56
25	28556.65*	28411.82*	28840.00	28697.00
26	28425.10	28275.91	28707.97	28560.23
27	28289.62		28571.40	28420.07
28	28149.75		28430.54	28274.99
29			28285.28	28126.07
30			28135.97	27972.88
31				
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J	(17- 0)		(4- 1)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2			25964.26	
3			25952.06	25926.60
4			25935.29	25904.73
5			25912.74	25876.06
6		30668.38	25886.17	25842.26
7	30671.55	30625.31	25853.69	25803.67
8	30629.33	30577.64	25816.14	25755.66
9	30582.96	30525.09	25774.01	25710.82
10	30530.57	30467.33	25726.92	25657.05
11	30472.44	30403.38	25674.32	25598.47
12	30409.54	30334.34	25616.81	
13	30341.15	30260.15	25554.40	25466.43
14	30267.27	30180.85	25487.13	25393.06
15	30188.17	30096.19	25414.68	25315.02
16	30103.75	30006.22	25337.69	25232.48
17	30014.58	29911.83	25255.86	25144.51
18	29919.94	29812.16	25169.10	25052.21
19	29822.12	29707.44	25077.66	24955.60
20	29718.09	29598.25	24980.77	
21	29608.92	29483.57		
22	29497.22			
23				
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J	(5- 1)		(6- 1)	
	R(J)	P(J)	R(J)	P(J)
0				
1	26238.66	26228.44		
2	26231.86	26214.86		26490.66
3	26220.05	26196.22	26455.67	26472.24
4	26202.97	26172.49	26479.04	26448.32
5	26180.94	26142.72	26456.62	26415.47
6	26153.68	26109.93	26429.43	26385.74
7	26121.46	26071.05	26397.04	26347.20
8	26084.17	26027.20	26360.03	26303.02
9	26041.77	25978.68*	26317.40	26254.14
10	25994.32	25925.14*	26270.07	26200.51
11	25942.15	25866.12	26217.53	26141.83
12	25884.67	25802.41	26160.43	26078.27
13	25822.52	25734.17	26098.27	26009.79
14	25755.29	25660.69*	26031.23	25936.70
15	25683.67*	25583.04	25959.10	25858.29
16	25606.34	25500.26	25882.23	25775.69
17	25524.65	25413.10	25800.60	25688.73
18	25438.23	25321.05	25714.25	25596.91
19	25346.96	25224.40	25623.06	25500.26
20	25251.05	25123.19	25528.20	
21	25150.52	25017.66		
22	25044.05*			
23	24935.32			
24				
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J	(7- 1)		(8- 1)	
	R(J)	P(J)	R(J)	P(J)
0				
1			27085.68*	
2	26790.22	26772.99*	27078.08	
3	26778.25	26754.56	27065.54	27042.44
4	26761.10	26730.91	27048.84	27018.62
5	26739.20	26702.16	27026.57	26985.38*
6	26711.78	26668.14	26998.88*	26955.63
7	26679.31	26625.27	26966.60	26916.61
8	26642.00	26585.28	26929.37	26872.76
9	26595.21	26536.38	26886.71	26824.32*
10	26551.83	26482.55	26839.07	26765.63
11	26499.52	26423.82	26786.57	26710.89
12	26442.32	26360.03	26729.14	26647.16
13	26379.92	26291.59	26666.57	26578.56
14	26312.99*	26218.83*	26599.21	26505.24
15	26240.61	26140.13	26526.92	26427.01
16	26163.70	26057.80	26449.88	26344.27
17	26082.15	25970.31	26368.09	26256.78
18	25995.82	25878.41	26281.55	26164.73
19	25904.73	25781.88	26190.43	26067.51
20	25809.00		26094.56	25966.85
21			25994.32	25861.05
22			25889.21	25751.06
23			25780.01	25636.87
24			25666.06	25518.12
25			25547.85	25395.33
26			25425.28	25268.40
27			25298.76	25137.49
28			25167.87	25002.43
29			25033.15	
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J	(9- 1)		(3- 2)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2	27370.83*			2466E.25*
3	27357.93	27334.38		2465C.54
4	27340.48	27310.42	24658.36	2462E.00
5	27318.21	27281.48	24637.35	2460C.08
6	27289.4C*	27247.41	24610.58*	24567.43
7	27258.09	27208.48	24580.C1	24525.E5
8	27220.36	27163.54	24543.90	24487.21
9	27177.96	27115.10	24503.C7	2444C.47
10	27130.3E	27061.C7	24457.71	2438E.00
11	27077.20	27002.01	24407.C8	24331.66
12	27019.60	26938.08	24351.83	2427C.06
13	26956.85	26869.36	24291.48	24203.88
14	26889.43	26795.61	24226.52	24132.83
15	26816.96	26717.41	24156.64	24057.35
16	26739.20	26634.73	24082.22	23977.14
17	26657.60	26547.C5	24002.86	23892.54
18	26570.84	26454.C6	23918.80	23803.19
19	26479.04	26357.61	23829.90	23709.24
20	26383.03	26256.78*	23736.69	23611.C5
21	26282.76	26150.07	23638.72	
22	26177.53	26039.69		
23	26067.91	25925.14		
24	25953.95	25806.34		
25	25835.55			
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J	(4- 2)		(5- 2)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2				25154.21
3	24932.20	24908.98*	25199.89	25176.35
4	24916.10	24885.37	25183.75	25153.69
5	24894.53	24857.57	25162.67	25125.51
6	24868.85	24825.16	25136.28	25092.71
7	24837.88	24787.73	25105.58	25055.16
8	24802.01	24745.31	25069.66	25013.30
9	24761.28	24698.06	25029.16	24965.74
10	24715.86	24646.08	24983.40	24914.21
11	24665.42	24589.34	24933.47	24857.56
12	24610.58	24528.09	24878.18	24796.04
13	24550.30	24462.10	24818.35	24729.56
14	24485.49	24391.60	24753.85	24655.75
15	24416.03	24316.58	24684.36	24584.33
16	24342.15	24236.32	24610.58	24504.68
17	24263.10	24151.90	24531.78	24420.36
18	24179.69	24063.18	24448.69	24331.66
19	24091.57	23969.53	24361.11	24236.38
20	23998.72	23872.06	24268.64	24140.52
21	23901.67	23769.72	24171.88	24036.51
22	23799.96	23663.00	24070.75	23933.00
23			23964.57	23822.63
24			23854.98	23707.90
25			23741.13	23585.34
26			23622.55	
27				
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J	(6- 2)		(12- 2)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2				
3	25475.92			
4	25455.58			
5	25438.23	25401.65	27189.53	27153.45
6	25412.22	25368.71	27162.49	27120.36
7	25381.01	25330.53	27130.38*	27082.07
8	25345.46	25288.64	27094.09	27038.54
9	25304.44	25241.61	27052.22	26990.59
10	25259.27	25189.61	27005.74	26938.08
11	25208.96	25132.89	26954.07	26880.34
12	25153.70	25071.66	26897.58	26817.95
13	25094.03	25005.83	26836.59	
