Observed emission bands of N_2 [$c'_m(v)\ ^1\Sigma_u^+ \rightarrow\ X(v)\ ^1\Sigma_g^+$] in the vuv region, cm^{-1} . Values with B are blended.

	$c'_4(0,0)$ band		$c'_4(0,1)$ band		$c'_4(0,2)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0			101996.35B		99695.19	
1			102000.27B	101988.72	99699.05	99687.61B
2			102003.94	101984.66B	99702.78B	99683.49
3			102007.68B	101981.17	99706.48	99679.49
4			102011.01	101976.47	99710.07	99675.46
5			102014.35	101972.03B	99713.57	99671.29B
6			102017.61B	101967.66	99716.93B	99667.07
7			102020.38	101963.10B	99720.18B	99662.74
8			102023.02	101958.39B	99723.10	99658.33
9				101953.48B	99725.00	99653.71
10			102032.34B	101948.24B	99732.83B	99648.84
11			102032.34B	101941.68B	99733.76	99642.94B
12			102035.48B	101941.68B	99736.12B	99642.94B
13		104261.52	102036.25	101934.40B	99738.33	99636.29B
14		104253.93	102038.20B	101928.52B	99740.44B	99630.69B
15		104247.39B	102040.04B	101922.28B	99742.73B	99625.13B
16		104241.74	102040.04B	101916.03B	99743.73	99619.50B
17		104234.48	102040.04B	101909.46	99745.19B	99613.50
18		104227.01	102040.04B	101902.66B	99745.98B	99607.19B
19		104218.95	102040.04B	101895.55B	99745.98B	99600.72B
20		104211.15B	102040.04B	101887.82	99745.98B	99593.83B
21	104360.78B	104201.47B	102038.20B	101879.69	99745.19B	99586.28
22	104356.53B	104191.91B	102035.48B	101870.74	99742.73B	99578.41B
23	104352.55	104181.55B	102032.34B	101861.28	99740.44B	99569.95B
24	104345.33B	104170.15B	102026.08B	101850.69	99736.12B	99559.91
25	104337.74	104158.19B	102018.13	101838.92	99728.63	99548.95
26	104326.91B		102008.72B	101825.69	99720.18B	99536.65B
27		104127.01	101996.35B	101810.36		99522.42B
28		104109.06	101980.59	101792.92B		99505.76B
29				101772.81		99486.52
30				101749.88B		

	$c'_4(0,3)$ band		$c'_4(0,4)$ band		$c'_4(0,5)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	97422.66		95179.04B		92963.81B	
1	97426.66	97414.89	95182.54	95172.13	92966.83B	
2	97430.22	97410.94	95186.60	95167.22	92971.46	
3	97433.94	97407.03	95190.70B	95163.38B	92975.93B	
4	97437.74	97403.14	95194.53B	95159.81	92979.36	92945.04
5	97441.43	97399.12	95198.16	95155.91	92983.07B	92942.07B
6	97444.98B	97395.18B	95202.03	95152.15	92987.80	92937.98
7	97448.51	97391.41B	95205.91B	95148.26	92992.21B	92934.26
8	97451.67	97386.92B	95209.18	95144.87B	92995.02B	92930.75B

	$c_4'(0,3)$ band		$c_4'(0,4)$ band		$c_4'(0,5)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
9	97453.93	97382.58	95211.79B	95140.58	92998.30	92927.07B
10	97462.00	97378.18B	95220.37	95136.26	93007.10B	92923.22B
11	97463.52	97372.65B	95222.58	95131.64B		92918.62
12	97466.18	97373.65B	95224.72B	95131.64B		92919.67B
13	97468.84	97368.09B	95227.94	95126.65		
14	97471.51	97362.25B	95231.65B	95120.69B		
15	97473.42B	97356.45B	95235.01	95118.14		
16	97475.82B	97351.64B	95236.45B	95111.86		
17	97477.56B	97347.30	95239.78			
18	97479.26B	97340.44B	95241.64B			
19	97480.47B	97335.69B	95242.90			
20	97480.47B	97328.27B	95244.47B			
21	97480.47B	97321.80B	95244.47B			
22	97479.26B	97315.35B	95244.47B			
23	97476.99	97306.17B				
24	97473.42B	97296.56B				
25	97467.14B	97286.90B				
26	97459.53B	97277.81				
27		97262.00				

	$c_4'(0,6)$ band		$c_4'(0,7)$ band		$c_4'(0,8)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
1		90769.89B	88624.20B	88612.58B	86495.41	86484.16B
2		90766.11B	88628.68B	88608.00B	86500.17B	86481.83B
3		90762.91	88605.97B		86503.84B	86478.30B
4	90793.22	90759.20B	88636.84	88602.31B	86508.96B	86474.15
5	90798.15B	90755.79B	88640.45B	88598.94	86512.64B	86470.10B
6	NI	90752.35B	88645.57B	88595.57B	86518.28B	86467.76B
7	90806.26	90748.50B	88650.23	88593.72B	86522.69B	86465.36
8	90810.51B	90745.77B	88655.21B	88589.69	86526.98B	86462.54
9	90813.67	90742.42B	88657.98B	88586.72B	86531.20	86459.91
10	90822.79	90738.89	88667.56	88583.54B	86540.75B	86456.92B
11	90824.62B	90734.61B	88670.61	88579.67B	86545.13B	86453.64B
12	90829.34	90736.18B	88674.89	88581.63	86549.33	86456.09B
13	90832.79B	90730.67B	88678.91B	88577.72B		86452.80B
14	90837.53B	90728.36B	88684.06	88575.49B		86448.97B
15	90841.91B	90723.94B	88688.40B	88570.64B		
16	90845.37B	90720.77B	88692.16	88567.77B		
17						
18	90851.43B	90713.29B				
19	90854.57B	90709.62B				
20		90704.09B				
21	90860.48B	90701.82B				
22	90860.48B	90695.96B				
23	90860.48B	90690.20B				
24	90860.48B	90684.19B				

	$c_4'(0,9)$ band		$c_4'(0,10)$ band		$c_4'(0,11)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	84391.16B		82321.67		104042.62B	
1	84396.44	84384.68B	82326.04B	82314.65	104045.44B	104034.34B
2	84400.73	84381.06B	82330.31	82311.28B	104046.66B	104029.77B
3	84404.89B	84378.83B	82334.91B	82307.48B	$c_3(0)$	104025.27B
4	84409.66	84375.18B	82339.39B	82305.04	$c_3(0)$	104019.34
5	84414.49	84372.48B	82344.40B	82302.48B	$c_3(0)$	104013.69
6	84419.50B	84369.18B	82349.54B	82299.76	$c_3(0)$	104006.44B
7	84424.29	84367.15B	82354.38B	82297.59	$c_3(0)$	103999.47
8	84429.01B	84364.38	82360.14B	82295.19	$c_3(0)$	103991.89B
9	84433.36	84361.86B	82364.45	82293.17	104046.66B	103982.86B
10	84443.47	84359.35B	82375.01B	82291.57B	104042.62B	103973.58
11	84447.34B	84356.28B	82378.56B	82288.46B	104037.66B	103963.32
12	84452.18B	84359.35B	82375.01B	82291.57B	104032.72B	103951.98
13	84458.18B	84356.28B	82378.56B	82288.46B	104025.27B	103940.10B
14	84463.28	84353.40B	82397.81	82287.22	104016.47	103926.16B
15	84469.00B	84351.30		82285.89	104006.44B	103910.73B
16	84474.00B	84350.04	82408.33B	82284.45	103991.89B	103894.40
17	84480.17B	84348.13B	82414.82B	82283.74	103977.13	103874.75B
18	84486.13B	84347.05B	82420.77B	82283.15B	103958.83B	103854.93B
19	84491.00B	84345.42B	82426.93B	82280.54		103831.43B
20	84495.50B	84343.81B		82279.45B		103805.37B
21	84500.33B	84341.64B	82438.05B	82279.45B		
22	84502.82B	84338.91B	82441.35	82277.08B		
23	84505.01B	84335.72B	82444.50B	82275.71		
24	84507.93B	84332.21B	82446.72B	82270.81B		
25		84326.44		82267.49		
26		84320.45		82263.63B		

