

Observed term values of the $B(v) \ ^3\Sigma_u^-$ Level of $^{18}\text{O}_2$, cm^{-1}

N	B(2) level						B(3) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
2	3	50664.06	2	50665.97	1	50662.00	3	51272.33	2	51274.27	1	51271.26
4	5	50673.79	4	50675.77	3	50673.75	5	51281.81	4	51283.79	3	51281.77
6	7	50689.06	6	50691.07	5	50689.08	7	51296.97	6	51298.97	5	51296.99
8	9	50710.08	8	50712.11	7	50710.15	9	51317.56	8	51319.59	7	51317.63
10	11	50736.64	10	50738.68	9	50736.75	11	51343.60	10	51345.65	9	51343.72
12	13	50768.77	12	50770.83	11	50768.92	13	51375.13	12	51377.20	11	51375.28
14							15	51412.23	14	51414.31	13	51412.42
16							17	51454.59	16	51456.69	15	51454.81
18							19	51502.72	18	51504.83	17	51502.96

N	B(4) level						B(5) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
2	3	51859.39	2	51861.33	1	51858.32	3	52424.39	2	52426.33	1	52423.32
4	5	51869.39	4	51871.37	3	51869.34	5	52434.41	4	52436.39	3	52434.36
6	7	51883.58	6	51885.59	5	51883.61	7	52448.75	6	52450.76	5	52448.78
8	9	51903.47	8	51905.50	7	51903.54	9	52468.14	8	52470.17	7	52468.22
10	11	51929.20	10	51931.25	9	51929.32	11	52493.27	10	52495.32	9	52493.39
12	13	51960.19	12	51962.25	11	51960.34	13	52523.53	12	52525.60	11	52523.68
14	15	51996.38	14	51998.47	13	51996.57	15	52559.14	14	52561.23	13	52559.33
16	17	52038.33	16	52040.43	15	52038.55	17	52599.76	16	52601.86	15	52599.98
18	19	52085.27	18	52087.39	17	52085.53	19	52645.89	18	52648.01	17	52646.15
20							21	52697.16	20	52699.29	19	52697.45
22							23	52753.53	22	52755.68	21	52753.85
24							25	52815.30	24	52817.45	23	52815.63

N	B(6) level						B(7) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
0	1	52961.69					1	53473.47				
2	3	52967.93	2	52969.87	1	52966.86	3	53476.92	2	53478.86	1	53475.85
4	5	52972.58	4	52974.56	3	52972.53	5	53485.95	4	53487.93	3	53485.91
6	7	52986.76	6	52988.77	5	52986.79	7	53499.69	6	53501.70	5	53499.72
8	9	53006.08	8	53008.11	7	53006.16	9	53518.61	8	53520.64	7	53518.68
10	11	53030.47	10	53032.51	9	53030.58	11	53542.45	10	53544.50	9	53542.57
12	13	53060.09	12	53062.16	11	53060.24	13	53571.44	12	53573.51	11	53571.59
14	15	53094.78	14	53096.86	13	53094.97	15	53605.52	14	53607.60	13	53605.71
16	17	53134.53	16	53136.63	15	53134.75	17	53644.44	16	53646.54	15	53644.66
18	19	53179.46	18	53181.57	17	53179.71	19	53688.19	18	53690.30	17	53688.44
20	21	53229.38	20	53231.51	19	53229.66	21	53736.93	20	53739.06	19	53737.21
22	23	53284.63	22	53286.78	21	53284.95	23	53790.90	22	53793.05	21	53791.22
24	25	53344.82	24	53346.99	23	53345.17	25	53849.57	24	53851.73	23	53849.92
26	27	53409.52	26	53411.70	25	53409.90	27	53912.93	26	53915.10	25	53913.30
28	29	53479.65	28	53481.84	27	53480.04						