14	25029.27	24935.32	26770.72	
15	24960.10	24859.90	26699.84	26602.44
16	24886.91	24780.40	26624.42	26521.12
17	24807.89	24695.64	26543.92	26435.85
18	24724.80	24607.32	26459.39	26345.51
19	24637.35	24514.40	26370.49	26251.03
20	24545.23	24417.08	26276.79	26151.53
21	24448.65	24315.17	26178.80	26048.73
22	24347.60	24209.46	26079.75*	25941.05
23	24242.15	24099.31	25970.31	25825.68
24	24132.83	23984.71		
25	24018.89	23866.60		
26	23900.90	23744.15		
27	23778.93	23617.66		
28	23652.30			
29				
30				
31				
32				
33				
34				

J	(13- 2)		(2- 3)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2				
3				23411.67
4			23419.89	23389.45
5			23359.37	23362.35
6			23374.38	23330.67
7		27379.83	22344.64	23254.44
8		27337.74	23310.05	23252.51
9	27349.93	27289.40	23270.48	23207.61
10	27302.88		23226.49	23157.11*
11	27251.34	27177.56	23177.59	23102.37
12	27194.36	27115.10	23124.06	23042.57
13	27132.60	27047.72	23065.78	22978.67
14	27065.94	26975.15	23002.74	22910.11
15	26995.12	26898.65	22934.81	22836.98
16	26919.26	26816.56	22862.64	22759.06
17	26837.97	26730.51	22785.65	22676.65
18	26753.49	26640.35	22703.93	22590.06
19	26663.96	26545.24	22617.66	22498.62
20	26569.43	26445.72	22526.67*	22403.32
21		26342.37	22432.61*	22302.12
22			22332.73	22198.73
23				
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J	(3- 3)		(4- 3)	
	R(J)	P(J)	R(J)	P(J)
0	23699.02			
1	23697.63			
2				
3	23680.64		23938.33	23914.70
4	23665.10	23634.73	23922.87	23892.54
5	23644.96	23607.65	23902.82	23865.37
6	23619.65		23877.67	23833.52
7	23590.31	23540.02	23848.03	23797.68
8	23555.49	23498.64	23813.65	23756.98
9	23516.48	23453.50	23774.24*	23711.41
10	23472.42	23403.06	23730.91	23661.24
11	23424.22	23348.44	23682.53	23606.30*
12	23370.87	23289.17	23629.53	23547.40
13	23313.16	23225.40		23483.79
14	23250.68	23157.11	23509.81	23415.60
15	23183.62	23084.29	23443.04	23343.07
16	23112.05	23007.01	23371.62	23266.33
17	23035.56	22925.38	23295.78	23184.64
18	22954.87	22839.30	23215.39	23099.18
19	22869.59	22748.50	23130.65	23009.02
20	22779.88	22654.05	23041.90	22915.06
21	22685.59	22554.55	22948.31	22816.48
22	22586.97	22451.96	22850.53	22713.79
23	22484.07	22344.23	22748.50	22607.08
24	22376.57	22232.54	22642.05	22496.50
25	22265.03		22531.61	22381.37
26			22417.11	22262.56
27			22298.12	
28				
29				
30				
31				
32				
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J	(5- 3)		(9- 3)	
	R(J)	P(J)	R(J)	P(J)
0				
1			25360.19	
2			25354.67	
3	24206.08		25343.75	
4			25328.04	25297.97
5	24170.13		25307.32	25271.05
6	24145.31	24101.87	25282.22	25239.05
7	24115.82	24065.51	25252.28	25202.28
8	24081.21	24025.08*	25217.68	25161.33
9	24042.32	23978.83	25178.15	25115.41
10	23998.72	23929.28	25134.30	25065.45
11	23950.37	23874.46	25085.47	25010.30
12	23897.38	23815.55	25031.56	24950.75
13	23839.90	23751.74	24974.24	24886.91
14	23777.96	23683.74	24911.57	24818.35
15	23711.41	23611.05	24845.09	24745.31
16	23640.29		24774.08	24666.25
17		23453.50	24698.06	24586.48
18	23484.91	23367.65	24617.28	24500.92
19	23400.70	23277.93	24533.07	24410.51
20	23311.70	23184.64*	24444.10	24316.58
21	23218.80	23086.03	24351.63	24216.35
22	23121.52	22983.62	24254.62	24115.82
23	23020.02	22877.31	24154.27	
24	22914.18	22767.16		
25	22804.32	22652.82		
26	22690.61	22534.45		
27	22572.57	22412.61		
28	22450.80	22286.65		
29	22325.02			
30	22195.55			
31				
32				
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J	(10- 3)		(1- 4)	
	R(J)	P(J)	R(J)	P(J)
0			22254.59	
1			22253.60	22243.56
2			22247.76	22230.56
3			22237.34	22213.84
4		25593.10	22222.65	22192.30
5	25602.01	25565.76	22202.81	22165.98
6	25576.98		22178.62	
7	25546.64	25497.15		
8	25511.85	25455.99		
9	25471.96	25409.99		22016.36*
10	25427.99	25359.51	22034.95*	21967.24
11	25379.05	25304.44	21988.22	21914.27
12	25325.30	25244.50	21936.02	21856.32
13	25267.33	25180.26	21879.40	21793.94
14	25204.51	25111.81	21817.92	
15	25137.49	25038.39	21752.06	21655.82
16	25065.45	24961.40	21681.70	21580.33
17	24989.44	24878.18*	21606.01	21499.69
18	24908.98	24792.98	21526.04	21414.86
19	24824.14	24702.74	21441.95	21325.67
20	24735.03	24608.64	21352.42	21222.17
21	24641.52	24509.62	21258.78	21124.38
22	24543.90	24407.08	21161.09	21032.12
23	24442.22	24299.84*		
24	24336.42			
25	24226.52	24075.15		
26	24112.54	23956.89		
27	23995.31	23835.07*		
28	23873.41	23707.90*		
29	23747.73			
30				
31				
32				
33				
34				

J	I 2- 4)		(3- 4)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2	22477.24			
3	22466.70	22443.52		
4	22451.96	22421.76		
5	22432.61	22395.43	22678.10	22640.86
6	22408.47	22365.06	22654.09	22610.40
7	22380.10	22330.18	22625.65	22575.47
8	22346.82	22290.44	22592.77	22536.00
9	22309.16	22246.41	22554.59	22492.13
10	22266.80	22157.55	22513.15	22443.52
11	22220.01		22466.70	22390.63
12	22168.72		22415.40	22333.88
13		22025.56	22360.05	22272.50
14	22052.46	21959.46	22300.10	22206.76
15	21987.34	21888.52	22235.75	22136.46
16	21917.72	21814.00	22167.00	22062.00
17	21843.80			21983.39
18	21765.34	21651.42	22016.36	21900.67
19	21682.48	21563.77	21934.43	21814.00
20	21595.43	21471.53	21847.54	
21	21503.37	21374.88	21757.59	21627.25
22	21407.49	21274.62	21662.68	21527.58
23	21306.76	21170.03	21563.78	21424.35
24	21202.39	21061.24	21461.10	21316.58
25	21093.56	20948.44	21353.55	21205.30
26	20980.45	20831.64	21242.12	21085.37*
27	20863.51	20710.91	21126.67	
28	20743.11			
29				
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31				
