TABLES

RT And

alternative names:	BD+52 3383a
coordinates (2000.0):	$23^h11^m10.0^s$, 53°01′33″
linear ephemeris:	
Min I = HJD 2441141.8888 + 0.6289298 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.09
masses [$M_\odot$]:	1.50/0.99
radii [$R_\odot$]:	1.17/0.84
spectral type:	F8V/K0V
distance [pc]:	95
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.06
x-ray luminosity [10^{31} erg/s]:	0.13
Mg II index:	[0.648]
Ca II index:	strong
$H\alpha$ emission:	
radio flux density [mJy]:	<0.16
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.47\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.92\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.79\ 10^{-13}$
U-B:	
B-V:	0.50
V:	8.95
V-R:	
R-I:	
b-y:	0.374
m_1:	0.166
c_1:	0.342
β:	2.601
IRAS [12]:	
IRAS [25]:	

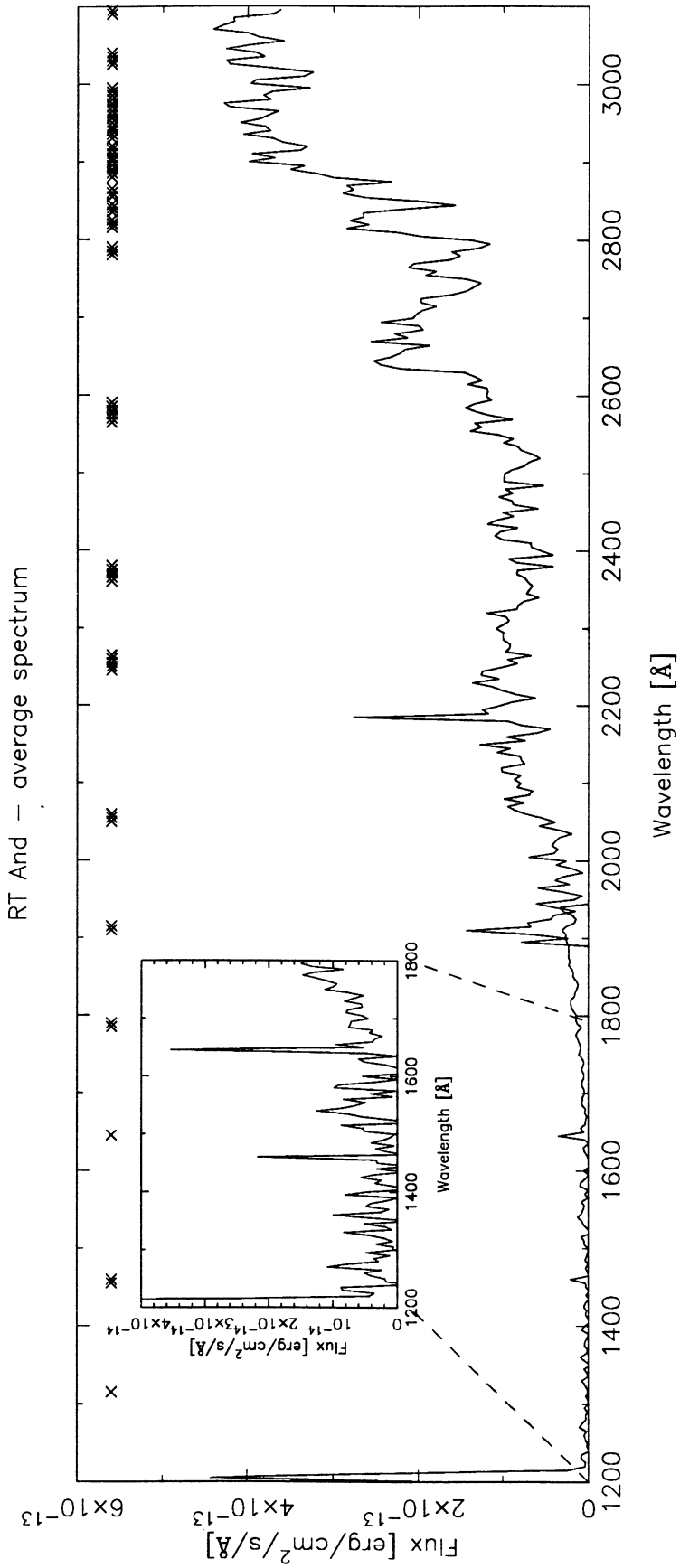
additional references:

Wang X.-M. and Lu W.-X.: 1992, *Chinese Astron.* **16**, 162-172, *A radial velocity and photometric study of the eclipsing binary RT Andromedae*

Zeilik M., Cox D.A., de Blasi C., Rhodes M. and Budding E.: 1989, *Astrophys. J.* **345**, 991-997, *Long-term starspot activity of short-period RS Canum Venaticorum stars. II. RT Andromedae*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	8281	L	*	80. 7.18	1:50: 0	44438.5781	25.00	8.91	0.74	0.77	5241	603
2	SWP	29204	L	*	86. 9.13	4:10: 0	46686.6719	165.00	9.12	0.22	0.40	8816	E=66,C=138,B=54

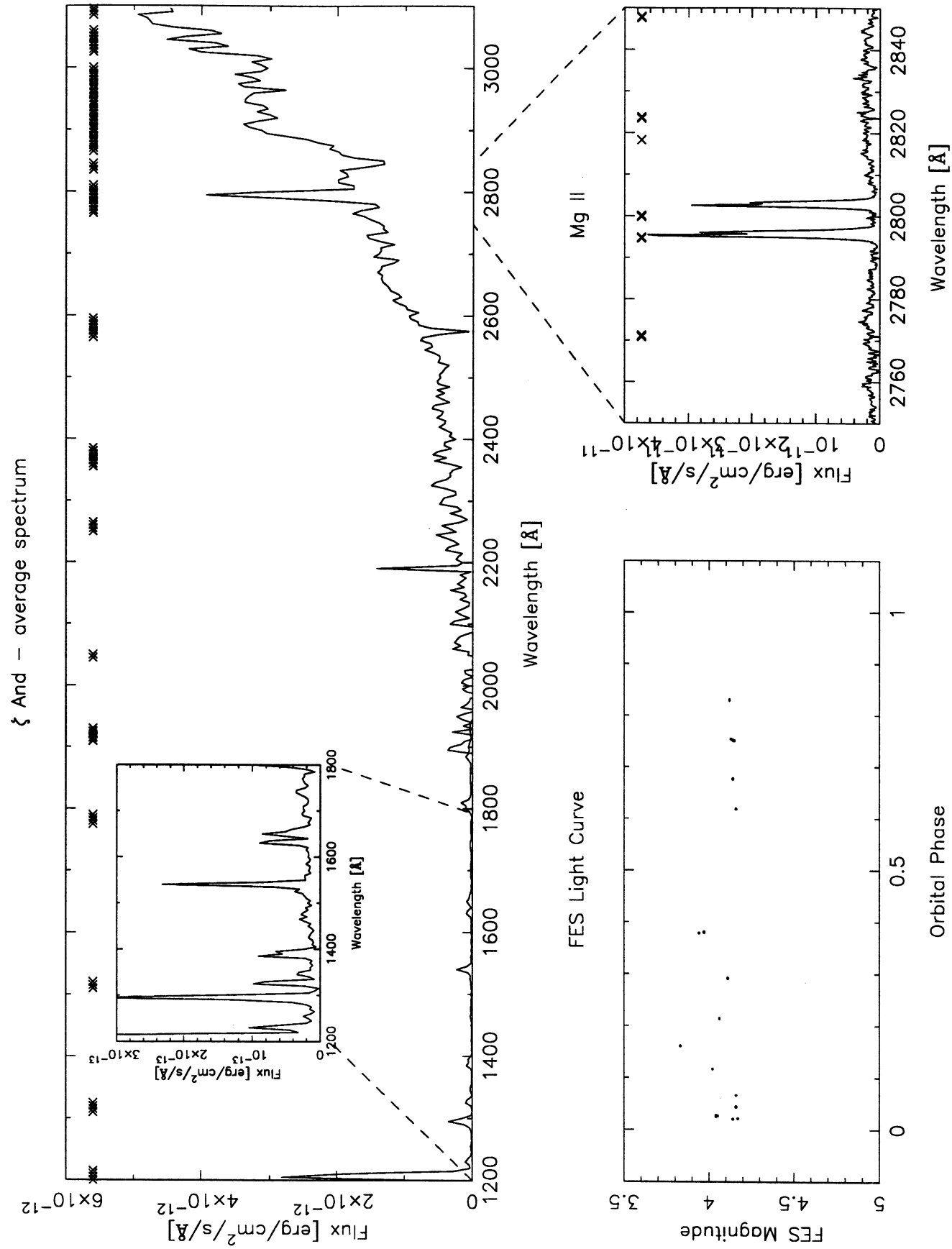

RT And – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

ζ And

alternative names:	HD 4502, SAO 74267, HR 215, BD+23 106, 34 And
coordinates (2000.0):	$00^h47^m20.3^s$, $24°16'02''$
linear ephemeris:	
Min I = HJD 2432751.617 + 17.7692 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	0.78/2.70
radii [$R_\odot$]:	≈0.7/13.4
spectral type:	/K1III
distance [pc]:	31
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	0.14
Mg II index:	[1.054], 1.311
Ca II index:	strong
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.26
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	18±5
ROSAT 110-200Å [ct/ks]:	34±7
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.80\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.20\ 10^{-12}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.20\ 10^{-12}$
U-B:	0.90
B-V:	1.12
V:	4.06
V-R:	0.84
R-I:	0.59
b-y:	0.681
m_1:	0.464
c_1:	0.315
β:	2.564
IRAS [12]:	≈1
IRAS [25]:	≈0

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5811	L		79.10.11	16:58: 0	44158.2070	18.00	3.94	0.38	0.38	-61	772
2	SWP	6834	L	*	79.10.11	17:24: 0	44158.2266	50.00	3.97	0.38	0.38	-61	252
3	LWR	5812	L	*	79.10.11	18:18: 0	44158.2617	3.00	3.97	0.38	0.38	-61	662
4	LWR	8021	L	*	80. 6.13	15:45: 0	44404.1563	2.00	9.27	0.22	0.22	-47	E=2X,C=230,B=30
5	LWR	9568	H		80.12.24	6:46: 0	44597.7813	20.00	4.02	0.12	0.12	-36	E=1.5X,C=130,B=30
6	SWP	15020	L	*	81. 9.17	14:25: 0	44865.1016	45.00	3.83	0.16	0.16	-21	E=137,C=60,B=40
7	SWP	26335	L	*	85. 7. 2	12:37: 0	46249.0273	50.00	4.16	0.04	0.05	56	E=144,C=91,B=45
8	SWP	26350	L	*	85. 7. 5	13:18: 0	46252.0547	30.00	4.06	0.21	0.22	56	E=173,C=73,B=35
9	SWP	26405	L		85. 7.12	17:58: 0	46259.2500	30.00	4.16	0.62	0.62	56	E=170,B=21
10	SWP	26424	L	*	85. 7.16	11:58: 0	46263.0000	40.00	4.12	0.83	0.83	56	E=196,C=163,B=125
11	SWP	26450	L		85. 7.20	16:39: 0	46267.1953	20.00	4.16	0.07	0.07	57	E=174,B=123
12	SWP	26508	L	*	85. 7.31	12:55: 0	46278.0391	50.00	4.14	0.68	0.68	57	E=166,C=60,B=37
13	SWP	26564	L		85. 8. 6	15:44: 0	46284.1563	30.00	4.14	0.02	0.02	58	E=1.5X,C=210,B=167
14	LWP	6593	L		85. 8. 6	16:20: 0	46284.1797	10.00	4.17	0.02	0.02	58	E=5X,C=5X,B=92
15	SWP	26590	L	*	85. 8.11	11:11: 0	46288.9648	40.00	4.11	0.29	0.29	58	E=200,C=70,B=39
16	LWP	9691	H	*	86.12.12	9:51:38	46776.9102	10.00	4.15	0.75	0.75	85	352
17	SWP	29860	L	*	86.12.12	10: 8:45	46776.9219	40.00	4.14	0.75	0.75	85	250
18	LWP	9692	H		86.12.12	11: 4:15	46776.9609	35.00	4.13	0.75	0.76	85	362
19	LWP	19501	H		90.12.31	3:12: 0	48256.6328	15.00	4.04	0.03	0.03	169	E=1.5X,C=95,B=34
20	SWP	40501	L		90.12.31	3:48: 0	48256.6602	20.00	4.05	0.03	0.03	169	E=97,C=50,B=22
21	LWP	19502	H		90.12.31	4:27: 0	48256.6836	10.00	4.04	0.03	0.03	169	E=208,C=80,B=36


ζ And – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

λ And

alternative names:	HD 222107, SAO 53204, HR 8961, BD+45 4283, 16 And
coordinates (2000.0):	$23^h37^m33.9^s$, $46°27'29''$
linear ephemeris:	
Min I s = HJD 2429199.994 + 20.5212 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.04
masses [$M_\odot$]:	f(m)=0.000611
radii [$R_\odot$]:	
spectral type:	G8IV-III
distance [pc]:	23
activity parameters:	
P_{phot} [days]:	53.952
ΔV [mag]:	0.28
x-ray luminosity [10^{31} erg/s]:	0.371
Mg II index:	[1.084], 1.218
Ca II index:	yes
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	0.6-23
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	117±10
ROSAT 110-200Å [ct/ks]:	160±12
EUVE 100Å [ct/s]:	0.266±0.016
EUVE 200Å [ct/s]:	0.040±0.010
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.79\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.28\ 10^{-12}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.12\ 10^{-12}$
U-B:	0.69
B-V:	1.01
V:	3.7
V-R:	0.78
R-I:	0.57
b-y:	0.619
m_1:	0.328
c_1:	0.383
β:	2.539
IRAS [12]:	13.70
IRAS [25]:	3.22

additional references:

Tautvaisiene G., Kriukelis S. and Bikmaev I.: 1992, *Baltic Astronomy* **1**, 450-460, *Element abundances in the RS CVn-type star lambda Andromedae*

Hall D.S., Henry G.W., Bohme D., Brooks P.A., Chang S., Dolzan A., Fortier G.L., Fried R.E., Genet R.M., Grim B.S., Hannon J., Hoff D.B. and et al.: 1991, *J. Astrophys. Astron.* **12**, 281-287, *New 1982-1990 photometry of lambda Andromedae and its 11-year cycle*

Kemp J.C., Henson G.D., Kraus D.J., Dunaway M.H., Hall D.S., Boyd L.J., Genet R.M., Guinan E.F., Wacker S.W. and McCook G.P.: 1987, *Astrophys. J.8 317*, L29-L32, *Discovery of optical circular polarization in lambda Andromedae*

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Mewe R. and Schrijver C.J.: 1986, *Astron. Astrophys.* **169**, 178-184, *A two-component model for the corona of lambda Andromedae*

Scaltriti F., Busso M., Cellino A., Hall D.S., Poe C.H., Lovell L.P., Landis H.J., Fried R.E., Renner T.R., Nielsen P., Stelzer H.J., Krisciunas K., Brettman O.H., Stokes A.J., Louth H., Slauson D.M., Rogers C.W., Miles R. and Powell B.E.: 1984, *Astron. Astrophys.* **139**, 25-29, *Photometric changes and spot motion in lambda Andromedae*

Baliunas S.L., Guinan E.F. and Dupree A.K.: 1984, *Astrophys. J.* **282**, 733-740, *Ultraviolet flare on lambda Andromedae*

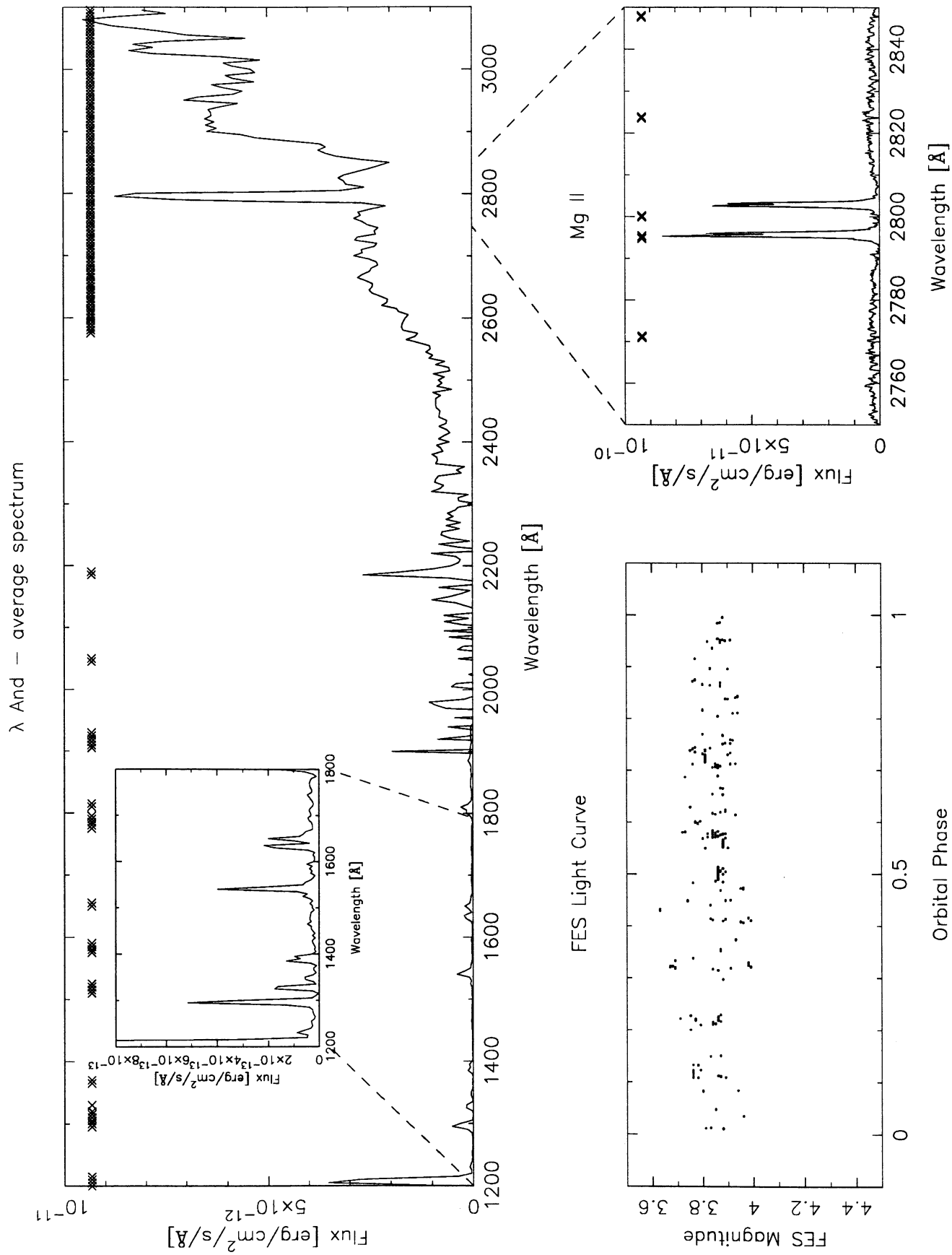
UE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	1822	L		78. 7.12	13:31: 0	43702.0625	0.15	3.73	0.69	0.69	706	E=120
2	LWR	1823	H		78. 7.12	14:23: 0	43702.0977	5.00	9.09	0.69	0.69	706	
3	LWR	2178	H		78. 8.26	9:11: 0	43746.8828	5.00	9.08	0.87	0.87	708	
4	SWP	2399	L		78. 8.26	9:25: 0	43746.8906	32.00	3.76	0.87	0.87	708	MAX DN 120
5	LWR	2179	H		78. 8.26	10: 5: 0	43746.9219	23.00	9.09	0.87	0.87	708	
6	SWP	2400	L		78. 8.26	10:38: 0	43746.9414	60.00	3.77	0.87	0.88	708	MAX DN = 255
7	LWR	3162	H		78.12.14	4:27: 0	43856.6836	5.00	3.71	0.22	0.22	714	
8	LWR	3178	H		78.12.16	3:45: 0	43858.6563	5.00	3.69	0.32	0.32	714	
9	LWR	3179	H		78.12.16	4:16: 0	43858.6797	5.00	9.02	0.32	0.32	714	
10	LWR	3180	H		78.12.16	4:48: 0	43858.6992	5.00	3.69	0.32	0.32	714	
11	SWP	3613	L		78.12.16	5: 1: 0	43858.7109	75.00	3.67	0.32	0.32	714	MAX DN = 255
12	LWR	3181	H		78.12.16	5:33: 0	43858.7305	5.00	3.68	0.32	0.32	714	
13	LWR	3182	H		78.12.16	6:16: 0	43858.7617	5.00	3.68	0.32	0.32	714	
14	LWR	4666	L		79. 6. 1	17: 8: 0	44026.2148	21.00	3.76	0.48	0.48	722	E=30X,C=20-30X,B=60
15	LWR	5806	H		79.10.11	7:30: 0	44157.8125	4.98	3.90	0.90	0.90	728	E=240,C=140,B=30
16	SWP	6828	L		79.10.11	7:42: 0	44157.8203	35.00	3.83	0.90	0.90	728	E=255,C=180,B=135
17	LWR	5817	H		79.10.12	10:45: 0	44158.9492	3.73	3.91	0.95	0.95	728	E=185MGII,C=70,B=30
18	SWP	6841	L		79.10.12	10:54: 0	44158.9531	20.00	3.88	0.95	0.95	728	C=VERY FAINT,B=65
19	SWP	6842	L	*	79.10.12	11:50: 0	44158.9922	20.00	3.86	0.95	0.95	728	E=185,C=100,B=70
20	LWR	5857	H		79.10.17	13:25: 0	44164.0586	3.98	3.75	0.20	0.20	729	E=167MGII,C=62,B=25
21	SWP	7295	L		79.12. 2	16:53: 0	44210.2031	30.00	3.89	0.45	0.45	731	251
22	LWR	6287	H		79.12. 2	17:29: 0	44210.2266	8.00	3.91	0.45	0.45	731	272
23	SWP	9057	H		80. 5.20	8:23: 0	44379.8477	450.00	3.81	0.72	0.73	739	E=1.5-2X,C=150,B=98
24	SWP	17516	L		82. 7.29	14:24: 0	45180.1016	20.00	3.91	0.71	0.71	778	E=191,C=140,B=102
25	LWR	13796	H		82. 7.29	14:48: 0	45180.1172	4.25	3.93	0.71	0.71	778	E=198,C=95,B=38
26	LWR	13803	H		82. 7.30	13:13: 0	45181.0508	4.50	3.92	0.76	0.76	778	E=199,C=85,B=32
27	SWP	17524	L		82. 7.30	13:25: 0	45181.0586	20.00	3.91	0.76	0.76	778	E=2X,C=125,B=100
28	SWP	17536	L		82. 7.31	14:42: 0	45182.1133	20.00	3.92	0.81	0.81	778	E=2X,C=100,B=68
29	LWR	13818	H		82. 7.31	15: 8: 0	45182.1289	4.50	3.94	0.81	0.81	778	E=209,C=80,B=30
30	SWP	18479	L		82.11. 5	21: 7: 0	45279.3789	20.00	3.81	0.55	0.55	783	E=121,C=50,B=25
31	LWR	14567	H		82.11. 5	21:32: 0	45279.3984	5.00	3.90	0.55	0.55	783	E=200,C=70,B=25
32	SWP	18480	H		82.11. 5	22: 4: 0	45279.4180	420.00	3.88	0.55	0.57	783	E=2X,C=140,B=100
33	LWR	14568	H		82.11. 6	5:35: 0	45279.7344	5.00	3.88	0.57	0.57	783	E=204,C=70,B=25
34	SWP	18481	L		82.11. 6	6: 9: 0	45279.7578	25.00	3.80	0.57	0.57	783	E=166,C=50,B=25
35	LWR	14569	H		82.11. 6	6:45: 0	45279.7813	5.00	3.89	0.57	0.57	783	E=215,C=70,B=25
36	SWP	18482	L	*	82.11. 6	7:19: 0	45279.8047	25.00	3.84	0.57	0.57	783	E=192,C=60,B=30
37	LWR	14570	H		82.11. 6	7:51: 0	45279.8281	5.00	3.85	0.57	0.57	783	E=214,C=75,B=25
38	SWP	18483	L		82.11. 6	8:26: 0	45279.8516	25.00	3.84	0.57	0.57	783	E=183,C=80,B=40
39	LWR	14571	H		82.11. 6	8:59: 0	45279.8750	5.00	3.86	0.57	0.57	783	E=208,C=65,B=32
40	SWP	18484	L		82.11. 6	9:32: 0	45279.8984	25.00	3.85	0.58	0.58	783	E=196,C=120,B=75
41	SWP	18485	L		82.11. 6	10:31: 0	45279.9375	3.00	3.88	0.58	0.58	783	B=20
42	LWR	14572	L	*	82.11. 6	11: 1: 0	45279.9609	0.75	3.88	0.58	0.58	783	E=1.5X,C=200,B=21
43	SWP	18486	L		82.11. 6	11: 6: 0	45279.9609	3.00	3.89	0.58	0.58	783	B=18
44	SWP	18576	L		82.11.17	8:12: 0	45290.8398	20.00	3.89	0.11	0.11	784	E=142,C=117,B=88
45	LWR	14652	H		82.11.17	8:49: 0	45290.8672	4.50	3.87	0.11	0.11	784	E=182,C=80,B=35
46	SWP	18577	L		82.11.17	9:18: 0	45290.8867	25.00	3.87	0.11	0.11	784	E=161,C=135,B=95
47	LWR	14653	H		82.11.17	9:53: 0	45290.9102	9.00	3.86	0.11	0.11	784	E=2X,C=100,B=37
48	LWR	14658	H		82.11.18	4:25: 0	45291.6836	4.50	3.83	0.15	0.15	784	E=206,C=75,B=29

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
49	SWP	18582	L		82.11.18	4:39: 0	45291.6953	20.00	3.87	0.15	0.15	784	E=108,C=50,B=25
50	SWP	18599	L		82.11.19	9:57: 0	45292.9141	25.00	3.79	0.21	0.21	784	E=145,C=65,B=30
51	LWR	14667	H		82.11.19	10:31: 0	45292.9375	9.00	3.84	0.21	0.21	784	E=2X,C=90,B=30
52	SWP	18600	L		82.11.19	10:59: 0	45292.9570	30.00	3.85	0.21	0.21	784	E=158,C=60,B=30
53	LWR	14668	H		82.11.19	11:32: 0	45292.9805	4.50	3.85	0.21	0.21	784	E=185,C=70,B=26
54	LWR	14804	H		82.12. 7	20:26: 0	45311.3516	5.00	3.78	0.11	0.11	785	E=207,C=75,B=25
55	SWP	18750	H		82.12. 7	20:37: 0	45311.3594	420.00	3.76	0.11	0.12	785	E=1.5X,C=220,B=208
56	LWR	14805	H		82.12. 8	3:43: 0	45311.6563	5.00	3.79	0.12	0.12	785	E=186,C=82,B=26
57	SWP	18751	L	*	82.12. 8	8:22: 0	45311.8477	25.00	3.78	0.13	0.13	785	E=170,C=40,B=25
58	LWR	14807	L	*	82.12. 8	8:51: 0	45311.8672	0.67	3.76	0.13	0.13	785	E=2X,C=200,B=20
59	SWP	19272	L		83. 2.16	22:18: 0	45382.4297	15.00	3.82	0.57	0.57	788	E=148,C=85,B=62
60	LWR	15304	L		83. 2.16	22:41: 0	45382.4453	5.00	3.86	0.57	0.57	788	E=60X,C=8X,B=30
61	SWP	19273	L		83. 2.16	23:15: 0	45382.4688	20.00	9.18	0.57	0.57	788	E=169,C=90,B=60
62	SWP	19274	L		83. 2.17	0:19: 0	45382.5117	20.00	3.87	0.58	0.58	788	E=159,C=90,B=57
63	LWR	15305	H		83. 2.17	0:51: 0	45382.5352	5.00	3.84	0.58	0.58	788	E=203,C=85,B=27
64	SWP	19275	L		83. 2.17	1:24: 0	45382.5586	15.00	3.82	0.58	0.59	788	E=160,C=105,B=87
65	LWR	15306	H		83. 2.17	2:25: 0	45382.6016	4.00	3.85	0.58	0.58	788	E=186,C=90,B=43
66	SWP	19276	L		83. 2.17	2:34: 0	45382.6055	12.00	3.84	0.58	0.58	788	E=184,C=145,B=125
67	LWR	15307	H		83. 2.17	3:26: 0	45382.6445	5.00	3.84	0.58	0.58	788	E=236,C=90,B=40
68	SWP	19277	L		83. 2.17	3:36: 0	45382.6484	18.00	3.86	0.58	0.58	788	E=173,C=107,B=85
69	LWR	15308	H		83. 2.17	4:34: 0	45382.6914	5.00	3.84	0.58	0.59	788	E=216,C=80,B=25
70	LWR	16889	H		83. 9.28	13:11: 0	45606.0508	15.00	3.87	0.47	0.47	799	E=2-3X,C=160,B=55
71	LWR	16890	H		83. 9.28	14:19:20	45606.0977	5.00	3.96	0.47	0.47	799	462
72	LWR	16891	H		83. 9.28	14:59:59	45606.1250	35.00	3.96	0.47	0.47	799	672
73	SWP	21186	H		83. 9.28	23:22: 0	45606.4727	750.00	3.86	0.49	0.52	799	E=2X,C=205,B=130
74	LWR	16893	H		83. 9.29	4:38: 0	45606.6914	15.00	3.88	0.50	0.50	799	E=3X,C=125,B=25
75	SWP	21189	L		83. 9.29	6: 5: 0	45606.7539	30.00	3.86	0.50	0.50	799	E=132,C=85,B=44
76	LWR	16894	H		83. 9.29	7: 5: 0	45606.7969	5.00	3.89	0.51	0.51	799	E=180,C=70,B=28
77	SWP	21190	L	*	83. 9.29	7:14: 0	45606.8008	50.00	3.87	0.51	0.51	799	E=202,C=130,B=80
78	LWR	16895	H		83. 9.29	8:11: 0	45606.8398	45.00	3.86	0.51	0.51	799	E=10X,C=250,B=55
79	SWP	21460	L		83.11. 6	4:49: 0	45644.6992	105.00	3.87	0.35	0.36	801	E=3X,C=180,B=70
80	SWP	21801	L		83.12.19	1: 9: 0	45687.5469	28.00	3.83	0.44	0.44	803	E=136,C=60,B=32
81	SWP	21842	L		83.12.22	6:30: 0	45690.7695	50.00	3.78	0.60	0.60	803	E=211,C=130,B=90
82	LWP	2463	H		83.12.22	7:27: 0	45690.8086	5.00	3.77	0.60	0.60	803	E=231,C=95,B=30
83	SWP	21843	L		83.12.22	7:56: 0	45690.8320	50.00	3.77	0.60	0.60	803	E=163,C=80,B=40
84	LWP	2464	H		83.12.22	8:53: 0	45690.8711	5.00	3.79	0.60	0.60	803	E=236,C=87,B=25
85	SWP	22013	L		84. 1.15	6:39: 0	45714.7773	70.00	3.88	0.77	0.77	804	E=2X,C=110,B=35
86	SWP	22021	L		84. 1.16	6:46: 0	45715.7813	60.00	3.80	0.82	0.82	804	E=2X,C=105,B=32
87	LWP	2643	H		84. 1.17	5:41: 0	45716.7383	4.00	3.87	0.86	0.86	804	E=255,C=80,B=32
88	SWP	22026	L		84. 1.17	5:55: 0	45716.7461	40.00	3.87	0.86	0.86	804	E=184,C=80,B=32
89	LWP	2644	L		84. 1.17	6:41: 0	45716.7773	0.10	3.83	0.86	0.86	804	E=165,C=85,B=35
90	SWP	22027	L		84. 1.17	7:11: 0	45716.8008	36.00	3.80	0.87	0.87	804	
91	SWP	22028	L		84. 1.17	8:35: 0	45716.8594	40.00	3.87	0.87	0.87	804	E=212,C=60,B=25
92	SWP	22034	L		84. 1.18	7:33: 0	45717.8164	15.00	3.77	0.92	0.92	804	E=137,C=60,B=25
93	LWP	2656	L		84. 1.18	23: 9: 0	45718.4648	0.10	3.87	0.95	0.95	804	E=129,C=85,B=32
94	SWP	22042	L	*	84. 1.18	23:17: 0	45718.4688	40.00	3.87	0.95	0.95	804	E=167,C=105,B=35
95	LWP	2657	H		84. 1.19	0: 8: 0	45718.5039	3.50	3.82	0.95	0.95	804	E=195,C=75,B=25
96	SWP	22043	L		84. 1.19	0:45: 0	45718.5313	20.00	3.89	0.95	0.95	804	E=149,C=65,B=25
97	LWP	2669	L		84. 1.20	6:16: 0	45719.7617	0.17	3.88	0.01	0.01	805	E=197,C=105,B=33
98	SWP	22051	L		84. 1.20	6:21: 0	45719.7656	40.00	3.88	0.01	0.01	805	E=158,C=62,B=32
99	LWP	2670	H		84. 1.20	7: 7: 0	45719.7969	3.50	3.81	0.01	0.01	805	E=202,C=77,B=27
100	SWP	22052	L		84. 1.20	7:38: 0	45719.8164	12.00	3.83	0.01	0.01	805	E=94,C=45,B=23
101	LWP	3494	L	*	84. 6. 4	20: 9: 0	45856.3398	3.00	3.88	0.67	0.67	811	C=2X,B=38
102	SWP	23173	L		84. 6. 4	20:18: 0	45856.3477	20.00	3.87	0.67	0.67	811	E=145,C=63,B=30
103	LWP	3810	H		84. 7.19	10: 9: 0	45900.9219	4.00	3.90	0.84	0.84	813	E=222,C=120,B=73
104	SWP	23476	L		84. 7.19	10:19: 0	45900.9297	15.00	3.89	0.84	0.84	813	E=197,C=162,B=128
105	SWP	25185	L		85. 2. 6	21:36: 0	46103.3984	30.00	3.86	0.71	0.71	823	E=193,C=100,B=33
106	LWP	5314	H	*	85. 2. 6	22:14: 0	46103.4258	5.00	3.84	0.71	0.71	823	E=243,C=90,B=32
107	SWP	25186	L		85. 2. 6	22:44: 0	46103.4453	30.00	3.85	0.71	0.71	823	E=191,C=100,B=23
108	LWP	5315	H		85. 2. 6	23:21: 0	46103.4727	5.00	3.87	0.71	0.71	823	E=1.1X,C=90,B=27
109	SWP	25187	L		85. 2. 6	23:57: 0	46103.4961	30.00	3.86	0.71	0.71	823	E=205,C=105,B=25
110	LWP	5316	H		85. 2. 7	0:37: 0	46103.5273	5.00	3.86	0.71	0.71	823	E=1.1X,C=85,B=32
111	SWP	25188	L		85. 2. 7	1: 8: 0	46103.5469	30.00	3.76	0.71	0.71	823	E=222,C=125,B=53
112	LWP	5317	L	*	85. 2. 7	1:44: 0	46103.5703	0.42	3.85	0.71	0.71	823	E=1.5X,C=225,B=32

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
113	LWP	6181	L		85. 6.10	13: 9: 0	46227.0469	30.00	3.90	0.73	0.73	829	E=100X,C=50X,B=40
114	SWP	26134	L		85. 6.10	13:59: 0	46227.0820	35.00	3.80	0.73	0.73	829	E=105,C=75,B=40
115	LWP	6182	H		85. 6.10	14:59: 0	46227.1250	5.00	3.91	0.73	0.73	829	E=231,C=93,B=33
116	SWP	26135	L		85. 6.10	15:35: 0	46227.1484	35.00	3.77	0.73	0.74	829	E=131,C=65,B=45
117	LWP	6183	H		85. 6.10	16:37: 0	46227.1914	5.00	3.81	0.74	0.74	829	E=250,C=102,B=42
118	SWP	26136	L		85. 6.10	17: 9: 0	46227.2148	35.00	3.75	0.74	0.74	829	E=195,C=150,B=114
119	LWP	6184	H		85. 6.10	18: 8: 0	46227.2539	5.00	3.81	0.74	0.74	829	E=255,C=130,B=65
120	SWP	26137	L	*	85. 6.10	18:38: 0	46227.2773	35.00	3.76	0.74	0.74	829	E=209,C=170,B=131
121	LWP	6185	H		85. 6.10	19:38: 0	46227.3164	5.00	3.83	0.74	0.74	829	E=255,C=100,B=44
122	SWP	26138	L		85. 6.10	20: 8: 0	46227.3398	30.00	3.77	0.74	0.75	829	E=98,C=60,B=35
123	SWP	26336	L		85. 7. 2	14: 7: 0	46249.0898	45.00	3.86	0.80	0.81	830	E=172,C=95,B=47
124	SWP	26351	L		85. 7. 5	14:19: 0	46252.0977	30.00	3.87	0.95	0.95	830	E=186,C=85,B=41
125	SWP	26404	L		85. 7.12	17: 2: 0	46259.2109	15.00	3.88	0.30	0.30	831	E=158,B=87
126	SWP	26425	L		85. 7.16	13:14: 0	46263.0508	30.00	3.88	0.48	0.49	831	E=202,C=173,B=135
127	SWP	26426	L		85. 7.16	14:21: 0	46263.0977	25.00	3.85	0.49	0.49	831	E=190,C=190,B=160
128	SWP	26451	L		85. 7.20	17:45: 0	46267.2383	40.00	3.86	0.69	0.69	831	E=225,C=95,B=50
129	SWP	26454	L		85. 7.22	9:49: 0	46268.9102	25.00	3.80	0.77	0.77	831	E=144,B=22
130	LWP	6455	H		85. 7.22	10:24: 0	46268.9336	4.00		0.77	0.77	831	
131	SWP	26509	L		85. 7.31	14:27: 0	46278.1016	30.00	3.86	0.22	0.22	832	E=195,C=90,B=61
132	SWP	26563	L		85. 8. 6	14:44: 0	46284.1133	20.00	3.88	0.51	0.51	832	E=250,C=190,B=155
133	SWP	26591	L		85. 8.11	12:53: 0	46289.0352	40.00	3.88	0.75	0.75	832	E=1.5X,C=100,B=60
134	SWP	27081	L		85.11.11	3:33: 0	46380.6484	30.00	3.84	0.22	0.22	837	E=137,C=50,B=32
135	LWP	7072	H		85.11.11	4:21: 0	46380.6797	5.00	3.87	0.22	0.22	837	E=218,C=90,B=32
136	SWP	27082	L		85.11.11	4:57: 0	46380.7070	30.00	3.77	0.22	0.22	837	E=91,C=60,B=32
137	LWP	7073	H		85.11.11	6: 0: 0	46380.7500	5.00	3.86	0.22	0.22	837	E=219,C=85,B=32
138	SWP	27083	L		85.11.11	6:30: 0	46380.7695	30.00	3.77	0.22	0.22	837	E=118,C=85,B=50
139	LWP	7074	H		85.11.11	7:32: 0	46380.8125	5.00	3.86	0.22	0.22	837	E=221,C=100,B=45
140	SWP	27084	L		85.11.11	8: 2: 0	46380.8359	30.00	3.86	0.22	0.23	837	E=122,C=110,B=80
141	LWP	7075	H		85.11.11	9: 2: 0	46380.8750	5.00	3.86	0.23	0.23	837	E=232,C=100,B=50
142	SWP	27085	L		85.11.11	9:35: 0	46380.8984	30.00	3.75	0.23	0.23	837	E=84,C=70,B=42
143	LWP	7076	H		85.11.11	10:33: 0	46380.9414	5.00	3.87	0.23	0.23	837	E=233,C=90,B=33
144	SWP	28402	L	*	86. 5.30	20: 4: 0	46581.3359	40.00	3.88	0.99	0.00	846	E=232,C=72,B=20
145	SWP	29585	L		86.11. 3	4:40: 0	46737.6953	30.00	3.93	0.61	0.62	854	E=74,C=55,B=35
146	LWP	9457	H		86.11. 3	5:30: 0	46737.7305	5.00	3.85	0.62	0.62	854	E=231,C=80,B=30
147	SWP	29586	L		86.11. 3	6:10: 0	46737.7578	30.00	3.84	0.62	0.62	854	E=79,C=60,B=30
148	LWP	9458	H		86.11. 3	7:26: 0	46737.8086	5.00	3.87	0.62	0.62	854	E=232,C=80,B=35
149	SWP	29587	L		86.11. 3	8: 7: 0	46737.8398	30.00	3.89	0.62	0.62	854	E=82,C=50,B=35
150	SWP	29588	L		86.11. 3	9:33: 0	46737.8984	30.00	3.89	0.62	0.63	854	E=73,C=44,B=35
151	SWP	29764	L		86.11.28	8:46: 0	46762.8672	25.00	3.93	0.84	0.84	855	E=161,C=80,B=38
152	LWP	9594	H		86.11.28	9:20: 0	46762.8906	5.00	3.94	0.84	0.84	855	E=230,C=80,B=35
153	SWP	29765	L		86.11.28	10:21: 0	46762.9297	20.00	3.94	0.84	0.84	855	E=119,C=47,B=25
154	SWP	29789	L		86.12. 2	8:14: 0	46766.8438	25.00	3.96	0.03	0.04	856	E=140,C=78,B=30
155	SWP	29796	L		86.12. 3	7:45: 0	46767.8242	50.00	3.80	0.08	0.08	856	E=162,C=74,B=35
156	LWP	9623	H		86.12. 3	8:42: 0	46767.8633	5.00	3.94	0.08	0.08	856	E=244,C=85,B=33
157	LWP	10106	H		87. 2.10	21:46: 0	46837.4063	10.00	3.95	0.47	0.47	859	E=3X,C=120,B=40
158	SWP	30290	L	*	87. 2.10	22: 5: 0	46837.4219	30.00	3.96	0.47	0.47	859	E=210,C=60,B=32
159	LWP	13578	H		88. 7. 6	13:55: 0	47349.0781	5.00	3.96	0.41	0.41	884	E=191,C=80,B=38
160	SWP	33872	L		88. 7. 6	14:10: 0	47349.0898	50.00	3.95	0.41	0.41	884	E=173,C=100,B=80
161	LWP	13579	H		88. 7. 6	15:20: 0	47349.1406	5.00	3.88	0.41	0.41	884	E=236,C=98,B=47
162	SWP	33873	L		88. 7. 6	15:51: 0	47349.1602	25.00	3.99	0.41	0.41	884	E=192,C=112,B=73
163	LWP	13580	H		88. 7. 6	16:30: 0	47349.1875	5.00	3.84	0.41	0.41	884	E=246,C=96,B=48
164	SWP	33874	L		88. 7. 6	17: 1: 0	47349.2109	25.00	3.89	0.41	0.41	884	E=156,C=75,B=42
165	LWP	13581	H		88. 7. 6	17:40: 0	47349.2344	5.00	3.83	0.41	0.41	884	E=246,C=88,B=31
166	SWP	33875	L		88. 7. 6	18:14: 0	47349.2578	30.00	3.98	0.42	0.42	884	E=169,C=74,B=30
167	LWP	16765	H		89.11. 9	5:54: 0	47839.7461	9.33	3.84	0.32	0.32	908	E=206,C=95,B=37
168	LWP	16766	H		89.11. 9	6:48: 0	47839.7852	9.33	3.91	0.32	0.32	908	E=237,C=106,B=42
169	LWP	16767	H		89.11. 9	7:44: 0	47839.8203	50.00	3.99	0.32	0.32	908	E=5X,C=233,B=89
170	LWP	16768	H		89.11. 9	9:25:43	47839.8945	180.00	3.98	0.32	0.33	908	772
171	SWP	37546	L		89.11.10	9:21: 0	47840.8906	60.00	3.93	0.37	0.38	908	E=164,C=83,B=35
172	SWP	38110	L		90. 2. 2	0:29: 0	47924.5195	60.00	3.74	0.45	0.45	912	E=152,C=82,B=37
173	SWP	39804	L		90.10.10	11:21: 0	48174.9727	40.00	3.88	0.65	0.65	924	E=230,C=63,B=22
174	LWP	18979	H		90.10.10	12:11: 0	48175.0078	5.00	3.84	0.65	0.65	924	E=236,C=70,B=35
175	LWP	18990	H		90.10.12	12:27: 0	48177.0195	4.00	3.91	0.75	0.75	924	E=174,C=70,B=35
176	SWP	39814	L		90.10.12	12:36: 0	48177.0234	15.00	3.89	0.75	0.75	924	E=111,C=48,B=25
177	LWP	19349	H		90.12. 4	2: 1: 0	48229.5859	4.00		0.31	0.31	927	E=193,C=70,B=34

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
178	SWP	40266	L		90.12. 4	2:14: 0	48229.5938	30.00	3.86	0.31	0.32	927	E=186,C=63,B=22
179	SWP	40385	L		90.12.19	3:14: 0	48244.6328	30.00	3.85	0.05	0.05	928	E=2X,C=80,B=30
180	LWP	19500	H		90.12.31	1:32: 0	48256.5625	4.00	3.75	0.63	0.63	928	E=206,C=74,B=36
181	SWP	40500	L		90.12.31	1:47: 0	48256.5742	30.00	3.75	0.63	0.63	928	E=181,C=60,B=22
182	SWP	40686	L	*	91. 1.26	21:12: 0	48283.3828	30.00	3.84	0.94	0.94	929	E=223,C=60,B=22
183	SWP	40693	L		91. 1.27	21: 4: 0	48284.3789	30.00	3.86	0.98	0.99	929	E=1.5X,C=60,B=22
184	LWP	19655	H		91. 1.27	21:42: 0	48284.4023	4.00	3.87	0.99	0.99	929	E=167,C=70,B=36
185	LWP	20702	H		91. 6.27	16:36: 0	48435.1914	3.50	3.69	0.33	0.33	937	E=202,C=100,B=50
186	SWP	41935	L		91. 6.27	16:45: 0	48435.1992	15.00	3.69	0.33	0.33	937	E=131,C=75,B=52
187	SWP	42206	L		91. 8. 9	17:11: 0	48478.2148	90.00	3.63	0.43	0.43	939	E=242,C=84,B=20
188	SWP	43141	L		91.11.18	10:30: 0	48578.9375	20.00	3.76	0.34	0.34	944	E=116,C=40,B=20
189	LWP	21826	H		91.11.23	10:10: 0	48583.9219	3.83	3.72	0.58	0.58	944	E=200,C=76,B=32
190	SWP	43189	L		91.11.23	10:18: 0	48583.9297	32.00	3.73	0.58	0.58	944	E=190,C=64,B=18