N	B(8) level						B(9) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
2	3	53962.51	2	53964.45			3	54419.03	2	54420.97		
4	5	53971.15	4	53973.13			5	54427.52	4	54429.50		
6	7	53984.70	6	53986.71			7	54440.51	6	54442.51		
8	9	54002.98	8	54005.01			9	54458.22	8	54460.25		
10	11	54026.15	10	54028.19			11	54480.68	10	54482.73		
12	13	54054.22	12	54056.28			13	54507.83	12	54509.89		
14	15	54087.12	14	54089.21			15	54539.62	14	54541.70		
16	17	54124.85	16	54126.95			17	54576.15	16	54578.25		
18	19	54167.51	18	54169.62			19	54617.27	18	54619.38	17	54618.13
20	21	54214.78	20	54216.91	19	54215.68	21	54663.09	20	54665.22	19	54663.86
22	23	54266.95	22	54269.10	21	54267.70	23	54713.56	22	54715.71	21	54714.50
24	25	54323.84	24	54326.01	23	54324.92	25	54768.50	24	54770.66	23	54770.24
26	27	54385.42	26	54387.61			27	54828.13	26	54830.31	25	54829.10
28	29	54451.85	28	54454.04								
30							31	54960.53	30	54962.75	29	54961.67

N	B(10) level						B(11) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
2	3	54843.06	2	54845.00	1	54841.99	3	55233.08	2	55235.10	1	55233.04
4	5	54851.36	4	54853.34	3	54851.32	5	55240.94	4	55243.06	3	55240.99
6	7	54863.94	6	54865.95	5	54863.97	7	55252.81	6	55255.11	5	55253.13
8	9	54881.03	8	54883.06	7	54881.11	9	55269.21	8	55271.50	7	55269.54
10	11	54902.69	10	54904.73	9	54902.80	11	55290.01	10	55292.24	9	55290.29
12	13	54928.90	12	54930.96	11	54929.05	13	55314.95	12	55317.31	11	55315.39
14	15	54959.58	14	54961.67	13	54959.77	15	55344.24	14	55346.69	13	55344.91
16	17	54994.80	16	54996.90	15	54995.02	17	55377.86	16	55380.48	15	55378.60
18	19	55034.49	18	55036.61	17	55034.75	19	55415.79	18	55418.49	17	55416.77
20	21	55078.64	20	55080.77	19	55078.92	21	55457.90	20	55460.68	19	55459.02
22	23	55127.08	22	55129.23	21	55127.40	23	55504.45	22	55507.38	21	55505.55
24	25	55180.36	24	55182.52	23	55180.71	25	55554.94	24	55558.29	23	55556.47
26	27		26		25		27	55609.64	26	55613.15	25	55611.35
28	29	55298.94	28	55301.13	27	55299.35	29	55668.63	28	55671.94	27	55670.16

N	B(12) level						B(13) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
0	1	55583.34					1	55898.21				
2	3	55586.71	2	55589.41	1	55587.89	3	55901.50	2	55904.38	1	55902.85
4	5	55594.05	4	55596.81	3	55594.79	5	55908.46	4	55911.45	3	55909.42
6	7	55605.47	6	55608.26	5	55606.28	7	55919.18	6	55922.28	5	55920.29
8	9	55621.02	8	55623.88	7	55621.92	9	55933.83	8	55937.00	7	55935.13
10	11	55640.69	10	55643.63	9	55641.70	11	55952.38	10	55955.68	9	55953.75
12	13	55664.48	12	55667.55	11	55665.64	13	55974.79	12	55978.27	11	55976.35
14	15	55692.37	14	55695.46	13	55693.88	15	56001.04	14	56004.68	13	56003.04
16	17	55724.32	16	55727.47	15	55726.00	17	56031.12	16	56034.75	15	56033.26
18	19	55760.34	18	55763.55	17	55762.19	19	56064.99	18	56068.73	17	56067.40
20	21	55800.31	20	55803.69	19	55802.39	21	56102.60	20	56106.48	19	56105.35
22	23	55844.29	22	55847.74	21	55846.61	23	56143.90	22	56147.92	21	56147.00
24	25	55892.19	24	55895.73	23	55894.77	25	56188.87	24	56193.01	23	56192.28
26	27	55944.01	26	55947.71	25	55946.85	27	56237.43	26	56241.77	25	56241.19
28	29	55999.67	28	56003.49	27	56002.78	29	56289.51	28	56293.91	27	56293.35