32				
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J	[4- 4]		[8- 4]	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2			24093.78	
3			24063.12	
4			24068.69	
5	22936.11		24049.12	24012.24
6	22911.87	22867.59	24025.08	23581.72
7	22683.40	22633.23	23996.62	23946.66
8	22650.53	22793.92	23963.41	23906.55
9	22813.21	22749.95	23925.86	23862.72
10	22771.27	22701.40	23883.60	23815.55*
11	22724.95	22649.27	23837.21	23761.56
12	22674.20	22592.00	23786.34	23704.60
13	22618.98	22530.61	23730.51	23643.23
14	22559.20	22465.04	23671.59	23577.31
15	22495.09	22395.43	23607.69	23508.25*
16	22426.68	22321.16	23538.93	23433.04
17	22353.80	22242.78	23466.55	23354.85
18	22276.93	22160.37	23389.49	23272.48
19	22195.55		23308.61	23186.12
20		21963.38	23223.56	23095.75
21	22020.41	21888.52	23134.22	23001.31
22	21926.56	21789.77	23041.23	22903.08
23	21828.45	21686.70	22944.14	22801.02
24		21580.33	22842.55	22695.01
25	21620.06	21465.72	22738.14	22585.24
26	21509.69	21355.58	22629.13	22472.25
27	21395.68	21237.44	22516.59	22355.36
28	21277.95	21115.71	22400.35	22234.55*
29	21155.98	20990.28	22280.22	
30	21030.95	20861.30*		
31	20901.74	20727.56		
32	20769.07			
33				
34				

J	(1- 5)		(2- 5)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2	21304.20			
3	21294.25	21270.74		
4	21279.57	21245.86		21475.41
5	21261.43	21225.03	21491.15	21454.08
6	21238.41	21155.02	21468.24	21424.39
7	21210.61	21161.09	21440.77	21390.56
8	21178.56	21122.66	21409.23	21352.42
9	21141.92	21080.14	21372.76	21310.35
10	21100.80	21033.08	21332.46	21263.34
11	21055.69	20981.66	21287.56	21212.58
12	21005.85	20925.81	21238.41	21157.42
13	20951.51	20865.52	21184.78	21097.51
14	20892.69	20801.62	21126.87	21034.38
15	20829.08	20732.58	21064.50	20966.40
16	20761.27	20659.92	20997.82	20894.25
17	20689.16	20582.70	20927.01	20816.05
18	20612.22	20501.00	20851.30	20737.35
19	20530.79	20415.15	20771.96	20653.11
20	20445.69	20325.32	20688.07	20564.48
21	20355.75	20230.66	20600.04	20471.76
22	20261.38	20132.41	20507.72	20374.56
23	20162.90	20030.09	20411.34	20274.39
24	20059.30	19923.34	20310.82	20165.79
25		19812.59	20206.26	20061.26
26			20097.69	
27				
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J	(3- 5)		(7- 5)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2				
3			22852.76	
4			22838.31	
5			22819.72	22782.86
6			22796.78	22753.58
7	21686.70*		22769.72	22715.65
8	21654.73	21598.16	22738.14	22681.61
9	21618.99	21556.03	22702.51	22639.33
10	21578.50	21509.69*	22662.34	22592.77
11	21534.44*	21458.63	22617.66	22542.02
12	21485.35	21403.63	22569.08	22487.45
13	21432.27	21344.85*	22516.59	22427.97
14	21374.88	21281.19	22459.25	22365.08
15	21312.95	21213.80	22398.02	22296.12
16	21246.99	21141.92*	22332.73	22226.85
17	21176.82	21066.48	22263.31	
18	21102.46	20986.83	22189.70	
19	21023.84	20903.12		21989.63
20	20941.08	20815.23		21902.98
21	20854.12	20723.67		
22	20763.00*	20628.07		
23	20668.37*	20528.58		
24	20569.15	20425.21		
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J	(1- 6)		(2- 6)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2		20368.45		
3	20375.78	20352.39		
4	20362.24	20332.10		20561.25*
5	20344.33	20307.82	20574.34	20531.35
6	20322.41	20279.27	20552.44	20505.06
7	20296.13	20246.58	20526.05*	20476.43
8	20265.43	20209.62	20496.07	20439.70
9	20230.66	20168.62	20461.57	20356.66
10	20191.39	20123.34	20422.68*	20353.50
11	20147.89	20073.86	20379.55	20304.85
12	20100.01	20020.36	20332.82	20251.79
13	20047.96	19962.36	20281.33	20154.44*
14	19991.48	19900.65	20225.92	20133.34
15	19930.86	19834.61	20166.72*	20066.05
16	19865.77	19764.35	20102.33	19956.75
17	19796.78*	19690.07	20034.52*	19925.47
18	19722.95	19611.65	19962.36*	19846.23
19	19644.97	19529.06	19885.82	19767.01
20	19562.48	19442.46	19805.48	19681.83
21			19721.05	19592.75
22			19632.58	19495.88
23			19540.10	19402.08
24			19443.65	
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J	(6- 6)		(4- 7)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2			20222.99	
3			20214.33	20190.56
4			20201.73	20171.26
5			20185.07	20147.89
6	21599.16		20164.39	20120.66
7	21573.28	21522.64*	20139.74	20085.59
8	21543.16	21486.51	20111.18	20054.58*
9	21509.69*	21445.63	20078.53	20015.20
10		21401.66	20041.99	19972.43
11	21428.42	21352.42	20001.50	19925.47
12	21381.79	21299.59	19957.00	19875.12
13	21331.33	21243.11	19908.66	19820.51
14	21276.81	21182.47	19856.38	19762.28
15	21218.33	21118.07	19800.22	19700.24
16	21155.98	21049.75	19740.04	19634.68
17	21089.37	20977.60	19676.13	19565.20
18	21019.03	20901.74	19608.66	19492.09
19	20944.84	20822.11	19537.54*	19415.48
20	20866.90	20738.83	19462.11	
21	20784.99	20651.90		
22	20699.35			
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J	(5- 7)		(5- 7)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2				
3				
4				
5	20452.77		20452.77	
6	20432.18	20388.74*	20432.18	
7	20407.49	20357.05		
8	20378.83	20222.41*		
9	20346.32	20283.21		
10	20309.73	20229.94		
11	20269.39	20193.28		
12	20224.94	20142.75		
13	20176.66	20088.24		
14	20124.62	20030.05		
15	20068.69	19968.46		
16	20008.79	19902.70		
17	19945.02	19832.64		
18	19877.97	19760.73		
19	19806.81	19684.33		
20	19732.04	19604.28		
21	19653.60	19520.67		
22	19571.46	19433.71		
23	19485.94			
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Observed $A^1\Sigma^+ - X^1\Sigma^+$ bands of ^7LiH

by this author and Crawford and Jorgensen.