λ And – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

FF Aqr

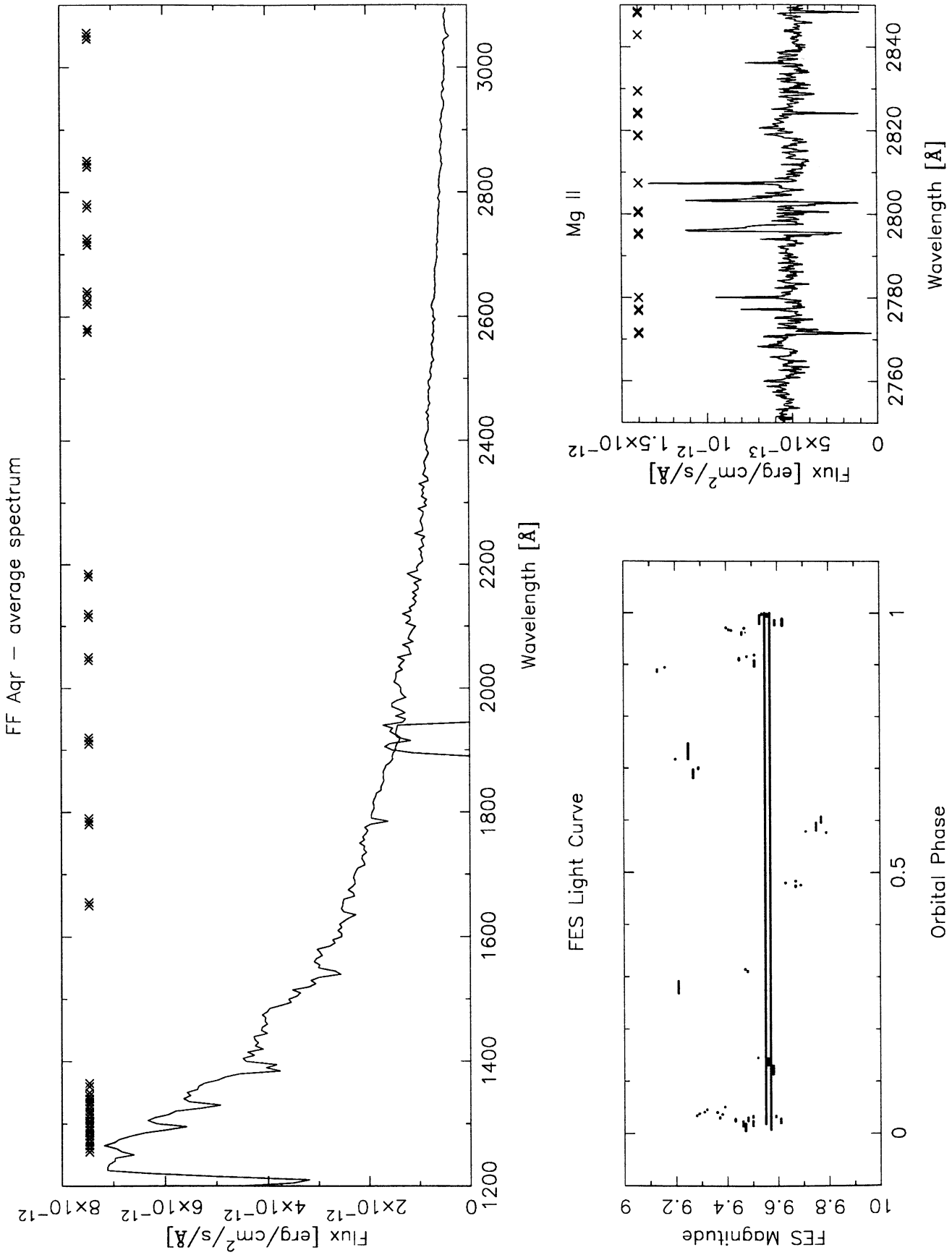
alternative names:	SAO 145804, BD-03 5357
coordinates (2000.0):	$22^h00^m35.2^s$, $-02°44'33''$
linear ephemeris:	
Min I = HJD 2442752.9577 + 9.207755 E	
system parameters:	
type of binary:	EBT, SB1
eccentricity:	0.0
masses [$M_\odot$]:	0.5/2.00
radii [$R_\odot$]:	0.1/6.12
spectral type:	sdO-B/G8IV-III
distance [pc]:	300
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.35
x-ray luminosity [10^{31} erg/s]:	16.087
Mg II index:	[0.984], 0.999
Ca II index:	strong, cool
$H\alpha$ emission:	emission
radio flux density [mJy]:	34-4.67
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.12\ 10^{-12}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.51\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.78\ 10^{-13}$
U-B:	-0.03
B-V:	0.85
V:	9.34
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Loeser J.G., Baliunas S.L., Raymond J.C., Guinan E.F. and Dorren J.D.: 1986, *Bull. American Astron. Soc.* **18**, 983, *Ultraviolet and visible observations of the atmospheric structure of the active G8 III component of FF Aquarii*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	2054	L		78. 7.20	0:23: 0	43709.5156	13.33	9.13	0.89	0.89	103	
2	LWR	1855	L		78. 7.20	1: 7: 0	43709.5469	10.02	9.13	0.86	0.89	103	
3	SWP	2055	L		78. 7.20	2: 9: 0	43709.5898	6.00	9.16	0.89	0.90	103	
4	LWR	8249	L		80. 7.14	20:54: 0	44435.3711	9.00	9.20	0.72	0.72	182	701
5	SWP	9525	H		80. 7.14	21: 7: 0	44435.3789	401.00	9.25	0.72	0.75	182	604
6	SWP	9545	H		80. 7.19	22:50: 0	44440.4531	300.00	9.21	0.27	0.29	183	403
7	SWP	15660	L		81.12. 6	0:55: 0	44944.5391	120.00	9.46	0.02	0.02	238	E=102,B=33
8	LWR	12086	L		81.12. 6	3: 1: 0	44944.6250	58.00	9.43	0.02	0.03	238	E=5X,C=152,B=30
9	SWP	15661	L		81.12. 6	4:13: 0	44944.6758	24.00	9.37	0.03	0.03	238	C=190,B=25
10	LWR	12087	L		81.12. 6	5:14: 0	44944.7188	10.00	9.28	0.03	0.04	238	C=1.5X,B=25
11	SWP	15662	L	*	81.12. 6	6: 6: 0	44944.7539	5.00	9.29	0.04	0.04	238	C=1.2X,B=20
12	LWR	12088	L	*	81.12. 6	6:49: 0	44944.7852	7.00	9.31	0.04	0.04	238	C=245,B=25
13	SWP	21698	L		83.12. 6	4:14: 0	45674.6758	10.00	9.48	0.31	0.31	317	C=3X,B=20
14	SWP	21699	L	*	83.12. 6	5: 2: 0	45674.7109	5.00	9.47	0.32	0.32	317	C=1.5X,B=16
15	SWP	21799	H		83.12.18	19:10: 0	45687.2969	220.00	9.27	0.68	0.70	318	C=190,B=62
16	LWP	2429	L		83.12.18	22:56: 0	45687.4570	5.00	9.29	0.70	0.70	318	C=250,B=40
17	SWP	21800	L		83.12.18	23:39: 0	45687.4844	4.00	9.29	0.70	0.70	318	C=220,B=18
18	SWP	21838	L		83.12.21	18:52: 0	45690.2852	180.00	9.47	0.01	0.02	319	E=92,B=48
19	LWP	2459	L		83.12.21	22:15: 0	45690.4258	40.00	9.50	0.02	0.02	319	E=1.1X,C=125,B=41
20	SWP	21839	L		83.12.21	23: 1: 0	45690.4609	86.00	9.48	0.03	0.03	319	E=66,B=40
21	LWP	2460	L		83.12.22	0:36: 0	45690.5234	35.00	9.50	0.03	0.03	319	C=250,B=50
22	SWP	21840	L	*	83.12.22	1:43: 0	45690.5703	7.33	9.38	0.04	0.04	319	C=230,B=25
23	LWP	2461	L	*	83.12.22	2:34: 0	45690.6055	9.00	9.36	0.04	0.04	319	C=200,B=40
24	SWP	21841	L		83.12.22	3:39: 0	45690.6523	7.33	9.32	0.05	0.05	319	C=220,B=23
25	LWP	2462	L		83.12.22	4:46: 0	45690.6992	9.00	9.39	0.05	0.05	319	C=220,B=55
26	SWP	23169	L		84. 6. 4	6: 7: 0	45855.7539	120.00	9.59	0.98	0.99	336	E=75,B=45
27	LWP	3492	L		84. 6. 4	9:39: 0	45855.9023	70.00	9.56	0.99	0.00	336	E=255,C=130,B=43
28	SWP	23170	L		84. 6. 4	11: 8: 0	45855.9648	120.00	9.57	0.00	0.01	336	E=83,C=80,B=58
29	LWP	3493	L		84. 6. 4	14:44: 0	45856.1133	55.00	9.50	0.02	0.02	337	E=245,C=130,B=55
30	SWP	23171	L		84. 6. 4	15:59: 0	45856.1641	100.00	9.61	0.02	0.03	337	E=88,C=83,B=61
31	SWP	23172	L		84. 6. 4	18:27: 0	45856.2695	24.00	9.59	0.03	0.03	337	C=200,B=40
32	SWP	24491	L	*	84.11.16	19:55: 0	46021.3281	7.33	9.46	0.96	0.96	354	C=225,B=20
33	LWP	4827	L	*	84.11.16	20:34: 0	46021.3555	9.00	9.46	0.96	0.96	354	C=227,B=40
34	SWP	24492	L		84.11.16	21:30: 0	46021.3945	7.33	9.42	0.97	0.97	354	C=220,B=20
35	LWP	4828	L		84.11.16	22:25: 0	46021.4336	9.00	9.47	0.97	0.97	354	C=220,B=35
36	SWP	24493	L		84.11.16	23:32: 0	46021.4805	180.00	9.62	0.98	0.99	354	E=138,B=105
37	SWP	29762	H		86.11.28	4:30: 0	46762.6875	30.00	9.67	0.47	0.48	435	C=70,B=40
38	LWP	9592	L		86.11.28	5:10: 0	46762.7148	4.50	9.69	0.48	0.48	435	C=210,B=58
39	SWP	29763	L		86.11.28	6: 1: 0	46762.7500	3.67	9.63	0.48	0.48	435	C=225,B=22
40	LWP	9593	L		86.11.28	6:48: 0	46762.7852	4.50	9.67	0.48	0.48	435	C=220,B=59
41	SWP	29787	H		86.12. 2	2: 3: 0	46766.5859	150.00	9.51	0.90	0.91	435	C=138,B=50
42	LWP	9615	H		86.12. 2	4:40: 0	46766.6953	60.00	9.45	0.91	0.91	435	E=117,C=120,B=60
43	SWP	29788	L		86.12. 2	6:15: 0	46766.7617	3.67	9.48	0.92	0.92	435	C=220,B=15
44	LWP	9616	L		86.12. 2	6:54: 0	46766.7891	4.50	9.51	0.92	0.92	435	C=230,B=45
45	SWP	29792	L		86.12. 2	17:43: 0	46767.2383	3.67	9.41	0.97	0.97	435	C=219,B=15
46	LWP	9620	L		86.12. 2	18:30: 0	46767.2695	9.00	9.40	0.97	0.97	435	C=205,B=37
47	SWP	29793	L		86.12. 2	20:18: 0	46767.3477	4.50	9.53	0.98	0.98	435	B=21
48	SWP	29794	L		86.12. 2	20:57: 0	46767.3711	180.00	9.53	0.98	0.00	435	E=105/39,C=78,B=58
49	LWP	9621	L		86.12. 3	0: 7: 0	46767.5039	30.00	9.54	0.00	0.00	435	E=247,C=132,B=40
50	SWP	29795	L		86.12. 3	0:46: 0	46767.5313	270.00	9.55	0.02	0.02	435	E=135/45,C=97,B=72
51	LWP	9622	L		86.12. 3	5:26: 0	46767.7266	25.00	9.57	0.02	0.02	436	E=255,C=130,B=58
52	SWP	33840	L		88. 7. 1	5:31: 0	47343.7305	3.67	9.79	0.58	0.58	498	C=225,B=13
53	LWP	13543	L		88. 7. 1	5:58: 0	47343.7500	3.67	9.71	0.58	0.58	498	C=195,B=36
54	SWP	33841	H		88. 7. 1	6:36: 0	47343.7734	190.00	9.75	0.58	0.60	498	C=160,B=68
55	LWP	13544	H		88. 7. 1	9:52: 0	47343.9102	138.00	9.77	0.60	0.61	498	C=160,B=72
56	SWP	33870	H		88. 7. 6	4:11: 0	47348.6758	220.00	9.58	0.11	0.13	499	C=185,B=51
57	LWP	13576	H	*	88. 7. 6	7:59: 0	47348.8320	180.00	9.56	0.13	0.15	499	E=193,C=176,B=77
58	SWP	33871	L	*	88. 7. 6	11:11: 0	47348.9648	3.67	9.52	0.15	0.15	499	C=211,B=18
59	LWP	13577	L	*	88. 7. 6	12: 1: 0	47349.0000	4.00	9.57	0.15	0.15	499	C=178,B=36


FF Aqr – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

FK Aqr

alternative names:	HD 214479, SAO 191294, BD-21 6267
coordinates (2000.0):	$22^h38^m42.8^s$, $-20°37'22''$
linear ephemeris:	
Min I p = HJD 2437145.1826 + 4.08322 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.01
masses [$M_\odot$]:	$\geq$0.27/$\geq$0.22
radii [$R_\odot$]:	
spectral type:	dM2e/dM3e
distance [pc]:	8
activity parameters:	
P_{phot} [days]:	4.39
ΔV [mag]:	0.02
x-ray luminosity [10^{31} erg/s]:	0.013
Mg II index:	[3.891], 5.236
Ca II index:	strong, both
$H\alpha$ emission:	emission, both
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	78±16
ROSAT 110-200Å [ct/ks]:	91±15
EUVE 100Å [ct/s]:	0.167±0.014
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.36 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.74 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.86 10^{-14}
U-B:	1.11
B-V:	1.50
V:	9.05
V-R:	
R-I:	0.94
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	$\approx$0
IRAS [25]:	

additional references:

Pollock A.M.T., Tagliaferri G. and Pallavicini R.: 1991, *Astron. Astrophys.* **241**, 451, *Quiescent and flaring X-rays from both Gliese 867A and Gliese 867B*

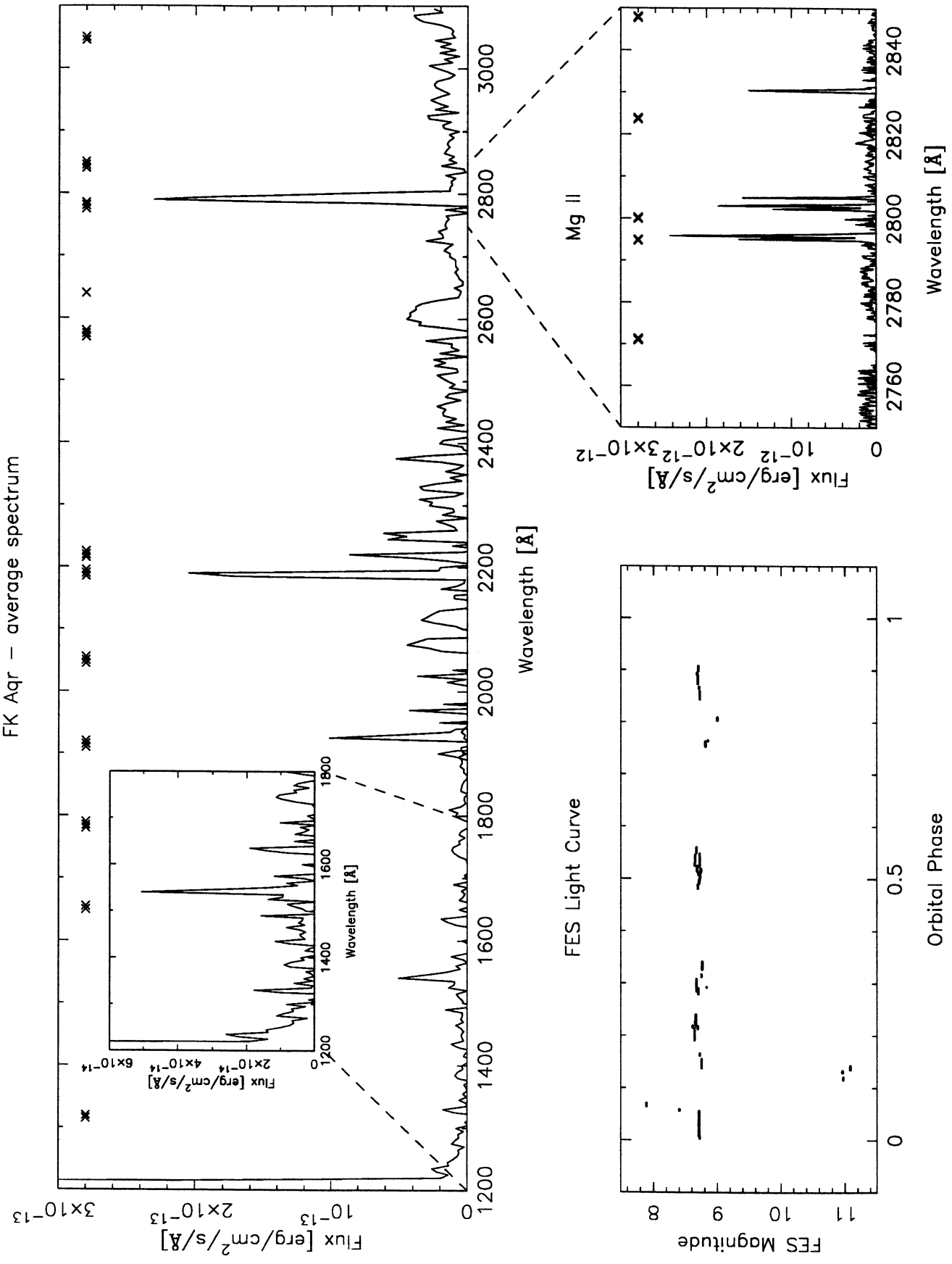
Byrne P.B., Butler C.J. and Lyons M.A.: 1990, *Astron. Astrophys.* **236**, 455, *Activity in late-type stars. VI. Optical photometry and UV spectroscopy of the active dMe star, FK Aquarii in late 1983*

Agrawal P.C.: 1988, *Astron. Astrophys.* **204**, 235-238, *X-ray emission from the flare star binary Gliese 867A*

Byrne P.B., Black E. and The P.S.: 1987, *Astron. Astrophys.* **186**, 261-267, *Activity in late-type dwarfs. I. Walvaren and Johnson photometry of flares and spot variations on Gl 867A (= FK Aqr) in 1979*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5561	L		79. 9.11	20:37: 0	44128.3594	30.00	8.69	0.21	0.22	1710	353
2	SWP	6476	L		79. 9.11	21:12: 0	44128.3828	130.00	8.66	0.22	0.24	1710	352
3	LWR	5562	L		79. 9.11	21:45: 0	44128.4063	15.00	8.65	0.23	0.23	1710	253
4	SWP	7291	L		79.12. 2	10:32: 0	44209.9375	130.00	8.64	0.19	0.21	1730	131
5	LWR	6283	L		79.12. 2	12:49: 0	44210.0352	20.00	8.61	0.22	0.22	1730	253
6	SWP	15148	L		81.10. 1	18:39: 0	44879.2773	30.00	10.97	0.12	0.12	1894	110
7	LWR	11653	L		81.10. 1	19:56: 0	44879.3320	20.00	10.96	0.13	0.13	1894	132
8	SWP	15149	L		81.10. 1	20:31: 0	44879.3555	46.00	11.08	0.14	0.14	1894	110
9	SWP	21217	L		83.10. 3	8:10: 0	45610.8398	60.00	8.70	0.28	0.29	2073	E=45,C=42,B=42
10	LWR	16911	L		83.10. 3	8:42: 0	45610.8633	24.00	8.67	0.29	0.29	2073	E=184,C=30,B=30
11	SWP	21218	L	*	83.10. 3	9:28: 0	45610.8945	60.00	8.67	0.29	0.30	2073	C=115,B=115
12	LWR	16912	L	*	83.10. 3	10:39: 0	45610.9453	18.00	8.67	0.31	0.31	2073	E=175,C=60,B=60
13	SWP	21219	L		83.10. 3	11:28: 0	45610.9766	20.00	8.75	0.31	0.32	2073	E=193,C=97,B=97
14	SWP	21226	L		83.10. 4	5:27: 0	45611.7266	60.00	8.72	0.51	0.51	2073	B=28
15	LWR	16919	L		83.10. 4	6:31: 0	45611.7734	18.00	8.70	0.51	0.51	2073	E=95,C=63,B=24
16	SWP	21227	L	*	83.10. 4	7:10: 0	45611.7969	60.00	8.68	0.51	0.52	2073	B=22
17	LWR	16920	L		83.10. 4	8:15: 0	45611.8438	18.00	8.64	0.53	0.53	2073	E=97,C=65,B=25
18	SWP	21228	L		83.10. 4	8:54: 0	45611.8711	60.00	8.65	0.53	0.54	2073	B=26
19	LWR	16921	L	*	83.10. 4	9:59: 0	45611.9141	18.00	8.65	0.54	0.55	2073	E=124,C=75,B=31
20	SWP	21229	L		83.10. 4	10:37: 0	45611.9414	60.00	8.67	0.55	0.56	2073	B=73
21	SWP	21239	L		83.10. 5	15:30:43	45613.1445	90.00	8.72	0.84	0.86	2073	101
22	LWR	16930	L		83.10. 5	17:27: 0	45613.2266	24.00	8.71	0.86	0.87	2073	232
23	SWP	21240	L		83.10. 5	18:22:22	45613.2656	90.00	8.69	0.87	0.89	2073	121
24	LWR	16931	L		83.10. 5	20: 1:44	45613.3359	24.00	8.68	0.89	0.90	2073	242
25	SWP	21241	L		83.10. 5	20:49:25	45613.3672	53.00	8.70	0.90	0.91	2073	101
26	LWR	16933	L		83.10. 6	7: 8: 0	45613.7969	18.00	8.72	0.00	0.01	2074	E=95,B=25
27	SWP	21243	L		83.10. 6	7:32: 0	45613.8125	60.00	8.71	0.01	0.02	2074	E=38,B=26
28	LWR	16934	L		83.10. 6	8:37: 0	45613.8594	18.00	8.71	0.02	0.02	2074	E=97,B=27
29	SWP	21244	L		83.10. 6	9:18: 0	45613.8867	60.00	8.71	0.03	0.04	2074	E=49,B=42
30	LWR	16935	L		83.10. 6	10:29: 0	45613.9375	18.00	8.71	0.04	0.04	2074	E=115,B=30
31	SWP	21245	L		83.10. 6	11: 9: 0	45613.9648	60.00	8.71	0.05	0.06	2074	B=52
32	LWR	16936	L	*	83.10. 6	12:19: 0	45614.0117	18.00	8.40	0.06	0.06	2074	E=130,B=30
33	SWP	21246	L		83.10. 6	13: 9: 0	45614.0469	35.00	7.89	0.07	0.07	2074	E=36,B=24
34	SWP	21253	L		83.10. 7	14:44:48	45615.1133	90.00	8.76	0.33	0.34	2074	231
35	SWP	24497	L		84.11.18	4: 2: 0	46022.6680	60.00	8.75	0.14	0.15	2174	E=76,C=75,B=58
36	LWP	4830	L	*	84.11.18	5:16: 0	46022.7188	30.00	8.75	0.15	0.56	2174	E=246,C=95,B=65
37	SWP	24498	L		84.11.18	6:24: 0	46022.7656	20.00	8.72	0.16	0.17	2174	C=100,B=90
38	LWP	6082	L		85. 5.29	17: 5: 0	46215.2109	2.33	8.83	0.29	0.93	2221	E=92,B=31
39	SWP	26983	L	*	85.10.25	14: 6:29	46364.0859	55.00	8.81	0.75	0.76	2257	331
40	LWP	6991	L		85.10.25	15: 8:15	46364.1289	6.00	8.85	0.76	0.76	2257	242
41	LWP	14210	H	*	88.10.11	20:15:48	47446.3438	31.00	9.00	0.80	0.81	2522	132
42	LWP	20433	L		91. 5.24	0: 6:21	48400.5039	40.00	8.69	0.48	0.49	2756	250
43	SWP	41683	L		91. 5.24	1: 3: 0	48400.5430	40.00	8.71	0.49	0.50	2756	110
44	LWP	20434	L		91. 5.24	2: 3: 2	48400.5859	40.00	8.73	0.50	0.51	2756	250
45	SWP	41684	L		91. 5.24	3: 3:27	48400.6289	40.00	8.74	0.51	0.52	2756	110
46	LWP	20435	L		91. 5.24	4:13:49	48400.6758	40.00	8.72	0.52	0.53	2756	261
47	SWP	41685	L	*	91. 5.24	5:16:16	48400.7188	30.00	8.72	0.53	0.54	2756	110
48	LWP	20436	L		91. 5.24	5:56: 7	48400.7461	40.00	8.72	0.54	0.55	2756	260


FK Aqr – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V1285 Aql

alternative names:	
coordinates (2000.0):	$18^h55^m27.2^s$, $08°24'13''$
linear ephemeris:	
Min I = HJD ? + 10.3191 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.20
masses [$M_\odot$]:	0.32/0.30
radii [$R_\odot$]:	0.44/0.44
spectral type:	M3.5Ve/M3.5Ve
distance [pc]:	11
activity parameters:	
P_{phot} [days]:	2.9
ΔV [mag]:	0.05
x-ray luminosity [10^{31} erg/s]:	0.010
Mg II index:	[3.954]
Ca II index:	yes
$H\alpha$ emission:	emission
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	14±4
ROSAT 110-200Å [ct/ks]:	19±:
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.21 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	8.73 10^{-15}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	9.34 10^{-15}
U-B:	1.40
B-V:	1.54
V:	10.10
V-R:	
R-I:	1.07
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	≈0
IRAS [25]:	

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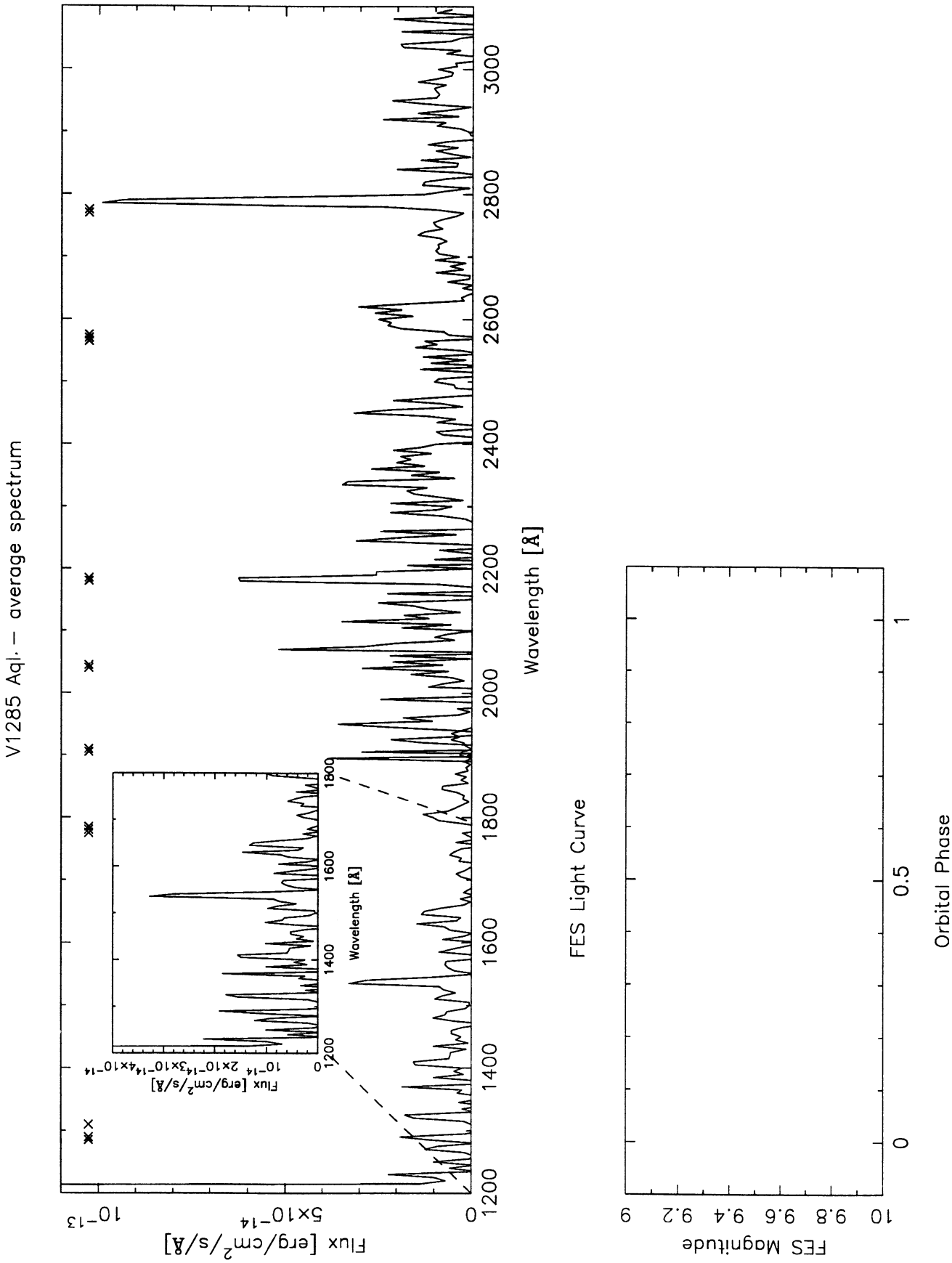
Andrews A.D.: 1989, *Astron. Astrophys.* **210**, 303-310, *Investigation of micro-flaring and secular and quasi-periodic variations in dMe flare stars. I. Suspected ultra-short "waves" in the dM2-3estar V1285 Aquilae*

Byrne P.B., Doyle J.G., Butler C.J. and Andrews A.D.: 1984, *Mon. Not. R. Astron. Soc.* **211**, 607-616, *Optical photometry and UV spectroscopy of the flare star Gl 735 (=V1285 Aql)*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	15175	L	*	81.10. 4	19: 5: 0	44882.2969	30.00	9.65	[0.00]	[0.00]	[0]	001
2	LWR	11685	L	*	81.10. 4	20:19: 0	44882.3477	20.00	9.61	[0.01]	[0.01]	[0]	343
3	SWP	15176	L	*	81.10. 4	20:57: 0	44882.3711	49.00	9.78	[0.01]	[0.01]	[0]	001


V1285 Aql. – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V1379 Aql

alternative names:	HD 185510, SAO 143657, BD-06 5221
coordinates (2000.0):	$19^h39^m38.3^s$, $-06°11'35''$
linear ephemeris:	
Min I = HJD 2446577.66 + 20.660 E	
system parameters:	
type of binary:	EB, SB1
eccentricity:	0.10
masses [$M_\odot$]:	f(m)=0.0047
radii [$R_\odot$]:	/≥7.5
spectral type:	sdB/K0IV-III
distance [pc]:	209
activity parameters:	
P_{phot} [days]:	25.64
ΔV [mag]:	0.30
x-ray luminosity [10^{31} erg/s]:	<0.018
Mg II index:	[1.029], 0.867
Ca II index:	class A, cool
$H\alpha$ emission:	very weak absorption
radio flux density [mJy]:	3.84
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.25\ 10^{-13}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.20\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.60\ 10^{-13}$
U-B:	0.69
B-V:	1.13
V:	8.32
V-R:	0.99
R-I:	0.67
b-y:	0.776
m_1:	0.285
c_1:	0.254
β:	2.559
IRAS [12]:	0.43
IRAS [25]:	<0.29

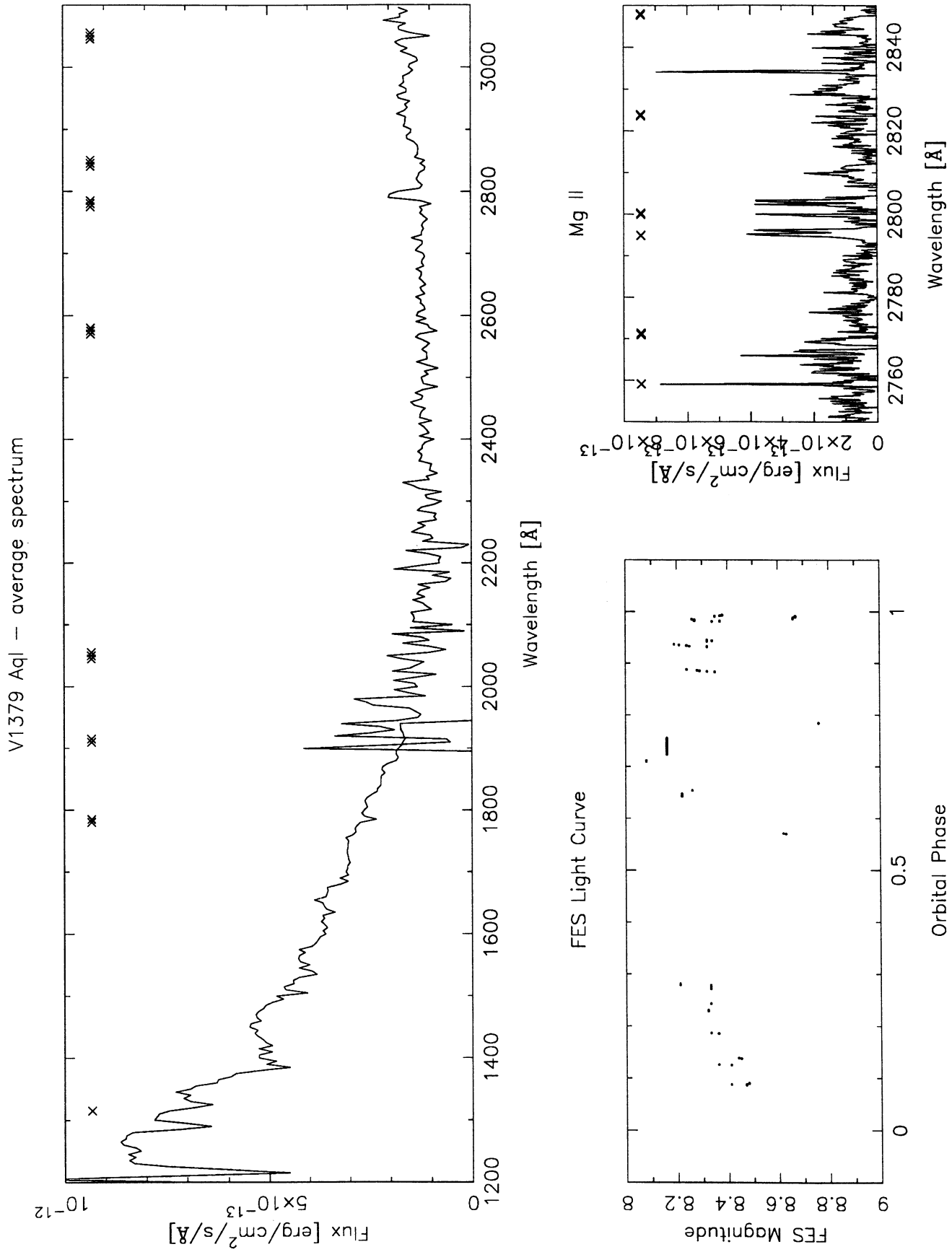
additional references:

Simon Jeffery C., Simon T. and Lloyd Evans T.: 1992, *Mon. Not. R. Astron. Soc.* **258**, 64-70, *The hot subdwarf in the eclipsing binary HD 185510*

Fekel F.C. and Simon T.: 1985, *Astron. J.* **90**, 812-816, *HD 160538 and HD 185510 : two active-chromosphere stars with hot companions*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	14637	L	*	82.11.15	20:32: 0	45289.3555	5.00	8.22	0.64	0.64	-62	E=68,C=60,B=30
2	SWP	18561	L		82.11.15	20:48: 0	45289.3672	150.00	8.22	0.64	0.65	-62	C=5X,B=35
3	SWP	18563	L	*	82.11.16	2: 7: 0	45289.5898	15.00	8.26	0.65	0.66	-62	C=150,B=20
4	SWP	27006	L		85.11. 1	4:10: 0	46370.6719	15.00	8.37	0.98	0.98	-10	C=78,B=25
5	LWP	9281	L	*	86.10. 9	21:47: 0	46713.4063	6.00	8.63	0.57	0.57	6	E=148,C=100,B=35
6	SWP	29411	L	*	86.10. 9	22: 0: 0	46713.4180	20.00	8.62	0.57	0.57	6	C=190,B=20
7	SWP	29437	L		86.10.14	7:39: 0	46717.8203	20.00	8.76	0.78	0.79	6	C=170,B=18
8	LWP	9494	L		86.11. 8	3:42: 0	46742.6523	6.00	8.66	0.99	0.99	7	E=90,C=66,B=35
9	SWP	29627	L		86.11. 8	3:55: 0	46742.6641	20.00	8.66	0.99	0.99	7	B=16
10	LWP	9495	L		86.11. 8	4:31: 0	46742.6875	18.00	8.66	0.99	0.99	7	E=191,C=123,B=41
11	SWP	29628	L		86.11. 8	5:16: 0	46742.7188	80.00	8.67	0.99	0.99	7	B=120
12	SWP	32143	L		87.10.23	5:56: 0	47091.7461	20.00	8.35	0.88	0.88	24	E=53,C=175,B=18
13	LWP	11936	L		87.10.23	6:23: 0	47091.7656	6.00	8.32	0.88	0.88	24	E=118,C=104,B=33
14	SWP	32144	L		87.10.23	6:55: 0	47091.7891	20.00	8.29	0.89	0.89	24	E=75,C=166,B=20
15	LWP	11937	L		87.10.23	7:29: 0	47091.8125	18.00	8.28	0.89	0.89	24	E=229,C=190,B=44
16	SWP	32145	L		87.10.23	8:11: 0	47091.8398	25.00	8.24	0.89	0.89	24	E=160,C=200,B=33
17	SWP	32148	L		87.10.24	6: 6: 0	47092.7539	25.00	8.32	0.93	0.93	24	E=64,C=187,B=17
18	LWP	11942	L		87.10.24	6:38: 0	47092.7773	6.00	8.25	0.93	0.93	24	E=116,C=100,B=33
19	SWP	32149	L		87.10.24	7: 8: 0	47092.7969	25.00	8.24	0.93	0.94	24	E=88,C=185,B=20
20	LWP	11943	L		87.10.24	7:44: 0	47092.8203	18.00	8.21	0.94	0.94	24	E=228,C=190,B=50
21	SWP	32150	L		87.10.24	8:15: 0	47092.8438	20.00	8.19	0.94	0.94	24	E=160,C=170,B=26
22	SWP	32152	L		87.10.24	11:15: 0	47092.9688	25.00	8.32	0.94	0.94	24	E=92,C=190,B=17
23	LWP	11944	L		87.10.24	11:44: 0	47092.9883	18.00	8.34	0.94	0.94	24	E=247,C=210,B=37
24	SWP	32153	L		87.10.24	12:15: 0	47093.0117	25.00	8.32	0.94	0.95	24	E=97,C=207,B=17
25	SWP	32157	L		87.10.25	6: 9: 0	47093.7578	25.00	8.34	0.98	0.98	24	E=68,C=200,B=17
26	LWP	11947	L		87.10.25	6:43: 0	47093.7813	18.00	8.27	0.98	0.98	24	E=229,C=200,B=38
27	SWP	32158	L		87.10.25	7:13: 0	47093.8008	25.00	8.27	0.98	0.98	24	E=122,C=180,B=20
28	LWP	11948	L		87.10.25	7:49: 0	47093.8242	18.00	8.27	0.98	0.98	24	E=215,C=184,B=45
29	SWP	32159	L		87.10.25	8:22: 0	47093.8477	20.00	8.26	0.99	0.99	24	E=182,B=23
30	SWP	32161	L		87.10.25	11: 4: 0	47093.9609	25.00	8.35	0.99	0.99	24	E=93,B=17
31	LWP	11949	L		87.10.25	11:36: 0	47093.9844	18.00	8.37	0.99	0.99	24	E=190,C=150,B=37
32	SWP	32162	L		87.10.25	12: 8: 0	47094.0039	42.00	8.38	0.99	0.99	24	E=92,B=17
33	LWP	11963	L		87.10.27	10:44: 0	47095.9453	18.00	8.47	0.09	0.09	25	C=198,B=40
34	SWP	32172	L		87.10.27	11:10: 0	47095.9648	25.00	8.41	0.09	0.09	25	C=226,B=27
35	LWP	11964	L		87.10.27	11:55: 0	47095.9961	12.00	8.47	0.09	0.09	25	E=204,C=182,B=36
36	SWP	32173	L		87.10.27	12:25: 0	47096.0156	25.00	8.48	0.09	0.09	25	C=228,B=18
37	SWP	32176	L		87.10.28	5:45: 0	47096.7383	25.00	8.41	0.13	0.13	25	C=202,B=18
38	LWP	11968	L		87.10.28	6:18: 0	47096.7617	15.00	8.36	0.13	0.13	25	E=229,C=190,B=43
39	SWP	32180	L		87.10.28	11:50: 0	47096.9922	25.00	8.45	0.14	0.14	25	C=205,B=17
40	LWP	11972	L		87.10.28	12:30: 0	47097.0195	15.00	8.44	0.14	0.14	25	E=59,C=198,B=36
41	SWP	32185	L	*	87.10.29	11:50: 0	47097.9922	25.00	8.36	0.19	0.19	25	C=198,B=18
42	LWP	11977	L		87.10.29	12:23: 0	47098.0156	15.00	8.33	0.19	0.19	25	E=208,C=178,B=39
43	LWP	18673	L		90. 8.28	9:22: 0	48131.8906	15.00	8.32	0.23	0.23	75	E=219,C=179,B=35
44	SWP	39547	L		90. 8.28	9:54: 0	48131.9141	20.00	8.32	0.23	0.23	75	C=170,B=17
45	LWP	18675	L		90. 8.28	16:16: 0	48132.1797	15.00	8.33	0.24	0.25	75	E=229,C=153,B=27
46	SWP	39548	H		90. 8.29	6:32: 0	48132.7734	207.00	8.33	0.27	0.28	75	E=1.5X,C=200,B=105
47	LWP	18676	H	*	90. 8.29	10: 8: 0	48132.9219	90.00	8.21	0.28	0.28	75	C=100,B=50
48	SWP	39595	L		90. 9. 7	7:49: 0	48141.8242	20.00	8.08	0.71	0.71	75	C=165,B=18
49	LWP	18716	L		90. 9. 7	8:22: 0	48141.8477	15.00	8.08	0.71	0.71	75	C=170,B=35
50	SWP	39597	H		90. 9. 7	14:20: 0	48142.0977	970.00	8.16	0.72	0.76	75	C=180,B=115


V1379 Aql — average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V824 Ara

alternative names:	HD 155555, SAO 253856, CPD-66 3080
coordinates (2000.0):	$17^h17^m25.7^s$, $-66°56'56''$
linear ephemeris:	Min I = HJD 2446998.83 + 1.681652 E
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	$\geq$0.499/$\geq$0.465
radii [$R_\odot$]:	>1.23/>0.96
spectral type:	G5IV/K0V-IV
distance [pc]:	39
activity parameters:	
P_{phot} [days]:	1.682
ΔV [mag]:	0.16
x-ray luminosity [10^{31} erg/s]:	0.273
Mg II index:	0.648
Ca II index:	moderate, both
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	42.6
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	69±16
ROSAT 110-200Å [ct/ks]:	46±13
EUVE 100Å [ct/s]:	0.093±0.010
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.11 10^{-14}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[5.98 10^{-13}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.52 10^{-12}]
U-B:	0.293
B-V:	0.835
V:	6.63
V-R:	
R-I:	
b-y:	0.492
m_1:	0.275
c_1:	0.280
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