	$c_4'(1,2)$ band		$c_4'(1,3)$ band		$c_4'(1,4)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
1	101743.57B	101733.92B	99471.24	99460.87	97227.61B	97217.43B
2	101746.32B	101729.03	99473.07B	99456.55	97230.19	97212.92
3	101748.65B	101724.24	99475.53B	99451.72	97232.02	97208.28
4	101749.88B	101718.88B	99477.54B	99446.50	97233.70B	97203.08
5	101749.88B	101712.87B	99478.16B	99440.63B	97234.99B	97197.52
6	101749.88B	101706.37	99478.16B	99434.46	97234.99B	97191.42
7	101749.88B	101699.31B	99478.16B	99427.88B	97234.99B	97184.83B
8	101748.65B	101691.67	99477.54B	99420.28	97234.99B	97177.76B
9	101746.32B	101683.36B	99475.53B	99412.25	97233.70B	97170.07
10	101743.57B	101674.25	99473.07B	99403.52B	97230.90	97161.66B
11	101739.51B	101664.29B	99469.01	99394.09	97227.61B	97152.72
12	101733.92B	101653.62	99464.33	99383.70B	97223.24	97142.70
13	101727.50B	101642.16B	99457.88	99372.31B	97217.43B	97131.73
14	101718.88B	101628.75B	99450.10	99359.72B	97210.04	97119.67
15	101708.77	101613.99B	99440.63B	99345.79	97200.76	97106.25
16	101696.51	101598.18	99427.88B	99330.14	97189.47	97091.21B

	$c_4'(1,2)$ band		$c_4'(1,3)$ band		$c_4'(1,4)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
17	101681.30	101580.22	99413.88	99312.83B	97175.96	97074.38B
18	101664.29B	101559.69	99396.94	99293.15B	97158.98B	97055.30B
19		101537.61B		99270.98		97033.54B
20		101510.83B		99246.54B		97010.15B

	$c_4'(1,5)$ band		$c_4'(1,6)$ band		$c_4'(1,8)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	95009.66		92823.19B		88537.57B	
1	95012.22	95001.46B	92825.81B	92816.31B	88540.37	88529.28B
2	95014.91B	94998.78B	92828.80B	92811.53B	88543.32B	88526.37
3	95017.80B	94993.14B	92831.46B	92807.81B	88545.86	88521.94B
4	95019.14B	94988.04	92833.50B	92802.68B	88547.90B	88517.44
5	95020.94B	94982.56	92833.50B	92797.78B	88550.03B	88512.50
6	95020.94B	94977.13	92835.87B	92792.57B	88551.46B	88507.47
7	95020.94B	94970.86	92835.87B	92785.43B	88552.44B	88502.02
8	95020.94B	94964.00B	92835.87B	92778.47B	88552.44B	88495.86
9	95019.14B	94957.18B	92835.87B	92772.41B	88552.44B	88489.40B
10	95017.80B	94948.73	92833.50B	92764.27	88551.46B	88482.55
11	95014.91B	94939.64B	92830.44B	92755.57B	88550.03B	88474.93
12	95010.96	94930.40B	92827.22B	92747.34B	88547.90B	88466.75
13	95005.37	94920.05B	92822.36B	92737.53B	88543.32B	88456.78B
14	94998.78B	94908.23	92816.31B	92725.78	88537.57B	88447.45B
15	94990.08	94895.36	92807.81B	92713.62	88529.28B	88437.11
16	94979.10	94880.91B	92797.78B	92699.58	88521.94B	88424.13B
17	94966.44B	94864.59B		92684.12B		88408.28B
18	94949.92B	94846.21		92665.67B		88392.80
19		94825.36B				
20		94801.98				

	$c_4'(1,9)$ band		$c_4'(1,10)$ band		$c_4'(1,11)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	86437.66		84367.15B		82326.04B	
1	86441.64B	86430.95B	84370.47B	84359.35B	82329.32B	82318.21B
2	86443.65B	86426.96B	84374.13B	84356.28B	82332.63B	82315.43B
3	86446.81B	86422.80	84377.22B	84352.84	82334.91B	82311.28B
4	86448.97B	86418.35	84378.83B	84348.13B	82338.22B	82307.48B
5	86451.01B	86413.91B	84381.06B	84343.81B	82339.39B	82302.48B
6	86452.80B	86408.83B	84382.86B	84338.91B	82342.13B	82298.38B
7	86453.64B	86403.31B	84384.68B	84333.91B	82344.40B	82293.17B
8	86454.34B	86397.66B	84385.65B	84328.58B	82345.57B	82288.46B
9	86454.34B	86391.55	84386.64B	84322.71	82346.15B	82283.15B
10	86454.34B	86385.01	84385.65B	84316.46	82346.15B	82277.08B
11	86452.80B	86377.86	84384.68B	84309.48	82345.57B	82270.81B
12	86451.01B	86369.97	84382.86B	84302.29	82344.40B	82263.63B
13	86446.81B	86361.63B	84379.74	84294.06	82342.13B	82256.72
14	86442.08	86351.79	84375.18B	84284.97B	82338.22B	82247.54

	$c_4'(1,9)$ band		$c_4'(1,10)$ band		$c_4'(1,11)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
15	86435.45	86340.99	84369.18B	84274.89B	82332.63B	82237.87
16	86426.96B	86329.23B	84361.86B	84263.23B	82324.86	82226.83
17		86315.17		84249.89	82315.43B	82215.04B
18		86299.09B		84235.23B	82302.48B	82199.58
19						82182.88
20						82164.24B

	$c_4'(2,0)$ band		$c_4'(2,1)$ band		$c_4'(2,2)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0			106217.93B		103916.75B	
1			106219.95B	106211.23B	103918.47B	103909.79B
2			106219.95B	106206.09B	103918.47B	103904.81
3			106219.95B	106199.95B	103918.47B	103898.77
4			106217.93B	106192.46B	103916.75B	103891.64
5			106215.14	106183.80B	103914.40B	103883.84B
6			106211.23B	106174.17B	103910.73B	103874.75B
7			106206.09B	106163.83	103905.87	103863.81B
8	108529.00		106199.95B	106152.14	103899.94	103852.67
9	108521.11		106192.46B	106139.21	103892.78B	103839.50
10			106183.80B	106125.11	103883.84B	103825.71
11	108501.87		106174.17B	106109.16	103874.75B	103810.83
12	108489.87	108420.41	106162.43B	106093.12	103863.81B	103794.70
13		108402.06	106149.60	106075.25	103851.56	103777.01B
14	108460.53B	108382.56	106135.31	106057.06	103837.73	103758.69B
15	108445.19B	108360.90	106119.47	106036.17	103822.34	103737.92
16	108427.73B		106102.21	106012.50B	103805.37B	103716.54B
17	108407.51	108313.05B	106082.87	105989.46B	103786.74	103693.68B
18	108385.59	108288.16	106061.69	105964.32B	103766.41B	$c_3(0)$
19		108260.38B	106038.80	105937.41	103744.41B	103642.41
20		108230.70B	106014.00	105907.55	103719.84B	103614.36B
21	108309.08	108198.95B	105986.96B	105877.10	103693.68B	103584.28
22	108279.38B	108166.32	105957.95B	105845.46B	$c_3(0)$	$b(4)$
23		108131.31B		105810.53		103518.79B
24		108093.16		105773.33		$b(4)$