J	(2- 0)		(3- 0)	
	R(J)	P(J)	R(J)	P(J)
0	26542.81		26878.61	
1	26541.87*	26522.20	26875.43	26857.86
2	26527.35	26458.19*	26863.20	26834.18
3	26505.99	26465.37*	26842.00	26801.53
4		26424.01	26811.74	26755.81
5	26436.46	26373.43	26772.46	26705.30
6	26388.13	26314.01	26724.36	26645.59
7	26330.79	26245.82	26667.25	26581.77
8	26264.51	26168.82	26601.26	26504.88
9	26189.90*	26083.15	26526.28	26415.60
10	26105.29	25988.65	26442.75	26325.57
11	26012.14	25885.57	26350.32	26223.15
12	25957.47*	25774.62*	26249.27	26112.18
13		25654.75	26139.62	25952.58
14			26021.48	
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J	I 4- 0)		I 5- 0)	
	R(J)	P(J)	R(J)	P(J)
0	27232.04*		27600.80*	
1	27228.19	27210.77	27597.20*	27576.61
2	27215.98	27186.97	27581.67	27552.79
3	27194.72	27154.21	27560.40	27520.01
4		27112.56	27530.06	27478.30
5	27125.26	27062.08	27490.76	27427.71
6	27077.08	27002.75	27442.54	27368.29
7	27020.07	26934.62	27385.38	27300.08
8	26954.14	26857.86	27319.36	27223.23
9	26879.42	26772.46	27244.50	27137.71
10	26795.93	26678.53	27161.02	27043.71
11		26576.04	27068.80*	26941.26
12	26603.03		26968.08*	26830.49
13	26493.55*	26346.39	26858.83*	26711.46
14	26375.97	26219.30	26742.48	26584.24
15	26249.96	26084.19		
16	26115.68	25941.09		
17	25973.24			
18				
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J	(6- 0)		(7- 0)	
	R(J)	P(J)	R(J)	P(J)
0	27972.81		28355.59*	
1		27952.23	28352.07	28335.72*
2	27957.14	27928.39	28340.38*	28311.02
3	27935.69	27895.55	28317.95	28278.11
4	27905.24	27853.75	28287.34	28236.20
5	27865.76	27803.00	28247.64	28185.33
6	27817.29	27743.41	28198.91	28125.58
7	27759.93	27675.07	28141.30	28056.96
8	27693.74	27598.01	28074.75	27975.67
9	27618.65	27512.33	27999.40	27893.65
10	27534.96	27418.19	27915.22	27795.06
11	27442.54		27822.39	27696.05
12	27339.17*	27204.44	27721.03*	27584.67
13	27232.04	27065.17	27611.17	27465.07
14	27114.29	26957.89	27492.56*	27337.36
15	26988.27		27366.47	27201.63
16		26875.47	27231.37*	27058.11
17	26711.92	26528.53	27089.22	26906.80
18			26938.78	26748.00
19				26581.77
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J	(8- 0)		(9- 0)	
	R(J)	P(J)	R(J)	P(J)
0	28742.87		29133.24	
1	28739.47	28722.46	29129.61	29112.86
2	28726.83	28658.53	29116.95*	29088.78
3	28705.03	28665.51	29094.77	29055.73
4	28674.11	28623.40	29063.59	29013.44
5	28634.12	28572.25	29023.29	28962.20
6	28585.11	28512.25	28973.84	28901.86
7	28527.00	28443.42	28915.36	28832.59
8	28460.07	28365.79	28847.85	
9	28384.22	28279.42		28657.71
10	28299.62	28184.42	28686.18	28572.25
11	28206.25	28080.94	28591.34*	28468.16
12	28104.30	27969.02	28489.53	28355.58
13	27993.95	27848.52	28378.35	28234.86
14		27720.67	28258.74	28105.91
15	27747.87	27584.42	28130.85	27965.02*
16	27612.65	27440.15	27994.79	27823.84
17	27469.38		27850.53	27671.15
18		27128.77	27698.46	27510.79
19	27159.38		27538.67	27342.02
20			27371.16	
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J	(10- 0)		(11- 0)	
	R(J)	P(J)	R(J)	P(J)
0	29524.75		29915.76	
1	29521.02	29504.44*	29911.86	29855.48
2	29508.02	29480.35	29898.61	29871.34
3	29485.70	29447.07	29876.00	29837.94
4	29454.18	29404.60	29844.06	29755.26
5	29413.41	29352.58	29802.85	29743.30
6	29363.56	29292.39	29752.40	29682.29
7	29304.43	29222.72	29692.77	29612.20
8	29236.34	29144.14	29624.04	29533.21*
9	29159.24	29056.74	29546.20	29445.12
10	29073.27	28960.72	29459.39	29348.26*
11	28978.52	28855.53	29363.56*	29242.95
12	28876.39*	28742.87*	29259.30	29128.83
13	28762.97	28621.19	29146.15	29006.38
14	28642.35		29024.52	28874.99*
15	28513.47	28353.05*	28894.44	
16	28376.34	28207.55	28756.02	
17	28231.06	28053.84		
18	28077.87	27852.44		
19	27916.94	27723.59		
20	27747.87*			
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J	(12- 0)		(13- 0)	
	R(J)	P(J)	R(J)	P(J)
0	30304.85		30690.73	
1	30300.80		30686.51	30670.60
2	30287.26	30260.44	30672.66	30646.27
3		30226.85	30649.35	30612.48
4	30231.99	30183.89	30616.54	30565.25
5	30150.27	30131.63	30574.26	30516.69
6	30139.21	30070.19	30522.57	30454.75
7	30078.90	29999.62	30461.50	30384.07*
8	30009.39	29915.53	30391.14	30303.30
9	29930.72	29831.27	30311.58	30212.83
10	29843.00	29733.75	30222.83	
11	29746.35	29627.45	30125.02	30006.21
12	29640.67	29512.47	30018.36	29892.27
13	29526.59	29389.04	29902.82	29767.74
14	29403.71	29257.16	29778.56	29634.71
15	29272.33	29116.55	29645.75	29493.27
16	29132.54	28968.81	29504.44*	29343.67
17	28984.58	28812.63	29354.81	29186.02
18	28828.45		29197.03	29020.56
19			29031.23	28847.28
20			28858.90*	28666.54
21			28676.27	
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J	(14- 0)		(15- 0)	
	R(J)	P(J)	R(J)	P(J)
0				
1	31067.48	31052.09*		
2	31053.35	31027.57		
3	31029.66	30993.52		
4	30996.37	30950.64		
5	30953.54	30896.99		
6	30901.11	30834.63		
7	30839.26	30762.80	31210.79	
8	30767.97	30681.80	31138.48	
9	30687.37	30591.55	31056.72	30962.09
10	30597.50	30492.27	30965.67	30862.84
11	30498.53	30383.57*	30865.39	30752.47
12	30390.50		30755.90	30635.22
13		30141.18	30637.39	30508.04
14	30147.74	30006.78	30509.92	30372.22
15	30013.30	29864.44*	30373.65	30227.64
16	29870.28	29712.90	30228.69	30074.57
17	29718.87	29553.64	30075.05	
18	29559.87*	29386.43		
19	29391.34			
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J	(1- 1)		(2- 1)	
	R(J)	P(J)	R(J)	P(J)
0			25183.05	
1	24867.23		25180.42	25162.95
2	24655.73		25168.53	25135.60*
3	24835.55	24795.41	25148.51	25108.45
4	24806.75	24755.34	25120.29	25068.51
5	24769.23	24706.73	25083.10	25020.05
6	24723.06	24649.64	25037.31	24963.15
7	24668.12	24583.32*	24982.90	24897.89
8	24604.54	24510.08	24919.97	24824.25
9	24532.30	24427.64	24848.51	24742.39
10	24451.31	24336.88	24768.56	24652.27
11	24361.63	24227.74	24680.15	24553.57*
12	24263.40	24130.32	24584.06*	24447.61
13	24156.52	24014.71	24478.20	24333.23
14	24041.06	23890.87	24364.73	24210.85
15	23917.15	23758.51	24243.08	24080.61
16	23784.79	23618.90	24113.28	23942.61
17	23644.16			23796.88
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J	[3- 1]		[4- 1]	
	R(J)	P(J)	R(J)	P(J)
0	25518.84			
1	25516.05	25458.60	25868.84	
2	25504.71	25475.70	25857.47	25828.46
3	25484.78	25444.24	25837.52	25756.57
4	25456.22	25404.28	25808.58	25757.08
5	25419.10	25355.88	25771.91	25708.63
6	25373.48	25299.07	25726.25	25651.86
7	25319.30	25233.94	25672.17	25586.71
8	25256.71		25609.24*	25513.29
9	25185.64	25078.80	25538.66	25431.63
10	25106.12	24989.01	25459.36	25341.51
