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Appendix A

The results for SERTS-89

Table A.1: *Results of the analysis of the active region SERTS-89 spectrum. Second order lines are indicated with a (IIo), while those with question marks have either problems of blending, calibration or atomic physics (e.g. ionization equilibrium).*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	log T_{eff}	log T_{max}	frac	
C III	386.202	386.150	2s2 $^1S_0$ - 2s3p $^1P_1$	9.3	0.83	0.26	4.80	4.97		[1]
N III	374.198	374.160	2s2 2p $^2P_{1/2}$ - 2s2 3d $^2D_{3/2}$	4.9	0.95	0.61	4.99	5.08	0.60	
O III	374.164		2s22p2 $^3P_1$ - 2s22p3s $^3P_1$					5.11	0.40	
Ne III	379.307	379.306	2s2 2p4 $^1D_2$ - 2s 2p5 $^1P_1$	7.6	0.56	0.17	5.05	5.10		
O III	374.075	374.051	2s22p2 $^3P_2$ - 2s22p3s $^3P_2$	14.4	0.98	0.32	5.08	5.11	0.69	
O III	374.005		2s22p2 $^3P_0$ - 2s22p3s $^3P_1$					5.11	0.18	
O III	374.164		2s22p2 $^3P_1$ - 2s22p3s $^3P_1$					5.11	0.13	
Ne IV	421.609	421.592	2s2 2p3 $^2P_{3/2}$ - 2s 2p4 $^2S_{1/2}$	4.3	0.69	0.24	5.34	5.29	0.66	
Ne IV	421.597		2s2 2p3 $^2P_{1/2}$ - 2s 2p4 $^2S_{1/2}$					5.29	0.34	
Ne IV	388.216	388.228	2s2 2p3 $^2P_{3/2}$ - 2s 2p4 $^2P_{3/2}$	1.4	1.12	0.65	5.35	5.30	0.82	
Ne IV	388.206		2s2 2p3 $^2P_{1/2}$ - 2s 2p4 $^2P_{3/2}$					5.30	0.18	
Ne V	357.954		2s22p2 $^3P_0$ - 2s2p3 $^3S_1$					5.49	0.44	
Ne V	416.194	416.208	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	24.2	1.04	0.18	5.56	5.48		
Ne V	359.382	359.378	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	26.3	0.57	0.11	5.57	5.49		
Mg V	352.201	352.213	2p4 $^3P_1$ - 2s.2p5 $^3P_0$	4.3	0.39	0.29	5.58	5.46		?
Mg V	355.329	355.339	2p4 $^3P_1$ - 2s.2p5 $^3P_2$	11.3	0.18	0.10	5.58	5.46		?
Mg V	276.582	276.600	2p4 $^1D_2$ - 2s.2p5 $^1P_1$	22.4	0.15	0.08	5.59	5.47		?
Mg V	353.092	353.084	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	10.4	0.65	0.25	5.71	5.46		?
Ne VI	433.176	433.161	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2S_{1/2}$	7.5	1.90	0.78	5.71	5.64		?
Ne VI	435.648	435.632	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2S_{1/2}$	9.8	2.42	0.62	5.71	5.64		?
Ne VI	399.821	399.837	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{3/2}$	14.9	1.11	0.24	5.72	5.64		
Ne VI	401.926	401.936	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	84.6	1.00	0.15	5.72	5.64		
Mg V	354.225	354.162	2p4 $^3P_0$ - 2s.2p5 $^3P_1$	9.0	0.19	0.10	5.74	5.46		?
Mg V	351.088	351.117	2p4 $^3P_2$ - 2s.2p5 $^3P_1$	13.1	0.18	0.06	5.76	5.46	0.89	?
Cr XIII	351.150		3s.3p $^3P_0$ - 3p2 $^3P_1$					6.19	0.10	
Mg VI	403.307	403.296	2s2.2p3 $^4S_{3/2}$ - 2s.2p4 $^4P_{5/2}$	45.6	1.09	0.17	5.76	5.65	0.62	
Ne VI	403.255		2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{1/2}$					5.64	0.38	
Ne VI	401.136	401.139	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{1/2}$	29.9	1.16	0.19	5.78	5.64		
Mg VI	399.281	399.275	2s2.2p3 $^4S_{3/2}$ - 2s.2p4 $^4P_{1/2}$	9.3	1.12	0.24	5.79	5.65		
Mg VI	270.390	270.401	2s2.2p3 $^2D_{5/2}$ - 2s.2p4 $^2P_{3/2}$	59.1	0.26	0.08	5.79	5.66	0.88	
Mg VI	270.400		2s2.2p3 $^2D_{3/2}$ - 2s.2p4 $^2P_{3/2}$					5.66	0.12	
Mg VI	400.662	400.668	2s2.2p3 $^4S_{3/2}$ - 2s.2p4 $^4P_{3/2}$	16.2	1.40	0.26	5.81	5.65		
Na VII	353.296	353.290	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	10.1	0.99	0.32	5.83	5.78	0.88	
Mg V	353.300		2p4 $^3P_1$ - 2s.2p5 $^3P_1$					5.46	0.12	
C IV	312.420	312.429	1s2 2s $^2S_{1/2}$ - 1s2 3p $^2P_{3/2}$	14.2	0.29	0.15	5.83	5.09	0.67	?
C IV	312.451		1s2 2s $^2S_{1/2}$ - 1s2 3p $^2P_{1/2}$					5.09	0.33	
Mg VI	293.110	293.140	2s2.2p3 $^2P_{3/2}$ - 2s.2p4 $^2P_{3/2}$	14.0	0.20	0.12	5.83	5.66		?
C IV	384.031	384.032	1s2 2p $^2P_{1/2}$ - 1s2 3d $^2D_{3/2}$	8.6	0.27	0.11	5.84	5.09		?
Al VIII	248.453	248.460	2p2 $^3P_1$ - 2s.2p3 $^3S_1$	59.7	0.34	0.20	5.85	5.93	0.48	?

[1] Previously identified as Ti XI

Table A.1: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	log T_{eff}	log T_{max}	frac	
O V	248.461		2s.2p $^1P_1$ - 2s.3s $^1S_0$					5.42	0.45	
Mg VI	314.647	314.592	2s2.2p3 $^2P_{3/2}$ - 2s.2p4 $^2S_{1/2}$	15.8	0.20	0.08	5.87	5.65	0.59	?
Mg VI	314.540		2s2.2p3 $^2P_{1/2}$ - 2s.2p4 $^2S_{1/2}$					5.65	0.33	
Mg VII	434.917	434.917	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	27.9	1.67	0.29	5.88	5.80		?
Si VII	275.353	275.377	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	105.0	0.55	0.16	5.89	5.77		
Mg VI	349.163	349.162	2s2.2p3 $^2D_{5/2}$ - 2s.2p4 $^2D_{5/2}$	55.2	0.64	0.12	5.89	5.65	0.42	
Mg VI	349.124		2s2.2p3 $^2D_{3/2}$ - 2s.2p4 $^2D_{3/2}$					5.65	0.32	
Fe XI	349.046		3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_0$					6.11	0.21	
Mg VII	434.720	434.691	2s22p2 $^3P_2$ - 2s2p3 $^3D_2$	2.3	2.85	1.64	5.89	5.80		?
Mg VII	431.313	431.288	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	17.6	1.96	0.43	5.89	5.80	0.78	?
Mg VII	431.188		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$					5.80	0.22	
Mg VII	431.188	431.141	2s22p2 $^3P_1$ - 2s2p3 $^3D_1$	9.2	0.81	0.28	5.89	5.80		
Mg VII	429.140	429.132	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	10.9	1.07	0.27	5.89	5.80		
Mg VII	367.674	367.675	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	46.2	1.24	0.20	5.89	5.81	0.77	
Mg VII	367.683		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$					5.81	0.23	
Si VII	275.667	275.617	2p4 $^3P_1$ - 2s.2p5 $^3P_1$	17.6	0.50	0.39	5.89	5.77		
Mg VII	278.402	278.407	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	114.0	0.56	0.13	5.89	5.81	0.71	
Si VII	278.443		2p4 $^3P_1$ - 2s.2p5 $^3P_2$					5.77	0.29	
Mg VII	276.154	276.148	2s22p2 $^3P_0$ - 2s2p3 $^3S_1$	21.9	0.41	0.18	5.90	5.81		
Mg VII	365.234	365.210	2s22p2 $^3P_1$ - 2s2p3 $^3P_2$	23.2	1.54	0.32	5.90	5.81	0.36	
Mg VII	365.176		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$					5.81	0.33	
Mg VII	365.243		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$					5.81	0.26	
Fe X	358.413	358.455	3s2.3p4(3p).3d $^4F_{9/2}$ - 3s.3p5(3p*).3d $^4F_{9/2}$	15.2	1.27	0.33	5.91	6.04	0.53	
Ne V	358.484		2s22p2 $^3P_1$ - 2s2p3 $^3S_1$					5.49	0.47	
C IV	419.713	419.718	1s2 2p $^2P_{3/2}$ - 1s2 3s $^2S_{1/2}$	12.4	0.32	0.07	5.93	5.08	0.67	?
Fe XIII	419.819		3s2 3p2 $^1S_0$ - 3s 3p3 $^3P_1$					6.20	0.18	
Ca X	419.754		3p $^2P_{3/2}$ - 3d $^2D_{5/2}$					5.82	0.15	
Mg VII	280.737	280.749	2s22p2 $^1D_2$ - 2s2p3 $^1P_1$	9.4	1.74	1.40	5.95	5.80		
Al VII	353.769	353.741	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	9.9	0.99	0.53	5.96	5.78		
Si VIII	277.054	277.045	2s22p3 $^2D_{5/2}$ - 2s2p4 $^2D_{5/2}$	85.1	0.93	0.27	5.96	5.90	0.62	
Mg VII	277.000		2s22p2 $^3P_1$ - 2s2p3 $^3S_1$					5.81	0.34	
Mg VIII	313.754	313.736	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	80.3	0.83	0.15	5.96	5.91		
Mg VIII	436.735	436.726	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	67.5	1.72	0.27	5.97	5.91		?
Mg VIII	430.465	430.445	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	40.3	1.57	0.25	5.97	5.91		?
Mg VIII	315.039	315.024	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	253.0	0.73	0.11	5.97	5.91		
Mg VIII	339.006	339.000	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	53.8	0.78	0.15	5.97	5.92		
Na VIII	411.166	411.164	2s2 $^1S_0$ - 2s.2p $^1P_1$	26.0	1.17	0.20	5.98	5.86		
Mg VIII	317.039	317.008	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	57.5	0.82	0.21	5.98	5.91		
Al VIII	285.469	285.449	2p2 $^1D_2$ - 2s.2p3 $^1D_2$	27.8	0.19	0.09	5.98	5.91		?
Mg VI	268.991	269.038	2s2.2p3 $^2D_{3/2}$ - 2s.2p4 $^2P_{1/2}$	37.1	0.24	0.12	5.99	5.66	0.82	?
Mn XV	269.107		3p $^2P_{1/2}$ - 3d $^2D_{3/2}$					6.32	0.18	
Si VIII	314.327	314.345	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	54.1	1.15	0.25	5.99	5.91		
Si VIII	319.826	319.839	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	113.0	1.59	0.25	5.99	5.91		
Si VIII	316.205	316.220	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	88.7	1.33	0.24	5.99	5.91		
Fe IX	244.909	244.916	3p6 $^1S_0$ - 3p5.3d $^3P_1$	162.0	0.21	0.06	6.00	5.94		?
Fe IX	241.739	241.747	3p6 $^1S_0$ - 3p5.3d $^3P_2$	195.0	0.37	0.14	6.00	5.95		?
Fe X	365.543	365.565	3s2.3p5 $^2P_{1/2}$ - 3s.3p6 $^2S_{1/2}$	43.0	1.06	0.18	6.00	6.04	0.67	
Ne V	365.603		2s22p2 $^1D_2$ - 2s2p3 $^1P_1$					5.49	0.31	
Fe IX	171.073	171.061	3p6 $^1S_0$ - 3p5.3d $^1P_1$	1510.0	1.29	0.42	6.01	5.96		(IIo)
Mg VII	319.027	319.023	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	76.4	0.45	0.08	6.02	5.80	0.85	
Ni XV	319.063		3s2.3p2 $^3P_2$ - 3s.3p3 $^3D_3$					6.36	0.15	
Fe IX	217.101	217.102	3p6 $^1S_0$ - 3p5.3d $^3D_1$	70.5	0.35	0.17	6.02	5.94	0.87	?
Fe XI	217.112		3s2.3p4 $^1S_0$ - 3s2.3p3(2d*).3d $^3P_1$					6.11	0.13	
Al IX	384.971	385.023	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	7.0	2.15	0.65	6.05	6.03		?
Mg IX	441.199	441.221	2s.2p 3P0.0 - 2p2 3P1.0	7.7	0.59	0.22	6.07	5.98		?
Al IX	392.403	392.414	2s2.2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	15.3	1.63	0.33	6.07	6.03		
Fe X	345.723	345.735	3s2.3p5 $^2P_{3/2}$ - 3s.3p6 $^2S_{1/2}$	75.8	0.96	0.16	6.07	6.04		
Mg IX	439.176	439.173	2s.2p 3P1.0 - 2p2 3P2.0	9.4	0.61	0.17	6.07	5.98		
Mg IX	443.973	443.956	2s.2p 3P2.0 - 2p2 3P2.0	19.6	0.83	0.16	6.07	5.98		
Mg IX	448.293	448.279	2s.2p $^3P_2$ - 2p2 $^3P_1$	4.7	1.12	0.38	6.07	5.98		

Table A.1: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	log T_{eff}	log T_{max}	frac	
Mg IX	443.403	443.371	2s.2p 3P1.0 - 2p2 3P1.0	5.6	0.59	0.21	6.07	5.98		
Al IX	282.422	282.431	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	28.4	0.49	0.23	6.07	6.03		
Fe X	257.239	257.257	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^4D_{7/2}$	132.0	0.71	0.20	6.07	6.04	0.71	
Fe X	257.285		3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^4D_{5/2}$					6.04	0.29	
Si VIII	276.838	276.850	2s22p3 $^2D_{3/2}$ - 2s2p4 $^2D_{3/2}$	65.6	0.85	0.24	6.08	5.90	0.64	
Si VII	276.839		2p4 $^3P_0$ - 2s.2p5 $^3P_1$					5.77	0.21	
Fe XVII	276.797		2p5.3p $^3D_1$ - 2p5.3d $^1D_2$					6.59	0.12	
Fe X	174.534	174.517	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2D_{5/2}$	764.0	1.80	0.86	6.08	6.05		? (IIo)
Mg VIII	311.796	311.778	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	79.1	0.55	0.11	6.08	5.91	0.81	?
Ni XV	311.755		3s2.3p2 $^3P_1$ - 3s.3p3 $^3D_2$					6.36	0.17	
Si IX	258.080	258.095	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	49.7	0.31	0.12	6.08	6.03		?
Si IX	349.873	349.872	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	140.0	1.03	0.16	6.09	6.03	0.88	
Si IX	349.794		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$					6.03	0.11	
Si IX	345.124	345.130	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	70.9	1.20	0.21	6.09	6.03		
Si IX	296.117	296.128	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	146.0	1.15	0.27	6.09	6.03	0.77	
Si IX	296.213		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$					6.03	0.23	
Si IX	292.800	292.801	2s22p2 $^3P_1$ - 2s2p3 $^3P_0$	70.6	1.43	0.36	6.09	6.03	0.36	
Si IX	292.763		2s22p2 $^3P_1$ - 2s2p3 $^3P_2$					6.03	0.34	
Si IX	292.856		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$					6.03	0.30	
Si IX	344.951	344.958	2s22p2 $^3P_1$ - 2s2p3 $^3D_1$	17.3	1.26	0.33	6.09	6.03		
Si IX	341.949	341.974	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	29.4	1.29	0.25	6.09	6.03		
Si IX	296.213	296.228	2s22p2 $^3P_2$ - 2s2p3 $^3P_1$	34.0	1.13	0.87	6.09	6.03		
Mg IX	368.070	368.063	2s2 $^1S_0$ - 2s.2p $^1P_1$	1070.0	0.48	0.07	6.09	5.98		
Si VIII	216.915	216.936	2s22p3 $^2D_{5/2}$ - 2s2p4 $^2P_{3/2}$	30.6	2.30	1.78	6.10	5.91	0.75	? (IIo)
Fe XIV	216.928		3s.3p2 4P2.5 - 3s.3p(3P).3d 4D3.5					6.24	0.25	
Si IX	290.690	290.693	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	33.2	1.08	0.50	6.11	6.03		
Fe XI	341.113	341.114	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_1$	37.3	0.82	0.15	6.13	6.10		
Fe XI	356.519	356.530	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_1$	15.0	1.03	0.35	6.13	6.10		
Fe XI	369.153	369.163	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_2$	37.9	0.91	0.15	6.14	6.10		
Fe XI	352.662	352.672	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_2$	130.0	0.88	0.14	6.14	6.11		
Fe XI	406.811	406.791	3s2.3p4 $^1D_2$ - 3s.3p5 $^3P_2$	2.9	1.06	0.42	6.14	6.11		
Fe XI	188.232	188.209	3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^3P_2$	1140.0	0.49	0.12	6.14	6.11		? (IIo)
Fe XI	308.548	308.575	3s2.3p4 $^1D_2$ - 3s.3p5 $^1P_1$	84.4	0.25	0.05	6.20	6.10	0.61	?
Fe XIII	308.686		3s2 3p2 $^1S_0$ - 3s 3p3 $^3S_1$					6.20	0.25	
Ni XIII	308.551		3s2.3p4 $^3P_0$ - 3s.3p5 $^3P_1$					6.29	0.11	
Fe XII	352.106	352.106	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{3/2}$	144.0	0.85	0.13	6.20	6.16		
Fe XII	338.278	338.273	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2D_{5/2}$	76.6	0.35	0.06	6.20	6.16		?
Fe XII	219.437	219.428	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(3p).3d $^2P_{3/2}$	136.0	0.63	0.29	6.21	6.16		? (IIo)
Fe XII	196.648	196.618	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(1d).3d $^2D_{5/2}$	279.0	0.42	0.21	6.21	6.16		? (IIo)
Fe XII	346.852	346.857	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{1/2}$	66.9	0.91	0.15	6.21	6.16		
C IV	384.173	384.165	1s2 2p $^2P_{3/2}$ - 1s2 3d $^2D_{5/2}$	9.5	0.51	0.14	6.21	5.09	0.69	?
Fe XX	384.220		2s2.2p3 $^4S_{3/2}$ - 2s2.2p3 $^2P_{1/2}$					6.86	0.18	
Fe XII	193.521	193.511	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{3/2}$	1280.0	0.73	0.15	6.21	6.16		(IIo)
Fe XII	195.118	195.115	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{5/2}$	1220.0	1.28	0.25	6.21	6.16		(IIo)
Fe XII	192.393	192.373	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{1/2}$	2370.0	0.14	0.02	6.21	6.16		? (IIo)
S XII	291.367	291.359	2s.2p2 $^2D_{3/2}$ - 2p3 $^2D_{3/2}$	10.3	0.26	0.16	6.21	6.32	0.55	?[2]
Mg VI	291.363		2s2.2p3 $^2P_{1/2}$ - 2s.2p4 $^2P_{1/2}$					5.66	0.45	?
Fe XII	364.467	364.468	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{5/2}$	233.0	0.78	0.12	6.21	6.16		
Fe XII	186.884	186.883	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(3p).3d $^2F_{7/2}$	1330.0	0.33	0.09	6.22	6.16	0.63	? (IIo)
Fe XII	186.851		3s2.3p3 $^2D_{3/2}$ - 3s2.3p2(3p).3d $^2F_{5/2}$					6.16	0.32	(IIo)
Cr XIII	328.267	328.259	3s2 $^1S_0$ - 3s.3p $^1P_1$	91.0	0.52	0.09	6.22	6.19	0.57	[3]
Al VIII	328.185		2p2 $^3P_2$ - 2s.2p3 $^3P_2$					5.92	0.33	
Si X	356.012	356.027	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	218.0	1.00	0.15	6.22	6.13	0.88	
Si X	356.050		2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$					6.13	0.12	
Si X	253.788	253.808	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	207.0	0.36	0.10	6.22	6.13		?
Si X	258.372	258.368	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	377.0	1.03	0.19	6.22	6.13		
Fe XII	382.866	382.854	3s2.3p3 $^2P_{3/2}$ - 3s.3p4 $^2D_{5/2}$	7.1	0.68	0.21	6.22	6.16		
Fe XIV	358.681	358.667	3s.3p2 2D2.5 - 3p3 2D2.5	72.6	0.84	0.14	6.22	6.25	0.37	
Fe XI	358.621		3s2.3p4 $^3P_0$ - 3s.3p5 $^3P_1$					6.10	0.32	

[2]Previously identified as only Mg VI

[3]Previously identified as only Cr XIII

Table A.1: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	log T_{eff}	log T_{max}	frac	
Si XI	358.652		2s.2p $^3P_1$ - 2p2 $^3P_2$					6.20	0.18	
Ne IV	358.686		2s2 2p3 $^2D_{5/2}$ - 2s 2p4 $^2P_{3/2}$					5.30	0.12	
Si X	261.063	261.049	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	140.0	0.97	0.21	6.22	6.13		
Si X	347.403	347.406	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	210.0	0.87	0.22	6.22	6.13		
Si X	271.983	271.992	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	131.0	0.80	0.17	6.22	6.13		
Si X	277.255	277.268	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	114.0	0.75	0.18	6.22	6.13		
Fe XII	291.053	291.007	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2P_{3/2}$	109.0	0.40	0.08	6.23	6.16	0.80	?
Fe XIV	291.050		3s.3p2 4P1.5 - 3p3 2D1.5					6.24	0.20	
Al X	332.789	332.782	2s2 $^1S_0$ - 2s.2p $^1P_1$	159.0	0.82	0.13	6.24	6.09		
S X	264.230	264.221	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	96.3	1.29	0.45	6.25	6.13		
S X	259.496	259.495	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	123.0	0.68	0.25	6.25	6.13		
S X	257.146	257.144	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	28.8	1.52	0.95	6.25	6.13		
Fe XIII	240.696	240.723	3s2 3p2 $^3P_0$ - 3s 3p3 $^3S_1$	148.0	0.84	0.36	6.27	6.20		
Fe XIV	363.750	363.753	3s.3p2 2D2.5 - 3p3 2D1.5	11.2	4.49	1.28	6.27	6.24	0.78	?
Mg VII	363.772		2s22p2 $^3P_0$ - 2s2p3 $^3P_1$					5.81	0.22	
Fe XIII	311.552	311.555	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_2$	40.8	0.47	0.13	6.27	6.20		?
Fe XIII	318.128	318.120	3s2 3p2 $^1D_2$ - 3s 3p3 $^1D_2$	96.0	0.28	0.05	6.27	6.20		?
Fe XIII	312.109	312.174	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_1$	85.9	1.02	0.18	6.27	6.20		
Fe XIII	359.642	359.644	3s2 3p2 $^3P_1$ - 3s 3p3 $^3D_2$	147.0	0.72	0.11	6.27	6.20		
Fe XIII	413.032	412.997	3s2 3p2 $^1D_2$ - 3s 3p3 $^3D_3$	6.9	0.82	0.23	6.27	6.20		
Fe XIII	368.171	368.163	3s2 3p2 $^3P_2$ - 3s 3p3 $^3D_3$	128.0	0.76	0.16	6.27	6.20		
Fe XIII	320.809	320.800	3s2 3p2 $^3P_2$ - 3s 3p3 $^3P_2$	172.0	0.79	0.13	6.28	6.20		
Fe XIII	312.872	312.868	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_0$	47.6	0.89	0.27	6.28	6.20		
Fe XIII	201.128	201.121	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3D_1$	394.0	0.87	0.32	6.28	6.21		(IIo)
Fe XIII	348.183	348.182	3s2 3p2 $^3P_0$ - 3s 3p3 $^3D_1$	128.0	1.12	0.17	6.28	6.20		
Fe XIII	321.400	321.463	3s2 3p2 $^3P_2$ - 3s 3p3 $^3P_1$	32.9	1.32	0.32	6.28	6.20		
Fe XIII	246.211	246.195	3s2 3p2 $^3P_1$ - 3s 3p3 $^3S_1$	160.0	1.81	0.57	6.28	6.20		?
Fe XIII	251.956	251.943	3s2 3p2 $^3P_2$ - 3s 3p3 $^3S_1$	364.0	1.49	0.27	6.28	6.20		
Fe XIII	213.771	213.774	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3P_2$	58.3	3.02	1.48	6.28	6.21		? (IIo)
Fe XIII	209.621	209.615	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3P_2$	93.7	1.90	1.05	6.28	6.21		? (IIo)
Fe XIII	221.827	221.830	3s2 3p2 $^1D_2$ - 3s2 3p 3d $^1D_2$	152.0	1.75	0.57	6.28	6.21		? (IIo)
Fe XIII	204.263	204.251	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^1D_2$	141.0	1.04	0.32	6.28	6.21		(IIo)[4]
Fe XIII	203.828	203.824	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_3$	1060.0	1.25	0.22	6.28	6.21	0.75	(IIo)
Fe XIII	203.797		3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_2$					6.21	0.25	
Fe XIII	359.842	359.830	3s2 3p2 $^3P_1$ - 3s 3p3 $^3D_1$	22.4	1.70	0.37	6.28	6.20		
Fe XIII	204.945	204.952	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_1$	348.0	0.28	0.08	6.28	6.21		? (IIo)
Fe XIII	202.044	202.043	3s2 3p2 $^3P_0$ - 3s2 3p 3d $^3P_1$	646.0	2.00	0.39	6.28	6.21		(IIo)
Si XI	361.412	361.406	2s.2p $^3P_0$ - 2p2 $^3P_1$	23.7	0.54	0.11	6.29	6.20	0.78	?
Fe X	361.406		3s2.3p4(3p).3d $^4F_{7/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$					6.04	0.22	
Fe XIV	429.544	429.540	3s2.3p 2P0.5 - 3s.3p2 4P1.5	3.1	1.41	0.48	6.30	6.24	0.74	[5]
Fe XII	429.520		3s2.3p3 $^2D_{3/2}$ - 3s.3p4 $^4P_{5/2}$					6.16	0.26	
Fe XV	321.802	321.782	3s3p $^3P_2$ - 3p2 $^3P_1$	35.4	0.68	0.17	6.32	6.29	0.59	[6]
Ni XIII	321.882		3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_2$					6.29	0.18	
Fe X	321.732		3s2.3p4(3p).3d $^4D_{5/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$					6.04	0.16	
Fe XIV	299.413	299.427	3s.3p2 4P2.5 - 3p3 2D1.5	35.3	0.85	0.36	6.33	6.24		[7]
Fe XIV	447.331	447.343	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^4P_{5/2}$	34.3	1.74	0.28	6.33	6.24		?
Fe XIV	444.257	444.241	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^4P_{1/2}$	11.9	2.73	0.68	6.33	6.24		?
Si XI	365.433	365.419	2s.2p $^3P_2$ - 2p2 $^3P_2$	39.8	0.76	0.14	6.33	6.20		
Si XI	371.503	371.499	2s.2p $^3P_2$ - 2p2 $^3P_1$	14.5	0.76	0.21	6.34	6.20		
Fe XIV	219.136	219.117	3s2 3p $^2P_{3/2}$ - 3s2 3d $^2D_{5/2}$	412.0	1.26	0.23	6.34	6.24		
Fe XIV	274.200	274.209	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2S_{1/2}$	1030.0	1.01	0.16	6.34	6.25		
Fe XIV	356.641	356.649	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2D_{3/2}$	18.0	1.33	0.45	6.34	6.24		
Fe XIV	334.172	334.171	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2D_{3/2}$	642.0	1.12	0.17	6.34	6.24		
Fe XIV	264.780	264.783	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2P_{3/2}$	1040.0	0.92	0.14	6.34	6.25		
Fe XIV	252.191	252.201	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2P_{3/2}$	190.0	1.23	0.40	6.34	6.25		

[4]Previously identified as Fe XII
[5]Previously identified as only Fe XIV
[6]Previously identified as only Fe XV
[7]Previously unidentified

Table A.1: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	log T_{eff}	log T_{max}	frac	
Fe XIV	289.148	289.171	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2S_{1/2}$	74.3	1.05	0.34	6.34	6.25		
Fe XIV	270.507	270.522	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2P_{1/2}$	489.0	1.09	0.18	6.34	6.25		
Fe XIV	220.088	220.072	3s2 3p $^2P_{3/2}$ - 3s2 3d $^2D_{3/2}$	253.0	1.57	0.34	6.34	6.25		? (IIo)
Fe XIV	211.320	211.315	3s2 3p $^2P_{1/2}$ - 3s2 3d $^2D_{3/2}$	1020.0	1.83	0.31	6.34	6.25		? (IIo)
Si XI	303.324	303.324	2s2 $^1S_0$ - 2s.2p $^1P_1$	2930.0	0.65	0.10	6.34	6.20		
S XI	285.822	285.830	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	68.4	1.19	0.31	6.34	6.24		
Fe XIV	257.381	257.395	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2P_{1/2}$	187.0	2.05	0.44	6.34	6.25		?
S XI	281.401	281.440	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	36.3	1.81	0.82	6.35	6.24		?
S XI	246.895	246.887	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	104.0	0.64	0.28	6.35	6.24		
S XI	239.816	239.834	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	130.0	0.25	0.11	6.35	6.24		?
S XI	285.587	285.578	2s22p2 $^3P_1$ - 2s2p3 $^3D_1$	53.4	0.61	0.21	6.35	6.24		
S XI	247.159	247.159	2s22p2 $^3P_2$ - 2s2p3 $^3P_1$	85.0	0.44	0.22	6.36	6.24		?
Ni XVI	239.550	239.488	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2S_{1/2}$	174.0	0.72	0.37	6.37	6.39	0.82	
Fe XI	239.422		3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^3D_3$					6.10	0.17	
Fe XV	393.980	393.969	3s2 $^1S_0$ - 3s3p $^3P_2$	16.1	0.83	0.17	6.38	6.29		
Fe XV	417.258	417.245	3s2 $^1S_0$ - 3s3p $^3P_1$	339.0	0.87	0.13	6.38	6.29		
Fe XV	372.787	372.758	3s3d $^3D_3$ - 3p3d $^3F_4$	16.2	0.15	0.04	6.38	6.29		?
Fe XV	284.160	284.158	3s2 $^1S_0$ - 3s3p $^1P_1$	7560.0	1.28	0.19	6.38	6.29		
Fe XV	327.011	327.030	3s3p $^3P_2$ - 3p2 $^1D_2$	87.5	1.12	0.20	6.38	6.29		
S XII	299.518	299.534	2s2.2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	47.2	1.34	0.54	6.39	6.31		
S XII	288.434	288.401	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	135.0	1.89	0.35	6.39	6.32		?
Fe XV	292.372	292.392	3s3p $^3P_1$ - 3p2 $^3P_2$	55.8	0.51	0.19	6.39	6.29		?
Ni XV	298.151	298.118	3s2.3p2 $^3P_0$ - 3s.3p3 $^3D_1$	41.3	0.90	0.36	6.39	6.36		
Fe XV	312.539	312.554	3s3p $^3P_1$ - 3p2 $^1D_2$	66.2	1.15	0.27	6.39	6.29	0.76	
Co XVII	312.543		3s $^2S_{1/2}$ - 3p $^2P_{3/2}$					6.43	0.23	
Cr XIV	412.052	412.039	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	30.4	0.73	0.12	6.40	6.24		
Cr XIV	389.864	389.854	3s $^2S_{1/2}$ - 3p $^2P_{3/2}$	77.3	0.58	0.09	6.40	6.24		?
Fe XV	243.790	243.780	3s3p $^1P_1$ - 3s3d $^1D_2$	545.0	1.38	0.27	6.40	6.29	0.75	
Ar XIV	243.740		2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$					6.49	0.25	
Ni XVI	288.166	288.163	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2D_{3/2}$	59.1	1.23	0.35	6.41	6.39		[8]
S XIII	256.684	256.683	2s2 $^1S_0$ - 2s.2p $^1P_1$	527.0	2.35	0.39	6.41	6.38		?
Fe XVI	265.014	265.018	3p $^2P_{3/2}$ - 3d $^2D_{3/2}$	84.0	0.64	0.20	6.42	6.34		
Mn XV	361.011	360.963	3s $^2S_{1/2}$ - 3p $^2P_{3/2}$	78.7	0.46	0.08	6.42	6.32		
Ni XVII	366.797	366.800	3s2 $^1S_0$ - 3s.3p $^3P_1$	21.0	0.26	0.05	6.42	6.41		
Mn XV	384.764	384.745	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	26.9	0.65	0.11	6.42	6.32		
Fe XVI	360.761	360.754	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	4320.0	0.84	0.16	6.42	6.34		
Fe XVI	335.410	335.401	3s $^2S_{1/2}$ - 3p $^2P_{3/2}$	10400.0	0.71	0.13	6.42	6.34		
Ni XVII	249.177	249.178	3s2 $^1S_0$ - 3s.3p $^1P_1$	534.0	0.97	0.18	6.42	6.41		
Ar XIII	236.272	236.335	2s2.2p2 $^3P_0$ - 2s.2p3 $^3D_1$	248.0	1.09	0.48	6.42	6.41		[9]
Fe XVI	251.074	251.067	3p $^2P_{1/2}$ - 3d $^2D_{3/2}$	445.0	0.72	0.14	6.42	6.34		
Fe XVI	262.984	262.978	3p $^2P_{3/2}$ - 3d $^2D_{5/2}$	654.0	0.83	0.13	6.42	6.34		
Fe XIV	353.831	353.833	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2D_{5/2}$	291.0	1.36	0.21	6.42	6.24	0.69	[10]
Ar XVI	353.920		1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{3/2}$					6.61	0.28	
Co XVII	339.495	339.540	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	9.3	0.89	0.46	6.45	6.43		
Ni XVIII	320.565	320.558	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	152.0	1.09	0.18	6.45	6.45		
S XIV	417.660	417.640	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{3/2}$	184.0	3.95	0.60	6.45	6.44		?
S XIV	445.700	445.660	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{1/2}$	65.5	5.23	0.81	6.46	6.44		?
Ni XVIII	291.984	291.988	3s $^2S_{1/2}$ - 3p $^2P_{3/2}$	357.0	0.97	0.15	6.46	6.45		
Fe XVII	367.261	367.287	2p5.3s $^3P_2$ - 2p5.3p $^3D_2$	7.5	1.18	0.63	6.47	6.59		
Fe XVII	358.243	358.247	2p5.3s $^1P_1$ - 2p5.3p $^3P_1$	7.0	1.00	0.45	6.50	6.59		
Fe XVII	409.690	409.705	2p5.3s $^3P_2$ - 2p5.3p $^3S_1$	6.7	2.04	0.64	6.50	6.58		?
Fe XVII	350.496	350.477	2p5.3s $^3P_2$ - 2p5.3p $^3D_3$	21.1	1.08	0.27	6.50	6.59		
Ar XV	221.151	221.138	2s2 $^1S_0$ - 2s.2p $^1P_1$	64.7	4.81	2.35	6.50	6.54		? (IIo)
Fe XVII	347.850	347.814	2p5.3s $^3P_1$ - 2p5.3p $^1D_2$	14.4	1.04	0.29	6.51	6.60		
Fe XVII	254.868	254.892	2p5.3s $^3P_1$ - 2p5.3p $^1S_0$	53.7	0.99	0.49	6.51	6.60		
Ar XVI	389.135	389.075	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{1/2}$	12.8	4.64	0.92	6.59	6.61	0.88	?
Fe XVII	389.081		2p5.3s $^1P_1$ - 2p5.3p $^3D_2$					6.59	0.12	
K XVI	206.253	206.267	2s2 $^1S_0$ - 2s.2p $^1P_1$	123.0	0.03	0.01	6.59	6.61		? (IIo)

[8] Previously identified as Zn XX

[9] Previously identified as Ni XVIII

[10] Possible belnd with Ar XVI

Table A.1: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	log T_{eff}	log T_{max}	frac	
Ar XVI	353.920	353.963	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{3/2}$	7.7	14.50	7.12	6.60	6.61		?
Ca XVIII	344.760	344.772	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{1/2}$	13.6	0.96	0.35	6.73	6.75		
Ca XVIII	302.190	302.167	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{3/2}$	25.3	1.14	0.46	6.73	6.75		

Appendix B

The CDS observations (1996-1998)

Table B.1: *The observations 1996-1998. The columns indicate: the fits file name; the date of the start of the observation; the starting time (UT); the spectrometer used; the pointing, in Solar X and Y (arc sec from Sun centre); the CDS study name; and a comment. In case of multiple exposures, within the same CDS study, only the description for the first file is displayed.*

file	date	time	sp	pointing	study	note
s4053r00–r11	1996/08/07	12:41	NIS	(398, -802)	CHBOPT1/v1	Test for CH study
s4054r00	1996/08/07	14:05	GIS	(397, -699)	CHMAP_A/v2	Test for CH study
s4055r00	1996/08/07	14:08	GIS	(396, -742)	CHMAP_A/v2	Test for CH study
s4056r00	1996/08/07	14:10	GIS	(401, -782)	CHMAP_A/v2	Test for CH study
s4057r00	1996/08/07	14:13	GIS	(399, -823)	CHMAP_A/v2	Test for CH study
s4058r00	1996/08/07	14:16	GIS	(400, -862)	CHMAP_A/v2	Test for CH study
s4059r00	1996/08/07	14:19	GIS	(400, -901)	CHMAP_A/v2	Test for CH study
s4060r00	1996/08/07	14:22	GIS	(400, -689)	CHMAP_B/v3	Test for CH study
s4084r00	1996/08/08	21:58	GIS	(-1, 784)	CHBNDGI/v1	Test for CH study
s4097r00	1996/08/09	20:37	NIS	(61, 812)	BOUND_Y/v4	Test for CH study
s4098r00	1996/08/09	20:50	GIS	(62, 813)	NSGSCAN1/v1	Test for CH study
s4099r00–r11	1996/08/09	22:31	NIS	(62, 812)	CHBOPT2/v1	Test for CH study
s4101r00	1996/08/10	06:33	NIS	(-121, 939)	LIMB/v16	coronal hole study
s4102r00	1996/08/10	07:10	NIS	(-360, 939)	LIMB/v16	coronal hole study
s4103r00	1996/08/10	07:48	NIS	(-535, 750)	BOUND_X/v14	coronal hole boundary study
s4103r01	1996/08/10	08:24	NIS	(-534, 751)	BOUND_X/v14	coronal hole boundary study
s4103r02	1996/08/10	09:01	NIS	(-535, 750)	BOUND_X/v14	coronal hole boundary study
s4103r03	1996/08/10	09:37	NIS	(-535, 750)	BOUND_X/v14	coronal hole boundary study
s4104r00	1996/08/10	10:14	NIS	(-572, 747)	MOVIE_V1/v2	NIS Movie
s4105r00	1996/08/10	11:10	NIS	(-502, 749)	MOVIE_V1/v2	NIS Movie
s4106r00	1996/08/10	12:07	NIS	(-119, 711)	LIMB/v16	coronal hole study
s4107r00	1996/08/10	12:44	NIS	(-359, 711)	LIMB/v16	coronal hole study
s4108r00	1996/08/10	13:21	NIS	(-593, 711)	LIMB/v16	coronal hole study
s4109r00	1996/08/10	14:00	NIS	(394, 907)	LIMB/v16	coronal hole study
s4110r00	1996/08/10	14:37	NIS	(152, 918)	LIMB/v16	coronal hole study
s4111r00	1996/08/10	15:15	NIS	(623, 674)	LIMB/v16	coronal hole study
s4112r00	1996/08/10	15:52	NIS	(384, 681)	LIMB/v16	coronal hole study
s4113r00	1996/08/10	16:29	NIS	(116, 706)	LIMB/v16	coronal hole study
s4114r00	1996/08/10	18:36	NIS	(436, 803)	MOVIE_V1/v2	NI movie
s4117r00	1996/08/11	06:31	NIS	(359, -899)	LIMB/v16	S polar coronal hole mapping (NIS)
s4118r00	1996/08/11	07:08	NIS	(116, -902)	LIMB/v16	S polar coronal hole mapping (NIS)
s4119r00	1996/08/11	07:45	NIS	(-122, -902)	LIMB/v16	S polar coronal hole mapping (NIS)
s4120r00	1996/08/11	08:22	NIS	(-358, -902)	LIMB/v16	S polar coronal hole mapping (NIS)
s4121r00	1996/08/11	09:26	GIS	(201, -919)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4122r00	1996/08/11	09:29	GIS	(289, -898)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4123r00	1996/08/11	09:32	GIS	(361, -880)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4124r00	1996/08/11	09:35	GIS	(359, -848)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4125r00	1996/08/11	09:38	GIS	(361, -820)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4126r00	1996/08/11	09:40	GIS	(359, -790)	CHMAP_A/v2	Sampled map of ch boundary (S)