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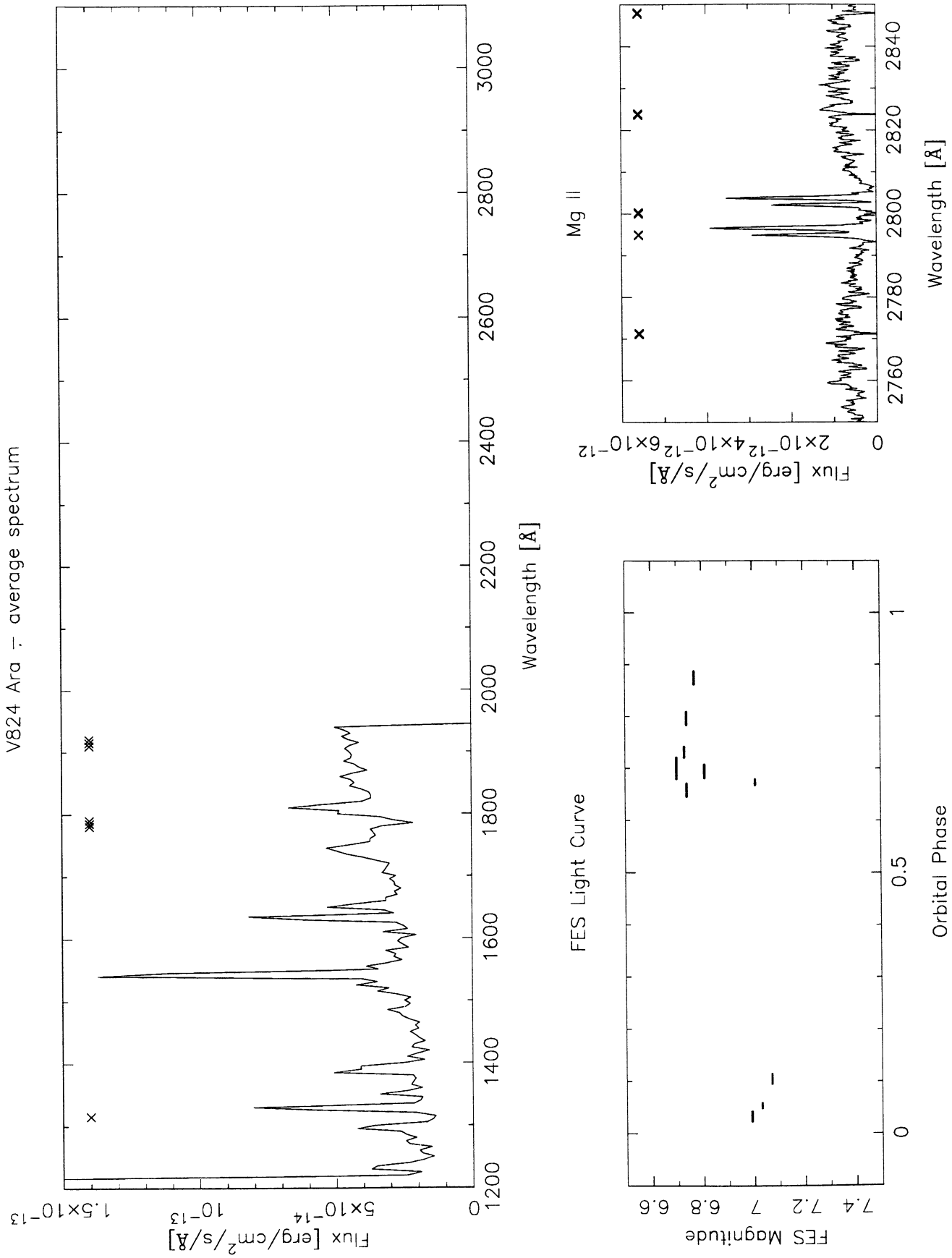
IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5044	H		79. 7.14	14:36: 0	44069.1094	59.98	6.77	0.86	0.89	-1737	E=191,C=130,B=45
2	SWP	15018	L		81. 9.17	8: 9: 0	44864.8398	100.00	6.70	0.68	0.72	-1265	E=1.5X,C=80,B=47
3	LWR	11570	H		81. 9.17	9:53: 0	44864.9102	50.00	6.73	0.72	0.74	-1265	E=143,C=105,B=35
4	SWP	19235	L	*	83. 2.10	12:47:35	45376.0313	60.00	6.74	0.78	0.81	-962	340
5	SWP	22957	L	*	84. 5. 8	23:21:12	45829.4727	60.00	6.74	0.65	0.67	-693	330
6	SWP	31496	L		87. 8. 6	13: 9: 0	47014.0469	45.00	6.99	0.02	0.04	9	E=124,C=125,B=96
7	LWP	11336	H		87. 8. 6	14: 9: 0	47014.0898	25.00	7.03	0.05	0.06	9	E=166,C=164,B=114
8	LWP	11337	H		87. 8. 6	16: 0: 0	47014.1680	47.00	7.07	0.10	0.11	9	E=164,C=112,B=57
9	SWP	31502	L		87. 8. 7	15: 9: 0	47015.1328	30.00	7.01	0.67	0.68	9	E=72,C=63,B=46
10	LWP	11350	H	*	87. 8. 7	15:47: 0	47015.1563	60.00	6.81	0.68	0.71	9	E=168,C=148,B=62

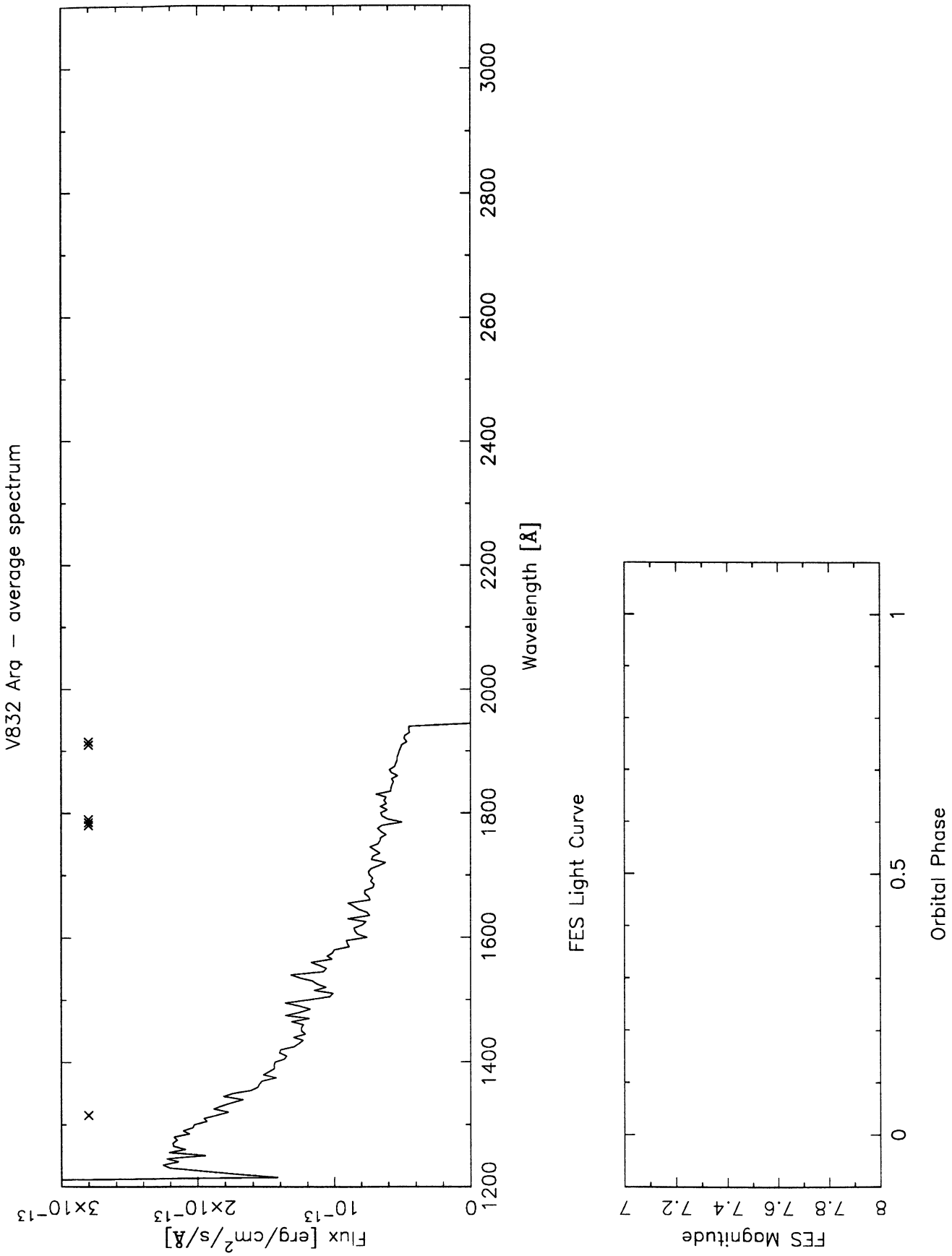

V824 Ara - average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V832 Ara

alternative names:	HD 165141, SAO 228707, CD-48 12280
coordinates (2000.0):	$18^h07^m00.2^s$, $-48°14'49''$
linear ephemeris:	
Min I = HJD ? + ≈5200. E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	
masses [$M_\odot$]:	
radii [$R_\odot$]:	
spectral type:	WD/G8III
distance [pc]:	170
activity parameters:	
P_{phot} [days]:	34.60
ΔV [mag]:	0.07
x-ray luminosity [10^{31} erg/s]:	0.467
Mg II index:	
Ca II index:	yes, cool
$H\alpha$ emission:	
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.27\ 10^{-13}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.61
B-V:	1.01
V:	7.08
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	30963	L	*	87. 5.13	8: 7: 0	46928.8398	120.00	7.32	[0.00]	[0.00]	[0]	C=226,B=33


V832 Arq – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

UX Ari

alternative names:	HD 21242, SAO 75927, BD+28 532
coordinates (2000.0):	$03^h26^m35.4^s$, $28°42'55''$
linear ephemeris:	
Min I = HJD 2440133.766 + 6.43791 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	$\geq$0.63/$\geq$0.71
radii [$R_\odot$]:	0.93/>4.7
spectral type:	G5V/K0IV
distance [pc]:	50
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.3
x-ray luminosity [10^{31} erg/s]:	1.20
Mg II index:	[1.057], 1.065
Ca II index:	weak/strong
$H\alpha$ emission:	emission, cool
radio flux density [mJy]:	10-195
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	78±8
ROSAT 110-200Å [ct/ks]:	101±9
EUVE 100Å [ct/s]:	0.508±0.032
EUVE 200Å [ct/s]:	0.063±0.017
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.34 10^{-14}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	6.19 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.43 10^{-12}
U-B:	0.48
B-V:	0.91
V:	6.38
V-R:	0.70/0.54
R-I:	
b-y:	0.579
m_1:	0.278
c_1:	0.274
β:	2.540
IRAS [12]:	1.48
IRAS [25]:	0.33

additional references:

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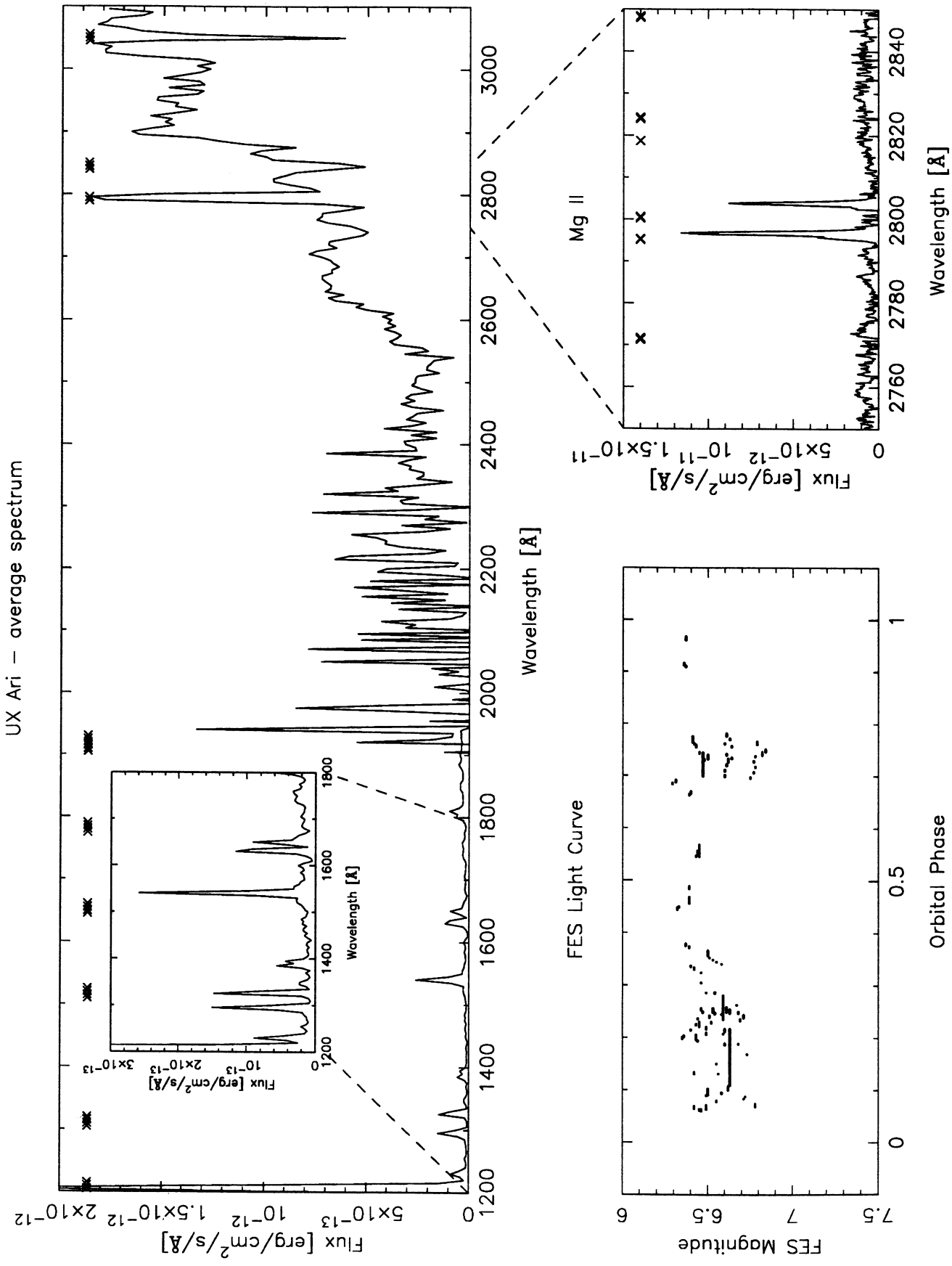
Mohin S. and Raveendran A.V.: 1989, *J. Astrophys. Astron.* **10**, 35-45, *BV photometry of UX Arietis*

Lang K.R. and Willson R.F.: 1988, *Astrophys. J.* **328**, 610-616, *Ultraviolet and radio flares from UX Arietis and HR 1099*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	2081	H		78. 8.15	13:42: 0	43736.0703	12.00	6.43	0.55	0.55	559	
2	SWP	2301	L		78. 8.15	14: 4: 0	43736.0859	45.00	6.44	0.55	0.55	559	MAX DN = 150
3	LWR	2082	H		78. 8.15	15: 0: 0	43736.1250	30.00	6.44	0.55	0.56	559	
4	LWR	2111	H		78. 8.19	8: 9: 0	43739.8398	30.00	6.42	0.13	0.13	560	
5	SWP	2336	L	*	78. 8.19	8:48: 0	43739.8672	90.00		0.14	0.15	560	MAX DN = 196
6	LWR	2136	H		78. 8.21	10:23: 0	43741.9336	30.00	6.39	0.46	0.46	560	
7	SWP	2351	L		78. 8.21	11: 4: 0	43741.9609	70.00	6.39	0.46	0.47	560	MAX DN ¿ 255
8	LWR	2158	H		78. 8.23	9:55: 0	43743.9141	30.00	6.41	0.76	0.77	560	
9	SWP	2375	L	*	78. 8.23	10:34: 0	43743.9414	70.00	6.41	0.77	0.78	560	MAX DN = 196
10	LWR	3344	H		79. 1. 1	1:53: 0	43874.5781	30.00	6.46	0.06	0.06	581	
11	SWP	3766	L		79. 1. 1	2:28: 0	43874.6016	70.00	6.49	0.06	0.07	581	
12	SWP	3855	L		79. 1. 9	6:14: 0	43882.7578	30.00	6.42	0.33	0.33	582	MAXDN=130
13	LWR	3432	H		79. 1. 9	6:57: 0	43882.7891	18.00	6.40	0.34	0.34	582	MAXDN=160
14	LWR	6261	H		79.11.29	17:23: 0	44207.2227	15.00	6.48	0.73	0.73	632	243
15	SWP	7267	L	*	79.11.29	17:44: 0	44207.2383	80.00	6.50	0.73	0.74	632	251
16	LWR	6262	H		79.11.29	19: 8: 0	44207.2969	30.00	6.47	0.74	0.74	632	253
17	LWR	6329	L		79.12. 8	11:27: 0	44215.9766	4.00	6.49	0.09	0.09	634	673
18	SWP	7342	L	*	79.12. 8	11:34: 0	44215.9805	80.00	6.50	0.09	0.10	634	251
19	LWR	6330	H		79.12. 8	13: 1: 0	44216.0430	30.00	6.50	0.10	0.10	634	253
20	SWP	7423	L		79.12.17	20:28: 0	44225.3516	210.00	6.45	0.55	0.57	635	E=5X,C=180,B=49
21	LWR	10244	H		81. 3.29	21:18: 0	44693.3867	20.00	6.54	0.25	0.25	708	E=147,C=100,B=32
22	SWP	13612	L		81. 3.29	21:43: 0	44693.4063	50.00	6.53	0.25	0.25	708	E=2X,C=85,B=45
23	SWP	15211	H		81.10. 8	22:56: 0	44886.4570	420.00	6.59	0.24	0.28	738	E=127,C=200,B=102
24	LWR	11729	H		81.10. 9	6:32: 0	44886.7734	25.00	6.54	0.28	0.29	738	E=145,C=90,B=31
25	SWP	15240	H		81.10.11	22:39: 0	44889.4453	400.00	6.47	0.70	0.74	738	E=150,B=72
26	LWR	11756	H		81.10.12	5:24: 0	44889.7266	20.00	6.45	0.74	0.75	738	E=132,C=60,B=30
27	SWP	26730	L		85. 9.26	4: 9: 0	46334.6719	30.00	6.60	0.19	0.19	963	E=49,B=23
28	LWP	6815	H		85. 9.26	5:13: 0	46334.7188	15.00	6.44	0.19	0.20	963	E=129,C=85,B=45
29	SWP	26731	L		85. 9.26	5:43: 0	46334.7383	30.00	6.43	0.20	0.20	963	E=61,B=30
30	LWP	6816	H		85. 9.26	6:48: 0	46334.7852	15.00	6.43	0.20	0.21	963	E=114,C=88,B=47
31	SWP	26732	L	*	85. 9.26	7:20: 0	46334.8047	30.00	6.49	0.21	0.21	963	E=44,B=20
32	LWP	6817	H		85. 9.26	8:24: 0	46334.8516	15.00	6.40	0.21	0.22	963	E=113,C=79,B=38
33	SWP	26733	L		85. 9.26	8:55: 0	46334.8711	30.00	6.49	0.22	0.22	963	E=100,B=80
34	LWP	6818	H		85. 9.26	10: 4: 0	46334.9180	15.00	6.43	0.22	0.23	963	E=1.5X,C=255,B=193
35	SWP	26734	L		85. 9.26	10:34: 0	46334.9414	22.40	6.52	0.23	0.23	963	E=1.5X,B=217
36	LWP	6819	H		85. 9.26	11:46: 0	46334.9922	10.00	6.44	0.24	0.24	963	E=230,C=240,B=186
37	SWP	26735	L		85. 9.26	12:15: 0	46335.0117	20.00	6.51	0.24	0.24	963	E=245,B=158
38	LWP	9864	H		87. 1. 5	23:34: 0	46801.4805	15.00	6.75	0.70	0.70	1035	E=125,C=77,B=38
39	SWP	30026	L		87. 1. 6	0: 2: 0	46801.5000	30.00	6.60	0.70	0.70	1035	E=61,B=18
40	LWP	9865	H		87. 1. 6	1: 6: 0	46801.5469	15.00	6.77	0.71	0.71	1035	E=135,C=78,B=35
41	SWP	30027	L	*	87. 1. 6	1:38: 0	46801.5664	30.00	6.60	0.71	0.71	1035	E=99,C=46,B=19
42	LWP	9866	H		87. 1. 6	2:41: 0	46801.6133	15.00	6.78	0.72	0.72	1035	E=137,C=80,B=38
43	SWP	30028	L		87. 1. 6	3:13: 0	46801.6328	30.00	6.61	0.72	0.72	1035	E=58,C=50,B=24
44	LWP	9867	H		87. 1. 6	4:19: 0	46801.6797	15.00	6.77	0.73	0.73	1035	E=149,C=87,B=43
45	SWP	30029	L		87. 1. 6	4:49: 0	46801.6992	30.00	6.62	0.73	0.73	1035	E=119,C=53,B=22
46	LWP	9868	H		87. 1. 6	5:53: 0	46801.7461	15.00	6.78	0.74	0.74	1035	E=145,C=79,B=40
47	SWP	30030	L		87. 1. 6	6:24: 0	46801.7656	20.00	6.61	0.74	0.74	1035	E=49,C=41,B=19
48	LWP	11745	H		87. 9.29	8: 4: 0	47067.8359	50.00	6.78	0.07	0.07	1077	E=6X,C=240,B=62
49	LWP	11746	H		87. 9.29	9:28: 0	47067.8945	25.00	6.55	0.08	0.08	1077	E=226,C=115,B=83
50	LWP	11747	L		87. 9.29	10:27: 0	47067.9336	1.50	6.71	0.08	0.08	1077	E=250,C=174,B=40
51	LWP	11748	L	*	87. 9.29	11: 1: 0	47067.9609	1.50	6.72	0.09	0.09	1077	E=254,C=173,B=37
52	LWP	11749	H		87. 9.29	11:56: 0	47067.9961	25.00	6.58	0.09	0.10	1077	E=230,C=118,B=72
53	LWP	11750	H		87. 9.29	13: 2: 0	47068.0430	70.00	6.62	0.10	0.11	1077	E=3X,C=167,B=63
54	SWP	31952	H		87. 9.29	14:21: 0	47068.0977	999.00	6.63	0.11	0.22	1077	E=1.8X,B=4X
55	LWP	11751	L		87. 9.29	17:41:44	47068.2383	1.50	6.56	0.13	0.13	1077	465
56	LWP	11752	L		87. 9.29	20:42:37	47068.3633	1.50	6.55	0.15	0.15	1077	455
57	LWP	11753	L		87. 9.29	23:34: 0	47068.4805	1.50	6.73	0.17	0.17	1077	E=255,C=180,B=45
58	LWP	11754	L		87. 9.30	2:39: 0	47068.6094	1.50	6.68	0.19	0.19	1077	E=255,C=190,B=50
59	LWP	11755	L	*	87. 9.30	5:33: 0	47068.7305	1.50	6.59	0.21	0.21	1077	E=224,C=170,B=50
60	LWP	11756	H		87. 9.30	6:12: 0	47068.7578	50.00	6.60	0.21	0.22	1077	E=246,C=125,B=42
61	LWP	11757	H		87. 9.30	7:40: 0	47068.8203	25.00	6.45	0.22	0.22	1077	E=179,C=101,B=39
62	LWP	11758	H		87. 9.30	8:44: 0	47068.8633	25.00	6.45	0.23	0.23	1077	E=178,C=106,B=52
63	LWP	11760	L		87. 9.30	11:20: 0	47068.9727	1.50	6.58	0.25	0.25	1077	E=207,C=173,B=52
64	LWP	11761	L	*	87. 9.30	11:55: 0	47068.9961	1.50	6.61	0.25	0.25	1077	E=223,C=171,B=42
65	LWP	11762	H		87. 9.30	12:36: 0	47069.0234	50.00	6.61	0.25	0.26	1077	E=1.1X,C=132,B=53

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
66	LWP	11763	L		87. 9.30	14: 1: 0	47069.0859	1.50	6.67	0.26	0.26	1077	E=225,C=189,B=48
67	LWP	11764	L		87. 9.30	17:35:27	47069.2344	1.50	6.49	0.29	0.29	1077	452
68	LWP	11765	L		87. 9.30	20:37: 1	47069.3594	1.50	6.46	0.31	0.31	1077	452
69	LWP	11766	L		87. 9.30	23:34: 0	47069.4805	1.50	6.46	0.32	0.32	1077	E=205,C=180,B=50
70	LWP	11767	L		87.10. 1	2: 4: 0	47069.5859	1.50	6.58	0.34	0.34	1077	E=196,C=165,B=50
71	LWP	11768	L		87.10. 1	2:42: 0	47069.6133	1.50	6.55	0.35	0.35	1077	E=195,C=170,B=50
72	LWP	11769	L	*	87.10. 1	3:17: 0	47069.6367	1.50	6.53	0.35	0.35	1077	E=190,C=165,B=50
73	LWP	11770	L		87.10. 1	3:54: 0	47069.6641	1.50	6.51	0.35	0.35	1077	E=195,C=150,B=50
74	LWP	11771	H		87.10. 1	4:36: 0	47069.6914	90.00	6.50	0.36	0.37	1077	E=4X,C=216,B=115
75	SWP	31953	H		87.10. 1	5: 3: 0	47069.7109	0.13		0.36	0.36	1077	B=160
76	LWP	14051	H		88. 9.15	8:14: 0	47419.8438	50.00	6.84	0.75	0.75	1131	E=1.5X,B=110,B=42
77	LWP	14052	H		88. 9.15	9:41: 0	47419.9023	25.00	6.64	0.76	0.76	1131	E=195,C=148,B=100
78	LWP	14053	H		88. 9.15	10:37: 0	47419.9414	12.00	6.60	0.76	0.76	1131	E=154,C=144,B=102
79	LWP	14084	H		88. 9.18	11:31: 0	47422.9805	25.00	6.69	0.23	0.24	1132	E=179,C=95,B=42
80	LWP	14085	H		88. 9.18	12:32: 0	47423.0234	25.00	6.51	0.24	0.24	1132	E=181,C=88,B=42
81	LWP	14086	H		88. 9.18	13:39: 0	47423.0703	68.00	6.63	0.25	0.25	1132	E=2X,C=150,B=43
82	LWP	14130	H		88. 9.28	7:29: 0	47432.8125	50.00	6.79	0.76	0.77	1133	E=1.5X,C=116,B=51
83	LWP	14131	H		88. 9.28	8:56: 0	47432.8711	25.00	6.63	0.77	0.77	1133	E=165,C=102,B=56
84	LWP	14132	H		88. 9.28	9:59: 0	47432.9141	50.00	6.61	0.78	0.78	1133	E=1.5X,C=180,B=112
85	LWP	14152	H		88.10. 1	10:40: 0	47435.9453	25.00	6.68	0.25	0.25	1134	E=204,C=107,B=60
86	LWP	14153	H		88.10. 1	11:43: 0	47435.9883	25.00	6.46	0.25	0.26	1134	E=170,C=88,B=40
87	LWP	14220	H		88.10.14	6:24: 0	47448.7656	50.00	6.71	0.24	0.24	1136	E=1.5X,C=115,B=48
88	LWP	14221	H		88.10.14	7:51: 0	47448.8281	25.00	6.47	0.25	0.25	1136	E=109,C=126,B=72
89	LWP	14222	H	*	88.10.14	8:51: 0	47448.8672	25.00	6.53	0.25	0.26	1136	E=216,C=144,B=86
90	LWP	14263	H		88.10.17	9:48: 0	47451.9102	25.00	6.62	0.73	0.73	1136	E=167,C=95,B=42
91	LWP	14264	H		88.10.17	10:48: 0	47451.9492	25.00	6.64	0.73	0.74	1136	E=176,C=84,B=34
92	LWP	14265	H		88.10.17	11:51: 0	47451.9922	58.00	6.82	0.74	0.75	1136	E=2.2X,C=124,B=44
93	LWP	18569	H		90. 8.13	0:30: 0	48116.5195	18.00	6.37	0.96	0.96	1239	E=139,C=75,B=37
94	SWP	39449	L		90. 8.13	1: 6: 0	48116.5469	25.00	6.37	0.97	0.97	1239	E=77,C=28,B=13
95	SWP	39460	L		90. 8.14	13:13: 0	48118.0508	30.10	6.35	0.20	0.20	1240	E=100,C=50,B=18
96	LWP	18584	H		90. 8.14	13:49: 0	48118.0742	20.00	6.36	0.20	0.20	1240	E=156,C=80,B=42
97	LWP	18597	H		90. 8.16	8:58: 0	48119.8750	22.00	8.99	0.48	0.48	1240	E=142,C=75,B=32
98	SWP	39470	L		90. 8.16	9:28: 0	48119.8945	40.00	6.39	0.49	0.49	1240	E=72,C=45,B=18
99	LWP	18607	H		90. 8.17	13: 3: 0	48121.0430	22.00	6.39	0.66	0.67	1240	E=207,C=145,B=95
100	SWP	39476	L	*	90. 8.17	13:31: 0	48121.0625	40.00	6.40	0.67	0.67	1240	E=126,C=80,B=30
101	SWP	42405	L		91. 9. 6	9:49: 0	48505.9102	35.00	6.32	0.45	0.45	1300	E=86,C=88,B=48
102	LWP	21171	H		91. 9. 6	10:29: 0	48505.9375	18.00	6.33	0.45	0.45	1300	E=179,C=156,B=105
103	SWP	42416	L		91. 9. 8	9:51: 0	48507.9102	40.00	6.43	0.76	0.76	1300	E=156,C=115,B=72
104	LWP	21187	H		91. 9. 8	10:41: 0	48507.9453	10.00	6.42	0.76	0.76	1300	E=127,C=119,B=72
105	LWP	21200	H		91. 9. 9	9:37: 0	48508.9023	18.00	6.37	0.91	0.91	1300	E=115,C=82,B=32
106	SWP	42427	L		91. 9. 9	10:10: 0	48508.9219	40.00	6.36	0.91	0.92	1300	E=83,C=82,B=35
107	LWP	21208	H		91. 9.10	9:14: 0	48509.8828	18.00	6.45	0.06	0.06	1301	E=146,C=75,B=38
108	SWP	42435	L		91. 9.10	9:46: 0	48509.9063	40.00	6.42	0.07	0.07	1301	E=87,C=62,B=20
109	LWP	21222	H		91. 9.12	9: 8: 0	48511.8789	23.00	6.39	0.37	0.37	1301	E=154,C=80,B=40
110	SWP	42448	L		91. 9.12	9:41: 0	48511.9023	40.00	6.37	0.38	0.38	1301	E=1.5X,C=60,B=26
111	LWP	21236	H		91. 9.14	9:23: 0	48513.8906	23.00	6.29	0.68	0.69	1301	E=160,C=90,B=43
112	SWP	42461	L	*	91. 9.14	9:54: 0	48513.9141	40.00	6.31	0.69	0.69	1301	E=151,C=85,B=44


UX Ari – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

VY Ari

alternative names:	HD 17433, SAO 55899, BD+30 448
coordinates (2000.0):	$02^h48^m43.7^s$, 31°06′55″
linear ephemeris:	
Min I p = HJD 2446489.02 + 13.198 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.085
masses [$M_\odot$]:	f(m)=0.042
radii [$R_\odot$]:	
spectral type:	K3-4V-IV
distance [pc]:	21
activity parameters:	
P_{phot} [days]:	16.42
ΔV [mag]:	0.4
x-ray luminosity [10^{31} erg/s]:	0.234
Mg II index:	[1.372], 1.342
Ca II index:	strong
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	109±11
ROSAT 110-200Å [ct/ks]:	114±14
EUVE 100Å [ct/s]:	0.108±0.010
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.46\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.85\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.04\ 10^{-13}$
U-B:	0.63:
B-V:	0.96
V:	6.9
V-R:	0.61
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	≈0
IRAS [25]:	

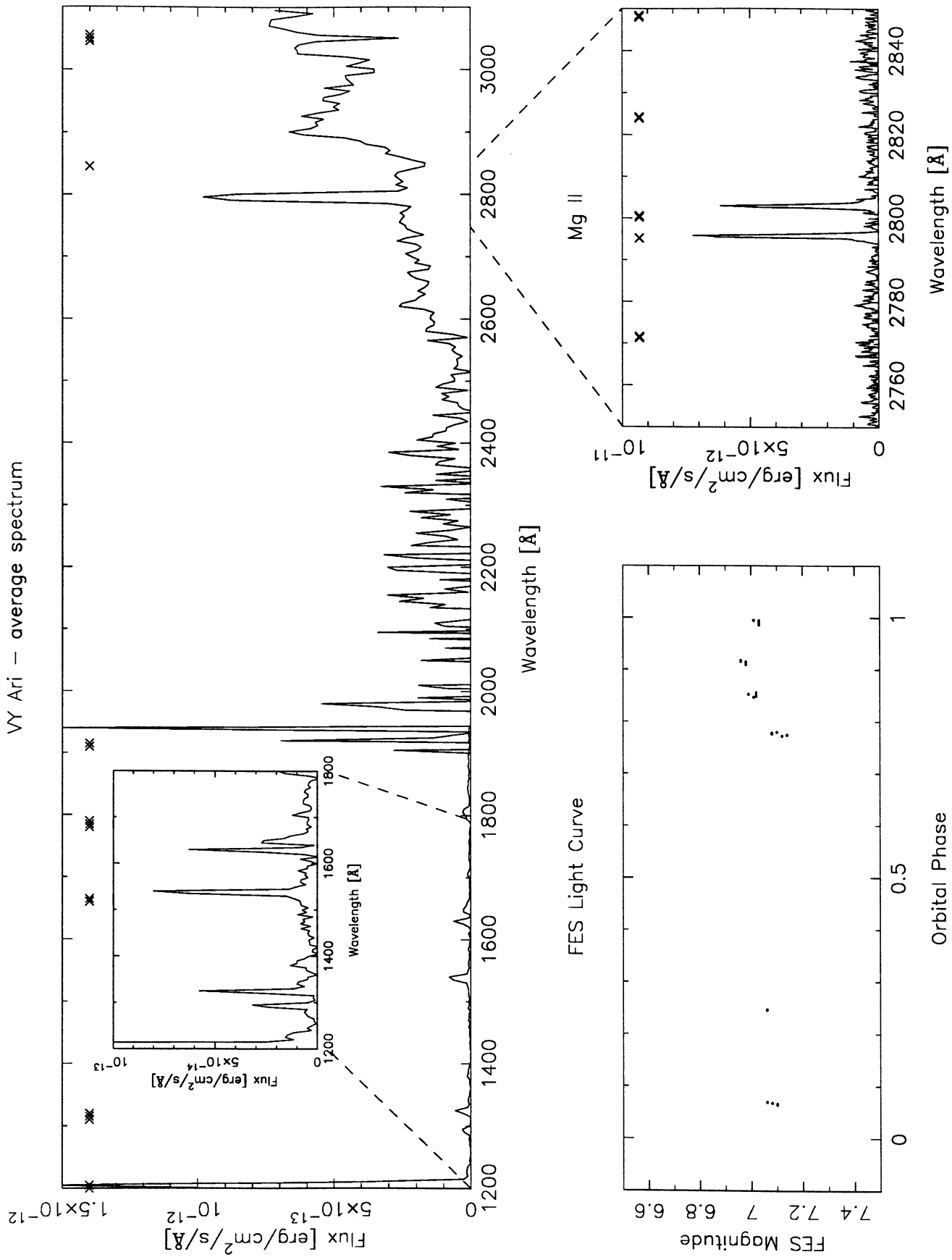
additional references:

Strassmeier K.G. and Bopp B.W.: 1992, *Astron. Astrophys.* **259**, 183-197, *Time-series photometric spot modeling. I. Parameter study and applicationto HD 17433 = VY Arietis*

Bopp B.W., Saar S.H., Ambruster C., Feldman P., Dempsey R., Allen M. and Barden C.: 1989, *Astrophys. J.* **339**, 1059-1072, *The active chromosphere binary HD 17433 (VY Arietis)*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	10092	L	*	87. 2. 8	21:44: 0	46835.4063	2.50	7.06	0.25	0.25	26	E=218,C=125,B=37
2	SWP	30282	L	*	87. 2. 8	21:53: 0	46835.4102	40.00	7.06	0.25	0.26	26	E=68,C=39,B=32
3	SWP	32066	L		87.10.11	9:55: 0	47079.9141	35.00	7.12	0.77	0.77	44	E=93,C=65,B=45
4	LWP	11850	H		87.10.11	10:42: 0	47079.9453	30.00	7.14	0.77	0.78	44	E=166,C=100,B=70
5	SWP	32067	L	*	87.10.11	11:19: 0	47079.9727	60.00	7.08	0.78	0.78	44	E=90,C=62,B=41
6	LWP	11851	H		87.10.11	12:28: 0	47080.0195	23.00	7.10	0.78	0.78	44	E=133,C=62,B=41
7	LWP	11861	H	*	87.10.12	9:42: 0	47080.9023	30.00	7.01	0.85	0.85	44	E=170,C=110,B=67
8	SWP	32077	L	*	87.10.12	10:21: 0	47080.9297	50.00	7.02	0.85	0.85	44	E=95,C=63,B=47
9	LWP	11862	H		87.10.12	11:24: 0	47080.9766	30.00	6.99	0.85	0.85	44	E=147,C=80,B=45
10	SWP	32078	L		87.10.12	12: 8: 0	47081.0039	42.00	7.02	0.85	0.86	44	E=52,C=70,B=34
11	SWP	32084	L	*	87.10.13	5:30: 0	47081.7305	60.00	6.98	0.91	0.91	44	E=73,C=48,B=35
12	LWP	11870	H		87.10.13	6:48: 0	47081.7852	30.00	6.98	0.91	0.92	44	E=146,C=80,B=41
13	SWP	32085	L		87.10.13	7:26: 0	47081.8086	55.00	6.96	0.92	0.92	44	E=60,C=55,B=38
14	SWP	32091	L	*	87.10.14	5:44: 0	47082.7383	55.00	7.03	0.99	0.99	44	E=62,C=45,B=32
15	LWP	11877	H		87.10.14	6:52: 0	47082.7852	30.00	7.03	0.99	0.99	44	E=165,C=90,B=45
16	SWP	32092	L		87.10.14	7:30: 0	47082.8125	50.00	7.03	0.99	0.99	44	E=100,C=87,B=69
17	LWP	11878	H		87.10.14	8:28: 0	47082.8516	25.00	7.01	0.99	0.00	44	E=254,B=160
18	SWP	32099	L	*	87.10.15	6:24: 0	47083.7656	60.00	7.10	0.06	0.07	45	E=65,C=48,B=34
19	LWP	11882	H		87.10.15	7:34: 0	47083.8164	30.00	7.08	0.07	0.07	45	E=189,C=105,B=66
20	SWP	32100	L		87.10.15	8:12: 0	47083.8398	35.00	7.06	0.07	0.07	45	E=130,B=121


VY Ari – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

α Aur A

alternative names:	HD 34029, SAO 40186, HR 1708, BD+45 1077, 13 Aur, Capella
coordinates (2000.0):	$05^h16^m41.4^s$, $45°59'53''$
linear ephemeris:	
Min I = HJD 2432887.445 + 104.0214 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	2.49/2.56
radii [$R_\odot$]:	8.7/12.6
spectral type:	G1III/K0III
distance [pc]:	13
activity parameters:	
P_{phot} [days]:	8/80
ΔV [mag]:	0.15?
x-ray luminosity [10^{31} erg/s]:	0.376
Mg II index:	[0.768], 0.527
Ca II index:	cool
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	$\approx$0.2
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	382±16
ROSAT 110-200Å [ct/ks]:	484±19
EUVE 100Å [ct/s]:	0.381±0.018
EUVE 200Å [ct/s]:	0.130±0.011
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$7.78\ 10^{-13}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.47\ 10^{-10}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.41\ 10^{-10}$
U-B:	0.44
B-V:	0.60/0.90
V:	0.08
V-R:	
R-I:	0.44
b-y:	0.513
m_1:	0.278
c_1:	0.425
β:	2.590
IRAS [12]:	236.10
IRAS [25]:	56.94