	$c_4'(2,3)$ band		$c_4'(2,4)$ band		$c_4'(2,5)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	101644.93B				97184.83B	
1	101646.21B	101637.24	99401.35B		97187.69B	97177.76B
2	101646.21B	101632.30	99403.52B	99388.30	97187.69B	97173.34
3	101646.21B	101626.35	99403.52B	99383.70B	97187.69B	97167.78
4	101644.93B	101619.44	99401.35B	99375.84	97186.77	97161.66B
5	101642.16B	101611.36	99398.65	99368.19	97184.83B	97153.24
6	101638.99	101602.29	99395.85	99359.72B	97181.65	97144.75
7	101634.44	101592.20	99391.65	99349.56	97177.76B	97135.45
8	101628.75B	101580.91	99385.86	99338.43	97172.40	97124.52

	$c_4'(2,3)$ band		$c_4'(2,4)$ band		$c_4'(2,5)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
9	101621.91	101568.81B	99379.56	99326.28	97166.26	97112.91B
10	101613.99B	101555.19	99372.31B	99312.83B	97158.98B	97100.14B
11	101604.63	101540.62	99362.97	99298.69B	97150.43	97086.43
12	101594.12	101524.90	99352.89	99283.56	97140.67	97071.49B
13	101582.11	101507.82	99341.51	99267.07	97129.61	97055.30B
14	101568.81B	101489.86B	99328.77	99249.27	97117.26B	97038.08
15	101554.21	101469.92B	99314.16	99231.09B	97103.91B	97019.10B
16	101537.61B	101449.00B	99298.69B	99209.76	97088.33B	96999.60
17	101519.37B	101426.42	99281.17B	99187.20B	97070.73B	96978.28
18	101500.09	101402.39B	99262.22B	99164.17B	97052.79B	96955.20B
19	101478.31B	101376.54B	99240.78B	99138.77B		96931.16B
20	101455.04B	101349.16B	99218.30	99112.51B		96905.31B
21	101429.93B	101319.90B	99193.28B	99084.58B		
22	101402.39B	101288.84	99167.04B	99053.76		
23		101255.95		99021.68		
24		101221.02B		98987.96B		

	$c_4'(2,6)$ band		$c_4'(2,7)$ band		$c_4'(2,8)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	94998.78B		92842.23B		90713.29B	
1	95000.91B	94992.24B	92843.93B	92835.87B	90715.87B	90707.03B
2	95001.46B	94987.48B	92844.40B	92830.44B	90715.87B	90701.82B
3	95001.46B	94981.61B	92844.40B	92825.81B	90715.87B	90695.96B
4	95000.91B	94974.87B	92843.93B	92818.44B	90715.87B	90690.20B
5	94998.78B	94967.72	92842.23B	92811.53B	90715.87B	90684.19B
6	94996.10	94959.21B	92839.55B	92802.68B	90711.54B	90675.55B
7	94992.24B	94949.92B	92835.87B	92793.55B	90708.41B	
8	94987.48B	94939.64B	92831.46B	92783.37B	90704.09B	90656.52B
9	94981.61B	94928.35B	92825.81B	92772.41B	90701.82B	90645.44B
10	94974.87B	94915.84B	92819.09	92760.47	90692.57	90633.95B
11	94966.44B	94902.44	92811.53B	92747.34B	90685.19	90621.19B
12	94957.18B	94887.95B	92802.68B	92733.38	90676.84B	90607.56
13	94946.70B	94872.59B	92792.57B	92718.39B	90667.54	90593.06
14	94934.80B	94855.57B	92781.21	92701.96B	90656.52B	90577.45
15	94921.56B	94837.46	92768.50B	92684.12B	90644.30	90560.80B
16	94906.87B	94818.14	92754.23B	92665.67B	90630.92	90541.94
17	94890.61	94797.38	92738.71	92645.53	90615.74	90522.44
18	94872.59B	94775.18B	92721.55B	92623.95B	90599.14	90501.50
19	94853.33	94751.44B	92702.52	92600.82B	90581.03	90479.48B
20	94832.09	94726.14	92682.16	92576.25B	90560.80B	90455.24
21	94809.05	94699.15		92549.98B	90539.66	90429.71
22	94784.09	94670.39B		92521.95B	90516.12B	90402.66
23		94639.88B				90373.62B
24		94607.51B				90342.91

	$c_4'(2,9)$ band		$c_4'(2,10)$ band		$c_4'(2,11)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	88612.58B		86543.36B		84500.89B	
1	88615.39B	88605.97B	86545.13B	86536.83B	84505.01B	84495.50B
2	88616.67B	88602.31B	86546.44B	86532.17B	84505.01B	84491.00B
3	88616.67B	88597.11	86546.44B	86526.98B	84505.44B	84486.13B
4	88616.67B	88591.08	86546.44B	86520.89	84505.44B	84480.17B
5	88615.39B	88583.54B	86545.13B	86514.88B	84505.01B	84474.00B
6	88612.58B	88576.19	86543.36B	86506.65B	84502.82B	84465.93B
7	88610.63B	88567.77B	86540.75B	86498.31B	84500.33B	84458.18B
8	88605.97B	88558.12	86536.83B	86489.01	84496.81	84448.93
9	88601.23	88547.90B	86532.17B	86478.91B	84492.50	84439.23
10	88594.54B	88536.45	86526.98B	86467.76B	84487.19B	84429.01B
11	88588.34	88524.23	86520.31	86456.09B	84481.41	84417.40
12	88579.67B	88511.04	86512.64B	86443.65B	84474.00B	84404.89B
13	88570.64B	88496.61B	86503.84B	86429.69	84465.93B	84391.16B
14	88560.76B	88481.59	86494.08	86414.78	84456.29B	84377.22B
15	88550.03B	88465.05	86483.28B	86398.89B	84445.98	84361.86B
16	88535.46	88447.45B	86470.10B	86381.82	84433.89	84345.42B
17	88521.94B	88428.60B	86456.92B	86363.59	84420.75	84327.87
18		88408.28B	86441.64B	86343.89B	84406.32B	84308.68
19	88489.40B		86424.83B	86322.85	84390.44	84288.36B
20	88469.03	88363.29B	86406.31	86300.47	84372.48B	84266.59B
21	88448.82	88337.72	86386.21B	86276.44	84353.40B	84243.66B
22	88425.01	88311.52	86364.30B	86250.83	84332.21B	84218.56
23				86223.51		84192.17
24		88253.76B		86194.63		84164.07