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s4127r00	1996/08/11	09:43	GIS	(422, -749)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4128r00	1996/08/11	09:57	GIS	(294, -732)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4129r00	1996/08/11	10:11	GIS	(206, -768)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4130r00	1996/08/11	10:25	GIS	(92, -779)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4131r00	1996/08/11	10:39	GIS	(1, -825)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4132r00	1996/08/11	10:54	GIS	(-159, -768)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4133r00	1996/08/11	11:08	GIS	(-272, -729)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4134r00	1996/08/11	11:22	GIS	(-396, -727)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4135r00	1996/08/11	11:36	GIS	(-481, -718)	CHMAP_B/v3	Sampled map of ch boundary (S)
s4136r00	1996/08/11	11:51	GIS	(-379, -860)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4137r00	1996/08/11	11:54	GIS	(-330, -831)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4138r00	1996/08/11	11:57	GIS	(-472, -801)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4139r00	1996/08/11	12:00	GIS	(-468, -771)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4140r00	1996/08/11	12:02	GIS	(-468, -740)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4141r00	1996/08/11	12:05	GIS	(-501, -711)	CHMAP_A/v2	Sampled map of ch boundary (S)
s4142r00	1996/08/11	12:12	NIS	(461, -680)	NISAT_S/v2	spectral atlas
s4143r00–r11	1996/08/11	13:16	GIS	(76, -803)	HTBNDWE/v2	Test for CH study
s4145r00–r11	1996/08/11	16:15	NIS	(-420, 729)	CHBOPT2/v1	CH boundary studies (N)
s4146r00	1996/08/11	17:13	GIS	(-398, 779)	NSGSCAN1/v1	CH boundary studies (N)
s4147r00	1996/08/11	18:54	GIS	(-401, 739)	DEM_GIS/v1	CH boundary studies (N)
s4148r00	1996/08/11	20:14	NIS	(0, 729)	MOVIE_V1/v2	NIS Movie
s4149r00	1996/08/11	21:14	GIS	(0, 749)	NSGSCAN1/v1	CH boundary studies (N)
s4150r00	1996/08/11	22:55	GIS	(0, 707)	DEM_GIS/v1	CH boundary studies (N)
s4152r00	1996/08/12	06:32	GIS	(955, 0)	G2AL/v1	W limb detection
s4153r00	1996/08/12	07:06	GIS	(991, -1)	NSGSCAN1/v1	Looking off-limb W
s4154r00	1996/08/12	08:47	GIS	(1126, -1)	NSGSCAN1/v1	Looking off-limb W
s4155r00	1996/08/12	10:28	GIS	(1261, -1)	NSGSCAN1/v1	Looking off-limb W
s4156r00	1996/08/12	12:10	NIS	(954, 360)	LIMB/v16	Looking at W limb
s4157r00	1996/08/12	12:47	NIS	(954, 118)	LIMB/v16	Looking at W limb
s4158r00	1996/08/12	13:24	NIS	(953, -123)	LIMB/v16	Looking at W limb
s4159r00	1996/08/12	14:01	NIS	(952, -363)	LIMB/v16	Looking at W limb
s4160r00	1996/08/12	14:31	NIS	(179, -852)	LIMB/v16	Looking at W limb
s4161r00	1996/08/12	15:11	NIS	(421, 758)	LIMB/v16	Looking at W limb
s4162r00	1996/08/12	15:48	NIS	(180, 758)	LIMB/v16	Looking at W limb
s4163r00	1996/08/12	16:25	NIS	(0, 517)	LIMB/v16	CH boundary studies (N+S)
s4165r00–r11	1996/08/12	17:25	NIS	(49, 719)	CHBOPT2/v1	CH boundary studies (N)
s4166r00–r11	1996/08/12	18:22	NIS	(-12, 717)	CHBOPT2/v1	CH boundary studies (N)
s4167r00	1996/08/12	19:21	GIS	(0, 749)	NSGSCAN1/v1	CH boundary studies (N)
s4168r00	1996/08/12	21:01	GIS	(0, 809)	NSGSCAN1/v1	CH boundary studies (N)
s4169r00	1996/08/12	22:42	GIS	(0, 707)	DEM_GIS/v1	CH boundary studies (N)
s4171r00	1996/08/13	06:32	GIS	(-955, -2)	G2AL/v1	East limb detection
s4172r00	1996/08/13	07:32	GIS	(-1058, -1)	GEAST/v1	JOP44 E Limb
s4172r01	1996/08/13	08:03	GIS	(-1199, -1)	GEAST/v1	JOP44 E Limb
s4174r00	1996/08/13	09:48	NIS	(-957, 114)	LIMB/v16	JOP44 E Limb
s4175r00	1996/08/13	10:25	NIS	(-955, -126)	LIMB/v16	JOP44 E Limb
s4176r00	1996/08/13	11:02	NIS	(-953, -364)	LIMB/v16	JOP44 E Limb
s4177r00	1996/08/13	12:06	GIS	(-252, 725)	SPECT_1/v1	GI spectral atlas
s4178r00	1996/08/13	15:44	GIS	(-253, 763)	NSGSCAN1/v1	CH boundary studies (N)
s4179r00–r11	1996/08/13	17:25	NIS	(-234, 741)	CHBOPT2/v1	CH boundary studies (N)
s4180r00	1996/08/13	18:30	NIS	(0, 719)	MOVIE_V1/v2	NIS Movie
s4181r00	1996/08/13	19:31	GIS	(0, 749)	NSGSCAN1/v1	CH boundary studies (N)
s4182r00	1996/08/13	21:12	GIS	(0, 808)	NSGSCAN1/v1	CH boundary studies (N)
s4183r00	1996/08/13	22:52	GIS	(0, 707)	DEM_GIS/v1	CH boundary studies (N)
s4192r00	1996/08/14	19:46	GIS	(0, 721)	HTBNDSS1/v2	CH boundary studies (N) - test
s4192r01	1996/08/14	19:57	GIS	(0, 719)	HTBNDSS1/v2	CH boundary studies (N) - test
s4193r00–r11	1996/08/14	20:09	NIS	(0, 720)	CHBOPT2/v1	CH boundary studies (N)
s4194r00	1996/08/14	21:32	GIS	(0, 780)	NSGSCAN1/v1	CH boundary studies (N)
s4195r00	1996/08/14	22:55	GIS	(0, 740)	DEM_GIS/v1	CH boundary studies (N)
s4197r00	1996/08/15	06:32	GIS	(955, 0)	G2AL/v1	West limb detection
s4198r00	1996/08/15	07:31	GIS	(1009, -42)	BROAD/v1	Line broadening
s4199r00	1996/08/15	10:22	NIS	(954, 360)	LIMB/v16	JOP44 W Limb
s4200r00	1996/08/15	10:59	NIS	(954, 118)	LIMB/v16	JOP44 W Limb

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s4201r00	1996/08/15	11:36	NIS	(953, -123)	LIMB/v16	JOP44 W Limb
s4202r00	1996/08/15	12:14	NIS	(952, -363)	LIMB/v16	JOP44 W Limb
s4206r00–r11	1996/08/15	14:40	NIS	(16, 716)	CHBOPT2/v1	CH boundary studies (N)
s4207r00–r11	1996/08/15	15:37	NIS	(-41, 718)	CHBOPT2/v1	CH boundary studies (N)
s4208r00	1996/08/15	17:00	GIS	(1, 761)	NSGSCAN1/v1	CH boundary studies (N)
s4209r00	1996/08/15	18:41	GIS	(0, 728)	DEM_GIS/v1	CH boundary studies (N)
s4211r00	1996/08/16	02:34	GIS	(-451, 883)	CHBNDGI/v1	CH boundary studies (NE limb)
s4212r00–r11	1996/08/16	09:17	NIS	(-449, 809)	CHBOPT2/v1	CH boundary studies (NE limb)
s4213r00–r11	1996/08/16	10:15	NIS	(-510, 809)	CHBOPT2/v1	CH boundary studies (NE limb)
s4214r00–r11	1996/08/16	11:12	NIS	(-571, 807)	CHBOPT2/v1	CH boundary studies (NE limb)
s4215r00	1996/08/16	12:11	NIS	(360, 817)	LIMB/v16	CH boundary studies (N)
s4216r00	1996/08/16	12:49	NIS	(119, 819)	LIMB/v16	CH boundary studies (N)
s4217r00	1996/08/16	13:26	NIS	(-122, 818)	LIMB/v16	CH boundary studies (N)
s4218r00	1996/08/16	14:03	NIS	(-360, 817)	LIMB/v16	CH boundary studies (N)
s4219r00	1996/08/16	14:42	GIS	(42, 769)	NSGSCAN1/v1	CH boundary studies (N)
s4220r00–r11	1996/08/16	16:23	NIS	(41, 798)	CHBOPT2/v1	CH boundary studies (N)
s4227r00	1996/08/16	20:21	GIS	(0, 799)	NSGSCAN1/v1	CH boundary studies (N)
s4228r00	1996/08/16	22:02	GIS	(0, 757)	DEM_GIS/v1	CH boundary studies (N)
s4231r00	1996/08/17	06:33	NIS	(360, 939)	LIMB/v16	JOP 44 / North CH
s4232r00	1996/08/17	07:10	NIS	(119, 939)	LIMB/v16	JOP 44 / North CH
s4233r00	1996/08/17	07:48	NIS	(-122, 939)	LIMB/v16	JOP 44 / North CH
s4234r00	1996/08/17	08:25	NIS	(-362, 938)	LIMB/v16	JOP 44 / North CH
s4235r00	1996/08/17	09:03	NIS	(549, 778)	MOVIE_V1/v2	JOP44/CH Bound (NW)
s4236r00	1996/08/17	10:00	NIS	(621, 697)	LIMB/v16	JOP 44 / North CH Boundary
s4237r00	1996/08/17	10:37	NIS	(357, 697)	LIMB/v16	JOP 44 / North CH Boundary
s4238r00	1996/08/17	11:15	NIS	(117, 697)	LIMB/v16	JOP 44 / North CH Boundary
s4239r00	1996/08/17	12:19	GIS	(0, -2)	SPECT_1/v1	GIS ATLAS
s4240r00	1996/08/17	15:33	NIS	(-120, 941)	LIMB/v16	JOP 44/ NE Coronal Hole
s4241r00	1996/08/17	16:11	NIS	(-362, 938)	LIMB/v16	JOP 44/ NE Coronal Hole
s4242r00	1996/08/17	16:48	NIS	(-119, 711)	LIMB/v16	JOP 44/ NE Coronal Hole
s4243r00	1996/08/17	17:25	NIS	(-362, 710)	LIMB/v16	JOP 44/ NE Coronal Hole
s4244r00	1996/08/17	18:02	NIS	(-600, 709)	LIMB/v16	JOP 44/ NE Coronal Hole
s4245r00–r11	1996/08/17	18:40	NIS	(19, 758)	CHBOPT2/v2	Coronal Hole Studies (N)
s4246r00	1996/08/17	20:03	GIS	(-1, 749)	DEM_GIS/v1	DEM - GIS
s4247r00	1996/08/17	21:04	GIS	(0, 788)	NSGSCAN1/v1	N-S CH scan
s4248r00	1996/08/17	23:11	GIS	(0, -2)	GIMCP_1B/v2	GIS MCP 1
s4249r00	1996/08/17	23:40	GIS	(0, -2)	GIMCP_2/v1	GIS MCP 2
s4251r00	1996/08/18	06:31	NIS	(359, -899)	LIMB/v16	JOP 44 South CH hole
s4252r00	1996/08/18	07:08	NIS	(115, -903)	LIMB/v16	JOP 44 South CH hole
s4253r00	1996/08/18	07:45	NIS	(-121, -901)	LIMB/v16	JOP 44 South CH hole
s4254r00	1996/08/18	08:22	NIS	(-361, -904)	LIMB/v16	JOP 44 South CH hole
s4255r00	1996/08/18	09:36	GIS	(1,-1020)	NSGSCAN1/v1	CH Scan below south limb JOP 44
s4256r00	1996/08/18	11:17	GIS	(1, -960)	NSGSCAN1/v1	CH Scan below south limb JOP 44
s4257r00–r11	1996/08/18	13:03	NIS	(250, 748)	CHBOPT2/v2	North Coronal Boundary Study
s4258r00	1996/08/18	14:02	GIS	(226, 772)	NSGSCAN1/v1	North Coronal Boundary Study
s4259r00	1996/08/18	15:42	GIS	(232, 733)	DEM_GIS/v1	North Coronal Boundary Study
s4260r00	1996/08/18	16:47	NIS	(356, -902)	LIMB/v16	JOP 44 South CH hole
s4261r00	1996/08/18	17:24	NIS	(117, -901)	LIMB/v16	JOP 44 South CH hole
s4262r00	1996/08/18	18:01	NIS	(-123, -903)	LIMB/v16	JOP 44 South CH hole
s4263r00	1996/08/18	18:38	NIS	(-362, -901)	LIMB/v16	JOP 44 South CH hole
s4264r00	1996/08/18	19:17	NIS	(1, 2)	NISAT_S/v2	NIS Atlas
s4265r00–r11	1996/08/18	20:22	NIS	(-46, 830)	CHBOPT2/v2	Base of Polar Plume
s4266r00	1996/08/18	21:20	GIS	(-74, 840)	NSGSCAN1/v1	Base of Polar Plume
s4267r00	1996/08/18	23:00	GIS	(-68, 843)	DEM_GIS/v1	Base of Polar Plume
s4269r00	1996/08/19	07:18	GIS	(967, 0)	G2AL/v1	JOP 44 West Limb
s4270r00	1996/08/19	08:17	GIS	(1070, 0)	GWEST/v1	JOP 44 West Limb
s4270r01	1996/08/19	08:48	GIS	(1212, 0)	GWEST/v1	JOP 44 West Limb
s4271r00	1996/08/19	09:56	NIS	(965, 356)	LIMB/v16	JOP 44 West Limb
s4272r00	1996/08/19	10:33	NIS	(965, 117)	LIMB/v16	JOP 44 West Limb
s4273r00	1996/08/19	11:11	NIS	(964, -122)	LIMB/v16	JOP 44 West Limb
s4274r00	1996/08/19	11:48	NIS	(964, -359)	LIMB/v16	JOP 44 West Limb
s4275r00	1996/08/19	12:51	GIS	(1017, 0)	BROAD/v1	West Limb JOP 44 support

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s4284r00–r11	1996/08/19	18:31	NIS	(17, 730)	CHBOPT2/v2	Meridian CH Boundary
s4285r00	1996/08/19	19:54	GIS	(-1, 720)	NSGSCAN1/v1	Meridian CH Boundary
s4286r00	1996/08/19	21:35	GIS	(0, 679)	DEM_GIS/v1	Meridian CH Boundary
s4287r00	1996/08/19	22:37	NIS	(0, 712)	MOVIE_V1/v2	Meridian CH Boundary
s4290r00	1996/08/20	13:02	GIS	(-966, -3)	G2AL/v1	JOP 44 East Limb
s4291r00	1996/08/20	14:02	GIS	(-1070, 0)	GEAST/v1	JOP 44 East Limb
s4291r01	1996/08/20	14:33	GIS	(-1215, -3)	GEAST/v1	JOP 44 East Limb
s4292r00	1996/08/20	15:40	NIS	(-965, 356)	LIMB/v16	JOP 44 East Limb
s4293r00	1996/08/20	16:18	NIS	(-966, 116)	LIMB/v16	JOP 44 East Limb
s4294r00	1996/08/20	16:55	NIS	(-965, -122)	LIMB/v16	JOP 44 East Limb
s4295r00	1996/08/20	17:32	NIS	(-964, -360)	LIMB/v16	JOP 44 East Limb
s4296r00–r11	1996/08/20	19:42	NIS	(306, 511)	CHBOPT2/v2	Meridian CH Boundary
s4297r00–r11	1996/08/20	20:39	NIS	(23, 797)	CHBOPT2/v2	Meridian CH Boundary
s4298r00–r11	1996/08/20	21:37	NIS	(29, 799)	CHBOPT2/v2	Meridian CH Boundary
s4299r00	1996/08/20	22:34	NIS	(-10, 799)	MOVIE_V1/v2	Meridian CH Boundary
s4312r00	1996/08/21	23:30	GIS	(478, -960)	G2AL/v1	JOP44 West Limb
s4313r00	1996/08/22	00:29	GIS	(1018, -427)	GWEST/v1	JOP44 W Limb
s4313r01	1996/08/22	01:00	GIS	(1201, 0)	GWEST/v1	JOP44 W Limb
s4314r00	1996/08/22	02:08	NIS	(953, 357)	LIMB/v16	JOP44 West Limb
s4315r00	1996/08/22	02:46	NIS	(955, 78)	LIMB/v16	JOP44 West Limb
s4316r00	1996/08/22	03:23	NIS	(953, -123)	LIMB/v16	JOP44 West Limb
s4317r00	1996/08/22	04:00	NIS	(951, -362)	LIMB/v16	JOP44 West Limb
s4322r00–r11	1996/08/22	13:25	NIS	(9, 779)	CHBOPT2/v2	Meridian CH Boundary
s4323r00–r11	1996/08/22	14:23	NIS	(-51, 777)	CHBOPT2/v2	Meridian CH Boundary
s4324r00–r11	1996/08/22	15:20	NIS	(-112, 778)	CHBOPT2/v2	Meridian CH Boundary
s4325r00	1996/08/22	16:43	GIS	(-68, 728)	CHBNDGI/v1	Meridian CH Boundary
s4341r00	1996/08/23	19:02	NIS	(-50, 867)	LIMB/v16	JOP 48 /Plumes
s4342r00	1996/08/23	19:38	NIS	(-49, 866)	LIMB/v16	JOP 48 /Plumes
s4343r00–r11	1996/08/23	20:15	NIS	(-47, 869)	CHBOPT2/v2	JOP 48 /Plumes
s4344r00	1996/08/23	21:13	NIS	(-45, 867)	LIMB/v16	JOP 48 /Plumes
s4345r00	1996/08/23	21:49	NIS	(-43, 869)	LIMB/v16	JOP 48 /Plumes
s4346r00–r11	1996/08/23	22:26	NIS	(-41, 865)	CHBOPT2/v2	JOP 48 /Plumes
s4347r00	1996/08/23	23:23	NIS	(-40, 868)	LIMB/v16	JOP 48 /Plumes
s4348r00	1996/08/24	00:00	NIS	(-38, 866)	LIMB/v16	JOP 48 /Plumes
s4349r00–r11	1996/08/24	00:37	NIS	(-35, 869)	CHBOPT2/v2	JOP 48 /Plumes
s4350r00	1996/08/24	02:00	GIS	(-38, 856)	NSGSCAN1/v1	JOP 48 /Plumes
s4358r00	1996/08/24	16:02	NIS	(368, 932)	LIMB/v16	JOP44/CH Bound (NW)
s4359r00	1996/08/24	16:39	NIS	(126, 930)	LIMB/v16	JOP44/CH Bound (NW)
s4360r00	1996/08/24	17:16	NIS	(-115, 931)	LIMB/v16	JOP44/CH Bound (NW)
s4361r00	1996/08/24	17:54	NIS	(-358, 932)	LIMB/v16	JOP44/CH Bound (NW)
s4362r00	1996/08/24	18:32	NIS	(369, 932)	LIMB/v16	JOP44/CH Bound (NW)
s4363r00	1996/08/24	19:09	NIS	(127, 931)	LIMB/v16	JOP44/CH Bound (NW)
s4364r00	1996/08/24	19:46	NIS	(367, 689)	LIMB/v16	JOP44/CH Bound (NW)
s4365r00	1996/08/24	20:23	NIS	(122, 689)	LIMB/v16	JOP44/CH Bound (NW)
s4367r00	1996/08/25	03:28	NIS	(367, 931)	LIMB/v16	JOP44/CH Bound (NE)
s4368r00	1996/08/25	04:06	NIS	(126, 930)	LIMB/v16	JOP44/CH Bound (NE)
s4369r00	1996/08/25	04:43	NIS	(-116, 930)	LIMB/v16	JOP44/CH Bound (NE)
s4370r00	1996/08/25	05:20	NIS	(-356, 930)	LIMB/v16	JOP44/CH Bound (NE)
s4371r00	1996/08/25	05:57	NIS	(-113, 931)	LIMB/v16	JOP44/CH Bound (NE)
s4372r00	1996/08/25	06:35	NIS	(-358, 932)	LIMB/v16	JOP44/CH Bound (NE)
s4373r00	1996/08/25	07:12	NIS	(-107, 697)	LIMB/v16	JOP44/CH Bound (NE)
s4374r00	1996/08/25	07:49	NIS	(-355, 688)	LIMB/v16	JOP44/CH Bound (NE)
s4375r00	1996/08/25	08:33	NIS	(366, -947)	LIMB/v16	JOP44/CH BOUND (SW)
s4376r00	1996/08/25	09:10	NIS	(120, -950)	LIMB/v16	JOP44/CH BOUND (SW)
s4377r00	1996/08/25	09:47	NIS	(-114, -950)	LIMB/v16	JOP44/CH BOUND (SW)
s4378r00	1996/08/25	10:24	NIS	(-356, -948)	LIMB/v16	JOP44/CH BOUND (SW)
s4381r00	1996/08/25	12:56	NIS	(-288, 295)	LIMB/v16	Activity Boundary
s4382r00	1996/08/25	13:33	NIS	(-279, 77)	LIMB/v16	Activity Boundary
s4383r00	1996/08/25	14:10	NIS	(-320, -143)	LIMB/v16	Activity Boundary
s4384r00	1996/08/25	15:13	GIS	(-279, 80)	G2AL/v1	Activity Boundary
s4385r00	1996/08/25	15:47	GIS	(-340, 79)	G2AL/v1	Activity Boundary
s4386r00–r11	1996/08/25	16:22	NIS	(-258, 77)	CHBOPT2/v2	Activity Boundary

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s4387r00	1996/08/25	17:42	NIS	(366, -947)	LIMB/v16	JOP44/CH BOUND (SW)
s4388r00	1996/08/25	18:19	NIS	(121, -949)	LIMB/v16	JOP44/CH BOUND (SW)
s4389r00	1996/08/25	18:56	NIS	(-114, -950)	LIMB/v16	JOP44/CH BOUND (SW)
s4390r00	1996/08/25	19:33	NIS	(-356, -948)	LIMB/v16	JOP44/CH BOUND (SW)
s4392r00	1996/08/26	02:47	GIS	(954, -1)	G2AL/v1	JOP 44/West Limb
s4393r00	1996/08/26	03:47	GIS	(1058, -2)	GWEST/v1	JOP 44/West Limb
s4393r01	1996/08/26	04:18	GIS	(1201, 0)	GWEST/v1	JOP 44/West Limb
s4394r00	1996/08/26	05:25	NIS	(953, 357)	LIMB/v16	JOP 44/West Limb
s4397r00	1996/08/26	07:17	NIS	(952, -363)	LIMB/v16	JOP 44/West Limb
s4404r00	1996/08/26	11:21	NIS	(-64, 299)	LIMB/v16	Equatorial Coronal Hole
s4405r00	1996/08/26	11:58	NIS	(-72, 79)	LIMB/v16	Equatorial Coronal Hole
s4406r00	1996/08/26	12:35	NIS	(-104, -132)	LIMB/v16	Equatorial Coronal Hole
s4407r00	1996/08/26	13:12	NIS	(-268, -325)	LIMB/v16	Equatorial Coronal Hole
s4408r00	1996/08/26	13:51	GIS	(-64, 79)	G2AL/v1	Equatorial Coronal Hole
s4409r00	1996/08/26	14:25	GIS	(-126, 81)	G2AL/v1	Equatorial Coronal Hole
s4410r00–r11	1996/08/26	15:00	NIS	(-42, 79)	CHBOPT2/v2	Equatorial Coronal Hole
s4411r00	1996/08/26	16:10	NIS	(-71, 80)	BOUND_X/v14	Equatorial Coronal Hole
s4412r00	1996/08/26	16:46	NIS	(-63, 81)	BOUND_X/v14	Equatorial Coronal Hole
s4413r00	1996/08/26	17:23	NIS	(-60, 78)	BOUND_X/v14	Equatorial Coronal Hole
s4414r00	1996/08/26	18:00	NIS	(-54, 84)	BOUND_X/v14	Equatorial Coronal Hole
s4415r00	1996/08/26	18:36	NIS	(-46, 76)	MOVIE_V1/v2	Equatorial Coronal Hole
s4416r00	1996/08/26	19:33	NIS	(-48, 83)	BOUND_Y/v4	Equatorial Coronal Hole
s4417r00	1996/08/26	19:45	NIS	(-45, 80)	BOUND_Y/v4	Equatorial Coronal Hole
s4418r00	1996/08/26	19:57	NIS	(-44, 82)	BOUND_Y/v4	Equatorial Coronal Hole
s4419r00	1996/08/26	20:09	NIS	(-43, 79)	BOUND_Y/v4	Equatorial Coronal Hole
s4420r00	1996/08/26	20:21	NIS	(-40, 82)	BOUND_Y/v4	Equatorial Coronal Hole
s4422r00	1996/08/26	20:45	NIS	(-36, 82)	BOUND_Y/v4	Equatorial Coronal Hole
s4431r00	1996/08/27	06:32	GIS	(59, 81)	G2AL/v2	Equatorial Coronal Hole
s4432r00	1996/08/27	08:46	GIS	(128, 78)	G2AL/v2	Equatorial Coronal Hole
s4433r00	1996/08/27	11:01	NIS	(107, 78)	NISAT_S5/v2	Equatorial Coronal Hole
s4434r00–r11	1996/08/27	12:12	NIS	(163, 78)	CHBOPT2/v2	Equatorial Coronal Hole
s4435r00	1996/08/27	13:22	GIS	(958, 2)	G2AL/v1	JOP 44/East Limb
s4436r00	1996/08/27	14:25	GIS	(-1057, -1)	GEAST/v1	JOP 44/East Limb
s4436r01	1996/08/27	14:56	GIS	(-1204, -3)	GEAST/v1	JOP 44/East Limb
s4437r00	1996/08/27	16:04	NIS	(-954, 358)	LIMB/v16	JOP 44/East Limb
s4438r00	1996/08/27	16:41	NIS	(-956, 115)	LIMB/v16	JOP 44/East Limb
s4439r00	1996/08/27	17:18	NIS	(-958, -125)	LIMB/v16	JOP 44/East Limb
s4440r00	1996/08/27	17:55	NIS	(-952, -363)	LIMB/v16	JOP 44/East Limb
s4448r00–r11	1996/08/28	08:09	NIS	(350, 85)	CHBOPT2/v2	Equatorial Coronal Hole
s4452r00	1996/08/28	11:57	NIS	(361, 87)	LIMB/v16	Equatorial Coronal Hole
s4453r00	1996/08/28	12:34	NIS	(316, -130)	LIMB/v16	Equatorial Coronal Hole
s4456r00	1996/08/29	06:44	NIS	(491, 27)	LIMB/v16	Equatorial Coronal Hole
s4457r00	1996/08/29	07:21	NIS	(457, 265)	LIMB/v16	Equatorial Coronal Hole
s4465r00	1996/08/29	10:26	NIS	(519, 22)	LIMB/v16	Equatorial Coronal Hole
s4466r00	1996/08/29	11:03	NIS	(486, 264)	LIMB/v16	Equatorial Coronal Hole
s4467r00	1996/08/29	11:40	NIS	(490, 261)	COHO22/v8	Equatorial Coronal Hole
s4467r01	1996/08/29	12:09	NIS	(490, 261)	COHO22/v8	Equatorial Coronal Hole
s4468r00	1996/08/29	12:37	NIS	(495, 266)	LIMB/v16	Equatorial Coronal Hole
s4469r00–r11	1996/08/29	13:14	NIS	(560, 99)	CHBOPT2/v2	Equatorial Coronal Hole
s4471r00	1996/08/29	15:31	NIS	(535, 281)	NISAT_S5/v2	Equatorial Coronal Hole
s4472r00	1996/08/29	17:08	GIS	(543, 281)	NSGSCAN1/v1	Equatorial Coronal Hole
s4473r00	1996/08/29	18:46	GIS	(954, -1)	G2AL/v1	JOP 44/West Limb
s4474r00	1996/08/29	19:45	GIS	(1058, -2)	GWEST/v1	JOP 44/West Limb
s4474r01	1996/08/29	20:16	GIS	(1201, 0)	GWEST/v1	JOP 44/West Limb
s4475r00	1996/08/29	21:24	NIS	(953, 357)	LIMB/v16	JOP 44/West Limb
s4476r00	1996/08/29	22:01	NIS	(953, 118)	LIMB/v16	JOP 44/West Limb
s4477r00	1996/08/29	22:39	NIS	(954, -122)	LIMB/v16	JOP 44/West Limb
s4478r00	1996/08/29	23:16	NIS	(951, -363)	LIMB/v16	JOP 44/West Limb
s4480r00	1996/08/30	06:42	NIS	(606, 290)	LIMB/v16	Equatorial Coronal Hole
s4481r00–r11	1996/08/30	07:19	NIS	(641, 292)	CHBOPT2/v2	Equatorial Coronal Hole
s4488r00	1996/08/30	13:26	GIS	(955, -2)	G2AL/v1	JOP 44/East Limb
s4490r00	1996/08/30	16:41	NIS	(-953, 116)	LIMB/v16	JOP 44/East Limb

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s4491r00	1996/08/30	17:18	NIS	(-958, -125)	LIMB/v16	JOP 44/East Limb
s4492r00	1996/08/30	17:56	NIS	(-952, -363)	LIMB/v16	JOP 44/East Limb
s4493r00	1996/08/30	19:02	NIS	(303, 885)	LIMB/v16	JOP 44/East Limb
s4493r01	1996/08/30	19:38	NIS	(303, 885)	LIMB/v16	JOP 44/East Limb
s4494r00–r11	1996/08/30	20:15	NIS	(330, 882)	CHBOPT2/v2	JOP 48 /Plumes
s4495r00	1996/08/30	21:38	GIS	(308, 883)	NSGSCAN1/v1	JOP 48 /Plumes
s4496r00	1996/08/30	23:20	NIS	(708, 290)	LIMB/v16	Equatorial Coronal Hole
s4497r00–r11	1996/08/31	00:00	NIS	(745, 292)	CHBOPT2/v2	Equatorial Coronal Hole
s4498r00	1996/08/31	00:58	NIS	(321, 882)	LIMB/v16	JOP 48 /Plumes
s4498r01	1996/08/31	01:35	NIS	(321, 882)	LIMB/v16	JOP 48 /Plumes
s4499r00–r11	1996/08/31	02:12	NIS	(336, 882)	CHBOPT2/v2	JOP 48 /Plumes
s4512r00	1996/08/31	15:02	NIS	(362, 957)	LIMB/v16	JOP44/CH Bound
s4513r00	1996/08/31	15:39	NIS	(120, 957)	LIMB/v16	JOP44/CH Bound
s4514r00	1996/08/31	16:16	NIS	(-123, 956)	LIMB/v16	JOP44/CH Bound
s4515r00	1996/08/31	16:53	NIS	(-366, 952)	LIMB/v16	JOP44/CH Bound
s4516r00	1996/08/31	17:32	NIS	(602, 700)	LIMB/v16	JOP44/CH Bound
s4517r00	1996/08/31	18:18	NIS	(599, 720)	LIMB/v16	JOP44/CH Bound
s4518r00	1996/08/31	18:55	NIS	(358, 719)	LIMB/v16	JOP44/CH Bound
s4519r00	1996/08/31	19:33	NIS	(119, 715)	LIMB/v16	JOP44/CH Bound
s4520r00	1996/08/31	20:10	NIS	(-121, 715)	LIMB/v16	JOP44/CH Bound
s4521r00	1996/08/31	20:47	NIS	(-361, 718)	LIMB/v16	JOP44/CH Bound
s4522r00	1996/08/31	21:24	NIS	(-601, 718)	LIMB/v16	JOP44/CH Bound
s4523r00	1996/08/31	22:28	GIS	(1, 999)	G2AL/v2	JOP44/CH Bound
s4529r00	1996/09/01	10:31	NIS	(358, -940)	LIMB/v16	JOP44/CH Bound
s4530r00	1996/09/01	11:09	NIS	(113, -943)	LIMB/v16	JOP44/CH Bound
s4531r00	1996/09/01	11:46	NIS	(-121, -943)	LIMB/v16	JOP44/CH Bound
s4532r00	1996/09/01	12:23	NIS	(-361, -942)	LIMB/v16	JOP44/CH Bound
s4533r00	1996/09/01	13:01	GIS	(1, -969)	G2AL/v2	JOP44/CH Bound (NW)
s4534r00	1996/09/01	15:15	GIS	(0,-1002)	G2AL/v2	JOP44/CH Bound (NW)
s4535r00	1996/09/01	17:29	GIS	(-1,-1033)	G2AL/v2	JOP44/CH Bound (NW)
s4536r00	1996/09/01	19:44	NIS	(0,-1000)	NISAT_S5/v2	JOP44/CH BOUND
s4538r00	1996/09/02	04:00	GIS	(955, -2)	G2AL/v1	JOP 44 West Limb
s4539r00	1996/09/02	04:59	GIS	(1058, -2)	GWEST/v1	JOP 44 West Limb
s4539r01	1996/09/02	05:30	GIS	(1201, 0)	GWEST/v1	JOP 44 West Limb
s4540r00	1996/09/02	06:38	NIS	(953, 357)	LIMB/v16	JOP 44 West Limb
s4541r00	1996/09/02	07:15	NIS	(952, 117)	LIMB/v16	JOP 44 West Limb
s4542r00	1996/09/02	07:52	NIS	(954, -122)	LIMB/v16	JOP 44 West Limb
s4543r00	1996/09/02	08:29	NIS	(950, -363)	LIMB/v16	JOP 44 West Limb
s4544r00–r11	1996/09/02	09:08	NIS	(115, 810)	CHBOPT2/v2	Coronal hole observations
s4545r00	1996/09/02	10:31	GIS	(101, 832)	NSGSCAN1/v1	Coronal hole observations
s4546r00	1996/09/02	12:12	GIS	(104, 795)	DEM_GIS/v1	Coronal hole observations
s4547r00	1996/09/02	13:14	NIS	(110, 810)	MOVIE_V1/v2	Coronal hole observations
s4565r00	1996/09/03	18:27	GIS	(-956, -3)	G2AL/v1	JOP 44 East Limb
s4566r00	1996/09/03	19:27	GIS	(-1057, -1)	GEAST/v1	JOP 44 East Limb
s4566r01	1996/09/03	19:58	GIS	(-1204, -3)	GEAST/v1	JOP 44 East Limb
s4567r00	1996/09/03	21:06	NIS	(-953, 357)	LIMB/v16	JOP 44 East Limb
s4568r00	1996/09/03	21:43	NIS	(-955, 115)	LIMB/v16	JOP 44 East Limb
s4569r00	1996/09/03	22:20	NIS	(-956, -124)	LIMB/v16	JOP 44 East Limb
s4570r00	1996/09/03	22:57	NIS	(-953, -363)	LIMB/v16	JOP 44 East Limb
s4576r00	1996/09/05	07:26	NIS	(279, 941)	LIMB/v16	JOP 44 West Limb
s4577r00	1996/09/05	08:03	NIS	(518, 859)	LIMB/v16	JOP 44 West Limb
s4578r00	1996/09/05	08:40	NIS	(729, 701)	LIMB/v16	JOP 44 West Limb
s4579r00	1996/09/05	09:18	NIS	(909, 458)	LIMB/v16	JOP 44 West Limb
s4604r00	1996/09/06	17:26	NIS	(-61, 821)	NISAT_S/v2	NIS Spectral Atlas (Coronal hole)
s4605r00	1996/09/06	18:27	GIS	(-956, -3)	G2AL/v1	JOP 44 East Limb
s4606r00	1996/09/06	19:26	GIS	(-1060, -4)	GEAST/v1	JOP 44 East Limb
s4606r01	1996/09/06	19:57	GIS	(-1204, -3)	GEAST/v1	JOP 44 East Limb
s4607r00	1996/09/06	21:05	NIS	(-952, 356)	LIMB/v16	JOP 44 East Limb
s4608r00	1996/09/06	21:42	NIS	(-956, 115)	LIMB/v16	JOP 44 East Limb
s4609r00	1996/09/06	22:20	NIS	(-957, -126)	LIMB/v16	JOP 44 East Limb
s4610r00	1996/09/06	22:57	NIS	(-952, -363)	LIMB/v16	JOP 44 East Limb
s4615r00	1996/09/07	10:46	NIS	(-122, 938)	LIMB/v16	JOP44/CH Bound (NE)

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s4616r00	1996/09/07	11:23	NIS	(-365, 935)	LIMB/v16	JOP44/CH Bound (NE)
s4617r00	1996/09/07	12:00	NIS	(-359, 694)	LIMB/v16	JOP44/CH Bound (NE)
s4618r00	1996/09/07	12:37	NIS	(-119, 699)	LIMB/v16	JOP44/CH Bound (NE)
s4619r00	1996/09/07	13:15	NIS	(-602, 698)	LIMB/v16	JOP44/CH Bound (NE)
s4631r00	1996/09/07	19:03	NIS	(121, 939)	LIMB/v16	JOP44/CH Bound (NE)
s4632r00	1996/09/07	19:40	NIS	(362, 938)	LIMB/v16	JOP44/CH Bound (NE)
s4633r00	1996/09/07	20:18	NIS	(-119, 745)	LIMB/v16	JOP44/CH Bound (NE)
s4634r00	1996/09/07	20:55	NIS	(120, 746)	LIMB/v16	JOP44/CH Bound (NE)
s4635r00	1996/09/07	21:33	NIS	(362, 747)	LIMB/v16	JOP44/CH Bound (NE)
s4636r00	1996/09/07	22:10	NIS	(91, 715)	COHO22/v8	Coronal hole observations
s4637r00	1996/09/07	22:38	NIS	(95, 715)	COHO22/v8	Coronal hole observations
s4638r00	1996/09/07	23:07	NIS	(95, 715)	COHO22/v8	Coronal hole observations
s4639r00	1996/09/07	23:36	NIS	(102, 716)	COHO22/v8	Coronal hole observations
s4643r00	1996/09/08	08:12	NIS	(954, 356)	LIMB/v16	JOP 44 West Limb
s4644r00	1996/09/08	08:50	NIS	(953, 118)	LIMB/v16	JOP 44 West Limb
s4645r00	1996/09/08	09:27	NIS	(955, -123)	LIMB/v16	JOP 44 West Limb
s4646r00	1996/09/08	10:04	NIS	(950, -363)	LIMB/v16	JOP 44 West Limb
s4652r00	1996/09/08	20:24	NIS	(358, -940)	LIMB/v16	JOP44/CH Bound (SW)
s4653r00	1996/09/08	21:02	NIS	(115, -941)	LIMB/v16	JOP44/CH Bound (SW)
s4654r00	1996/09/08	21:39	NIS	(-121, -943)	LIMB/v16	JOP44/CH Bound (SW)
s4655r00	1996/09/08	22:16	NIS	(-360, -940)	LIMB/v16	JOP44/CH Bound (SW)
s4926r00	1996/09/24	16:06	GIS	(307, 220)	GIBOUND/v1	Equatorial Coronal Hole (GIS)
s4926r03	1996/09/24	18:14	GIS	(308, 219)	GIBOUND/v1	Equatorial Coronal Hole (GIS)
s4926r04	1996/09/24	18:57	GIS	(309, 220)	GIBOUND/v1	Equatorial Coronal Hole (GIS)
s4927r00	1996/09/24	19:40	NIS	(335, 219)	CHSTR_X/v19	Equatorial Coronal Hole (NIS)
s6936r00	1997/02/09	13:14	NIS	(-79, -823)	CHSTR_X/v19	Coronal Hole Boundary
s6936r01	1997/02/09	14:47	NIS	(-79, -823)	CHSTR_X/v19	Coronal Hole Boundary
s6936r02	1997/02/09	16:21	NIS	(-79, -823)	CHSTR_X/v19	Coronal Hole Boundary
s6936r03	1997/02/09	17:54	NIS	(-78, -822)	CHSTR_X/v19	Coronal Hole Boundary
s6936r04	1997/02/09	19:27	NIS	(-79, -823)	CHSTR_X/v19	Coronal Hole Boundary
s6937r00	1997/02/09	21:01	NIS	(-77, -824)	MOVIE_V1/v2	Coronal Hole Boundary
s6938r00	1997/02/09	22:23	GIS	(-77, -822)	EWSCAN/v2	Coronal Hole Boundary
s6966r00	1997/02/12	14:01	NIS	(-6, -843)	CHSTR_X/v19	Coronal Hole Boundary
s6966r01	1997/02/12	15:35	NIS	(-6, -843)	CHSTR_X/v19	Coronal Hole Boundary
s6966r02	1997/02/12	17:08	NIS	(-6, -843)	CHSTR_X/v19	Coronal Hole Boundary
s6966r03	1997/02/12	18:42	NIS	(-6, -843)	CHSTR_X/v19	Coronal Hole Boundary
s6967r00	1997/02/12	20:40	GIS	(41, -780)	NSGSCAN1/v1	Coronal Hole Boundary
s6968r00	1997/02/12	22:41	GIS	(39, -784)	NSGSCAN1/v1	Coronal Hole Boundary
s6968r01	1997/02/13	00:21	GIS	(39, -717)	NSGSCAN1/v1	Coronal Hole Boundary
s6970r00	1997/02/13	07:41	GIS	(-2,-1033)	G2AL/v2	Coronal Hole Boundary
s6971r00	1997/02/13	09:55	GIS	(1,-1003)	NSGSCAN1/v1	Coronal Hole Boundary
s6972r00	1997/02/13	11:38	NIS	(-176, 98)	CHSTR_X/v19	Coronal Hole Boundary
s6972r01	1997/02/13	13:11	NIS	(-177, 99)	CHSTR_X/v19	Coronal Hole Boundary
s6972r02	1997/02/13	14:45	NIS	(-177, 99)	CHSTR_X/v19	Coronal Hole Boundary
s6973r00	1997/02/13	16:45	GIS	(57, -768)	GIBOUND/v1	Coronal Hole Boundary
s6973r01	1997/02/13	17:29	GIS	(57, -768)	GIBOUND/v1	Coronal Hole Boundary
s6973r02	1997/02/13	18:13	GIS	(57, -768)	GIBOUND/v1	Coronal Hole Boundary
s6973r03	1997/02/13	18:58	GIS	(57, -768)	GIBOUND/v1	Coronal Hole Boundary
s6973r04	1997/02/13	19:42	GIS	(57, -768)	GIBOUND/v1	Coronal Hole Boundary
s6974r00	1997/02/13	20:26	NIS	(58, -768)	LIMB/v19	Coronal Hole Boundary
s6974r01	1997/02/13	21:05	NIS	(58, -768)	LIMB/v19	Coronal Hole Boundary
s6974r02	1997/02/13	21:43	NIS	(58, -768)	LIMB/v19	Coronal Hole Boundary
s6974r03	1997/02/13	22:21	NIS	(58, -768)	LIMB/v19	Coronal Hole Boundary
s6975r00	1997/02/13	22:59	NIS	(43, -843)	NISAT_S/v2	NIS Atlas
s6980r00	1997/02/15	10:02	GIS	(251, 138)	NSGSCAN1/v1	Coronal Hole Studies (UCLAN)
s6981r00	1997/02/15	11:44	NIS	(287, 139)	VIEWF/v2	Coronal Hole Studies (UCLAN)
s6982r00	1997/02/15	11:45	GIS	(287, 138)	G2AL/v2	Coronal Hole Studies (UCLAN)
s6983r00	1997/02/15	14:00	NIS	(236, 140)	VIEWF/v2	Coronal Hole Studies (UCLAN)
s6984r00	1997/02/15	14:01	GIS	(237, 141)	G2AL/v1	Coronal Hole Studies (UCLAN)
s6984r01	1997/02/15	14:35	GIS	(237, 141)	G2AL/v1	Coronal Hole Studies (UCLAN)
s6985r00	1997/02/15	15:10	NIS	(278, 140)	VIEWF/v2	Coronal Hole Studies (UCLAN)
s6986r00	1997/02/15	15:12	GIS	(278, 141)	NSGSCAN1/v1	Coronal Hole Studies (UCLAN)