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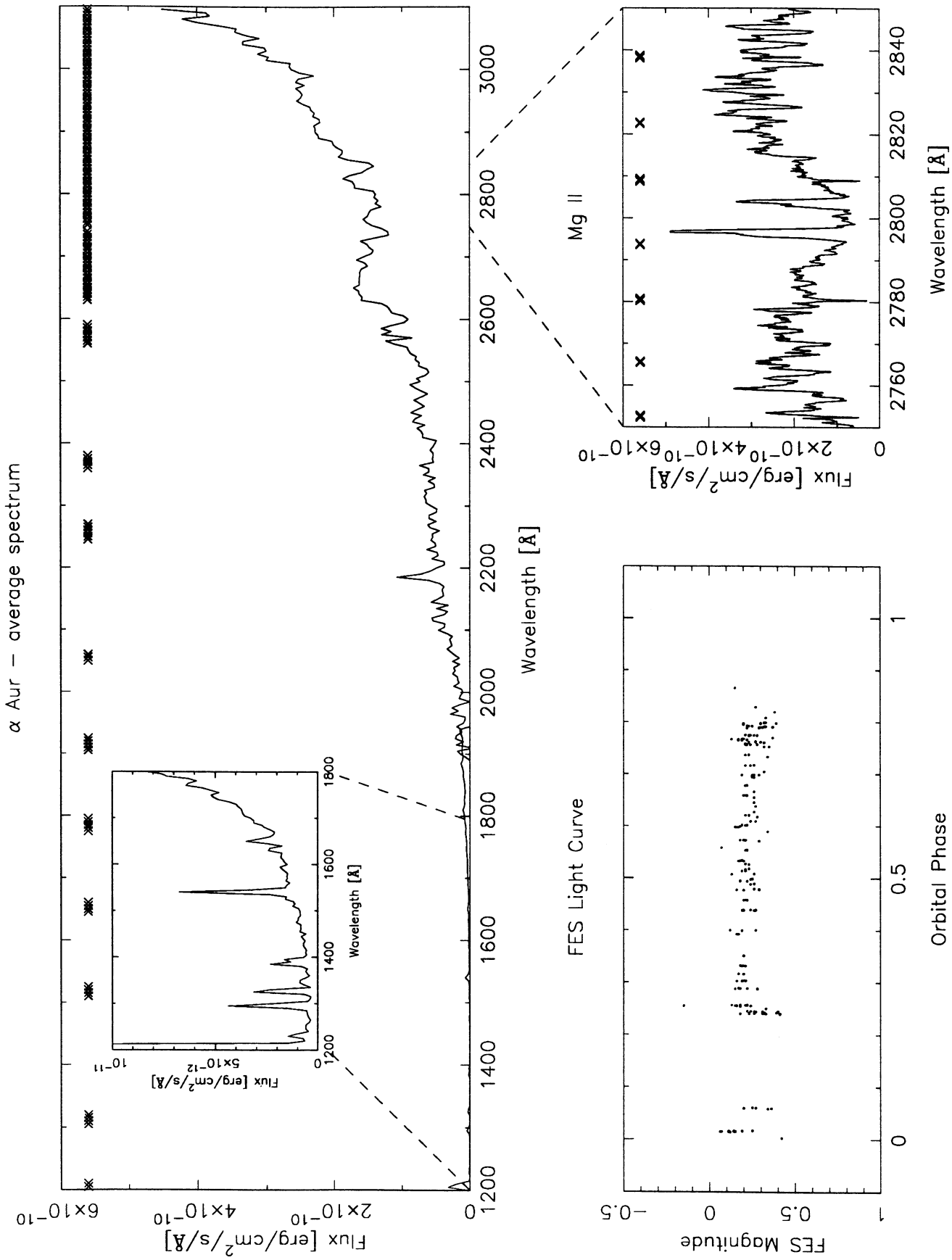
IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	2296	L		78. 8.15	3:11: 0	43735.6328	6.00	0.15	0.29	0.29	104	MAX DN = 255
2	LWR	2077	H		78. 8.15	3:42: 0	43735.6523	2.00	5.49	0.29	0.29	104	
3	SWP	2297	L		78. 8.15	4:47: 0	43735.6992	1.50	0.18	0.29	0.29	104	MAX DN = 255
4	LWR	2078	H		78. 8.15	5: 8: 0	43735.7148	0.67	5.50	0.29	0.29	104	
5	SWP	2298	L		78. 8.15	5:55: 0	43735.7461	30.00	0.17	0.29	0.29	104	MAX DN 50X
6	SWP	2299	H		78. 8.15	7:16: 0	43735.8047	180.00	5.49	0.29	0.29	104	
7	SWP	4626	L	*	79. 3.14	2:40: 0	43946.6094	0.67	0.20	0.32	0.32	106	MAXDN=200
8	LWR	4016	L	*	79. 3.14	2:59: 0	43946.6250	0.05	0.17	0.32	0.32	106	MAXDN=255
9	SWP	4721	L		79. 3.22	0:28: 0	43954.5195	6.67	0.17	0.39	0.39	106	MAXDN=10X
10	LWR	4086	L		79. 3.22	0:46: 0	43954.5313	0.05	0.16	0.39	0.39	106	MAX DN = 270
11	SWP	7103	L	*	79.11. 6	10:44: 0	44183.9453	1.67	0.17	0.60	0.60	108	C=210,B=30
12	LWR	6039	H		79.11. 6	10:56: 0	44183.9570	0.65	0.16	0.60	0.60	108	C=240,B=30
13	SWP	7104	H		79.11. 6	11:27: 0	44183.9766	19.00	0.15	0.60	0.60	108	E=1.5X,C=240,B=50
14	LWR	7107	H		80. 3. 6	20:37: 0	44305.3594	1.00	0.19	0.77	0.77	109	E=242,C=1.3X,B=35
15	SWP	8178	H		80. 3. 6	20:46: 0	44305.3672	30.00	0.17	0.77	0.77	109	E=1.5-2X,C=4X,B=47
16	LWR	7108	H		80. 3. 6	21:26: 0	44305.3945	1.00	0.17	0.77	0.77	109	E=253,C=1.3X,B=32
17	SWP	8181	H		80. 3. 7	0:44: 0	44305.5313	30.00	0.17	0.77	0.77	109	E=1.5X,C=2X,B=46
18	LWR	7111	H		80. 3. 7	1:24: 0	44305.5586	1.00	0.19	0.77	0.77	109	E=234,C=1.3X,B=30
19	SWP	8182	H		80. 3. 7	1:59: 0	44305.5820	30.00	0.17	0.77	0.77	109	E=1.5X,C=4X,B=48
20	LWR	7112	H		80. 3. 7	2:38: 0	44305.6094	1.00	0.13	0.77	0.77	109	E=241,C=1.3X,B=31
21	SWP	8183	H		80. 3. 7	3:13: 0	44305.6328	30.00	0.20	0.77	0.77	109	E=1.5X,C=4X,B=45
22	LWR	7371	H		80. 4. 1	19: 7: 0	44331.2969	0.67	0.12	0.01	0.01	110	E=205,C=240,B=30
23	SWP	8626	H		80. 4. 1	19:15: 0	44331.3008	10.00	0.11	0.01	0.02	110	E=148,C=120,B=25
24	LWR	7372	H		80. 4. 1	20: 7: 0	44331.3398	0.67	0.15	0.02	0.02	110	E=205,C=245,B=31
25	SWP	8627	H		80. 4. 1	20:13: 0	44331.3438	30.00	0.06	0.02	0.02	110	E=2.5X,C=2.5X,B=40
26	LWR	7373	H		80. 4. 1	21: 9: 0	44331.3828	0.67	0.07	0.02	0.02	110	E=210,C=250,B=32
27	SWP	8628	H		80. 4. 1	21:15: 0	44331.3867	25.00	0.14	0.02	0.02	110	E=2X,C=2X,B=38
28	LWR	7374	H		80. 4. 1	22: 7: 0	44331.4219	0.67	0.15	0.02	0.02	110	E=203,C=245,B=30
29	SWP	8629	H		80. 4. 1	22:12: 0	44331.4258	25.00	0.15	0.02	0.02	110	E=2X,C=2X,B=38
30	LWR	7375	H		80. 4. 1	23:21: 0	44331.4727	0.67	0.19	0.02	0.02	110	E=187,C=245,B=35
31	SWP	8630	H		80. 4. 1	23:26: 0	44331.4766	25.00	0.11	0.02	0.02	110	E=2X,C=2X,B=33
32	LWR	7376	H		80. 4. 2	0:17: 0	44331.5117	0.67	0.19	0.02	0.02	110	E=189,C=245,B=28
33	SWP	8631	H		80. 4. 2	0:22: 0	44331.5156	25.00	0.14	0.02	0.02	110	E=2X,C=2X,B=36
34	LWR	7377	H		80. 4. 2	1:11: 0	44331.5508	0.67	0.14	0.02	0.02	110	E=209,C=235,B=32
35	SWP	8632	H		80. 4. 2	1:14: 0	44331.5508	10.00	0.25	0.02	0.02	110	E=136,C=150,B=26
36	LWR	7616	H		80. 4.26	18:37: 0	44356.2773	1.00	0.18	0.26	0.26	110	E=241,C=2X,B=33
37	SWP	8832	H		80. 4.26	18:44: 0	44356.2813	30.00	0.16	0.26	0.26	110	E=4X,C=2X,B=24
38	LWR	7617	H		80. 4.26	19:44: 0	44356.3203	1.00	-0.15	0.26	0.26	110	E=242,C=2X,B=30
39	SWP	8833	H		80. 4.26	19:49: 0	44356.3242	30.00	0.24	0.26	0.26	110	E=4X,C=2X,B=36
40	LWR	7618	H		80. 4.26	20:50: 0	44356.3672	0.90	0.15	0.26	0.26	110	E=234,C=1.5X,B=30
41	SWP	8834	H		80. 4.26	20:55: 0	44356.3711	30.00	0.15	0.26	0.26	110	E=4X,C=2X,B=36
42	LWR	7619	H		80. 4.26	21:51: 0	44356.4102	0.90	0.16	0.26	0.26	110	E=228,C=2X,B=32
43	SWP	8835	H		80. 4.26	21:57: 0	44356.4141	30.00	0.16	0.26	0.26	110	E=4X,C=2X,B=40
44	LWR	7620	H		80. 4.26	22:55: 0	44356.4531	0.92	5.54	0.26	0.26	110	E=233,C=2X,B=33
45	SWP	8836	H		80. 4.26	22:59: 0	44356.4570	30.00	0.21	0.26	0.26	110	E=4X,C=2X,B=40
46	LWR	7621	H		80. 4.26	23:56: 0	44356.4961	0.90	0.22	0.26	0.26	110	E=222,C=2X,B=32
47	SWP	8837	H		80. 4.26	23:59: 0	44356.5000	30.00	0.22	0.26	0.26	110	E=4X,C=2X,B=40
48	LWR	7622	H		80. 4.27	0:55: 0	44356.5391	0.90	0.22	0.26	0.26	110	E=232,C=2X,B=30
49	SWP	8838	H		80. 4.27	0:59: 0	44356.5391	30.00	0.13	0.26	0.26	110	E=4X,C=2X,B=40
50	LWR	7623	H		80. 4.27	1:33: 0	44356.5664	0.90	0.18	0.26	0.26	110	E=235,C=2X,B=32
51	LWR	9695	H		81. 1.12	0:44: 0	44616.5313	1.00	0.22	0.76	0.76	112	E=246,C=1.5X,B=30
52	SWP	11028	H		81. 1.12	0:49: 0	44616.5352	60.00	0.21	0.76	0.76	112	E=10X,C=5X,B=80
53	SWP	11029	L		81. 1.12	2:13: 0	44616.5938	6.00	0.22	0.76	0.76	112	E=2-5X,C=10X,B=25
54	SWP	11030	H		81. 1.12	2:48: 0	44616.6172	10.00	0.21	0.76	0.76	112	E=127,C=160,B=27
55	SWP	11031	L	*	81. 1.12	3:22: 0	44616.6406	1.00	0.21	0.76	0.76	112	C=270,B=25
56	LWR	9696	H		81. 1.12	3:49: 0	44616.6602	1.00	0.21	0.76	0.76	112	E=234,C=1.5X,B=27
57	SWP	11032	H		81. 1.12	3:53: 0	44616.6602	60.00	0.21	0.76	0.76	112	E=4X,C=5X,B=70
58	SWP	11033	H		81. 1.12	5:17: 0	44616.7188	60.00	0.21	0.76	0.76	112	E=4X,C=5X,B=77
59	LWR	10109	H		81. 3. 9	20:29: 0	44673.3516	1.00	0.16	0.30	0.30	113	C=1.5X,B=30
60	SWP	13446	H		81. 3. 9	20:39: 0	44673.3594	60.00	0.19	0.30	0.30	113	C=4X,B=82
61	SWP	13447	H		81. 3. 9	22: 5: 0	44673.4219	10.00	0.21	0.30	0.30	113	E=143,C=145,B=33
62	LWR	10110	H		81. 3. 9	22:19: 0	44673.4297	1.00	0.20	0.30	0.30	113	C=1.5X,B=33
63	LWR	10127	H		81. 3.12	20:41: 0	44676.3633	1.00	0.21	0.33	0.33	113	E=270,C=1.5X,B=30
64	SWP	13468	H		81. 3.12	20:45: 0	44676.3633	60.00	0.19	0.33	0.33	113	E=3X,C=3X,B=53
65	LWR	10128	H		81. 3.12	21:50: 0	44676.4102	1.00	0.20	0.33	0.33	113	E=245,C=1.5-2X,B=30

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
66	SWP	13469	H		81. 3.12	22:18: 0	44676.4297	10.00	0.18	0.33	0.33	113	E=133,C=140,B=30
67	LWR	10139	H		81. 3.14	20:34: 0	44678.3555	1.00	0.20	0.35	0.35	113	E=245,C=1.5X,B=30
68	SWP	13488	H		81. 3.14	20:51: 0	44678.3672	60.00	0.20	0.35	0.35	113	E=3X,C=3X,B=45
69	LWR	10140	H		81. 3.14	22:19: 0	44678.4297	1.00	0.20	0.35	0.35	113	E=251,C=1.5X,B=32
70	SWP	13489	H		81. 3.14	22:27: 0	44678.4336	12.00	0.20	0.35	0.35	113	E=160,C=128,B=30
71	LWR	10171	H		81. 3.19	21:58: 0	44683.4141	1.00	0.19	0.40	0.40	113	E=249,C=1.5X,B=35
72	SWP	13535	H		81. 3.19	22: 7: 0	44683.4219	60.00	0.19	0.40	0.40	113	C=3X,B=80
73	SWP	13536	H		81. 3.19	23:35: 0	44683.4844	10.00	0.27	0.40	0.40	113	E=149,C=150,B=32
74	LWR	10172	H		81. 3.19	23:49: 0	44683.4922	1.00	0.12	0.40	0.40	113	E=249,C=1.5X,B=32
75	SWP	13555	L		81. 3.23	21: 3: 0	44687.3789	0.17	0.20	0.44	0.44	113	E=59,C=73,B=23
76	SWP	13556	H		81. 3.23	21:35: 0	44687.3984	4.00	0.26	0.44	0.44	113	E=39,C=83,B=28
77	SWP	13557	L	*	81. 3.23	22: 6: 0	44687.4219	0.42	0.20	0.44	0.44	113	E=116,C=145,B=25
78	SWP	13558	H		81. 3.23	22:40: 0	44687.4453	10.00	0.27	0.44	0.44	113	E=144,C=160,B=38
79	SWP	13559	L		81. 3.23	23:16: 0	44687.4688	1.00	0.20	0.44	0.44	113	E=244,C=1.5X,B=30
80	LWR	10195	H		81. 3.23	23:43: 0	44687.4883	1.00	0.19	0.44	0.44	113	E=255,C=1.5X,B=35
81	SWP	13560	H		81. 3.23	23:48: 0	44687.4922	25.00	0.19	0.44	0.44	113	E=237,C=2X,B=58
82	SWP	13561	L		81. 3.24	0:42: 0	44687.5273	2.50	0.24	0.44	0.44	113	E=3-4X,C=3-4X,B=19
83	LWR	10196	H		81. 3.24	1:10: 0	44687.5469	1.00	0.20	0.44	0.44	113	E=255,C=1.5X,B=35
84	SWP	13562	L		81. 3.24	1:23: 0	44687.5586	0.17	0.27	0.44	0.44	113	E=67,C=70,B=23
85	LWR	10211	H		81. 3.25	23:12: 0	44689.4648	1.00	0.22	0.46	0.46	113	E=249,C=2.0X,B=32
86	SWP	13578	H		81. 3.25	23:16: 0	44689.4688	50.00	0.20	0.46	0.46	113	E=254,C=3-5X,B=42
87	LWR	10212	H		81. 3.26	0:10: 0	44689.5078	1.00	0.22	0.46	0.46	113	E=255,C=1.5X,B=33
88	SWP	13579	H		81. 3.26	0:38: 0	44689.5273	10.00	0.21	0.46	0.46	113	
89	LWR	10225	H		81. 3.27	23:56: 0	44691.4961	0.83	0.20	0.48	0.48	113	E=233,C=1.5X,B=33
90	SWP	13597	H		81. 3.27	23:59: 0	44691.5000	50.00	0.20	0.48	0.48	113	E=1.5X,C=3X,B=108
91	LWR	10226	H		81. 3.28	0:52: 0	44691.5352	0.83	0.16	0.48	0.48	113	E=242,C=2X,B=35
92	SWP	13598	H		81. 3.28	1:17: 0	44691.5547	10.00	0.29	0.48	0.48	113	E=113,C=170,B=42
93	LWR	10242	H		81. 3.29	18:53: 0	44693.2852	0.83	0.22	0.49	0.49	113	E=215,C=1.5X,B=30
94	SWP	13610	H		81. 3.29	19: 0: 0	44693.2930	10.00	0.18	0.49	0.50	113	E=158,C=155,B=32
95	LWR	10243	H		81. 3.29	19:28: 0	44693.3125	0.83	5.51	0.50	0.50	113	E=215,C=1.5X,B=33
96	SWP	13611	H		81. 3.29	19:56: 0	44693.3320	50.00	0.18	0.50	0.50	113	E=255,C=3X,B=80
97	LWR	10257	H		81. 3.31	18:55: 0	44695.2891	0.83	0.21	0.51	0.51	113	E=231,C=1.5X,B=27
98	SWP	13625	H		81. 3.31	19: 1: 0	44695.2930	30.00	0.19	0.51	0.51	113	E=2X,C=2X,B=40
99	SWP	13644	H		81. 4. 2	19:22: 0	44697.3086	10.00	0.20	0.53	0.53	113	E=149,C=140,B=40
100	LWR	10270	H		81. 4. 2	19:59: 0	44697.3320	0.83	0.17	0.53	0.53	113	E=216,C=1.5X,B=30
101	SWP	13645	H		81. 4. 2	20:30: 0	44697.3555	50.00	0.18	0.53	0.53	113	E=3X,C=3X,B=67
102	LWR	10271	H		81. 4. 2	21:32: 0	44697.3984	49.00	0.19	0.53	0.53	113	E=228,C=1.5X,B=30
103	LWR	10286	H		81. 4. 4	22: 1: 0	44699.4180	0.83	0.22	0.55	0.55	113	E=226,C=270,B=30
104	SWP	13656	H		81. 4. 4	22:20: 0	44699.4297	60.00	0.21	0.55	0.55	113	E=3X,C=3X,B=63
105	LWR	10287	H		81. 4. 4	23:47: 0	44699.4922	0.83	0.22	0.55	0.55	113	E=221,C=270,B=30
106	SWP	13657	H		81. 4. 4	23:51: 0	44699.4922	10.00	0.22	0.55	0.55	113	E=145,C=140,B=30
107	SWP	13672	H		81. 4. 6	22: 4: 0	44701.4180	60.00	0.21	0.57	0.57	113	E=3X,C=3X,B=98
108	LWR	10299	H		81. 4. 6	23: 9: 0	44701.4648	1.00	0.20	0.57	0.57	113	E=243,C=300,B=32
109	SWP	13673	H		81. 4. 6	23:37: 0	44701.4844	10.00	0.18	0.57	0.57	113	E=145,C=120,B=35
110	LWR	10300	H		81. 4. 7	0: 5: 0	44701.5039	1.00	0.20	0.57	0.57	113	E=246,C=300,B=33
111	LWR	10326	H		81. 4. 9	22:17: 0	44704.4297	0.83	0.21	0.60	0.60	113	E=222,C=270,B=33
112	SWP	13691	H		81. 4. 9	22:22: 0	44704.4336	60.00	0.19	0.60	0.60	113	E=185,C=3X,B=90
113	LWR	10327	H		81. 4. 9	23:26: 0	44704.4766	0.83	0.22	0.60	0.60	113	E=211,C=270,B=33
114	SWP	13692	H		81. 4. 9	23:53: 0	44704.4961	10.00	0.19	0.60	0.60	113	E=160,C=150,B=33
115	LWR	10337	H		81. 4.11	22: 0: 0	44706.4180	0.83	0.23	0.62	0.62	113	E=241,C=270,B=31
116	SWP	13700	H		81. 4.11	22: 6: 0	44706.4219	30.00	0.23	0.62	0.62	113	E=224,C=300,B=36
117	LWR	10338	H		81. 4.11	22:40: 0	44706.4453	0.83	0.21	0.62	0.62	113	E=218,C=270,B=31
118	LWR	10360	H		81. 4.15	21: 9: 0	44710.3828	0.82	0.22	0.66	0.66	113	E=213,C=1.2X,B=30
119	SWP	13721	H		81. 4.15	21:15: 0	44710.3867	60.00	0.20	0.66	0.66	113	E=162,C=3X,B=40
120	SWP	13722	H		81. 4.15	22:41: 0	44710.4453	10.00	0.21	0.66	0.66	113	E=68,C=150,B=30
121	LWR	10361	H		81. 4.15	22:55: 0	44710.4531	0.82	0.21	0.66	0.66	113	E=191,C=1.2X,B=30
122	SWP	13741	H		81. 4.17	20:29: 0	44712.3516	60.00	0.21	0.68	0.68	113	C=2-3X,B=75
123	LWR	10375	H		81. 4.17	21:33: 0	44712.3984	0.82	0.22	0.68	0.68	113	E=224,C=1.2X,B=29
124	SWP	13742	H		81. 4.17	22: 3: 0	44712.4180	10.00	0.22	0.68	0.68	113	E=133,C=95,B=30
125	LWR	10376	H		81. 4.17	22:32: 0	44712.4375	0.82	0.21	0.68	0.68	113	E=221,C=1.2X,B=30
126	LWR	10387	H		81. 4.19	22:40: 0	44714.4453	0.82	0.25	0.70	0.70	113	E=232,C=1.2X,B=30
127	SWP	13756	H		81. 4.19	22:53: 0	44714.4531	60.00	0.19	0.70	0.70	113	E=158,C=3X,B=72
128	LWR	10388	H		81. 4.20	0:19: 0	44714.5117	0.82	0.26	0.70	0.70	113	E=222,C=1.2X,B=31
129	SWP	13757	H		81. 4.20	0:24: 0	44714.5156	10.00	0.29	0.70	0.70	113	E=131,C=100,B=26
130	LWR	10407	H		81. 4.21	20:53: 0	44716.3711	0.82	0.21	0.72	0.72	113	E=232,C=270,B=32

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
131	SWP	13773	H		81. 4.21	20:59: 0	44716.3750	60.00	0.21	0.72	0.72	113	E=173,C=3X,B=81
132	LWR	10408	H		81. 4.21	22: 4: 0	44716.4180	0.82	0.24	0.72	0.72	113	E=218,C=270,B=34
133	SWP	13774	H		81. 4.21	22:33: 0	44716.4414	10.00	0.26	0.72	0.72	113	E=105,C=155,B=37
134	LWR	10424	H		81. 4.23	23:30: 0	44718.4805	0.82	0.21	0.74	0.74	113	E=218,C=270,B=33
135	SWP	13791	H		81. 4.23	23:37: 0	44718.4844	60.00	0.21	0.74	0.74	113	E=193,C=3-5X,B=133
136	LWR	10425	H	*	81. 4.24	0:43: 0	44718.5313	0.82	0.23	0.74	0.74	113	E=220,C=270,B=28
137	SWP	13792	H		81. 4.24	1:13: 0	44718.5508	10.00	0.23	0.74	0.74	113	E=155,C=144,B=30
138	SWP	13808	H		81. 4.26	0:47: 0	44720.5313	30.00	0.24	0.76	0.76	113	E=2X,C=2X,B=44
139	LWR	10446	H		81. 4.26	1:22: 0	44720.5586	0.82	0.28	0.76	0.76	113	E=203,C=270,B=32
140	SWP	13820	L		81. 4.27	21: 7: 0	44722.3789	0.40	0.23	0.77	0.77	113	E=44,C=122,B=17
141	SWP	13821	H		81. 4.27	21:37: 0	44722.4023	10.00	0.23	0.77	0.77	113	E=135,C=155,B=40
142	SWP	13822	L	*	81. 4.27	22:13: 0	44722.4258	1.00	0.28	0.77	0.77	113	E=83,C=245,B=18
143	LWR	10458	H		81. 4.27	22:41: 0	44722.4453	0.82	0.26	0.77	0.78	113	E=218,C=290,B=28
144	SWP	13823	H		81. 4.27	22:48: 0	44722.4492	25.00	0.24	0.77	0.78	113	E=127,C=1.5X,B=72
145	SWP	13824	L		81. 4.27	23:43: 0	44722.4883	2.50	0.24	0.78	0.78	113	E=163,C=2X,B=18
146	LWR	10459	H		81. 4.27	23:50: 0	44722.4922	0.82	0.23	0.78	0.78	113	E=230,C=290,B=32
147	SWP	13825	H		81. 4.28	0:19: 0	44722.5117	60.00	0.21	0.78	0.78	113	E=168,C=2-3X,B=70
148	LWR	10472	H		81. 4.29	18:47: 0	44724.2813	0.82	0.23	0.79	0.79	113	E=229,C=1.5X,B=27
149	SWP	13842	H		81. 4.29	18:53: 0	44724.2852	40.00	0.22	0.79	0.79	113	E=2X,C=2X,B=80
150	LWR	10473	H		81. 4.29	19:37: 0	44724.3164	0.82	0.25	0.79	0.79	113	E=224,C=1.5X,B=30
151	SWP	13843	H		81. 4.29	20: 4: 0	44724.3359	10.00	0.22	0.79	0.79	113	E=146,C=140,B=33
152	SWP	18779	H		82.12.12	6:59: 0	45315.7891	15.00	0.29	0.48	0.48	119	E=188,C=140,B=38
153	SWP	18781	H		82.12.12	8:22: 0	45315.8477	80.00	0.26	0.48	0.48	119	E=4X,C=2-3X,B=65
154	SWP	18786	H		82.12.13	6:42: 0	45316.7773	22.50	0.24	0.49	0.49	119	E=101,C=1.5X,B=59
155	SWP	18788	H		82.12.13	8:12: 0	45316.8398	97.00	0.26	0.49	0.49	119	E=3X,C=3X,B=108
156	SWP	18792	H		82.12.14	6: 3: 0	45317.7539	22.50	0.24	0.50	0.50	119	E=254,C=1.1X,B=50
157	SWP	18794	H		82.12.14	7:32: 0	45317.8125	137.00	0.25	0.50	0.50	119	E=1.2X,C=5X,B=160
158	SWP	18799	H		82.12.15	6:30: 0	45318.7695	22.50	0.13	0.51	0.51	119	E=240,C=255,B=42
159	SWP	18801	H		82.12.15	8: 1: 0	45318.8359	108.00	0.26	0.51	0.51	119	E=199,C=5X,B=57
160	SWP	18803	H		82.12.16	6:35: 0	45319.7734	22.50	0.21	0.52	0.52	119	E=242,C=255,B=42
161	SWP	18805	H		82.12.16	8: 4: 0	45319.8359	106.00	0.23	0.52	0.52	119	E=241,C=5X,B=50
162	SWP	18810	H		82.12.17	5:55: 0	45320.7461	22.50	0.23	0.53	0.53	119	E=242,C=1.5X,B=40
163	SWP	18812	H		82.12.17	7:21: 0	45320.8047	148.00	0.21	0.53	0.53	119	E=1.5X,C=5X,B=105
164	LWR	15688	L		83. 4. 9	17:11: 0	45434.2148	20.00	9.96	0.62	0.62	120	E=87,B=40
165	SWP	19686	L		83. 4. 9	17:41: 0	45434.2383	30.00	10.02	0.62	0.62	120	E=114,B=99
166	LWR	16734	L		83. 9. 4	22: 3: 0	45582.4180	75.00	10.08	0.04	0.04	122	E=132,C=72,B=32
167	SWP	20926	L		83. 9. 4	23:25: 0	45582.4766	320.00	10.01	0.04	0.04	122	B=70
168	LWR	16901	H		83. 9.30	12: 0: 0	45608.0000	3.00	0.28	0.29	0.29	122	E=3X,C=3X,B=55
169	SWP	21200	H		83. 9.30	12: 9: 0	45608.0078	15.00	0.28	0.29	0.29	122	E=250,C=30X,B=140
170	SWP	21201	H		83. 9.30	13: 8: 0	45608.0469	60.00	0.22	0.29	0.29	122	E=3-4X,C=3-4X,B=160
171	LWP	7108	H		85.11.15	20:25: 0	46385.3516	1.50	0.23	0.76	0.76	129	E=3X,C=3X,B=52
172	SWP	27119	H		85.11.15	20:32: 0	46385.3555	90.00	0.23	0.76	0.76	129	E=3X,C=3X,B=72
173	LWP	7109	H		85.11.15	22:10: 0	46385.4219	1.50	0.30	0.76	0.76	129	E=3X,C=3X,B=48
174	SWP	27120	H		85.11.15	23:26: 0	46385.4766	90.00	0.27	0.76	0.76	129	E=3X,C=3X,B=94
175	SWP	27124	H		85.11.16	8:53: 0	46385.8711	15.00	0.22	0.77	0.77	129	E=210,C=198,B=57
176	LWP	7455	H		86. 1. 4	16:51: 0	46435.2031	1.50	0.33	0.24	0.24	130	E=1.5X,C=2X,B=46
177	SWP	27445	H		86. 1. 4	17: 3: 0	46435.2109	90.00	0.23	0.24	0.24	130	E=5X,C=5X,B=93
178	LWP	7456	H		86. 1. 4	19:15: 0	46435.3008	1.50	0.26	0.24	0.24	130	E=2X,C=3X,B=48
179	SWP	27446	H		86. 1. 4	19:26: 0	46435.3086	90.00	0.26	0.24	0.24	130	E=6X,C=10X,B=160
180	SWP	27450	L	*	86. 1. 5	4:21: 0	46435.6797	1.00	0.26	0.24	0.25	130	E=239,C=230,B=36
181	SWP	27451	L		86. 1. 5	5: 3: 0	46435.7109	1.33	0.24	0.25	0.25	130	E=1.5X,C=1.5X,B=110
182	SWP	27452	H		86. 1. 5	5:52: 0	46435.7461	15.00	0.22	0.25	0.25	130	E=226,C=200,B=105
183	SWP	27681	L		86. 2. 8	3:26: 0	46469.6445	10.00	0.29	0.57	0.57	130	E=245,C=5X,B=78
184	SWP	27696	L		86. 2.10	0:50: 0	46471.5352	3.33	0.34	0.59	0.59	130	E=235,C=5X,B=75
185	SWP	27700	L		86. 2.12	1:34: 0	46473.5664	10.00	0.27	0.61	0.61	130	E=223,C=5X,B=73
186	SWP	27701	L		86. 2.12	2:26: 0	46473.6016	10.00	0.24	0.61	0.61	130	E=242,C=5X,B=80
187	SWP	27706	L		86. 2.12	22:35: 0	46474.4414	10.00	0.28	0.62	0.62	130	E=237,C=5X,B=83
188	SWP	27711	L		86. 2.13	22:45: 0	46475.4492	10.00	0.26	0.63	0.63	130	E=252,C=5X,B=49
189	SWP	27718	L		86. 2.15	1:43: 0	46476.5703	10.00	0.27	0.64	0.64	130	E=230,C=5X,B=51
190	SWP	27725	L		86. 2.15	20:29: 0	46477.3516	10.00	0.26	0.65	0.65	130	E=1.1X,C=5X,B=47
191	SWP	27729	L		86. 2.16	19:50: 0	46478.3281	10.00	0.26	0.65	0.66	130	E=1.3X,C=5X,B=80
192	SWP	27735	L		86. 2.17	23:49: 0	46479.4922	10.00	0.26	0.67	0.67	130	E=247,C=5X,B=58
193	SWP	27755	L		86. 2.20	20:33: 0	46482.3555	10.00	0.26	0.69	0.69	130	E=234,C=5X,B=80
194	SWP	27756	L		86. 2.20	21:27: 0	46482.3945	10.00	0.25	0.69	0.69	130	E=255,C=5X,B=88
195	SWP	27769	L		86. 2.21	23:36: 0	46483.4844	10.00	0.32	0.70	0.70	130	E=252,C=5X,B=75

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
196	SWP	27787	L		86. 2.24	23:26: 0	46486.4766	10.00	0.34	0.73	0.73	130	E=230,C=5X,B=70
197	SWP	27802	L		86. 2.26	23:31: 0	46488.4805	10.00	0.35	0.75	0.75	130	E=2X,C=5X,B=73
198	SWP	27807	L		86. 2.27	19:49: 0	46489.3242	10.00	0.32	0.76	0.76	130	E=2.5X,C=5X,B=81
199	SWP	27813	L		86. 2.28	19:37: 0	46490.3164	10.00	0.37	0.77	0.77	130	E=3X,C=5X,B=80
200	SWP	27835	L		86. 3. 3	19:40: 0	46493.3203	10.00	0.32	0.808	0.80	130	E=2X,C=5X,B=80
201	SWP	27844	L		86. 3. 4	19:36: 0	46494.3164	10.00	0.33	0.81	0.81	130	E=1.2X,C=5X,B=90
202	SWP	27855	L		86. 3. 5	23:33: 0	46495.4805	10.00	0.38	0.82	0.82	130	E=3X,C=5X,B=76
203	SWP	27860	L		86. 3. 6	23: 9: 0	46496.4648	10.00	0.27	0.83	0.83	130	E=252,C=5X,B=75
204	SWP	28058	H		86. 3.30	19:41: 0	46520.3203	35.02	0.34	0.06	0.06	131	E=5X,C=5X,B=90
205	SWP	28059	L		86. 3.30	20:52: 0	46520.3711	3.90	0.36	0.06	0.06	131	E=5X,C=5X,B=80
206	SWP	28060	L		86. 3.30	21:49: 0	46520.4102	3.55	0.20	0.06	0.06	131	E=5X,C=5X,B=81
207	SWP	28061	L		86. 3.30	22:42: 0	46520.4453	3.25	0.27	0.06	0.06	131	E=5X,C=5X,B=80
208	SWP	28062	L		86. 3.30	23:32: 0	46520.4805	3.25	0.20	0.06	0.06	131	E=5X,C=5X,B=70
209	SWP	28063	H		86. 3.31	0:26: 0	46520.5195	35.03	0.27	0.06	0.06	131	E=5X,C=1.5X,B=93
210	SWP	28064	H		86. 3.31	1:38: 0	46520.5664	35.05	0.25	0.06	0.06	131	E=5X,C=1.5X,B=85
211	SWP	34480	L		88.10.16	5:40: 0	47450.7344	1.00	0.42	0.00	0.00	140	E=179,C=161,B=25
212	SWP	34481	L		88.10.16	6:39: 0	47450.7773	1.33		0.00	0.00	140	E=247,C=1.5X,B=25
213	SWP	34482	L		88.10.16	7:23: 0	47450.8086	1.33		0.00	0.00	140	E=219,C=1.5X,B=28
214	LWP	14425	H		88.11. 9	19:30: 0	47475.3125	2.00	0.41	0.24	0.24	140	E=4X,C=6X,B=51
215	SWP	34713	H		88.11. 9	19:50: 0	47475.3281	200.00	0.41	0.24	0.24	140	E=239,C=6X,B=105
216	LWP	14426	H		88.11. 9	23:49: 0	47475.4922	1.67	0.31	0.24	0.24	140	E=238,C=5X,B=45
217	SWP	34714	H		88.11.10	0: 6: 0	47475.5039	200.00	0.32	0.24	0.24	140	E=245,C=6X,B=160
218	LWP	14427	H		88.11.10	3:45: 0	47475.6563	6.00	0.39	0.24	0.24	140	E=2X,C=18X,B=85
219	SWP	34715	H		88.11.10	4:38: 0	47475.6914	30.00	0.26	0.24	0.24	140	E=225,C=200,B=43
220	SWP	34716	H		88.11.10	5:50: 0	47475.7422	30.00	0.31	0.24	0.24	140	E=91,C=210,B=48
221	SWP	34717	H		88.11.10	7:12: 0	47475.8008	30.00	0.27	0.24	0.24	140	E=237,C=1.5X,B=84
222	SWP	34718	H		88.11.10	8:21: 0	47475.8477	30.00	0.31	0.24	0.24	140	E=223,C=1.5X,B=55
223	SWP	34719	H		88.11.10	9:30: 0	47475.8945	60.00	0.40	0.25	0.25	140	E=2X,C=3X,B=68
224	SWP	35265	H		89. 1. 5	23:35: 0	47532.4844	30.00	0.22	0.79	0.79	140	E=1.5X,C=148,B=41
225	SWP	35266	H		89. 1. 6	0:49: 0	47532.5352	30.00	0.29	0.79	0.79	140	E=197,C=153,B=40
226	SWP	35267	L		89. 1. 6	2: 2: 0	47532.5859	3.25	0.30	0.79	0.79	140	E=240,C=2X,B=17
227	SWP	35268	L		89. 1. 6	2:48: 0	47532.6172	3.25	0.31	0.79	0.79	140	E=248,C=2X,B=16
228	SWP	35269	H		89. 1. 6	3:39: 0	47532.6523	60.00	0.37	0.79	0.79	140	E=2X,C=2X,B=67
229	SWP	35270	L		89. 1. 6	5:20: 0	47532.7227	3.25	0.33	0.79	0.79	140	E=248,C=2X,B=16
230	SWP	35271	H		89. 1. 6	6:17: 0	47532.7617	28.00	0.32	0.79	0.79	140	E=210,C=178,B=42
231	LWP	14778	H		89. 1. 6	15:56: 0	47533.1641	1.67	0.20	0.80	0.80	140	E=242,C=2X,B=42
232	SWP	35276	H		89. 1. 6	18:23: 0	47533.2656	200.00	0.20	0.80	0.80	140	E=1.5X,C=8X,B=135
233	LWP	14779	H		89. 1. 6	20:38: 0	47533.3594	1.67	0.30	0.80	0.80	140	E=230,C=2X,B=45
234	SWP	35277	H		89. 1. 6	20:53: 0	47533.3711	200.00	0.30	0.80	0.80	140	E=10X,C=10X,B=110
235	LWP	14780	H		89. 1. 6	22:48: 0	47533.4492	6.00	0.39	0.80	0.80	140	E=7X,C=7X,B=80
236	SWP	35278	L		89. 1. 7	1:11: 0	47533.5508	10.00	0.33	0.80	0.80	140	E=3X,C=3X,B=18
237	SWP	35279	L		89. 1. 7	2: 6: 0	47533.5859	10.00	0.32	0.80	0.80	140	E=3X,C=3X,B=18
238	SWP	35605	H		89. 2.21	22:28: 0	47579.4375	60.00	0.18	0.24	0.24	141	E=2X,C=3X,B=65
239	SWP	35609	H		89. 2.22	22:31: 0	47580.4375	60.00	0.33	0.25	0.25	141	E=3X,C=3X,B=72
240	SWP	37544	L		89.11.10	6:13: 0	47840.7578	10.00	0.32	0.75	0.75	143	E=196,C=5X,B=18
241	SWP	38111	L		90. 2. 2	2:21: 0	47924.5977	3.33	0.07	0.56	0.56	144	E=206,C=5X,B=18
242	SWP	39570	L	*	90. 9. 2	11:29: 0	48136.9766	1.00	0.18	0.60	0.60	146	E=86,C=237,B=20
243	LWP	19551	H		91. 1.12	3:49: 0	48268.6602	0.50	0.15	0.87	0.87	147	E=137,C=210,B=38
244	SWP	40567	H		91. 1.12	4: 2: 0	48268.6680	14.50	0.15	0.87	0.87	147	E=146,C=155,B=30


α Aur – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

SS Boo

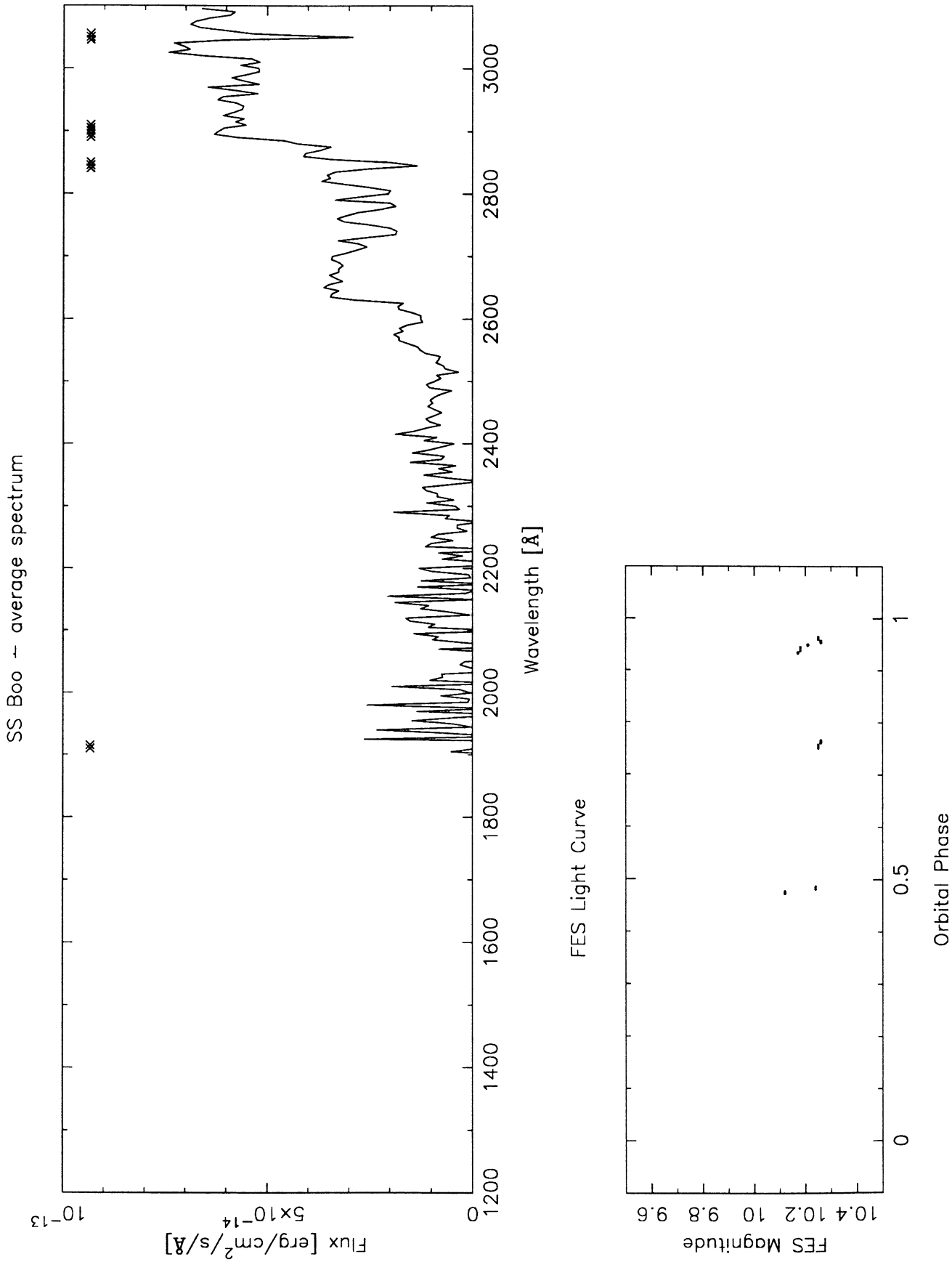
alternative names:	BD+39 2849
coordinates (2000.0):	$15^h13^m32.9^s$, $38°34'03''$
linear ephemeris:	
Min I = HJD 2444332.0335 + 7.606133 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	0.97/0.97
radii [$R_\odot$]:	1.31/3.28
spectral type:	G0V/K0IV
distance [pc]:	220
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.20
x-ray luminosity [10^{31} erg/s]:	0.21
Mg II index:	[0.604]
Ca II index:	strong, cool
$H\alpha$ emission:	emission, both
radio flux density [mJy]:	<0.18
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.81 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.73 10^{-14}
U-B:	-0.02/0.62
B-V:	0.61/0.96
V:	10.24
V-R:	
R-I:	
b-y:	0.526
m_1:	0.199
c_1:	0.288
β:	2.561
IRAS [12]:	
IRAS [25]:	

additional references:

Popper D.M.: 1990, *Astron. J.* **100**, 247, *Orbits of close binaries with Ca II H and K in emission. III. Eleven more systems*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	20598	L		91. 6.14	17:47: 0	48422.2422	75.00	10.25	0.75	0.76	537	E=239,C=1.5X,B=60
2	LWP	20599	L	*	91. 6.14	19:36: 0	48422.3164	60.00	10.26	0.76	0.77	537	E=193,C=1.5X,B=40
3	LWP	20820	L		91. 7.16	13: 9: 0	48454.0469	20.00	10.17	0.93	0.94	541	C=221,B=155
4	LWP	20821	L		91. 7.16	14: 2: 0	48454.0859	20.00	10.18	0.94	0.94	541	C=248,B=185
5	LWP	20822	L		91. 7.16	14:57: 0	48454.1211	20.00	10.18	0.94	0.95	541	C=254,B=186
6	LWP	20823	L		91. 7.16	15:49: 0	48454.1602	30.00	10.21	0.95	0.95	541	E=210,C=223,B=105
7	LWP	20824	L		91. 7.16	16:52: 0	48454.2031	40.00	10.26	0.95	0.97	541	E=157,C=205,B=41
8	LWP	20825	L	*	91. 7.16	18: 5: 0	48454.2539	45.00	10.25	0.96	0.96	541	E=167,C=220,B=41
9	LWP	20851	L		91. 7.20	15:40: 0	48458.1523	55.00	10.12	0.47	0.48	542	C=1.5X,B=45
10	LWP	20852	L		91. 7.20	17:22: 0	48458.2227	55.00	10.24	0.48	0.49	542	C=245,B=40


SS Boo - average spectrum
Flux [erg/cm²/s/Å]
10⁻¹³
5x10⁻¹⁴
0
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
10.4
10.2
10
9.8
9.6
0
0.5
1
Orbital Phase

SS Cam

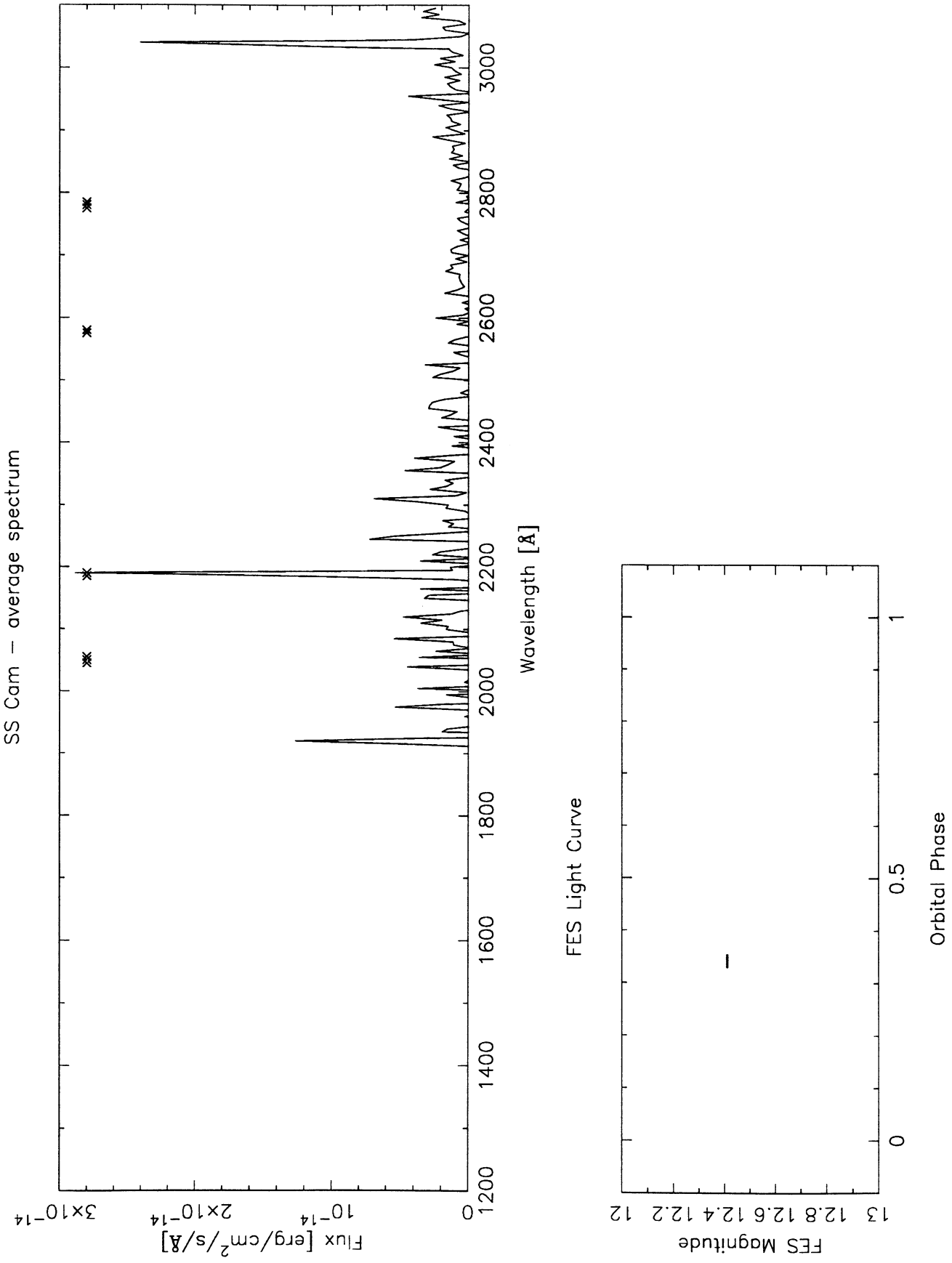
alternative names:	-
coordinates (2000.0):	$07^h16^m24.8^s$, $73°19'57''$
linear ephemeris:	
Min I = HJD 2435223.660 + 4.824246 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.75/1.83
radii [$R_\odot$]:	2.2/6.4
spectral type:	F5V-IV/K0IV-III
distance [pc]:	255
activity parameters:	
P_{phot} [days]:	4.823
ΔV [mag]:	0.13
x-ray luminosity [10^{31} erg/s]:	0.30
Mg II index:	[0.270]
Ca II index:	cool
$H\alpha$ emission:	
radio flux density [mJy]:	<0.4
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.38\ 10^{-16}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.27\ 10^{-15}$
U-B:	
B-V:	0.48/1.04
V:	10.1
V-R:	
R-I:	
b-y:	0.511
m_1:	0.267
c_1:	0.324
β:	2.615
IRAS [12]:	
IRAS [25]:	

additional references:

Popper D.M.: 1990, *Astron. J.* **100**, 247, *Orbits of close binaries with Ca II H and K in emission. III. Eleven more systems*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	13745	L	*	82. 7.22	7:45: 0	45172.8242	150.00	12.41	0.33	0.35	480	C=50,B=45


SS Cam – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

SV Cam

alternative names:	HD 44982, SAO 1038, BD+82 174
coordinates (2000.0):	$06^h41^m18.7^s$, $82°16'02''$
linear ephemeris:	
Min I = HJD 2434988.483 + 0.593071 E, variable	
system parameters:	
type of binary:	EBT, SB1
eccentricity:	0.0
masses [$M_\odot$]:	0.93/0.67
radii [$R_\odot$]:	1.11/0.74
spectral type:	G2-3V/K4V
distance [pc]:	74
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.1
x-ray luminosity [10^{31} erg/s]:	0.16
Mg II index:	[0.719]
Ca II index:	weak, cool
$H\alpha$ emission:	absorption, flares
radio flux density [mJy]:	<0.40
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	≈0.0
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.58\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.02\ 10^{-13}$
U-B:	0.46
B-V:	0.72
V:	8.4
V-R:	
R-I:	
b-y:	0.440
m_1:	0.210
c_1:	0.343
β:	2.579
IRAS [12]:	
IRAS [25]:	

additional references:

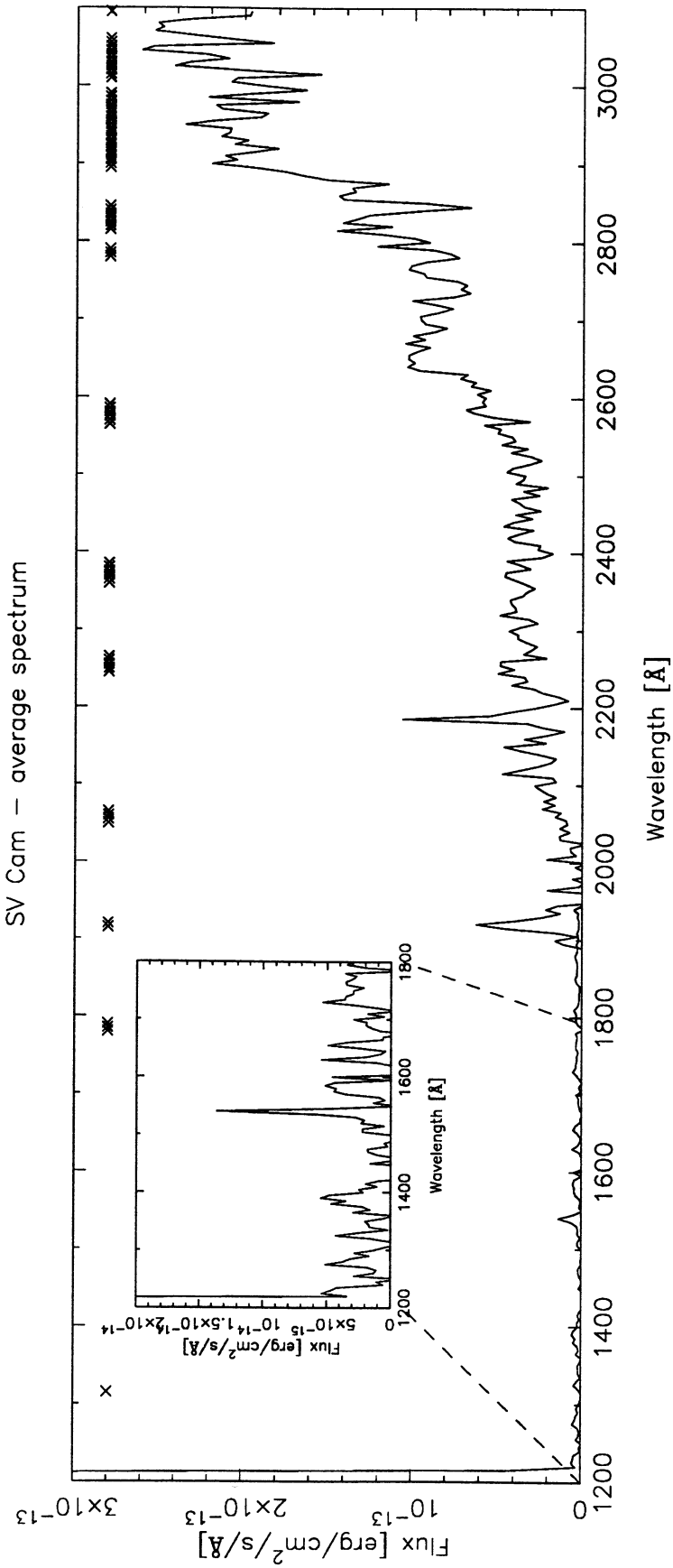
Rainger P.P., Hilditch R.W. and Edwin R.P.: 1991, *Mon. Not. R. Astron. Soc.* **248**, 168, *Spectroscopic observations of the RS CVn-type binary systems SV Cam and XY UMa*

Sarma C.V.S.R., Vivekananda Rao P. and Sarma M.B.K.: 1991, *J. Astrophys. Astron.* **12**, 49, *A study of the distortion wave in the RS CVn eclipsing binary SV Camelopardalis*

Sarma C.V.S.R., Sarma M.B.K. and Sanwal N.B.: 1989, *J. Astrophys. Astron.* **10**, 307-346, *Orbital elements of the RS CVn eclipsing binary, SV Camelopardalis*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	8282	L	*	80. 7.18	3: 8: 0	44438.6289	40.00	9.11	0.28	0.33	15934	654
2	SWP	30334	L	*	87. 2.18	14:34: 0	46845.1055	245.00	9.63	0.94	0.23	19991	E=100,C=96,B=59
3	SWP	39634	L	*	90. 9.14	5:18: 0	48148.7227	100.00	9.77	0.03	0.15	22190	B=14

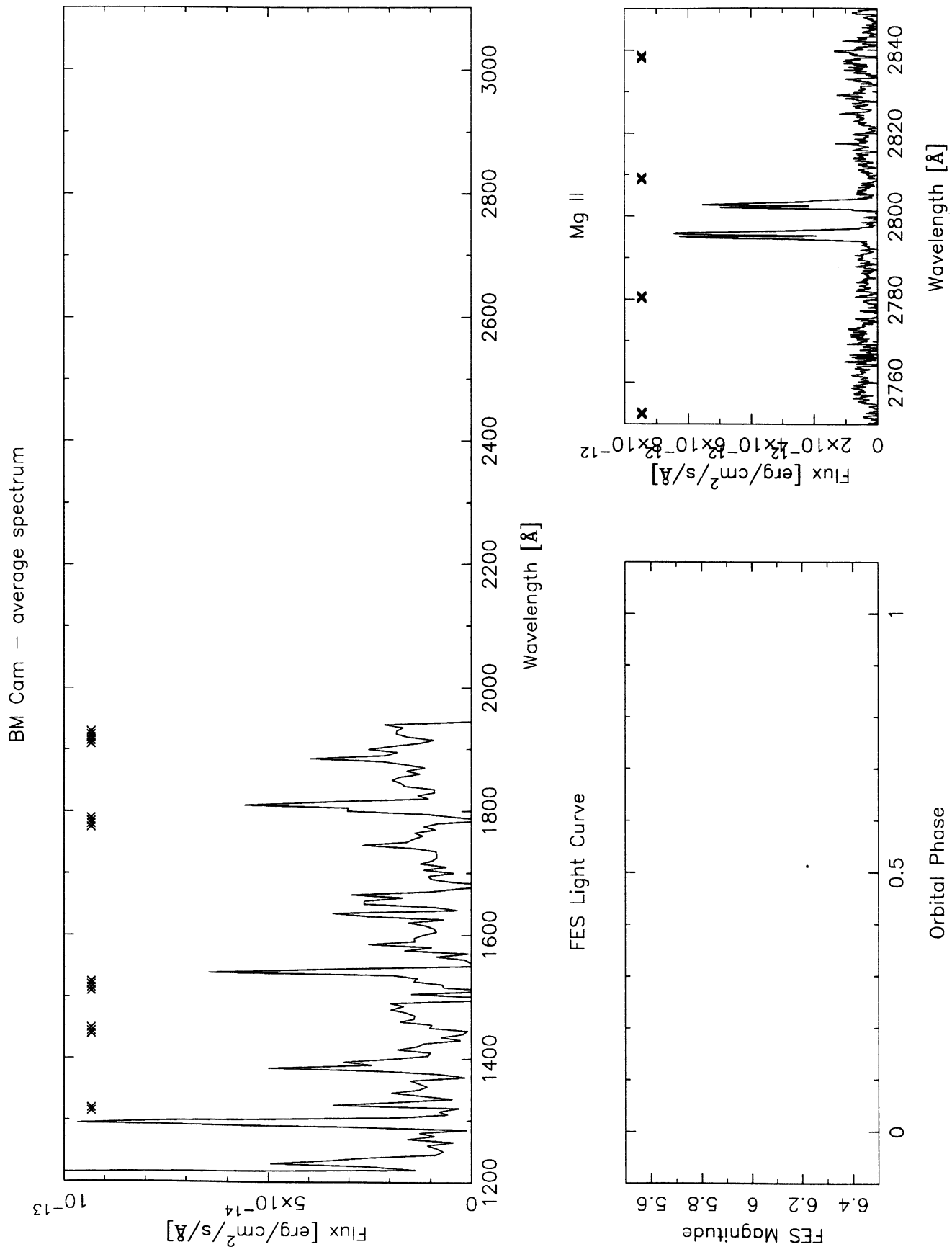

SV Cam – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

BM Cam

alternative names:	HD 32357, SAO 25003, 12 Cam, HR 1623, BD+58 805
coordinates (2000.0):	$05^h06^m12.2^s$, $59°01'17''$
linear ephemeris:	
Min I p = HJD 2448110.784 + 80.895 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.054
radii [$R_\odot$]:	$\geq$16
spectral type:	K0III
distance [pc]:	134
activity parameters:	
P_{phot} [days]:	85.
ΔV [mag]:	0.20
x-ray luminosity [10^{31} erg/s]:	0.5-1.9
Mg II index:	1.436
Ca II index:	yes
$H\alpha$ emission:	absorption, variable
radio flux density [mJy]:	0.2-2.0
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.07\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$2.81\ 10^{-13}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$7.86\ 10^{-13}$]
U-B:	
B-V:	1.12
V:	6.10
V-R:	
R-I:	
b-y:	0.706
m_1:	0.437
c_1:	0.287
β:	2.562
IRAS [12]:	$\approx$0
IRAS [25]:	$\approx$0

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	8184	L	*	80. 3. 7	4:24: 0	44305.6836	160.00	6.01	0.96	0.96	-47	252
2	SWP	15000	L	*	81. 9.15	12:56: 0	44863.0391	60.00	6.07	0.85	0.85	-40	E=163,C=100,B=80
3	LWR	11557	H	*	81. 9.15	14: 2: 0	44863.0859	30.00	6.07	0.85	0.85	-40	E=155,C=110,B=40
4	LWP	9693	H		86.12.12	12:58:39	46777.0391	35.00	6.22	0.51	0.51	-16	352


BM Cam – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

RZ Cnc

alternative names:	HD 73343, SAO 60954, BD+32 1772
coordinates (2000.0):	$08^h39^m08.6^s$, $31°47'45''$
linear ephemeris:	
Min I = HJD 2418702.498 + 21.64303 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	3.20/0.54
radii [$R_\odot$]:	10.2/12.2
spectral type:	K1III/K3-4III
distance [pc]:	395
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.05
x-ray luminosity [10^{31} erg/s]:	1.06
Mg II index:	[1.648]
Ca II index:	hot
$H\alpha$ emission:	absorption
radio flux density [mJy]:	<0.27
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	6.65 10^{-16}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.70 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.41 10^{-14}
U-B:	
B-V:	1.18
V:	8.69
V-R:	
R-I:	
b-y:	0.759
m_1:	0.519
c_1:	0.226
β:	2.572
IRAS [12]:	
IRAS [25]:	

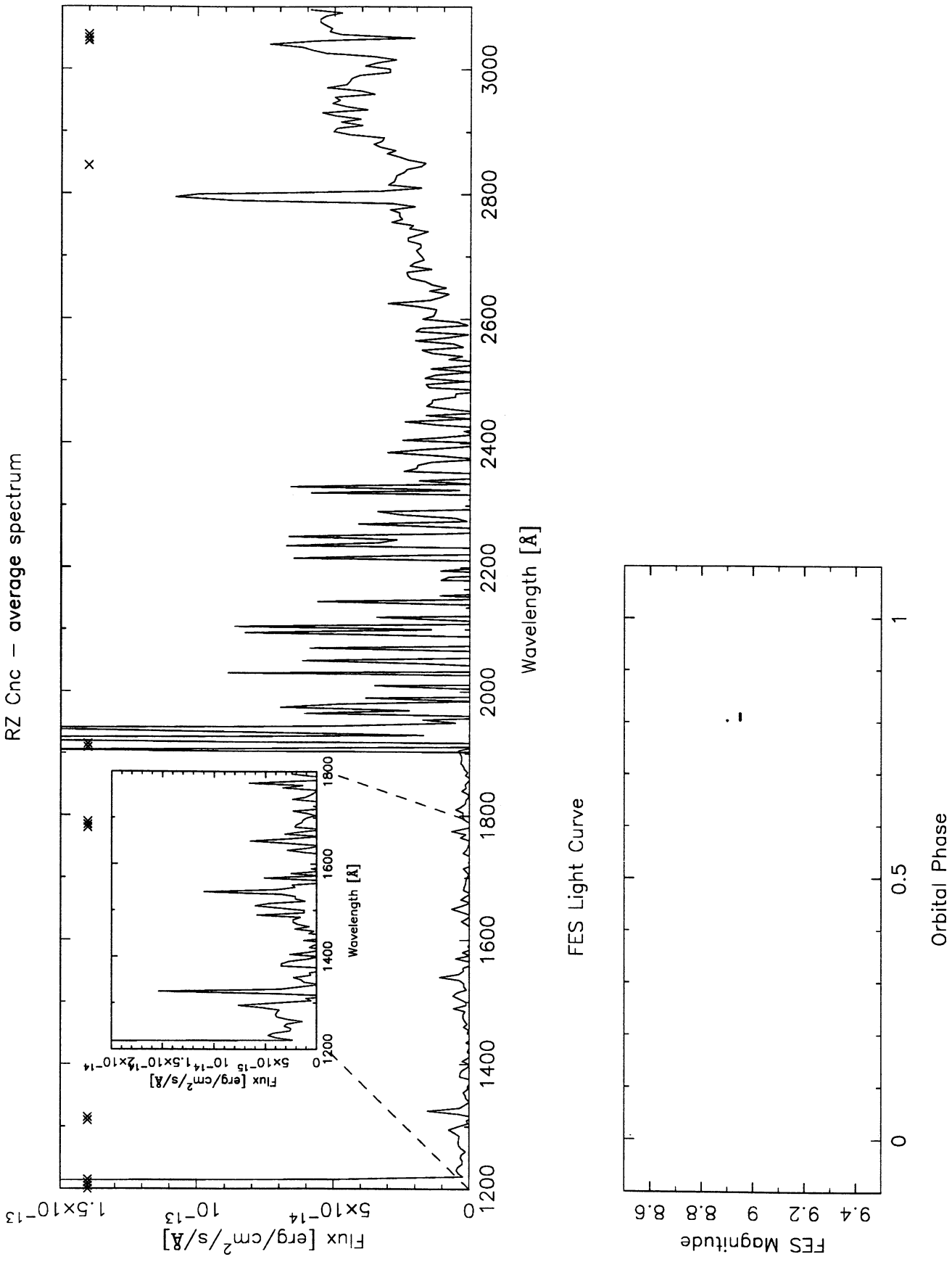
additional references:

Popper D.M.: 1991, *Astron. J.* **101**, 220, *Orbits of close binaries with Ca II H and K in emission. IV. Three systems with mass ratios far from unity*

Olson E.C.: 1989, *Astron. J.* **98**, 1002-1013, *Photometry of long-period Algol binaries. VI. Multicolor photometric solutions for RZ Cancri*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	9633	L	*	86.12. 4	17:48: 0	46769.2422	12.00	8.90	0.80	0.80	1296	E=164,C=83,B=38
2	SWP	29806	L	*	86.12. 4	18: 6: 0	46769.2539	405.00	8.95	0.80	0.82	1296	E=139,C=112,B=85


RZ Cnc – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

WY Cnc

alternative names:	BD+27 1706
coordinates (2000.0):	$09^h00^m57.8^s$, $26°40'48''$
linear ephemeris:	
Min I = HJD 2426352.3895 + 0.8293712 E, variable	
system parameters:	
type of binary:	EBP, SB1
eccentricity:	0.0
masses [$M_\odot$]:	0.93/0.53
radii [$R_\odot$]:	1/0.66
spectral type:	G5V/
distance [pc]:	160
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.02
x-ray luminosity [10^{31} erg/s]:	<0.02
Mg II index:	[0.687]
Ca II index:	hot
$H\alpha$ emission:	
radio flux density [mJy]:	0.46
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.64\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.18\ 10^{-13}$
U-B:	
B-V:	0.61
V:	9.39
V-R:	
R-I:	
b-y:	0.448
m_1:	0.232
c_1:	0.278
β:	2.572
IRAS [12]:	
IRAS [25]:	

additional references:

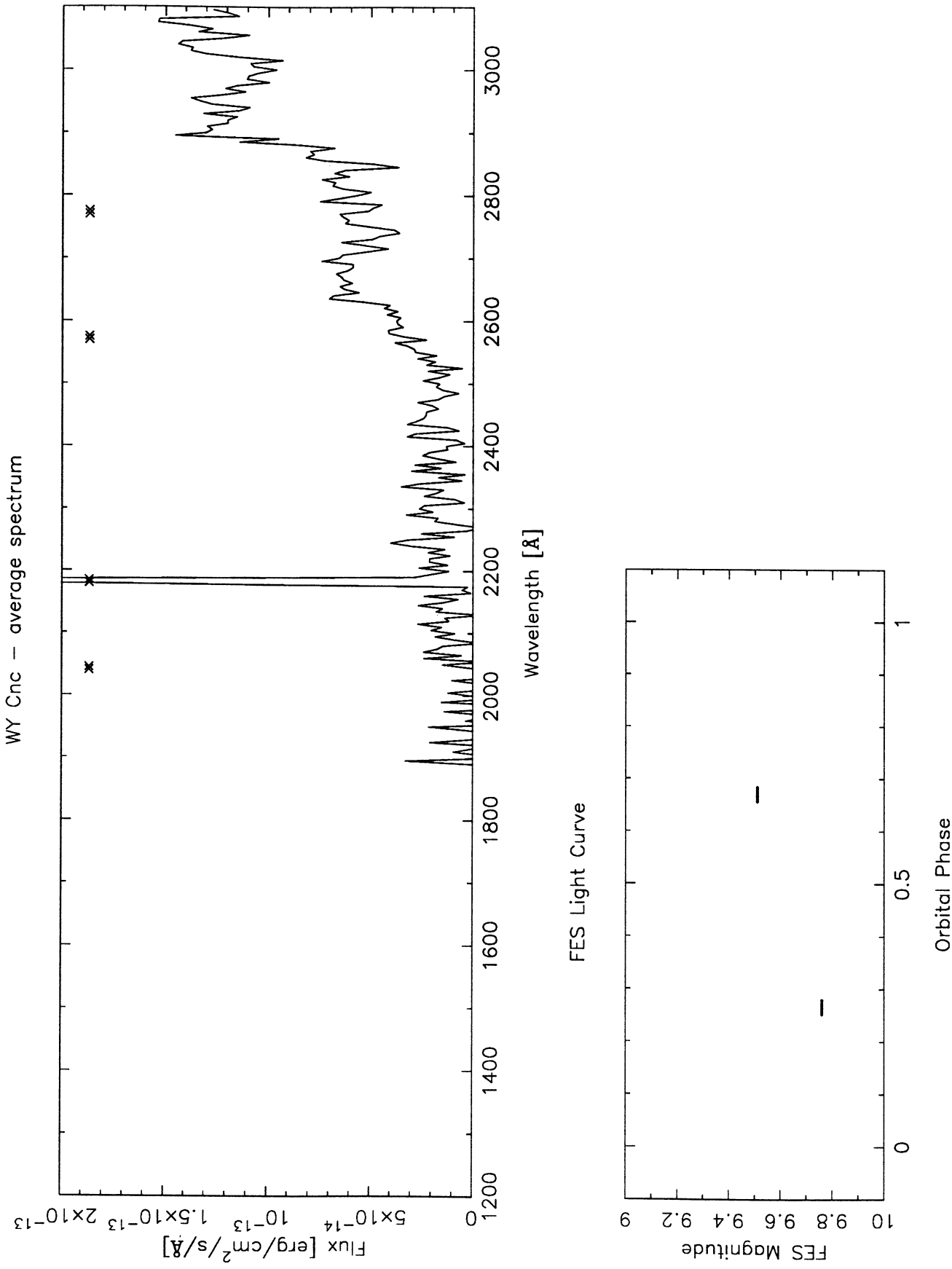
Vivekananda RAO P., Sarma M.B.K. and Prakash Rao B.V.N.S.: 1991, *J. Astrophys. Astron.* **12**, 225, *Spot modelling and elements of the RS CVn eclipsing binary WY Cancri*

Arevalo M.J. and Lazaro C.: 1990, *Astron. J.* **99**, 983-994, *Infrared photometry of the RS CVn short-period systems : XY UMa and WYCnc*

Zeilik M., Cox D.A., Ledlow M.J., Rhodes M., Heckert P.A. and Budding E.: 1990, *Astrophys. J.* **363**, 647, *Long-term starspot activity of short-period RS Canum Venaticorum stars. IV. WY Cancri*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	10640	L	*	81. 5.18	1:48: 0	44742.5742	32.00	9.51	0.66	0.68	-337	453
2	LWP	12251	L		87.12. 9	15:10: 4	47139.1328	35.00	9.76	0.25	0.28	2552	562


WY Cnc – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

RS CVn

alternative names:	HD 114519, SAO 63382, BD+36 2344
coordinates (2000.0):	$13^h10^m36.9^s$, $35°56'06''$
linear ephemeris:	Min I = HJD 2422811.666 + 4.797851 E, variable
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.41/1.44
radii [$R_\odot$]:	1.99/4.00
spectral type:	F4IV/G9IV
distance [pc]:	180
activity parameters:	
P_{phot} [days]:	4.7912
ΔV [mag]:	0.22
x-ray luminosity [10^{31} erg/s]:	1.186
Mg II index:	0.485
Ca II index:	moderate, cool
$H\alpha$ emission:	emission, variable
radio flux density [mJy]:	3-7
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.17\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.07\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.47\ 10^{-13}$
U-B:	0.09
B-V:	0.42/0.91
V:	7.93
V-R:	0.72
R-I:	
b-y:	0.409
m_1:	0.155
c_1:	0.382
β:	2.607
IRAS [12]:	
IRAS [25]:	

additional references:

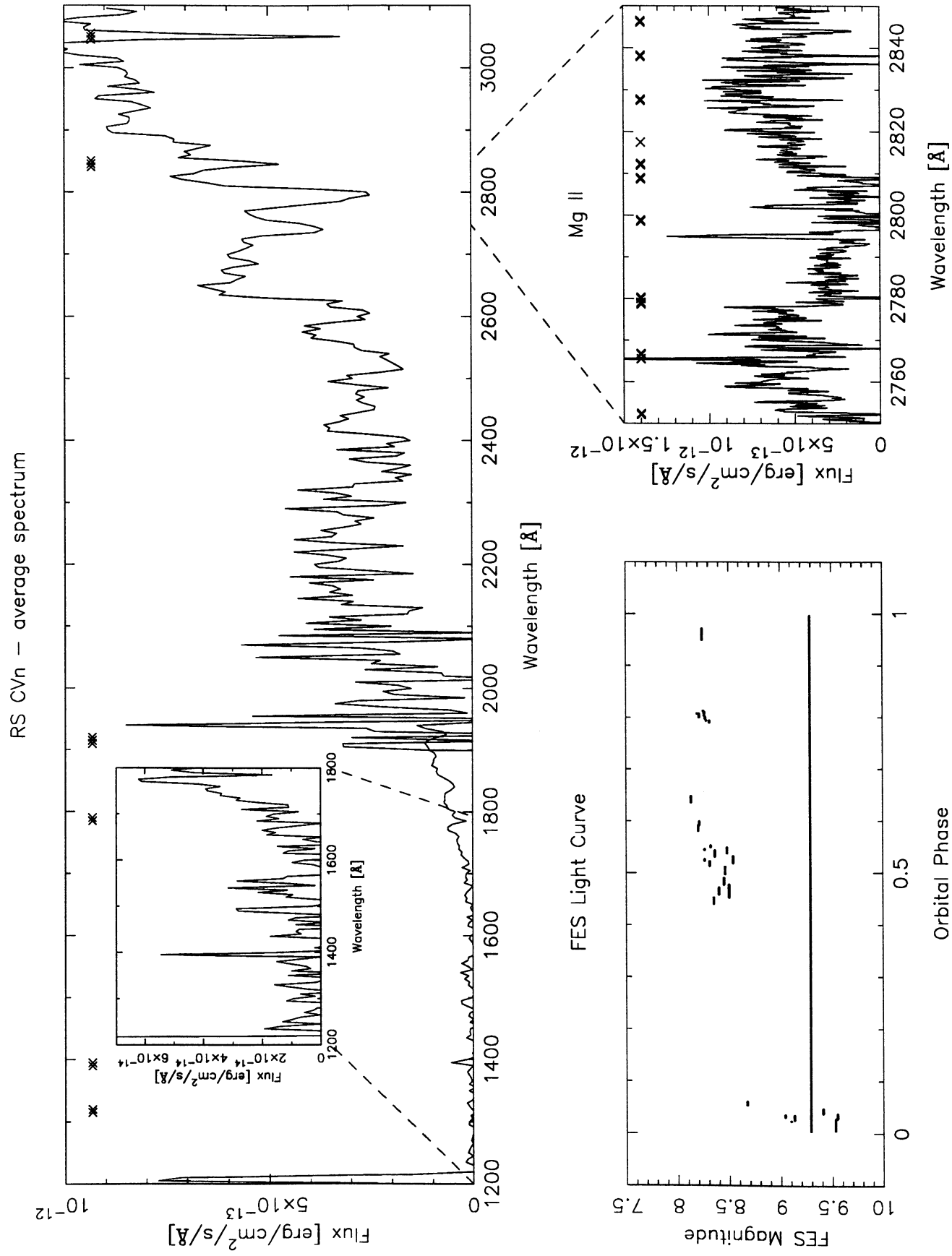
Eaton J.A., Henry G.W., Bell C. and Okorogu A.: 1993, *Astron. J.* **106**, 1181-1190, *Spots on RS CVn from spectroscopy and photometry*

Gimenez A., Reglero V. and Fabregat J.: 1990, *Astrophys. Space Sci.* **169**, 233, *Ultraviolet to near-infrared continuum flux distribution in the active binary RS Canum Venaticorum*

Popper D.M.: 1988, *Astron. J.* **95**, 1242-1250, *Orbits of close binaries with Ca II H and K in emission. I. Z Herculis and RS Canum Venaticorum*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	6940	L		80. 2.17	6:52: 0	44286.7852	0.90	9.10	0.02	0.02	-337	102
2	SWP	7968	L		80. 2.17	7: 5: 0	44286.7969	57.00	9.13	0.03	0.03	-337	111
3	LWR	6941	L		80. 2.17	7:39: 0	44286.8203	30.00	9.04	0.03	0.04	-337	552
4	LWR	10303	H	*	81. 4. 7	20: 2: 0	44702.3359	80.00	8.13	0.64	0.65	-251	E=138,C=138,B=66
5	LWP	3028	H		84. 3.26	13:16: 0	45786.0547	30.00	8.31	0.51	0.52	-25	E=70,C=80,B=34
6	SWP	22591	L		84. 3.26	13:52: 0	45786.0781	25.00	8.31	0.52	0.52	-25	E=64,C=80,B=21
7	LWP	3029	L		84. 3.26	14:27: 0	45786.1016	18.00	8.26	0.52	0.53	-25	E=1.1X,C=1.5X,B=35
8	SWP	22592	L		84. 3.26	15:20: 0	45786.1406	80.00	8.36	0.53	0.54	-25	E=203,C=200,B=40
9	LWP	3030	L		84. 3.26	16:47: 0	45786.1992	12.00	8.26	0.54	0.55	-25	C=230,B=39
10	SWP	22593	L		84. 3.26	17:26: 0	45786.2266	25.00	8.32	0.54	0.55	-25	E=180,C=88,B=35
11	SWP	22595	L		84. 3.26	21: 4: 0	45786.3789	70.00	8.20	0.58	0.59	-25	E=85,C=205,B=67
12	LWP	3032	H		84. 3.26	22:20: 0	45786.4297	50.00	8.21	0.59	0.60	-25	C=205,B=140
13	SWP	22602	L	*	84. 3.27	22:16: 0	45787.4297	45.00	8.21	0.80	0.81	-25	E=197,C=220,B=133
14	LWP	3042	L		84. 3.27	23:12: 0	45787.4648	1.00	8.19	0.81	0.81	-25	E=89,C=90,B=40
15	SWP	22609	L		84. 3.28	15:34: 0	45788.1484	140.00	8.24	0.95	0.97	-25	E=102,C=1.2X,B=70
16	LWP	3047	H		84. 3.28	20:50: 0	45788.3672	60.00	9.29	0.00	0.01	-24	E=81,C=70,B=40
17	SWP	22611	L		84. 3.28	21:57: 0	45788.4141	150.00	9.53	0.01	0.03	-24	E=99,B=50
18	LWP	3048	H		84. 3.29	0:33: 0	45788.5234	60.00	9.55	0.03	0.04	-24	E=87,C=75,B=45
19	SWP	22612	L		84. 3.29	1:40: 0	45788.5703	60.00	9.41	0.04	0.05	-24	E=63,C=56,B=20
20	LWP	3049	H		84. 3.29	3:30:29	45788.6445	45.00	8.67	0.05	0.06	-24	301
21	SWP	26188	L		85. 6.17	1:49:45	46233.5781	20.00	8.31	0.79	0.79	67	311
22	LWP	6231	L		85. 6.17	2:16:33	46233.5938	6.00	8.28	0.79	0.80	67	612
23	SWP	26189	L	*	85. 6.17	2:44:43	46233.6133	25.00	8.27	0.80	0.80	67	311
24	LWP	6232	L	*	85. 6.17	3:21: 2	46233.6406	5.00	8.26	0.80	0.80	67	512
25	SWP	26190	L		85. 6.17	3:51:32	46233.6602	25.00	8.26	0.81	0.81	67	311
26	LWP	6233	L	*	85. 6.17	4:23:10	46233.6836	5.00	8.25	0.81	0.81	67	512
27	LWP	10599	H		87. 4.18	2:14:17	46903.5938	80.00	8.35	0.44	0.45	207	331
28	SWP	30802	L		87. 4.18	3:40: 0	46903.6523	170.00	8.50	0.45	0.48	207	E=72,C=2X,B=52
29	LWP	10600	H		87. 4.18	4:16:34	46903.6797	90.00	8.40	0.46	0.47	207	331
30	LWP	10601	H		87. 4.18	6:29:29	46903.7695	90.00	8.45	0.48	0.49	207	331
31	LWP	10602	H		87. 4.18	8:54: 0	46903.8711	90.00	8.46	0.50	0.51	207	E=92,C=120,B=55
32	LWP	10603	H		87. 4.18	11:17: 0	46903.9688	90.00	8.54	0.52	0.53	207	E=93,C=120,B=55
33	LWP	10604	H		87. 4.18	13:31: 0	46904.0625	70.00	8.48	0.54	0.55	207	E=86,C=110,B=52


RS CVn – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

BH CVn

alternative names:	HD 118216, SAO 63623, HR 5110, BD+37 2426
coordinates (2000.0):	$13^h34^m47.8^s$, $37°10'57''$
linear ephemeris:	
Min I = HJD 2445766.655 + 2.613214 E, maybe variable	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.5/0.8
radii [$R_\odot$]:	3.10/2.85
spectral type:	F2IV/K2IV
distance [pc]:	53
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	maybe
x-ray luminosity [10^{31} erg/s]:	0.55
Mg II index:	0.672
Ca II index:	cool
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	5.2
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	29±5
ROSAT 110-200Å [ct/ks]:	42±6
EUVE 100Å [ct/s]:	0.151±0.010
EUVE 200Å [ct/s]:	0.033±0.010
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.47\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$1.24\ 10^{-11}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$1.94\ 10^{-11}$]
U-B:	0.05
B-V:	0.38
V:	4.93
V-R:	0.407
R-I:	0.19
b-y:	0.274
m_1:	0.155
c_1:	0.652
β:	2.678
IRAS [12]:	≈0
IRAS [25]:	≈0

additional references:

Willson R.F. and Lang K.R.: 1987, *Astrophys. J.* **312**, 278-283, *Multiple wavelength microwave observations of the RS Canum Venaticorum stars UX Arietis, HR 1099, HR 5110 and II Pegasi*

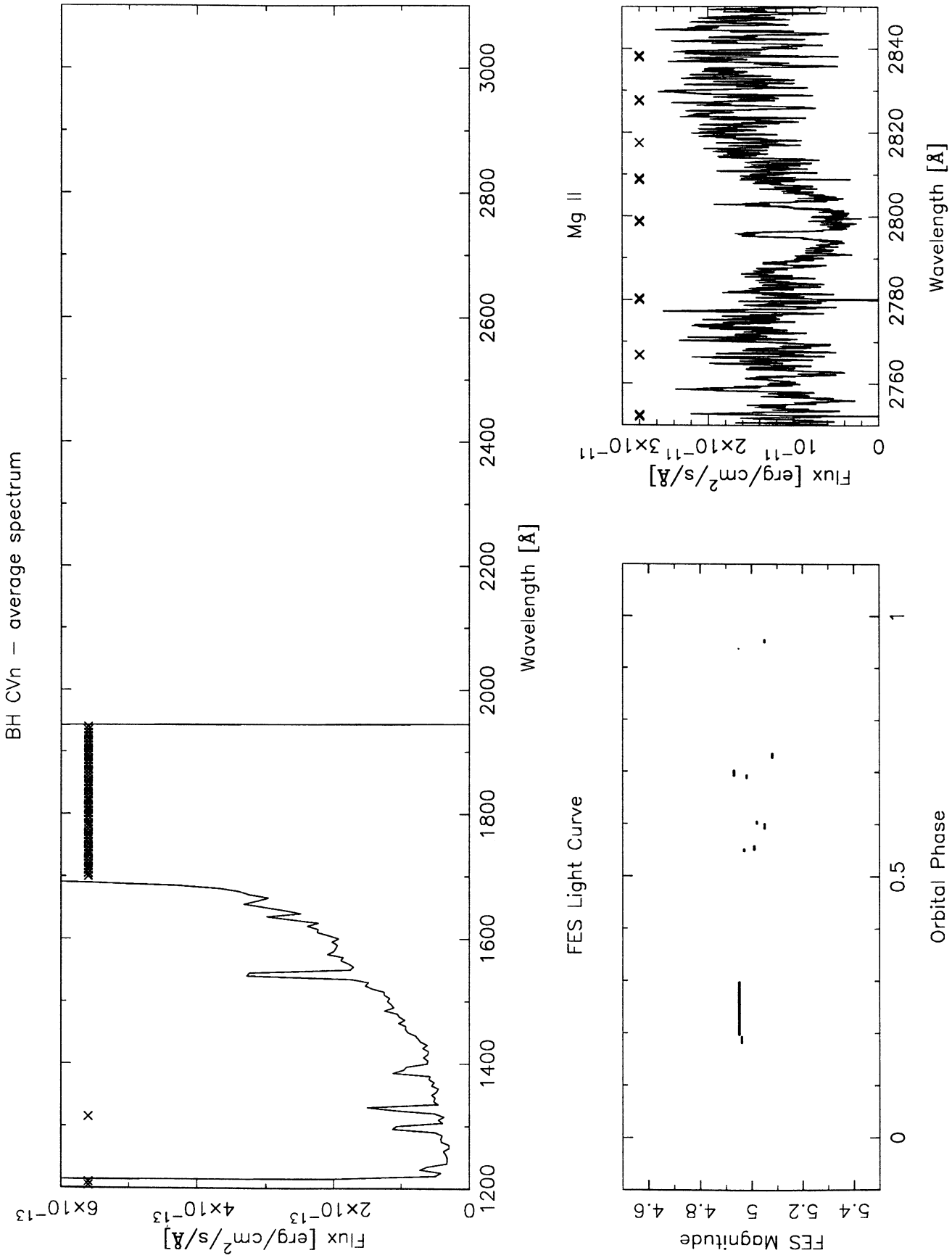
Eker Z. and Doherty L.R.: 1987, *Mon. Not. R. Astron. Soc.* **228**, 869-881, *H alpha region spectroscopy of the RS CVn system HR 5110*

Little-Marenin I.R., Simon T., Ayres T.R., Cohen N.L., Feldman P.A., Linsky J.L., Lyons R. and Little S.J.: 1986, *Astrophys. J.* **303**, 780-790, *Ultraviolet, optical, infrared, and microwave observations of HR 5110*

Lestrade J.F., Mutel R.L., Preston R.A., Scheid J.A. and Phillips R.B.: 1984, *Astrophys. J.* **279**, 184-187, *Very long baseline interferometry observations of the RS Canum Venaticorum system HR 5110 at 8.4 GHz*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	5415	L		79. 5.31	16:33: 0	44025.1914	30.00	5.05	0.59	0.60	-666	E=10X,C=10X,B50
2	LWR	4652	H	*	79. 5.31	17:10: 0	44025.2148	10.00	5.02	0.60	0.61	-666	E=187,C=190,B=45
3	LWR	6333	H		79.12. 8	16:56: 0	44216.2070	15.00	4.98	0.69	0.69	-593	543
4	SWP	7344	L		79.12. 8	17:14: 0	44216.2188	35.00	4.93	0.69	0.70	-593	741
5	LWR	6838	H		80. 2. 1	5:13: 0	44270.7188	10.00	4.97	0.55	0.55	-572	E=190,C=180,B=35
6	SWP	7834	L		80. 2. 1	5:27: 0	44270.7266	25.00	5.01	0.55	0.56	-572	E=255,C=5X,B=39
7	SWP	13668	L	*	81. 4. 6	10:33: 0	44700.9414	25.00	4.96	0.18	0.19	-407	E=86,C=5X,B=27
8	LWR	10297	H		81. 4. 6	11: 4: 0	44700.9609	10.00	4.96	0.19	0.19	-407	C=160,B=31
9	SWP	13669	H		81. 4. 6	11:34: 0	44700.9805	378.00	4.95	0.20	0.30	-407	E=224,C=3-4X,B=120
10	LWR	16548	H		83. 8. 8	8:30: 0	45554.8555	10.00	5.05	0.95	0.95	-81	C=160,B=30
11	SWP	23422	L	*	84. 7. 7	6:21: 0	45888.7656	30.00	5.08	0.73	0.74	46	E=138,C=5X,B=15


BH CVn – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

BM CVn

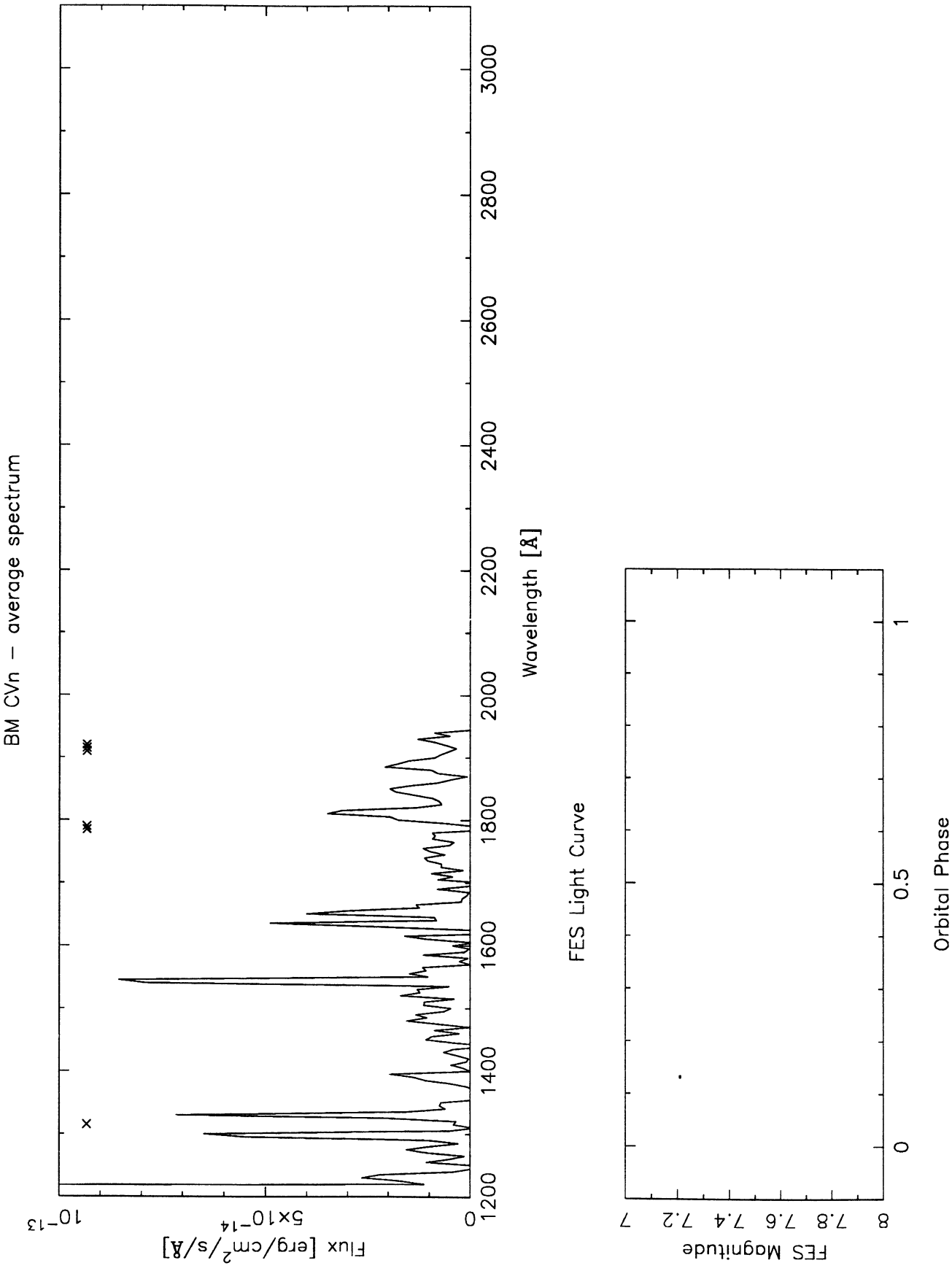
alternative names:	HD 116204, SAO 63494, BD+39 2635
coordinates (2000.0):	$13^h21^m32.3^s$, $38°52'49''$
linear ephemeris:	
Min I = HJD 2445256.776 + 20.625 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.0035
radii [$R_\odot$]:	$\geq$6
spectral type:	K1III
distance [pc]:	250
activity parameters:	
P_{phot} [days]:	20.6
ΔV [mag]:	0.19
x-ray luminosity [10^{31} erg/s]:	6.955
Mg II index:	
Ca II index:	strong
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.24\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	1.00:
B-V:	1.16
V:	7.21
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	0.87
IRAS [25]:	0.22

additional references:

Griffin R.F. and Fekel F.C.: 1988, *J. Astrophys. Astron.* **9**, 213-224, *HD 115781 and HD 116204 - two RS CVn binaries*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	21859	L	*	83.12.24	2:20: 0	45692.5977	60.00	7.21	0.13	0.13	21	E=100,C=60,B=30

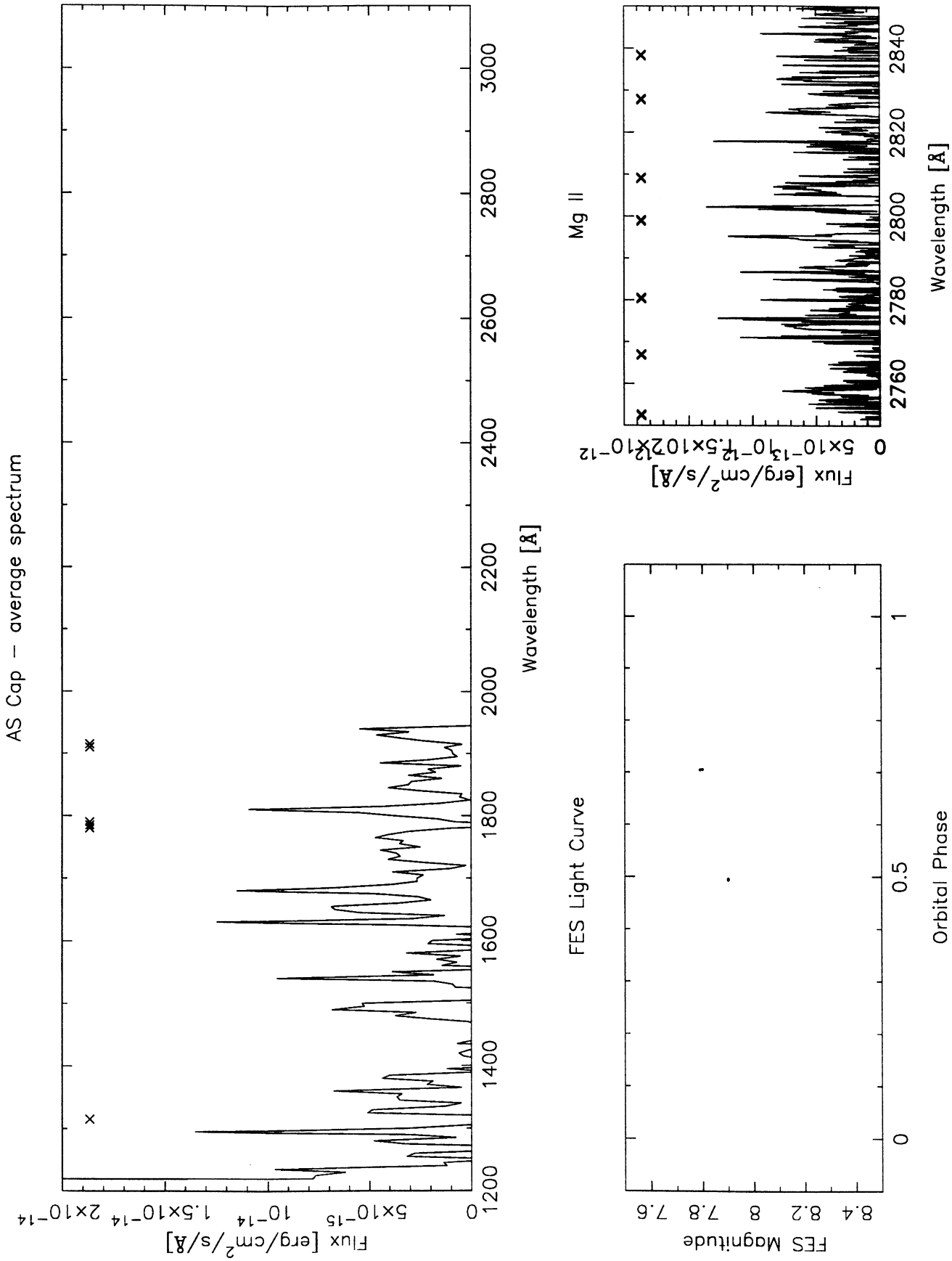

BM CVn – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

AS Cap

alternative names:	HD 205249, SAO 164484, BD-14 6070
coordinates (2000.0):	$21^h34^m16.4^s$, $-13°29'01''$
linear ephemeris:	
Min I s = HJD 2444397.66 + 49.137 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.08
masses [$M_\odot$]:	f(m)=0.050
radii [$R_\odot$]:	/≥13
spectral type:	K1III
distance [pc]:	93
activity parameters:	
P_{phot} [days]:	57.90
ΔV [mag]:	0.14
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	0.909
Ca II index:	class B
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.20
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	≈0
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[6.10 10^{-14}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[2.23 10^{-13}]
U-B:	0.77
B-V:	0.9
V:	7.68
V-R:	
R-I:	
b-y:	0.638
m_1:	0.429
c_1:	0.311
β:	2.554
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	18798	L	*	82.12.15	4:33: 0	45318.6914	60.00	7.72	0.74	0.74	18	E=40,B=30
2	SWP	19943	L		83. 5. 9	16:24: 0	45464.1836	60.00	7.79	0.70	0.71	21	B=110
3	LWR	15899	H	*	83. 5. 9	17:30: 0	45464.2305	22.00	7.80	0.71	0.71	21	B=40
4	SWP	30959	L	*	87. 5.12	11:52: 0	46927.9961	180.00	7.90	0.49	0.50	51	E=80,B=50