	$c_4'(2,12)$ band		$c_4'(3,0)$ band		$c_4'(3,1)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	82489.15B		110659.21B		108330.01	
1	82491.42B	82481.90B	110663.15	110652.21B	108333.70B	108323.39B
2	82493.22B	82478.62B	110664.83B	110647.75	108334.80B	108318.21B
3	82493.73B	82474.78B	110664.83B	110642.95	108334.80B	108313.05B
4	82493.73B	82468.35	110664.83B	110636.84	108334.80B	108306.60
5	82493.22B	82461.35	110664.83B		108334.80B	108299.71
6	82491.42B	82454.51B	110662.36		108333.70B	108291.99
7	82489.15B	82446.72B	110659.21B	110612.52	108330.92	108283.22B
8	82485.93B	82438.05B	110656.97		108327.51	108274.18B
9	82481.90B	82428.59	110652.21B	110592.06	108323.39B	108264.01B
10	82477.16	82418.41	110646.64	110581.57	108318.21B	108252.95
11	82471.48B	82407.54B	110639.29	110567.97B	108311.73	108240.80B
12	82464.79B	82395.12B	110630.62	110554.41B	108303.71	108227.57B
13	82456.92B	82382.27B		110540.52B	108294.17	108213.19
14	82448.15	82368.79	110609.80	110522.90	108283.22B	108197.31
15	82438.05B	82354.38B	110595.93B	110506.06B	108269.81B	108180.02
16	82426.93B	82338.67B	110579.93B	110485.66	108254.37	108160.91
17	82414.82B	82321.11	110561.19B	110464.32	108236.59	108139.59B
18	82400.37	82302.48B	110540.52B	110441.62B	108216.20	108116.65B

	$c_4'(2,12)$ band		$c_4'(3,0)$ band		$c_4'(3,1)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
19	82384.97B	82283.15B	110516.84	110414.39B	108193.14B	108090.85
20	82368.00	82261.65B	110490.01	110384.67	108167.41	108062.73
21	82349.54B	82239.86B	110460.86	110354.17B	108139.59B	108031.87
22	82329.32B	82215.47	110429.51B	110318.76B	108107.93	107998.18
23		82190.08		110282.35B	108074.28	107961.96
24		82162.85	110357.38B	110242.57	108038.14	107923.15
25			110318.76B	110200.22	107999.62	107881.67
26			110276.81B	110155.40	107958.94	107837.62B
27			110232.67	110107.63B	107915.97	107791.52
28			110186.53	110058.58B	107870.69	107743.18B
29				110006.98	107823.72	107692.23
30				109952.94		
31						107584.47

	$c_4'(3,2)$ band		$c_4'(3,3)$ band		$c_4'(3,4)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	106027.91B		103756.46B		101512.52	
1	106031.11B	106021.75	103758.69B	103748.73B	101514.82	101505.54
2	106033.32B	106017.16	103761.45B	103744.41B	101516.97B	101500.99B
3	106033.75	106012.50B	103761.45B		101517.89B	101495.81
4	106034.26B	106005.48B	103761.45B	103734.45B	101519.37B	101489.86B
5	106034.26B	105998.99	103761.45B	103726.85B	101519.37B	101483.75
6	106033.32B	105991.79B	103761.45B	103719.84B	101517.89B	101476.66B
7	106031.11B	105983.31	103758.69B	103711.68B	101516.97B	101469.25
8	106027.91B	105974.22	103756.46B	103702.97	101514.15	101460.42B
9	106024.19	105964.32B	103752.93B	103693.68B	101510.83B	101451.59B
10	106019.00	105953.36	103748.73B	103682.99	101506.40	101441.02
11	106012.50B	105941.75	103742.48	103671.38	101500.99B	101429.93B
12	106005.48B	105929.07	103734.45B	103659.21	101494.43	101419.17
13	105996.15B	105915.07	103726.85B	103645.62	101486.26	101405.54B
14	105985.43	105899.71	103716.54B	103630.99B	101476.66B	101390.82
15	105972.66	105882.89	103704.21B	103614.36B	101464.90B	101375.17B
16	105957.95B	105864.16	103673.44	103576.68	101451.59B	101357.67
17	105940.79	105843.98	103654.40	103555.01B	101434.76B	101338.37
18	105920.94	105821.35	103632.72	$b(4)$	101416.80B	101317.02B
19	105898.73	105796.64B	103608.25B	103503.44B	101395.57	101293.42
20	105873.68B	105768.85B	103580.80	$b(4)$	101371.97	101267.18B
21	105845.46B	105738.44B	$b(4)$	$b(4)$	101345.84	101238.53B
22	105815.97B	105705.90	103518.79B	$b(4)$	101317.02B	101207.23B
23	105785.29B	105670.08B	$b(4)$	103369.83B	101285.91	101173.46
24	105747.37	105632.37		103330.72B	101252.07	101136.97B
25	105709.79	105591.68B		103287.75B	101216.21B	101097.97B
26	105670.08B	105548.75B			101178.09B	101056.94B
27	105627.90	105503.38B			101136.97B	101013.68B
28	105583.91B	105456.01			101095.89B	100967.94B
29	105537.17B	105406.13B			101051.42B	100919.88B
30		105354.29				100870.44
31		105300.32B				100818.80

	$c_4'(3,5)$ band		$c_4'(3,6)$ band		$c_4'(3,7)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	99297.26B		97110.36		94953.57B	
1	99300.09B	99290.19	97112.91B	97103.91B	94957.18B	94946.70B
2	99302.17B	99285.94	97115.51B	97100.14B	94959.21B	94942.61B
3	99303.77B	99281.17B	97117.26B	97094.11	94960.65B	94937.41B
4	99303.77B	99275.25	97118.58B	97088.33B	94961.41B	94932.51B
5	99303.77B	99269.07	97118.58B	97083.41	94961.41B	94926.70
6	99303.77B	99262.22B	97118.58B	97077.12	94961.41B	94920.05B
7	99302.17B	99254.22B	97117.26B	97070.73B	94960.65B	94913.42B
8	99300.09B	99246.54B	97115.51B	97061.51	94959.21B	94905.76B
9	99297.26B	99237.62	97112.91B	97052.79B	94957.18B	94897.36
10	99293.15B	99227.92B		97044.42B	94953.57B	94887.95B
11	99288.20	99217.40	97103.91B	97033.54B	94949.92B	94878.54
12	99281.93	99205.88B	97098.70	97022.38	94943.91B	94867.78
13	99274.50	99193.28B	97091.21B	97010.15B	94937.41B	94855.57B
14	99265.02	99179.32	97082.80	96996.97	94928.35B	94843.22
15	99254.22B	99164.17B	97071.49B	96982.19	94919.07	94828.82
16	99240.78B	99147.17B	97059.64B	96966.25B	94906.87B	94813.35
17	99225.78B	99128.52	97044.42B	96947.77	94892.44B	94795.99
18	99207.35	99107.88	97027.38	96927.79B	94876.15B	94775.18B
19	99187.20B	99084.58B	97007.42	96905.31B	94855.57B	94754.78
20	99164.17B	99059.30B	96985.45B	96880.72B	94835.53	94730.41B
21	99138.77B	99031.35B	96960.77B	96853.29B	94811.45	94704.89B
22	99110.43B	99000.89B	96933.47	96823.47B	94784.97B	94675.21B
23	99080.78B	98967.87B	96903.99B	96792.22B	94757.24	94643.42B
24	99047.13B	98932.38B	96871.82B	96757.06B	94724.97B	94609.79B
25	99012.57B	98894.67B	96837.73	96720.46B		94574.60
26	98975.41B	98854.14B	96801.57B	96680.64B		94534.97B
27	98936.27	98811.61	96763.34	96638.74B		
28	98894.67B	98767.01B	96723.28	96595.61B		
29	98851.98B	98720.36B	96680.64B	96549.56B		
30		98671.68		96502.22B		
31		98621.02		96452.64B		