N	B(14) level						B(15) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
0	1	56172.63					1	56405.99				
2	3	56175.69	2	56178.93	1	56176.93	3	56408.96	2	56412.79	1	56411.29
4	5	56182.18	4	56185.52	3	56183.50	5	56414.92	4	56418.89	3	56416.86
6	7	56192.22	6	56195.66	5	56193.68	7	56424.17	6	56428.25	5	56426.27
8	9	56205.83	8	56209.40	7	56207.58	9	56436.71	8	56441.02	7	56439.06
10	11	56223.11	10	56226.73	9	56224.99	11	56452.55	10	56457.03	9	56455.29
12	13	56243.96	12	56247.77	11	56246.16	13	56471.73	12	56476.36	11	56474.84
14	15	56268.39	14	56272.48	13	56270.93	15	56494.17	14	56498.96	13	56497.78
16	17	56296.40	16	56300.59	15	56299.21	17	56519.80	16	56524.87	15	56524.02
18	19	56327.85	18	56332.26	17	56331.18	19	56548.64	18	56554.04	17	56553.23
20	21	56362.77	20	56367.62	19	56366.79	21	56580.64	20	56586.11	19	56585.82
22	23	56400.69	22	56405.86	21	56405.28	23	56615.57	22	56621.54	21	56621.44
24	25	56442.71	24	56447.66	23		25	56653.58	24	56659.81	23	56660.02
26	27	56487.68	26	56492.70	25	56492.69	27	56694.46	26	56701.13	25	56701.59
28	29	56535.75	28	56541.19	27	56541.95	29	56738.07	28	56745.17	27	56745.90
30	31	56586.83	30	56592.61	29	56593.10						

N	B(16) level						B(17) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
0	1	56599.80					1	56756.58				
2	3	56602.49	2	56607.32	1	56605.91	3	56759.12	2	56765.48	1	56763.96
4	5	56607.97	4	56612.95	3	56610.92	5	56764.04	4	56770.38	3	56768.72
6	7	56616.32	6	56621.49	5	56619.64	7	56771.51	6	56778.14	5	56776.26
8	9	56627.69	8	56632.97	7	56631.24	9	56781.62	8	56788.49	7	56786.90
10	11	56642.09	10	56647.46	9	56646.08	11	56794.39	10	56801.62	9	56800.34
12	13	56659.36	12	56665.09	11	56664.03	13	56809.77	12	56817.44	11	56816.56
14	15	56679.63	14	56685.66	13	56684.94	15	56827.76	14	56835.96	13	56835.42
16	17	56702.73	16	56709.23	15	56708.57	17	56848.26	16	56856.88	15	56856.87
18	19	56728.69	18	56735.56	17	56735.42	19	56871.25	18	56880.38	17	56880.86
20	21	56757.55	20	56764.70	19	56764.89	21	56896.55	20	56906.27	19	56907.30
22	23	56788.94	22	56796.65	21	56797.24	23	56924.22	22	56934.41	21	56936.04
24	25	56823.15	24	56831.19	23	56832.13						

N	B(18) level						B(19) level					
	J	F ₁	J	F ₂	J	F ₃	J	F ₁	J	F ₂	J	F ₃
2	3	56882.80	2	56891.49	1	56890.43	3	56977.83	2	56989.91	1	56989.02
4	5	56887.21	4	56895.82	3	56894.22	5	56981.92	4	56993.26	3	56992.30
6	7	56893.77	6	56902.63	5	56900.98	7	56987.61	6	57000.02	5	56998.77
8	9	56902.60	8	56911.85	7	56910.41	9	56995.38	8	57008.03	7	57006.77
10	11	56913.77	10	56923.42	9	56922.35	11	57005.69	10	57018.28	9	57016.82
12	13	56927.16	12	56937.26	11	56936.91	13	57015.66	12	57030.38	11	57028.99
14	15	56942.75	14	56953.35	13	56953.47	15	57029.57	14	57044.10	13	57043.11
16	17	56960.56	16	56971.27	15	56972.23						
18	19		18	56990.47	17	56992.52						
20	21	57002.51	20	57016.25	19	57018.02						
22	23	57026.38	22	57040.58	21	57045.20						
24	25	57052.03	24	57066.72	23	57071.78						

References:

Wavelength Measurements and Analysis of the Schumann-Runge Bands of $^{18}\text{O}_2$ in the Region 175-205 nm, A.S.-C. Cheung, K. Yoshino, D.E. Freeman and W.H. Parkinson, *J. Mol. Spectrosc.* **131**, 96-112 (1988).