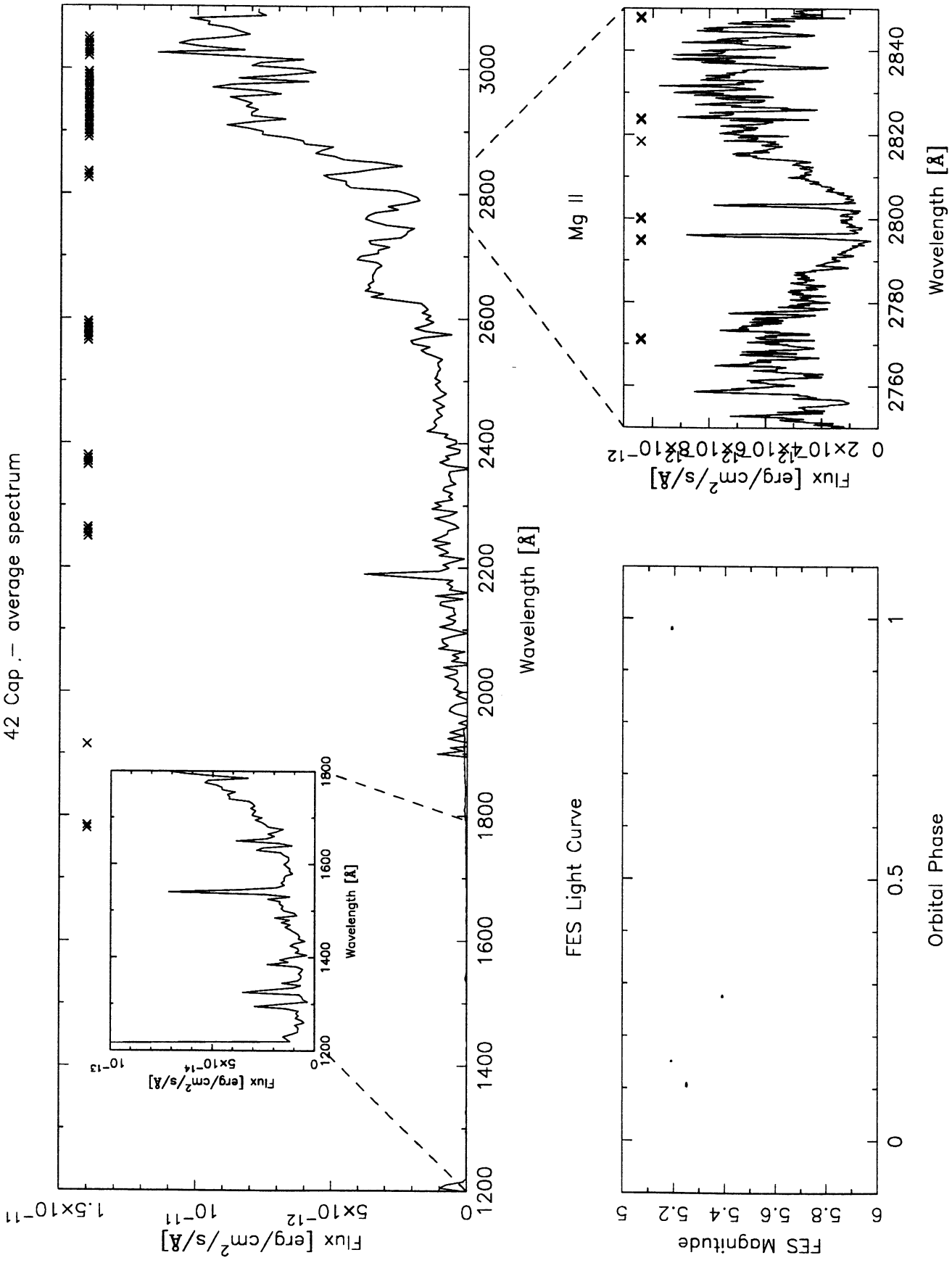

AS Cap – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

42 Cap

alternative names:	HD 206301, SAO 164580, HR 8283, BD-14 6102
coordinates (2000.0):	$21^h41^m32.7^s$, $-14°02'51''$
linear ephemeris:	
Min I s = HJD 2440054.766 + 13.1740 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.18
masses [$M_\odot$]:	f(m)=0.0160
radii [$R_\odot$]:	
spectral type:	G2IV
distance [pc]:	34
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	0.037
Mg II index:	[0.562], 0.409
Ca II index:	yes
$H\alpha$ emission:	absorption
radio flux density [mJy]:	<0.19
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	0.038±0.007
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.05 10^{-14}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.94 10^{-12}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.75 10^{-12}
U-B:	0.20
B-V:	0.65
V:	5.17
V-R:	
R-I:	0.24
b-y:	0.418
m_1:	0.204
c_1:	0.371
β:	2.588
IRAS [12]:	1.66
IRAS [25]:	0.46

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	8022	L	*	80. 6.13	16:19: 0	44404.1797	1.00	5.19	0.15	0.15	330	E=2X,C=220,B=30
2	LWR	9574	H		80.12.26	0:29: 0	44599.5195	45.00	5.19	0.98	0.98	344	E=193,C=1.5X,B=35
3	SWP	15017	L	*	81. 9.17	3:30: 0	44864.6445	100.00	5.25	0.10	0.11	365	E=251,C=255,B=30
4	LWP	9694	H	*	86.12.12	15: 6:36	46777.1289	30.00	5.39	0.28	0.28	510	352


42 Cap. – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V841 Cen

alternative names:	HD 127535, SAO 252794, CD-59 5306
coordinates (2000.0):	$14^h34^m15.7^s$, $-60°24'27''$
linear ephemeris:	
Min I = HJD ? + 5.998 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.025
radii [$R_\odot$]:	
spectral type:	K1IV
distance [pc]:	63
activity parameters:	
P_{phot} [days]:	5.929
ΔV [mag]:	0.25
x-ray luminosity [10^{31} erg/s]:	0.285
Mg II index:	1.648
Ca II index:	strong
$H\alpha$ emission:	emission
radio flux density [mJy]:	17.4
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	17±4
ROSAT 110-200Å [ct/ks]:	18±:
EUVE 100Å [ct/s]:	0.020±:
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.89\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$4.08\ 10^{-14}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$9.09\ 10^{-14}$]
U-B:	0.794
B-V:	1.069
V:	8.50
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

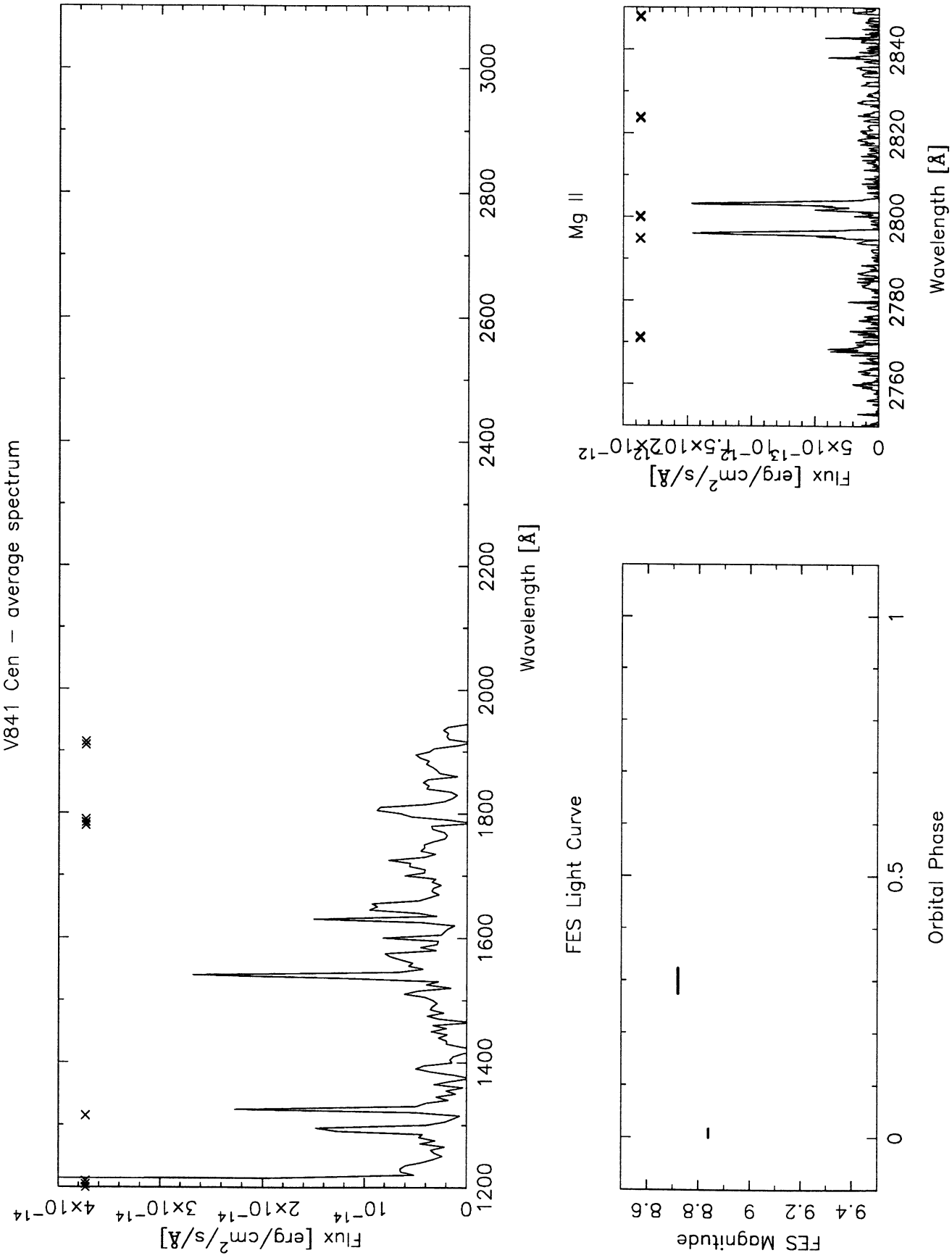
additional references:

Innis J.L., Coates D.W., Thompson K., Nelson G.J., Slee O.B. and Wright A.E.: 1985, *Proc. Astron. Soc. Aust.* **6**, 160-164, *An optical and radio investigation of the active RS CVn star HD 127535*

Udalski A. and Geyer E.H.: 1984, *IAU Inform. Bull. Var. Stars* **2594**, 1-5, *The light and colour curves of the very active southern RS CVn-system HD 127535 in 1984*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	11335	H	*	87. 8. 6	10:17: 0	47013.9297	140.00	8.84	[0.00]	[0.02]	[0]	E=172,B=48
2	SWP	31508	L	*	87. 8. 8	1:46: 0	47015.5742	425.00	8.72	[0.27]	[32]	[0]	E=169,C=120,B=92


V841 Cen – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V851 Cen

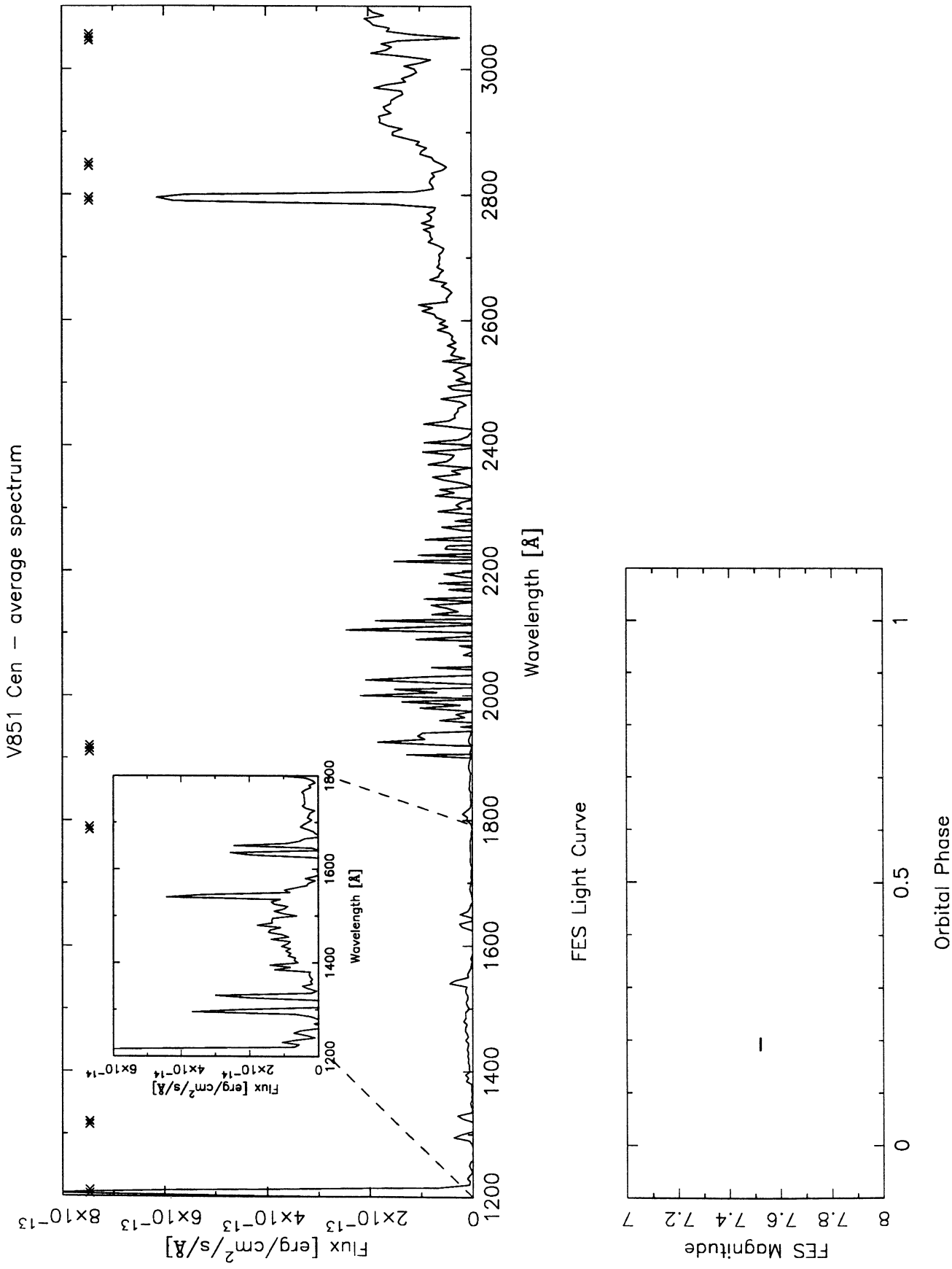
alternative names:	HD 119285, SAO 252429, CD-60 4859
coordinates (2000.0):	$13^h44^m00.3^s$, $-61°21'59''$
linear ephemeris:	
Min I = HJD 2444301.47 + 11.989 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.0012
radii [$R_\odot$]:	
spectral type:	K2IV-III
distance [pc]:	80
activity parameters:	
P_{phot} [days]:	12.05
ΔV [mag]:	0.1
x-ray luminosity [10^{31} erg/s]:	0.405
Mg II index:	[2.441]
Ca II index:	strong
$H\alpha$ emission:	emission + absorption core
radio flux density [mJy]:	?
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.11\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.21\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.49\ 10^{-13}$
U-B:	0.819
B-V:	1.067
V:	7.81
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Saar S.H., Nordstrom B. and Andersen J.: 1990, *Astron. Astrophys.* **235**, 291, *Physical parameters for three chromospherically active binaries*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	38187	L	*	90. 2.13	19:46: 0	47936.3242	180.00	7.52	0.18	0.19	303	E=126,C=60,B=44
2	LWP	17358	L	*	90. 2.13	20:52: 0	47936.3711	5.00	7.52	0.19	0.19	303	E=1.5X,C=104,B=32
3	LWP	17359	H		90. 2.13	23:13: 0	47936.4688	150.00	7.52	0.20	0.20	303	E=2X,C=115,B=51


V851 Cen – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

AY Cet

alternative names:	HD 7672, SAO 129204, HR 373, BD-03 172, 39 Cet
coordinates (2000.0):	$01^h16^m36.2^s$, $-02°30'01''$
linear ephemeris:	
Min I = HJD 2446350.411 + 56.824 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	0.55/2.09
radii [$R_\odot$]:	0.012/15
spectral type:	WD/G5III
distance [pc]:	67
activity parameters:	
P_{phot} [days]:	77.22
ΔV [mag]:	0.22
x-ray luminosity [10^{31} erg/s]:	1.001
Mg II index:	[0.819], 0.593
Ca II index:	class C, cool
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	<0.20
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	35±5
ROSAT 110-200Å [ct/ks]:	46±7
EUVE 100Å [ct/s] [c/s]:	0.064±0.008
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$9.78\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$9.80\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.96\ 10^{-12}$
U-B:	0.57
B-V:	0.90
V:	5.47
V-R:	0.69
R-I:	
b-y:	0.560
m_1:	0.289
c_1:	0.323
β:	2.549
IRAS [12]:	2.39
IRAS [25]:	0.65

additional references:

Fekel F.C. and Eitter J.J.: 1989, *Astron. J.* **97**, 1139-1145, *Chromospherically active stars. VII. 39 Ceti=AY Ceti, HD 185151 = V1764Cygni, and binary synchronization*

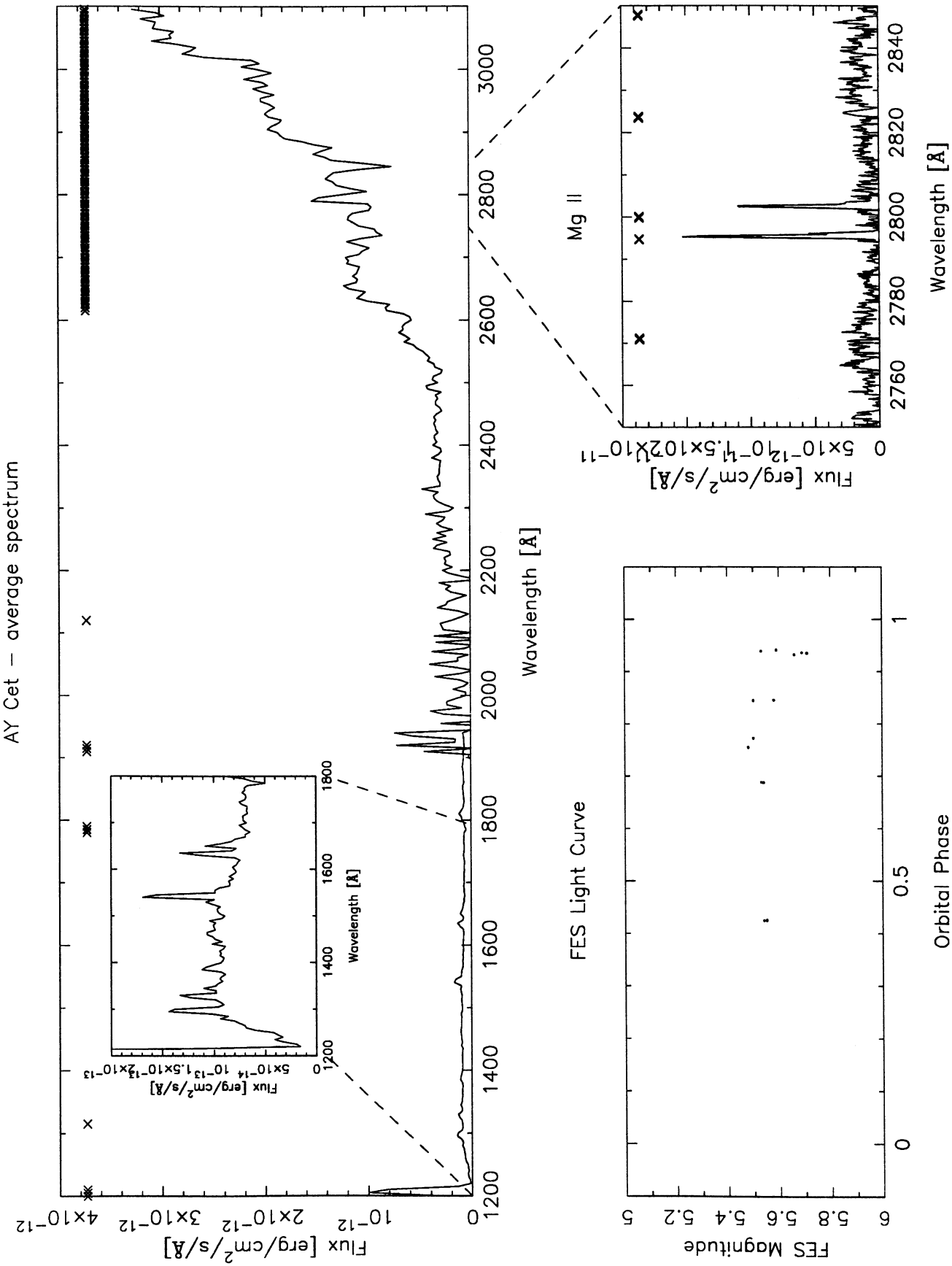
Simon T. and Sonneborn G.: 1987,, *Astron. J.* **94**, 1657-1663, *The ultraviolet variability of AY Ceti*

Poretti E., Mantegazza L., Hall D.S., Sarma M.B.K., Ausekar B.D., Prakasa Rao B.V.N.S., Boyd L.J., Henry G.W., Landis H.J., Fried R.E., Hopkins J.L., Nielsen P., Louth H., Renner T.R., Brooks P.A., Miles R., Stelzer H.J. and Pazzi L.: 1986, *Astron. Astrophys.* **157**, 1-5, *Spot cycles in the RS CVn variable AY Cet*

Simon T., Fekel JR.F.C. and Gibson D.M.: 1985, *Astrophys. J.* **295**, 153-161, *AY Ceti : a flaring, spotted star with a hot companion*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	13544	H		82. 6.22	16:16: 0	45143.1797	15.00	5.48	0.76	0.76	-21	E=168,C=95,B=40
2	SWP	17282	L		82. 6.22	16:38: 0	45143.1914	45.00	5.48	0.76	0.76	-21	E=163,C=145,B=86
3	SWP	17290	L	*	82. 6.23	16:16: 0	45144.1797	60.00	5.50	0.77	0.77	-21	E=138,C=120,B=40
4	SWP	21598	L	*	83.11.21	4:44: 0	45659.6953	60.00	5.50	0.85	0.85	-12	E=216,C=180,B=100
5	LWP	2304	H		83.11.21	5:50: 0	45659.7422	15.00	5.58	0.85	0.85	-12	E=225,C=140,B=82
6	SWP	21697	L	*	83.12. 6	2:17: 0	45674.5938	60.00	5.53	0.11	0.11	-11	E=182,C=115,B=32
7	LWP	2356	H		83.12. 6	3:23: 0	45674.6406	15.00	5.50	0.11	0.11	-11	E=187,C=100,B=32
8	LWP	2480	H		83.12.24	4: 3: 0	45692.6680	15.00	5.54	0.43	0.43	-11	E=179,C=105,B=38
9	SWP	21860	L	*	83.12.24	4:24: 0	45692.6836	60.00	5.55	0.43	0.43	-11	E=178,C=143,B=65
10	SWP	21966	L		84. 1. 8	2:19: 0	45707.5977	45.00	5.54	0.69	0.69	-11	E=178,C=160,B=105
11	LWP	2571	H	*	84. 1. 8	3:11: 0	45707.6328	15.00	5.53	0.69	0.95	-11	E=234,C=140,B=85
12	LWP	2747	H		84. 2. 7	21:38: 0	45738.4023	15.00	5.53	0.23	0.23	-10	E=183,C=102,B=46
13	SWP	22220	L	*	84. 2. 7	21:59: 0	45738.4141	60.00	5.50	0.23	0.23	-10	E=111,C=119,B=46
14	SWP	29640	L	*	86.11. 9	19:42: 0	46744.3203	50.00	5.66	0.93	0.93	6	E=120,C=90,B=32
15	SWP	31246	L	*	87. 6.25	6:29: 0	46971.7695	90.00	5.71	0.94	0.94	10	E=210,C=172,B=79
16	LWP	11083	H		87. 6.25	8: 7: 0	46971.8398	15.00	5.69	0.94	0.94	10	E=150,C=83,B=34
17	LWP	11084	L	*	87. 6.25	12:41: 0	46972.0273	7.00	5.53	0.94	0.94	10	E=15X,C=4X,B=35
18	LWP	11085	H		87. 6.25	15: 7: 0	46972.1289	25.00	5.59	0.94	0.94	10	E=241,C=130,B=45

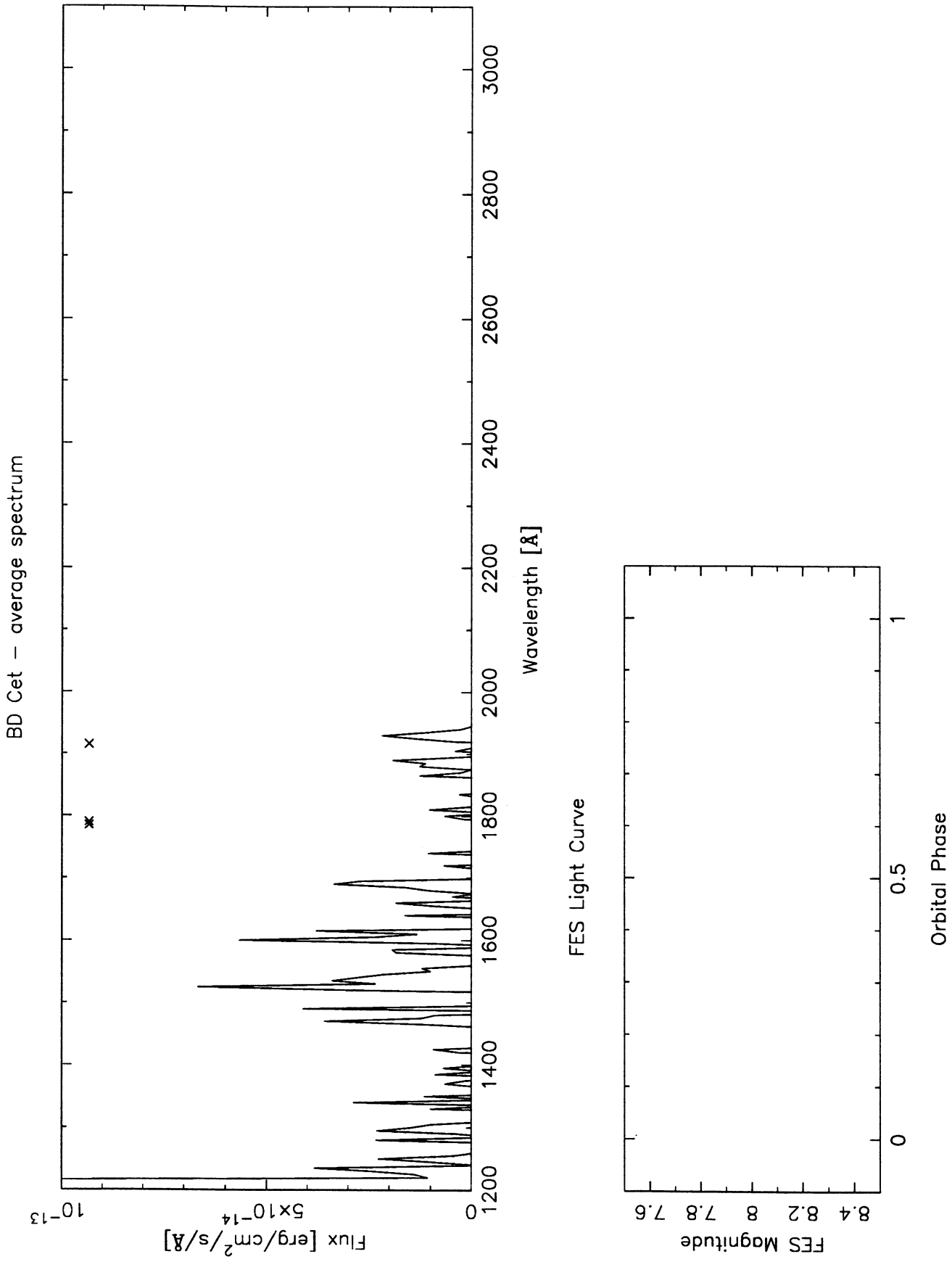

AY Cet – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

BD Cet

alternative names:	BD Cet, HD 1833, SAO 128725, BD-10 58
coordinates (2000.0):	$00^h22^m46.7^s$, $-09°13'49''$
linear ephemeris:	
Min I s = HJD 2444409.76 + 35.100 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.04
masses [$M_\odot$]:	f(m)=0.11
radii [$R_\odot$]:	/≥10
spectral type:	K1III
distance [pc]:	71
activity parameters:	
P_{phot} [days]:	34.46
ΔV [mag]:	0.10
x-ray luminosity [10^{31} erg/s]:	0.022
Mg II index:	
Ca II index:	class B, cool
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	<0.15
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.58\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.96
B-V:	1.13
V:	7.89
V-R:	0.69
R-I:	
b-y:	0.0716
m_1:	0.439
c_1:	0.338
β:	2.542
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	19945	L	*	83. 5. 9	19:36: 0	45464.3164	45.00	7.88	0.04	0.05	30	E=182,B=145


BD Cet – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

BI Cet

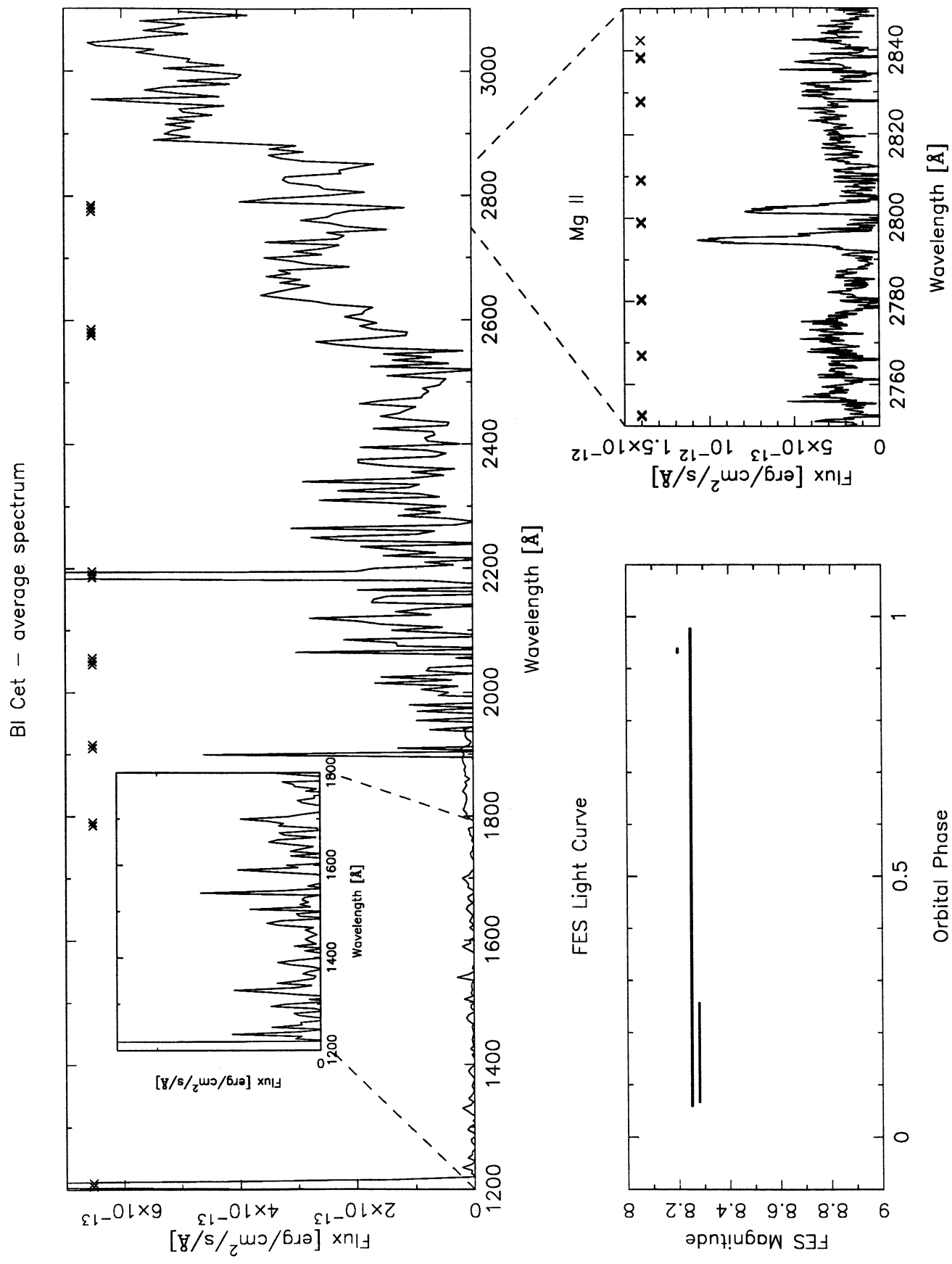
alternative names:	HD 8358, SAO 109840, BD-00 210
coordinates (2000.0):	$01^h22^m50.3^s$, $00°42'43''$
linear ephemeris:	
Min I s = HJD 2445603.485 + 0.515782 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	$\geq$0.9/$\geq$0.8
radii [$R_\odot$]:	$\approx$0.9/$\approx$0.9
spectral type:	G5V:/G5V:
distance [pc]:	60
activity parameters:	
P_{phot} [days]:	0.52006
ΔV [mag]:	0.14
x-ray luminosity [10^{31} erg/s]:	0.400
Mg II index:	[0.676], 0.656
Ca II index:	strong, both
$H\alpha$ emission:	broad emission line
radio flux density [mJy]:	3.23
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	16±5
ROSAT 110-200Å [ct/ks]:	25±6
EUVE 100Å [ct/s]:	0.030±:
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.31 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.77 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.89 10^{-13}
U-B:	0.144
B-V:	0.710
V:	8.08
V-R:	0.56:
R-I:	
b-y:	0.466
m_1:	0.194
c_1:	0.284
β:	2.543
IRAS [12]:	
IRAS [25]:	

additional references:

Bopp B.W., Ake T.B., Goodrich B.D., Africano J.L., Noah P.V., Meredith R.J., Palmer L.H. and Quigley R.: 1985, *Astrophys. J.* **297**, 691-701, *HD 8358 : a new active chromosphere binary*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	16335	L	*	83. 7.12	12:46: 0	45528.0313	2.00	8.25	0.71	0.71	-146	E=87,C=90,B=26
2	SWP	20450	L	*	83. 7.12	12:52: 0	45528.0352	150.00	8.25	0.72	0.92	-146	E=146,C=135,B=91
3	LWR	16336	L	*	83. 7.12	15:27: 0	45528.1445	3.00	8.20	0.93	0.94	-146	E=117,C=100,B=24
4	SWP	20451	L	*	83. 7.12	16: 2: 0	45528.1680	60.00	8.25	0.98	0.06	-146	E=88,C=110,B=81
5	LWR	16337	H	*	83. 7.12	17: 7: 0	45528.2148	140.00	8.28	0.07	0.26	-145	E=188,C=160,B=85

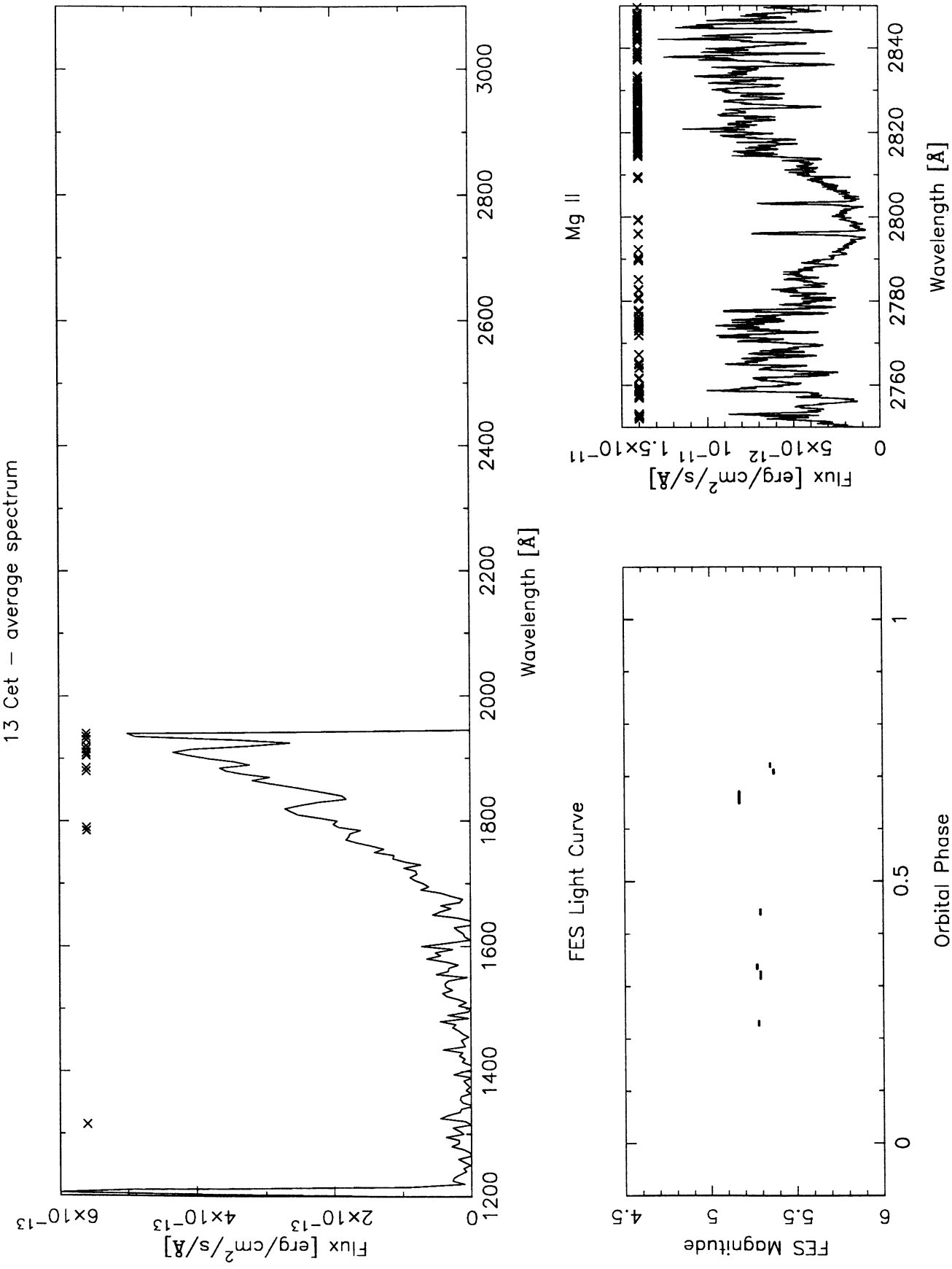

BI Cet – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

13 Cet

alternative names:	HD 3196, SAO 128839, HR 142, BD-04 62
coordinates (2000.0):	$00^h35^m14.8^s$, $-03°35'34''$
linear ephemeris:	
Min I = HJD 2443400.9725 + 2.08200 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.0189
radii [$R_\odot$]:	
spectral type:	{F7V/}G4V
distance [pc]:	21
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	0.01
Mg II index:	0.448
Ca II index:	moderate
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.15
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.85\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$[5.00\ 10^{-12}]$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$[1.15\ 10^{-11}]$
U-B:	0.08
B-V:	0.57
V:	5.20
V-R:	
R-I:	
b-y:	0.358
m_1:	0.185
c_1:	0.371
β:	2.619
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	8015	H	*	80. 6.13	6:24: 0	44403.7656	70.00	5.17	0.65	0.67	481	E=250,C=2.5X,B=45
2	SWP	21776	L		83.12.15	6: 6: 0	45683.7539	30.00	5.29	0.44	0.45	1096	E=196,C=3X,B=178
3	SWP	21784	L	*	83.12.17	1:59: 0	45685.5820	40.00	5.29	0.32	0.33	1097	C=3X,B=74
4	LWR	17188	H		83.12.17	2:53: 0	45685.6211	20.00	5.27	0.33	0.34	1097	E=117,C=180,B=40
5	LWP	4844	H		84.11.20	6:19: 0	46024.7617	20.00	5.28	0.23	0.23	1260	E=2X,C=2X,B=215
6	LWP	4853	H		84.11.21	6:15: 0	46025.7617	20.00	5.37	0.71	0.71	1260	E=216,C=2X,B=152
7	SWP	24522	L		84.11.21	6:58: 0	46025.7891	15.00	5.35	0.72	0.72	1260	E=192,C=2X,B=160

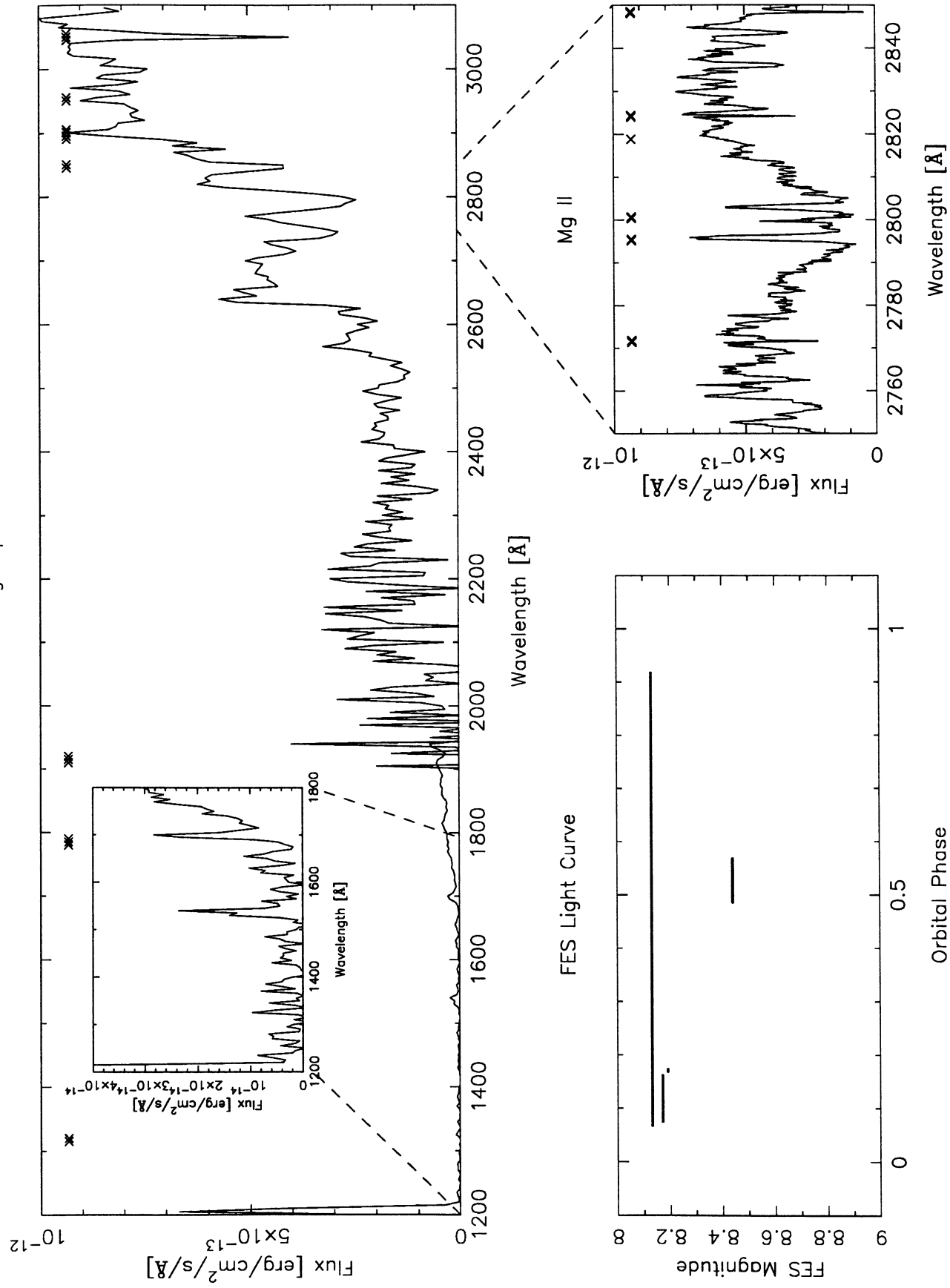

13 Cet – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

IL Com

alternative names:	HD 108102, SAO 82295, BD+26 2347
coordinates (2000.0):	$12^h25^m02.3^s$, $25°33'38''$
linear ephemeris:	
Min I = HJD 2438423.80 + 0.9616 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	0.85/0.82
radii [$R_\odot$]:	
spectral type:	F8V/F8V
distance [pc]:	86
activity parameters:	
P_{phot} [days]:	0.82
ΔV [mag]:	0.04
x-ray luminosity [10^{31} erg/s]:	0.29
Mg II index:	[0.611], 0.551
Ca II index:	moderate, both
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.17
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	16±4
ROSAT 110-200Å [ct/ks]:	18±:
EUVE 100Å [ct/s]:	0.030±:
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.92 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.07 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	8.12 10^{-13}
U-B:	-0.01
B-V:	0.518
V:	8.08
V-R:	0.40
R-I:	0.30
b-y:	0.348
m_1:	0.170
c_1:	0.335
β:	2.625
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	30333	L	*	87. 2.18	11:58: 0	46845.0000	110.00	8.44	0.49	0.57	8757	E=63,C=160,B=42
2	LWP	19377	H	*	90.12. 9	10:13:29	48234.9258	210.00	8.13	0.92	0.64	10202	402
3	SWP	40294	L	*	90.12. 9	13:53:24	48235.0781	120.00	8.17	0.08	0.16	10203	401
4	LWP	19378	L	*	90.12. 9	16: 3: 0	48235.1680	4.67	8.19	0.17	0.17	10203	600