	$c_4'(3,8)$ band		$c_4'(3,9)$ band		$c_4'(3,10)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	92825.81B				88655.21B	
1	92827.22B	92818.44B	90728.36B		88657.98B	88648.53B
2	92830.44B	92814.27	90730.67B	90715.87B	88660.68B	88645.57B
3	92831.46B	92809.77		90709.62B	88662.57B	88640.45B
4	92833.50B	92804.22B	90734.61B		88664.45B	88635.24
5	92833.50B	92798.71	90734.61B	90699.43B	88665.18B	88628.68B
6	92833.50B	92792.57B	90734.61B		88665.18B	88624.20B
7	92833.50B	92785.43B	90734.61B		88665.18B	88617.62
8	92831.46B	92778.47B	90734.61B	90679.63B	88664.45B	88610.63B
9	92830.44B	92770.25		90671.77B	88662.57B	88603.69
10	92827.22B	92761.79	90729.64	90663.75	88660.68B	88595.57B
11	92823.19B	92752.46B		90655.24B	88657.98B	88586.72B

	$c_4'(3,8)$ band		$c_4'(3,9)$ band		$c_4'(3,10)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
12	92818.44B	92742.10	90721.39	90645.44B	88655.21B	88577.72B
13	92811.53B	92730.87	90715.87B	90633.95B	88648.53B	88567.77B
14	92804.22B	92718.39B	90708.41B	90622.57B	88642.08B	88555.94
15	92794.58	92704.91	90699.43B	90609.65		88543.32B
16	92783.37B	92689.83B	90688.58B	90595.13	88624.20B	88529.28B
17	92769.58	92672.89	90675.55B	90578.70	88610.63B	88513.80B
18	92754.23B	92654.06	90660.05B	90560.80B	88595.57B	88496.61B
19	92735.36B	92633.20	90642.58	90540.18B	88577.72B	88476.30
20	92714.47	92609.78B	90622.57B	90517.91	88560.76B	
21	92691.36B	92584.22B	90599.73	90492.85	88537.57B	
22	92665.67B	92556.04B	90575.19B	90465.51	88513.80B	88402.92
23	92635.72	92525.26	90547.60B	90435.54		
24	92607.40	92492.32	90518.42	90403.51		88344.93
25	92575.22	92457.03	90487.19	90369.21	88428.60B	88310.49
26	92540.57	92419.55	90453.79	90332.56	88395.62	88274.78
27	92504.37	92379.97	90418.48	90293.95	88360.09	88237.80B
28	92466.16	92338.53B	90381.20	90253.82B	88325.30	88197.45
29	92427.38B	92295.31B		90210.09B	88287.84	
30		92248.15B		90167.17B		88113.43B
31						88067.71B

	$c_4'(3,11)$ band		$c_4'(3,12)$ band		$c_4'(3,13)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	86614.00B		84601.62B		80665.40	
1	86617.63B	86607.22	84604.21B	84595.87B	80668.35	80659.13B
2	86619.22B	86603.72	84607.11	84591.34B	80671.65B	80654.89B
3	86621.75B	86599.12B	84609.35B	84586.91B	80673.39	80651.08B
4	86623.48B	86594.22	84611.51B	84582.38	80675.37B	80646.69B
5	86624.72B	86589.10	84613.16B	84577.59	80677.41B	80642.15B
6	86624.72B	86583.78	84613.16B	84572.21B	80678.65	80637.18B
7	86624.72B	86577.05B	84613.56B	84566.43	80679.41B	80631.88B
8	86624.72B	86570.46B	84613.56B	84560.21B	80679.69B	80626.25B
9	86623.48B	86563.84	84613.16B	84553.66B	80679.69B	80620.27
10	86621.75B	86556.18B	84611.51B	84546.28B	80679.41B	80613.84B
11	86619.22B	86548.31	84609.35B	84538.72	80677.41B	80606.65B
12	86615.47B	86539.39B	84606.10B	84529.99	80675.37B	80599.10
13	86610.57	86528.65B	84601.62B	84520.82B	80671.65B	80590.78B
14	86604.24	86518.28B	84595.87B	84510.21	80667.03B	80581.31B
15	86596.20B	86506.65B	84588.55	84498.79	80660.75B	80570.94B
16	86586.32B	86493.40	84579.35	84486.13B	80652.79B	80559.30
17	86574.74B	86478.30B	84568.17	84471.62B	80642.74B	80546.03B
18	86560.42B	86461.24	84554.84	84455.55	80630.87	80531.11
19	86545.13B	86441.64B	84539.17	84437.00	80616.58	
20	86526.13	86421.15	84521.27	84416.77B	80600.04	
21	86504.63	86397.66B	84500.89B	84393.88	80581.31B	
22	86481.83B	86371.92	84478.50	84369.18B	80560.64B	

	$c_4'(3,11)$ band		$c_4'(3,12)$ band		$c_4'(3,13)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
23	86456.09B	86343.89B	84454.01	84341.64B	80537.34	
24	86428.63	86313.42	84427.24	84312.08		
25	86398.89B	86280.63	84398.43	84280.36B		
26	86367.28	86246.16	84367.15B	84246.62B		
27	86333.98	86209.75	84333.91B	84210.90		
28	86299.09B	86170.86	84301.37	84173.35		
29	86261.96	86130.68	84265.79	84134.10B		
30		86088.13		84092.71		
31		86044.51		84049.95B		

	$c_4'(4,0)$ band		$c_4'(4,1)$ band		$c_4'(4,2)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0			110441.62B		108139.59B	
1			110444.73B	110434.26	108142.68	108133.36
2			110446.87B	110429.51B	108144.92B	108128.67
3			110446.87B	110424.39	108146.64B	108123.30B
4		112747.76	110446.87B	110418.48	108146.64B	108116.65B
5		112742.09	110446.87B	110411.73B	108146.64B	108111.28
6		112734.62	110446.87B	110404.49	108146.64B	$b(10)$
7		112725.71	110444.73B	NI	108144.92B	108096.26
8		112716.30	110441.62B	NI	108141.64	108087.69
9		112706.61	110437.17	110377.93B	108137.95B	108078.11
10		112694.89	110430.83	110366.82	108131.31B	108067.50
11			110422.39	110354.17B	108123.30B	
12		112668.04	110411.73B	110340.25	108112.11	
13		112650.92	NI	110324.34B		108025.40
14		112630.39	110377.93B	110304.35		$b(10)$
15		112607.50	110357.38B	110282.35B		
16			110333.17	110256.22		
17		112551.93	110306.34	110227.21		
18		112519.49	110276.81B	110195.09		
19		112484.38	110245.95B	110160.69		
20		112446.65	110212.39B	110123.93		
21		112407.01	110176.50	110084.89		
22			110138.67	110043.46		
23			110099.71B	109999.66		
24		112274.28B	110058.58B			
25		112226.08		109906.27B		
26		112176.03		NI		

	$c_4'(4,0)$ band		$c_4'(4,1)$ band		$c_4'(4,2)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	105867.55		$b'(0)$		101408.93	
1	105870.44B	105860.82B	103626.47B	103616.27	101411.32B	101402.39B
2	105873.04B	105856.10	103628.79	103612.23B	101414.12B	101397.59B
3	105873.68B	105851.09	103630.99B	103607.57	101416.80B	101392.58
4	105874.71B	105845.46B	103630.99B	103601.80B	101416.80B	101386.59
5	105874.71B	105839.10	103630.99B	103596.34B	101416.80B	101381.48