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s6987r00	1997/02/15	16:53	NIS	(278, 140)	MOVIE_V1/v3	Coronal Hole Studies (UCLAN)
s6988r00	1997/02/15	17:25	NIS	(261, 178)	CHSTR_X/v19	Coronal Hole Studies (UCLAN)
s6988r01	1997/02/15	18:58	NIS	(260, 179)	CHSTR_X/v19	Coronal Hole Studies (UCLAN)
s7248r00	1997/03/10	07:21	GIS	(-1, -992)	EWGSCAN2/v1	Plumes - South Limb
s7249r00	1997/03/10	10:42	GIS	(-1,-1021)	NSGSCAN2/v1	Plumes - South Limb
s7444r00	1997/03/27	06:52	GIS	(0,-1041)	EWGSCAN2/v1	Plume study
s7445r00	1997/03/27	10:13	GIS	(0, -999)	NSGSCAN2/v1	Plume study
s7446r00	1997/03/27	13:35	NIS	(0, -999)	LIMB/v19	Plume study
s7494r00	1997/04/01	16:47	GIS	(0,-1041)	EWGSCAN2/v1	Plume study
s7495r00	1997/04/01	20:08	GIS	(1, -997)	NSGSCAN2/v1	Plume study
s9215r00-11	1997/09/20	22:44	GIS	(411, 893)	HTBNDWE/v2	Coronal Hole Campaign
s9227r01	1997/09/22	23:10	NIS	(576, -670)	UCLAN_N4/v37	Coronal Hole Campaign
s9230r00	1997/09/23	10:11	NIS	(-149, 611)	UCLAN_N4/v37	Coronal Hole Campaign
s9230r01	1997/09/23	11:20	NIS	(-376, 608)	UCLAN_N4/v37	Coronal Hole Campaign
s9230r02	1997/09/23	12:29	NIS	(-260, 411)	UCLAN_N4/v37	Coronal Hole Campaign
s9233r00	1997/09/23	21:57	NIS	(-158, 554)	UCLAN_N3/v25	Coronal Hole Campaign
s9239r00	1997/09/24	11:27	GIS	(-8, 668)	GIBOUND/v1	Coronal Hole Campaign
s9243r00	1997/09/24	22:01	NIS	(-19, 605)	UCLAN_N2/v24	Coronal Hole Campaign
s9258r00	1997/09/25	20:41	NIS	(219, 618)	NISAT_S5/v2	Coronal Hole Campaign
s9258r01	1997/09/25	21:29	NIS	(176, 615)	NISAT_S5/v2	Coronal Hole Campaign
s9258r02	1997/09/25	22:17	NIS	(138, 614)	NISAT_S5/v2	Coronal Hole Campaign
s9258r03	1997/09/25	23:05	NIS	(98, 615)	NISAT_S5/v2	Coronal Hole Campaign
s9265r00	1997/09/26	19:16	NIS	(-182, 895)	UCLAN_N3/v25	Coronal Hole Campaign
s9265r01	1997/09/26	20:33	NIS	(-303, 896)	UCLAN_N3/v25	Coronal Hole Campaign
s9265r02	1997/09/26	21:50	NIS	(-420, 896)	UCLAN_N3/v25	Coronal Hole Campaign
s9265r03	1997/09/26	23:07	NIS	(-176, 719)	UCLAN_N3/v25	Coronal Hole Campaign
s9266r00	1997/09/27	00:20	NIS	(0, 875)	SYNOP_F/v1	Synoptic Meridian Images
s9266r01	1997/09/27	01:03	NIS	(-1, 655)	SYNOP_F/v1	Synoptic Meridian Images
s9266r02	1997/09/27	01:46	NIS	(0, 435)	SYNOP_F/v1	Synoptic Meridian Images
s9271r00	1997/09/27	17:03	NIS	(553, -810)	LIMB/v19	Coronal Hole Campaign
s9272r00-29	1997/09/27	17:41	GIS	(553, -811)	HTBNDWE/v2	Coronal Hole Campaign
s9273r00	1997/09/27	23:50	NIS	(497, -806)	LIMB/v19	Coronal Hole Campaign
s9279r00	1997/09/28	17:03	NIS	(553, -809)	LIMB/v19	Coronal Hole Campaign
s9280r00-14	1997/09/28	17:41	GIS	(553, -810)	HTBNDWE/v2	Coronal Hole Campaign
s9281r00	1997/09/28	20:45	NIS	(554, -807)	LIMB/v19	Coronal Hole Campaign
s9287r00	1997/09/29	17:32	NIS	(553, -810)	LIMB/v19	Coronal Hole Campaign
s9288r00-29	1997/09/29	18:10	GIS	(552, -811)	HTBNDWE/v2	Coronal Hole Campaign
s9289r00	1997/09/30	00:20	NIS	(496, -806)	LIMB/v19	Coronal Hole Campaign
s9319r00	1997/10/02	19:33	NIS	(0, 883)	WIDE3LA1/v3	Coronal Hole Campaign
s9320r00	1997/10/02	19:35	NIS	(-14, 884)	UCLAN_N3/v25	Coronal Hole Campaign
s9321r00	1997/10/02	21:17	GIS	(0, 860)	DEM_GIS/v1	Coronal Hole Campaign
s9322r00	1997/10/02	22:18	GIS	(0, 898)	NSGSCAN1/v1	Coronal Hole Campaign
s9323r00	1997/10/03	00:00	NIS	(0, 883)	WIDE3LA1/v3	Coronal Hole Campaign
s9332r00	1997/10/03	18:53	NIS	(-615, 847)	UCLAN_N4/v37	Coronal Hole Campaign
s9332r01	1997/10/03	20:02	NIS	(-615, 616)	UCLAN_N4/v37	Coronal Hole Campaign
s9333r00	1997/10/03	21:12	GIS	(-618, 777)	NSGSCAN1/v1	Coronal Hole Campaign
s9334r00	1997/10/03	22:53	NIS	(-618, 778)	MOVIE/v1	Coronal Hole Campaign
s9336r00	1997/10/04	15:17	NIS	(124, 239)	UCLAN_N3/v25	Coronal Hole Campaign
s9337r00	1997/10/04	16:30	NIS	(136, 238)	UCLAN_N3/v25	Coronal Hole Campaign
s9338r00	1997/10/04	17:48	GIS	(150, 238)	DEM_GIS/v1	Coronal Hole Campaign
s9339r00	1997/10/04	18:50	NIS	(153, 243)	LIMB/v19	Coronal Hole Campaign
s9351r00	1997/10/05	16:18	NIS	(429, 880)	UCLAN_N4/v37	Coronal Hole Campaign
s9351r01	1997/10/05	17:27	NIS	(189, 883)	UCLAN_N4/v37	Coronal Hole Campaign
s9351r02	1997/10/05	18:36	NIS	(-48, 879)	UCLAN_N4/v37	Coronal Hole Campaign
s9351r03	1997/10/05	19:46	NIS	(-282, 881)	UCLAN_N4/v37	Coronal Hole Campaign
s9351r04	1997/10/05	20:56	NIS	(-518, 882)	UCLAN_N4/v37	Coronal Hole Campaign
s9352r00	1997/10/05	22:19	NIS	(-84, 831)	UCLAN_N2/v24	Coronal Hole Campaign
s9355r00-14	1997/10/06	18:49	GIS	(2, 782)	HTBNDWE/v2	Coronal Hole Campaign
s9356r00	1997/10/06	21:52	NIS	(2, 782)	UCLAN_N3/v25	Coronal Hole Campaign
s9364r00	1997/10/07	13:06	NIS	(66, 655)	LIMB/v19	Coronal Hole Campaign
s9364r01	1997/10/07	13:44	NIS	(48, 881)	LIMB/v19	Coronal Hole Campaign
s9364r02	1997/10/07	14:22	NIS	(-182, 881)	LIMB/v19	Coronal Hole Campaign

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s9365r00	1997/10/07	15:00	NIS	(248, 420)	LIMB/v19	Coronal Hole Campaign
s9374r00	1997/10/07	23:06	NIS	(-357, 945)	LIMB/v19	Coronal Hole Campaign
s9376r00	1997/10/08	06:30	NIS	(48, 754)	UCLAN_N2/v24	Coronal Hole Campaign
s9377r00	1997/10/08	08:50	NIS	(89, 756)	WIDE3LA1/v3	Coronal Hole Campaign
s9378r00	1997/10/08	08:53	GIS	(89, 756)	NSGSCAN1/v1	Coronal Hole Campaign
s9379r00	1997/10/08	10:34	NIS	(97, 757)	WIDE3LA1/v3	Coronal Hole Campaign
s9390r00	1997/10/09	07:41	GIS	(246, 965)	G2NS/v1	Coronal Hole Campaign
s9391r00	1997/10/09	09:06	NIS	(247, 960)	UCLAN_N2/v24	Coronal Hole Campaign
s9392r00	1997/10/09	11:35	NIS	(222, 811)	LIMB/v19	Coronal Hole Campaign
s9393r00	1997/10/09	12:12	NIS	(222, 811)	LIMB/v19	Coronal Hole Campaign
s9394r00	1997/10/09	12:49	NIS	(222, 811)	LIMB/v19	Coronal Hole Campaign
s9403r00	1997/10/10	09:47	NIS	(129, 864)	UCLAN_N4/v37	Coronal Hole Campaign
s9404r00	1997/10/10	10:56	NIS	(198, 866)	MOVIE_V1/v2	Coronal Hole Campaign
s9405r00	1997/10/10	11:53	NIS	(132, 863)	UCLAN_N4/v37	Coronal Hole Campaign
s9406r00	1997/10/10	13:10	NIS	(-54, 778)	NISAT_S/v2	NIS Spectral Atlas
s9408r00	1997/10/10	18:26	NIS	(287, 818)	UCLAN_N4/v40	Coronal Hole Campaign
s9408r01	1997/10/10	19:05	NIS	(288, 818)	UCLAN_N4/v40	Coronal Hole Campaign
s9408r02	1997/10/10	19:44	NIS	(290, 814)	UCLAN_N4/v40	Coronal Hole Campaign
s9409r00-14	1997/10/10	20:46	GIS	(355, 777)	HRBNDWE/v1	Coronal Hole Campaign
s9410r00-49	1997/10/10	23:34	NIS	(287, 819)	WIDE3LA1/v3	Movie - collaboration with Nobeyama
s9416r00	1997/10/11	15:00	NIS	(347, 859)	UCLAN_N3	Coronal Hole Campaign
s9417r00-14	1997/10/11	16:05	GIS	(351, 854)	HRBNDWE/v1	Coronal Hole Campaign
s9418r00	1997/10/11	18:54	NIS	(353, 856)	WIDE3LA1/v3	Coronal Hole Campaign
s9423r00	1997/10/12	08:55	NIS	(-1, 1044)	NISAT_S5/v2	Coronal Hole Campaign
s9423r01	1997/10/12	09:43	NIS	(-1, 1044)	NISAT_S5/v2	Coronal Hole Campaign
s9423r02	1997/10/12	10:31	NIS	(-1, 1044)	NISAT_S5/v2	Coronal Hole Campaign
s9423r03	1997/10/12	11:19	NIS	(-1, 1044)	NISAT_S5/v2	Coronal Hole Campaign
s9423r04	1997/10/12	12:07	NIS	(-1, 1044)	NISAT_S5/v2	Coronal Hole Campaign
s9423r05	1997/10/12	12:55	NIS	(-1, 1044)	NISAT_S5/v2	Coronal Hole Campaign
s9424r00	1997/10/12	16:01	NIS	(55, 1025)	CORO24W/v22	Coronal Hole Monitoring (North)
s9424r01	1997/10/12	17:15	NIS	(-55, 1025)	CORO24W/v22	Coronal Hole Monitoring (North)
s9425r00	1997/10/12	19:07	NIS	(0, 855)	UCLAN_N2	Coronal Hole Campaign
s9425r01	1997/10/12	20:16	NIS	(0, 855)	UCLAN_N2	Coronal Hole Campaign
s9426r00-14	1997/10/12	21:25	GIS	(3, 895)	HRBNDWE/v1	Coronal Hole Study
s9430r00	1997/10/13	17:51	NIS	(387, 683)	UCLAN_N4/v40	Coronal Hole Campaign
s9430r01	1997/10/13	18:30	NIS	(389, 897)	UCLAN_N4/v40	Coronal Hole Campaign
s9430r02	1997/10/13	19:09	NIS	(157, 895)	UCLAN_N4/v40	Coronal Hole Campaign
s9430r03	1997/10/13	19:48	NIS	(-79, 892)	UCLAN_N4/v40	Coronal Hole Campaign
s9430r04	1997/10/13	20:28	NIS	(-318, 892)	UCLAN_N4/v40	Coronal Hole Campaign
s9430r05	1997/10/13	21:07	NIS	(-283, 710)	UCLAN_N4/v40	Coronal Hole Campaign
s9431r00-14	1997/10/13	21:47	GIS	(343, 885)	HRBNDWE/v1	Coronal Hole Study
s9435r00	1997/10/14	16:30	NIS	(-63, 791)	UCLAN_N2	Coronal Hole Campaign
s9435r01	1997/10/14	17:39	NIS	(-63, 791)	UCLAN_N2	Coronal Hole Campaign
s9436r00	1997/10/14	18:47	NIS	(-60, 795)	UCLAN_N2	Coronal Hole Campaign
s9436r01	1997/10/14	19:56	NIS	(-60, 795)	UCLAN_N2	Coronal Hole Campaign
s9437r00	1997/10/14	21:04	NIS	(-56, 791)	UCLAN_N2	Coronal Hole Campaign
s9437r01	1997/10/14	22:13	NIS	(-56, 791)	UCLAN_N2	Coronal Hole Campaign
s9438r00	1997/10/14	23:21	NIS	(0, 794)	WIDE3LA1/v3	Coronal Hole Campaign
s9438r49	1997/10/15	00:44	NIS	(0, 794)	WIDE3LA1/v3	Coronal Hole Campaign
s9443r00	1997/10/15	13:01	NIS	(59, 812)	WIDE3LA1/v3	Coronal Hole Campaign
s9444r00-14	1997/10/15	13:29	GIS	(18, 826)	HRBNDWE/v1	Coronal Hole Campaign
s9445r00	1997/10/15	16:18	NIS	(7, 825)	UCLAN_N2	Coronal Hole Campaign
s9446r00	1997/10/15	18:44	NIS	(382, 903)	UCLAN_N4/v40	Coronal Hole Campaign
s9446r01	1997/10/15	19:23	NIS	(174, 904)	UCLAN_N4/v40	Coronal Hole Campaign
s9446r02	1997/10/15	20:03	NIS	(-55, 903)	UCLAN_N4/v40	Coronal Hole Campaign
s9446r03	1997/10/15	20:42	NIS	(102, 761)	UCLAN_N4/v40	Coronal Hole Campaign
s9447r00-14	1997/10/15	21:21	GIS	(173, 813)	HRBNDWE/v1	Coronal Hole Campaign
s9449r00	1997/10/16	07:10	NIS	(119, 896)	NISAT_S/v2	NIS Spectral Atlas
s9468r00	1997/10/16	22:27	NIS	(-7, 887)	UCLAN_N3/v27	Coronal Hole Campaign
s9469r00	1997/10/16	23:33	GIS	(11, 879)	G2NS/v1	Coronal Hole Campaign
s9477r00-14	1997/10/17	22:00	GIS	(19, 1032)	HRBNDWE/v1	Coronal Hole Campaign
s9478r00	1997/10/18	00:48	NIS	(2, 1012)	UCLAN_N3/v27	Coronal Hole Campaign

Table B.1: *(continued)*

file	date	time	sp	pointing	study	note
s9491r00	1997/10/19	18:37	GIS	(980, 5)	G2AL4/v3	Limb Monitoring (low rate)
s9491r01	1997/10/19	20:21	GIS	(980, 6)	G2AL4/v3	Limb Monitoring (low rate)
s9491r02	1997/10/19	22:06	GIS	(980, 5)	G2AL4/v3	Limb Monitoring (low rate)
s9494r00	1997/10/20	10:36	GIS	(-1, 968)	G2NS3/v1	N. Limb Monitoring (low rate)
s9507r00-59	1997/10/23	04:53	NIS	(45, 474)	WIDE3LA1/v3	Movie (NCH boundary, low rate)
s9508r00	1997/10/23	10:40	GIS	(46, 437)	G2NS	GIS North-South scan
s9509r00	1997/10/23	12:05	GIS	(56, 507)	NSGSCAN1	GIS North-South scan
s9510r00	1997/10/23	12:33	GIS	(0, 1036)	EWGSCAN2/v1	Low Rate Campaign (Off-limb cross)
s9511r00	1997/10/23	15:55	GIS	(0, 991)	NSGSCAN2/v1	Low Rate Campaign (Off-limb cross)
s9514r10-59	1997/10/24	16:53	NIS	(299, 544)	WIDE3LA1/v3	Movie (NCH boundary, low rate)
s9515r00	1997/10/24	21:55	GIS	(308, 549)	G2NS	GIS North-South scan
s9516r00	1997/10/24	23:20	GIS	(319, 538)	NSGSCAN1	GIS North-South scan

Appendix C

The calibration of the CDS instrument

C.1 The observations for the CDS calibration

Table C.1: *The observations designed by the author for the CDS instrument calibration. The columns indicate: the fits file name; the date of the start of the observation; the starting time (UT); the spectrometer used; the pointing, in Solar X and Y (arc sec from Sun centre); the CDS study name; and a comment. At the end, standard CDS observations used for calibration purposes are listed.*

file	date	time	sp	pointing	study	note
s7172r00	1997/03/05	09:54	GIS	(0, -5)	ARC_CALG/v1	GIS/NIS Calibration
s7173r00	1997/03/05	10:31	NIS	(0, -1)	ARC_CALN/v3	GIS/NIS Calibration
s7174r00	1997/03/05	10:46	GIS	(-1, -6)	ARC_CALG/v1	GIS/NIS Calibration
s7175r00	1997/03/05	11:22	NIS	(0, -1)	ARC_CALN/v3	GIS/NIS Calibration
s7176r00	1997/03/05	11:38	GIS	(0, -5)	ARC_CALG/v1	GIS/NIS Calibration
s7177r00	1997/03/05	12:14	NIS	(0, -1)	ARC_CALN/v3	GIS/NIS Calibration
s7772r00	1997/05/04	18:41	GIS	(970, 0)	DEM_GIS/v2	GIS/NIS Calibration
s7773r00	1997/05/04	18:55	NIS	(970, 0)	ARC_CALN/v3	GIS/NIS Calibration
s7774r00	1997/05/04	19:10	GIS	(970, 0)	DEM_GIS/v2	GIS/NIS Calibration
s7775r00	1997/05/04	19:24	NIS	(970, 0)	ARC_CALN/v3	GIS/NIS Calibration
s7776r00	1997/05/04	19:40	GIS	(970, 0)	DEM_GIS/v2	GIS/NIS Calibration
s7777r00	1997/05/04	19:53	NIS	(970, 0)	ARC_CALN/v3	GIS/NIS Calibration
s7778r00	1997/05/04	20:09	GIS	(970, 0)	DEM_GIS/v2	GIS/NIS Calibration
s7779r00	1997/05/04	20:23	NIS	(970, 0)	ARC_CALN/v3	GIS/NIS Calibration
s7780r00	1997/05/04	20:38	GIS	(970, 0)	DEM_GIS/v2	GIS/NIS Calibration
s7781r00	1997/05/04	20:52	NIS	(970, 0)	ARC_CALN/v3	GIS/NIS Calibration
s7782r00	1997/05/04	21:07	GIS	(970, 0)	DEM_GIS/v2	GIS/NIS Calibration
s7783r00	1997/05/04	21:21	NIS	(961, 0)	ARC_CALN/v3	GIS/NIS Calibration
s7784r00	1997/05/04	21:37	GIS	(961, -1)	DEM_GIS/v2	GIS/NIS Calibration
s7785r00	1997/05/04	21:50	NIS	(961, -1)	ARC_CALN/v3	GIS/NIS Calibration
s7786r00	1997/05/04	22:06	GIS	(961, -1)	DEM_GIS/v2	GIS/NIS Calibration
s7787r00	1997/05/04	22:20	NIS	(961, -1)	ARC_CALN/v3	GIS/NIS Calibration
s7788r00	1997/05/04	22:35	GIS	(961, -1)	DEM_GIS/v2	GIS/NIS Calibration
s7789r00	1997/05/04	22:49	NIS	(961, -1)	ARC_CALN/v3	GIS/NIS Calibration
s7790r00	1997/05/04	23:04	GIS	(961, -1)	DEM_GIS/v2	GIS/NIS Calibration
s7791r00	1997/05/04	23:18	NIS	(961, -1)	ARC_CALN/v3	GIS/NIS Calibration
s7792r00	1997/05/04	23:33	GIS	(961, -1)	DEM_GIS/v2	GIS/NIS Calibration
s7850r00	1997/05/09	15:23	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7850r01	1997/05/09	15:51	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7850r02	1997/05/09	16:22	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7850r03	1997/05/09	16:53	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7850r04	1997/05/09	17:24	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7851r00	1997/05/09	17:56	GIS	(65, 46)	ARC_CALG/v1	GIS/NIS on-disc calibration

Table C.1: *(continued)*

file	date	time	sp	pointing	study	note
s7852r00	1997/05/09	18:33	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7852r01	1997/05/09	19:02	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7852r02	1997/05/09	19:33	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7852r03	1997/05/09	20:04	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s7852r04	1997/05/09	20:35	NIS	(65, 50)	UCLAN_N1/v1	GIS/NIS on-disc calibration
s8198r00	1997/06/17	07:48	GIS	(899, -329)	DEM_GIS/v2	GIS/NIS Calibration
s8199r00	1997/06/17	08:02	NIS	(899, -329)	ARC_CALN/v3	GIS/NIS Calibration
s8200r00	1997/06/17	08:17	GIS	(899, -329)	DEM_GIS/v2	GIS/NIS Calibration
s8202r00	1997/06/17	08:46	GIS	(899, -329)	DEM_GIS/v2	GIS/NIS Calibration
s8203r00	1997/06/17	09:00	NIS	(899, -329)	ARC_CALN/v3	GIS/NIS Calibration
s8204r00	1997/06/17	09:15	GIS	(899, -329)	DEM_GIS/v2	GIS/NIS Calibration
s8205r00	1997/06/17	09:29	NIS	(899, -329)	ARC_CALN/v3	GIS/NIS Calibration
s8206r00	1997/06/17	09:44	GIS	(899, -329)	DEM_GIS/v2	GIS/NIS Calibration
s8207r00	1997/06/17	09:58	NIS	(899, -329)	ARC_CALN/v3	GIS/NIS Calibration
s8229r00	1997/06/20	07:08	GIS	(959, -1)	DEM_GIS/v2	UCLAN GIS/NIS Calibration
s8230r00	1997/06/20	07:22	NIS	(959, -1)	ARC_CALN/v3	UCLAN GIS/NIS Calibration
s8231r00	1997/06/20	07:37	GIS	(959, -1)	DEM_GIS/v2	UCLAN GIS/NIS Calibration
s8232r00	1997/06/20	07:51	NIS	(959, -1)	ARC_CALN/v3	UCLAN GIS/NIS Calibration
s8233r00	1997/06/20	08:06	GIS	(959, -1)	DEM_GIS/v2	UCLAN GIS/NIS Calibration
s8234r00	1997/06/20	08:20	NIS	(959, -1)	ARC_CALN/v3	UCLAN GIS/NIS Calibration
s8235r00	1997/06/20	08:35	GIS	(959, -1)	DEM_GIS/v2	UCLAN GIS/NIS Calibration
s8236r00	1997/06/20	08:49	NIS	(959, -1)	ARC_CALN/v3	UCLAN GIS/NIS Calibration
s8237r00	1997/06/20	09:04	GIS	(959, 0)	DEM_GIS/v2	UCLAN GIS/NIS Calibration
s8238r00	1997/06/20	09:18	NIS	(959, -1)	ARC_CALN/v3	UCLAN GIS/NIS Calibration
s9234r00	1997/09/23	23:40	GIS	(0, 961)	DEM_GIS/v2	Test alignment slits
s9235r00	1997/09/23	23:54	NIS	(0, 961)	ARC_CALN/v3	Test alignment slits
s9298r00	1997/10/01	13:50	GIS	(967, -2)	DEM_GIS/v2	GIS/NIS calibration
s9299r00	1997/10/01	14:04	NIS	(967, -2)	ARC_CALN/v3	GIS/NIS calibration
s9300r00	1997/10/01	14:19	GIS	(967, -2)	DEM_GIS/v2	GIS/NIS calibration
s9301r00	1997/10/01	14:33	NIS	(967, -2)	ARC_CALN/v3	GIS/NIS calibration
s9302r00	1997/10/01	14:48	GIS	(967, -2)	DEM_GIS/v2	GIS/NIS calibration
s9303r00	1997/10/01	15:02	NIS	(967, -2)	ARC_CALN/v3	GIS/NIS calibration
s9304r00	1997/10/01	15:17	GIS	(967, -2)	DEM_GIS/v2	GIS/NIS calibration
s9305r00	1997/10/01	15:31	NIS	(967, -2)	ARC_CALN/v3	GIS/NIS calibration
s9306r00	1997/10/01	15:48	GIS	(967, -2)	DEM_GIS/v2	GIS/NIS calibration
s9307r00	1997/10/01	16:01	NIS	(967, -2)	ARC_CALN/v3	GIS/NIS calibration
s9371r00	1997/10/07	19:56	NIS	(0, 0)	UCLAN_N1/v1	GIS/NIS Intercalibration
s9371r01	1997/10/07	20:25	NIS	(0, 0)	UCLAN_N1/v1	GIS/NIS Intercalibration
s9372r00	1997/10/07	20:57	GIS	(0, -3)	ARC_CALG/v1	GIS/NIS Intercalibration
s9373r00	1997/10/07	21:34	NIS	(0, 0)	UCLAN_N1/v1	GIS/NIS Intercalibration
s9373r01	1997/10/07	22:02	NIS	(0, 0)	UCLAN_N1/v1	GIS/NIS Intercalibration
s9373r02	1997/10/07	22:33	NIS	(0, 0)	UCLAN_N1/v1	GIS/NIS Intercalibration
s9380r00	1997/10/08	11:12	GIS	(1021, -15)	GISAT_S/v1	GIS long slit test
s9381r00	1997/10/08	11:46	GIS	(1024, -14)	RWPM_1/v2	GIS long slit test
s9382r00	1997/10/08	12:33	GIS	(1023, -14)	GISAT_S/v1	GIS long slit test
s9383r00	1997/10/08	13:07	GIS	(1025, -14)	RWPM_1/v2	GIS long slit test
s9450r00	1997/10/16	07:51	GIS	(119, 896)	TEST5_2/v1	GIS Slit 1-2 Test
s9451r00	1997/10/16	08:52	GIS	(120, 893)	MICRO/v1	GIS Slit 1-2 Test
s9452r00	1997/10/16	09:23	GIS	(119, 896)	TEST5_2/v1	GIS Slit 1-2 Test
s9453r00	1997/10/16	10:24	GIS	(120, 897)	MICRO/v1	GIS Slit 1-2 Test
s9454r00	1997/10/16	11:22	GIS	(956, 9)	DEM_GIS/v2	GIS/NIS Calibration
s9455r00	1997/10/16	11:36	NIS	(968, -2)	ARC_CALN/v3	GIS/NIS Calibration
s9456r00	1997/10/16	11:45	GIS	(968, -2)	DEM_GIS/v2	GIS/NIS Calibration
s9457r00	1997/10/16	11:59	NIS	(968, -2)	ARC_CALN/v3	GIS/NIS Calibration
s9458r00	1997/10/16	12:07	GIS	(968, -1)	DEM_GIS/v2	GIS/NIS Calibration
s9459r00	1997/10/16	12:21	NIS	(968, -1)	ARC_CALN/v3	GIS/NIS Calibration
s9460r00	1997/10/16	12:30	GIS	(968, -1)	DEM_GIS/v2	GIS/NIS Calibration
s9461r00	1997/10/16	12:44	NIS	(968, -1)	ARC_CALN/v3	GIS/NIS Calibration
s9462r00	1997/10/16	12:52	GIS	(968, -1)	DEM_GIS/v2	GIS/NIS Calibration
s9463r00	1997/10/16	13:06	NIS	(968, -1)	ARC_CALN/v3	GIS/NIS Calibration
s8257r00	1997/06/22	21:53	NIS	(0, 0)	NISAT_S/v2	NIS Calibration - QS
s9253r00	1997/09/25	18:01	NIS	(-55, 157)	NISAT_S/v2	NIS Calibration - AR

Table C.1: *(continued)*

file	date	time	sp	pointing	study	note
s9487r00	1997/10/19	06:41	NIS	(-1, 3)	NISAT_S/v2	NIS Calibration - QS

C.2 The spectra and line identifications for the off-limb observation – May 4th 1997

Table C.2: *Line identifications for the off-limb quiet sun observation of May 4th 1997.*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Fe XI	308.548	308.5	3s2.3p4 $^1D_2$ - 3s.3p5 $^1P_1$	26.7	0.54	0.08	N 1	6.06	6.10		
Mg VIII	311.796	311.8	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	58.7	0.92	0.11	N 1	6.00	5.91		
Fe XIII	312.109	312.3	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_1$	17.7	1.48	0.30	N 1	6.08	6.20		
Fe XIII	312.872	313.0	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_0$	12.7	0.35	0.08	N 1	6.09	6.20	0.82	
P X	312.981		2s22p2 $^3P_1$ - 2s2p3 $^3D_2$						6.16	0.18	
Mg VIII	313.754	313.7	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	119.2	0.92	0.10	N 1	6.00	5.92		
Si VIII	314.327	314.4	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	125.0	1.03	0.11	N 1	6.02	5.91		
Mg VIII	315.039	315.0	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	264.8	1.05	0.11	N 1	6.00	5.91		
Si VIII	316.205	316.2	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	213.4	1.15	0.12	N 1	6.02	5.91		
Mg VIII	317.039	317.1	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	92.6	0.84	0.09	N 1	6.00	5.92		
Mg VII	319.027	318.9	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	23.8	0.36	0.06	N 1	5.97	5.80		
Si VIII	319.826	319.9	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	323.0	1.15	0.12	N 1	6.02	5.91		
Fe XIII	320.809	320.8	3s2 3p2 $^3P_2$ - 3s 3p3 $^3P_2$	11.4	0.89	0.22	N 1	6.09	6.20		
Fe XIII	321.4	321.4	3s2 3p2 $^3P_2$ - 3s 3p3 $^3P_1$	9.1	1.20	0.46	N 1	6.09	6.20		
Fe X	321.732	321.8	3s2.3p4(3p).3d $^4D_{5/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$	7.4	0.74	0.31	N 1	6.05	6.04	0.69	
Fe X	321.804		3s2.3p4(3p).3d $^4D_{7/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$						6.04	0.29	
Fe X	324.763	324.7	3s2.3p4(3p).3d $^4D_{7/2}$ - 3s.3p5(3p*).3d $^4F_{9/2}$	13.3	0.84	0.19	N 1	6.05	6.04		
Al VIII	325.276	325.4	2p2 $^3P_1$ - 2s.2p3 $^3P_0$	13.5	1.42	0.28	N 1	6.02	5.92	0.37	
Al VIII	325.292		2p2 $^3P_1$ - 2s.2p3 $^3P_2$						5.92	0.33	
Al VIII	325.338		2p2 $^3P_1$ - 2s.2p3 $^3P_1$						5.92	0.29	
S X	326.327	326.4	2s22p3 $^2D_{3/2}$ - 2s2p4 $^4P_{1/2}$	25.1	0.00	0.00	N 1	6.06	6.13		
Al VIII	328.185	328.2	2p2 $^3P_2$ - 2s.2p3 $^3P_2$	34.3	0.97	0.16	N 1	6.02	5.92	0.69	
Al VIII	328.232		2p2 $^3P_2$ - 2s.2p3 $^3P_1$						5.92	0.23	
Al X	332.789	332.8	2s2 $^1S_0$ - 2s.2p $^1P_1$	104.1	1.14	0.13	N 1	6.06	6.09		
Fe XIV	334.172	334.2	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2D_{3/2}$	18.2	1.14	0.17	N 1	6.11	6.24		
Mg VIII	335.253	335.3	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	73.1	1.05	0.11	N 1	6.03	5.92	0.65	
Fe XII	335.339		3s2.3p3 $^2D_{3/2}$ - 3s.3p4 $^2D_{3/2}$						6.16	0.33	[1]
Fe XII	338.278	338.3	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2D_{5/2}$	32.1	0.89	0.10	N 1	6.07	6.16		
Mg VIII	339.006	339.0	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	62.5	1.07	0.11	N 1	6.00	5.92		
Fe XI	341.113	341.1	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_1$	75.4	0.63	0.06	N 1	6.06	6.11		
Si IX	341.949	342.0	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	99.4	1.03	0.10	N 1	6.04	6.03		
Si IX	345.124	345.1	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	238.6	1.03	0.10	N 1	6.04	6.03	0.77	
Si IX	344.951		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						6.03	0.23	
Fe X	345.723	345.7	3s2.3p5 $^2P_{3/2}$ - 3s.3p6 $^2S_{1/2}$	133.9	1.19	0.12	N 1	6.04	6.04		
Fe XII	346.852	346.9	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{1/2}$	51.7	0.90	0.09	N 1	6.07	6.16		
Si X	347.403	347.4	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	208.4	1.06	0.11	N 1	6.06	6.13		
Fe XIII	348.183	348.2	3s2 3p2 $^3P_0$ - 3s 3p3 $^3D_1$	55.0	0.92	0.11	N 1	6.09	6.20		
Fe XI	349.046	349.2	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_0$	24.9	0.39	0.04	N 1	5.99	6.10	0.38	
Mg VI	349.163		2s2.2p3 $^2D_{5/2}$ - 2s.2p4 $^2D_{5/2}$						5.65	0.32	
Mg VI	349.124		2s2.2p3 $^2D_{3/2}$ - 2s.2p4 $^2D_{3/2}$						5.65	0.24	
Si IX	349.873	349.9	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	226.6	1.00	0.10	N 1	6.04	6.03	0.84	
Si IX	349.794		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						6.03	0.16	
Fe XII	352.106	352.1	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{3/2}$	102.4	0.92	0.09	N 1	6.07	6.16		
Fe XI	352.662	352.7	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_2$	177.1	1.10	0.11	N 1	6.06	6.11		
Na VII	353.296	353.4	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	3.7	0.86	0.14	N 1	5.96	5.78		
Al VII	353.769	353.8	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	10.6	1.35	0.18	N 1	6.05	5.78	0.54	
Fe XIV	353.831		3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2D_{5/2}$						6.24	0.45	
Si X	356.012	356.0	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	129.9	1.03	0.10	N 1	6.06	6.13	0.76	
Si X	356.05		2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$						6.13	0.24	
Fe XI	356.519	356.5	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_1$	27.9	0.88	0.09	N 1	6.06	6.11		
Al VII	356.888	356.9	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	8.4	1.38	0.19	N 1	5.99	5.78		
Fe XI	358.621	358.6	3s2.3p4 $^3P_0$ - 3s.3p5 $^3P_1$	40.8	0.98	0.10	N 1	6.05	6.11	0.75	
Fe X	358.413		3s2.3p4(3p).3d $^4F_{9/2}$ - 3s.3p5(3p*).3d $^4F_{9/2}$						6.04	0.23	
Fe XIII	359.842	359.7	3s2 3p2 $^3P_1$ - 3s 3p3 $^3D_1$	24.5	0.99	0.11	N 1	6.09	6.20	0.55	
Fe XIII	359.642		3s2 3p2 $^3P_1$ - 3s 3p3 $^3D_2$						6.20	0.43	
Fe XVI	360.761	360.6	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	1.2	0.74	0.46	N 1	6.19	6.34	0.83	
Fe X	360.454		3s2.3p4(1d).3d $^2P_{3/2}$ - 3s.3p5(3p*).3d $^4F_{3/2}$						6.04	0.17	
Fe X	361.406	361.5	3s2.3p4(3p).3d $^4F_{7/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$	6.3	0.58	0.09	N 1	6.05	6.04	0.79	
Si XI	361.412		2s.2p $^3P_0$ - 2p2 $^3P_1$						6.20	0.21	
Mg VII	363.772	363.8	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	13.7	0.73	0.12	N 1	5.98	5.81		
Fe X	364.189	364.2	3s2.3p4(1d).3d $^2P_{3/2}$ - 3s.3p5(3p*).3d $^4F_{5/2}$	2.6	0.02	0.02	N 1	6.04	6.04		
Fe XII	364.467	364.5	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{5/2}$	138.3	0.95	0.10	N 1	6.07	6.16		

[1] First identification

Table C.2: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Mg VII	365.234	365.1	2s22p2 $^3P_1$ - 2s2p3 $^3P_2$	26.2	1.23	0.16	N 1	5.98	5.81	0.36	
Mg VII	365.176		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$						5.81	0.33	
Mg VII	365.243		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						5.81	0.26	
Fe X	365.543	365.6	3s2.3p5 $^2P_{1/2}$ - 3s.3p6 $^2S_{1/2}$	74.2	0.93	0.10	N 1	6.04	6.04		
Mg VII	367.674	367.7	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	84.7	0.61	0.07	N 1	5.98	5.81	0.77	
Mg VII	367.683		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						5.81	0.23	
Mg IX	368.07	368.1	2s2 $^1S_0$ - 2s.2p $^1P_1$	1060.8	0.94	0.09	N 1	6.03	5.98		
Fe XI	369.153	369.2	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_2$	54.7	1.07	0.11	N 1	6.06	6.11		
Ca IX	378.081	378.2	3s.3p $^3P_2$ - 3s.3d $^3D_3$	3.8	0.31	0.06	N 1	5.97	5.78	0.50	
Na VII	378.216		2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$						5.78	0.46	
Si X	258.372	516.8	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	353.8	0.78	0.09	N 2	6.06	6.13		
Si XII	520.665	520.8	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{1/2}$	8.6	1.09	0.11	N 2	6.11	6.26		
Si X	261.063	522.2	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	318.7	0.44	0.05	N 2	6.06	6.13		[2]
Si X	271.983	544.1	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	161.8	0.67	0.08	N 2	6.07	6.13		
Al XI	550.031	550.1	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{3/2}$	12.5	2.08	0.21	N 2	6.08	6.16		
Si X	277.255	554.5	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	213.4	0.41	0.05	N 2	6.06	6.13		[3]
Mg VII	278.402	556.9	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	84.1	0.72	0.11	N 2	5.98	5.81	0.69	
Si VII	278.443		2p4 $^3P_1$ - 2s.2p5 $^3P_2$						5.77	0.29	
Ca X	557.765	557.8	3s $^2S_{1/2}$ - 3p $^2P_{3/2}$	39.6	1.00	0.10	N 2	6.02	5.82		
Ne VI	558.594	558.7	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2D_{3/2}$	3.6	0.87	0.09	N 2	5.93	5.63	0.57	
Ne VII	558.609		2s2p $^3P_1$ - 2p2 $^3P_2$						5.72	0.43	
Ne VII	559.948	560.2	2s2p $^3P_0$ - 2p2 $^3P_1$	1.5	0.75	0.09	N 2	5.98	5.72		
Ne VII	561.728	561.7	2s2p $^3P_2$ - 2p2 $^3P_2$	4.6	1.04	0.11	N 2	5.97	5.72	0.83	
Ne VII	561.378		2s2p $^3P_1$ - 2p2 $^3P_1$						5.72	0.17	
Ne VI	562.803	562.9	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2D_{5/2}$	2.9	1.21	0.13	N 2	5.89	5.63		
Ne VII	564.528	564.5	2s2p $^3P_2$ - 2p2 $^3P_1$	1.7	0.75	0.09	N 2	5.97	5.72		
Al XI	568.12	568.2	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{1/2}$	6.4	2.02	0.22	N 2	6.08	6.16		[4]
Ca X	574.01	574.1	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	20.9	0.94	0.10	N 2	6.02	5.82		[5]
Si XI	580.907	580.9	2s2 $^1S_0$ - 2s.2p $^3P_1$	12.5	0.44	0.05	N 2	6.08	6.19		[6]
Si IX	290.69	581.4	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	128.1	0.56	0.14	N 2	6.04	6.03		
Ca VIII	582.846	582.8		0.8	0.79	0.16	N 2	5.92	5.73		[7] AC
He I	584.334	584.3	1s2-1s2p ^1S - ^1P	2.1			N 2				[8] AC
Si IX	292.8	585.7	2s22p2 $^3P_1$ - 2s2p3 $^3P_0$	230.7	0.90	0.11	N 2	6.04	6.03	0.40	[9]
Si IX	292.856		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						6.03	0.32	
Si IX	292.763		2s22p2 $^3P_1$ - 2s2p3 $^3P_2$						6.03	0.27	
Si IX	296.117	592.6	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	949.9	0.32	0.03	N 2	6.04	6.03	0.72	[10]
Si IX	296.213		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						6.03	0.28	
Si XI	604.147	604.3	2s.2p $^1P_1$ - 2p2 $^1D_2$	2.1	0.19	0.03	N 2	6.09	6.20		
Si XI	303.324	606.7	2s2 $^1S_0$ - 2s.2p $^1P_1$	560.5	0.42	0.05	N 2	6.08	6.20		
He II	303.78	607.6	1s $^2S_{1/2}$ - 2p $^2P_{3/2}$	282.8			N 2				[11]
He II	303.786		1s $^2S_{1/2}$ - 2p $^2P_{1/2}$								
Mg X	609.793	609.8	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{3/2}$	364.2	1.55	0.15	N 2	6.05	6.04		
Si X	621.079	621.2	2p $^2P_{1/2}$ - 2s.2p2 $^4P_{1/2}$	4.1	0.73	0.09	N 2	6.06	6.12		
Mg VIII	311.796	623.6	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	112.2	0.48	0.40	N 2	6.00	5.91		
Mg X	624.941	625.0	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{1/2}$	180.4	1.55	0.16	N 2	6.05	6.04		
Mg VIII	313.754	627.6	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	100.5	1.09	0.16	N 2	6.00	5.92		
Si VIII	314.327	628.8	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	107.7	1.20	0.91	N 2	6.02	5.91		
Mg VIII	315.039	630.0	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	443.7	0.63	0.07	N 2	6.00	5.91		[12]
		154.6	ghost of 174.5 Å				G 1				
		157.2	ghost of 177.2 Å				G 1				
		158.5	ghost of 178.0 Å				G 1				
		160.6	ghost of 180.4 Å				G 1				
		162.7	ghost of 182.1 Å				G 1				
		165.3	ghost of 184.5 Å				G 1				
		166.1	ghost of 185.2 Å				G 1				
Fe VIII	167.486	167.5		193.4	0.35	0.06	G 1	5.99	5.65		AC

[2] bl He I 522.21 Å (stray light ?)
[3] bl O IV 554.513 Å
[4] Can be blended with Fe XV (bl Al IX) 284.1 Å, but not here
[5] Usually blended in on-disc observations with C III 574.28 Å
[6] Usually blended in on-disc observations with O II
[7] AC: Arcetri code
[8] (stray light ?)
[9] Usually Ar VII 585.75 Å in on-disc observations
[10] Must be a blend with an unidentified line in first order
[11] (stray light ?)
[12] Usually O V 629.732 Å in on-disc observations. Here still contributes about 40% of the observed line