IL Com – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

IN Com

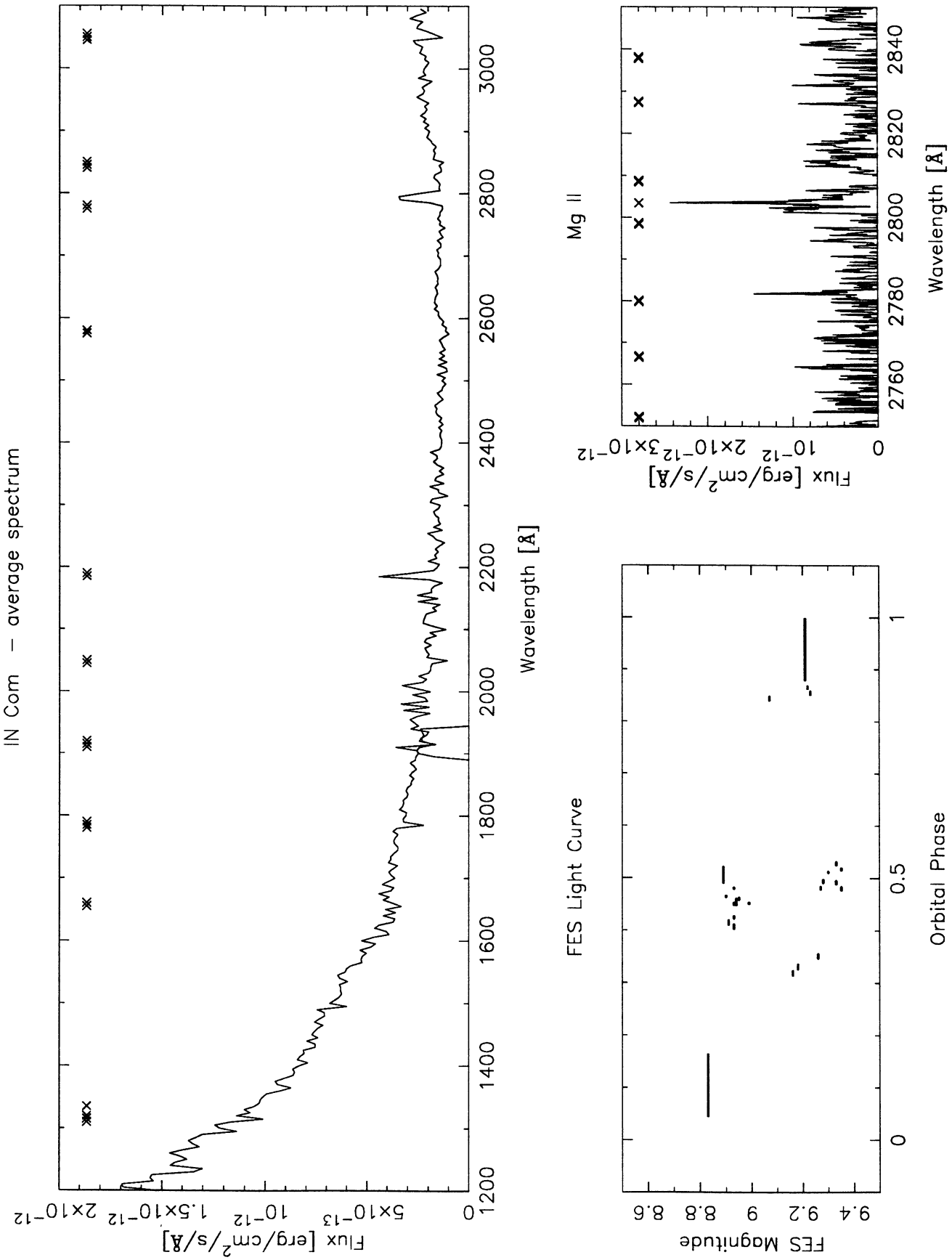
alternative names:	HD 112313, SAO 82570, BD+26 2405
coordinates (2000.0):	$12^h55^m33.8^s$, $+25°53'30''$
linear ephemeris:	
Min I = HJD 2446512.8 + 1.9940 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	$\geq 0.0157/ \geq 0.0043$
radii [$R_\odot$]:	1.76/0.58
spectral type:	G5IV-III
distance [pc]:	125:
activity parameters:	
P_{phot} [days]:	1.2001
ΔV [mag]:	0.12
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	[1.0947], 1.100
Ca II index:	strong
$H\alpha$ emission:	emission, both?
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	11±:
ROSAT 110-200Å [ct/ks]:	51±7
EUVE 100Å [ct/s]:	0.030±0.007
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$7.59\ 10^{-13}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.55\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.17\ 10^{-13}$
U-B:	0.27
B-V:	0.78
V:	8.0
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Acker A., Jasniewicz G. and Gleizes F.: 1985, *Astron. Astrophys.* **151**, L13-L14, *Spectroscopic variations of the central star of Lo Tr5*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	16896	L		82. 5. 5	20:25: 0	45095.3516	20.00	8.93	0.40	0.41	-710	C=1.5X,B=116
2	LWR	13173	L		82. 5. 5	20:50: 0	45095.3672	20.00	8.91	0.41	0.42	-710	E=1.5X,C=225,B=88
3	SWP	16897	L	*	82. 5. 5	21:23: 0	45095.3906	10.00	8.93	0.42	0.43	-710	C=190,B=95
4	SWP	17236	L		82. 6.16	19:33: 0	45137.3164	10.00	8.93	0.45	0.45	-689	C=170,B=75
5	LWR	13502	L		82. 6.16	20: 5: 0	45137.3359	10.00	8.95	0.46	0.46	-689	E=255,C=120,B=41
6	LWR	15882	H	*	83. 5. 5	20:14: 0	45460.3438	35.00	8.94	0.45	0.46	-527	E=104,C=52,B=50
7	SWP	19909	L		83. 5. 5	21: 2: 0	45460.3750	5.00	8.90	0.46	0.47	-527	C=95,B=27
8	LWR	15883	L	*	83. 5. 5	21:44: 0	45460.4063	5.00	8.93	0.48	0.48	-527	E=130,C=90,B=30
9	LWR	15884	H		83. 5. 5	22:20: 0	45460.4297	85.00	8.89	0.49	0.52	-527	E=154,C=120,B=77
10	SWP	35635	L		89. 2.28	10:54:16	47585.9531	8.00	8.99	0.45	0.45	538	400
11	SWP	35643	L		89. 3. 1	5:32:47	47586.7305	15.00	9.07	0.84	0.85	538	500
12	SWP	35688	L		89. 3. 6	3:53:31	47591.6641	20.00	9.16	0.32	0.32	541	500
13	LWP	15137	L		89. 3. 6	4:31:14	47591.6875	20.00	9.18	0.33	0.34	541	561
14	SWP	35709	L	*	89. 3. 8	5:22:36	47593.7227	20.00	9.26	0.35	0.36	542	500
15	LWP	17022	L		89.12.28	14:15:26	47889.0938	18.00	9.35	0.48	0.48	690	671
16	SWP	37912	L		89.12.28	14:47:35	47889.1172	15.00	9.33	0.49	0.50	690	500
17	LWP	17023	L	*	89.12.28	15:48:40	47889.1602	8.00	9.30	0.51	0.51	690	451
18	LWP	17042	L		89.12.30	15:55:38	47891.1641	12.00	9.35	0.52	0.52	691	561
19	SWP	37923	L		89.12.30	16:26: 2	47891.1836	15.00	9.33	0.53	0.53	691	500
20	LWP	17063	L		90. 1. 1	14: 2: 4	47893.0859	10.00	9.27	0.48	0.48	692	452
21	SWP	37932	L	*	90. 1. 1	14:35:56	47893.1094	15.00	9.28	0.49	0.50	692	500
22	SWP	37936	L		90. 1. 2	7:53:47	47893.8281	15.00	9.23	0.85	0.86	692	500
23	LWP	17070	L		90. 1. 2	8:23:56	47893.8516	12.00	9.22	0.86	0.87	692	562
24	LWP	17070	L		90. 1. 2	8:23:56	47893.8516	12.00	9.22	0.86	0.87	692	562
25	SWP	37937	H		90. 1. 2	9:10:12	47893.8828	338.00	9.21	0.88	0.00	692	342
26	SWP	38776	H		90. 5.12	7:46: 0	48023.8242	340.00	8.83	0.05	0.16	758	C=126,B=60


IN Com – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

TZ CrB

alternative names:	HD 146361, HR 6063, BD+34 2750A, 17 CrB A, σ CrB A
coordinates (2000.0):	$16^h14^m40.6^s$, $33°51'30''$
linear ephemeris:	
Min I = HJD 2423869.3925 + 1.139791 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.022
masses [$M_\odot$]:	1.12/1.14
radii [$R_\odot$]:	1.22/1.21
spectral type:	F6V/G0V
distance [pc]:	21
activity parameters:	
P_{phot} [days]:	1.1687
ΔV [mag]:	0.055
x-ray luminosity [10^{31} erg/s]:	0.308
Mg II index:	[0.604], 0.529
Ca II index:	strong, both
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	8-57
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	205±10
ROSAT 110-200Å [ct/ks]:	323±13
EUVE 100Å [ct/s]:	0.393±0.015
EUVE 200Å [ct/s]:	0.082±0.010
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.78\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.12\ 10^{-12}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$9.84\ 10^{-12}$
U-B:	0.00
B-V:	0.47
V:	5.7
V-R:	0.50
R-I:	
b-y:	0.382
m_1:	0.174
c_1:	0.319
β:	2.597
IRAS [12]:	≈0
IRAS [25]:	≈0

additional references:

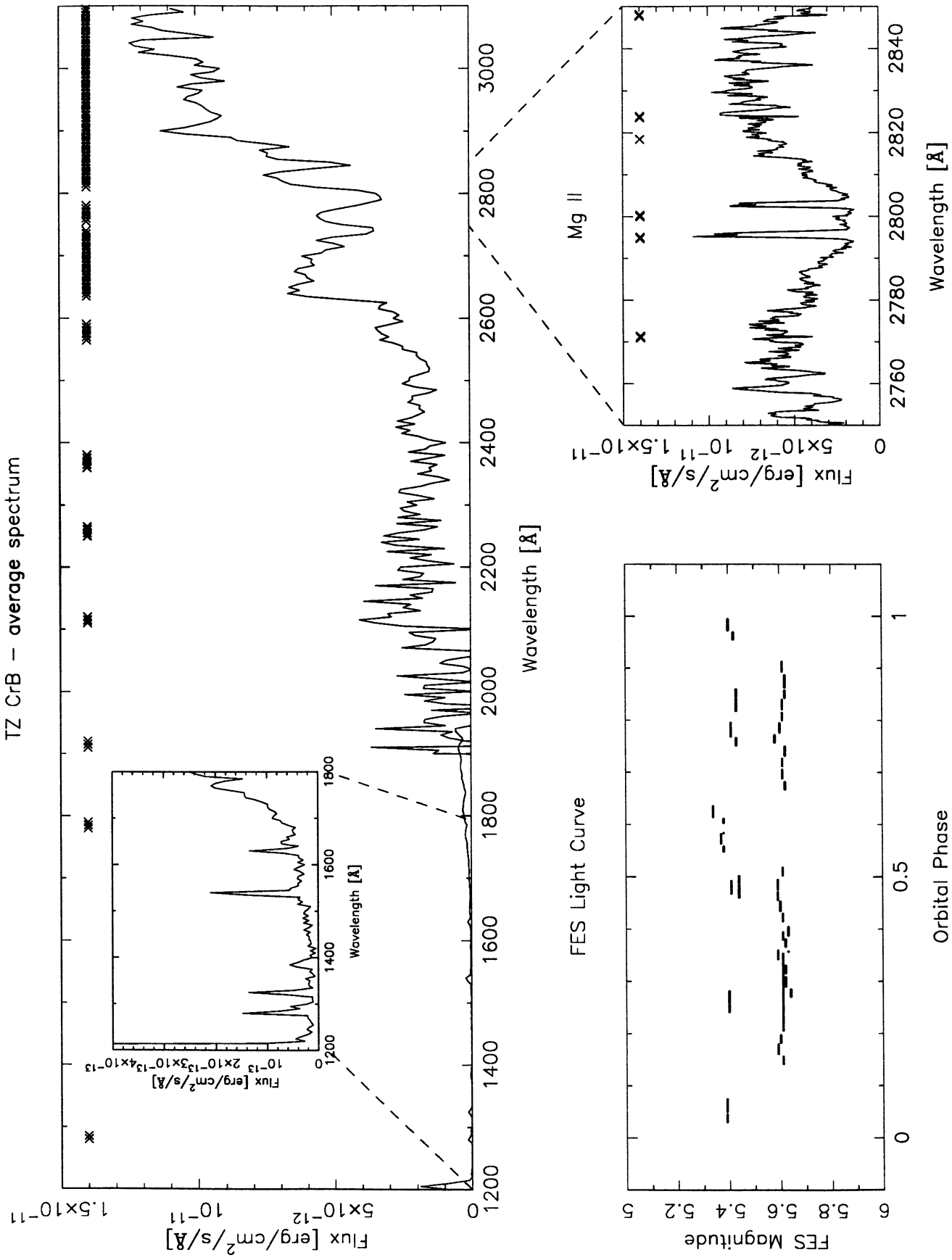
Lemen J.R., Mewe R., Schrijver C.J. and Fludra A.: 1989, *Astrophys. J.* **341**, 474-483, *Coronal activity in F-, G-, and K-type stars. III. The coronal differential emission measure distribution of Capella, sigma2 CrB and Procyon*

Gimenez A., Ballester J.L., Reglero V., Fernandez-Figueroa M.J. and de Castro E.: 1986, *Astron. J.* **92**, 131-135, *uvby-beta photometry of active-chromosphere binaries. I. The system TZ Coronae Borealis*

Tarafdar S.P. and Agrawal P.C.: 1984, *Mon. Not. R. Astron. Soc.* **207**, 809-821, *IUE observations of RS CVn-like binary sigma Corona Borealis*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5856	H		79.10.17	11:55: 0	44163.9961	14.98	5.38	0.55	0.56	17805	E=162MGII,C=170,B=4
2	SWP	6891	L		79.10.17	12:22: 0	44164.0156	30.00	5.37	0.57	0.58	17805	E=140,C=2-3X,B=65
3	LWR	8761	L	*	80. 9. 9	19: 8: 0	44492.2969	1.50	5.38	0.58	0.58	18093	702
4	SWP	10067	L	*	80. 9. 9	19:44: 0	44492.3203	12.50	5.38	0.60	0.61	18093	321
5	LWR	8762	H		80. 9. 9	19:59: 0	44492.3320	35.00	5.34	0.62	0.64	18093	553
6	SWP	14345	L		81. 6.27	17: 2: 0	44783.2109	40.00	5.43	0.82	0.84	18348	E=2X,C=2X,B=60
7	LWR	10959	H		81. 6.27	17:48: 0	44783.2422	20.00	5.43	0.85	0.86	18348	E=168,C=175,B=40
8	LWR	10960	H		81. 6.27	20:46: 0	44783.3672	25.00	5.42	0.96	0.97	18348	E=203,C=180,B=30
9	SWP	14347	L		81. 6.27	21:15: 0	44783.3867	35.00	5.40	0.97	0.99	18348	E=234,C=30X,B=30
10	SWP	14364	L		81. 6.30	17:19: 0	44786.2227	40.00	5.44	0.46	0.48	18351	E=190,C=1.5-2X,B=43
11	LWR	10974	H		81. 6.30	18: 4: 0	44786.2539	25.00	5.44	0.49	0.50	18351	E=227,C=205,B=42
12	LWR	10988	H		81. 7. 2	4:39: 0	44787.6953	25.00	5.43	0.75	0.77	18352	E=157,C=197,B=33
13	SWP	14379	L		81. 7. 2	5:10: 0	44787.7148	40.00	5.41	0.77	0.80	18352	E=188,C=1.5X,B=21
14	LWR	10991	H		81. 7. 2	12:19: 0	44788.0117	25.00	5.39	0.03	0.05	18353	E=186,C=180,B=33
15	SWP	14382	L		81. 7. 2	12:48: 0	44788.0352	40.00	5.39	0.05	0.07	18353	E=154,C=1.5-2X,B=52
16	LWR	10994	H		81. 7. 2	18: 6: 0	44788.2539	25.00	5.40	0.24	0.26	18353	E=170,C=205,B=80
17	SWP	14385	L		81. 7. 2	18:35: 0	44788.2734	35.00	5.40	0.26	0.28	18353	E=159,C=1.5X,B=62
18	LWR	13607	H		82. 7. 5	0:36: 0	45155.5234	40.00	5.41	0.47	0.49	18675	552
19	LWP	13515	H		88. 6.28	5:33: 0	47340.7305	25.00	5.62	0.67	0.68	20592	E=174,C=200,B=41
20	SWP	33819	L		88. 6.28	6: 8: 0	47340.7539	30.00	5.61	0.69	0.71	20592	E=100,C=234,B=23
21	LWP	13516	H		88. 6.28	6:46: 0	47340.7813	25.00	5.61	0.72	0.73	20592	E=161,C=206,B=43
22	SWP	33820	L	*	88. 6.28	7:19: 0	47340.8047	30.00	5.62	0.73	0.75	20592	E=89,C=238,B=22
23	LWP	13517	H		88. 6.28	7:57: 0	47340.8320	25.00	5.58	0.76	0.77	20592	E=165,C=198,B=43
24	SWP	33821	L		88. 6.28	8:31: 0	47340.8555	30.00	5.60	0.78	0.80	20592	E=83,C=235,B=23
25	LWP	13518	H		88. 6.28	9:11: 0	47340.8828	25.00	5.61	0.80	0.82	20592	E=158,C=206,B=45
26	SWP	33822	L		88. 6.28	9:43: 0	47340.9063	30.00	5.61	0.82	0.84	20592	E=79,C=238,B=23
27	LWP	13519	H		88. 6.28	10:21: 0	47340.9297	25.00	5.62	0.84	0.86	20592	E=171,C=200,B=42
28	SWP	33823	L		88. 6.28	10:54: 0	47340.9531	40.00	5.62	0.86	0.89	20592	E=129,C=1.5X,B=34
29	LWP	13520	H	*	88. 6.28	11:42: 0	47340.9883	30.00	5.61	0.90	0.91	20592	E=224,C=201,B=45
30	LWP	13521	H		88. 6.28	22: 0:49	47341.4180	25.00	5.64	0.27	0.29	20593	542
31	SWP	33825	L	*	88. 6.28	22:33:40	47341.4414	30.00	5.62	0.29	0.31	20593	550
32	LWP	13522	H		88. 6.28	23:17:44	47341.4688	25.00	5.62	0.32	0.33	20593	542
33	SWP	33826	L		88. 6.28	23:59:30	47341.5000	30.00	5.59	0.34	0.36	20593	550
34	LWP	13523	H		88. 6.29	0:41:43	47341.5273	25.00	5.62	0.37	0.38	20593	542
35	SWP	33827	L		88. 6.29	1:13: 7	47341.5508	30.00	5.63	0.39	0.40	20593	550
36	LWP	13524	H		88. 6.29	1:58:34	47341.5820	25.00	5.61	0.42	0.43	20593	542
37	SWP	33828	L		88. 6.29	2:30:15	47341.6055	30.00	5.60	0.44	0.45	20593	550
38	LWP	13525	H		88. 6.29	3: 6:50	47341.6289	25.00	5.59	0.46	0.47	20593	542
39	SWP	33829	L		88. 6.29	3:38:13	47341.6523	30.00	5.59	0.48	0.49	20593	550
40	LWP	13526	H		88. 6.29	4:21:55	47341.6836	25.00	5.61	0.50	0.52	20593	542
41	LWP	13532	H		88. 6.29	21:48:31	47342.4102	25.00	5.61	0.14	0.16	20594	441
42	SWP	33834	L		88. 6.29	22:23:45	47342.4336	30.00	5.59	0.16	0.18	20594	530
43	LWP	13533	H		88. 6.29	23: 0: 4	47342.4570	25.00	5.60	0.18	0.20	20594	441
44	SWP	33835	H		88. 6.29	23:38: 6	47342.4844	240.00	5.61	0.21	0.35	20594	432
45	LWP	13534	L	*	88. 6.30	3:45:28	47342.6563	0.42	5.63	0.36	0.36	20594	500
46	LWP	13535	H		88. 6.30	4:24:21	47342.6836	25.00	5.61	0.38	0.40	20594	440


TZ CrB – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

UV CrB

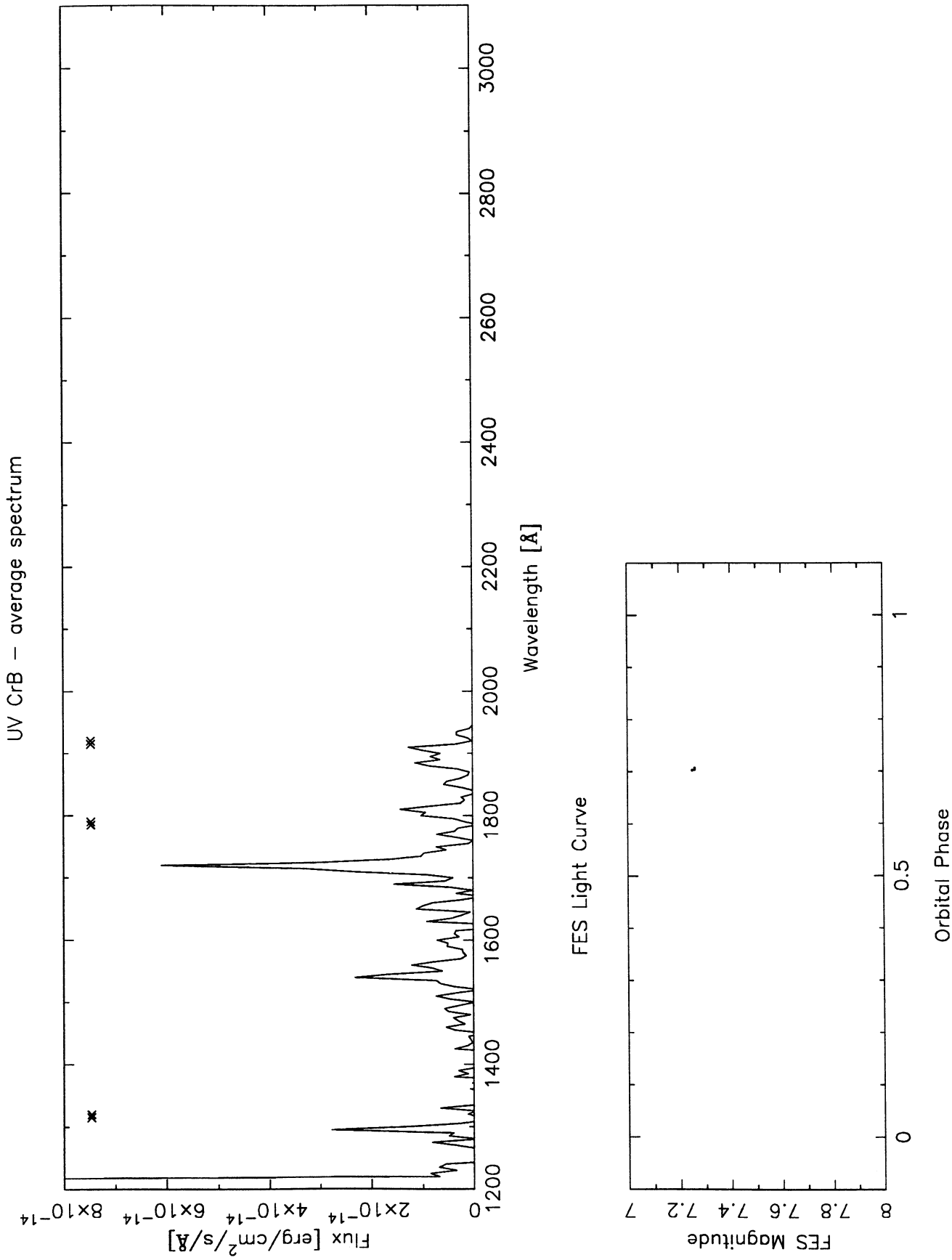
alternative names:	HD 136901, SAO 83795, BD+26 2685
coordinates (2000.0):	$15^h22^m25.3^s$, 25°37′27″
linear ephemeris:	
Min I p = HJD 2446155.01 + 18.6651 E	
system parameters:	
type of binary:	- , SB1
eccentricity:	0.06
masses [$M_\odot$]:	1.06/0.39
radii [$R_\odot$]:	≥15.5
spectral type:	K2III
distance [pc]:	230
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	<0.18
Mg II index:	
Ca II index:	yes
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.17
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.43\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	1.09
B-V:	1.24
V:	7.20
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Fekel F.C., Kirkpatrick J.D., Yang X.-X. and Strassmeier K.G.: 1989, *Astron. J.* **97**, 202-206, *Chromospherically active stars. VI. HD 136901 = UV CrB : a massive ellipsoidal K giant single-lined spectroscopic binary*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	33466	L		88. 5. 6	12:47: 0	47288.0313	10.00	7.25	0.70	0.70	60	B=19
2	SWP	33467	L	*	88. 5. 6	13:32: 0	47288.0625	80.00	7.26	0.70	0.71	60	E=41,C=57,B=40


UV CrB – average spectrum
Flux [erg/cm²/s/Å]
0
2x10⁻¹⁴
4x10⁻¹⁴
6x10⁻¹⁴
8x10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
7
7.2
7.4
7.6
7.8
8
0
0.5
1
Orbital Phase

CG Cyg

alternative names:	BD+34 4217
coordinates (2000.0):	$20^h58^m14.1^s$, $35°10'29''$
linear ephemeris:	Min I = HJD 2444528.5351 + 0.63114347 E, variable
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	0.52/0.52
radii [$R_\odot$]:	0.88/0.87
spectral type:	G9.5V/K3V
distance [pc]:	63
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.11
x-ray luminosity [10^{31} erg/s]:	0.030
Mg II index:	[0.739]
Ca II index:	weak, both
$H\alpha$ emission:	
radio flux density [mJy]:	<0.23
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.71 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	6.30 10^{-14}
U-B:	variable
B-V:	0.87
V:	9.97
V-R:	
R-I:	
b-y:	0.539
m_1:	0.287
c_1:	0.243
β:	2.521
IRAS [12]:	
IRAS [25]:	

additional references:

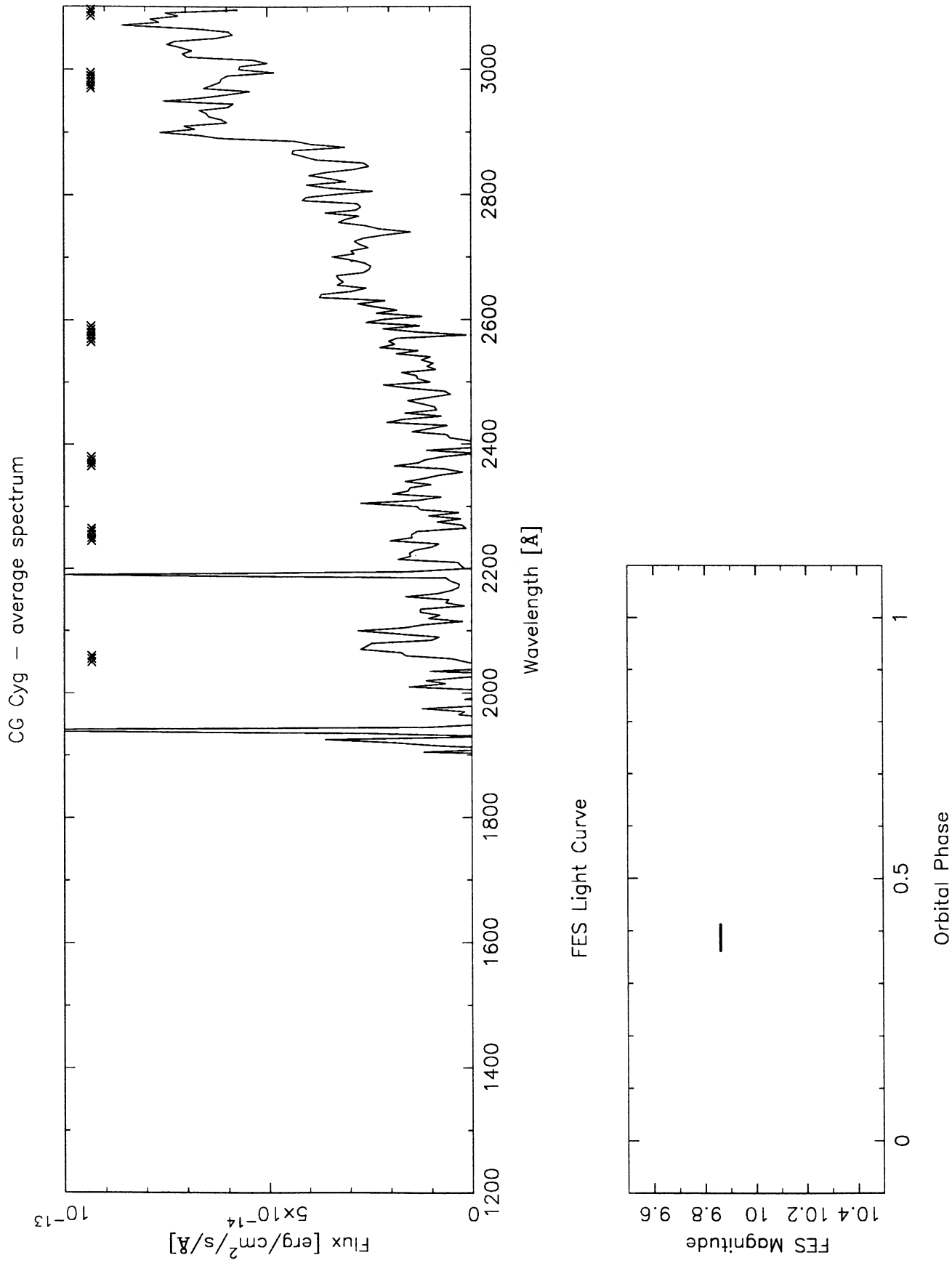
Bedford D.K., Fuensalida J.J. and Arevalo M.J.: 1987, *Astron. Astrophys.* **182**, 264-270, *The BVJK light curves of the short-period eclipsing binary CG Cygni*

Sowell J.R., Wilson J.W., Hall D.S. and Peyman P.E.: 1987, *Publ. Astron. Soc. Pac.* **99**, 407-419, *CG Cygni : solutions of 1979 and 1980 light curves*

Naftilan S.A. and Milone E.F.: 1985, *Astron. J.* **90**, 761-766, *Light-curve solution and interpretation for CG Cygni*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	8280	L	*	80. 7.18	0:21: 0	44438.5156	45.00	9.86	0.36	0.41	-2303	443


CG Cyg – average spectrum
Flux [erg/cm²/s/Å]
10⁻¹³
5x10⁻¹⁴
0
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
10.4
10.2
10
9.8
9.6
0
0.5
1
Orbital Phase

V1762 Cyg

alternative names:	HD 179094, SAO 31413, HR 7275, BD+52 2350
coordinates (2000.0):	$19^h08^m25.8^s$, $52°25'33''$
linear ephemeris:	
Min I = HJD 2431043.414 + 28.5895 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.1939
radii [$R_\odot$]:	$\geq$8
spectral type:	K1IV-III
distance [pc]:	250
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.3
x-ray luminosity [10^{31} erg/s]:	0.25-1.25
Mg II index:	1.570
Ca II index:	class B
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	1.49
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	9.89 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[3.51 10^{-13}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[7.68 10^{-13}]
U-B:	0.87
B-V:	1.09
V:	5.81
V-R:	0.81
R-I:	
b-y:	0.689
m_1:	0.428
c_1:	0.320
β:	2.551
IRAS [12]:	2.32
IRAS [25]:	0.54

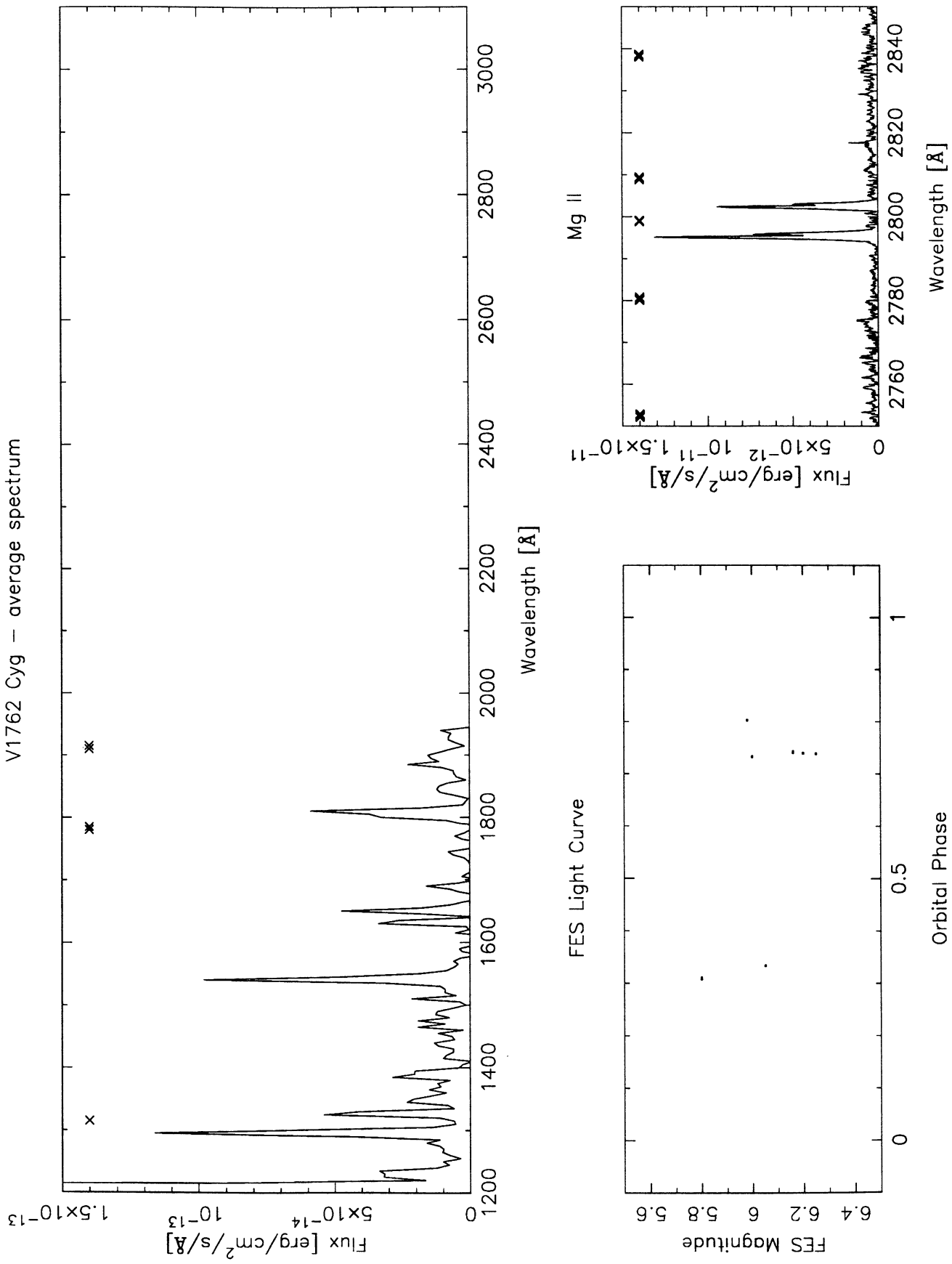
additional references:

Eker Z.: 1989, *Mon. Not. R. Astron. Soc.* **238**, 675-688, *High-resolution Halpha spectroscopy of the bright RS CVn system HR 7275*

Nations H.L. and Seeds M.A.: 1986, *Publ. Astron. Soc. Pac.* **98**, 1105, *Long-term modeling of the light variation of the RS Canum Venaticorumsystem HR 7275*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	13674	L	*	81. 4. 7	0:53: 0	44701.5352	57.00	6.00	0.73	0.73	477	E=134,C=60,B=43
2	LWR	10317	H	*	81. 4. 9	1:26: 0	44703.5586	23.00	5.98	0.80	0.80	477	E=162,C=82,B=32
3	LWR	11588	H		81. 9.19	15:24: 0	44867.1406	25.00	5.99	0.53	0.53	483	E=198,C=50,B=27
4	LWP	9695	H		86.12.12	16:29:31	46777.1875	20.00	6.05	0.33	0.34	550	342
5	LWP	13852	H		88. 8.15	15:11: 3	47389.1328	30.00	6.25	0.74	0.74	571	253
6	SWP	34089	L	*	88. 8.15	15:47:15	47389.1563	28.00	6.20	0.74	0.74	571	230
7	LWP	13853	H		88. 8.15	16:24:50	47389.1836	120.00	6.16	0.74	0.74	571	473
8	SWP	38441	L		90. 3.26	16:56: 0	47977.2070	115.00	5.80	0.31	0.31	592	E=151,C=79,B=28


V1762 Cyg – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V1764 Cyg

alternative names:	V1764 Cyg, HD 185151, SAO 87451, BD+27 3444
coordinates (2000.0):	$19^h36^m42.5^s$, $27°53'03''$
linear ephemeris:	
Min I = HJD 2444472.6365 + 40.1418 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	/1.5
radii [$R_\odot$]:	$\geq$22
spectral type:	F/K1III:
distance [pc]:	390
activity parameters:	
P_{phot} [days]:	39.878
ΔV [mag]:	0.09
x-ray luminosity [10^{31} erg/s]:	0.574
Mg II index:	[1.445], 1.320
Ca II index:	class C
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	0.51
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.82\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$7.51\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.52\ 10^{-13}$
U-B:	
B-V:	1.25
V:	7.69
V-R:	1.05
R-I:	0.67
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

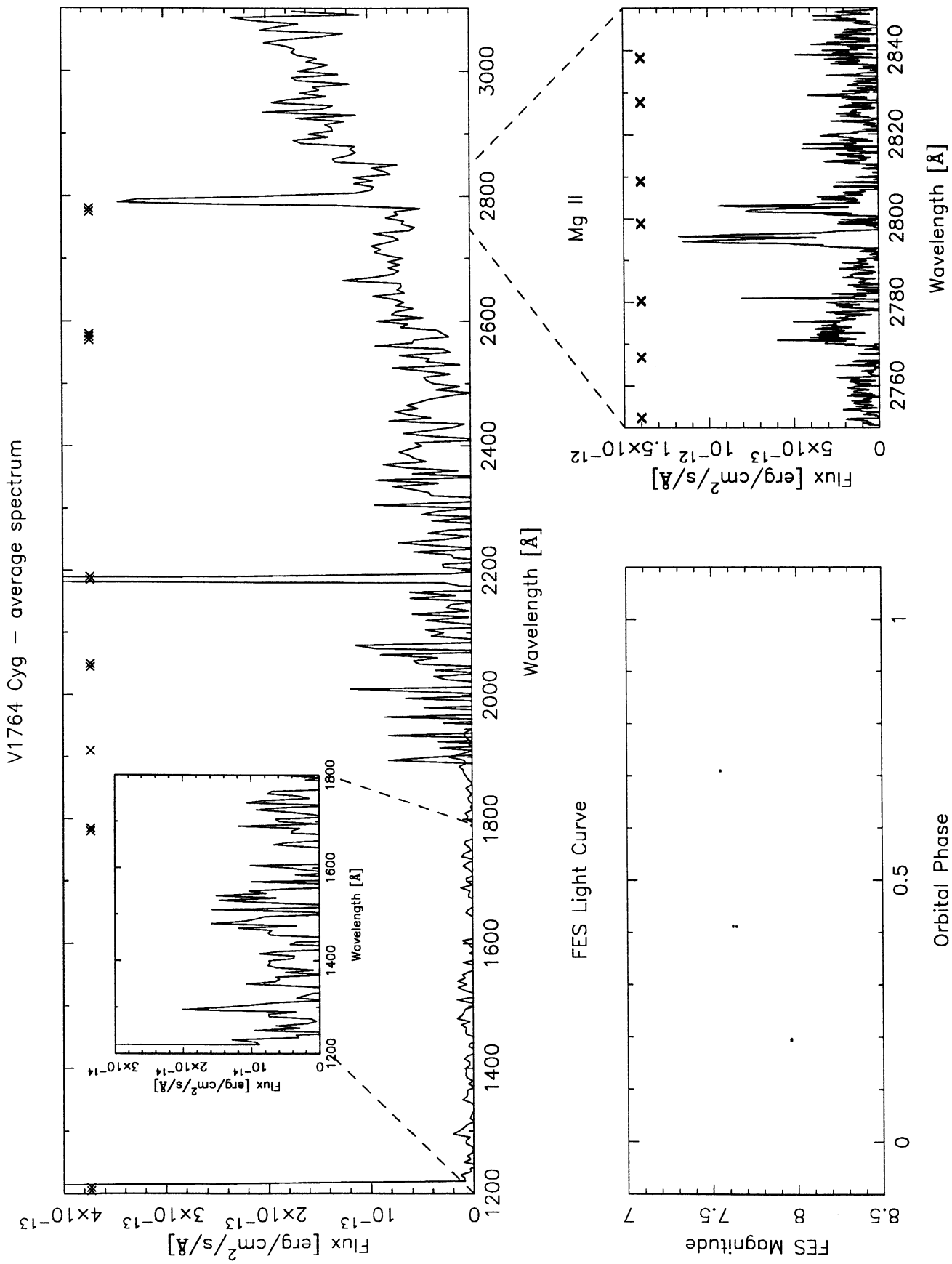
additional references:

Fekel F.C. and Eitter J.J.: 1989, *Astron. J.* **97**, 1139-1145, *Chromospherically active stars. VII. 39 Ceti=AY Ceti, HD 185151=V1764Cygni, and binary synchronization*

Kirkpatrick J.D., Hall D.S., Lines H.C., Lines R.D., Fried R.E., Burke jr.E.W., Louth H., Henry G.W., Nielsen P., McFaul T.G., Boyd L.J., Genet R.M., Troeger J.V., Stelzer H.J., Barksdale jr.W.S. and Miles R.: 1987, *Astron. J.* **93**, 427-429, *Six years of photometry of HD 185151 = V1764 Cyg*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	9637	L		81. 1. 5	1:20: 0	44609.5547	3.00	7.64	0.41	0.41	3	E=113,C=70,B=25
2	SWP	10958	L	*	81. 1. 5	1:28: 0	44609.5625	90.00	7.62	0.41	0.41	3	E=89,C=70,B=65
3	LWR	9638	L	*	81. 1. 5	2: 3: 0	44609.5859	8.00	7.62	0.41	0.41	3	E=210,C=90,B=25
4	LWR	13547	H	*	82. 6.22	21: 0: 0	45143.3750	45.00	7.55	0.71	0.71	16	E=65,C=70,B=30
5	SWP	37651	L		89.11.21	19:31: 0	47852.3125	210.00	7.96	0.19	0.20	84	E=111,C=77,B=53


V1764 Cyg – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V1817 Cyg

alternative names:	HD 184398, SAO 31741, HR 7428, BD+55 2215
coordinates (2000.0):	$19^h31^m13.5^s$, $55°43'55''$
linear ephemeris:	
Min I = HJD 2445062.88 + 108.854 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.05
masses [$M_\odot$]:	2.90/4.83
radii [$R_\odot$]:	/62
spectral type:	A2V/K2III-II
distance [pc]:	302
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.04
x-ray luminosity [10^{31} erg/s]:	0.676
Mg II index:	1.224
Ca II index:	strong, cool
$H\alpha$ emission:	emission + absorption core
radio flux density [mJy]:	<0.20
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.58\ 10^{-13}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$6.09\ 10^{-13}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$8.65\ 10^{-13}$]
U-B:	0.91
B-V:	1.16
V:	6.32
V-R:	
R-I:	
b-y:	0.735
m_1:	0.393
c_1:	0.327
β:	2.585
IRAS [12]:	
IRAS [25]:	