	$c_4'(4,0)$ band		$c_4'(4,1)$ band		$c_4'(4,2)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
6	105874.71B	105832.35B	103630.99B	103589.18B	101416.80B	101375.17B
7	105873.04B	105824.67	103630.99B	103581.65	101416.80B	101367.93B
8	105870.44B	105815.97B	103628.10	103573.74B	101414.12B	101360.03B
9	105866.64B	105807.21	$b'(0)$	103564.66	101411.32B	101351.46
10	105860.82B	105796.64B	103619.37	103555.01B	101405.54B	101341.91B
11	105853.11	105785.29B	103612.23B	$b(4)$	101398.39B	101331.06B
12	105842.69	105771.90	103601.80B	$b(4)$	101389.39	101318.62
13	105828.84	105756.35	103589.18B	$b(4)$	101376.54B	101303.69
14	105811.98	105738.44B		$b(4)$	101360.03B	101286.59
15	105791.76	105716.57B	$b(4)$	103477.88B	101341.91B	101267.18B
16	105768.85B	105692.00B	$b(4)$	103452.78	101319.90B	101242.64
17	105743.48	105664.20	$b(4)$	$b(4)$	101295.16	101216.21B
18	105716.57B	105633.10B	103477.88B	103395.18B	$b(1)$	101186.72
19	105685.57B	105600.30		103363.47B	101240.38B	101155.49B
20	105653.38	105564.75B	103417.21	103328.28B	101209.64B	101121.16B
21		105525.99B	103384.15B	103292.28B	101178.09B	101084.59B
22		105487.84B	103347.87B	$b(4)$	$b(1)$	101046.22B
23			103311.19	103212.29B	101106.51	101006.63B
24			$b(4)$	103168.55B	101068.69B	$b(1)$
25				103124.23B		100919.88B
26				103078.04B		100874.94B

	$c_4'(4,6)$ band		$c_4'(4,7)$ band		$c_4'(4,8)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	99222.19		97065.47		94937.41B	
1	99225.78B	99215.12B	97067.28	97059.64B	94939.64B	94930.40B
2	99227.92B	99211.17	97070.73B	97054.17	94942.61B	94925.67B
3	99229.17B	99205.88B	97071.49B	97049.73	94943.91B	94921.56B
4	99231.09B	99201.33	97073.29B	97044.42B	94946.70B	94915.84B
5	99231.09B	99195.56	97074.38B	97038.60B	94946.70B	94910.82
6	99231.09B	99189.23	97074.38B	97032.95	94946.70B	94905.76B
7	99231.09B	99182.52	97074.38B	97026.29	94946.70B	94899.56B
8	99229.17B	99175.02	97073.29B	97019.10B	94946.70B	94892.44B
9	99225.78B	99167.04B	97070.73B	97010.99	94943.91B	
10	99221.73	99157.52	97066.41	97002.20	94939.64B	94876.15B
11	99215.12B	99147.17B	97059.64B	96992.14	94934.80B	
12	99205.88B	99135.00	97051.30	96980.53	94925.67B	94855.57B
13	99193.28B	99120.90B	97038.60B	96966.25B	94913.42B	
14	99177.93	99104.48B	97024.30	96950.53B	94899.56B	94825.36B
15	99159.12	99084.58B	97006.41	96931.16B	94880.91B	
16	99138.77B	99060.95B	96985.45B	96908.60	94861.19	94784.97B
17	99114.78B	99034.88	96962.51	96883.00B	94838.54	94760.92
18	99088.63	99006.40	96937.53B	96855.20B	94814.26	94732.14B
19	99060.95B	98975.41B	96910.78B	96825.26B		
20	99031.35B	98942.75B	96880.72B	96792.22B	94758.74	94670.39B
21	98998.93B	98905.46B	96850.44B	96757.06B	94728.59	

	$c_4'(4,6)$ band		$c_4'(4,7)$ band		$c_4'(4,8)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
22	98964.49B	98868.79	96817.10B	96720.46B	94697.99	94602.27
23	98930.09B	98829.77B	96781.36B		94663.54B	
24	98891.66B	98787.87B	96745.79B	96641.99B	94627.16B	
25				96599.34B		94482.50B
26		98700.64		96556.27B		94441.39

	$c_4'(4,9)$ band		$c_4'(4,10)$ band		$c_4'(4,12)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0			90766.11B		86713.34B	
1	92839.55B	92830.44B	90769.89B	90759.20B	86717.00B	
2	92842.23B	92825.81B	90773.72B	90755.79B	86718.53B	
3	92844.40B	92822.36B	90773.72B	90752.35B	86720.83B	86698.17B
4	92846.71	92816.31B	90776.88B	90746.26	86724.10B	86694.13B
5	92848.04B	92811.53B	90778.63B	90742.42B	86726.70B	86689.86B
6	92848.48B	92806.46B	90778.63B	90736.18B	86727.47B	86684.74B
7	92848.48B	92800.50	90778.63B	90730.67B	86727.47B	86678.70B
8	92848.04B	92793.55B	90778.63B	90723.94B	86727.47B	86673.61B
9	92845.87	92786.77B	90776.88B		86727.47B	86667.34
10	92842.23B	92778.47B	90773.72B	90709.62B	86724.10B	86660.15
11	92835.87	92768.50B	90768.54B	90701.82B	86720.53	86652.06
12	92828.80B	92758.24	90761.05	90690.20B	86713.34B	86642.58
13	92818.44B	92745.47B	90750.43	90676.84B	86704.08B	86631.00
14	92804.22B	92729.35B	90736.18B	90663.25	86691.08B	86617.63B
15	92786.77B	92712.47B	90720.77B	90645.44B	86676.07B	86600.79
16	92768.50B	92689.83B	90701.82B	90624.79B	86657.91	86581.05B
17	92745.47B	92665.67B	90679.63B	90601.24	86637.95	86559.30
18	92721.55B	92639.28	90657.23B	90575.19B	86615.47B	86533.48B
19	92695.31	92609.78B	90631.56B	90547.60B	86593.49	86506.65B
20		92579.17	90604.23B	90516.12B	86566.59	86478.30B
21	92637.54	92546.05B	90575.19B	90484.35	86539.39B	86446.81B
22	92606.30	92510.72B	90545.07B			86413.91B
23		92473.98B	90513.16B	90413.19	86478.91B	86380.17B
24	92539.15B	92434.79	90479.48B	90376.54B	86446.81B	86343.89B
25		92395.24				
26		92353.33B		90295.26		86266.96

	$c_4'(4,13)$ band		$c_4'(4,15)$ band		$c_4'(6,0)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	84729.92B		80852.96B			
1	84733.25B	84723.76B	80855.94	80845.84B		
2	84735.92B	84720.05	80858.93	80841.84B		
3	84739.45B	84715.74B	80860.97B	80838.71		
4	84740.78B	84712.13B	80863.78B	80834.75		
5	84743.39B	84707.21	80866.61B	80830.57B		
6	84744.86B	84702.43	80868.60	80826.39		116776.41
7	84745.80B	84697.40B	80869.76B	80821.77B		116769.19
8	84745.80B	84692.04B	80870.92B	80816.86		116762.55