Table C.2: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Fe VIII	168.545	168.3		336.7	0.49	0.06	G 1	5.99	5.65	0.50	AC
Fe VIII	168.17								5.65	0.40	
Fe VIII	168.93	168.9		73.5	1.24	0.35	G 1	5.99	5.65		AC
Fe IX	171.073	171.1	3p6 $^1S_0$ - 3p5.3d $^1P_1$	3766.6	1.09	0.11	G 1	6.03	5.96		
O VI	173.079	173.1	1s2 2p $^2P_{3/2}$ - 1s2 3d $^2D_{5/2}$	116.2	0.74	0.13	G 1	6.04	5.51	0.60	
O VI	172.935		1s2 2p $^2P_{1/2}$ - 1s2 3d $^2D_{3/2}$						5.51	0.33	
Fe X	174.534	174.7	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2D_{5/2}$	3375.8	0.90	0.09	G 1	6.05	6.05		
Fe X	175.266	175.5	3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(3p).3d $^2D_{3/2}$	358.7	0.65	0.08	G 1	6.04	6.04	0.71	
Fe X	175.443		3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2P_{1/2}$						6.04	0.29	
Fe X	177.243	177.3	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2P_{3/2}$	2133.2	0.83	0.08	G 1	6.05	6.05		
Fe XI	178.06	178.0	3s2.3p4 $^3P_2$ - 3s2.3p3(4s*).3d $^3D_2$	152.4	0.43	0.06	G 1	6.06	6.11		
Fe XI	180.408	180.5	3s2.3p4 $^3P_2$ - 3s2.3p3(4s*).3d $^3D_3$	2182.8	0.98	0.10	G 1	6.06	6.11		
Fe XI	181.137	181.3	3s2.3p4 $^3P_0$ - 3s2.3p3(4s*).3d $^3D_1$	136.2	0.68	0.10	G 1	6.06	6.11		
Fe XI	182.169	182.3	3s2.3p4 $^3P_1$ - 3s2.3p3(4s*).3d $^3D_2$	459.1	0.61	0.07	G 1	6.06	6.11	0.85	
Fe X	182.31		3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(3p).3d $^2P_{3/2}$						6.05	0.15	
O VI	184.117	184.0	1s2 2p $^2P_{3/2}$ - 1s2 3s $^2S_{1/2}$	72.4	0.62	0.13	G 1	6.03	5.51	0.67	
O VI	183.937		1s2 2p $^2P_{1/2}$ - 1s2 3s $^2S_{1/2}$						5.51	0.33	
Fe X	184.543	184.6	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(1d).3d $^2S_{1/2}$	759.0	0.88	0.09	G 1	6.05	6.05		
Fe VIII	185.213	185.3		189.7	0.38	0.05	G 1	5.99	5.64		AC
Fe XII	186.884	186.8	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(3p).3d $^2F_{7/2}$	261.9	0.81	0.09	G 1	6.05	6.16	0.49	
Fe VIII	186.599								5.64	0.36	AC
Fe XII	186.851		3s2.3p3 $^2D_{3/2}$ - 3s2.3p2(3p).3d $^2F_{5/2}$						6.16	0.14	
Fe XI	188.232	188.3	3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^3P_2$	1406.5	0.85	0.09	G 1	6.06	6.11	0.72	
Fe XI	188.299		3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^1P_1$						6.11	0.26	
Fe XI	189.129	189.1	3s2.3p4 $^3P_1$ - 3s2.3p3(2d*).3d $^3P_1$	71.4	0.48	0.08	G 1	6.06	6.11		
Fe X	190.043	190.0	3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(1d).3d $^2S_{1/2}$	368.8	0.64	0.07	G 1	6.05	6.05		
S XI	191.266	191.1	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	69.7	0.40	0.08	G 1	6.08	6.24	0.61	
Fe XI	190.888		3s2.3p4 $^1D_2$ - 3s2.3p3(4s*).3d $^3D_2$						6.11	0.16	
Fe XII	191.053		3s2.3p3 $^2P_{3/2}$ - 3s2.3p2(3p).3d $^2D_{5/2}$						6.16	0.16	
S XI	191.266	191.3	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	17.8	0.96	0.55	G 1	6.08	6.24		
Fe XII	192.393	192.4	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{1/2}$	270.2	0.86	0.12	G 1	6.08	6.16		
Fe XI	192.83	192.8	3s2.3p4 $^3P_1$ - 3s2.3p3(2d*).3d $^3P_2$	336.4	0.59	0.07	G 1	6.06	6.11		
Fe XII	193.521	193.6	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{3/2}$	828.5	0.84	0.09	G 1	6.07	6.16		
Fe XII	194.609	194.5	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^2P_{1/2}$	79.3	0.14	0.04	G 1	6.06	6.16	0.81	
Fe VIII	194.661		3p6.(1s).3d $^2D_{5/2}$ - 3p6.(1s).4p $^2P_{3/2}$						5.67	0.18	AC
Fe XII	195.118	195.2	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{5/2}$	1103.8	0.99	0.10	G 1	6.08	6.16		
Fe VIII	195.972	195.9	3p6.(1s).3d $^2D_{3/2}$ - 3p6.(1s).4p $^2P_{1/2}$	24.4	0.25	0.13	G 1	6.01	5.64	0.77	AC
S X	196.108		2s22p3 $^2P_{1/2}$ - 2s2p4 $^2P_{3/2}$						6.12	0.23	
Fe XII	196.648	196.6	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(1d).3d $^2D_{5/2}$	104.8	0.51	0.10	G 1	6.08	6.16		
S VIII	198.553	198.7	2s2.2p5 $^2P_{3/2}$ - 2s.2p6 $^2S_{1/2}$	140.0	0.60	0.13	G 1	6.03	5.88	0.66	
Fe XI	198.545		3s2.3p4 $^1D_2$ - 3s2.3p3(2d*).3d $^3P_1$						6.11	0.32	
Fe XIII	200.022	200.1	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3D_2$	54.7	0.33	0.14	G 1	6.09	6.20		
Fe XIII	201.128	201.2	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3D_1$	198.7	0.23	0.05	G 1	6.09	6.21		
Fe XIII	202.044	202.1	3s2 3p2 $^3P_0$ - 3s2 3p 3d $^3P_1$	493.9	0.87	0.13	G 1	6.09	6.21		
Fe XI	202.706	202.7	3s2.3p4 $^1D_2$ - 3s2.3p3(2d*).3d $^1P_1$	180.6	0.86	0.22	G 1	6.05	6.11	0.75	
S VIII	202.61		2s2.2p5 $^2P_{1/2}$ - 2s.2p6 $^2S_{1/2}$						5.88	0.16	
Fe XIII	203.828	203.8	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_3$	145.9	0.60	0.16	G 1	6.09	6.20	0.73	
Fe XIII	203.797		3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_2$						6.20	0.26	
Fe XII	206.371	206.1	3s2.3p3 $^2D_{3/2}$ - 3s2.3p2(1s).3d $^2D_{3/2}$	94.1	0.46	0.12	G 1	6.08	6.16		
Fe XI	207.777	207.5	3s2.3p4 $^3P_1$ - 3s2.3p3(2p*).3d $^3D_2$	120.6	1.12	0.31	G 1	6.06	6.11	0.79	
Fe X	207.447		3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(1d).3d $^2F_{5/2}$						6.04	0.20	
Fe XIII	209.919	209.7	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3P_1$	77.4	1.12	0.49	G 1	6.09	6.21	0.85	
Fe XIII	209.621		3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3P_2$						6.20	0.15	
Fe XIV	211.32	211.3	3s2 3p $^2P_{1/2}$ - 3s2 3d $^2D_{3/2}$	84.3	0.59	0.19	G 1	6.11	6.25		
Si VIII	216.915	216.8	2s22p3 $^2D_{5/2}$ - 2s2p4 $^2P_{3/2}$	255.2	0.54	0.09	G 1	6.03	5.90	0.54	
Fe IX	217.101		3p6 $^1S_0$ - 3p5.3d $^3D_1$						5.94	0.23	
Si X	258.372	258.5	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	321.0	0.86	0.09	G 2	6.06	6.13		
S X	259.496	259.8	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	106.2	1.48	0.19	G 2	6.06	6.13		
Si X	261.063	261.2	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	133.3	1.06	0.13	G 2	6.06	6.13		
Fe XIV	264.78	264.6	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2P_{3/2}$	27.0	0.69	0.16	G 2	6.11	6.25		
		266.3	ghost of 290.7 Å(bl)				G 2				
		268.8	ghost of 292.8 Å				G 2				
Fe XIV	270.507	270.4	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2P_{1/2}$	6.8	2.38	1.10	G 2	6.08	6.25	0.78	?
Mg VI	270.39		2s2.2p3 $^2D_{5/2}$ - 2s.2p4 $^2P_{3/2}$						5.66	0.19	
Si X	271.983	272.0	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	105.4	1.03	0.12	G 2	6.07	6.13		
Si VII	272.638	272.7	2p4 $^3P_2$ - 2s.2p5 $^3P_1$	42.1	0.31	0.05	G 2	5.99	5.77		[13]
Fe XIV	274.2	274.1	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2S_{1/2}$	37.5	0.89	0.14	G 2	6.09	6.25	0.81	
Si VII	274.174		2p4 $^3P_1$ - 2s.2p5 $^3P_0$						5.77	0.19	

[13] bl ghost of 296.1 Å

Table C.2: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Si VII	275.353	275.3	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	60.6	0.91	0.12	G 2	5.99	5.77		
Mg VII	276.154	276.1	2s22p2 $^3P_0$ - 2s2p3 $^3S_1$	18.1	0.91	0.31	G 2	5.99	5.81	0.51	
Si VII	275.667		2p4 $^3P_1$ - 2s.2p5 $^3P_1$						5.77	0.45	
Si X	277.255	277.0	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	213.5	1.07	0.12	G 2	6.03	6.13	0.38	
Si VIII	277.054		2s22p3 $^2D_{5/2}$ - 2s2p4 $^2D_{5/2}$						5.90	0.30	
Si VIII	276.838		2s22p3 $^2D_{3/2}$ - 2s2p4 $^2D_{3/2}$						5.90	0.13	
Mg VII	277		2s22p2 $^3P_1$ - 2s2p3 $^3S_1$						5.81	0.11	
Mg VII	278.402	278.4	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	52.9	1.17	0.16	G 2	5.99	5.81	0.68	
Si VII	278.443		2p4 $^3P_1$ - 2s.2p5 $^3P_2$						5.77	0.29	
Al IX	280.151	280.1	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	10.9	1.19	0.41	G 2	6.04	6.03		
Mg VII	280.737	280.7	2s22p2 $^1D_2$ - 2s2p3 $^1P_1$	6.8	0.61	0.29	G 2	5.98	5.80		
S XI	281.401	281.5	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	17.8	1.21	0.28	G 2	6.08	6.24		
Al IX	282.422	282.6	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	28.9	0.93	0.17	G 2	6.04	6.03		
Fe XII	283.449	283.6	3s2.3p3 $^2D_{3/2}$ - 3s.3p4 $^2P_{1/2}$	15.5	0.21	0.06	G 2	6.07	6.16		bl ?
Al IX	284.042	284.5	2s2.2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	79.7	1.11	0.14	G 2	6.07	6.03	0.76	
Fe XV	284.16		3s2 $^1S_0$ - 3s3p $^1P_1$						6.29	0.24	
S XI	285.587	285.8	2s22p2 $^3P_1$ - 2s2p3 $^3D_1$	33.8	0.64	0.12	G 2	6.08	6.24	0.48	
S XI	285.822		2s22p2 $^3P_1$ - 2s2p3 $^3D_2$						6.24	0.40	
Al VIII	285.469		2p2 $^1D_2$ - 2s.2p3 $^1D_2$						5.91	0.11	
Al IX	286.377	286.6	2s2.2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	15.5	1.39	0.36	G 2	6.04	6.03		
Fe XII	287.263	287.5	3s2.3p3 $^2D_{3/2}$ - 3s.3p4 $^2P_{3/2}$	20.4	0.09	0.02	G 2	6.07	6.16		bl ?
S XII	288.434	288.4	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	9.6	0.42	0.16	G 2	6.11	6.32	0.57	
Fe XIII	288.565		3s2 3p2 $^1S_0$ - 3s 3p3 $^1P_1$						6.20	0.43	
S XII	288.434	288.7	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	4.7	0.86	0.78	G 2	6.11	6.32	0.57	
Fe XIII	288.565		3s2 3p2 $^1S_0$ - 3s 3p3 $^1P_1$						6.20	0.43	
P IX	289.531	289.7	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	17.5	0.29	0.08	G 2	6.05	6.05		[14]
Si IX	290.69	290.5	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	78.8	0.91	0.12	G 2	6.04	6.03		[15]
Si IX	292.8	292.7	2s22p2 $^3P_1$ - 2s2p3 $^3P_0$	182.2	1.15	0.13	G 2	6.04	6.03	0.40	[16]
Si IX	292.856		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						6.03	0.32	
Si IX	292.763		2s22p2 $^3P_1$ - 2s2p3 $^3P_2$						6.03	0.27	
		293.3	ghost of 313.7 Å ?				G 2				
		294.	ghost of 314.3 Å ?				G 2				
		294.8	ghost of 315. Å				G 2				
Si IX	296.117	296.2	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	337.2	0.90	0.09	G 2	6.04	6.03	0.72	[17]
Si IX	296.213		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						6.03	0.28	
		296.9	ghost of 317. Å (bl ?)				G 2				
		299.9	ghost of 319.8 Å				G 2				
Al IX	305.045	305.3	2s2.2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	14.3	1.00	0.26	G 2	6.04	6.03		
Si VIII	308.195	307.9	2s22p3 $^2P_{3/2}$ - 2s2p4 $^2D_{5/2}$	11.9	1.29	0.42	G 2	6.02	5.90	0.76	
Si VIII	307.652		2s22p3 $^2P_{1/2}$ - 2s2p4 $^2D_{3/2}$						5.90	0.23	
Fe XI	308.548	308.5	3s2.3p4 $^1D_2$ - 3s.3p5 $^1P_1$	40.5	0.36	0.05	G 2	6.06	6.10		[18]
		310.4	ghost of 328.3 Å ?				G 2				
Mg VIII	311.796	311.6	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	55.9	0.99	0.13	G 2	6.01	5.91		[19]
Fe XIII	312.109	312.1	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_1$	16.2	1.44	0.38	G 2	6.09	6.20		[20]
Mg VIII	313.754	313.7	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	112.1	0.98	0.12	G 2	6.00	5.92		[21]
Si VIII	314.327	314.3	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	124.1	1.04	0.12	G 2	6.02	5.91		[22]
Mg VIII	315.039	315.1	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	290.8	0.96	0.10	G 2	6.00	5.91		[23]
Si VIII	316.205	316.3	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	171.6	1.43	0.16	G 2	6.02	5.91		[24]
Mg VIII	317.039	317.1	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	116.8	0.67	0.08	G 2	6.00	5.92		[25]
		318.6	ghost of 335.4 Å (bl Mg VII 319.)				G 2				
Si VIII	319.826	319.8	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	335.9	1.11	0.12	G 2	6.02	5.91		[26]
Fe XIII	320.809	320.8	3s2 3p2 $^3P_2$ - 3s 3p3 $^3P_2$	13.2	0.77	0.18	G 2	6.09	6.20		[27]
Fe XIII	321.4	321.6	3s2 3p2 $^3P_2$ - 3s 3p3 $^3P_1$	14.0	1.17	0.26	G 2	6.08	6.20	0.66	

[14] bl with a ghost ?
[15] Ghosting to 266.7 Å + ghost of 311.7 Å
[16] Ghosting to 268.8 Å + ghost of 313. Å
[17] Ghosting to 272.6 Å + ghost of 316.2 Å
[18] Ghosting and ghosted ?
[19] Ghosting to 290.6 Å + ghost ?
[20] Ghosting 291.4 Å + ghost of 329.7 Å
[21] Ghosting to 293.3 Å
[22] Ghosting to 294. Å
[23] Ghosting to 294.8 Å
[24] Ghosting to 296.2 Å + ghost of 332.8 Å
[25] Ghosting to 296.9 Å + ghost of 334.1 Å
[26] Ghosting to 336.1, 299.9 Å
[27] Could be contaminated by the unidentified line at 337.2 Å

Table C.2: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Fe X	321.732		3s2.3p4(3p).3d $^4D_{5/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$						6.04	0.23	
Al X	332.789	332.9	2s2 $^1S_0$ - 2s.2p $^1P_1$	63.7	1.85	0.30	G 2	6.06	6.09		[28]
Fe XIV	334.172	334.2	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2D_{3/2}$	9.9	2.09	0.79	G 2	6.11	6.24		[29]
Mg VIII	335.253	335.3	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	91.8	0.83	0.11	G 2	6.03	5.92	0.65	[30]
Fe XII	335.339		3s2.3p3 $^2D_{3/2}$ - 3s.3p4 $^2D_{3/2}$						6.16	0.33	
		336.1	ghost of 319.8 Å				G 2				
Fe XII	338.278	338.1	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2D_{5/2}$	22.5	1.27	0.34	G 2	6.07	6.16		
Mg VIII	339.006	339.0	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	61.7	1.11	0.18	G 2	6.00	5.92		
Ne VI	401.926	401.9	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	11.8	0.44	0.07	G 3	5.89	5.64		[31]
Mg VI	403.307	403.1	2s2.2p3 $^4S_{3/2}$ - 2s.2p4 $^4P_{5/2}$	8.5	1.25	0.25	G 3	5.94	5.65	0.89	[32]
Ne VI	403.255		2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{1/2}$						5.64	0.11	
Fe XIII	202.044	403.9	3s2 3p2 $^3P_0$ - 3s2 3p 3d $^3P_1$	264.5	1.63	0.33	G 3	6.09	6.21		
Fe XI	202.448	404.7	3s2.3p4 $^3P_2$ - 3s2.3p3(2p*).3d $^3D_2$	123.8	0.39	0.15	G 3	6.06	6.11		
Fe XI	406.811	406.8	3s2.3p4 $^1D_2$ - 3s.3p5 $^3P_2$	3.6	1.55	0.54	G 3	6.06	6.11		
Fe XIII	203.828	407.5	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_3$	79.0	1.11	0.44	G 3	6.09	6.20	0.73	
Fe XIII	203.797		3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_2$						6.20	0.26	
		408.5	ghost of 436.5 Å ?				G 3				[33]
		409.	ghost of 436.7 Å				G 3				
Na VIII	411.166	411.1	2s2 $^1S_0$ - 2s.2p $^1P_1$	22.8	1.13	0.15	G 3	5.99	5.86		
Fe XV	417.258	417.3	3s2 $^1S_0$ - 3s3p $^3P_1$	1.1	0.61	0.55	G 3	6.15	6.29		
Ca X	419.754	419.7	3p $^2P_{3/2}$ - 3d $^2D_{5/2}$	8.5	0.59	0.13	G 3	6.02	5.82	0.60	
C IV	419.713		1s2 2p $^2P_{3/2}$ - 1s2 3s $^2S_{1/2}$						5.08	0.25	
C IV	419.525		1s2 2p $^2P_{1/2}$ - 1s2 3s $^2S_{1/2}$						5.08	0.12	
Fe XIV	211.32	422.7	3s2 3p $^2P_{1/2}$ - 3s2 3d $^2D_{3/2}$	75.0	0.66	0.27	G 3	6.11	6.25		
Fe XIII	213.771	427.5	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3P_2$	98.1	0.13	0.04	G 3	6.09	6.20		bl ?
Mg VIII	428.319	428.2	2s.2p2 $^2D_{5/2}$ - 2p3 $^2D_{5/2}$	4.3	0.78	0.27	G 3	6.00	5.92	0.55	
Mg VIII	428.245		2s.2p2 $^2D_{3/2}$ - 2p3 $^2D_{3/2}$						5.92	0.35	
Mg VII	429.14	429.2	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	12.5	0.84	0.15	G 3	5.98	5.80		
Mg VIII	430.465	430.5	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	104.0	1.04	0.11	G 3	6.00	5.91		[34]
Mg VII	431.313	431.3	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	25.0	1.23	0.18	G 3	5.98	5.80	0.78	[35]
Mg VII	431.188		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						5.80	0.22	
Mg VII	434.917	434.9	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	36.9	1.23	0.16	G 3	5.98	5.80	0.87	[36]
Mg VII	434.72		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						5.80	0.13	
Mg VIII	436.735	436.9	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	191.4	0.91	0.10	G 3	6.00	5.91	0.89	[37]
Mg VIII	436.672		2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$						5.91	0.11	[38]
Fe IX	218.937	438.0	3p6 $^1S_0$ - 3p5.3d $^1D_2$	41.8	0.44	0.19	G 3	6.02	5.94		
Fe XIV	219.136	438.4	3s2 3p $^2P_{3/2}$ - 3s2 3d $^2D_{5/2}$	68.9	0.13	0.05	G 3	6.09	6.24	0.58	bl ?
Fe XI	219.198		3s2.3p4 $^1D_2$ - 3s2.3p3(2p*).3d $^3D_2$						6.11	0.41	
Mg IX	439.175	439.1	2s.2p $^3P_1$ - 2p2 $^3P_2$	19.3	0.46	0.07	G 3	6.03	5.98		
Fe XIV	220.088	440.4	3s2 3p $^2P_{3/2}$ - 3s2 3d $^2D_{3/2}$	58.7	0.24	0.10	G 3	6.10	6.25	0.70	bl ?
Fe XI	220.249		3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^3G_3$						6.10	0.23	
Mg IX	441.198	441.2	2s.2p $^3P_0$ - 2p2 $^3P_1$	14.5	0.53	0.09	G 3	6.02	5.98		
S IX	221.241	442.5	2s2.2p4 $^3P_2$ - 2s.2p5 $^3P_1$	46.4	1.01	0.44	G 3	6.04	6.00		
Mg IX	443.402	443.3	2s.2p $^3P_1$ - 2p2 $^3P_1$	9.2	0.59	0.16	G 3	6.03	5.98		
Mg IX	443.972	444.0	2s.2p $^3P_2$ - 2p2 $^3P_2$	48.5	0.54	0.07	G 3	6.03	5.98		
Si IX	223.742	447.4	2s22p2 $^3P_0$ - 2s2p3 $^3S_1$	109.3	0.57	0.15	G 3	6.05	6.04	0.90	[39]
Fe XIII	223.777		3s2 3p2 $^1D_2$ - 3s2 3p 3d $^3P_1$						6.21	0.10	
Mg IX	448.293	448.4	2s.2p $^3P_2$ - 2p2 $^3P_1$	18.3	0.47	0.07	G 3	6.03	5.98		
S IX	224.725	449.5	2s2.2p4 $^3P_2$ - 2s.2p5 $^3P_2$	123.3	1.68	0.43	G 3	6.04	6.00		?
Si IX	225.024	450.2	2s22p2 $^3P_1$ - 2s2p3 $^3S_1$	230.3	1.04	0.19	G 3	6.04	6.04	0.69	
Fe X	225.161		3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(1d).3d $^2D_{5/2}$						6.04	0.20	
S IX	225.22		2s2.2p4 $^3P_1$ - 2s.2p5 $^3P_1$						6.00	0.11	
Fe X	226.02	451.7	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^4P_{3/2}$	37.7	0.45	0.31	G 3	6.04	6.04		bl ?
Fe X	226.32	452.7	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^4P_{5/2}$	109.4	0.48	0.13	G 3	6.05	6.04		bl ?

[28] Ghosting to 316.2 Å

[29] Ghosting to 317. Å

[30] Ghosting to 318.6 Å

[31] Only partly blended with the ghost of 430.5 Å

[32] Not blended with the ghost of 431.2 Å

[33] There might still a small contribution from unidentified lines. In the SERTS-89 spectrum, a weak line at 408.393 Å was observed.

[34] Could be ghosting to 401.9 Å

[35] Could in principle be ghosting to 403.3 Å, but is not.

[36] Could in principle be ghosting to 406.8 Å, but is not.

[37] Could be ghosting to 408.5-409 Å.

[38] Could be ghosting to 408.5-409 Å.

[39] Blended with a Fe XIV 447.331 Å in first order.

Table C.2: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Si IX	227	454.0	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	288.2	0.97	0.16	G 3	6.04	6.04		
Fe XII	227.406	454.9	3s2.3p3 $^2P_{1/2}$ - 3s2.3p2(3p).3d $^2P_{1/2}$	20.7	1.07	0.97	G 3	6.07	6.16	0.62	
Si IX	227.361		2s22p2 $^1D_2$ - 2s2p3 $^1P_1$						6.03	0.31	
Fe XIII	228.159	456.3	3s2 3p2 $^1D_2$ - 3s2 3p 3d $^3P_2$	70.0	0.21	0.09	G 3	6.08	6.20	0.70	bl ?
S X	228.164		2s22p3 $^2D_{3/2}$ - 2s2p4 $^2D_{3/2}$						6.11	0.23	
Ne VII	465.22	465.2	2s2 $^1S_0$ - 2s2p $^1P_1$	142.2	0.76	0.08	G 3	5.98	5.72		
Ca IX	466.239	466.3	3s2 $^1S_0$ - 3s.3p $^1P_1$	39.8	0.45	0.06	G 3	5.98	5.78		
Fe X	233.644	467.2	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(1d).3d $^2P_{3/2}$	102.1	0.47	0.14	G 3	6.04	6.04	0.77	[40]
Fe X	233.482		3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^4F_{3/2}$						6.04	0.23	
Fe X	234.353	468.7	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^4F_{5/2}$	81.5	0.49	0.15	G 3	6.04	6.04	0.64	bl ?
Si VIII	234.241		2s22p3 $^2P_{3/2}$ - 2s2p4 $^2P_{1/2}$						5.90	0.12	
Fe X	234.326		3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(3p).3d $^4P_{3/2}$						6.04	0.12	
Fe XI	235.088	469.5	3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^3F_2$	14.3	0.34	0.31	G 3	6.06	6.10		[41]
Si VIII	235.549	471.5	2s22p3 $^2P_{3/2}$ - 2s2p4 $^2P_{3/2}$	18.3	0.83	0.69	G 3	6.02	5.90		
Fe XIII	240.696	481.0	3s2 3p2 $^3P_0$ - 3s 3p3 $^3S_1$	14.3	1.51	1.29	G 3	6.09	6.20		[42]
Fe XIII	240.696	481.4	3s2 3p2 $^3P_0$ - 3s 3p3 $^3S_1$	29.1	0.81	0.30	G 3	6.08	6.20	0.84	[43]
Al VII	240.777		2s22p3 $^2D_{5/2}$ - 2s2p4 $^2P_{3/2}$						5.78	0.14	
Fe IX	241.739	483.3	3p6 $^1S_0$ - 3p5.3d $^3P_2$	140.8	1.18	0.16	G 3	6.02	5.94		
Fe IX	244.909	489.1	3p6 $^1S_0$ - 3p5.3d $^3P_1$	69.9	0.90	0.14	G 3	6.02	5.94		[44]
Al X	332.789	665.7	2s2 $^1S_0$ - 2s.2p $^1P_1$	121.3	0.97	0.88	G 4	6.06	6.09		
Fe XII	338.278	676.6	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2D_{5/2}$	71.2	0.40	0.36	G 4	6.07	6.16		
Na IX	681.721	681.5	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{3/2}$	3.3	11	2	G 4	6.03	5.92		?
Fe XI	341.113	682.1	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_1$	287.9	0.16	0.07	G 4	6.06	6.11		bl ?
Si IX	341.949	684.4	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	103.8	0.98	0.82	G 4	6.04	6.03		
Si IX	345.124	690.3	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	200.4	1.23	0.44	G 4	6.04	6.03	0.77	
Si IX	344.951		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						6.03	0.23	
Fe X	345.723	691.5	3s2.3p5 $^2P_{3/2}$ - 3s.3p6 $^2S_{1/2}$	141.0	1.13	0.50	G 4	6.04	6.04		
Fe XII	346.852	693.8	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{1/2}$	194.6	0.24	0.15	G 4	6.07	6.16		bl ?
Na IX	694.147	694.2	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{1/2}$	6.0	3.13	2.84	G 4	6.03	5.92		?
Si X	347.403	694.7	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	293.1	0.76	0.29	G 4	6.06	6.13		
Fe XIII	348.183	696.2	3s2 3p2 $^3P_0$ - 3s 3p3 $^3D_1$	26.1	1.95	1.76	G 4	6.09	6.20		?
Fe XI	349.046	698.0	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_0$	61.8	0.15	0.08	G 4	5.99	6.10	0.39	bl ?
Mg VI	349.163		2s2.2p3 $^2D_{5/2}$ - 2s.2p4 $^2D_{5/2}$						5.65	0.33	
Mg VI	349.124		2s2.2p3 $^2D_{3/2}$ - 2s.2p4 $^2D_{3/2}$						5.65	0.25	
Si IX	349.873	699.8	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	267.1	0.85	0.17	G 4	6.04	6.03	0.84	
Si IX	349.794		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						6.03	0.16	
Fe XII	352.106	704.2	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{3/2}$	101.5	0.92	0.37	G 4	6.07	6.16		
		704.7	ghost of Mg IX IIo 368.07 Å ?				G 4				
Fe XI	352.662	705.2	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_2$	176.2	1.11	0.39	G 4	6.06	6.11		
Mg IX	706.058	705.8	2s2 $^1S_0$ - 2s.2p $^3P_1$	45.8	0.52	0.08	G 4	6.02	5.98		
Si X	356.012	711.8	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	127.6	1.05	0.38	G 4	6.06	6.13	0.76	
Si X	356.05		2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$						6.13	0.24	
Fe XI	356.519	712.9	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_1$	27.4	0.87	0.79	G 4	6.06	6.11		
Fe XI	358.621	717.3	3s2.3p4 $^3P_0$ - 3s.3p5 $^3P_1$	48.9	0.64	0.58	G 4	6.06	6.11		
Fe XIII	359.642	719.2	3s2 3p2 $^3P_1$ - 3s 3p3 $^3D_2$	58.4	0.19	0.15	G 4	6.08	6.20		
Fe XIII	359.842	719.7	3s2 3p2 $^3P_1$ - 3s 3p3 $^3D_1$	16.4	0.81	0.73	G 4	6.09	6.20		
Fe XVI	360.761	721.6	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	89.9	0.01	0.01	G 4	6.18	6.34	0.77	bl ?
Fe X	360.839		3s2.3p4(3p).3d $^4F_{3/2}$ - 3s.3p5(3p*).3d $^4F_{3/2}$						6.04	0.23	
Fe XII	364.467	728.5	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{5/2}$	123.7	1.05	0.47	G 4	6.07	6.16		
Mg VII	365.234	729.9	2s22p2 $^3P_1$ - 2s2p3 $^3P_2$	31.6	0.97	0.88	G 4	5.98	5.81	0.37	
Mg VII	365.176		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$						5.81	0.35	
Mg VII	365.243		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						5.81	0.28	
Fe X	365.543	730.7	3s2.3p5 $^2P_{1/2}$ - 3s.3p6 $^2S_{1/2}$	56.8	1.21	1.09	G 4	6.04	6.04		
Mg VII	367.674	735.4	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	94.9	0.54	0.48	G 4	5.98	5.81	0.77	
Mg VII	367.683		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						5.81	0.23	
Mg IX	368.07	736.0	2s2 $^1S_0$ - 2s.2p $^1P_1$	1069.1	0.92	0.14	G 4	6.03	5.98		[45]
Fe XI	369.153	738.1	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_2$	62.9	0.93	0.56	G 4	6.06	6.11		[46]
		742.6	ghost of 769.3 Å				G 4				
		744.1	ghost of Ne VIII 770.4 Å				G 4				
		745.5	ghost of 772.26 Å				G 4				
Mg IX	749.55	749.7	2s.2p $^1P_1$ - 2p2 $^1D_2$	9.0	0.27	0.13	G 4	6.03	5.99		

[40] Blended with first order Fe XIV 467.395 Å line.

[41] Blended ? + a Ne IV 469.9 Å in on-disc observations.

[42] + a Ne V 480.4 Å in on-disc observations.

[43] + a Ne V 481.3 Å in on-disc observations.

[44] + Ne III 489 Å in on-disc observations.

[45] Ghosting to 704.7 Å ?

[46] It appears not to be ghosting. On-disc, it is blended with a ghost of N IV 765.1 Å.

Table C.2: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Ca IX	378.081	755.6	3s.3p $^3P_2$ - 3s.3d $^3D_3$	17.1	0.07	0.06	G 4	5.97	5.78	0.52	
Al IX	384.971	769.3	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	75.8	0.37	0.15	G 4	6.04	6.03		[47]
Ne VIII	770.409	770.8	1s2 2s $^2S_{1/2}$ - 1s2 2p $^2P_{3/2}$	294.1	1.81	0.20	G 4	6.02	5.79		[48]
Mg VIII	772.26	772.1	2p $^2P_{3/2}$ - 2s.2p2 $^4P_{5/2}$	21.7	0.38	0.13	G 4	6.00	5.90		[49]
Al VIII	387.957	775.4	2p2 $^3P_2$ - 2s.2p3 $^3D_3$	39.9	0.69	0.38	G 4	6.02	5.92	0.84	[50]
Al VIII	387.822		2p2 $^3P_2$ - 2s.2p3 $^3D_2$						5.92	0.14	
S X	776.373	776.3	2s22p3 $^4S_{3/2}$ - 2s22p3 $^2P_{3/2}$	6.0	1.15	0.78	G 4	6.06	6.11		
Ne VIII	780.324	780.1	1s2 2s $^2S_{1/2}$ - 1s2 2p $^2P_{1/2}$	157.7	1.69	0.20	G 4	6.02	5.79		
Mg VIII	782.338	781.9	2p $^2P_{3/2}$ - 2s.2p2 $^4P_{3/2}$	6.7	0.77	0.59	G 4	6.00	5.90		

[47] Blended with a Mg VIII 769.343 Å. Ghosting to 742.6.
[48] Ghosting to 744.1 Å.
[49] Blended ? (ghosting to 745.5 Å)
[50] This identification with second order Al VIII is uncertain.

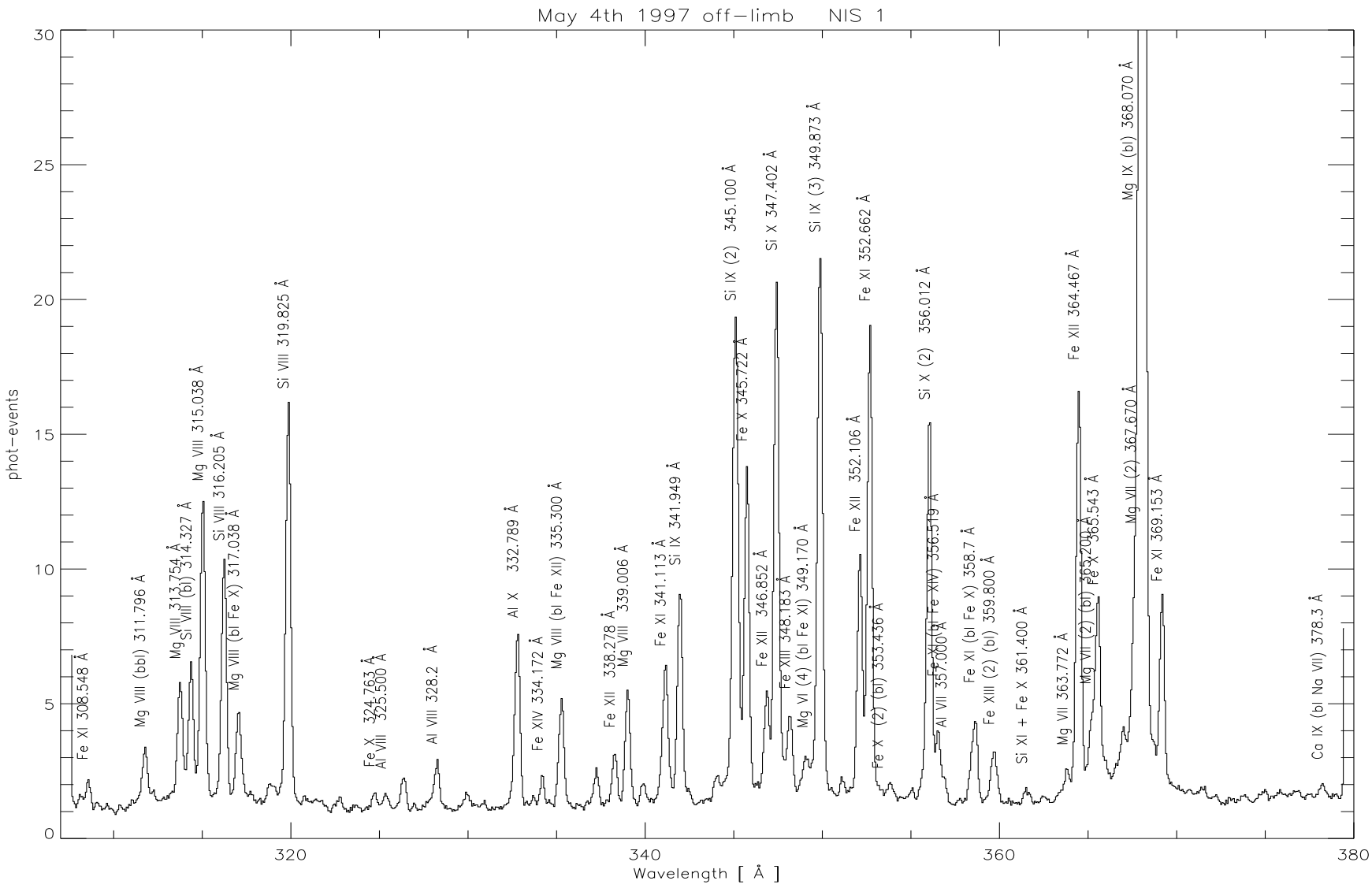

Figure C.1: *The NIS 1 averaged spectra of an area of the off-limb quiet sun observation of May 4th 1997.*

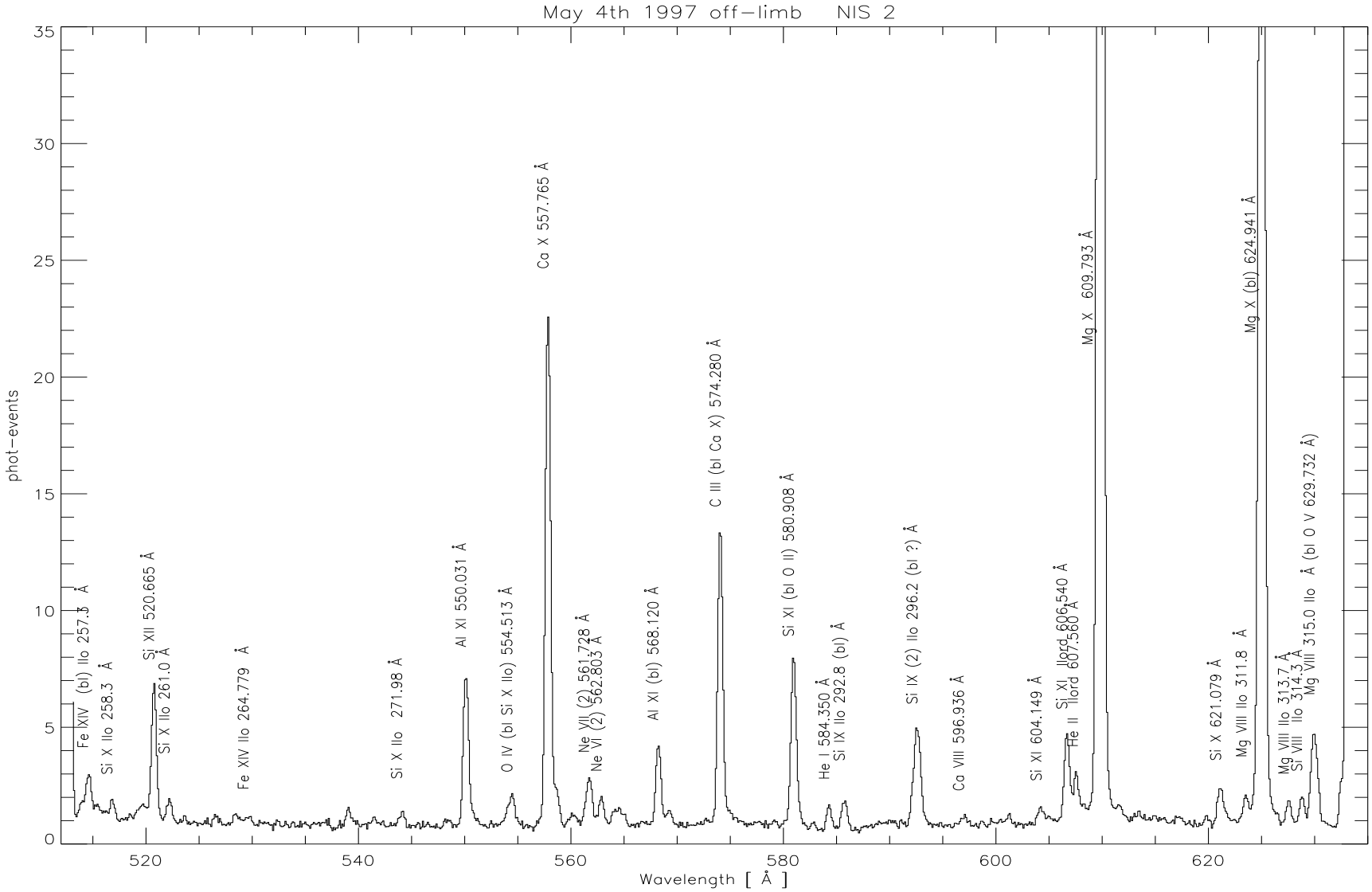

Figure C.2: *The NIS 2 averaged spectra of an area of the off-limb quiet sun observation of May 4th 1997.*

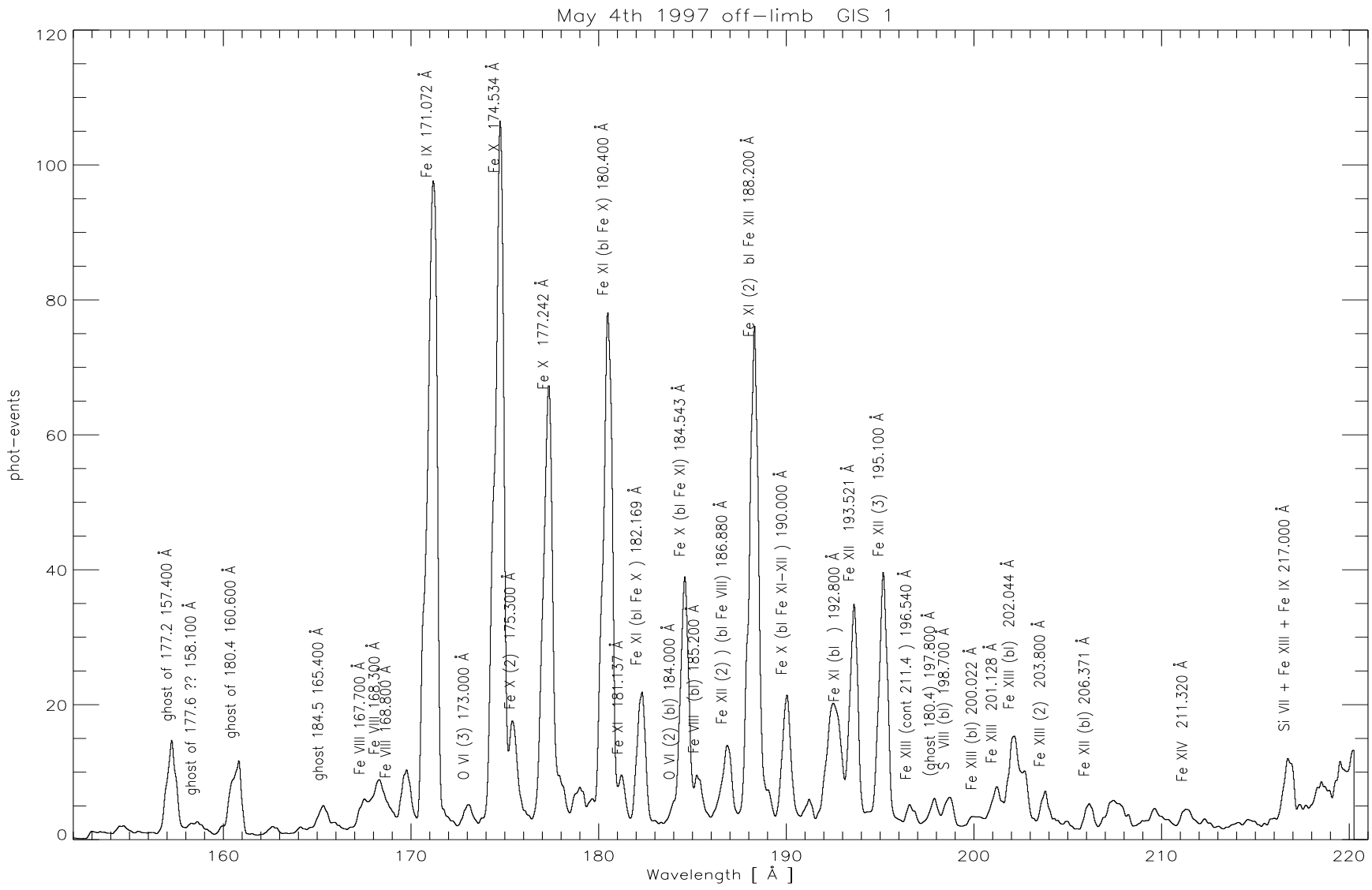

Figure C.3: *The GIS 1 averaged spectra of an area of the off-limb quiet sun observation of May 4th 1997.*

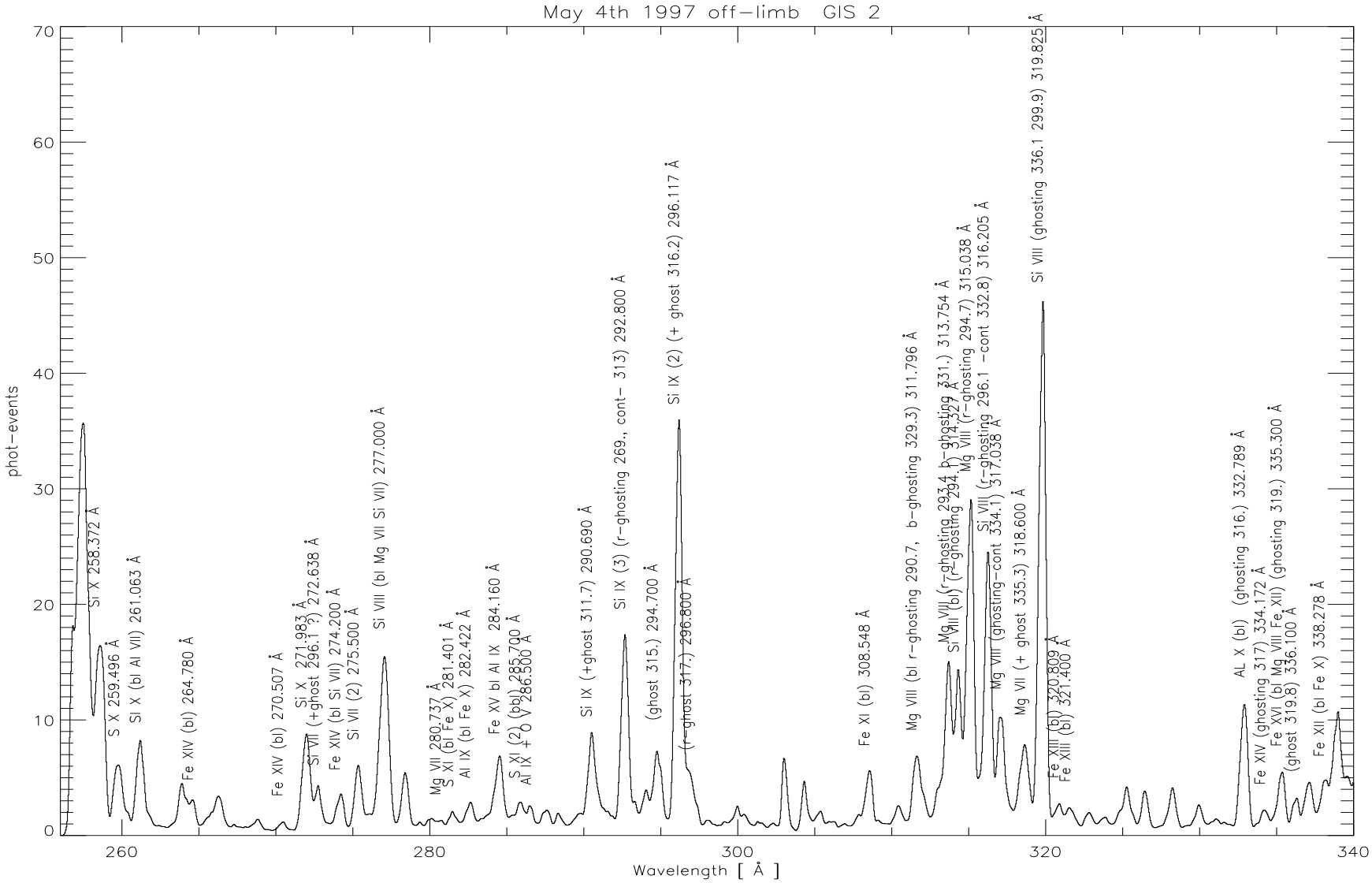

Figure C.4: *The GIS 2 averaged spectra of an area of the off-limb quiet sun observation of May 4th 1997.*

