Integrated cross sections of the main branch lines of the Schumann-Runge bands of O_2 in units of 10^{-19} cm^2 cm^{-1}. Lines with B are blended and values are estimated. Lines with E are extra lines resulting from the perturbation.

	B(12)-X(0) band						B(13)-X(0) band					
N	R_1	R_2	R_3	P_1	P_2	P_3	R_1	R_2	R_3	P_1	P_2	P_3
1	2.90	1.67B		2.14			3.17B	1.74		2.03		
3	4.77	3.82B	2.89B	4.25	2.27B	1.54B	4.85	4.22B	2.46B	5.04B	2.68B	1.54B
5	6.02	5.03B	3.89B	5.17	4.20B	2.97B	5.89	5.31B	4.52B	5.11	4.31B	3.49
7	6.24	5.52B	4.83B	5.41	4.68B	4.29B	5.91	5.55B	5.29B	5.44	5.39B	4.54B
9	5.71	5.25B	4.53B	5.58	4.76B	4.24B	5.93	5.00B	5.12B	5.30	5.46B	4.55B
11	5.20B	4.32B	3.82B	4.68	4.46B	4.14B	5.10	5.74	4.30	4.90	4.80	3.89
13	4.19B	3.81B	3.25B	3.55	3.71B	3.33B	3.91	3.94	4.02	4.10	3.91	3.79
15	2.82	2.67B	2.48B	2.53B	2.66B	2.55B	3.37	3.03	2.93	3.28	3.37	2.58
17	2.10	1.68B	1.68B	1.95	1.83B	1.78B	2.07	2.45	2.13	2.43B	2.53B	2.05
19	1.19	1.57B	1.08B	1.42	0.88	0.80	1.80	1.46	1.61	1.45	1.78B	1.34
21	0.89B	0.61B	0.75B				0.72B	1.26B	0.85	0.76	0.89B	0.53B
23							0.42	0.33	0.45	0.27	0.44	0.67B
25							0.16	0.13	0.30	0.29	0.30	0.24

	B(14)-X(0) band						B(15)-X(0) band					
N	R_1	R_2	R_3	P_1	P_2	P_3	R_1	R_2	R_3	P_1	P_2	P_3
1	3.08	2.05		2.47			3.06	1.68		1.99		
3	5.76	4.16B	2.94B	4.24	2.99B	1.49B	4.35B	3.77B	3.46B	3.90B	2.95	1.52
5	6.13	6.16	4.91B	4.80B	4.86B	3.82B	5.91	5.28B	4.02B	5.49	4.72B	3.25B
7	6.26B	6.31B	5.16B	5.85	5.44B	4.84B	6.20	6.15B	4.98B	6.41	5.57B	4.58B
9	6.04	6.41B	5.37B	5.86	5.63B	5.20B	5.94	5.59	5.36	6.62B	5.86B	4.84B
11	4.93	5.33	4.36	4.88	4.88	4.64	5.87B	4.92	4.56	5.01	4.55	4.81
13	4.18	3.94B	3.80	4.25	3.88	3.99B	4.16	4.05	3.53	3.83	4.83B	3.34
15	3.03	2.97	2.80	3.26	2.96	2.81B	2.97	2.97	2.89B	3.55B	3.02	3.36
17	2.23	2.28	1.73	2.13	2.06	1.92	2.41	2.27	2.43	2.42	2.36	2.80
19	1.55	1.36B	1.62	1.78	1.42	1.41	1.37B	1.42	1.37	1.21	1.57	1.35B
21	0.77	0.72	0.56B	1.44	1.01	0.87	0.66B	0.73	1.00	1.28	0.79	0.38B
23	0.59	0.66	0.36	0.39B	0.45B	0.79	0.48	0.74B	0.81	0.60	0.54	
25	0.57	0.33	0.33	0.25	0.23	0.13	0.22	0.14	0.16B	0.16		0.35

	B(16)-X(0) band						B(17)-X(0) band					
N	R_1	R_2	R_3	P_1	P_2	P_3	R_1	R_2	R_3	P_1	P_2	P_3
1	2.40	2.20	1.08	1.53			2.39	1.45		1.73B		
3	4.49B	4.43B	3.01B	4.08B	3.27	0.92B	3.47	3.68B	1.65B	3.17	2.26B	0.91
5	5.45	4.91B	4.16B	5.26	4.25B	3.08B	4.44B	5.09B	4.94	3.98	4.13B	2.77B
		0.39E										
7	5.22B	2.14	4.11B	5.26	4.76B	3.67B	3.94B	4.98	3.86	4.66	4.85B	2.98B
		2.80E			0.75E							
9	5.28	4.28	4.67	5.30	2.54	4.59B	4.69	4.67	3.74	6.83	6.07	2.94
		1.03E			2.65E							
11	4.58	4.07	4.43	4.43	3.76	3.81	3.83	4.08	4.00B	3.52B	3.24B	3.12
		0.21E			0.59E							
13	4.33B	3.73B	4.01	4.98	3.51	3.40	3.17	3.29	2.80	2.99	2.86	2.55
15	2.57	2.43	2.25	2.42B	2.52	2.39	2.14	2.94	2.49	2.30	2.24	2.19
								0.20E				
17	1.63	1.72	1.69	1.76	1.75	1.70	1.53B	1.84B	1.44	1.44	2.04	1.59
								0.19E				
19	1.51	1.20	0.99B	1.18	1.39B	0.92	0.90	0.45	0.98	0.90	0.74	0.72B
											0.17E	
21	0.81	0.86	0.79	0.81	0.85	0.81	0.76	0.68B	0.49			
								0.12E				
23	0.34		0.30	0.31	0.28	0.22	0.52	0.32		0.62	0.39	0.48
25	0.16	0.08		0.26		0.11						

References:

High resolution absorption cross section measurements of the Schumann-Runge bands of O_2 by VUV Fourier transform spectroscopy, T. Matsui, A.S.-C. Cheung, K. W-S. Leung, K. Yoshino, W. H. Parkinson, A. P. Thorne, J. E. Murray, K. Ito, and T. Imajo, J. Molec. Spectrosc. **219**, 45-57 (2003).