	$c_4'(4,13)$ band		$c_4'(4,15)$ band		$c_4'(6,0)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
9	84744.86B	84686.16	80870.92B	80811.62		116754.29
10	84743.39B	84679.09	80869.76B	80805.56		116747.91
11	84739.45B	84671.48B	80866.61B	80798.67		116738.52
12	84733.25B	84662.52B	80860.97B	80790.51		116729.41
13	84723.76B	84651.63	80852.96B	80780.37B		116720.79
14	84712.13B	84638.34B	80841.84B	80768.25		
15	84697.40B	84622.20B	80828.47	80753.20		
16	84680.08	84603.31	80812.34	80735.48		
17	84660.91	84581.51	80794.39	80714.93		
18	84639.26	84557.33	80774.28B	80692.12		
19	84616.42B	84530.87	80751.87B	80667.03B		
20	84591.34B	84502.82B	80728.81	80640.20		
21		84471.62B		80611.95B		
22	84536.26B	84441.71B		80581.31B		
23	84505.44B	84406.32B				
24	84475.34B	84372.48B				
25		84335.72B				
26		84296.95				

	$c_4'(6,1)$ band		$c_4'(6,2)$ band		$c_4'(6,3)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	114480.54		112179.27		109906.27B	
1	114483.66	114472.90	112182.39	$b'(12)$	109909.71B	
2	114486.44B	114468.61	112185.24	112167.48	109912.54	
3	114488.81	114463.78	112187.75	112162.75B		109890.98B
4	114490.67B	114458.68	112189.60	112157.79	109917.12	109885.36B
5	114490.67B	114453.09B		112152.39		
6	114493.13B	114447.10	112192.93B	112146.57	109920.98	109874.95B
7	114493.13B	114440.63	112192.93B	112140.38		
8		114433.75		112133.76		109862.57B
9		114425.62B		112126.45		
10		114419.79		112120.50		109849.62
11		114411.03		112112.17		109842.82B
12		114402.14		112103.64		$b(12)$
13		114394.02		112096.02		109826.51B
14		114383.99		112086.58		$b(12)$
15		114373.98		112076.93		109810.00B

	$c_4'(6,4)$ band		$c_4'(6,5)$ band		$c_4'(6,6)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	107662.80		105447.82		103261.49B	
1	107666.09	$o_3(1)$	105451.63B	105440.41B	103265.47B	103254.92B
2	107669.16	$o_3(1)$	105454.08B	105436.38	103267.68B	103250.14B
3	107671.60	107646.73B	105456.57	105431.78B	103270.68	103245.23B
4	107673.89B	107641.96	105459.19	105427.43B	103273.53B	103241.89B
5	107675.91	107637.14	105461.38	105422.54	103275.17B	103236.73
6	107677.55	107631.61	105463.23	105417.38	103277.48B	103232.17B

	$c_4'(6,4)$ band		$c_4'(6,5)$ band		$c_4'(6,6)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
7	107678.27	107625.93	105464.51B	105411.88	103279.23B	103226.50
8		$o_3(1)$	105467.38B	105406.13B	103282.21B	103221.01B
9		107613.12	105467.38B	105399.77	103282.21B	103215.28
10		$b(9)$	105467.38B	105394.85	103283.12B	103210.44B
11		107600.00B	105469.05	105387.63B	103285.21B	103203.92B
12		$o_3(1)$		105380.42		103196.97
13		107585.91		105374.13		103191.30B
14		107577.65		105366.14		103183.69
15				105359.46B		103177.03B
16				105350.94B		103168.55B

	$c_4'(6,7)$ band		$c_4'(6,8)$ band		$c_4'(6,9)$ band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	101104.29B		98975.41B		96876.32	
1	101107.57B	101097.11B	98979.00	98968.44B	96879.81	96869.68B
2	101110.75	101092.98	98982.17B	98964.49B	96883.00B	96865.22B
3	101113.69	101088.93B	98985.25B	98960.58	96886.06B	96861.23
4	101116.44	101084.59B	98987.96B	98956.23B	96889.04	96857.11B
5	101118.91	101080.10B	98990.79	98951.94	96891.92	96853.29B
6	101121.16B	101075.30	98993.24	98947.49B	96894.64B	96848.82
7	101122.86B	101070.31B	98995.25	98942.75B	96896.71B	96844.25
8	101126.19B	101065.12	98998.93B	98937.75	96900.67	96839.69B
9	101127.06B	101059.52B	98999.99B	98932.38B	96902.26	96834.60
10	101128.06	101055.21B	99000.89B	98928.52	96903.99B	96831.08
11	101130.31	101048.88B	99003.97	98922.52B	96906.88B	96825.26B
12		101042.39B		98916.53		96819.35B
13		101037.06B		98911.66		
14		101030.17B				
15						
16		101016.85B				

	c_5'(0,0) band		c_5'(0,1) band		c_5'(0,2) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0			$b'(14)$		$o_3(3)$	
1			113523.72B	$b'(14)$	$o_3(3)$	
2			113523.72B	113511.17B	$o_3(3)$	$b(14)$
3			$b'(14)$	113503.51	$o_3(3)$	$b(14)$
4			113520.34	113497.06B	111220.46	111195.13
5			$b'(14)$	113487.45B		111186.60
6			113511.17B	113476.92B	$b(14)$	111176.33
7			$b'(14)$	113464.84B	111204.95	111165.74B
8		115781.05	113497.06B	113452.18	111197.19	111152.10B
9			113487.45B	113438.09	111188.05	111137.93
10		115749.94	113476.92B	$b'(14)$	111177.65	111123.19B
11	115792.35	115732.69	113464.84B	113405.10	111165.74B	111106.13
12	115777.81	115713.54	113450.67	113386.39	111152.10B	111087.92B
13	115761.76	115692.98	113434.99	113366.09	111137.00	111068.02
14	115744.06	115670.43	113417.90	113344.30	111120.23	111046.68

	c_5'(0,0) band		c_5'(0,1) band		c_5'(0,2) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
15	115724.99	115646.45	113399.07	113320.85	111102.12	111022.82
16	115704.09	115620.85	113379.01	113296.11	111082.71B	110999.30
17			113358.65	113269.22B	111062.48	110973.27B
18	115661.82		113338.70	113241.27	111041.90B	110946.01B
19				113212.57		110918.02B
20				113185.01B		110891.47B

	c_5'(0,3) band		c_5'(0,4) band		c_5'(0,5) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0			106703.85B			
1	108950.07B	108941.83	106706.25B	106698.31	104491.21B	
2	108950.07B	108936.72	106706.25B	106693.05	104491.21B	
3	108950.07B	108931.40B	106706.25B	106686.46	104491.21B	104471.37B
4	108947.21	108922.91	106703.85B	106679.67		104465.51B
5	108943.96B	108914.36	106700.53		104484.83B	104456.20
6	108939.17	108904.87B	106696.19	106661.51	104480.62	104446.44B
7	108933.04	108893.09B	106690.50	$b'(4)$	104476.17	104436.31
8	108925.82	108881.27	106682.70B	106638.47		104425.13
9	108917.12	108867.49B	106675.06B	106625.60B	104461.98	104411.23
10	108907.01B	108852.18	106665.14	106610.24B	104451.75	104397.79
11	108895.12B	108835.85	106653.88	106594.30		104380.71B
12	108882.15B	108817.99	106641.27	106577.11B	104428.04	104363.70
13	108867.49B	108798.62	106626.32B	106557.56	104414.46	104345.33B
14	108851.71	108777.68B	106611.09	$c_3(1)$	104399.80	104326.91B
15	108833.75B	108755.36			104383.07B	104304.34B
16	108814.71B	108731.35			104366.38	104282.62B
17	108795.98B	108705.98				104257.67
18	108777.68B	108679.28B				104233.37B
19		108651.64B				
20		108626.63B				