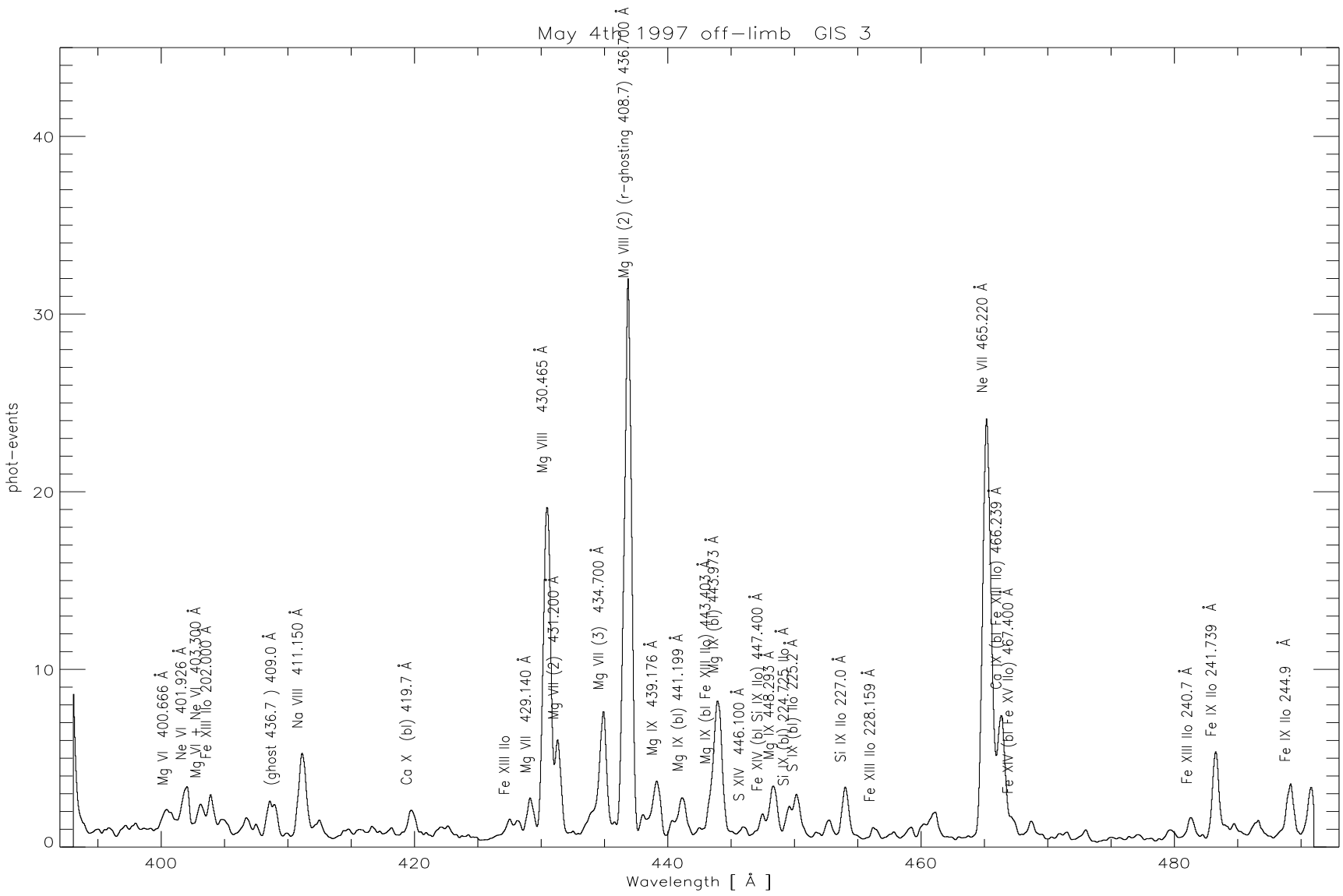

Figure C.5: *The GIS 3 averaged spectra of an area of the off-limb quiet sun observation of May 4th 1997.*

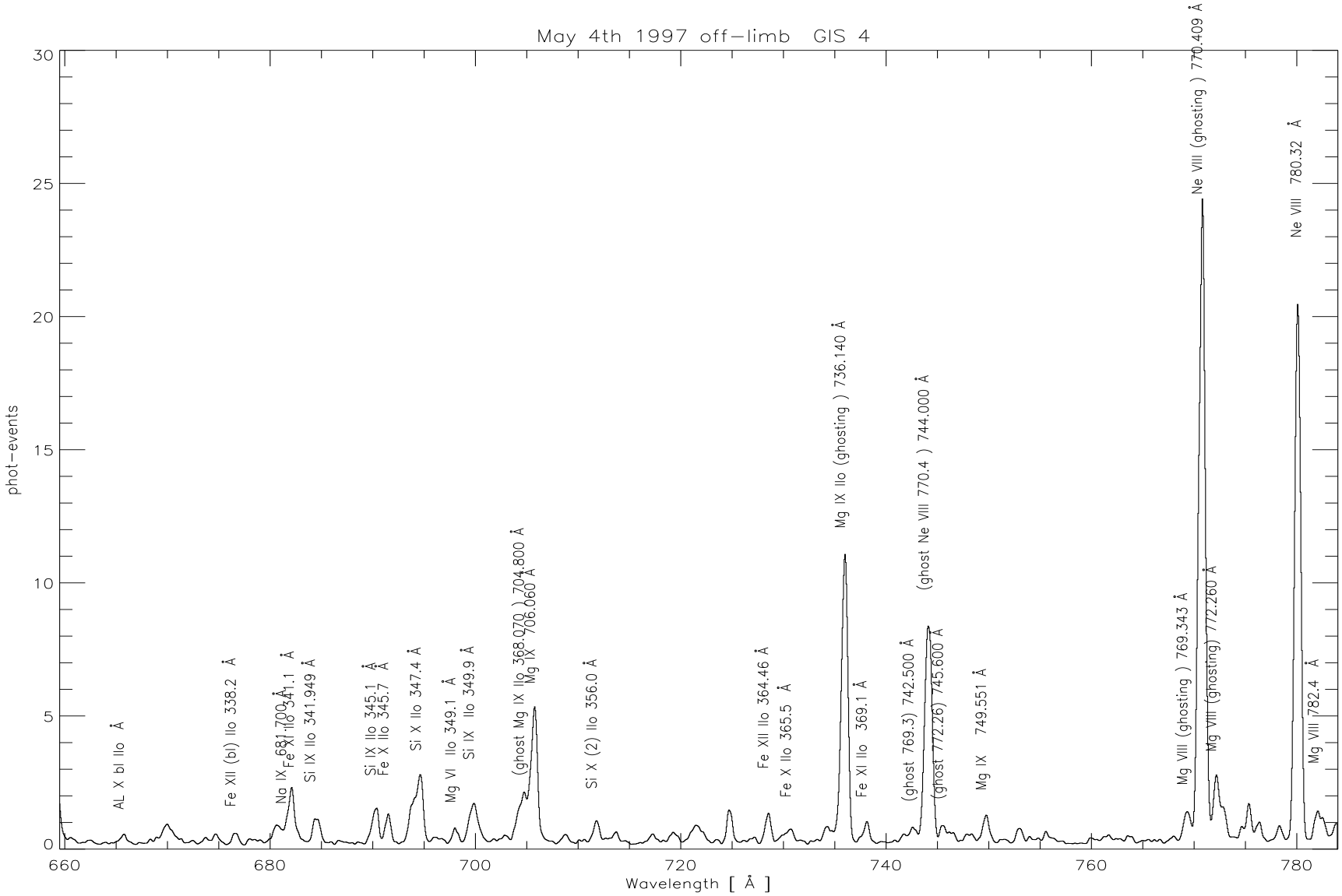

Figure C.6: *The GIS 4 averaged spectra of an area of the off-limb quiet sun observation of May 4th 1997.*

Table C.3: *Some of the ghosting reconstruction applied to the GIS off-limb spectra of May 4th, 1997. The averaged positions of the ghost and parent (i.e. ghosting) lines are indicated in columns (1) and (3). The ratio of the intensity of the ghost with that one of the ghosting line (in counts) is presented in column (2), while the intensity of the ghosting line (in counts), is shown in column (4). Note that the correction for ghosting is important for many lines, and that some lines have been corrected twice, for both the red- and blue-shifted ghosts.*

λ_{ob} (Å) (ghost)	ratio (counts)	λ_{ob} (Å) (parent)	I (counts) (parent)
154.629	0.01	174.677	1779.27
157.232	0.24	177.3	1026.74
160.628	0.17	180.491	1217.41
197.405	0.01	180.491	1426.13
197.896	0.04	180.491	1436.96
162.658	0.05	182.263	322.152
165.299	0.15	184.582	530.512
166.079	0.20	185.327	130.323
331.218	0.04	313.688	173.599
294.015	0.25	314.333	162.36
294.769	0.25	315.101	375.66
332.5	0.03	315.101	470.292
296.932	0.68	317.064	120.914
300.102	0.05	319.782	557.139
336.238	0.05	319.782	585.483
268.764	0.05	292.659	233.177
318.21	0.28	335.304	58.688
318.647	1.47	335.304	74.836
408.53	0.06	436.892	448.4
409.032	0.04	436.892	473.787
704.691	0.12	735.988	117.175
742.642	0.51	769.316	12.79
744.117	0.42	770.761	267.646
745.499	0.25	772.135	22.549

C.2.1 The GIS ghosts for the off-limb observation – May 4th 1997

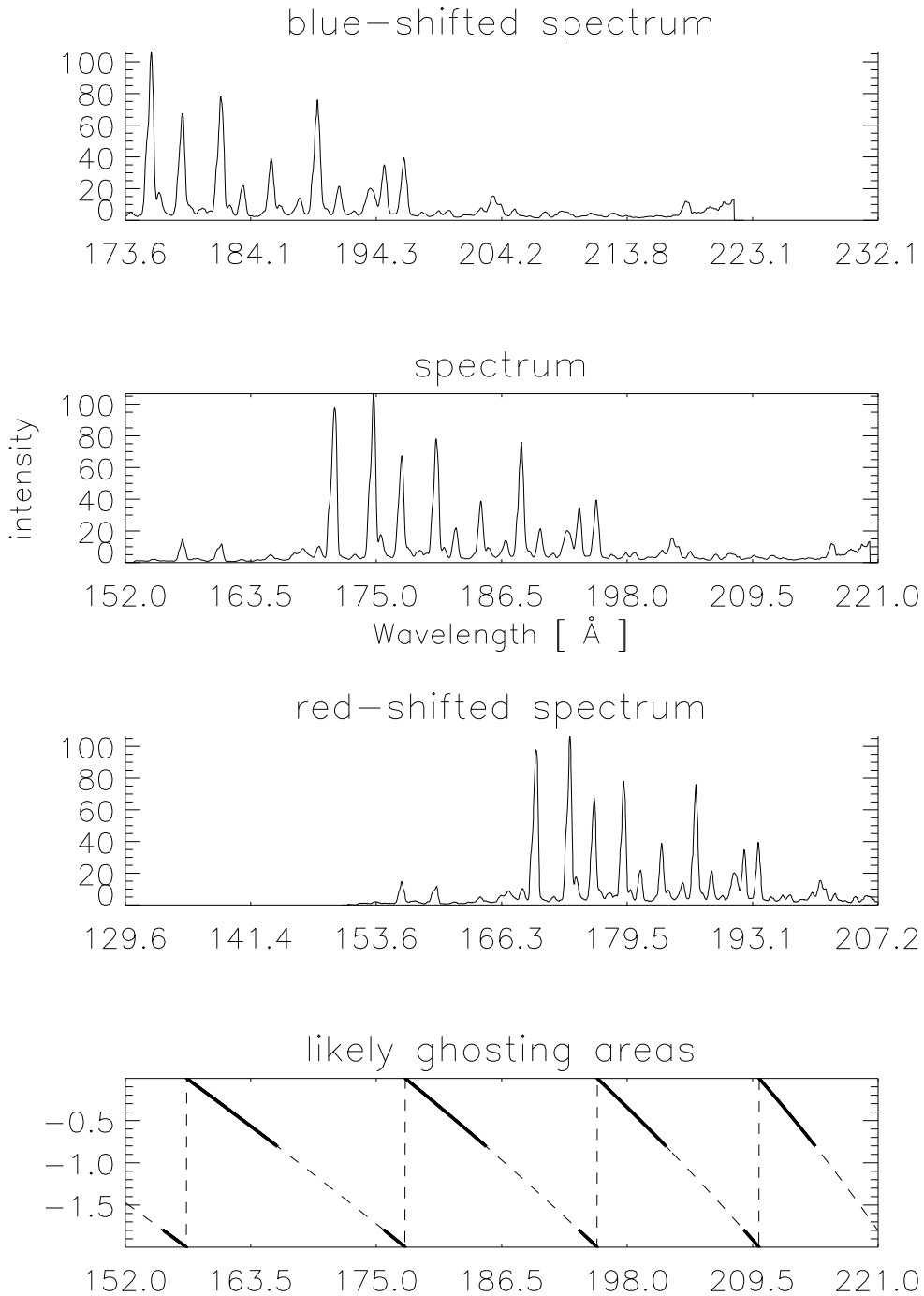

Figure C.7: *The GIS 1 spectrum of May 4th 1997, off-limb (middle), with the blue- and red-shifted and the likely ghosting areas.*

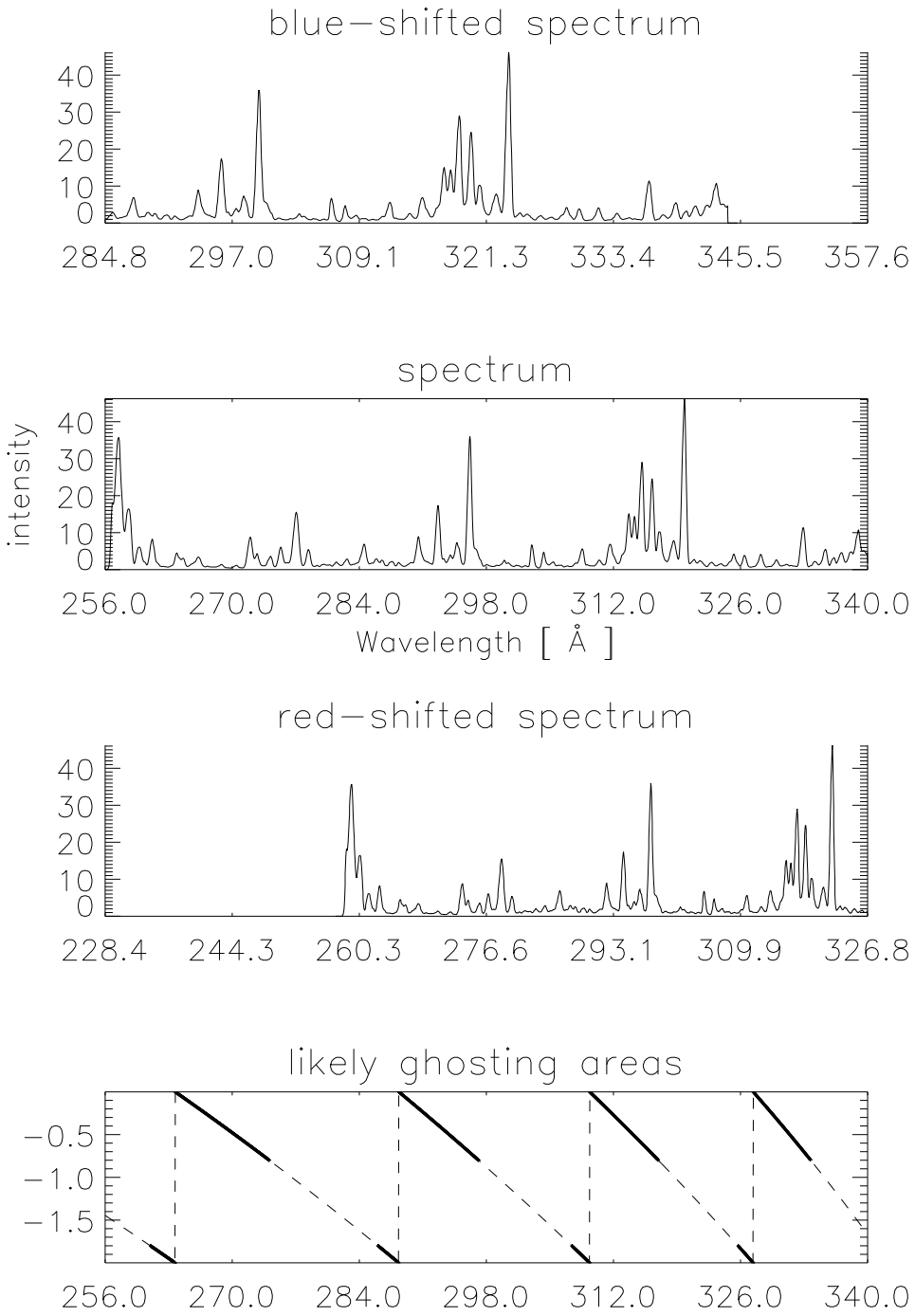

Figure C.8: *The GIS 2 spectrum of May 4th 1997, off-limb (middle), with the blue- and red-shifted and the likely ghosting areas.*

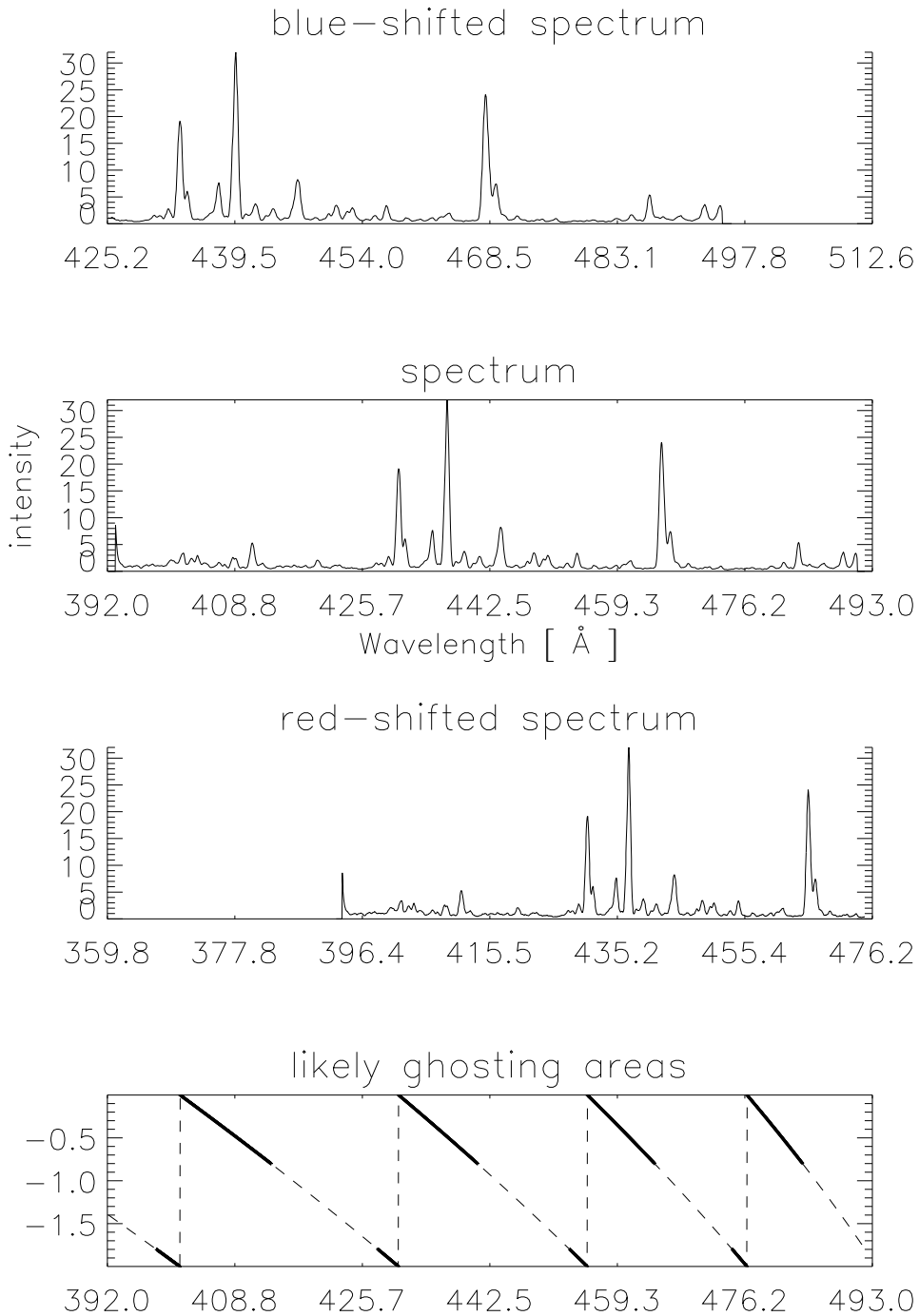

Figure C.9: *The GIS 3 spectrum of May 4th 1997, off-limb (middle), with the blue- and red-shifted and the likely ghosting areas.*

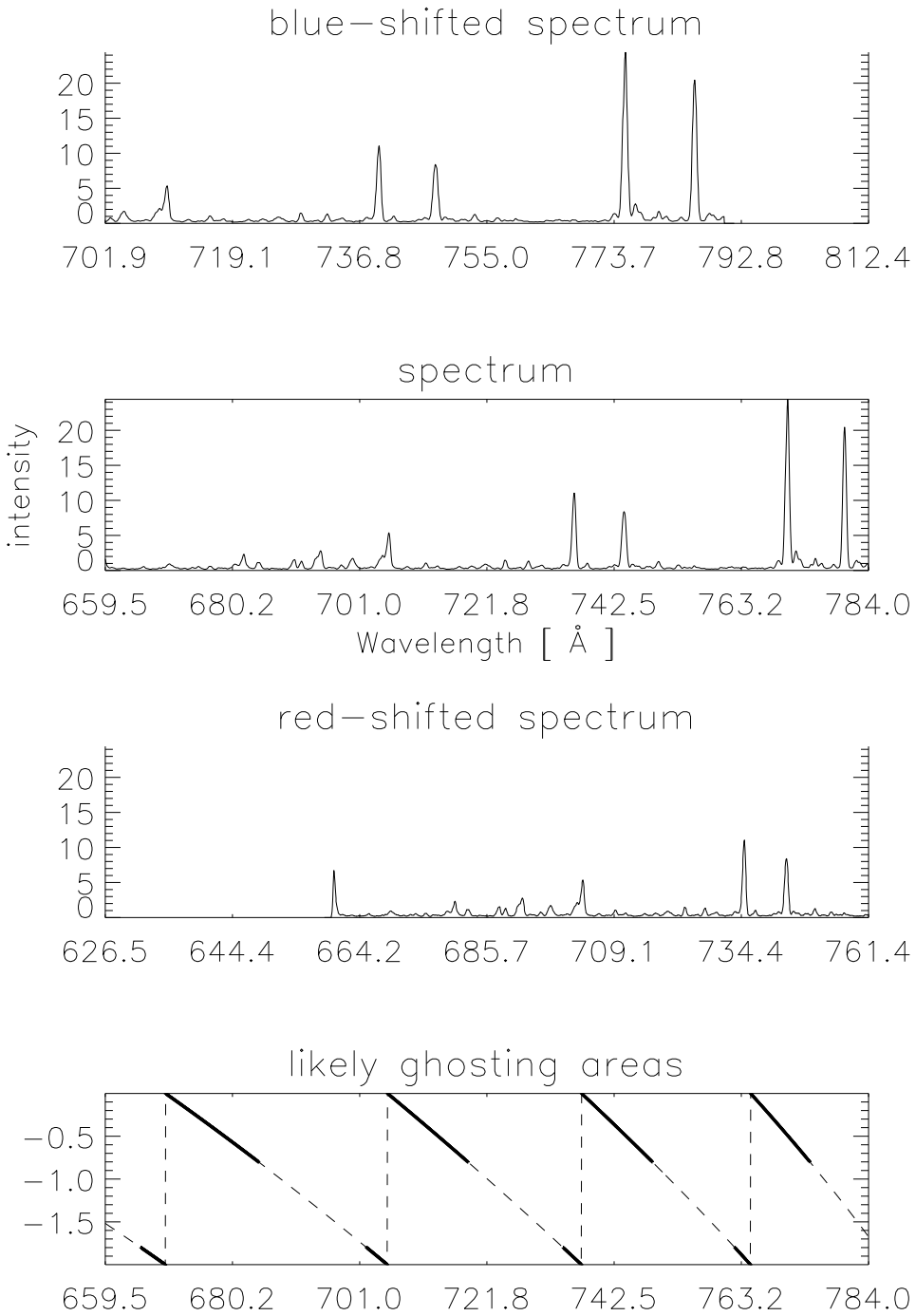

Figure C.10: *The GIS 4 spectrum of May 4th 1997, off-limb (middle), with the blue- and red-shifted and the likely ghosting areas.*

C.3 The spectra and line identifications for the on-disc observation – October 16th, 1997

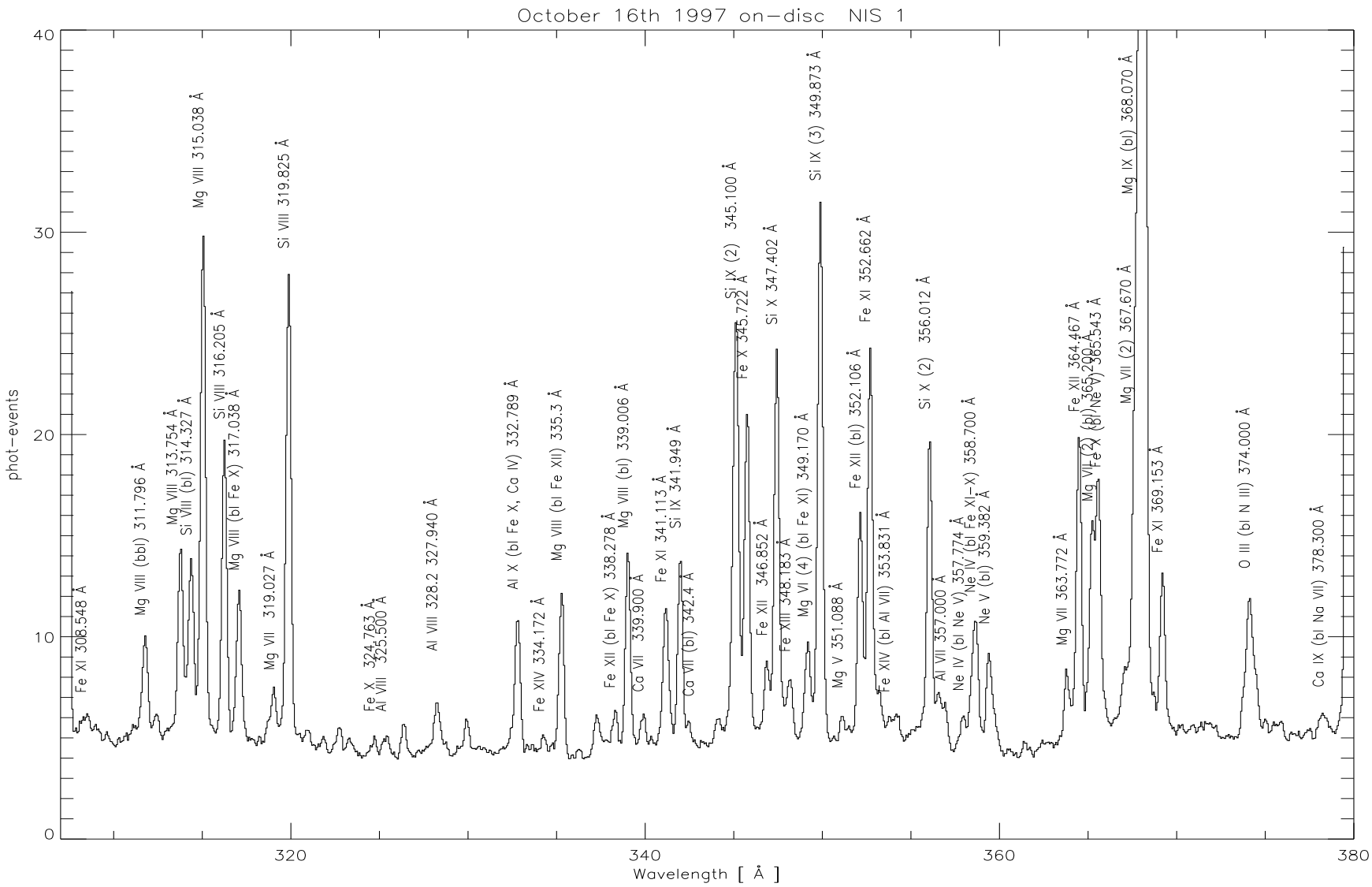

Figure C.11: *The NIS 1 averaged spectra of an area of the on-disc quiet sun observation of October 16th 1997.*

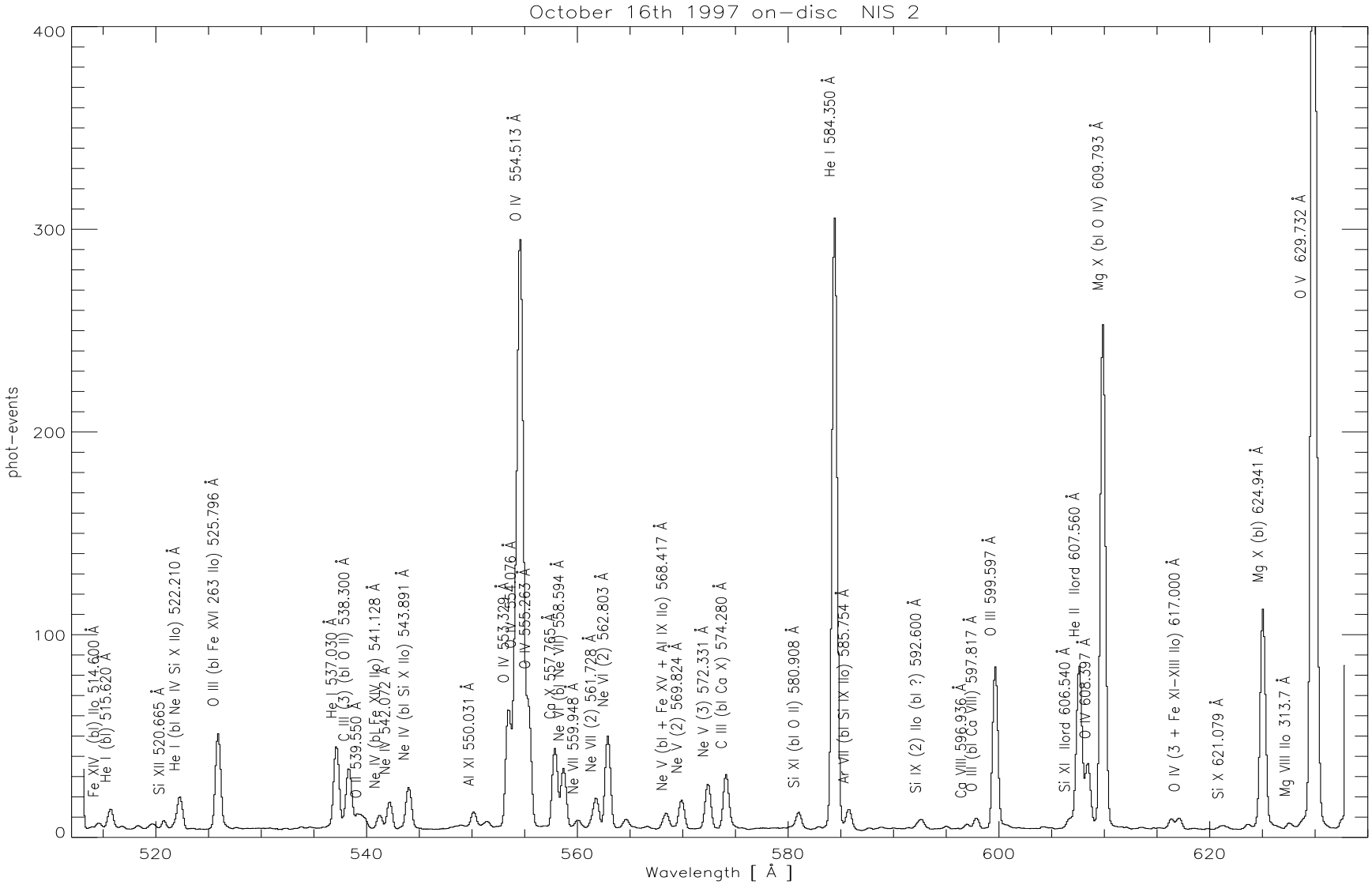

Figure C.12: *The NIS 2 averaged spectra of an area of the on-disc quiet sun observation of October 16th 1997.*

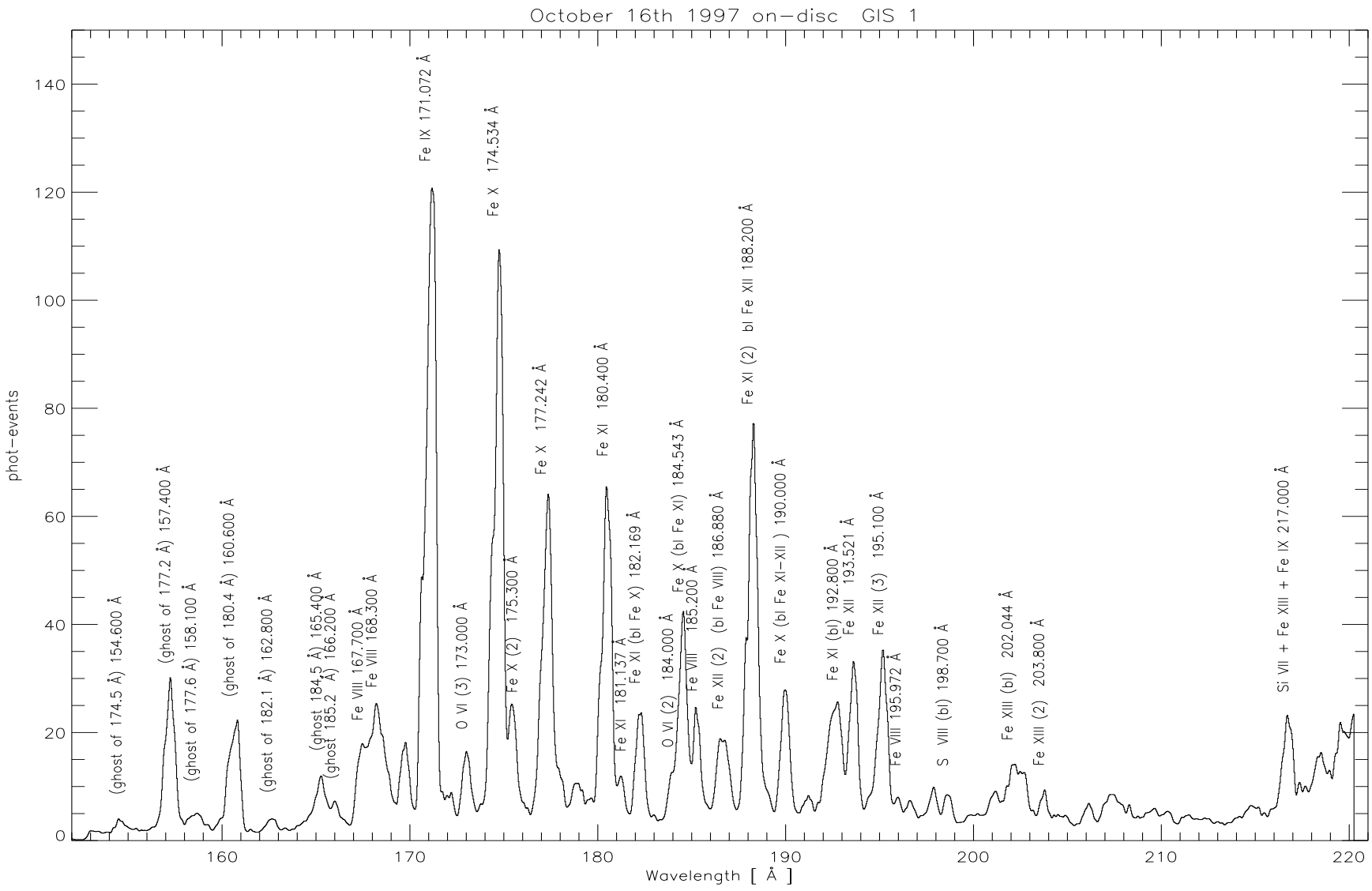

Figure C.13: *The GIS 1 averaged spectra of an area of the on-disc quiet sun observation of October 16th 1997.*

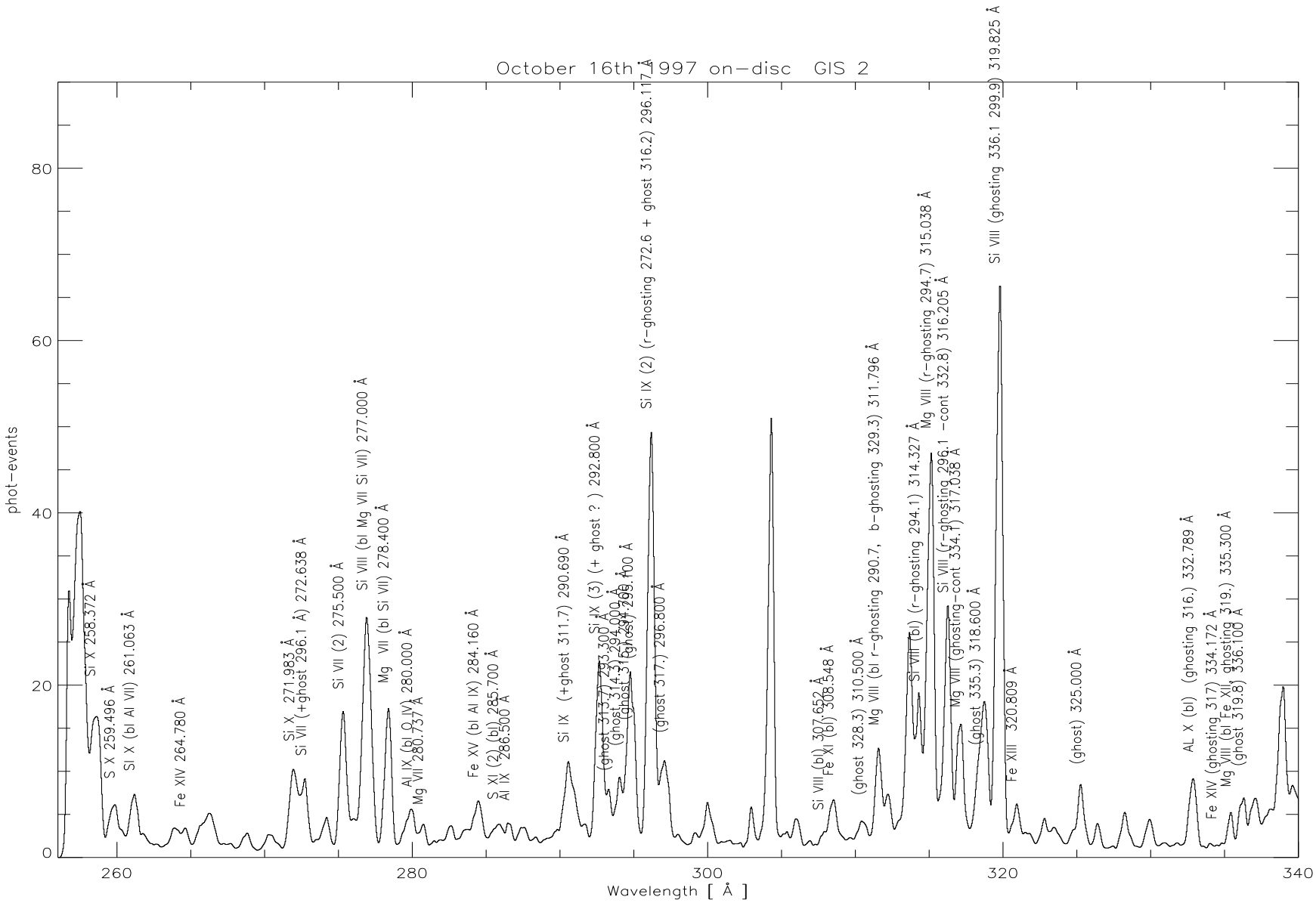

Figure C.14: *The GIS 2 averaged spectra of an area of the on-disc quiet sun observation of October 16th 1997.*