11	25018.33	24891.07	25371.77	25244.13
12	24922.26	24785.16	25276.01	25138.38
13	24817.97	24671.37	25172.11	25024.80
14	24705.57	24549.74		24903.49
15	24585.10*	24420.10*	24940.30	24774.52
16	24456.70	24283.44	24812.57	24638.00
17	24320.39	24138.53	24677.05	24494.11
18	24176.36	23987.03	24533.95	24342.90
19	24024.61	23827.83	24383.32	
20	23865.41	23661.53	24225.33	24015.14
21	23698.82	23488.12		
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J	(5- 1)		(6- 1)	
	R(J)	P(J)	R(J)	P(J)
0			26612.99	
1	26234.62	26217.31	26610.12	
2	26223.15	26194.32	26598.57	26585.85
3		26162.83	26578.52	26538.28
4	26174.56	26122.71	26549.65	26498.20
5	26137.37	26074.35	26512.25	26449.62
6	26091.69	26017.43	26466.48	26392.56
7	26037.46	25952.17	26412.05	26327.16
8	25974.83	25878.64	26349.20	26253.49
9	25903.76*	25796.57	26277.93	26171.59
10	25824.43	25707.12	26198.41	26081.51
11	25736.83	25609.61*	26110.53*	25982.53
12	25641.05	25503.50	26014.59	25877.39
13	25537.22	25389.86	25910.43	25783.58
14	25425.38	25268.57	25798.48	25642.03
15	25305.68	25140.05*		25512.29*
16	25178.15	25003.26	25551.00	25376.33
17	25042.90	24859.45	25415.65	
18	24900.22	24708.48		
19	24750.03	24550.42		
20	24592.54	24385.41		
21	24427.64*	24213.43*		
22	24256.26			
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J	(0- 2)		(1- 2)	
	R(J)	P(J)	R(J)	P(J)
0	23274.18		23555.28	
1	23271.60	23254.48	23553.41*	23535.50
2	23260.64	23232.32	23542.17	23513.37
3	23241.37	23201.78	23523.25	23482.99
4	23213.63	23163.16	23496.10	23444.68
5	23177.43	23116.25	23460.64	23398.11
6	23132.71	23061.09	23416.93	23343.55
7	23079.45	22997.66	23364.92	23280.86
8	23017.54	22925.81	23304.65	23210.13
9	22946.50	22845.57	23236.06	23131.43
10	22867.89	22757.74	23159.18	23044.77
11	22780.11	22660.69	23074.07	22950.15
12	22683.40*	22556.35	22980.69	22847.69
13	22575.77		22879.13	22737.34
14			22769.38	22619.18
15			22651.51	22493.29
16			22525.56	
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J	(2- 2)		(3- 2)	
	R(J)	P(J)	R(J)	P(J)
0	23868.26		24203.94	
1		23848.52	24201.61	24184.19
2	23855.33	23826.3E	24191.09	24162.05
3	23836.56	23796.12	24172.39	24131.87
4	23809.61	23757.81	24145.53	24093.58
5	23774.47	23711.46	24110.51	24047.25
6		23657.07	24067.35	23992.95
7	23679.70	23594.71	24016.10	23930.71
8	23620.08	23524.40	23956.76	23860.60
9	23552.32	23446.20	23889.45	23782.61
10	23476.48	23360.19	23814.06	23696.91
11	23392.56	23266.41	23730.77	23603.52
12	23300.67	23164.93	23639.61	23502.49
13		23055.80	23540.62	23394.53*
14	23093.05	22939.11	23424.68*	23278.04
15	22977.42	22815.00	23319.46	23154.73
16	22854.04	22683.40*	23197.43	23024.19
17	22722.98	22544.50	23067.98	22886.53
18	22584.34		22932.58*	22741.81
19			22786.94	22590.16
20			22635.60	
21			22477.20	
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J	(4- 2)		(2- 3)	
	R(J)	P(J)	R(J)	P(J)
0	24556.74		22597.36	
1	24554.43		22594.90*	22577.99
2	24543.83	24514.92	22585.67	22556.71
3	24525.16	24484.66	22568.11	22527.72
4	24458.28	24446.36	22542.82	22491.02
5	24400.03		22509.73	
6	24420.3E*	24345.70	22468.87	
7	24283.44*			
8	24309.65	24213.43*		
9	24242.42	24135.44		
10	24167.24	24049.80		
11	24084.19	23956.76*		
12	23993.34	23855.72		
13	23894.74	23747.42		
14	23788.46	23631.78		
15	23674.67	23508.87		
16	23552.82*	23378.81		
17	23424.68			
18	23288.71	23057.64		
19	23145.59	22946.50*		
20	22995.44	22789.33		
21	22838.42	22625.24		
22	22674.55			
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J	(3- 3)		(0- 4)	
	R(J)	P(J)	R(J)	P(J)
0	22933.08		20777.41*	
1	22932.58*	22913.77	20774.61*	20757.56*
2	22921.38	22892.41	20764.63	20736.25
3	22903.92	22863.43	20747.77	20708.24
4	22878.76	22826.78	20723.48*	20672.79
5	22845.70	22782.53	20691.39*	
6	22805.08	22730.68	20651.24	20579.61
7	22756.64	22671.25	20603.57	20521.83
8	22700.56	22604.35	20548.17	20456.62
9	22636.87	22530.10	20484.87	20383.75
10	22565.57		20413.70	20302.58
11	22486.71		20334.68	20215.74
12			20247.76	20120.46
13			20153.18	20017.79
14			20050.80	19907.67
15				19790.11
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J	(1- 4)		(2- 4)	
	R(J)	P(J)	R(J)	P(J)
0	21057.93*			
1	21055.82*	21038.69*		
2	21045.96	21017.23		
3	21029.07*	20989.38		
4	21005.59	20954.25		
5	20974.31	20911.77		
6	20935.44	20862.03		
7	20889.12	20805.05		21118.59
8	20835.29	20740.82		21054.90
9	20773.90	20665.25	21089.97	20984.00
10	20705.09	20590.59	21022.23	20906.00
11	20628.82	20504.80	20947.18	20821.11*
12	20544.93	20411.79	20864.53	20729.24
13	20453.65	20311.81	20775.44	20630.32*
14	20355.00	20204.72	20678.74	20524.78
15	20248.83	20050.64	20574.90	20412.53
16	20135.53	19969.51	20464.06	20293.33
17	20014.95	19841.87	20346.26	20167.68
18	19887.30	19707.11	20221.60	20035.57
19	19752.73	19565.89	20089.97	19897.01
20	19611.29	19418.08	19951.90	19752.17
21	19463.13	19263.74	19807.44	19601.23
22	19308.41		19656.53	19444.16
23			19499.34	19281.11
24			19336.19	19112.24
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J	(3- 4)		(0- 5)	
	R(J)	P(J)	R(J)	P(J)
0				
1			15588.75	19571.61
2			19580.25	19552.69
3			19564.65	19525.18
4			19541.75	19491.25
5			19511.61	19450.39
6			19473.58	19402.52
7			19429.28	19347.48
8			19376.99	19285.29
9			19317.27	19216.64
10			19249.97	
11				
12		21066.62	19092.92	
13	21114.96	20968.34		
14	21019.58*	20863.70		
15	20916.97	20752.22		
16	20807.54	20634.29		
17	20691.39	20509.83		
18	20568.46	20375.07		
19	20438.95	20242.10		
20	20302.86	20098.54		
21	20160.53	19949.86		
22	20012.00	19794.82		
23	19857.41	19634.38		
24	19696.87	19468.04		
25	19530.65	19296.28		
26	19358.79			
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J	(1- 5)		(2- 5)	
	R(J)	P(J)	R(J)	P(J)
0				
1	15869.89	15852.80*		
2	15861.64	15832.93		
3	15846.41	15806.24	20159.73	
4	15824.16	15772.65	20137.70	20085.78
5	15794.82	15732.23		
6	15758.22	15684.86	20072.39	19998.32
7	15714.68	15630.61	20029.37	19944.36
8	15664.02	15565.56	19979.43	19883.60
9	15606.25	15501.65	19922.39	19816.29
10	15541.34	15427.00	19858.53	19742.27
11	15469.33	15345.44*	15787.76	19661.59
12	15390.22	15257.12	19710.16	19574.49
13	15303.98	15162.05	15625.76	19480.73
14	15210.58	15060.14	19534.42	19380.55
15	15110.17		15436.42	19273.89
16	15002.84		19331.77	19161.13
17			19220.39	
18			19102.35	
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Observed $A^1\Sigma^+ - X^1\Sigma^+$ bands of ^7LiD

by Crawford and Jorgensen.