	c_5'(0,6) band		c_5'(0,7) band		c_5'(0,8) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	102302.42B		100145.56B		98017.83B	
1	102304.64B	102296.26B	100148.68B	100138.87B	98019.29B	98011.48B
2	102304.64B	102292.57B	100148.68B	100133.78B	98019.29B	98006.41
3	102304.64B	102285.96B	100148.68B	100127.61B	98019.29B	98001.09B
4	102304.64B	102279.43B	100145.56B	100122.44B	98017.83B	97993.93B
5	102300.72B	102269.78B	100142.73B		98015.28B	97986.37B
6	102296.26B	102261.65	100138.87B	100104.47B	98011.48B	97977.09
7	102290.24B		100133.78B	100095.27B	98007.08	97967.25B
8	102284.82	102239.91	100127.61B	100083.60B	98001.09B	97956.35
9	102277.28	102226.84		100072.07B	97993.93B	97944.14
10	102267.88B	102213.04	100112.29	100058.36B	97986.37B	97930.97B
11	102257.39B	102197.76		100043.80B	97976.11	97916.32B
12	102245.59B	102181.25B	100090.71	100027.27B	97964.94B	97900.75
13	102231.48B	102162.72B	100078.59B	100009.17B	97952.50	97883.55

	c_5'(0,6) band		c_5'(0,7) band		c_5'(0,8) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
14	102217.35	b(2)	100063.84B	99989.97B	97938.73	97865.23B
15	102201.74B	102122.52	100048.05B	99969.92B	97923.52	97845.99B
16	102185.03	102100.81	100031.53	99948.11	97906.84B	97824.38B
17		102077.31	100014.19	99925.12	97890.84B	97801.58B
18		102052.39B	99998.14	99901.14	97874.36B	97779.80B
19						97754.87
20				99853.05		97732.02

	c_5'(0,9) band		c_5'(0,11) band		c_5'(0,12) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	95918.54B		91806.02B		89794.54	
1	95919.93B	95911.23B	91808.01B	91800.23B	89796.01B	89787.89B
2	95919.93B	95907.47B	91808.69B		89796.01B	89782.99B
3	95919.93B	95901.28	91808.69B	91790.78B	89796.01B	
4	95918.54B	95894.81B	91808.01B	91784.13B	89796.01B	
5	95916.61	95887.53	91806.02B	91777.22B	89793.71	
6	95912.65B	95878.56B	91802.72	91768.05B	89791.53	
7	95908.10B	95868.49B	91799.09	91759.39B	89787.89B	89747.01
8	95903.16	95858.53B	91794.05B	91749.08B	89782.99B	89737.87B
9	95896.13	95846.55	91787.78B	91737.96B		
10	95888.35	95833.42B	91780.56	91725.72B	89770.28	89715.58
11	95878.56B	95819.87B	91772.06	91712.51B	89762.20	89702.53
12	95868.49B	95804.14	91762.27	91698.06B	89752.87	89688.61
13	95856.50B	95787.51	91751.15B	91682.72B	89742.40	89673.38
14	95842.62B	95769.70B	91739.38B	91665.51B	89730.59	89657.01
15	95829.07B	95750.59B	91725.72B	91647.30B	89717.91	89639.29B
16	95813.40	95729.79B	91711.64B	91627.91	89703.95	89620.60B
17	95798.35B	95708.11B	91695.97B	91607.36		89600.82B
18	95782.50	95685.15B	91682.72B	91586.49B	89676.80	89579.54
19		95662.64B		91563.92		89558.66
20		95640.13				89538.88

	c_5'(0,13) band		c_5'(0,14) band		c_5'(0,15) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	87811.69B		85857.88		83933.75B	
1	87813.67B	87805.78B	85859.07B	85850.69	83934.86B	83926.61B
2	87814.03B	87801.50B	85860.25B	85846.87	83937.10B	83922.96B
3	87814.03B	87795.78B	85860.25B	85842.76B	83937.10B	83919.32
4	87813.67B	87789.03B	85860.25B	85836.16	83937.10B	83911.91
5	87811.69B	87783.17B	85859.07B	85828.72B	83934.86B	83905.71
6	87809.96B	87774.35B	85856.60	85822.03B	83933.75B	83898.00B
7	87805.78B	87766.48	85853.47B	85813.29	83929.22	83890.42B
8	87801.50B	87756.25B	85849.22	85804.43	83926.61B	83881.52B
9	87795.78B	87745.57B	85844.35B		83921.02	83871.49
10	87789.03B	87734.61	85837.89B	85783.13B	83915.99	83861.29B
11	87781.52	87722.58	85830.49	85771.06B	83909.06	
12	87772.79	87708.44	85822.03B	85757.96B	83900.58B	83836.66

	c_5'(0,13) band		c_5'(0,14) band		c_5'(0,15) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
13	87762.83	87693.74B	85812.46B	85743.51	83891.64	83823.00B
14	87751.32	87677.94	85801.91B	85728.20	83881.52B	83808.02
15	87738.61B		85790.45B	85711.92	83870.37	83792.28B
16			85777.23B	85694.23	83858.45B	83775.01
17	87712.98		85765.28B	85675.31	83847.14B	83757.15B
18	87701.09		85752.98		83834.97B	83738.06
19						83719.61B
20						83701.72

	c_5'(0,16) band		c_6'(0,0) band		c_6'(0,1) band	
J	R(J)	P(J)	R(J)	P(J)	R(J)	P(J)
0	82039.33B		119944.54		117614.77	
1		82033.23B		119936.69	117618.86	117606.63
2	82042.03B	82028.92B		119932.77	117622.61	117602.72
3	82042.03B	82023.25B		119928.60	117626.73	117598.82
4	82042.03B	82018.14B		119924.73	117630.81	117594.93
5		82012.33B			117635.08	117591.16
6	82039.33B	82005.07B			117639.14	117587.43
7	82036.96B	81996.93			b'(21)	117583.80
8	82033.23B	81988.42			117647.55	117580.01
9	82028.92B	81979.04B				117576.21
10	82023.25B	81968.82B			117655.44	111572.52
11	82016.79	81957.95B				117568.96
12	82009.29	81944.91				117565.17
13	82000.61B	81931.84B				117561.21
14	81990.86B	81917.36				117557.75
15	81980.03B	81902.04B				117554.04
16	81968.82B	81885.13B				117549.91
17	81957.95B	81867.86				
18	81946.87B	81849.92B				
19		81831.62				
20		81814.03B				

	c_6'(0,2) band		c_6'(0,3) band	
J	R(J)	P(J)	R(J)	P(J)
0			113040.82	
1	$b'(17)$	$b'(17)$	113044.52	113033.24
2		115301.60	113049.04	113029.11
3	$b'(17)$	115297.87	113053.36	113025.61
4		115294.08	113057.82	113021.99
5		115290.65	$b'(14)$	113018.38
6	$b'(17)$	$b'(17)$	113067.71	113015.08
7	$b'(17)$	115283.43		113011.91
8	$b'(17)$	115279.92	113076.60	113008.58
9	$b'(17)$	115276.63		113005.67
10	$b'(17)$	115273.27	$b(17)$	113002.50
11	$b'(17)$	$b'(17)$		$b(17)$
12	$b'(17)$	115266.66	113095.98	112996.53
13		115263.41	$b'(14)$	112994.80
14			113105.21	112990.46

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