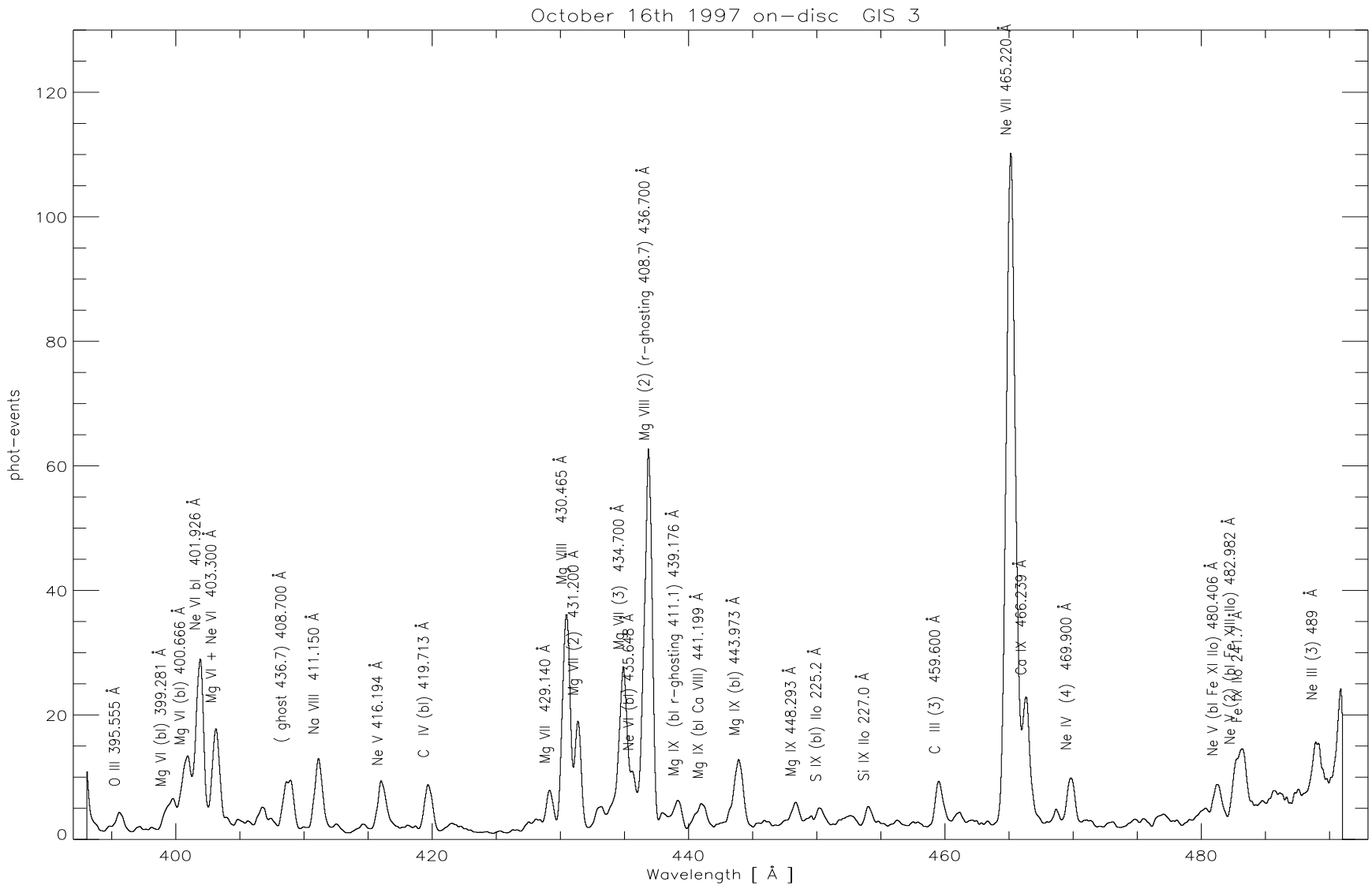

Figure C.15: *The GIS 3 averaged spectra of an area of the on-disc quiet sun observation of October 16th 1997.*

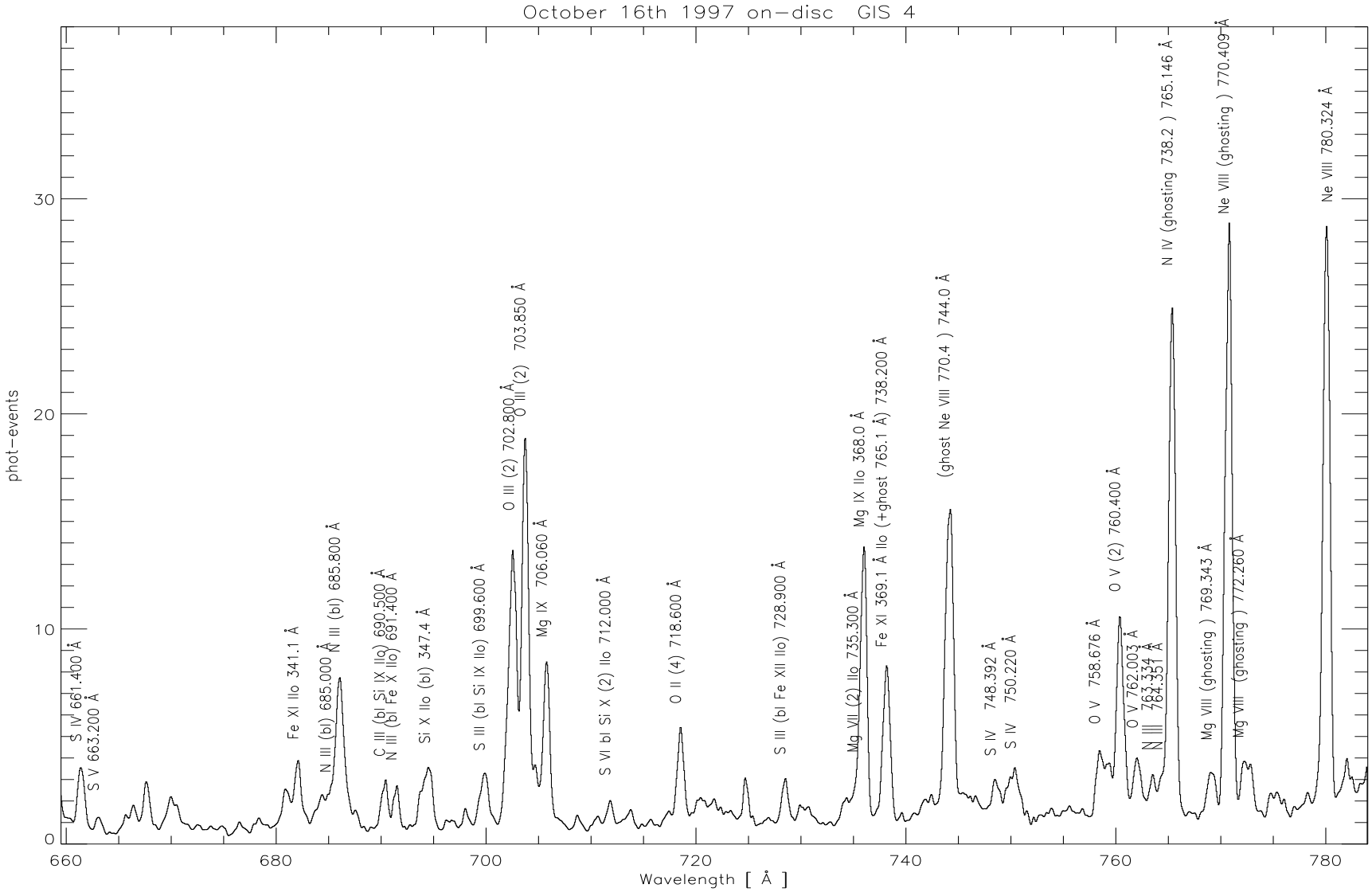

Figure C.16: *The GIS 4 averaged spectra of an area of the on-disc quiet sun observation of October 16th 1997.*

Table C.4: *Line List for the on-disc quiet sun observation of October 16th 1997.*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Fe XI	308.548	308.4	3s2.3p4 $^1D_2$ - 3s.3p5 $^1P_1$	39.2	0.43	0.08	N 1	6.02	6.10		
Mg VIII	311.796	311.8	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	144.5	0.71	0.08	N 1	5.96	5.91		
C IV	312.42	312.4	1s2 2s $^2S_{1/2}$ - 1s2 3p $^2P_{3/2}$	40.8	0.30	0.06	N 1	5.82	5.09	0.49	
C IV	312.451		1s2 2s $^2S_{1/2}$ - 1s2 3p $^2P_{1/2}$						5.09	0.25	
Al VI	312.236		2p4 $^3P_1$ - 2s.2p5 $^3P_2$						5.62	0.12	
Fe XII	312.262		3s2.3p3 $^2P_{1/2}$ - 3s.3p4 $^2P_{1/2}$						6.16	0.11	
Fe XIII	312.872	313.0	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_0$	22.6	0.17	0.05	N 1	6.07	6.20	0.79	
P X	312.981		2s22p2 $^3P_1$ - 2s2p3 $^3D_2$						6.15	0.21	
Mg VIII	313.754	313.8	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	243.3	0.82	0.09	N 1	5.96	5.92		
Si VIII	314.327	314.4	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	241.4	0.88	0.09	N 1	5.98	5.91		
Mg VIII	315.039	315.0	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	578.6	0.90	0.09	N 1	5.96	5.91		
Si VIII	316.205	316.2	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	341.1	1.18	0.12	N 1	5.98	5.91		
Mg VIII	317.039	317.1	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	188.4	0.75	0.08	N 1	5.97	5.92		
Mg VII	319.027	319.1	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	68.0	0.52	0.11	N 1	5.91	5.78		
Si VIII	319.826	319.9	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	517.4	1.19	0.12	N 1	5.98	5.91		
Fe X	321.732	321.8	3s2.3p4(3p).3d $^4D_{5/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$	10.2	0.68	0.31	N 1	6.03	6.03	0.70	[51]
Fe X	321.804		3s2.3p4(3p).3d $^4D_{7/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$						6.03	0.29	
Fe X	324.763	324.7	3s2.3p4(3p).3d $^4D_{7/2}$ - 3s.3p5(3p*).3d $^4F_{9/2}$	21.4	0.67	0.18	N 1	6.03	6.03		[52]
Al VIII	325.276	325.4	2p2 $^3P_1$ - 2s.2p3 $^3P_0$	28.4	1.39	0.29	N 1	5.98	5.92	0.37	[53]
Al VIII	325.292		2p2 $^3P_1$ - 2s.2p3 $^3P_2$						5.92	0.34	
Al VIII	325.338		2p2 $^3P_1$ - 2s.2p3 $^3P_1$						5.92	0.29	
Al VIII	328.185	328.2	2p2 $^3P_2$ - 2s.2p3 $^3P_2$	50.6	1.29	1.00	N 1	5.99	5.92	0.73	[54]
Al VIII	328.232		2p2 $^3P_2$ - 2s.2p3 $^3P_1$						5.92	0.23	
Al X	332.789	332.8	2s2 $^1S_0$ - 2s.2p $^1P_1$	139.9	1.23	0.14	N 1	6.04	6.10		
Fe XIV	334.172	334.3	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2D_{3/2}$	22.1	0.65	0.16	N 1	6.09	6.24		
Mg VIII	335.253	335.3	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	144.1	0.67	0.07	N 1	5.97	5.92		
Fe XII	338.278	338.3	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2D_{5/2}$	39.3	0.26	0.04	N 1	6.06	6.15		
Mg VIII	339.006	339.0	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	150.8	0.82	0.09	N 1	5.96	5.92		
Ca VII	339.966	339.9		31.9	0.64	0.10	N 1	5.74	5.67		[55] AC
Fe XI	341.113	341.2	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_1$	96.9	0.55	0.06	N 1	6.05	6.11		
Si IX	341.949	342.0	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	109.0	1.15	0.12	N 1	6.03	6.04		
Ca VII	342.395	342.5		10.6	2.48	0.46	N 1	5.70	5.67	0.87	[56] AC
Ca IV	342.449								5.29	0.13	AC
Si IX	345.124	345.1	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	285.8	1.08	0.11	N 1	6.03	6.03	0.76	
Si IX	344.951		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						6.04	0.23	
Fe X	345.723	345.8	3s2.3p5 $^2P_{3/2}$ - 3s.3p6 $^2S_{1/2}$	187.5	1.06	0.11	N 1	6.03	6.04		
Fe XII	346.852	346.9	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{1/2}$	52.9	0.97	0.12	N 1	6.01	6.16		
Si X	347.403	347.4	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	210.9	1.14	0.11	N 1	6.05	6.14		
Ca VII	347.972	347.8		14.8	0.48	0.08	N 1	5.92	5.67	0.52	AC
Si X	347.741		2s.2p2 $^2D_{5/2}$ - 2p3 $^2D_{5/2}$						6.13	0.21	
Si X	347.729		2s.2p2 $^2D_{3/2}$ - 2p3 $^2D_{3/2}$						6.14	0.21	
Fe XIII	348.183	348.2	3s2 3p2 $^3P_0$ - 3s 3p3 $^3D_1$	39.4	1.11	0.12	N 1	6.07	6.21		
Mg VI	349.163	349.2	2s2.2p3 $^2D_{5/2}$ - 2s.2p4 $^2D_{5/2}$	67.0	0.71	0.07	N 1	5.86	5.65	0.45	
Mg VI	349.124		2s2.2p3 $^2D_{3/2}$ - 2s.2p4 $^2D_{3/2}$						5.65	0.34	
Si IX	349.873	349.9	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	295.9	0.98	0.10	N 1	6.03	6.02	0.84	
Si IX	349.794		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						6.03	0.16	
Na VII	350.645	350.6	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	6.8	0.29	0.09	N 1	5.89	5.78		
Mg V	351.088	351.1	2p4 $^3P_2$ - 2s.2p5 $^3P_1$	15.7	0.21	0.02	N 1	5.57	5.46		
Fe XII	352.106	352.1	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{3/2}$	127.8	0.88	0.09	N 1	6.03	6.16	0.80	
Al VII	352.149		2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$						5.78	0.12	
Fe XI	352.662	352.7	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_2$	209.2	1.05	0.11	N 1	6.05	6.11		
Mg V	353.092	353.1	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	22.7	0.43	0.05	N 1	5.56	5.47		
Na VII	353.296	353.3	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	14.2	0.83	0.11	N 1	5.85	5.78	0.84	
Mg V	353.3		2p4 $^3P_1$ - 2s.2p5 $^3P_1$						5.46	0.16	
Al VII	353.769	353.8	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	18.8	1.61	0.23	N 1	5.96	5.78	0.84	
Fe XIV	353.831		3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2D_{5/2}$						6.24	0.15	
Mg V	354.225	354.2	2p4 $^3P_0$ - 2s.2p5 $^3P_1$	21.1	0.12	0.02	N 1	5.56	5.46		
Fe XIII	355.066		3s2 3p2 $^1D_2$ - 3s 3p3 $^3P_1$						6.21	0.17	
Mg V	355.329	355.3	2p4 $^3P_1$ - 2s.2p5 $^3P_2$	6.3	0.51	0.14	N 1	5.56	5.47		
Fe XI	355.837	355.7	3s2.3p4 $^1S_0$ - 3s.3p5 $^1P_1$	19.3	0.02	0.00	N 1	6.05	6.10		
Si X	356.012	356.1	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	154.3	0.96	0.10	N 1	6.05	6.12	0.76	
Si X	356.05		2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$						6.14	0.23	

[51] First identification (?)
[52] First identification
[53] First identification (?)
[54] First identification (?)
[55] First identification (?)
[56] First identification (?)

Table C.4: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Fe XI	356.519	356.6	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_1$	32.0	0.85	0.10	N 1	6.05	6.11		
Al VII	356.888	356.9	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	21.1	1.83	0.23	N 1	5.93	5.78		
Ne IV	357.832	358.0	2s2 2p3 $^2D_{3/2}$ - 2s 2p4 $^2P_{1/2}$	20.6	0.90	0.12	N 1	5.41	5.30	0.64	
Ne V	357.954		2s22p2 $^3P_0$ - 2s2p3 $^3S_1$						5.49	0.36	
Fe XI	358.621	358.6	3s2.3p4 $^3P_0$ - 3s.3p5 $^3P_1$	92.9	0.97	0.10	N 1	5.84	6.11	0.38	
Ne IV	358.686		2s2 2p3 $^2D_{5/2}$ - 2s 2p4 $^2P_{3/2}$						5.30	0.24	
Ne V	358.484		2s22p2 $^3P_1$ - 2s2p3 $^3S_1$						5.49	0.22	
Fe X	358.413		3s2.3p4(3p).3d $^4F_{9/2}$ - 3s.3p5(3p*).3d $^4F_{9/2}$						6.03	0.13	
Ne V	359.382	359.4	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	37.4	0.90	0.10	N 1	5.52	5.49		
Fe XIII	359.642	359.6	3s2 3p2 $^3P_1$ - 3s 3p3 $^3D_2$	28.0	0.46	0.06	N 1	6.01	6.20	0.69	
Ca VIII	359.651								5.73	0.31	AC
Fe XVI	360.761	360.6	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	0.5	0.91	0.82	N 1	6.22	6.34		
Fe X	361.406	361.5	3s2.3p4(3p).3d $^4F_{7/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$	3.9	1.11	0.37	N 1	6.03	6.03	0.83	
Si XI	361.412		2s.2p $^3P_0$ - 2p2 $^3P_1$						6.19	0.16	
Mg VII	363.772	363.8	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	24.2	1.28	0.19	N 1	5.92	5.81		
Fe XII	364.467	364.5	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{5/2}$	125.8	1.05	0.11	N 1	6.06	6.16		
Mg VII	365.234	365.2	2s22p2 $^3P_1$ - 2s2p3 $^3P_2$	103.7	0.95	0.10	N 1	5.92	5.81	0.37	
Mg VII	365.176		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$						5.81	0.34	
Mg VII	365.243		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						5.81	0.27	
Fe X	365.543	365.6	3s2.3p5 $^2P_{1/2}$ - 3s.3p6 $^2S_{1/2}$	92.5	1.22	0.13	N 1	5.94	6.04	0.74	
Ne V	365.603		2s22p2 $^1D_2$ - 2s2p3 $^1P_1$						5.49	0.26	
Mg VII	367.674	367.7	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	191.4	0.84	0.09	N 1	5.92	5.81	0.77	
Mg VII	367.683		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						5.81	0.23	
Mg IX	368.07	368.1	2s2 $^1S_0$ - 2s.2p $^1P_1$	1383.6	0.96	0.10	N 1	6.01	5.98		
Fe XI	369.153	369.2	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_2$	54.7	1.20	0.13	N 1	6.05	6.11		
Si XI	371.503	371.7	2s.2p $^3P_2$ - 2p2 $^3P_1$	1.0	0.81	0.73	N 1	6.07	6.19		
Ca IX	371.882	371.8	3s.3p $^3P_0$ - 3s.3d $^3D_1$	0.9	0.44	0.40	N 1	5.90	5.78		
O III	374.075	374.1	2s22p2 $^3P_2$ - 2s22p3s $^3P_2$	54.2	0.92	0.17	N 1	5.15	5.11	0.33	
O III	373.805		2s22p2 $^3P_1$ - 2s22p3s $^3P_2$						5.11	0.11	
O III	374.435		2s22p2 $^3P_2$ - 2s22p3s $^3P_1$						5.11	0.11	
N III	374.434		2s2 2p $^2P_{3/2}$ - 2s2 3d $^2D_{5/2}$						5.09	0.10	
Ca IX	378.081	378.3	3s.3p $^3P_2$ - 3s.3d $^3D_3$	5.1	0.89	0.26	N 1	5.89	5.78	0.56	
Na VII	378.216		2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$						5.78	0.38	
He I	515.617	515.7		14.3	0.54	0.06	N 2	5.02	4.53		AC
Si X	258.372	516.8	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	522.5	0.57	0.10	N 2	6.05	6.13		
O VI	519.61	519.3	1s2 3d $^2D_{3/2}$ - 1s2 4f $^2F_{5/2}$	1.2	0.86	0.40	N 2	5.96	5.53	0.76	
Ar VIII	519.44		3p $^2P_{1/2}$ - 3d $^2D_{3/2}$						5.58	0.24	
O VI	519.722	519.7	1s2 3d $^2D_{5/2}$ - 1s2 4f $^2F_{7/2}$	3.8	0.60	0.11	N 2	5.97	5.53	0.50	
O VI	519.61		1s2 3d $^2D_{3/2}$ - 1s2 4f $^2F_{5/2}$						5.53	0.35	
Ar VIII	519.44		3p $^2P_{1/2}$ - 3d $^2D_{3/2}$						5.58	0.11	
Si XII	520.665	520.8	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{1/2}$	5.6	1.19	0.14	N 2	6.09	6.26		
He I	522.213	522.2		25.9	0.64	0.07	N 2	4.66	4.53		AC
O III	525.796	525.9	2s22p2 $^1D_2$ - 2s2p3 $^1P_1$	70.8	1.14	0.11	N 2	5.07	5.07		
He I	537.03	537.1		69.6	0.72	0.07	N 2	4.56	4.52		AC
C III	538.31	538.3	2s2p $^3P_2$ - 2s3s $^3S_1$	56.0	0.78	0.08	N 2	4.85	4.96	0.52	
C III	538.147		2s2p $^3P_1$ - 2s3s $^3S_1$						4.96	0.31	
C III	538.078		2s2p $^3P_0$ - 2s3s $^3S_1$						4.96	0.10	
Ca VII	539.395	539.5		3.1	1.18	0.34	N 2	5.76	5.67		AC
Ne IV	541.128	541.2	2s2 2p3 $^4S_{3/2}$ - 2s 2p4 $^4P_{1/2}$	12.4	1.11	0.12	N 2	5.29	5.27		
Ne IV	542.073	542.2	2s2 2p3 $^4S_{3/2}$ - 2s 2p4 $^4P_{3/2}$	22.9	1.21	0.12	N 2	5.30	5.27		
Ne IV	543.892	544.0	2s2 2p3 $^4S_{3/2}$ - 2s 2p4 $^4P_{5/2}$	38.7	1.15	0.12	N 2	5.35	5.27		
Al XI	550.031	550.2	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{3/2}$	17.4	1.84	0.20	N 2	6.06	6.16		
O IV	553.329	553.5	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{3/2}$	107.9	1.05	0.11	N 2	5.27	5.27		
O IV	554.076	554.1	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{1/2}$	124.6	1.81	0.19	N 2	5.28	5.27		
O IV	554.513	554.6	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	555.8	1.02	0.10	N 2	5.27	5.27		
O IV	555.263	555.4	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{1/2}$	109.1	1.07	0.11	N 2	5.27	5.27		
Mg VII	278.402	556.7	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	276.0	0.65	0.11	N 2	5.92	5.81	0.72	
Si VII	278.443		2p4 $^3P_1$ - 2s.2p5 $^3P_2$						5.77	0.28	
Ca X	557.765	557.9	3s $^2S_{1/2}$ - 3p $^2P_{3/2}$	72.0	1.08	0.11	N 2	5.97	5.82		
Ne VI	558.594	558.7	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2D_{3/2}$	55.9	1.00	0.10	N 2	5.75	5.63	0.82	
Ne VII	558.609		2s2p $^3P_1$ - 2p2 $^3P_2$						5.72	0.18	
Ne VII	559.948	560.0	2s2p $^3P_0$ - 2p2 $^3P_1$	8.9	0.90	0.10	N 2	5.88	5.72		
Ne VII	561.728	561.7	2s2p $^3P_2$ - 2p2 $^3P_2$	30.0	0.99	0.10	N 2	5.88	5.72		
Ne VI	562.803	562.9	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2D_{5/2}$	79.1	1.13	0.11	N 2	5.72	5.63		
Ne VII	564.528	564.5	2s2p $^3P_2$ - 2p2 $^3P_1$	8.9	1.08	0.12	N 2	5.88	5.72		
Si III	566.613	566.6	3s2 $^1S_0$ - 3s.4p $^1P_1$	2.5	0.46	0.08	N 2	5.19	4.81	0.87	
S VII	566.572		2p5.3s $^3P_1$ - 2p5.3p $^1S_0$						5.79	0.13	
Ne V	568.417	568.5	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	10.2	1.04	0.13	N 2	5.50	5.47		
Ne V	569.824	569.9	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	25.3	1.20	0.12	N 2	5.50	5.47	0.76	
Ne V	569.753		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						5.47	0.24	

Table C.4: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Ne V	572.331	572.4	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	38.8	1.22	0.12	N 2	5.50	5.47	0.86	
Ne V	572.098		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						5.47	0.14	
Ca X	574.01	574.1	3s $^2S_{1/2}$ - 3p $^2P_{1/2}$	46.1	0.98	0.10	N 2	5.90	5.82	0.85	
C III	574.279		2s2p $^1P_1$ - 2s3d $^1D_2$						4.98	0.12	
O II	580.404	580.4	2s22p3 $^2P_{3/2}$ - 2s2p4 $^2P_{1/2}$	2.5	1.38	0.34	N 2	4.78	4.87	0.63	
O II	580.41		2s22p3 $^2P_{1/2}$ - 2s2p4 $^2P_{1/2}$						4.87	0.37	
O II	580.978	581.0	2s22p3 $^2P_{1/2}$ - 2s2p4 $^2P_{3/2}$	12.5	1.00	0.12	N 2	5.70	4.87	0.49	
Si XI	580.907		2s2 $^1S_0$ - 2s.2p $^3P_1$						6.19	0.40	
O II	580.971		2s22p3 $^2P_{3/2}$ - 2s2p4 $^2P_{3/2}$						4.87	0.10	
Si IX	290.69	581.3	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	179.7	0.49	0.22	N 2	6.03	6.04		
He I	584.334	584.4		528.5	0.72	0.07	N 2	4.54	4.51		AC
Ar VII	585.754	585.7	3s2 $^1S_0$ - 3s.(2s).3p $^1P_1$	20.7	0.32	0.03	N 2	5.57	5.51		[57]
Si IX	296.117	592.6	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	1037.9	0.37	0.04	N 2	6.03	6.03	0.73	[58]
Si IX	296.213		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						6.04	0.27	
Ca VIII	596.936	597.0		5.1	0.92	0.13	N 2	5.84	5.73		AC
O III	597.817	597.9	2s22p2 $^1S_0$ - 2s2p3 $^1P_1$	11.9	0.95	0.10	N 2	5.15	5.07		
O III	599.597	599.7	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	160.5	1.15	0.12	N 2	5.04	5.06		
Si XI	604.147	604.3	2s.2p $^1P_1$ - 2p2 $^1D_2$	3.2	0.11	0.02	N 2	6.07	6.20		
Si XI	303.324	606.7	2s2 $^1S_0$ - 2s.2p $^1P_1$	764.6	0.29	0.03	N 2	6.06	6.20		
He II	303.78	607.6	1s $^2S_{1/2}$ - 2p $^2P_{3/2}$	10255.6	0.09	0.01	N 2	5.48	4.92	0.66	
He II	303.786		1s $^2S_{1/2}$ - 2p $^2P_{1/2}$						4.92	0.33	
O IV	608.397	608.4	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2S_{1/2}$	78.7	1.08	0.11	N 2	5.28	5.27		
Mg X	609.793	609.9	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{3/2}$	538.3	1.53	0.15	N 2	5.96	6.04	0.80	
O IV	609.829		2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2S_{1/2}$						5.27	0.19	
O IV	616.952	617.1	2s 2p2 $^2D_{5/2}$ - 2p3 $^2P_{3/2}$	12.1	0.46	0.05	N 2	5.29	5.30	0.60	
O IV	617.036		2s 2p2 $^2D_{3/2}$ - 2p3 $^2P_{1/2}$						5.30	0.33	
Si X	621.079	621.3	2p $^2P_{1/2}$ - 2s.2p2 $^4P_{1/2}$	4.8	0.74	0.09	N 2	6.04	6.12	0.85	
K IX	621.455		3s $^2S_{1/2}$ - 3p $^2P_{3/2}$						5.74	0.15	
Mg X	624.941	625.0	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{1/2}$	216.7	1.52	0.15	N 2	6.04	6.04		
O IV	625.853	625.8	2s 2p2 $^4P_{5/2}$ - 2p3 $^4S_{3/2}$	4.9	0.41	0.05	N 2	5.25	5.24		
Mg VIII	313.754	627.6	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	335.6	0.60	0.07	N 2	5.96	5.92		
Si VIII	314.327	628.6	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	277.1	0.76	0.09	N 2	5.98	5.91		
O V	629.73	629.9	2s2 $^1S_0$ - 2s.2p $^1P_1$	1164.0	1.03	0.10	N 2	5.40	5.39		
		154.6	ghost of 174.5 Å				G 1				
		157.2	ghost of 177.2 Å				G 1				
		158.5	ghost of 178.0 Å				G 1				
		160.6	ghost of 180.4 Å				G 1				
		162.6	ghost of 182.1 Å				G 1				
		164.8	ghost ?								
		165.3	ghost of 184.5 Å				G 1				
		166.0	ghost of 185.2 Å				G 1				
Fe VIII	167.486	167.5		709.9	0.27	0.04	G 1	5.91	5.65		AC
Fe VIII	168.545	168.2		995.9	0.45	0.07	G 1	5.92	5.65	0.50	AC
Fe VIII	168.17								5.65	0.40	AC
Fe VIII	168.93	168.8		342.2	1.41	0.37	G 1	5.92	5.65	0.52	AC
Fe VIII	168.545								5.65	0.47	AC
Fe IX	171.073	171.1	3p6 $^1S_0$ - 3p5.3d $^1P_1$	4967.2	1.21	0.12	G 1	6.00	5.96		
O VI	173.079	173.0	1s2 2p $^2P_{3/2}$ - 1s2 3d $^2D_{5/2}$	449.8	0.33	0.04	G 1	5.97	5.51	0.60	
O VI	172.935		1s2 2p $^2P_{1/2}$ - 1s2 3d $^2D_{3/2}$						5.51	0.33	
Fe X	174.534	174.7	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2D_{5/2}$	3647.5	1.02	0.11	G 1	6.03	6.05		
Fe X	175.443	175.6	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2P_{1/2}$	489.3	0.17	0.02	G 1	6.03	6.04		
Fe X	177.243	177.2	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2P_{3/2}$	2224.3	0.97	0.11	G 1	6.03	6.05		
Fe XI	178.06	178.0	3s2.3p4 $^3P_2$ - 3s2.3p3(4s*).3d $^3D_2$	214.8	0.35	0.08	G 1	6.05	6.11		
Fe XI	180.408	180.5	3s2.3p4 $^3P_2$ - 3s2.3p3(4s*).3d $^3D_3$	2167.4	1.11	0.12	G 1	6.05	6.11		
Fe XI	181.137	181.3	3s2.3p4 $^3P_0$ - 3s2.3p3(4s*).3d $^3D_1$	161.5	0.64	0.12	G 1	6.05	6.11		
Fe XI	182.169	182.2	3s2.3p4 $^3P_1$ - 3s2.3p3(4s*).3d $^3D_2$	532.6	0.60	0.07	G 1	6.05	6.11	0.83	
Fe X	182.31		3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(3p).3d $^2P_{3/2}$						6.05	0.17	
O VI	184.117	184.0	1s2 2p $^2P_{3/2}$ - 1s2 3s $^2S_{1/2}$	185.2	0.44	0.09	G 1	5.96	5.51	0.66	
O VI	183.937		1s2 2p $^2P_{1/2}$ - 1s2 3s $^2S_{1/2}$						5.51	0.33	
Fe X	184.543	184.5	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(1d).3d $^2S_{1/2}$	851.4	0.95	0.12	G 1	6.03	6.05		
Fe VIII	185.213	185.3		508.2	0.40	0.05	G 1	5.92	5.64		
Fe VIII	186.599	186.7		371.5	0.94	0.12	G 1	5.98	5.64	0.61	
Fe XII	186.884		3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(3p).3d $^2F_{7/2}$						6.15	0.29	
Fe XI	188.232	188.2	3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^3P_2$	1513.5	0.88	0.09	G 1	6.05	6.11	0.73	
Fe XI	188.299		3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^1P_1$						6.11	0.27	
Fe XI	189.129	189.1	3s2.3p4 $^3P_1$ - 3s2.3p3(2d*).3d $^3P_1$	72.8	0.52	0.15	G 1	6.05	6.11		
Fe X	190.043	190.0	3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(1d).3d $^2S_{1/2}$	482.2	0.65	0.08	G 1	6.04	6.05		

[57] bl Si IX IIo

[58] bl unidentified line

Table C.4: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac
S XI	191.266	191.1	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	90.0	0.30	0.13	G 1	6.06	6.24	0.58
Fe XI	190.888		3s2.3p4 $^1D_2$ - 3s2.3p3(4s*).3d $^3D_2$						6.11	0.19
Fe XII	191.053		3s2.3p3 $^2P_{3/2}$ - 3s2.3p2(3p).3d $^2D_{5/2}$						6.16	0.16
S XI	191.266	191.3	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	13.9	1.15	1.04	G 1	6.07	6.24	
Fe XII	192.393	192.1	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{1/2}$	222.9	1.04	0.31	G 1	6.06	6.16	
Fe XII	192.393	192.4	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{1/2}$	81.8	2.83	2.06	G 1	6.06	6.16	
Fe XI	192.83	192.8	3s2.3p4 $^3P_1$ - 3s2.3p3(2d*).3d $^3P_2$	636.0	0.38	0.06	G 1	6.02	6.11	
Fe XII	193.521	193.6	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{3/2}$	768.8	0.92	0.11	G 1	6.06	6.16	
Fe XII	194.911		3s2.3p3 $^2D_{3/2}$ - 3s2.3p2(1d).3d $^2D_{5/2}$						6.15	0.12
Fe XII	195.118	195.2	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{5/2}$	947.9	1.15	0.14	G 1	6.06	6.16	
Fe XII	196.648	196.6	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(1d).3d $^2D_{5/2}$	120.2	0.44	0.15	G 1	6.06	6.15	
S VIII	198.553	198.6	2s2.2p5 $^2P_{3/2}$ - 2s.2p6 $^2S_{1/2}$	143.1	0.96	0.15	G 1	5.99	5.88	0.77
Fe XI	198.545		3s2.3p4 $^1D_2$ - 3s2.3p3(2d*).3d $^3P_1$						6.11	0.22
Fe XIII	200.022	200.1	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3D_2$	50.5	0.30	0.11	G 1	6.07	6.20	
Fe XIII	201.128	201.1	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3D_1$	202.1	0.19	0.03	G 1	6.07	6.20	
Fe XIII	202.044	202.1	3s2 3p2 $^3P_0$ - 3s2 3p 3d $^3P_1$	372.1	0.99	0.13	G 1	6.07	6.21	
Fe XI	202.706	202.7	3s2.3p4 $^1D_2$ - 3s2.3p3(2d*).3d $^1P_1$	271.5	0.92	0.13	G 1	6.03	6.11	0.52
Fe XI	202.448		3s2.3p4 $^3P_2$ - 3s2.3p3(2p*).3d $^3D_2$						6.11	0.22
S VIII	202.61		2s2.2p5 $^2P_{1/2}$ - 2s.2p6 $^2S_{1/2}$						5.88	0.19
Fe XII	203.272	203.2	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(1s).3d $^2D_{5/2}$	25.7	1.60	1.11	G 1	6.06	6.16	0.79
Fe XIII	203.163		3s2 3p2 $^3P_1$ - 3s2 3p 3d $^3P_0$						6.20	0.21
Fe XIII	203.828	203.7	3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_3$	139.0	0.53	0.09	G 1	6.07	6.20	0.73
Fe XIII	203.797		3s2 3p2 $^3P_2$ - 3s2 3p 3d $^3D_2$						6.20	0.26
Fe XIII	204.263	204.4	3s2 3p2 $^3P_1$ - 3s2 3p 3d $^1D_2$	29.4	0.53	0.29	G 1	6.06	6.20	0.61
Fe XI	204.343		3s2.3p4 $^3P_2$ - 3s2.3p3(2p*).3d $^3F_3$						6.11	0.39
Fe XIV	211.32	211.4	3s2 3p $^2P_{1/2}$ - 3s2 3d $^2D_{3/2}$	20.4	1.62	1.10	G 1	6.09	6.25	
Fe XII	214.398	214.3	3s2.3p3 $^2D_{5/2}$ - 3s2.3p2(3p).3d $^4P_{5/2}$	16.3	0.98	0.89	G 1	6.02	6.16	0.87
O IV	214.152		2s2 2p $^2P_{3/2}$ - 2s.2p.(3p*).3p $^2P_{3/2}$						5.35	0.10
Si X	258.372	258.5	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	305.2	0.99	0.11	G 2	6.05	6.13	
Si X	261.063	261.2	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	90.3	1.72	0.24	G 2	6.05	6.14	
Fe XIV	264.78	264.6	3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2P_{3/2}$	14.1	0.90	0.43	G 2	6.09	6.25	
Si X	271.983	272.0	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	110.6	1.07	0.13	G 2	6.05	6.14	
Si VII	272.638	272.7	2p4 $^3P_2$ - 2s.2p5 $^3P_1$	78.5	0.48	0.07	G 2	5.92	5.77	
Si VII	275.353	275.3	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	158.9	1.12	0.13	G 2	5.92	5.77	0.88
Si VII	275.667		2p4 $^3P_1$ - 2s.2p5 $^3P_1$						5.77	0.12
Mg VII	276.154	276.0	2s22p2 $^3P_0$ - 2s2p3 $^3S_1$	28.0	0.92	0.25	G 2	5.92	5.81	
Si VIII	277.054	276.9	2s22p3 $^2D_{5/2}$ - 2s2p4 $^2D_{5/2}$	359.4	0.82	0.09	G 2	5.96	5.90	0.41
Mg VII	277		2s22p2 $^3P_1$ - 2s2p3 $^3S_1$						5.81	0.26
Si VIII	276.838		2s22p3 $^2D_{3/2}$ - 2s2p4 $^2D_{3/2}$						5.89	0.20
Mg VII	278.402	278.4	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	163.9	1.10	0.12	G 2	5.92	5.81	0.72
Si VII	278.443		2p4 $^3P_1$ - 2s.2p5 $^3P_2$						5.77	0.28
Al IX	280.151	280.0	2s2.2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	36.4	0.86	0.17	G 2	5.89	6.03	0.66
O IV	279.933		2S2 2P 2P1.5 - 2s2.3s 2S0.5						5.32	0.17
O IV	279.933		2S2 2P 2P1.5 - 2s2.3s 2S0.5						5.32	0.17
Mg VII	280.737	280.7	2s22p2 $^1D_2$ - 2s2p3 $^1P_1$	14.7	1.16	0.41	G 2	5.91	5.79	
Al IX	284.042	284.4	2s2.2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	61.0	1.96	0.29	G 2	6.04	6.03	0.90
Fe XV	284.16		3s2 $^1S_0$ - 3s3p $^1P_1$						6.29	0.10
S XI	285.587	285.8	2s22p2 $^3P_1$ - 2s2p3 $^3D_1$	32.8	0.80	0.17	G 2	6.02	6.25	0.38
S XI	285.822		2s22p2 $^3P_1$ - 2s2p3 $^3D_2$						6.23	0.31
Al VIII	285.469		2p2 $^1D_2$ - 2s.2p3 $^1D_2$						5.89	0.22
Al IX	286.377	286.6	2s2.2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	20.0	1.74	0.46	G 2	6.02	6.03	
Si IX	290.69	290.6	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	91.0	0.97	0.13	G 2	6.03	6.04	
Fe XII	291.053	291.1	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2P_{3/2}$	24.9	0.65	0.19	G 2	6.06	6.16	
S XI	291.577	291.7	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	6.0	0.97	0.80	G 2	6.01	6.22	0.46
Mg VI	291.455		2s2.2p3 $^2P_{3/2}$ - 2s.2p4 $^2P_{1/2}$						5.66	0.30
S XI	291.81		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						6.23	0.19
Si IX	292.8	292.7	2s22p2 $^3P_1$ - 2s2p3 $^3P_0$	197.0	1.33	0.15	G 2	6.03	6.04	0.40
Si IX	292.856		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						6.04	0.32
Si IX	292.763		2s22p2 $^3P_1$ - 2s2p3 $^3P_2$						6.03	0.28
Si IX	296.117	296.2	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	448.2	0.85	0.09	G 2	6.03	6.03	0.73
Si IX	296.213		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						6.04	0.27
Si VIII	307.652	307.8	2s22p3 $^2P_{1/2}$ - 2s2p4 $^2D_{3/2}$	10.5	0.66	0.24	G 2	5.97	5.89	
Si VIII	308.195	308.5	2s22p3 $^2P_{3/2}$ - 2s2p4 $^2D_{5/2}$	55.1	0.69	0.10	G 2	6.00	5.90	0.54
Fe XI	308.548		3s2.3p4 $^1D_2$ - 3s.3p5 $^1P_1$						6.10	0.40
Al VI	309.595	309.5	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	9.9	0.54	0.22	G 2	5.88	5.62	0.84
P X	309.2		2s22p2 $^3P_0$ - 2s2p3 $^3D_1$						6.17	0.16
Mg VIII	311.796	311.6	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{3/2}$	92.0	1.12	0.14	G 2	5.96	5.91	
Fe XIII	312.109	312.2	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_1$	46.9	0.66	0.10	G 2	5.99	6.21	0.61
C IV	312.42		1s2 2s $^2S_{1/2}$ - 1s2 3p $^2P_{3/2}$						5.09	0.20
Fe XIII	312.872	313.0	3s2 3p2 $^3P_1$ - 3s 3p3 $^3P_0$	28.1	0.15	0.04	G 2	6.07	6.20	0.70