J	(3- 0)		(4- 0)	
	R(J)	P(J)	R(J)	P(J)
0	26756.17			
1	26754.36	26743.12*		26966.67
2	26746.66*	26731.01		26963.26
3	26735.48	26712.49	26987.61	26964.68
4	26718.10	26688.71	26970.56	
5	26695.89	26660.33	26948.24	26912.38
6	26668.51	26626.46	26920.86	26876.66
7	26636.10	26587.67	26888.46	26839.95
8	26598.58	26543.85	26851.01	26796.18
9	26555.95		26808.50	26747.41
10			26760.92	26693.71
11			26708.34	26635.12
12			26650.87	26571.62
13			26588.21	26503.19
14			26520.74	26429.92
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J	(5- 0)		(6- 0)	
	R(J)	P(J)	R(J)	P(J)
0	27271.44*		27540.45	
1	27268.53	27258.71	27538.65	27528.82
2	27261.62	27245.28	27531.71	27515.39
3	27249.60		27519.71	27498.82
4	27232.48	27203.10	27502.54	27473.21
5	27210.24	27174.42	27480.25*	27444.52
6	27183.00	27140.69	27452.93	27410.76
7	27150.54	27101.95	27420.53	27371.56
8	27113.06	27058.20	27383.04	27328.23
9	27070.60	27009.52	27340.52	27279.47
10	27023.14	26955.88	27293.05	27225.79
11	26970.56	26897.23	27240.54	27167.18
12	26913.18	26833.79	27183.00	27103.66
13	26850.73	26765.44	27120.65	27035.34
14	26783.36	26692.23	27053.34	26962.22
15	26711.08	26614.33	26981.18	26884.22
16	26633.97		26904.13	26801.55
17	26552.09	26444.08	26822.31	26714.20
18	26465.34		26735.64	26622.28
19			26644.35	
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J	(7- 0)		(8- 0)	
	R(J)	P(J)	R(J)	P(J)
0	27817.27		28099.17	
1	27815.36		28097.42	28087.56
2	27808.39	27792.08	28090.32	28074.07
3	27796.32	27773.53	28078.17	28055.48
4	27779.08	27745.85	28060.52	28031.80
5	27756.82	27721.09	28038.67*	28003.01
6	27729.40		28011.06	27965.16
7	27696.95		27978.50	27930.20
8		27604.66	27940.88	27886.33
9	27616.82	27555.85	27898.21	27837.45
10	27569.25	27502.11	27850.50	27783.61
11	27516.67	27443.43	27757.80	27724.78
12	27459.10	27379.87	27740.14	
13	27396.63	27311.50		27592.52
14	27329.33	27238.26	27609.99	27519.18
15		27160.30	27537.60	27441.07
16	27181.18*	27077.49	27460.40	27358.23
17	27098.06	26990.17	27378.45	27270.75
18	27011.59	26898.13	27291.72	27178.57
19			27200.21	27081.80
20			27104.26	26980.60
21			27003.57	
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J	(9- 0)		(10- 0)	
	R(J)	P(J)	R(J)	P(J)
0	28385.31		28674.58	
1	28383.39	28360.78*	28672.64	28662.95
2	28376.33	28360.15	28665.45	28645.46
3	28364.14	28341.55	28653.20	28630.77
4	28346.78	28317.81	28635.75	28606.97
5	28324.30	28288.98	28613.20	28578.08
6	28296.72	28255.04	28585.51	28544.03
7	28264.07	28216.04		28504.93
8	28226.28		28514.75	28460.84
9	28183.49	28123.02	28471.74	28411.65
10	28135.68	28069.05	28423.69	28357.47
11	28082.72	28010.10	28370.61	28298.38
12	28024.93	27946.26	28312.51	28234.34
13	27962.13	27877.51	28249.51	28165.44
14	27894.45	27804.02	28181.58	28091.70
15	27821.84	27725.72	28108.77	28013.15
16	27744.45		28031.09	27925.85
17		27654.52	27948.61	27841.86
18	27575.31	27462.55	27861.40	27745.21
19	27483.66	27365.61	27769.49	
20	27367.45*	27264.14*		27550.20
21	27286.54*	27150.79*	27571.68	27443.98
22	27179.98*		27465.94	27333.29
23	27071.22*		27355.79	27218.26
24			27241.18	27098.65
25			27122.19	26975.28
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J	(11- 0)		(12- 0)	
	R(J)	P(J)	R(J)	P(J)
0	28966.13		29259.21	
1	28964.17	28954.25*	29257.14	29247.66
2	28956.97	28941.03	29249.88	29234.10
3	28944.58	28922.31	29237.43	29215.32
4	28927.05	28898.44	29219.74	29191.33
5	28904.32	28869.41	29196.88	29162.26
6	28876.45	28835.30	29168.81	29127.99
7	28843.48	28796.04	29135.66	29088.62
8	28805.31	28751.76	29097.28	29044.14
9	28762.11	28702.35	29053.80	28994.59
10	28713.84	28648.04	29005.36*	28935.58
11	28660.48	28588.74	28951.62	28880.38
12	28602.14	28524.44	28892.56	28815.88
13	28538.85	28455.31	28829.22	
14	28470.58	28381.31	28760.67	28672.05
15	28397.48	28302.45	28687.18	28592.92
16	28319.45	28218.87	28608.81	28508.99
17	28236.65	28130.59	28525.61	28420.31
18	28149.06	28037.63	28437.59	28328.55
19	28056.75	27940.04	28344.85	28228.99
20	27959.78	27837.89	28247.48	28126.44
21	27858.25	27731.31	28145.42	28015.38
22	27752.12		28038.67*	27907.89
23			27927.72	27792.08
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J	(13- 0)		(14- 0)	
	R(J)	P(J)	R(J)	P(J)
0	29552.95		29846.91	
1	29550.85	29541.44	29844.75	29835.40
2	29543.42	29527.86	29837.23	29821.71
3	29530.91*	29508.87*	29824.50	29802.83
4	29513.14	29484.56	29806.56	29778.66
5	29490.07	29455.75	29783.36	29749.35
6	29461.85	29421.37	29754.65	29714.77
7	29428.44	29381.83	29721.21	29675.03
8	29389.84	29337.15	29682.34	29630.14
9	29346.10	29287.35		29580.13
10	29297.23	29232.55	29589.11	29525.08
11	29243.26	29172.69	29534.78	29464.91
12	29184.28	29107.53		29399.73
13	29120.26	29038.11	29410.53	29329.61
14	29051.27	28963.39	29341.51	29254.53
15	28977.28	28883.82	29267.11	29174.55
16	28898.44	28799.46	29187.74	29089.77