Table C.4: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
P X	312.981		2s22p2 $^3P_1$ - 2s2p3 $^3D_2$						6.15	0.19	
P X	312.77		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						6.17	0.10	
Mg VIII	313.754	313.7	2p $^2P_{1/2}$ - 2s.2p2 $^2P_{1/2}$	185.9	1.08	0.12	G 2	5.96	5.92		
Si VIII	314.327	314.3	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{1/2}$	180.5	1.18	0.14	G 2	5.98	5.91		
Mg VIII	315.039	315.1	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	425.2	1.23	0.13	G 2	5.96	5.91		
Si VIII	316.205	316.3	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	194.4	2.06	0.22	G 2	5.98	5.91		
Mg VIII	317.039	317.1	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	173.4	0.82	0.09	G 2	5.97	5.92		
Mg VIII	317.039	317.3	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{1/2}$	21.9	6.50	2.02	G 2	5.96	5.92		
Si VIII	319.826	319.8	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	479.6	1.28	0.13	G 2	5.98	5.91		
O III	320.976	320.9	2s22p2 $^1D_2$ - 2s22p3d $^1F_3$	34.6	0.65	0.10	G 2	5.75	5.14	0.41	
Fe XIII	320.809		3s2 3p2 $^3P_2$ - 3s 3p3 $^3P_2$						6.20	0.38	
Mg IV	320.994		2p5 $^2P_{3/2}$ - 2s.2p6 $^2S_{1/2}$						5.30	0.19	
Fe X	321.732	321.7	3s2.3p4(3p).3d $^4D_{5/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$	11.3	0.61	0.18	G 2	6.03	6.03	0.70	
Fe X	321.804		3s2.3p4(3p).3d $^4D_{7/2}$ - 3s.3p5(3p*).3d $^4F_{7/2}$						6.03	0.29	
Al VIII	323.538	323.5	2p2 $^3P_0$ - 2s.2p3 $^3P_1$	16.8	0.95	0.24	G 2	5.94	5.92	0.80	
Mg IV	323.306		2p5 $^2P_{1/2}$ - 2s.2p6 $^2S_{1/2}$						5.30	0.13	
Al VIII	325.276	325.3	2p2 $^3P_1$ - 2s.2p3 $^3P_0$	41.3	0.95	0.10	G 2	5.98	5.92	0.37	
Al VIII	325.292		2p2 $^3P_1$ - 2s.2p3 $^3P_2$						5.92	0.34	
Al VIII	325.338		2p2 $^3P_1$ - 2s.2p3 $^3P_1$						5.92	0.29	
Al X	332.789	332.9	2s2 $^1S_0$ - 2s.2p $^1P_1$	46.8	3.66	0.39	G 2	6.04	6.10		
Mg VIII	335.253	335.4	2p $^2P_{1/2}$ - 2s.2p2 $^2S_{1/2}$	85.1	1.13	0.16	G 2	5.97	5.92		
Fe XII	338.278	338.0	3s2.3p3 $^2D_{5/2}$ - 3s.3p4 $^2D_{5/2}$	29.5	0.35	0.04	G 2	6.06	6.15		
O III	395.555	395.6	2s22p2 $^1D_2$ - 2s22p3s $^1P_1$	9.0	0.74	0.15	G 3	5.39	5.11		
Ne VI	399.821	399.8	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{3/2}$	18.0	1.36	0.23	G 3	5.73	5.64		
Mg VI	400.662	400.7	2s2.2p3 $^4S_{3/2}$ - 2s.2p4 $^4P_{3/2}$	35.6	1.12	0.15	G 3	5.85	5.65		
Ne VI	401.926	401.9	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	105.4	1.18	0.13	G 3	5.73	5.64		
Mg VI	403.307	403.1	2s2.2p3 $^4S_{3/2}$ - 2s.2p4 $^4P_{5/2}$	66.5	1.28	0.14	G 3	5.82	5.65	0.67	
Ne VI	403.255		2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{1/2}$						5.64	0.33	
Na VIII	411.166	411.1	2s2 $^1S_0$ - 2s.2p $^1P_1$	50.9	0.85	0.10	G 3	5.93	5.86		
Ne V	416.194	416.1	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	28.2	1.96	0.30	G 3	5.51	5.48		
Ne V	416.843	416.6	2s22p2 $^1S_0$ - 2s2p3 $^1P_1$	4.5	1.21	0.48	G 3	5.51	5.49		
Ne V	416.843	417.1	2s22p2 $^1S_0$ - 2s2p3 $^1P_1$	1.9	3.13	2.83	G 3	5.60	5.49		
C IV	419.713	419.7	1s2 2p $^2P_{3/2}$ - 1s2 3s $^2S_{1/2}$	36.0	0.40	0.05	G 3	5.81	5.08	0.40	
Ca X	419.754		3p $^2P_{3/2}$ - 3d $^2D_{5/2}$						5.82	0.39	
C IV	419.525		1s2 2p $^2P_{1/2}$ - 1s2 3s $^2S_{1/2}$						5.08	0.20	
Na VI	421.463		2s.2p3 $^3P_2$ - 2p4 $^3P_1$						5.67	0.42	
Mg VII	429.14	429.2	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	30.7	1.07	0.20	G 3	5.92	5.81		
Mg VIII	430.465	430.5	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	196.8	1.00	0.11	G 3	5.96	5.91		
Mg VII	431.313	431.4	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	78.2	1.23	0.17	G 3	5.92	5.81	0.78	
Mg VII	431.188		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						5.81	0.22	
Si VIII	216.915	433.9	2s22p3 $^2D_{5/2}$ - 2s2p4 $^2P_{3/2}$	130.8	1.04	0.80	G 3	5.98	5.90		
Mg VII	434.72	434.4	2s22p2 $^3P_2$ - 2s2p3 $^3D_2$	25.1	0.78	0.42	G 3	5.91	5.81		
Mg VII	434.917	434.9	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	134.5	1.09	0.16	G 3	5.91	5.81	0.86	
Mg VII	434.72		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						5.81	0.13	
Ne VI	435.648	435.7	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2S_{1/2}$	45.0	0.78	0.20	G 3	5.73	5.64		
Mg VIII	436.672	436.5	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$	70.9	0.49	0.11	G 3	5.97	5.91		
Mg VIII	436.735	436.9	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	352.0	0.93	0.10	G 3	5.96	5.91	0.90	
Mg VIII	436.672		2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$						5.91	0.10	
Mg IX	441.198	441.1	2s.2p $^3P_0$ - 2p2 $^3P_1$	23.5	0.70	0.12	G 3	5.95	5.98	0.62	
Ca VIII	441.096								5.73	0.35	? (AC)
Mg IX	443.402	443.4	2s.2p $^3P_1$ - 2p2 $^3P_1$	17.2	0.44	0.10	G 3	6.01	5.98		
Mg IX	443.972	444.0	2s.2p $^3P_2$ - 2p2 $^3P_2$	66.1	0.55	0.07	G 3	6.01	5.98		
Mg IX	448.293	448.4	2s.2p $^3P_2$ - 2p2 $^3P_1$	25.8	0.46	0.07	G 3	6.01	5.98		
S IX	224.725	449.4	2s2.2p4 $^3P_2$ - 2s.2p5 $^3P_2$	178.0	1.52	0.41	G 3	6.02	6.00		
Si IX	225.024	450.3	2s22p2 $^3P_1$ - 2s2p3 $^3S_1$	331.4	0.91	0.16	G 3	6.03	6.04	0.68	
Fe X	225.161		3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(1d).3d $^2D_{5/2}$						6.04	0.20	
S IX	225.22		2s2.2p4 $^3P_1$ - 2s.2p5 $^3P_1$						6.00	0.11	
N III	452.227	451.9	2s2 2p $^2P_{3/2}$ - 2s2 3s $^2S_{1/2}$	9.5	0.60	0.18	G 3	5.00	5.05	0.66	
N III	451.871		2s2 2p $^2P_{1/2}$ - 2s2 3s $^2S_{1/2}$						5.05	0.33	
Si IX	227	454.0	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	382.0	0.91	0.16	G 3	6.03	6.04		
C III	459.626	459.6	2s2p $^3P_2$ - 2s3d $^3D_3$	40.5	0.86	0.12	G 3	4.90	4.97	0.46	
C III	459.513		2s2p $^3P_1$ - 2s3d $^3D_2$						4.97	0.25	
C III	459.465		2s2p $^3P_0$ - 2s3d $^3D_1$						4.97	0.11	
Ne VII	465.22	465.1	2s2 $^1S_0$ - 2s2p $^1P_1$	709.7	1.11	0.11	G 3	5.88	5.72		
Ca IX	466.239	466.3	3s2 $^1S_0$ - 3s.3p $^1P_1$	116.8	0.62	0.07	G 3	5.90	5.78		
Ne IV	469.823	469.8	2s2 2p3 $^2D_{5/2}$ - 2s 2p4 $^2D_{5/2}$	47.0	1.10	0.14	G 3	5.31	5.28	0.56	
Ne IV	469.875		2s2 2p3 $^2D_{3/2}$ - 2s 2p4 $^2D_{3/2}$						5.28	0.37	
Ne V	481.36	481.3	2S22P2 3P1.0 - 2S2P3 3P2.0	26.0	0.95	0.77	G 3	5.51	5.47	0.40	
Ne V	481.276		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$						5.47	0.34	
Ne V	481.36		2S22P2 3P1.0 - 2S2P3 3P1.0						5.47	0.26	

Table C.4: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Ne III	489.495	489.0	2s2 2p4 $^3P_2$ - 2s 2p5 $^3P_2$	47.4	0.98	0.19	G 3	5.04	5.06	0.68	
Ne III	488.851		2s2 2p4 $^3P_1$ - 2s 2p5 $^3P_0$						5.06	0.18	
Ne III	489.629		2s2 2p4 $^3P_1$ - 2s 2p5 $^3P_1$						5.06	0.14	
S IV	661.395	661.4	3s2.3p $^2P_{3/2}$ - 3s2.(1s).3d $^2D_{5/2}$	33.6	0.57	0.13	G 4	5.05	5.10		
S V	663.126	663.1	3s.3p $^3P_2$ - 3s.3d $^3D_3$	8.4	0.25	0.14	G 4	5.22	5.20		
Al X	332.789	665.6	2s2 $^1S_0$ - 2s.2p $^1P_1$	282.1	0.61	0.47	G 4	6.04	6.10		
N III	684.998	685.2	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{3/2}$	14.9	1.04	0.74	G 4	4.92	5.02		
N III	685.817	686.0	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	92.3	1.01	0.21	G 4	4.92	5.02	0.83	
N III	686.336		2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{1/2}$						5.02	0.17	
Si X	347.403	694.6	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	400.9	0.60	0.23	G 4	6.05	6.14		
O III	702.332	702.1	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	48.4	0.94	0.33	G 4	5.00	5.04		
O III	702.897	702.6	2s22p2 $^3P_1$ - 2s2p3 $^3P_2$	123.6	1.08	0.21	G 4	5.00	5.04	0.42	
O III	702.821		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$						5.04	0.32	
O III	702.891		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						5.04	0.26	
O III	703.854	703.7	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	185.2	1.24	0.20	G 4	5.04	5.04	0.74	
O III	703.848		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						5.04	0.25	
Fe XI	352.662	705.2	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_2$	190.6	1.15	1.04	G 4	6.05	6.11		
Mg IX	706.058	705.8	2s2 $^1S_0$ - 2s.2p $^3P_1$	75.5	0.43	0.09	G 4	6.01	5.98		
Mg VII	367.674	735.4	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	187.1	0.86	0.54	G 4	5.92	5.81	0.77	
Mg VII	367.683		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						5.81	0.23	
Mg IX	368.07	736.0	2s2 $^1S_0$ - 2s.2p $^1P_1$	1347.2	0.98	0.17	G 4	6.01	5.98		
Fe XI	369.153	738.1	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_2$	781.1	0.08	0.01	G 4	6.05	6.11		[59]
N II	746.984	746.7	2s2 2p2 $^1D_2$ - 2s2 2p 3s $^1P_1$	10.9	0.80	0.44	G 4	4.80	4.77		
S IV	748.392	748.5	3s2.3p $^2P_{1/2}$ - 3s.3p2 $^2P_{1/2}$	18.3	0.46	0.17	G 4	5.00	5.09		
Mg IX	749.55	749.6	2s.2p $^1P_1$ - 2p2 $^1D_2$	13.9	0.24	0.15	G 4	6.01	5.99		
S IV	750.22	750.4	3s2.3p $^2P_{3/2}$ - 3s.3p2 $^2P_{3/2}$	21.0	1.07	0.42	G 4	5.03	5.09		
S IV	753.759	753.9	3s2.3p $^2P_{3/2}$ - 3s.3p2 $^2P_{1/2}$	5.9	0.67	0.57	G 4	5.02	5.09		
O V	758.675	758.5	2s.2p $^3P_1$ - 2p2 $^3P_2$	26.4	0.87	0.18	G 4	5.39	5.39		
O V	759.439	759.3	2s.2p $^3P_0$ - 2p2 $^3P_1$	21.6	0.80	0.20	G 4	5.39	5.39		
O V	760.444	760.4	2s.2p $^3P_2$ - 2p2 $^3P_2$	80.3	1.01	0.13	G 4	5.39	5.39	0.84	
O V	760.225		2s.2p $^3P_1$ - 2p2 $^3P_1$						5.39	0.16	
O V	761.126	761.0	2s.2p $^3P_1$ - 2p2 $^3P_0$	10.4	0.11	0.05	G 4	5.38	5.38		
O V	762.002	762.1	2s.2p $^3P_2$ - 2p2 $^3P_1$	24.6	0.87	0.18	G 4	5.39	5.39		
N III	763.334	763.5	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2S_{1/2}$	15.8	0.89	0.25	G 4	4.90	5.01		
N III	764.351	764.4	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2S_{1/2}$	15.8	1.73	0.58	G 4	4.90	5.01		
N IV	765.147	765.4	2s2 $^1S_0$ - 2s 2p $^1P_1$	210.0	0.88	0.10	G 4	5.18	5.18		
Mg VIII	769.343	769.1	2p $^2P_{1/2}$ - 2s.2p2 $^4P_{1/2}$	30.4	0.10	0.03	G 4	5.96	5.90		
Ne VIII	770.409	770.7	1s2 2s $^2S_{1/2}$ - 1s2 2p $^2P_{3/2}$	425.1	4.11	0.44	G 4	5.96	5.79		
Mg VIII	772.26	772.1	2p $^2P_{3/2}$ - 2s.2p2 $^4P_{5/2}$	30.7	0.70	0.19	G 4	5.85	5.90	0.77	
N III	772.385		2s 2p2 $^4P_{5/2}$ - 2p3 $^4S_{3/2}$						4.99	0.14	
Ne VIII	780.324	780.1	1s2 2s $^2S_{1/2}$ - 1s2 2p $^2P_{1/2}$	237.4	3.74	0.40	G 4	5.95	5.79		
Mg VIII	782.338	781.6	2p $^2P_{3/2}$ - 2s.2p2 $^4P_{3/2}$	14.4	0.71	0.22	G 4	5.96	5.90		

[59] bl ghost 765.4 Å

Table C.5: *Some of the ghosting reconstruction applied to the on-disc GIS spectra of October 16th, 1997. The averaged positions of the ghost and parent (i.e. ghosting) lines are indicated in columns (1) and (3). The ratio of the intensity of the ghost with that one of the ghosting line (in counts) is presented in column (2), while the intensity of the ghosting line (in counts), is shown in column (4). Note that the correction for ghosting is important for many lines, and that some lines have been corrected twice, for both the red- and blue-shifted ghosts.*

λ_{ob} (Å) (ghost)	ratio (counts)	λ_{ob} (Å) (parent)	I (counts) (parent)
154.628	0.02	174.689	1907.14
157.219	0.72	177.233	768.747
160.618	0.45	180.516	951.649
197.357	0.02	180.516	1382.59
197.876	0.05	180.516	1404.44
162.643	0.14	182.243	341.319
165.274	0.24	184.54	551.356
166.01	0.33	185.272	314.798
330.918	0.00	313.656	299.731
294.037	0.36	314.315	218.247
294.636	0.17	315.092	598.012
332.5	0.01	315.092	701.926
297.056	0.83	317.067	164.668
299.5	0.00	319.75	812.992
336.214	0.08	319.75	812.993
269.2	0.00	292.654	264.952
318.215	1.58	335.397	35.1732
318.429	0.89	335.397	90.808
408.58	0.12	436.921	747.661
409.04	0.08	436.921	836.852
704.656	0.16	736.002	142.054
742.581	0.54	769.107	25.4608
744.129	0.70	770.741	321.928
745.571	0.81	772.144	21.9378

C.3.1 The GIS ghosts for the on-disc observation – October 16th 1997

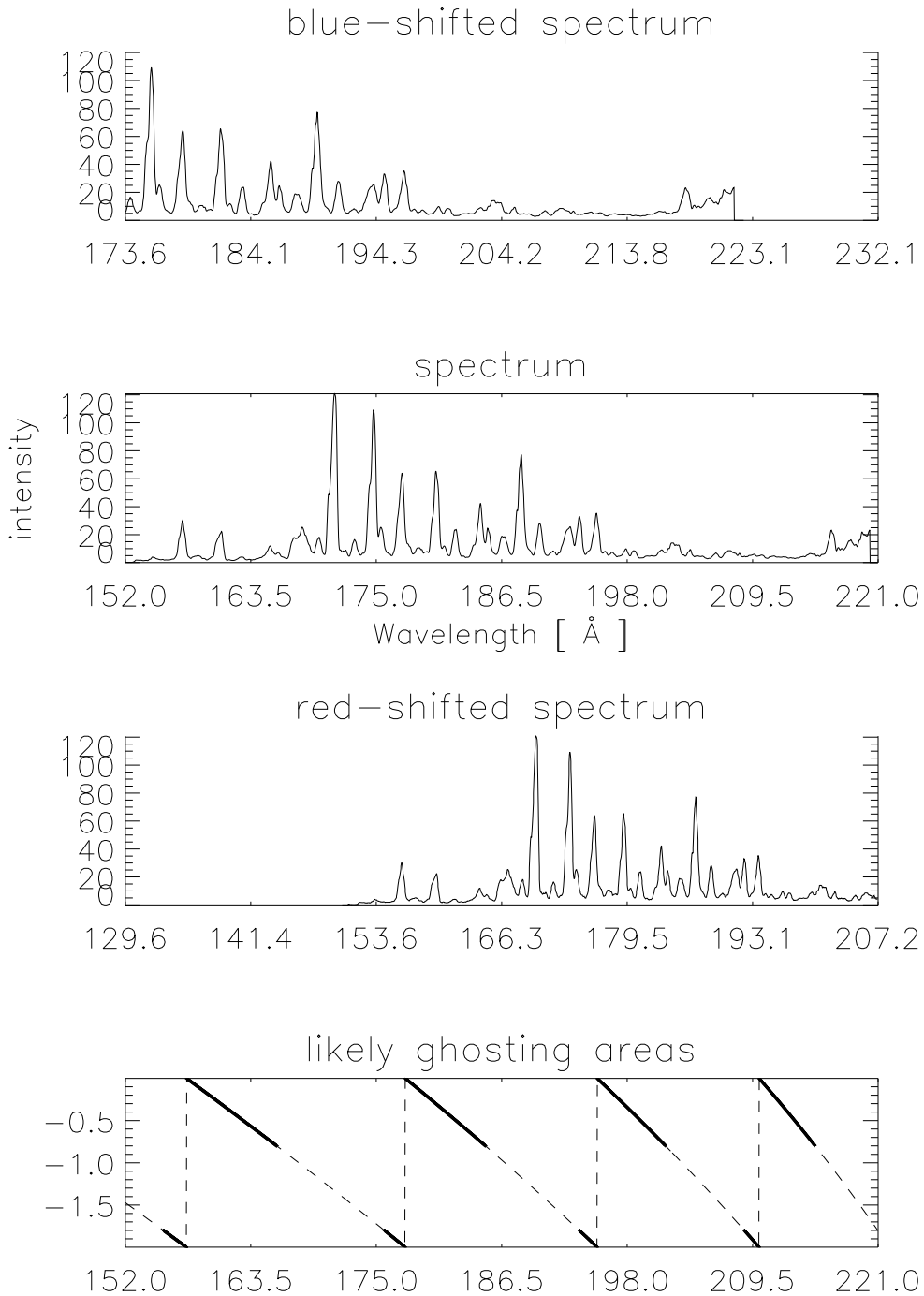

Figure C.17: *The GIS 1 spectrum of October 16th, 1997, on-disc (middle), with the blue- and red-shifted and the likely ghosting areas.*

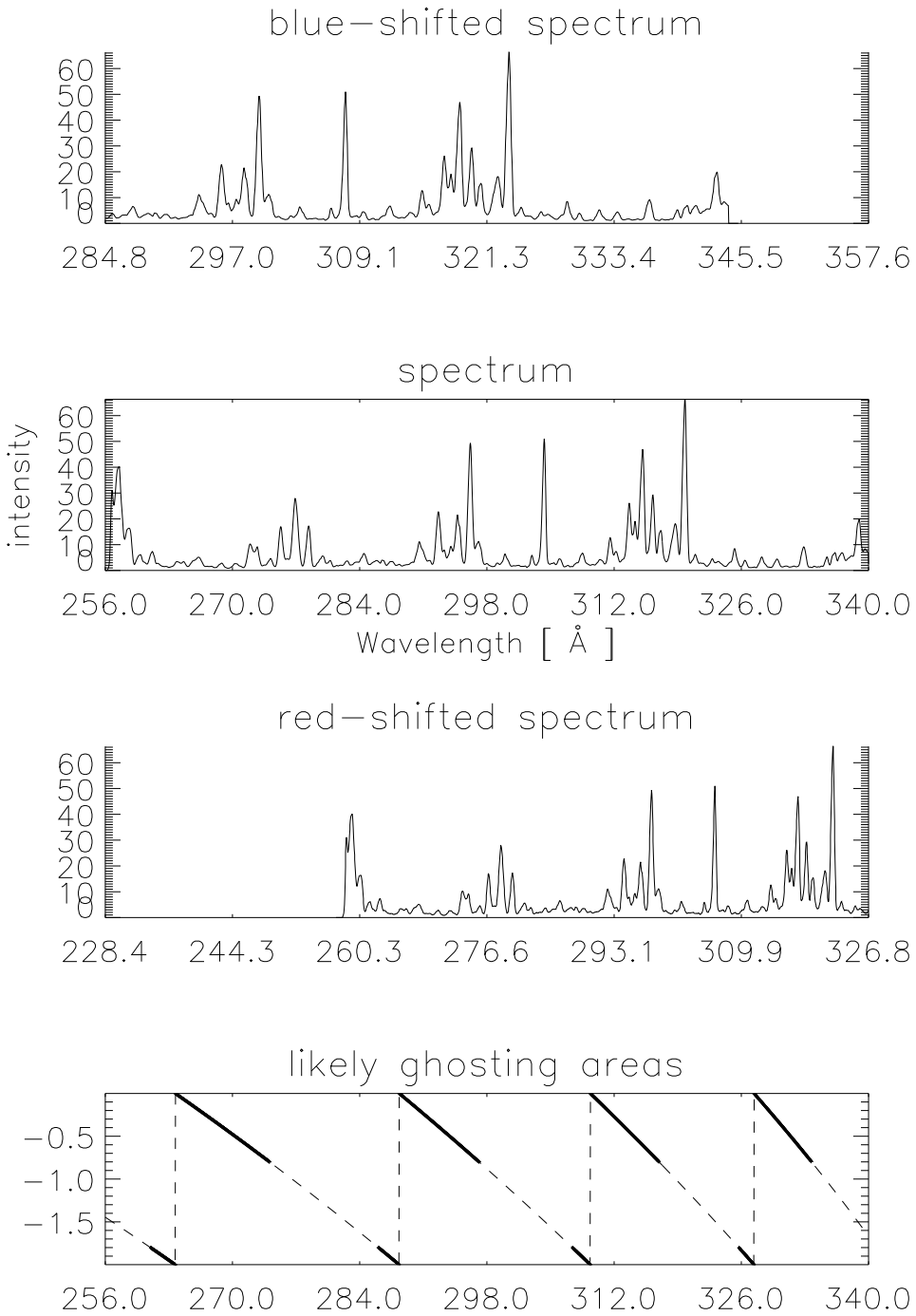

Figure C.18: *The GIS 2 spectrum of October 16th, 1997, on-disc (middle), with the blue- and red-shifted and the likely ghosting areas.*

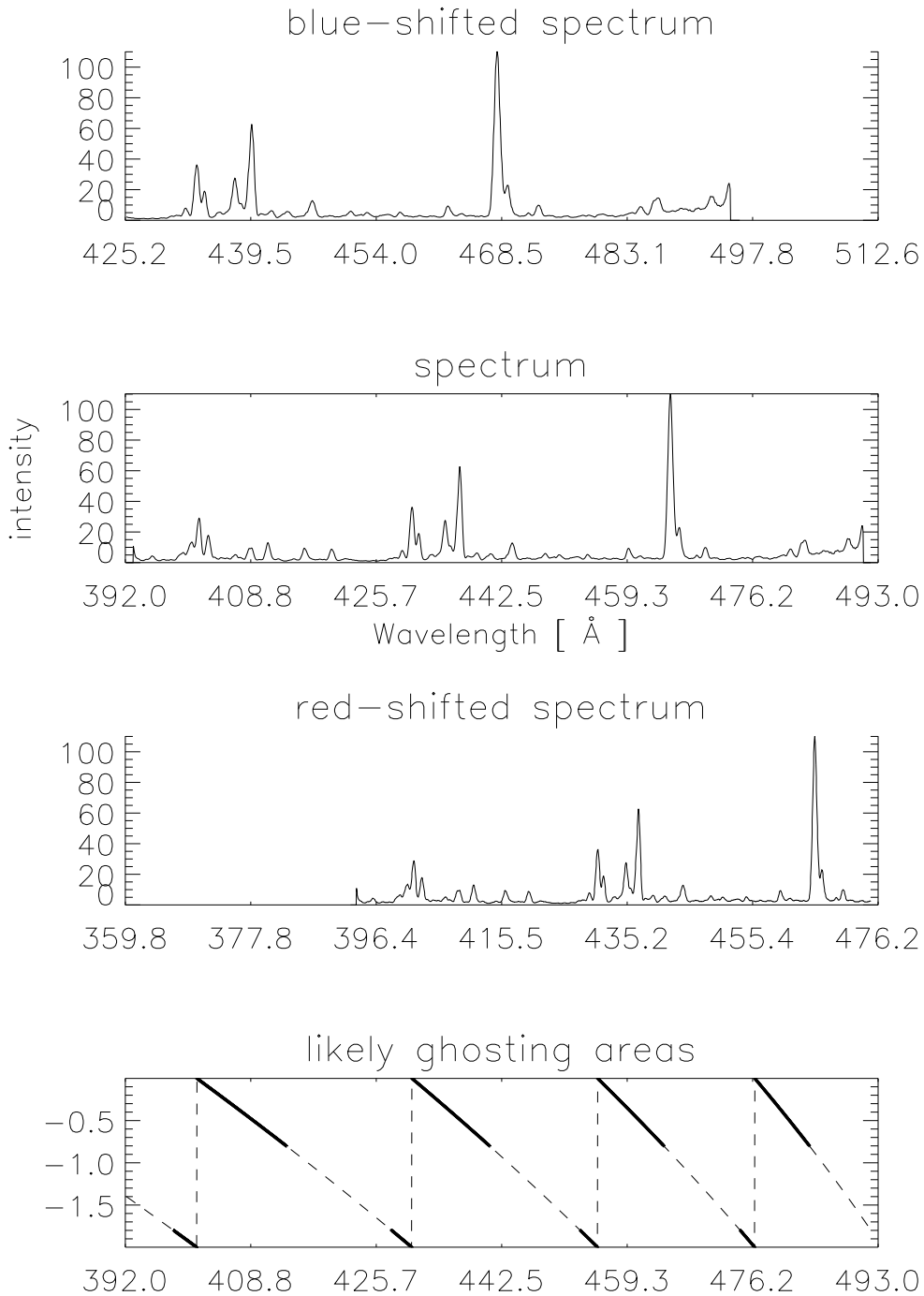

Figure C.19: *The GIS 3 spectrum of October 16th, 1997, on-disc (middle), with the blue- and red-shifted and the likely ghosting areas.*

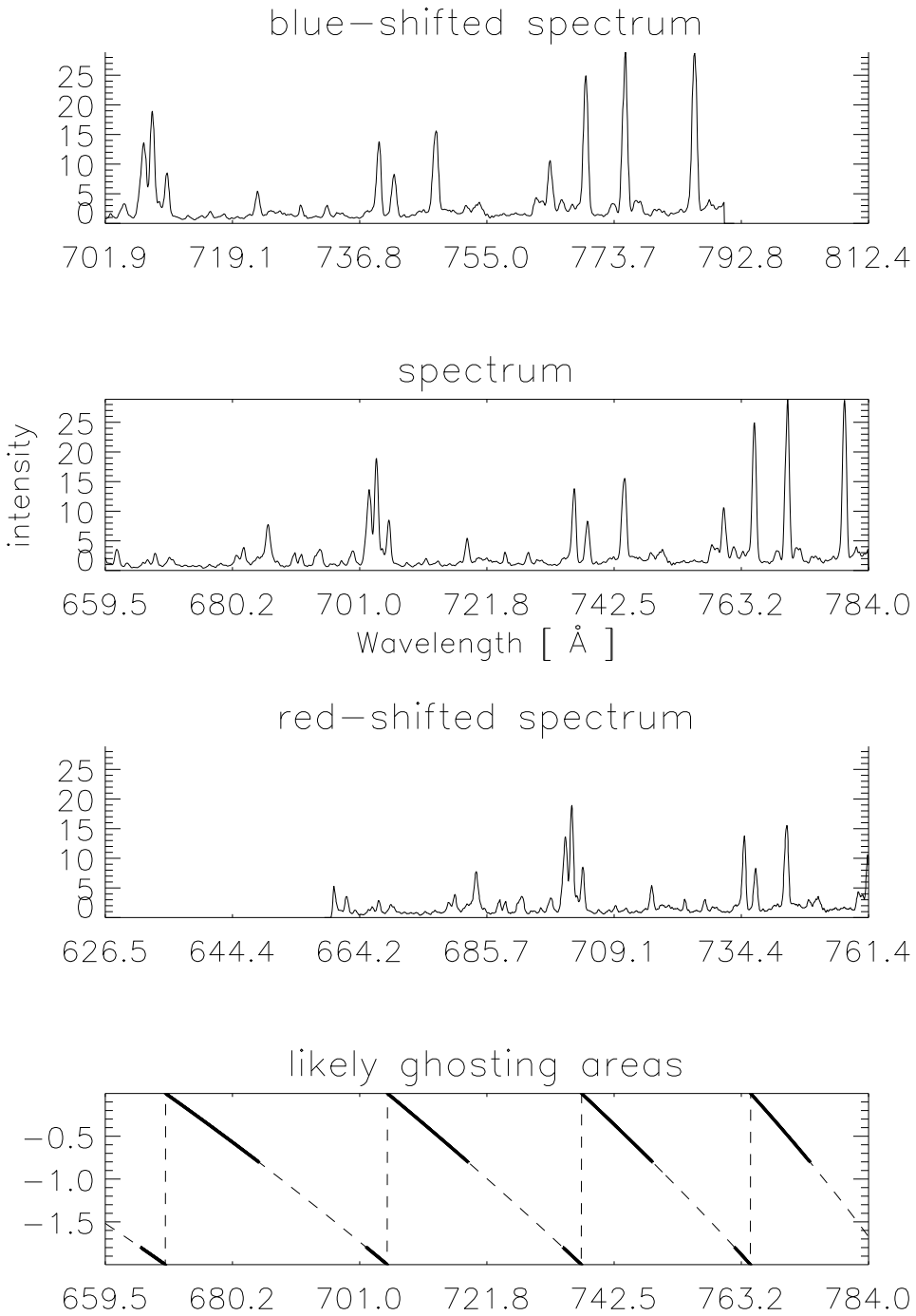

Figure C.20: *The GIS 4 spectrum of October 16th, 1997, on-disc (middle), with the blue- and red-shifted and the likely ghosting areas.*

Appendix D

Appendix to Chapter 5. CDS spectra of the Elephant's Trunk coronal hole

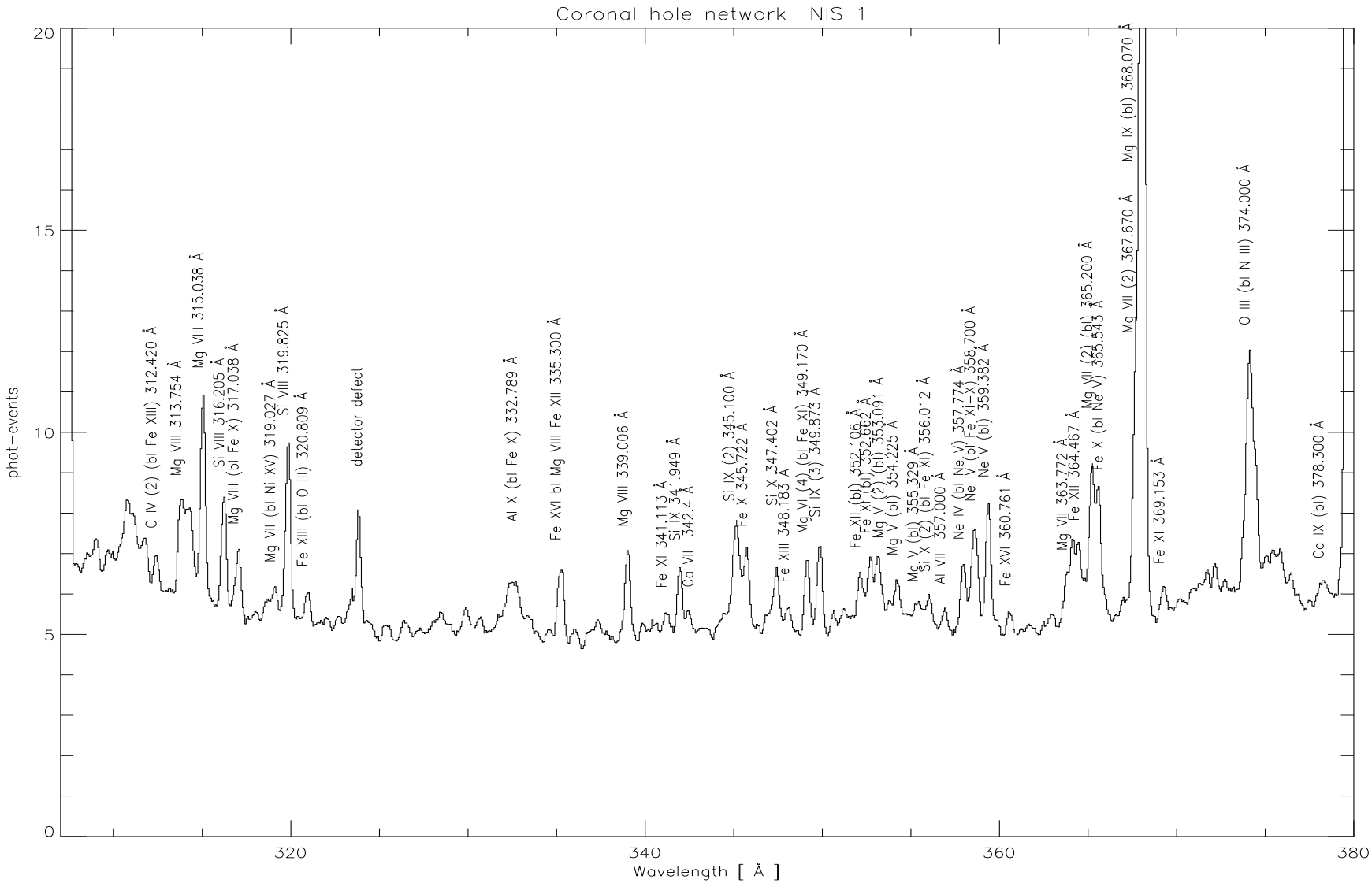

Figure D.1: *The NIS 1 averaged spectra of a network area of the Elephant's Trunk coronal hole – 27th August 1996. Note the high level of the scattered light and the low signal in all the coronal lines.*

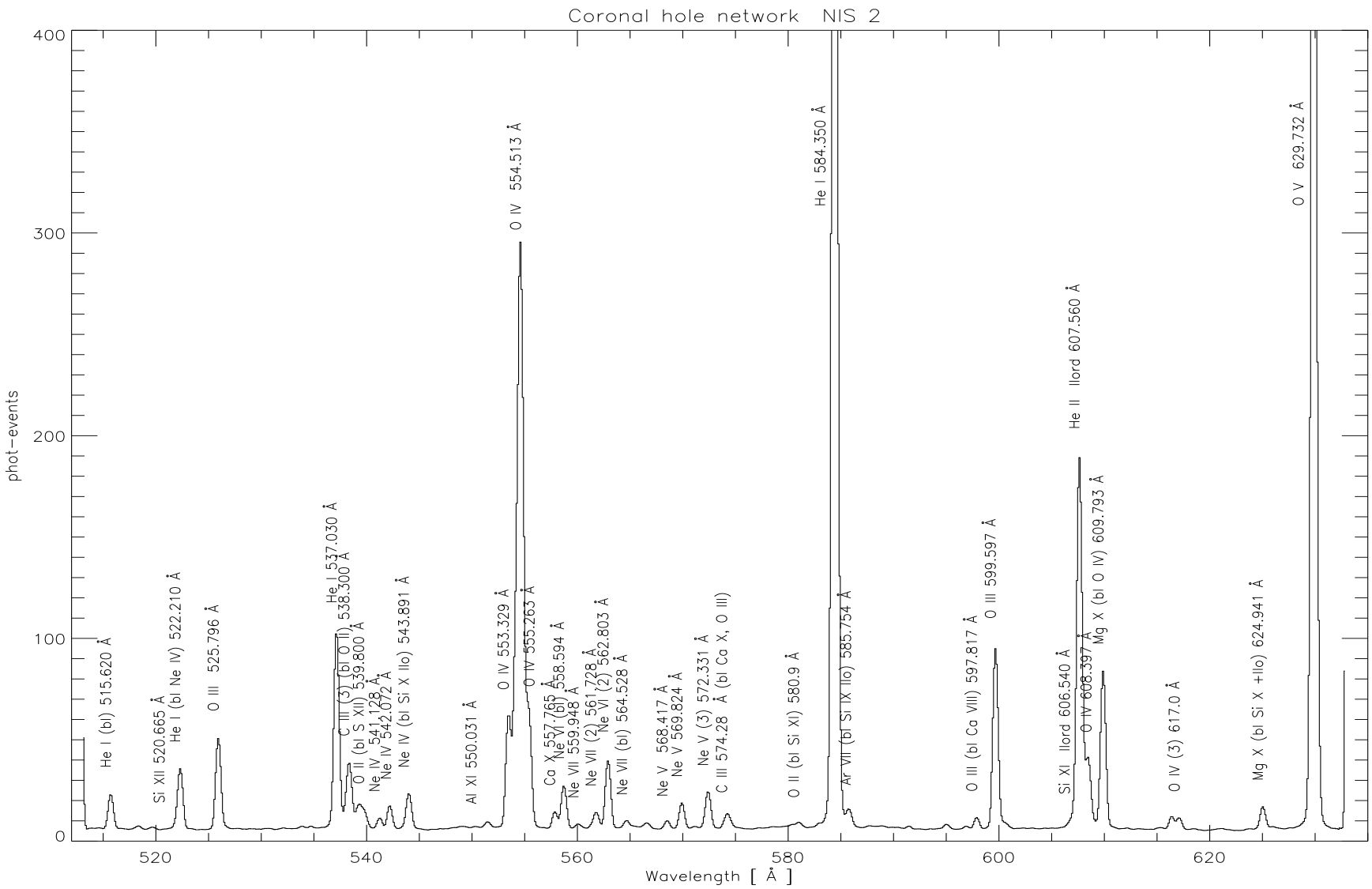

Figure D.2: *The NIS 2 averaged spectra of a network area of the Elephant's Trunk coronal hole – 27th August 1996. Note the low signal in all the coronal lines.*

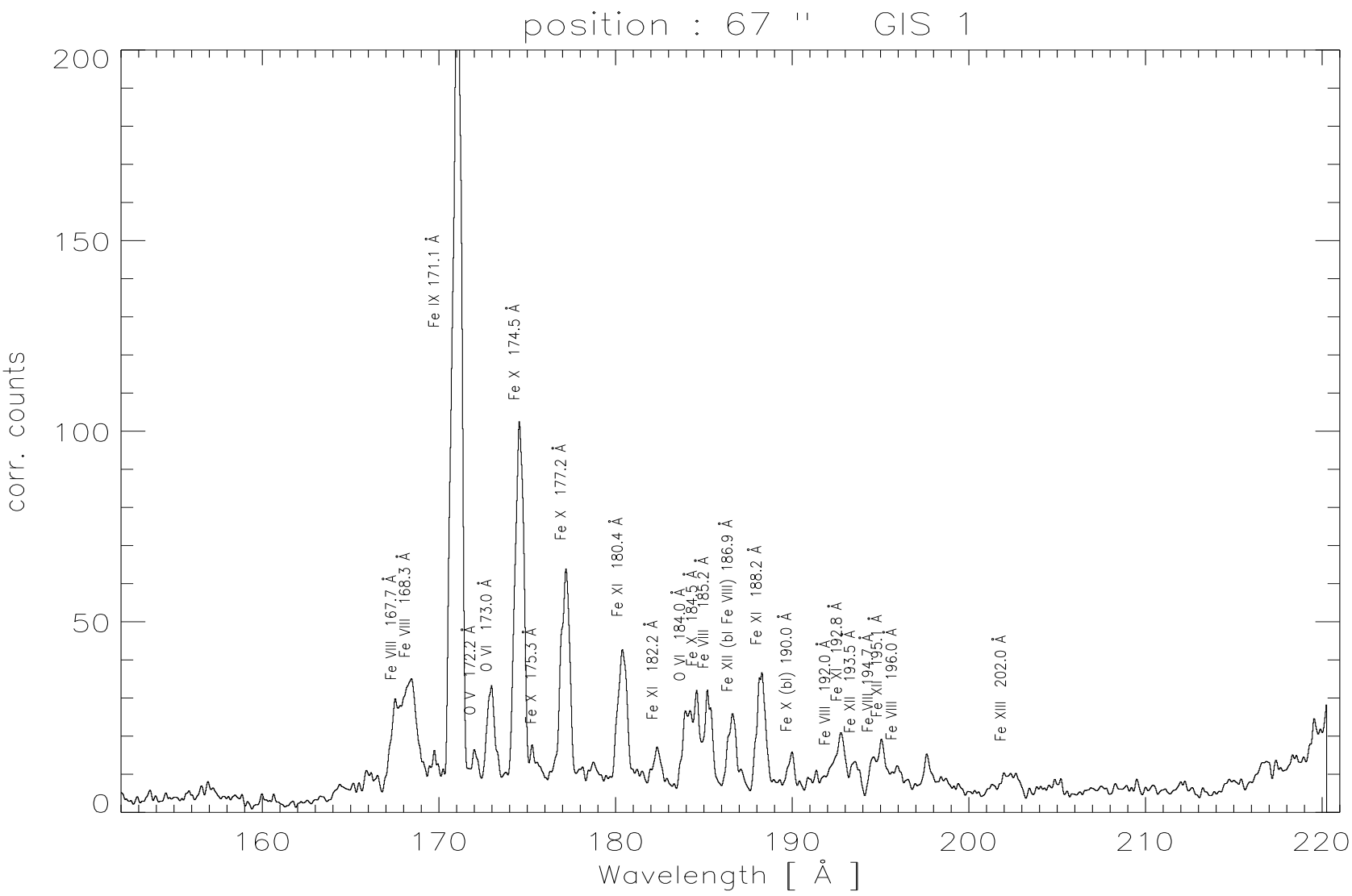

Figure D.3: *The GIS 1 spectrum of the coronal hole network region on August 27, 1996.*

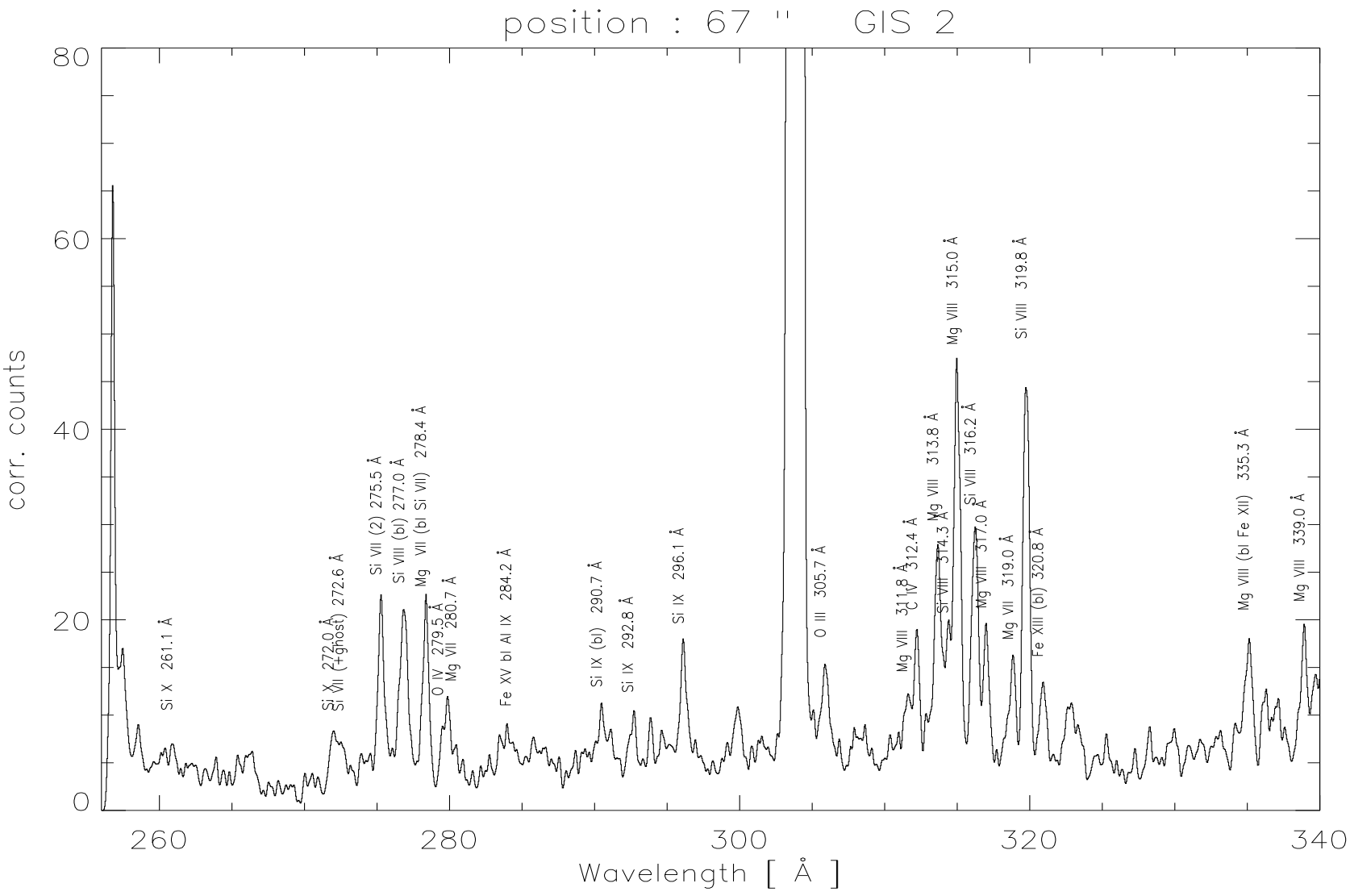

Figure D.4: *The GIS 2 spectrum of the coronal hole network region on August 27, 1996.*

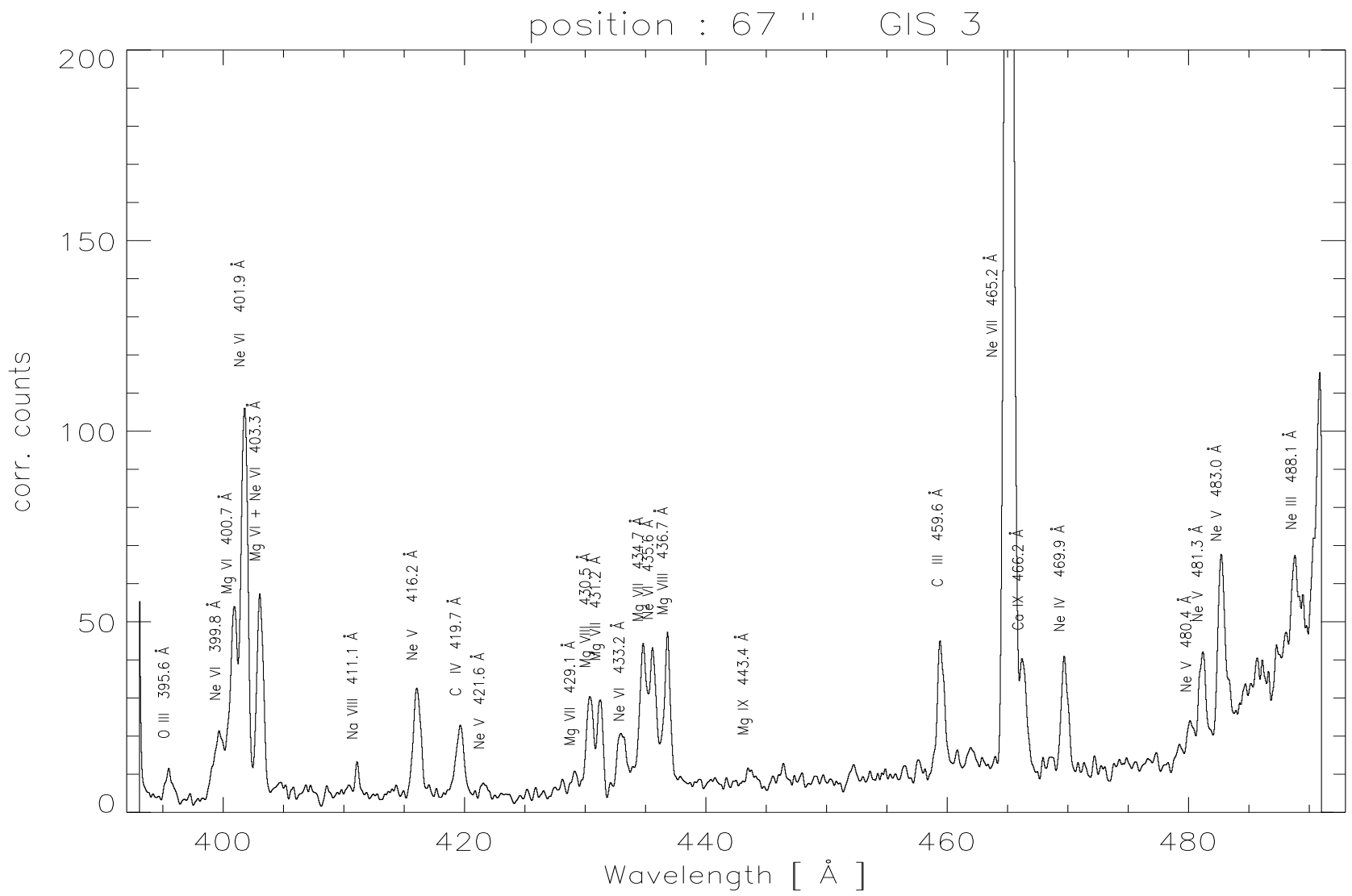

Figure D.5: *The GIS 3 spectrum of the coronal hole network region on August 27, 1996.*

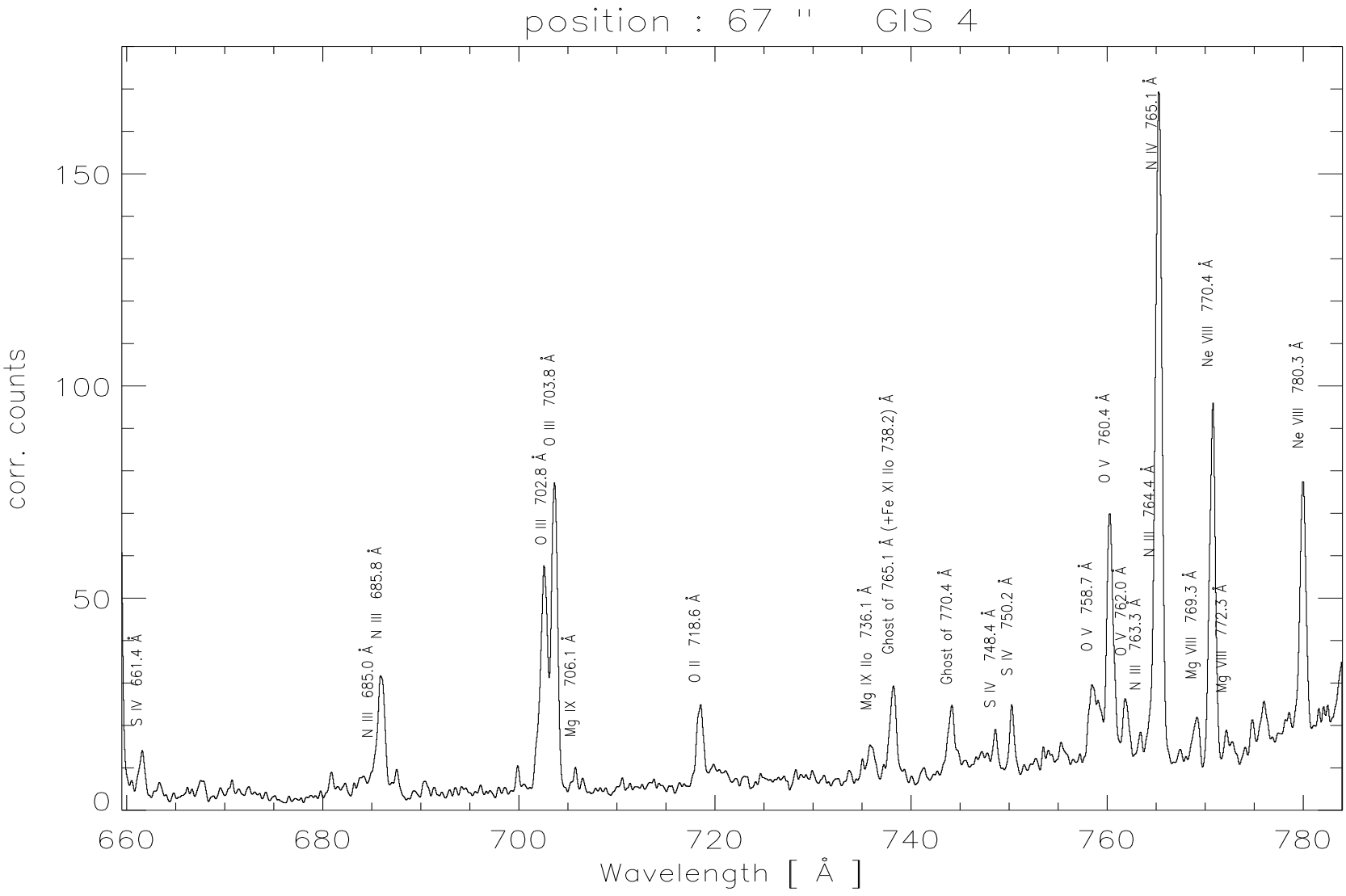

Figure D.6: *The GIS 4 spectrum of the coronal hole network region on August 27, 1996.*

Appendix E

Appendix to Chapter 6

E.1 Spectra and line identifications – plume observation – October 11th 1997

Table E.1: *Results for the 1997 October 11 GIS and NIS observation of a polar coronal hole plume.*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
HE I	537.03	537.1		37.0	0.64	0.07	N 2	4.54	4.52		AC
HE I	522.213	522.2		10.7	0.72	0.11	N 2	4.61	4.53		AC
	781	781.0	continuum	9.2	0.98	0.31	G 4	4.72	4.34		
	750	750.0	continuum	7.8	0.88	0.28	G 4	4.81	4.39		
C III	538.31	538.3	2s2p $^3P_2$ - 2s3s $^3S_1$	35.2	0.91	0.11	N 2	4.86	4.96	0.35	
O II	538.32		2s22p3 $^2D_{3/2}$ - 2s2p4 $^2P_{3/2}$						4.87	0.33	
C III	538.147		2s2p $^3P_1$ - 2s3s $^3S_1$						4.96	0.21	
	718	718.0	continuum	5.7	0.91	0.29	G 4	4.92	4.45		
C III	459.626	459.8	2s2p $^3P_2$ - 2s3d $^3D_3$	17.8	1.03	0.11	G 3	4.93	4.97	0.46	
C III	459.513		2s2p $^3P_1$ - 2s3d $^3D_2$						4.97	0.25	
C III	459.465		2s2p $^3P_0$ - 2s3d $^3D_1$						4.97	0.11	
N III	764.351	764.7	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2S_{1/2}$	10.4	1.24	0.20	G 4	4.94	5.01		
N III	763.334	763.5	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2S_{1/2}$	5.5	1.22	0.29	G 4	4.94	5.01		
N III	685.817	685.8	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	49.4	1.07	0.12	G 4	4.96	5.02	0.72	
N III	685.515		2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{1/2}$						5.01	0.28	
N III	684.998	684.8	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{3/2}$	7.8	0.97	0.20	G 4	4.96	5.02		
O III	702.897	702.7	2s22p2 $^3P_1$ - 2s2p3 $^3P_2$	64.5	1.09	0.11	G 4	5.03	5.04	0.42	
O III	702.821		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$						5.04	0.32	
O III	702.891		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						5.04	0.26	
O III	703.854	703.7	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	112.4	1.06	0.11	G 4	5.03	5.04	0.75	
O III	703.848		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						5.04	0.25	
S IV	748.392	748.9	3s2.3p $^2P_{1/2}$ - 3s.3p2 $^2P_{1/2}$	9.0	0.99	0.17	G 4	5.04	5.09		
S IV	753.759	753.9	3s2.3p $^2P_{3/2}$ - 3s.3p2 $^2P_{1/2}$	4.4	1.00	0.29	G 4	5.04	5.09		
S IV	661.395	661.8	3s2.3p $^2P_{3/2}$ - 3s2.(1s).3d $^2D_{5/2}$	20.6	1.05	0.14	G 4	5.06	5.10		
O III	525.796	525.9	2s22p2 $^1D_2$ - 2s2p3 $^1P_1$	43.5	1.04	0.12	N 2	5.08	5.07		
Ne III	489.495	489.1	2s2 2p4 $^3P_2$ - 2s 2p5 $^3P_2$	14.0	0.84	0.10	G 3	5.11	5.06	0.66	
Ne III	488.851		2s2 2p4 $^3P_1$ - 2s 2p5 $^3P_0$						5.06	0.18	
Ne III	489.629		2s2 2p4 $^3P_1$ - 2s 2p5 $^3P_1$						5.06	0.13	
N IV	765.147	765.3	2s2 $^1S_0$ - 2s 2p $^1P_1$	97.4	1.17	0.12	G 4	5.17	5.18		
S V	663.126	663.3	3s.3p $^3P_2$ - 3s.3d $^3D_3$	2.4	1.05	0.54	G 4	5.21	5.20		
O IV	554.513	554.6	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	290.5	1.08	0.11	N 2	5.26	5.27		
O IV	553.329	553.4	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{3/2}$	55.0	1.14	0.13	N 2	5.26	5.27		
O IV	555.263	555.4	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{1/2}$	59.5	1.08	0.12	N 2	5.26	5.27		
O IV	608.397	608.4	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2S_{1/2}$	42.8	1.11	0.13	N 2	5.26	5.27		
Ne IV	542.073	542.2	2s2 2p3 $^4S_{3/2}$ - 2s 2p4 $^4P_{3/2}$	6.0	1.12	0.23	N 2	5.27	5.27		
Ne IV	541.128	541.2	2s2 2p3 $^4S_{3/2}$ - 2s 2p4 $^4P_{1/2}$	2.5	1.32	0.52	N 2	5.28	5.27		
Ne IV	469.823	470.1	2s2 2p3 $^2D_{5/2}$ - 2s 2p4 $^2D_{5/2}$	9.5	1.21	0.14	G 3	5.28	5.28	0.58	

Table E.1: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Ne IV	469.875		2s2 2p3 $^2D_{3/2}$ - 2s 2p4 $^2D_{3/2}$						5.28	0.38	
Ne IV	543.892	544.0	2s2 2p3 $^4S_{3/2}$ - 2s 2p4 $^4P_{5/2}$	10.8	1.01	0.16	N 2	5.34	5.27		
O V	760.444	760.5	2s.2p $^3P_2$ - 2p2 $^3P_2$	30.8	1.22	0.14	G 4	5.37	5.39	0.84	
O V	760.225		2s.2p $^3P_1$ - 2p2 $^3P_1$						5.39	0.16	
O V	758.675	758.6	2s.2p $^3P_1$ - 2p2 $^3P_2$	11.6	0.92	0.14	G 4	5.37	5.39		
O V	759.439	759.5	2s.2p $^3P_0$ - 2p2 $^3P_1$	9.6	0.83	0.14	G 4	5.37	5.39		
O V	762.002	762.1	2s.2p $^3P_2$ - 2p2 $^3P_1$	10.5	0.94	0.15	G 4	5.37	5.39		
O V	629.73	629.8	2s2 $^1S_0$ - 2s.2p $^1P_1$	662.9	0.84	0.08	N 2	5.37	5.39		
Ne V	569.824	569.9	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	5.0	1.05	0.24	N 2	5.49	5.47	0.76	
Ne V	569.753		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						5.47	0.24	
Ne V	416.194	416.1	2s22p2 $^1D_2$ - 2s2p3 $^1D_2$	7.1	1.24	0.15	G 3	5.51	5.48		
C IV	419.713	419.9	1s2 2p $^2P_{3/2}$ - 1s2 3s $^2S_{1/2}$	12.6	0.45	0.05	G 3	5.51	5.08	0.58	
C IV	419.525		1s2 2p $^2P_{1/2}$ - 1s2 3s $^2S_{1/2}$						5.08	0.29	
Ca X	419.754		3p $^2P_{3/2}$ - 3d $^2D_{5/2}$						5.82	0.13	
Mg V	351.088	351.0	2p4 $^3P_2$ - 2s.2p5 $^3P_1$	5.1	0.33	0.30	N 1	5.57	5.47		
Mg V	353.092	353.1	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	17.3	0.31	0.11	N 1	5.58	5.47		
O IV	609.829	609.8	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2S_{1/2}$	82.7	1.64	0.18	N 2	5.72	5.27	0.65	
Mg X	609.793		1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{3/2}$						6.04	0.34	
Ne VI	562.803	562.9	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2D_{5/2}$	20.4	0.94	0.12	N 2	5.76	5.63		
Ne VI	401.926	402.1	2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{3/2}$	25.6	1.07	0.11	G 3	5.77	5.64		
Ne VI	399.821	399.8	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{3/2}$	6.8	0.79	0.09	G 3	5.77	5.64		
Ne VI	401.136	401.1	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2P_{1/2}$	11.7	0.90	0.10	G 3	5.77	5.64		
Ne VI	558.594	558.7	2s2 2p $^2P_{1/2}$ - 2s 2p2 $^2D_{3/2}$	14.7	0.83	0.12	N 2	5.77	5.63	0.81	
Ne VII	558.609		2s2p $^3P_1$ - 2p2 $^3P_2$						5.72	0.19	
Na VI	415.584	415.7	2p2 $^3P_1$ - 2s.2p3 $^3P_2$	1.0	0.96	0.31	G 3	5.81	5.66	0.39	
Na VI	415.504		2p2 $^3P_1$ - 2s.2p3 $^3P_0$						5.66	0.34	
Na VI	415.578		2p2 $^3P_1$ - 2s.2p3 $^3P_1$						5.66	0.27	
Mg VI	403.307	403.3	2s2.2p3 $^4S_{3/2}$ - 2s.2p4 $^4P_{5/2}$	38.5	1.07	0.11	G 3	5.81	5.65	0.85	
Ne VI	403.255		2s2 2p $^2P_{3/2}$ - 2s 2p2 $^2P_{1/2}$						5.64	0.15	
Mg VI	349.163	349.2	2s2.2p3 $^2D_{5/2}$ - 2s.2p4 $^2D_{5/2}$	23.0	1.05	0.33	N 1	5.82	5.65	0.50	
Mg VI	349.124		2s2.2p3 $^2D_{3/2}$ - 2s.2p4 $^2D_{3/2}$						5.65	0.38	
Ne VII	564.528	564.7	2s2p $^3P_2$ - 2p2 $^3P_1$	2.5	0.87	0.36	N 2	5.83	5.72		
Ne VII	561.728	561.7	2s2p $^3P_2$ - 2p2 $^3P_2$	6.9	0.98	0.20	N 2	5.83	5.72		
Ne VII	465.22	465.4	2s2 $^1S_0$ - 2s2p $^1P_1$	179.0	1.00	0.10	G 3	5.83	5.72		
Ca IX	466.239	466.5	3s2 $^1S_0$ - 3s.3p $^1P_1$	62.5	0.38	0.04	G 3	5.84	5.78		
Mg VII	434.917	434.9	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	78.4	0.76	0.08	G 3	5.85	5.80	0.84	
Mg VII	434.72		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						5.81	0.13	
Fe VIII	167.486	167.5		281.2	0.31	0.03	G 1	5.85	5.65		AC
Fe VIII	168.545	168.3		474.6	0.44	0.05	G 1	5.85	5.65	0.50	AC
Fe VIII	168.17								5.65	0.40	AC
Fe VIII	185.213	185.3		181.4	0.53	0.05	G 1	5.85	5.64		AC
Si VII	275.353	275.4	2p4 $^3P_2$ - 2s.2p5 $^3P_2$	79.8	0.64	0.07	G 2	5.85	5.77		
Mg VII	367.674	367.7	2s22p2 $^3P_2$ - 2s2p3 $^3P_2$	55.0	1.17	0.18	N 1	5.85	5.81	0.76	
Mg VII	367.683		2s22p2 $^3P_2$ - 2s2p3 $^3P_1$						5.81	0.23	
Mg VII	431.313	431.3	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	46.9	0.84	0.09	G 3	5.85	5.81	0.78	
Mg VII	431.188		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						5.81	0.22	
Mg VII	429.14	429.1	2s22p2 $^3P_0$ - 2s2p3 $^3D_1$	17.5	0.76	0.08	G 3	5.85	5.81		
Mg VII	363.772	363.8	2s22p2 $^3P_0$ - 2s2p3 $^3P_1$	14.6	0.85	0.34	N 1	5.85	5.81		
Mg VII	365.234	365.2	2s22p2 $^3P_1$ - 2s2p3 $^3P_2$	39.5	0.98	0.19	N 1	5.86	5.81	0.37	
Mg VII	365.176		2s22p2 $^3P_1$ - 2s2p3 $^3P_0$						5.81	0.35	
Mg VII	365.243		2s22p2 $^3P_1$ - 2s2p3 $^3P_1$						5.81	0.27	
Mg VII	276.154	276.1	2s22p2 $^3P_0$ - 2s2p3 $^3S_1$	16.8	0.60	0.07	G 2	5.86	5.81		
Al VII	356.888	357.0	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	7.2	0.83	0.60	N 1	5.86	5.78		
Mg VII	278.402	278.3	2s22p2 $^3P_2$ - 2s2p3 $^3S_1$	81.7	0.82	0.08	G 2	5.86	5.81	0.76	
Si VII	278.443		2p4 $^3P_1$ - 2s.2p5 $^3P_2$						5.77	0.24	
Na VIII	411.166	411.2	2s2 $^1S_0$ - 2s.2p $^1P_1$	19.9	0.86	0.09	G 3	5.87	5.86		
Ne VIII	780.324	779.5	1s2 2s $^2S_{1/2}$ - 1s2 2p $^2P_{1/2}$	46.7	2.20	0.24	G 4	5.87	5.79		
Fe X	365.543	365.6	3s2.3p5 $^2P_{1/2}$ - 3s.3p6 $^2S_{1/2}$	9.2	1.38	0.70	N 1	5.87	6.04	0.64	
Ne V	365.603		2s22p2 $^1D_2$ - 2s2p3 $^1P_1$						5.48	0.36	
O VI	184.117	184.0	1s2 2p $^2P_{3/2}$ - 1s2 3s $^2S_{1/2}$	33.6	0.47	0.06	G 1	5.87	5.51	0.65	
O VI	183.937		1s2 2p $^2P_{1/2}$ - 1s2 3s $^2S_{1/2}$						5.51	0.32	

Table E.1: *(continued)*

Ion	λ_{th} (Å)	λ_{ob} (Å)	Transition	I_{ob}	I_{th}/I_{ob}	+/-	Det	log T_{eff}	log T_{max}	frac	
Ca X	557.765	557.8	3s $^2S_{1/2}$ - 3p $^2P_{3/2}$	12.8	0.88	0.13	N 2	5.87	5.82		
Mg VII	277	276.9	2s22p2 $^3P_1$ - 2s2p3 $^3S_1$	92.8	0.69	0.07	G 2	5.87	5.81	0.47	
Si VIII	277.054		2s22p3 $^2D_{5/2}$ - 2s2p4 $^2D_{5/2}$						5.90	0.27	
Si VII	276.839		2p4 $^3P_0$ - 2s.2p5 $^3P_1$						5.77	0.13	
Si VIII	276.838		2s22p3 $^2D_{3/2}$ - 2s2p4 $^2D_{3/2}$						5.88	0.11	
Ne VIII	770.409	770.5	1s2 2s $^2S_{1/2}$ - 1s2 2p $^2P_{3/2}$	76.0	2.61	0.27	G 4	5.88	5.79		
O VI	173.079	173.1	1s2 2p $^2P_{3/2}$ - 1s2 3d $^2D_{5/2}$	122.5	0.22	0.02	G 1	5.88	5.51	0.60	
O VI	172.935		1s2 2p $^2P_{1/2}$ - 1s2 3d $^2D_{3/2}$						5.51	0.33	
Fe VIII	195.972	196.0	3p6.(1s).3d $^2D_{3/2}$ - 3p6.(1s).4p $^2P_{1/2}$	35.9	0.12	0.02	G 1	5.89	5.85		
Fe VIII	186.599	186.6		104.7	1.06	0.11	G 1	5.89	5.64		AC
Mg VIII	436.735	436.9	2p $^2P_{3/2}$ - 2s.2p2 $^2D_{5/2}$	93.1	0.69	0.07	G 3	5.89	5.91	0.89	
Mg VIII	436.672		2p $^2P_{3/2}$ - 2s.2p2 $^2D_{3/2}$						5.92	0.11	
Mg VIII	315.039	315.0	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	129.7	0.78	0.13	N 1	5.90	5.91		
Mg VIII	315.039	315.2	2p $^2P_{3/2}$ - 2s.2p2 $^2P_{3/2}$	132.8	0.77	0.08	G 2	5.90	5.91		
Si VIII	319.826	319.9	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	115.6	0.79	0.08	G 2	5.90	5.91		
Mg VIII	339.006	339.0	2p $^2P_{3/2}$ - 2s.2p2 $^2S_{1/2}$	33.5	0.73	0.20	N 1	5.90	5.92		
Mg VIII	430.465	430.4	2p $^2P_{1/2}$ - 2s.2p2 $^2D_{3/2}$	62.2	0.67	0.07	G 3	5.90	5.92		
Si VIII	319.826	319.9	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{5/2}$	110.2	0.83	0.15	N 1	5.90	5.91		
Fe IX	171.073	171.1	3p6 $^1S_0$ - 3p5.3d $^1P_1$	1454.8	0.70	0.07	G 1	5.93	5.96		
Na IX	681.721	681.6	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{3/2}$	4.9	1.37	0.39	G 4	5.95	5.92		
Si IX	345.124	345.1	2s22p2 $^3P_1$ - 2s2p3 $^3D_2$	26.5	0.84	0.27	N 1	5.96	6.03	0.69	
Si IX	344.951		2s22p2 $^3P_1$ - 2s2p3 $^3D_1$						6.04	0.24	
Mg IX	368.07	368.1	2s2 $^1S_0$ - 2s.2p $^1P_1$	134.1	1.01	0.12	N 1	5.96	5.98		
Fe VIII	194.661	194.7	3p6.(1s).3d $^2D_{5/2}$ - 3p6.(1s).4p $^2P_{3/2}$	48.4	0.05	0.01	G 1	5.98	5.86	0.67	
Fe XII	194.609		3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^2P_{1/2}$						6.17	0.32	
Si IX	349.873	349.8	2s22p2 $^3P_2$ - 2s2p3 $^3D_3$	15.5	1.03	0.41	N 1	5.98	6.02	0.81	
Si IX	349.794		2s22p2 $^3P_2$ - 2s2p3 $^3D_2$						6.03	0.19	
Fe X	345.723	345.7	3s2.3p5 $^2P_{3/2}$ - 3s.3p6 $^2S_{1/2}$	18.2	1.07	0.41	N 1	5.99	6.04		
Fe X	184.543	184.5	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(1d).3d $^2S_{1/2}$	99.5	0.76	0.08	G 1	5.99	6.05		
Fe X	177.243	177.3	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2P_{3/2}$	420.9	0.48	0.06	G 1	5.99	6.05		
Fe X	174.534	174.7	3s2.3p5 $^2P_{3/2}$ - 3s2.3p4(3p).3d $^2D_{5/2}$	479.4	0.73	0.07	G 1	5.99	6.05		
Fe X	190.043	190.0	3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(1d).3d $^2S_{1/2}$	38.7	0.66	0.08	G 1	6.00	6.05		
Fe XI	180.408	180.5	3s2.3p4 $^3P_2$ - 3s2.3p3(4s*).3d $^3D_3$	157.8	1.14	0.12	G 1	6.04	6.11	0.84	
Fe X	180.407		3s2.3p5 $^2P_{1/2}$ - 3s2.3p4(3p).3d $^2P_{1/2}$						6.04	0.12	
Fe XI	369.153	369.3	3s2.3p4 $^3P_1$ - 3s.3p5 $^3P_2$	4.5	1.09	0.86	N 1	6.04	6.11		
Fe XI	352.662	352.7	3s2.3p4 $^3P_2$ - 3s.3p5 $^3P_2$	12.1	1.37	0.64	N 1	6.04	6.11		
Fe XI	188.232	188.4	3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^3P_2$	113.4	0.88	0.09	G 1	6.05	6.11	0.71	
Fe XI	188.299		3s2.3p4 $^3P_2$ - 3s2.3p3(2d*).3d $^1P_1$						6.11	0.26	
Mg X	624.941	625.0	1s2.(1s).2s $^2S_{1/2}$ - 1s2.(1s).2p $^2P_{1/2}$	9.1	2.61	0.49	N 2	6.07	6.04		
Al VII	353.769	353.7	2s22p3 $^4S_{3/2}$ - 2s2p4 $^4P_{3/2}$	9.0	0.78	0.47	N 1	6.09	5.78	0.56	
Fe XIV	353.831		3s2 3p $^2P_{3/2}$ - 3s 3p2 $^2D_{5/2}$						6.24	0.44	
Fe XII	193.521	193.6	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{3/2}$	51.9	1.12	0.13	G 1	6.12	6.16		
Fe XII	364.467	364.5	3s2.3p3 $^4S_{3/2}$ - 3s.3p4 $^4P_{5/2}$	7.8	1.37	0.97	N 1	6.12	6.16		
Fe XII	195.118	195.3	3s2.3p3 $^4S_{3/2}$ - 3s2.3p2(3p).3d $^4P_{5/2}$	79.0	1.15	0.13	G 1	6.12	6.16		
Fe XIII	348.183	348.2	3s2 3p2 $^3P_0$ - 3s 3p3 $^3D_1$	10.4	0.85	0.52	N 1	6.21	6.20		
Fe XIV	274.2	274.2	3s2 3p $^2P_{1/2}$ - 3s 3p2 $^2S_{1/2}$	31.0	0.73	0.08	G 2	6.21	6.25	0.76	
Si VII	274.174		2p4 $^3P_1$ - 2s.2p5 $^3P_0$						5.76	0.23	
Fe XIII	202.044	202.2	3s2 3p2 $^3P_0$ - 3s2 3p 3d $^3P_1$	104.5	0.77	0.08	G 1	6.22	6.21		
Fe XIV	211.32	211.3	3s2 3p $^2P_{1/2}$ - 3s2 3d $^2D_{3/2}$	33.2	0.92	0.13	G 1	6.28	6.25		
Fe XV	284.16	284.5	3s2 $^1S_0$ - 3s3p $^1P_1$	100.1	0.88	0.09	G 2	6.33	6.29		
Fe XV	417.258	417.2	3s2 $^1S_0$ - 3s3p $^3P_1$	4.7	0.56	0.07	G 3	6.34	6.29		
Si XII	520.665	520.8	1s2.2s $^2S_{1/2}$ - 1s2.2p $^2P_{1/2}$	4.2	1.56	0.36	N 2	6.37	6.26		

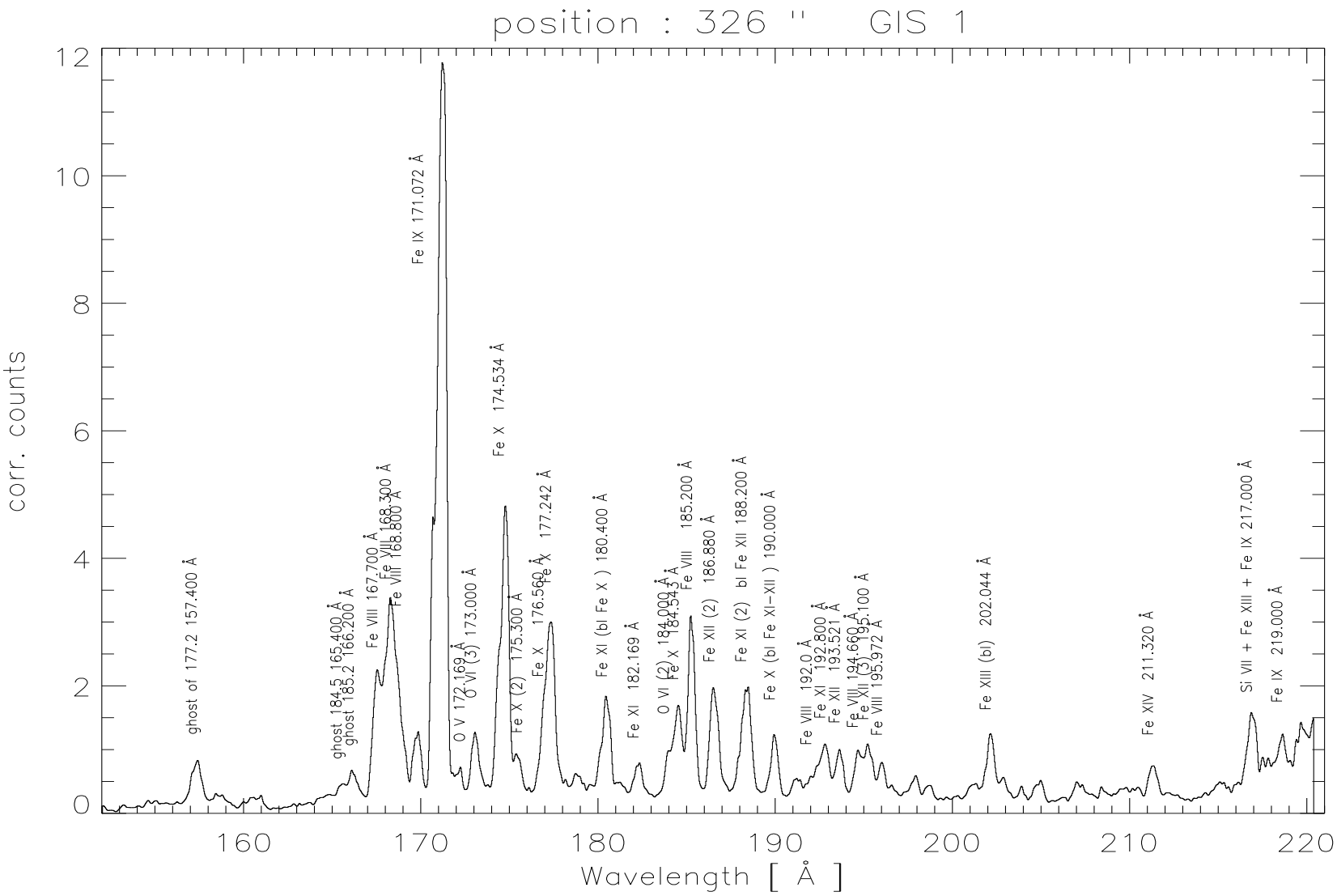

Figure E.1: *The GIS 1 spectrum of the plume – 11th October 1997.*

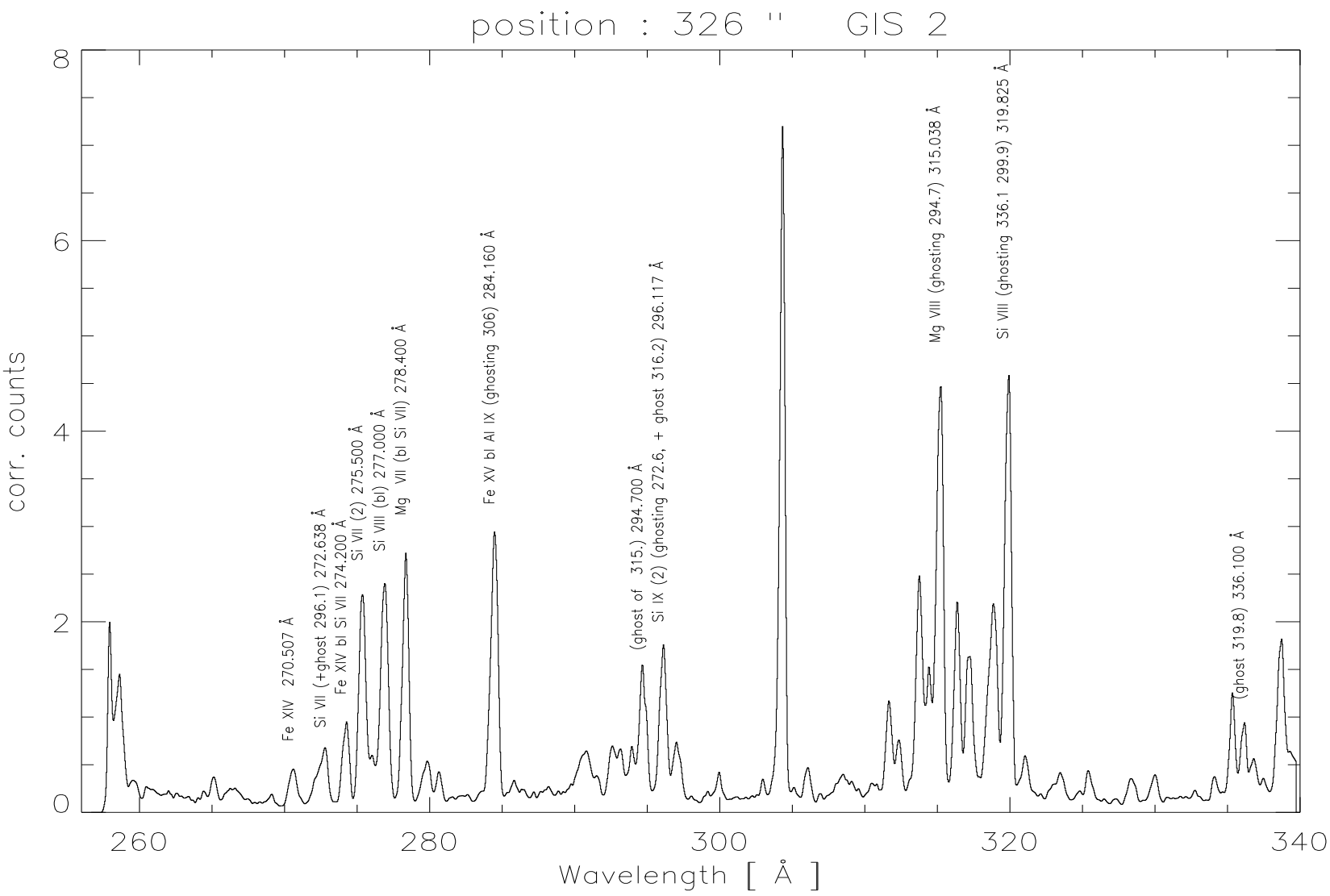

Figure E.2: *The GIS 2 spectrum of the plume – 11th October 1997.*

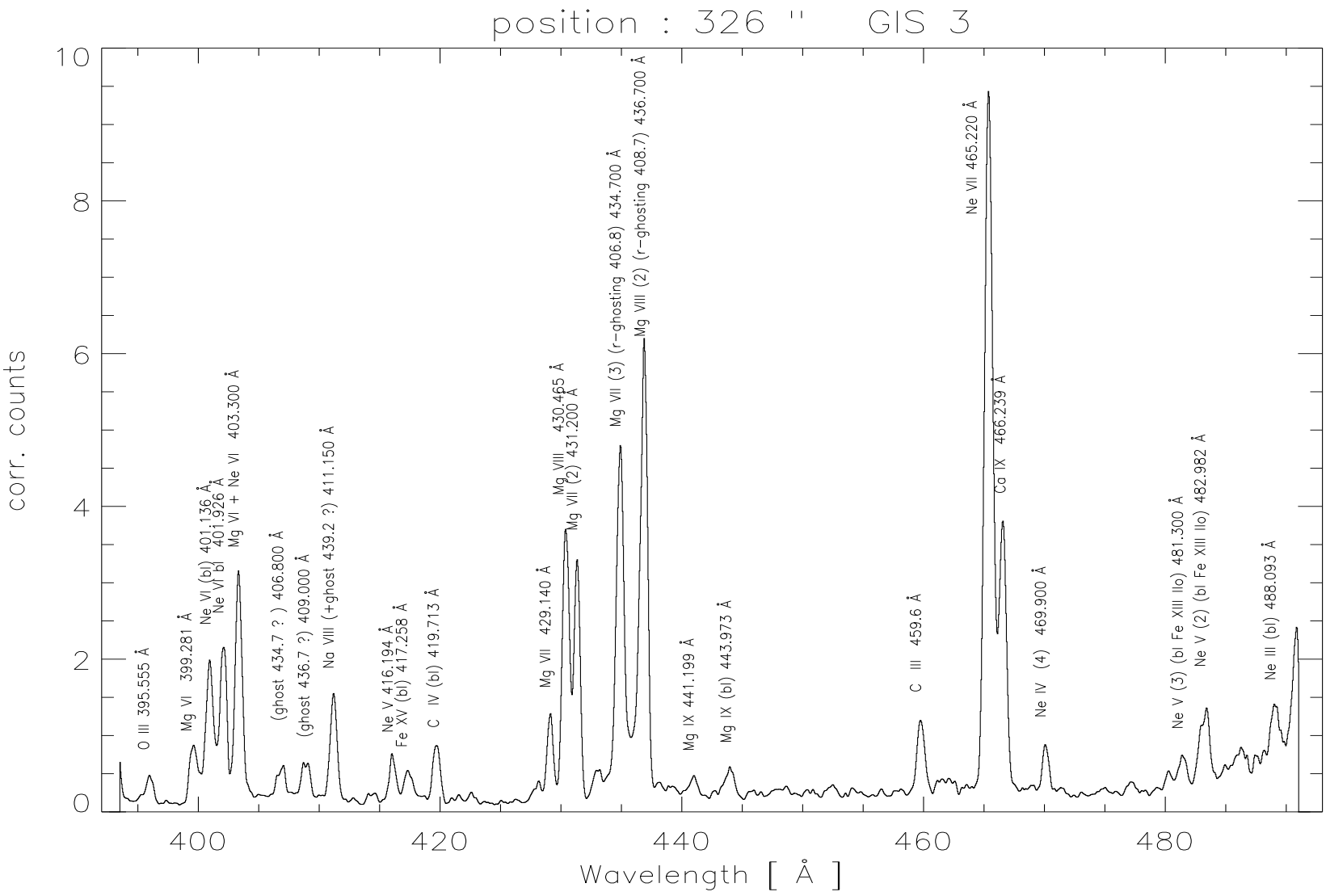

Figure E.3: *The GIS 3 spectrum of the plume – 11th October 1997.*

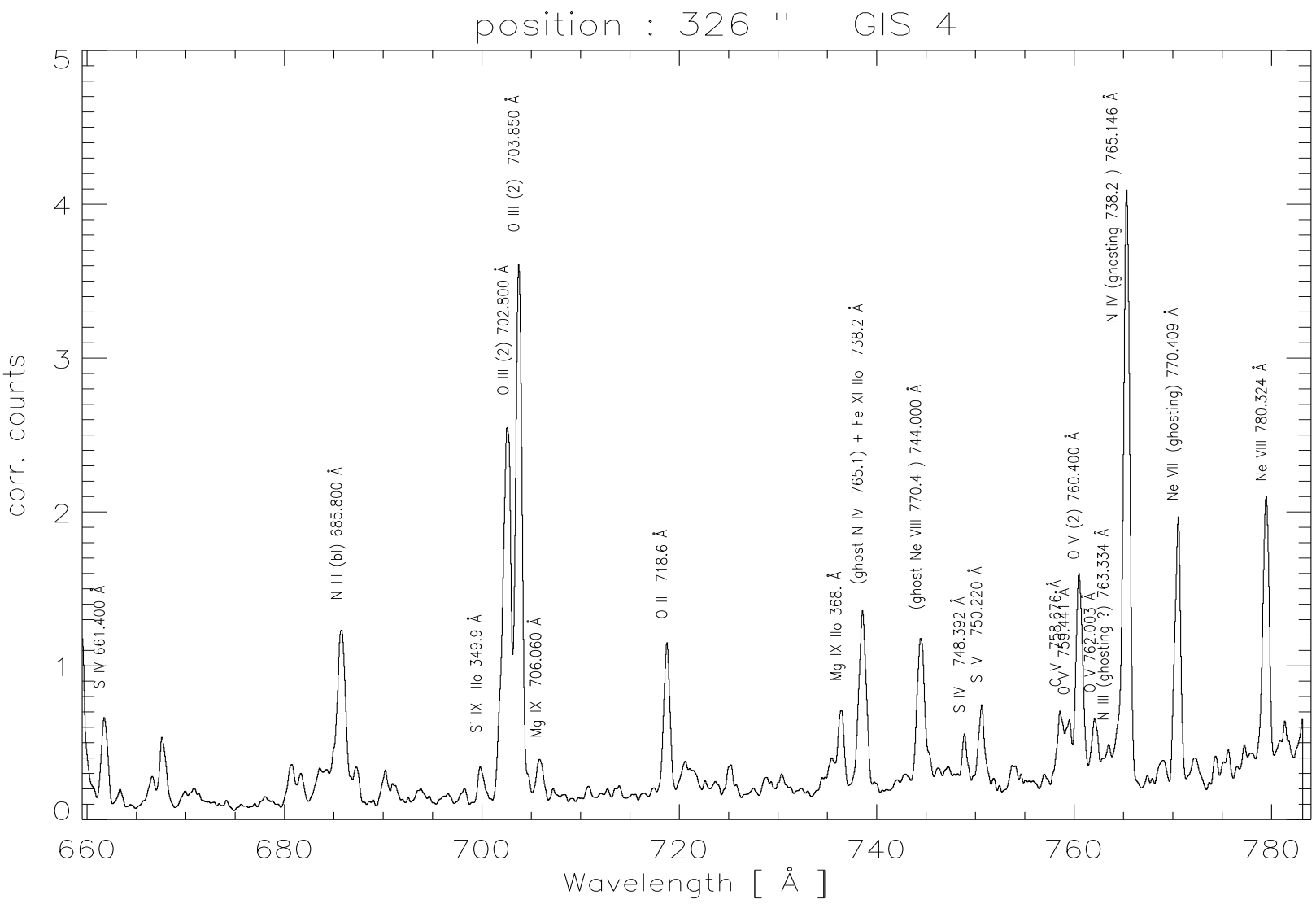

Figure E.4: *The GIS 4 spectrum of the plume – 11th October 1997.*