17	28814.77	28710.39	29103.52	29000.18
18	28726.26	28616.58	29014.50	28905.67
19	28633.02	28518.18	28920.65	28806.89
20	28535.11	28415.17	28822.12	28703.30
21		28307.56	28718.90	28595.17
22		28195.52	28611.12	28482.58
23	28213.65		28498.79	28365.60
24	28097.42		28381.85	28244.12
25	27977.01		28260.65	
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J	(15- 0)		(16- 0)	
	R(J)	P(J)	R(J)	P(J)
0	30140.22*		30432.19	
1	30137.90	30128.55*	30429.90	30415.55*
2	30130.34	30114.89	30422.27	30407.09
3	30117.50	30096.06	30409.27	30388.04
4	30099.34	30071.82	30391.01	30363.72
5	30075.97	30042.34	30367.34	30334.09
6	30047.27	30007.60	30338.40	30295.20
7	30013.33	29967.66	30304.16	30255.02
8	29974.21	29922.55	30264.67	30213.70
9	29929.80	29872.28	30219.99	30163.12
10	29880.24	29816.85	30170.04	30107.40
11	29825.54	29756.35	30114.89	30044.46
12	29765.64	29690.66	30054.52	29980.66
13	29700.82	29620.28	29989.19	29905.66
14	29630.85	29544.86	29918.64	29833.70
15	29555.92	29464.38	29843.27	29752.78
16	29476.01	29379.10	29762.73	29666.96
17	29391.24	29289.05	29677.31	29576.31
18	29301.63	29194.19	29586.99	29480.85
19	29207.14	29094.69	29491.84	29380.68
20	29107.93	28990.40	29391.95	29275.81
21	29004.04	28881.63		
22	28895.51	28768.31		
23	28782.41	28650.63		
24	28664.84	28528.49		
25	28542.78	28402.05		
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J	(17- 0)		(18- 0)	
	R(J)	P(J)	R(J)	P(J)
0	30722.54			
1	30720.24	30711.23		
2	30712.42	30657.49	31000.25	30985.44
3	30699.36	30678.40	30986.52	30966.33
4	30680.78	30653.55	30968.35	30941.78
5	30656.95	30624.12	30944.15	30911.77
6	30627.72	30589.08	30914.66	30876.45
7	30593.21	30548.55	30879.70	30836.01
8	30553.56	30503.00	30839.48	30789.84
9	30508.21	30452.11	30794.01	30738.66
10	30457.86	30396.07	30743.18	30682.33
11	30402.27	30334.83	30687.27	30620.73
12	30341.49	30268.51	30625.87	30553.55
13	30275.53	30197.07	30559.40	
14	30204.54	30120.65	30487.82	30404.54
15	30128.55	30039.21	30410.94	30322.57
16	30047.27	29952.82	30329.15	30236.03
17	29961.19	29861.59*	30242.28	30144.05
18	29870.18	29765.64*	30150.48	
19	29773.08*	29663.06	30053.78*	29945.67
20	29673.56	29555.52*	29943.25*	
21	29568.05	29445.06	29846.84	
22	29457.89			
23	29343.13			
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J	(2- 1)		(3- 1)	
	R(J)	P(J)	R(J)	P(J)
0				
1				
2		25462.62	25718.90	
3	25467.33	25444.24*	25707.38	
4	25450.82	25421.63		25661.64
5	25429.39	25393.81	25669.59	
6	25403.02	25361.08	25643.29	25601.20
7	25371.73	25323.49	25612.08	25563.65
8	25335.36	25281.01	25575.57	25521.27
9	25294.18	25233.63	25534.90	25474.11
10	25248.02	25181.52	25487.29*	25422.15
11	25196.97	25124.53	25438.32	25365.40
12	25140.95	25062.77*	25382.68	25303.63
13		24996.16*	25322.24	25237.59
14	25014.23	24924.01	25256.83	25166.60*
15	24943.60		25186.82	25090.51*
16			25111.92	
17			25032.27	24924.68
18			24947.94	
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J	(4- 1)		(5- 1)	
	R(J)	P(J)	R(J)	P(J)
0				
1	25977.65			
2	25968.92*		26233.16	26216.77
3	25959.59	25936.71	26221.61	26158.78
4	25943.18	25913.90	26205.18	26175.83
5	25921.84	25886.01	26183.89	26148.06
6	25895.60	25853.40	26157.67	26115.46
7	25864.46	25815.54	26126.52	
8	25828.45	25773.60	26090.53	26035.65
9	25787.53	25726.66	26049.66	25986.48
10	25741.76	25674.56	26003.95	25936.71
11	25691.16	25617.50	25953.47	25880.04
12	25635.72	25556.48	25898.11	25818.70
13	25575.51	25490.46	25837.92	25752.71
14	25510.47	25419.70	25773.09	25681.57
15	25440.77	25344.26	25703.51	25606.64
16	25366.26	25264.25	25629.22	25526.84
17	25287.10	25179.66	25550.27	25442.47
18	25203.38*	25090.56	25467.62*	25353.56
19	25115.61		25378.62	25260.20
20	24996.91*		25285.88	25162.39
21			25188.71	25060.20
22			25087.02	24953.75
23			24980.92	24843.05
24			24870.50	24728.08
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J	(6- 1)		(7- 1)	
	R(J)	P(J)	R(J)	P(J)
0	26511.47		26788.14	
1	26509.83	26499.98	26786.46	26776.66
2	26503.19	26486.67	26779.84	26763.56
3	26491.68	26468.88	26768.27	26745.53
4	26475.26	26445.53	26751.82	26722.57
5	26453.89	26418.13	26730.42	26694.69
6	26427.66	26385.48	26704.07	26662.06
7	26396.51	26347.96	26672.90	26624.49
8	26360.49	26305.66	26636.82	26582.14
9	26319.57	26258.53	26595.89	26534.52
10	26273.90	26206.60	26550.11	26482.95
11	26223.33	26149.96	26499.46	26426.22
12	26168.04	26088.61	26444.08	26364.81
13	26107.93	26022.58	26383.85	26298.74
14	26043.08	25951.92	26318.95	26227.97
15	25973.54	25876.64	26249.41	26152.65
16	25899.40	25796.87	26175.21	26072.82
17	25820.51	25712.47	26096.29	25988.49*
18	25737.00	25623.60	26012.51	25899.40*
19	25649.03	25530.29	25924.88	25806.18
20	25556.51	25432.72	25832.44	25708.55
21	25459.50	25330.71	25735.59	25606.64
22	25358.17	25224.45		
23	25252.39	25113.92		
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J	(8- 1)		(1- 2)	
	R(J)	P(J)	R(J)	P(J)
0				
1	27068.64*			
2	27061.74		24251.10	24234.87
3			24240.01	24217.35
4	27033.57	27004.49	24224.11	24195.05
5	27012.14	26976.64	24203.37	24168.07
6	26985.76	26943.85	24177.89	24136.29
7	26954.45	26906.18	24147.52	24095.75
8	26918.25	26863.63	24112.40	24056.53
9	26877.17	26816.45	24072.35	24012.53
10	26831.30	26764.55*	24027.49	23961.85
11	26880.55*	26707.56	23977.84	23906.44
12	26725.01	26646.00	23923.33	23846.31
13	26664.73	26579.83	23864.00	23781.61
14	26599.73	26508.25*	23799.81	23712.43*
15	26530.03	26433.51		
16	26455.60	26353.43		
17	26376.63	26269.00		
18	26293.09	26175.94		
19	26205.18*	26086.54		
20	26112.46	25988.49*		
21	26015.43	25886.61		
22	25913.90*	25780.25		
23	25808.32	25669.55		
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J	(2- 2)		(3- 2)	
	R(J)	P(J)	R(J)	P(J)
0	24484.60*			
1	24482.13	24472.29	24722.05	24712.25
2	24475.89	24459.57	24715.85	
3	24464.81	24442.04	24704.84	24682.01
4	24449.01	24419.81		24659.82
5	24428.34	24392.87	24668.65	24632.91
6		24361.17	24643.39	24601.34
7	24373.00	24324.82	24613.47	24565.11
8	24338.15	24283.73	24578.79	24524.10
9	24298.53	24238.03	24539.38	24478.52
10	24254.15	24187.62	24495.24	24428.34
11	24204.96	24132.59	24446.38	24373.44
12	24151.12	24072.91	24392.87	24314.00
13	24092.49	24008.64		24250.02
14	24029.16	23939.76	24271.82	24181.49
15		23866.30	24204.31	24108.45
16		23788.35	24132.24	24030.96
17	23809.62*	23705.74	24055.56	23948.99
18	23727.34		23974.22	
19		23527.23		23771.82
20	23548.91		23798.25	23676.66
21			23703.49	23577.27
22			23604.34	23473.51
23			23500.63	
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J	(4- 2)		(5- 2)	
	R(J)	P(J)	R(J)	P(J)
0			25237.55*	
1	24974.23		25236.30	
2	24968.02	24951.64	25230.07	25213.74
3	24957.06	24934.21	25219.14	25156.26
4	24941.39	24912.00	25203.38	25174.08
5	24920.91	24885.13	25183.00	25147.18
6	24895.77	24853.56		
7		24817.24	25127.91	
8	24831.24	24776.37	25093.34	25038.43
9	24791.90	24730.86	25054.05	24992.52
10	24747.86	24680.73		24942.84
11		24625.59	24961.53	24888.14
12	24645.94	24566.78	24908.28	24828.92
13	24587.99	24502.93	24850.46	24765.17
14	24525.44	24434.61	24788.00	24696.96
15	24458.30	24361.81	24721.06	24624.27
16	24386.59	24284.57		24547.23
17	24310.35	24202.92	24573.63	24465.80
18	24229.60	24116.91	24493.16	24379.93
19	24144.39	24026.60	24408.28	24289.84
20	24054.76	23931.97	24319.02	
21		23833.07		
22		23730.00		
23	23759.64	23622.75		
24	23652.66	23511.41		
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J	(6- 2)		(1- 3)	
	R(J)	P(J)	R(J)	P(J)
0	25510.52*			
1	25507.58*	25498.41*		
2	25500.34*	25484.84*		
3	25489.12	25467.33*		23235.88
4	25473.50	25444.62*	23247.27	23216.70*
5	25453.04	25417.27	23227.48	23152.14
6	25427.83	25385.65	23203.00	23161.43
7	25397.93	25345.37	23173.89	23126.07
8	25363.31	25308.49	23140.12	23066.24
9	25324.03	25262.94	23101.67	23041.91
10	25280.08	25212.80	23058.64	22952.52
11	25231.44	25157.81*	23010.89	22939.45
12	25178.23	25098.83	22958.46	22881.41
13	25120.39	25035.07	22894.41*	22819.17*
14	25057.98	24966.85	22839.57	22751.74
15	24991.07	24894.23	22773.12	22680.14
16	24919.67	24817.24	22702.05	
17	24843.78	24735.75		
18	24763.45			
19	24678.75	24560.05		
20	24589.70	24465.80		
21	24496.32	24367.42		
22	24398.65	24264.94		
23	24296.78			
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J	(2- 3)		(3- 3)	
	R(J)	P(J)	R(J)	P(J)
0	23505.07			
1	23503.62	23493.94		23732.05*
2	23497.79	23481.54	23737.81	23721.46
3	23487.31	23464.56	23727.34	23704.51
4	23472.22	23443.03	23712.32	23682.99
5	23352.53*	23416.93	23692.71	23657.02
6	23428.25	23386.28	23668.53	23626.44
7	23399.37	23351.11	23639.80	23591.39
8			23606.50	23551.88
9	23327.78	23267.48	23568.70	23507.81
10	23285.31	23218.78	23526.29	23455.32
11	23238.08	23165.65	23479.36	23406.42
12	23186.22	23108.02	23427.86	23346.98*
13	23129.86	23045.98	23366.47*	23287.40
14	23068.92	22979.28*	23311.74*	23221.33
15	23003.44			23150.84
16	22933.49	22833.41	23177.33	23076.04
17	22858.97	22753.78	23103.57	22997.02
18	22779.97	22669.63	23025.51	22913.71
19	22696.48		22942.87	22826.19
20			22856.00	22734.41
21			22764.80	22636.52
22			22669.30	
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(4- 3)		
J	R(J)	P(J)
0		
1	23995.84	23986.03
2	23590.03	23973.51*
3	23579.57	23956.72
4	23964.61	23935.20
5	23945.02	23908.28*
6	23920.89	23878.67
7	23852.19	23843.62
8	23858.98	23804.13
9	23821.25	23760.15
10	23779.01	23711.75
11	23732.21	23658.59
12	23680.95	23601.77
13	23625.29	23540.24
14	23565.16	23474.33
15	23500.63	23404.11
16		23329.56
17	23358.29	23251.03
18	23280.85*	
19	23198.78	23080.53
20	23112.50	22985.65
21	23022.00	22894.41
22	22927.36	22795.01
23	22828.52	22691.63
24	22725.55	
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