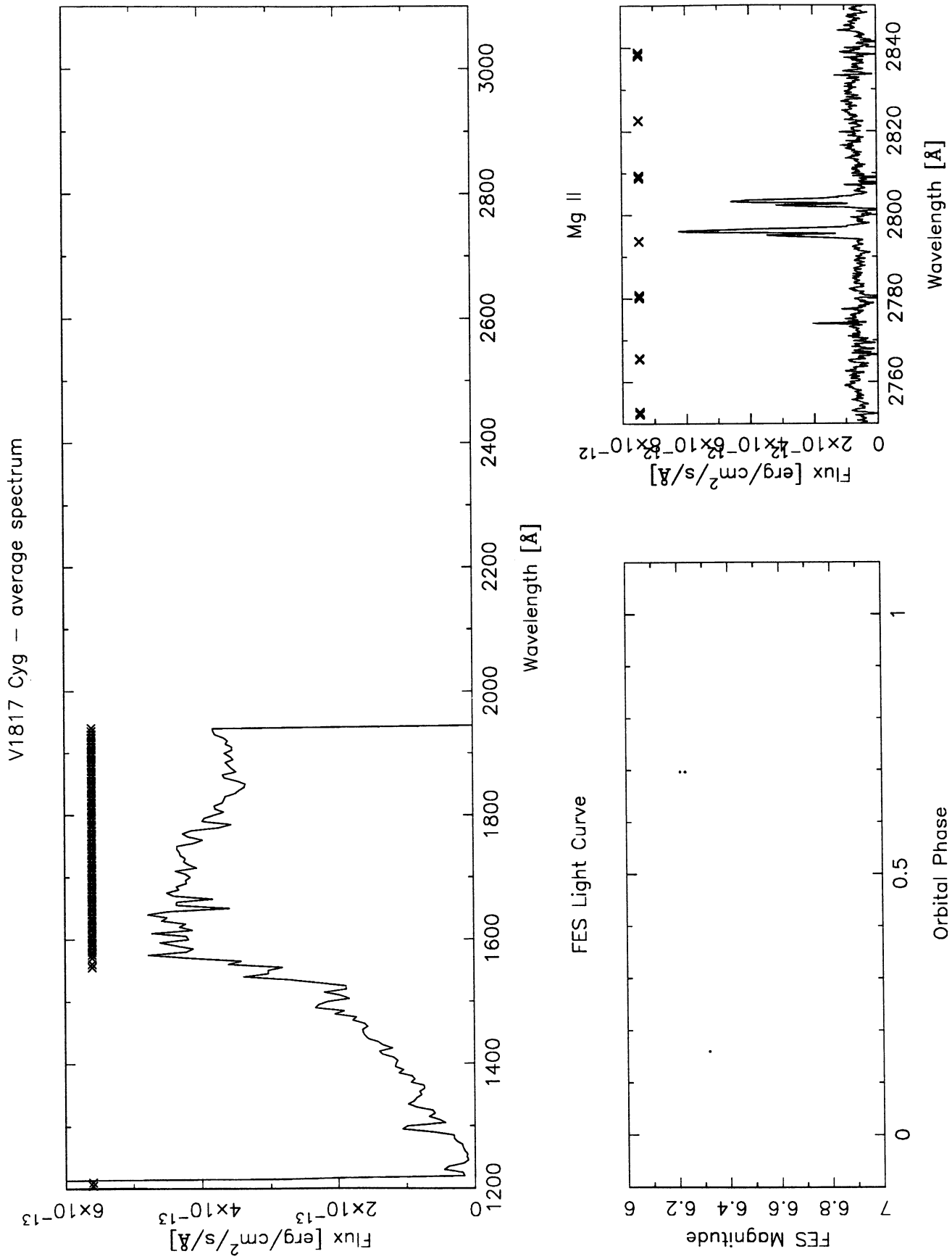
additional references:

Hall D.S., Gessner S.E., Lines H.C. and Lines R.D.: 1990, *Astron. J.* **100**, 2017, *Evolution of starspots in the long-period RS CVN binary V1817 Cygni = HR 7428*

Barksdale W.S., Boyd L.J., Genet R.M., Fried R.E., Hall D.S., Persinger W.T., Hoff D.B., Ingvarsson S.I., Nielsen P., Stelzer H.J. and Wasson N.F.: 1985, *IAU Inform. Bull. Var. Stars* **2737**, 1-4, *Three modes of variability in the bright star HR 7428*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	13681	L	*	81. 4. 8	19:16: 0	44703.3047	90.00	6.23	0.70	0.70	-3	E=250,C=5X,B=42
2	LWR	10313	H	*	81. 4. 8	19:32: 0	44703.3125	40.00	6.21	0.70	0.70	-3	E=156,C=95,B=33
3	SWP	14996	L	*	81. 9.15	0:30: 0	44862.5195	60.00	6.32	0.16	0.16	-1	E=105,C=4X,B=28

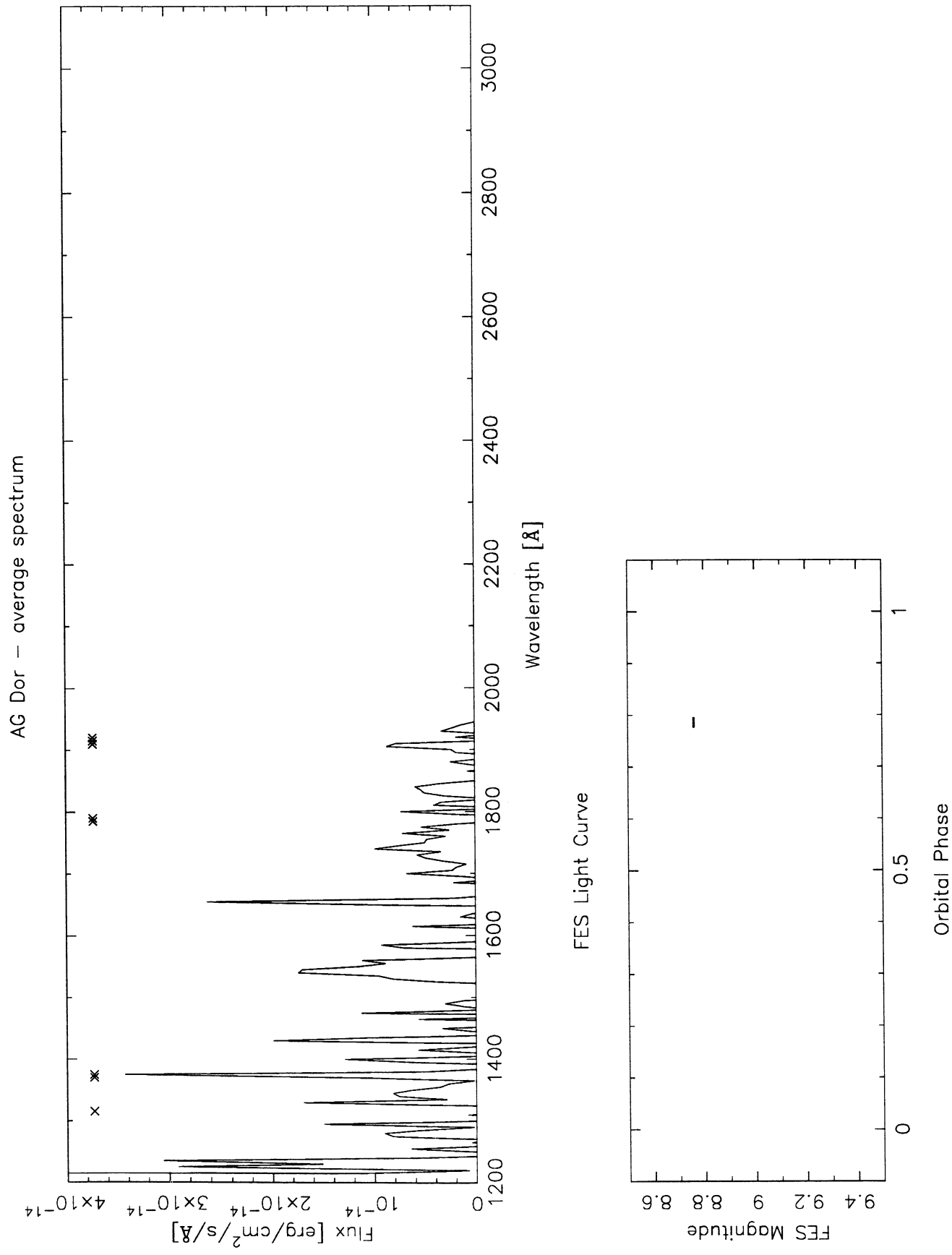

V1817 Cyg – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

AG Dor

alternative names:	HD 26354, SAO 233401, CD-52 858
coordinates (2000.0):	$04^h07^m32.1^s$, $-52°34'05''$
linear ephemeris:	
Min I p = HJD 2444378.67 + 2.562 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.04
masses [$M_\odot$]:	f(m)=0.052
radii [$R_\odot$]:	
spectral type:	K1Vp
distance [pc]:	32
activity parameters:	
P_{phot} [days]:	2.533
ΔV [mag]:	0.09
x-ray luminosity [10^{31} erg/s]:	0.065
Mg II index:	
Ca II index:	weak
$H\alpha$ emission:	
radio flux density [mJy]:	6.6
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	0.026±0.005
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$9.22\ 10^{-16}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.63
B-V:	0.95
V:	8.67
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	28794	L	*	86. 7.31	9:49: 0	46642.9102	60.00	8.76	0.78	0.79	883	B=32

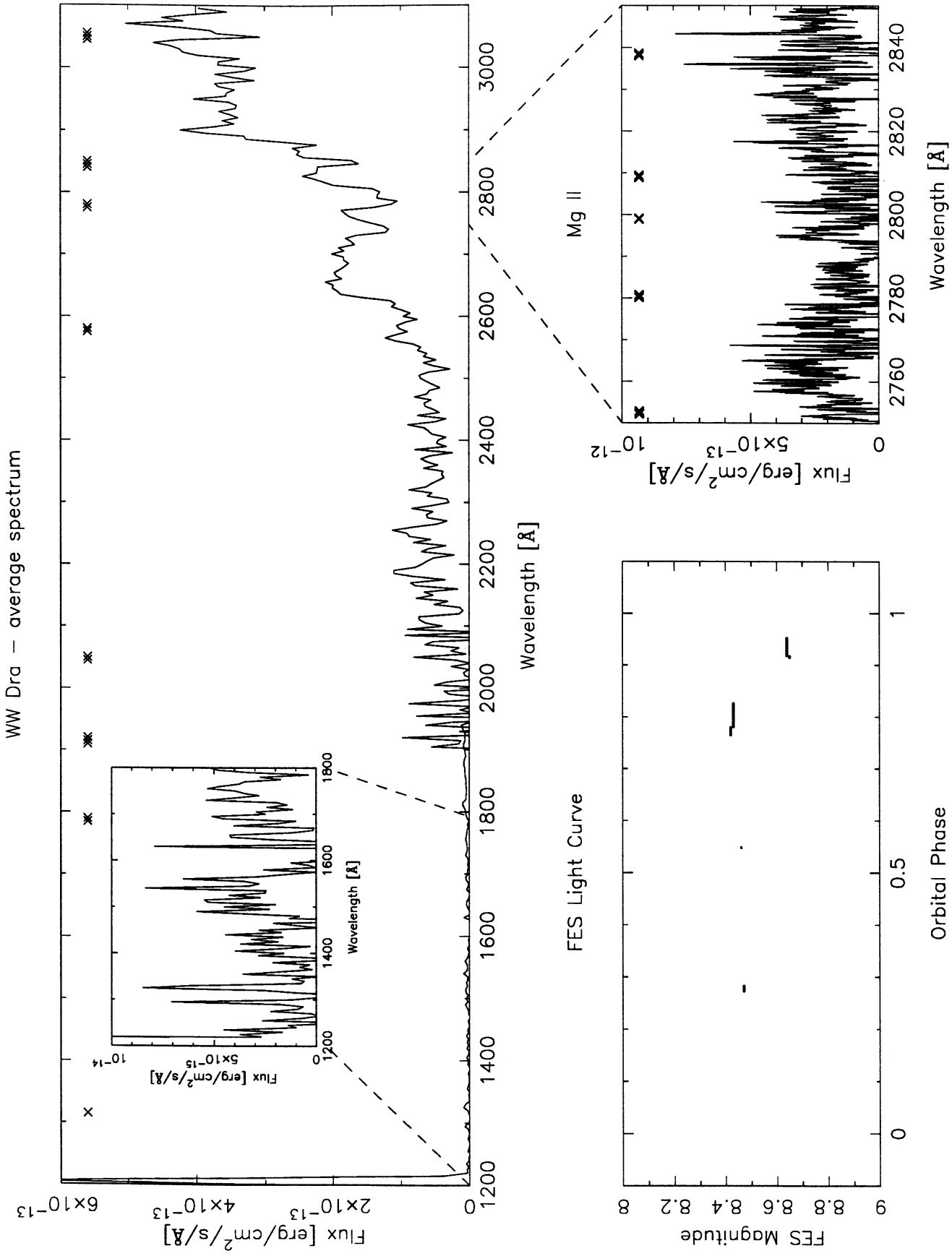

AG Dor – average spectrum
Flux [erg/cm²/s/Å]
0
10⁻¹⁴
2×10⁻¹⁴
3×10⁻¹⁴
4×10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
9.4
9.2
9
8.8
8.6
0
0.5
1
Orbital Phase

WW Dra

alternative names:	HD 150708, SAO 17176, BD+60 1691
coordinates (2000.0):	$16^h39^m03.9^s$, $60°42'07''$
linear ephemeris:	
Min I = HJD 2428020.3481 + 4.629617 E, variable	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.36/1.34
radii [$R_\odot$]:	2.12/3.9:
spectral type:	G2IV/K0IV
distance [pc]:	180
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.10
x-ray luminosity [10^{31} erg/s]:	1.55
Mg II index:	[0.595], 0.455
Ca II index:	I_K=5, cool
$H\alpha$ emission:	
radio flux density [mJy]:	<1.0
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.51 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.65 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.56 10^{-13}
U-B:	0.04/0.88
B-V:	0.60/1.10
V:	8.22
V-R:	0.72
R-I:	
b-y:	0.433
m_1:	0.195
c_1:	0.351
β:	2.596
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	10302	H	*	81. 4. 7	18:14: 0	44702.2578	70.00	8.47	0.27	0.28	601	E=91,C=115,B=56
2	LWR	10316	L	*	81. 4. 9	0:45: 0	44703.5313	8.00	8.46	0.55	0.55	601	E=140,C=135,B=26
3	LWP	8405	L		86. 6.17	7:21: 0	46598.8047	15.00	8.65	0.91	0.92	1010	C=1.3X,B=35
4	SWP	28504	L	*	86. 6.17	7:44: 0	46598.8203	230.00	8.64	0.92	0.95	1010	E=83,C=100,B=58
5	LWP	8406	L	*	86. 6.17	8:41: 0	46598.8633	10.00	8.64	0.93	0.93	1010	C=220,B=35
6	SWP	40549	L	*	91. 1. 8	7:55:38	48264.8320	100.00	8.42	0.77	0.78	1370	300
7	LWP	19524	H		91. 1. 8	9:43:52	48264.9063	303.00	8.43	0.78	0.83	1370	332

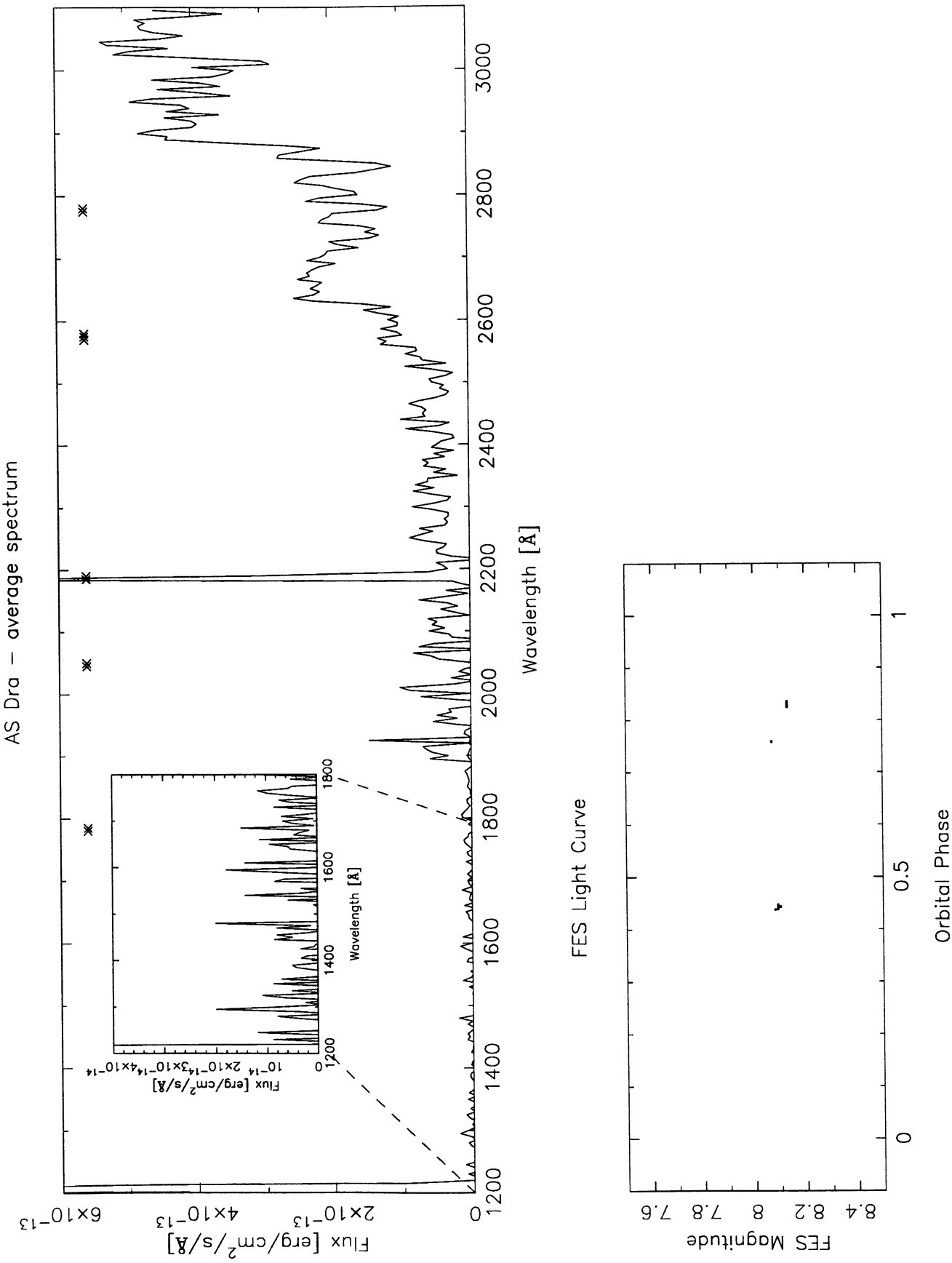

WW Dra – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

AS Dra

alternative names:	HD 107760, SAO 7552, BD+74 493
coordinates (2000.0):	$12^h22^m11.7^s$, $73°14'54''$
linear ephemeris:	
Min I = HJD 2444601.977 + 5.412514 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	≥0.736/≥0.706
radii [$R_\odot$]:	
spectral type:	G4V/G9V
distance [pc]:	29
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.05
x-ray luminosity [10^{31} erg/s]:	0.02
Mg II index:	[0.620]
Ca II index:	moderate, both
$H\alpha$ emission:	absorption
radio flux density [mJy]:	<0.15
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.97\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.95\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.08\ 10^{-13}$
U-B:	0.26
B-V:	0.73
V:	8.00
V-R:	0.60
R-I:	
b-y:	0.470
m_1:	0.238
c_1:	0.276
β:	2.558
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	9642	L		81. 1. 5	6:13: 0	44609.7578	5.00	8.08	0.44	0.44	1	E=114,C=130,B=25
2	SWP	10960	L	*	81. 1. 5	6:24: 0	44609.7656	70.00	8.09	0.44	0.45	1	B=65
3	LWR	9643	L	*	81. 1. 5	6:58: 0	44609.7891	8.00	8.10	0.44	0.44	1	E=148,C=185,B=25
4	LWR	10315	L		81. 4. 9	0: 9: 0	44703.5078	5.00	8.07	0.76	0.76	18	E=116,C=110,B=22
5	SWP	22959	L		84. 5. 9	4: 0:46	45829.6680	90.00	8.13	0.83	0.84	226	220


AS Dra – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

BY Dra

alternative names:	HD 234677, SAO 31048, BD+51 2402
coordinates (2000.0):	$18^h33^m55.8^s$, $51°43'09''$
linear ephemeris:	
Min I = HJD 2443792.1056 + 5.975112 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.307
masses [$M_\odot$]:	0.5-0.6/0.44
radii [$R_\odot$]:	1.2-1.4/
spectral type:	K4V/K7.5V
distance [pc]:	16
activity parameters:	
P_{phot} [days]:	3.827
ΔV [mag]:	≈0.2
x-ray luminosity [10^{31} erg/s]:	0.028
Mg II index:	[2.515], 3.201
Ca II index:	strong, both
$H\alpha$ emission:	emission
radio flux density [mJy]:	1.26
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	51±4
ROSAT 110-200Å [ct/ks]:	57±4
EUVE 100Å [ct/s]:	0.059±0.004
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.04 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.03 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.57 10^{-14}
U-B:	1.00
B-V:	1.221
V:	8.07
V-R:	1.1
R-I:	0.78
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	≈0
IRAS [25]:	

additional references:

Pettersen B.R., Olah K. and Sandmann W.H.: 1992, *Astron. Astrophys., Suppl. Ser.* **96**, 497-504, *Longterm behaviour of starspots. II. A decade of new starspots of photometry of BY Draconis and EV Lacertae*

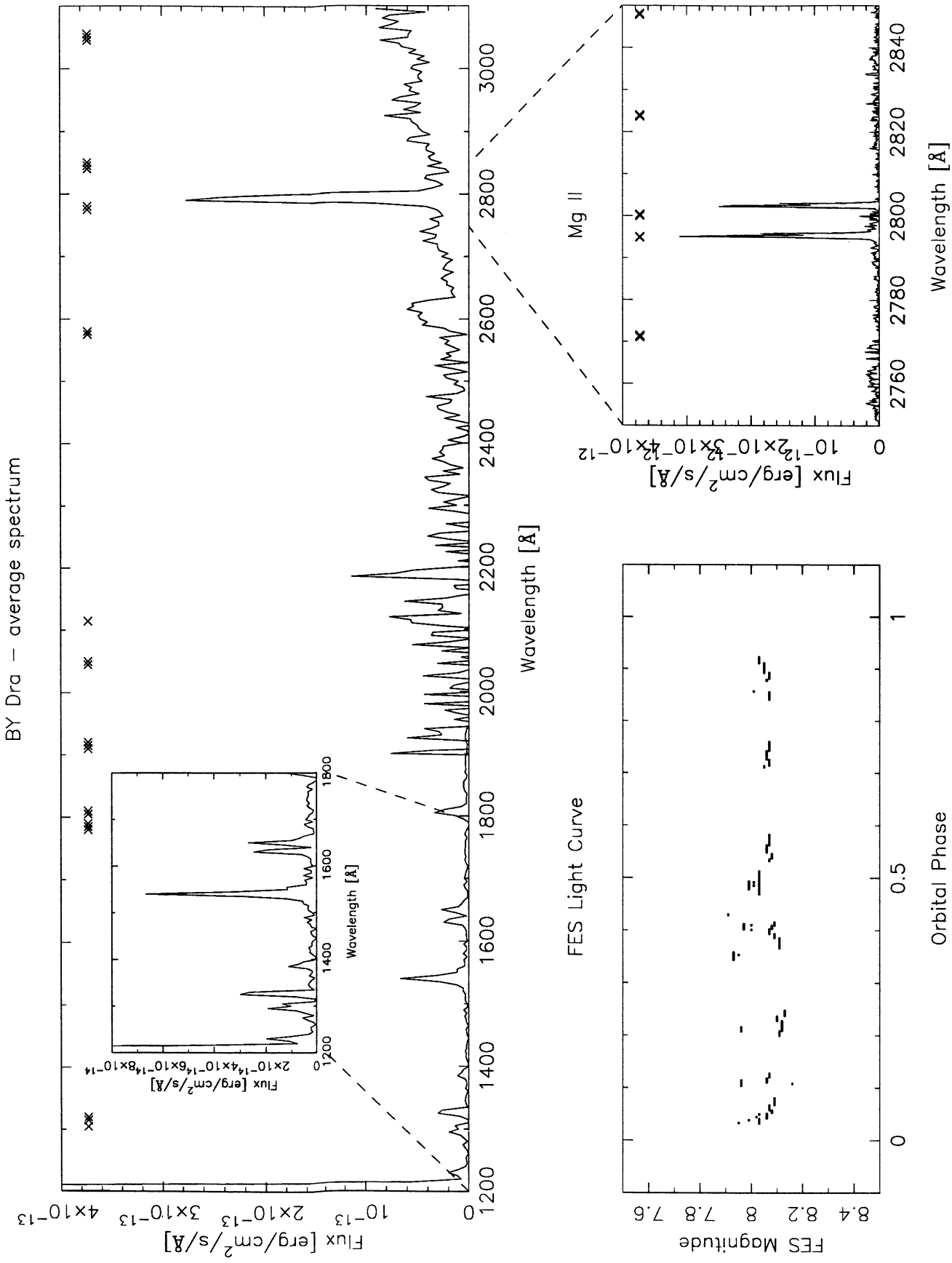
Butler C.J., Doyle J.G., Andrews A.D., Byrne P.B., Linsky J.L., Bornmann P.L., Rodono M., Pazzani V. and Simon T.: 1987, *Astron. Astrophys.* **174**, 139-157, *Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii*

Rodono M., Cutispoto G., Pazzani V., Catalano S., Byrne P.B., Doyle J.G., Butler C.J., Andrews A.D., Blanco C., Marilli E., Linsky J.L., Scaltriti F., Busso M., Cellino A., Hopkins J.L., Okazaki A., Hayashi S.S., Zeilik M., Helston R., Henson G., Smith P. and Simon T.: 1986, *Astron. Astrophys., 165*, 135-156, *Rotational modulation*

and flares on RS CVn and BY Dra-type stars. I. Photometry and spot models for BY Dra, AU Mic, AR Lac, II Peg and V711 Tau (=HR 1099)

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5129	L		79. 7.20	23:59: 0	44075.5000	9.00	7.91	0.43	0.43	47	25
2	SWP	10354	L		80.10.13	14:15: 0	44526.0938	120.00	8.07	0.84	0.86	122	031
3	LWR	9021	L		80.10.13	16:27: 0	44526.1836	10.00	8.01	0.86	0.86	122	352
4	LWR	11656	H		81.10. 2	6:33: 0	44879.7734	5.00	7.95	0.03	0.03	182	B=26
5	LWR	11657	L		81.10. 2	7:21: 0	44879.8047	5.00	7.99	0.04	0.04	182	E=123,C=64,B=23
6	LWR	11658	L		81.10. 2	8:10: 0	44879.8398	5.00	8.02	0.04	0.05	182	E=132,C=60,B=27
7	LWR	11659	L		81.10. 2	8:53: 0	44879.8711	5.00	8.03	0.05	0.05	182	E=137,C=65,B=26
8	SWP	15152	L		81.10. 2	16:44: 0	44880.1953	90.00	7.96	0.10	0.11	182	E=222,C=100,B,50
9	LWR	11663	L		81.10. 2	17:16: 0	44880.2188	5.00	8.16	0.11	0.11	182	342
10	SWP	15156	L	*	81.10. 2	17:37: 0	44880.2344	60.00	8.06	0.11	0.12	182	151
11	LWR	11664	L		81.10. 2	18:40: 0	44880.2773	5.00	8.06	0.12	0.12	182	343
12	SWP	15157	L		81.10. 2	19: 7: 0	44880.2969	60.00	8.07	0.12	0.13	182	221
13	SWP	15162	H		81.10. 3	7:33: 0	44880.8164	60.00	7.96	0.21	0.22	182	E=80,B=39
14	LWR	11669	L	*	81.10. 3	8:39: 0	44880.8594	5.00	7.96	0.22	0.22	182	E=148,C=63,B=30
15	LWR	11677	L		81.10. 4	3: 8: 0	44881.6289	5.00	7.93	0.34	0.34	182	E=108,C=60,B=26
16	SWP	15169	L	*	81.10. 4	3:19: 0	44881.6367	120.00	7.93	0.35	0.36	182	E=59,B=31
17	LWR	11678	L		81.10. 4	4:23: 0	44881.6836	5.00	7.95	0.35	0.35	182	E=141,C=60,B=26
18	LWR	11681	L		81.10. 4	11:15: 0	44881.9688	5.00	8.00	0.40	0.40	182	E=165,C=65,B=30
19	SWP	15172	L		81.10. 4	11:26: 0	44881.9766	90.00	7.97	0.40	0.41	182	E=189,B=102
20	LWR	11682	L		81.10. 4	12:32: 0	44882.0234	5.00	8.00	0.41	0.41	182	E=145,C=68,B=30
21	LWR	11686	L		81.10. 4	22:26: 0	44882.4336	5.00	7.99	0.48	0.48	182	E=133,C=60,B=23
22	SWP	15177	L		81.10. 4	22:36: 0	44882.4414	120.00	7.99	0.48	0.49	182	E=107,C=45,B=35
23	LWR	11687	L	*	81.10. 4	23:20: 0	44882.4727	10.00	8.01	0.49	0.49	182	E=230,C=65,B=25
24	LWR	11688	L		81.10. 5	0:18: 0	44882.5117	5.00	8.01	0.49	0.49	182	E=147,C=60,B=23
25	LWR	13598	L		82. 7. 3	19:18: 0	45154.3047	23.00	7.98	0.98	0.98	227	E=2X,C=140,B=50
26	LWP	18893	L	*	90. 9.29	15:52:44	48164.1602	16.00	8.05	0.71	0.71	731	351
27	SWP	39725	L		90. 9.29	16:23: 3	48164.1836	90.00	8.07	0.72	0.73	731	230
28	LWP	18894	L		90. 9.29	18: 0:29	48164.2500	16.00	8.06	0.73	0.73	731	351
29	SWP	39726	L		90. 9.29	18:51:37	48164.2852	90.00	8.06	0.73	0.74	731	230
30	LWP	18895	L		90. 9.29	20:28:44	48164.3516	16.00	8.07	0.74	0.75	731	351
31	SWP	39727	L		90. 9.29	21:10:18	48164.3828	97.00	8.07	0.75	0.76	731	230
32	LWP	18904	L	*	90. 9.30	15:37:58	48165.1523	16.00	8.06	0.88	0.88	731	351
33	SWP	39733	L	*	90. 9.30	16:18:57	48165.1797	90.00	8.07	0.88	0.89	731	230
34	LWP	18905	H		90. 9.30	17:56:55	48165.2461	150.00	8.05	0.89	0.91	731	263
35	SWP	39734	L		90. 9.30	20:34:33	48165.3555	93.00	8.03	0.91	0.92	731	230
36	LWP	18911	H		90.10. 1	14: 0:29	48166.0820	75.00	8.03	0.03	0.04	732	251
37	SWP	39738	L		90.10. 1	15:24:21	48166.1406	75.00	8.06	0.04	0.05	732	250
38	LWP	18912	H		90.10. 1	16:49:47	48166.2031	40.00	8.08	0.05	0.06	732	151
39	SWP	39739	L		90.10. 1	17:37:19	48166.2344	75.00	8.07	0.06	0.07	732	230
40	LWP	18913	H		90.10. 1	18:59:46	48166.2930	40.00	8.09	0.07	0.07	732	141
41	SWP	39740	L		90.10. 1	19:46:20	48166.3242	60.00	8.09	0.08	0.08	732	130
42	LWP	18922	H		90.10. 2	13:57: 6	48167.0820	75.00	8.11	0.20	0.21	732	151
43	SWP	39745	L		90.10. 2	15:18: 9	48167.1367	75.00	8.12	0.21	0.22	732	130
44	LWP	18923	H	*	90.10. 2	16:39:52	48167.1953	75.00	8.12	0.22	0.23	732	141
45	SWP	39746	L	*	90.10. 2	18: 2: 0	48167.2500	75.00	8.10	0.23	0.24	732	140
46	LWP	18924	H		90.10. 2	19:23:24	48167.3086	40.00	8.13	0.24	0.24	732	131
47	SWP	39747	L		90.10. 2	20: 9:21	48167.3398	39.00	8.13	0.24	0.25	732	130
48	LWP	18930	H		90.10. 3	13:52:44	48168.0781	75.00	8.11	0.37	0.38	732	054
49	SWP	39754	L		90.10. 3	15:15:57	48168.1367	75.00	8.11	0.38	0.39	732	031
50	LWP	18931	H		90.10. 3	16:38:13	48168.1914	60.00	8.09	0.39	0.39	732	044
51	SWP	39755	L		90.10. 3	17:44:31	48168.2383	75.00	8.07	0.39	0.40	732	031
52	LWP	18932	H		90.10. 3	19: 6:29	48168.2969	50.00	8.08	0.40	0.41	732	044
53	SWP	39756	L		90.10. 3	20: 1:35	48168.3359	45.00	8.09	0.41	0.42	732	031
54	SWP	39761	L		90.10. 4	13:41: 2	48169.0703	30.00	8.07	0.53	0.54	732	021
55	LWP	18936	H		90.10. 4	14:20:33	48169.0977	75.00	8.08	0.54	0.55	732	044
56	SWP	39762	L		90.10. 4	15:56:23	48169.1641	50.00	8.06	0.55	0.55	732	131
57	LWP	18937	H		90.10. 4	17: 2:17	48169.2109	50.00	8.06	0.56	0.56	732	044
58	SWP	39763	L		90.10. 4	18: 1:15	48169.2500	50.00	8.07	0.56	0.57	732	131
59	LWP	18938	H		90.10. 4	18:59:56	48169.2930	50.00	8.07	0.57	0.58	732	044
60	SWP	39764	L		90.10. 4	19:56:47	48169.3320	50.00	8.07	0.58	0.58	732	131
61	SWP	42778	L		91.10.21	14:20:36	48551.0977	370.00	8.03	0.47	0.51	796	341


BY Dra – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

CM Dra

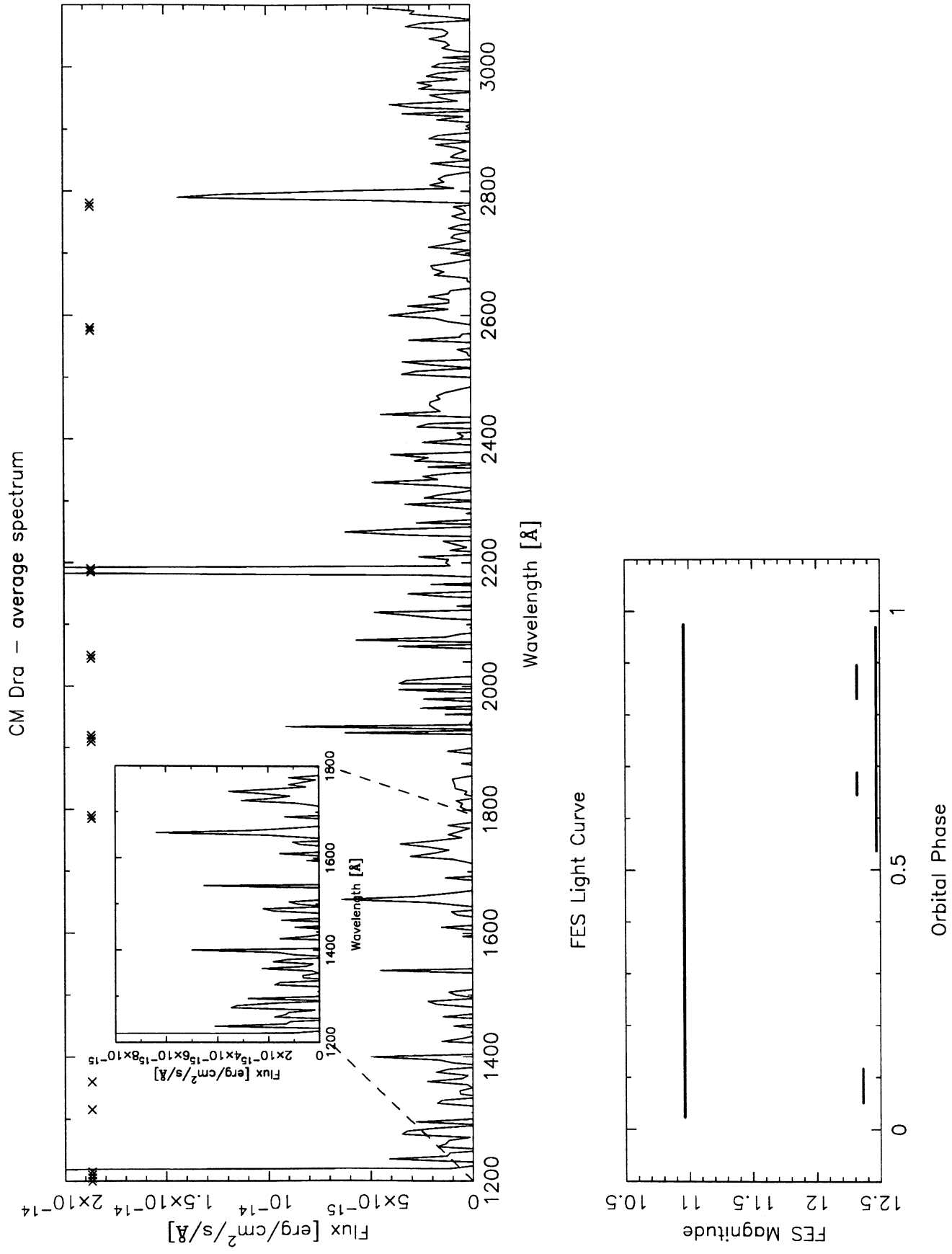
alternative names:	-
coordinates (2000.0):	$16^h34^m24.3^s$, $57°08'58''$
linear ephemeris:	
Min I = HJD 2442893.9325 + 1.268389 E	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	0.237/0.207
radii [$R_\odot$]:	0.252/0.235
spectral type:	M4Ve/M4Ve
distance [pc]:	15
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.021
x-ray luminosity [10^{31} erg/s]:	0.003
Mg II index:	[3.851]
Ca II index:	yes, both
$H\alpha$ emission:	
radio flux density [mJy]:	<0.53
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	≈0
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.20 10^{-15}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.30 10^{-15}
U-B:	1.05
B-V:	1.60
V:	12.90
V-R:	1.83
R-I:	1.46
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Vilhu O., Ambruster C.W., Neff J.E., Linsky J.L., Brandenburg A., Ilyin I.V. and Shakhovskaya N.I.: 1989, *Astron. Astrophys.* **222**, 179-186, *IUE observations of the M dwarfs CM Draconis and Rossiter 137B magnetic activity at saturated levels*

UE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	9792	L		80. 8.14	18:52: 0	44466.2852	45.00	12.32	0.65	0.67	1239	111
2	LWR	8508	L		80. 8.14	19:41: 0	44466.3203	30.00	12.32	0.67	0.69	1239	111
3	LWR	14341	L	*	82.10. 5	15: 3:22	45248.1289	120.00	12.36	0.05	0.12	1856	134
4	SWP	18223	L	*	82.10. 6	14:48:49	45249.1172	120.00	12.32	0.83	0.90	1856	101
5	SWP	28619	L	*	86. 7. 5	20: 3: 0	46617.3359	790.00	12.47	0.54	0.97	2935	E=174,B=120
6	LWP	8554	L		86. 7. 6	9:23: 0	46617.8906	90.00	10.96	0.97	0.02	2935	E=155,C=108,B=80

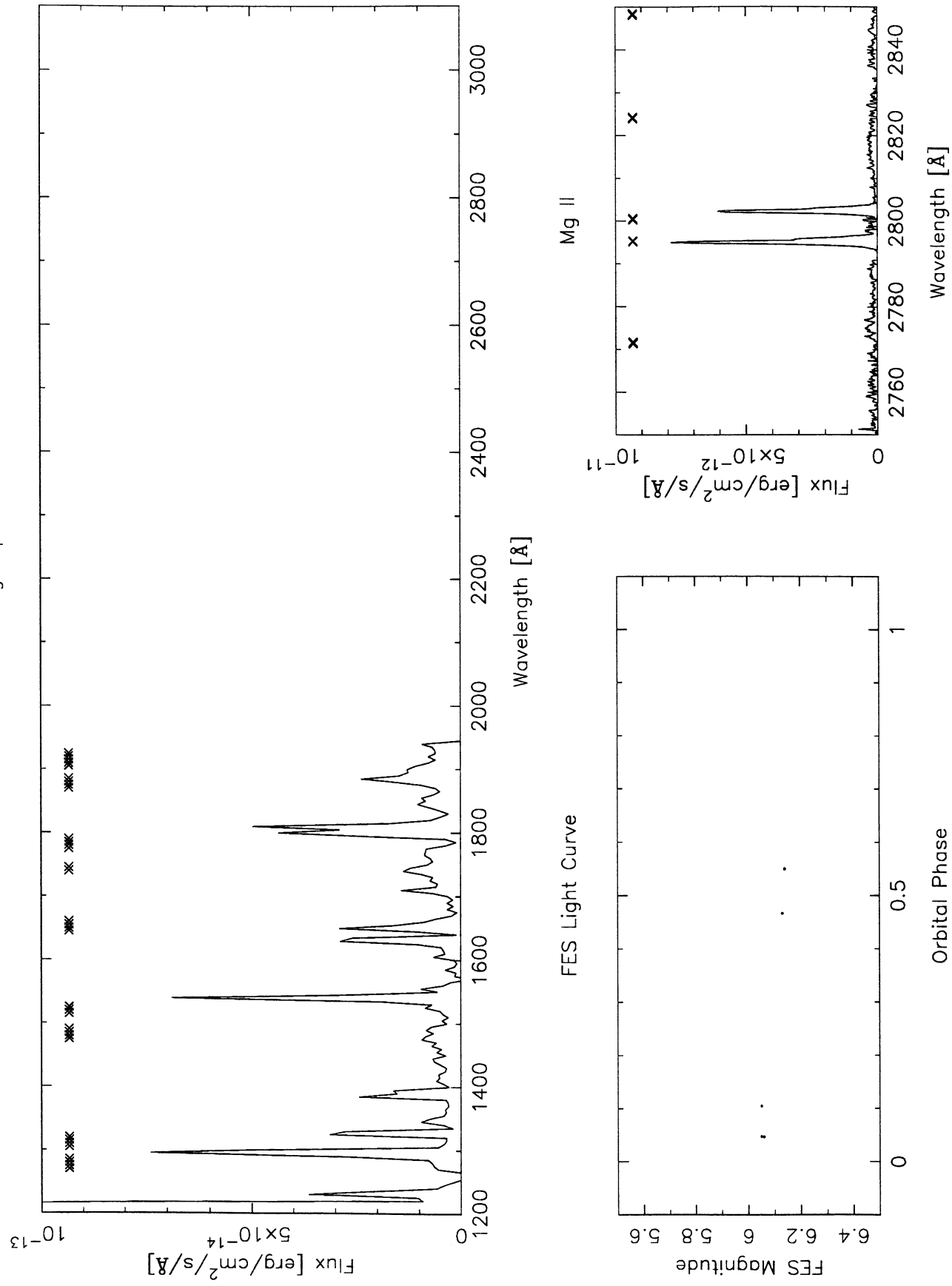

CM Dra – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

DK Dra

alternative names:	HD 106677, SAO 7533, HR 4665, BD+73 549
coordinates (2000.0):	$12^h15^m41.5^s$, $72°33'05''$
linear ephemeris:	
Min I = HJD 2443445.95 + 64.44 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	≥1.43/≥1.43
radii [$R_\odot$]:	≥13/≥13
spectral type:	K1III/K1III
distance [pc]:	130
activity parameters:	
P_{phot} [days]:	63.75
ΔV [mag]:	0.28
x-ray luminosity [10^{31} erg/s]:	0.34-9.8
Mg II index:	2.579
Ca II index:	class C, both
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	1.76
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	0.031±0.006
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.77 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[9.36 10^{-14}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[3.51 10^{-13}]
U-B:	
B-V:	1.12
V:	6.14
V-R:	0.89
R-I:	0.56
b-y:	0.713
m_1:	0.503
c_1:	0.279
β:	2.569
IRAS [12]:	1.86
IRAS [25]:	0.44

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	1565	L	*	78. 5.17	11:54: 0	43645.9961	60.00	6.05	0.10	0.11	3	
2	LWR	3210	H		78.12.20	4: 5: 0	43862.6719	30.00	6.13	0.47	0.47	6	MAXDN=232
3	LWR	6260	H		79.11.29	14:49: 0	44207.1172	30.00	0.72	0.81	0.81	11	243
4	SWP	7266	L	*	79.11.29	15:25: 0	44207.1406	75.00	0.72	0.81	0.81	11	231
5	SWP	15038	L	*	81. 9.19	2:47: 0	44866.6172	70.00	6.06	0.05	0.45	22	E=208,B=20
6	LWR	11584	H		81. 9.19	4: 2: 0	44866.6680	25.00	6.05	0.05	0.05	22	E=149,C=77,B=32
7	LWP	19045	H	*	90.10.20	23:56: 0	48185.4961	30.00	6.14	0.55	0.55	73	E=166,C=70,B=35
8	SWP	39889	L		90.10.21	0:42: 0	48185.5273	75.00	6.14	0.55	0.55	73	E=1.5X,C=47,B=18


DK Dra – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

DR Dra

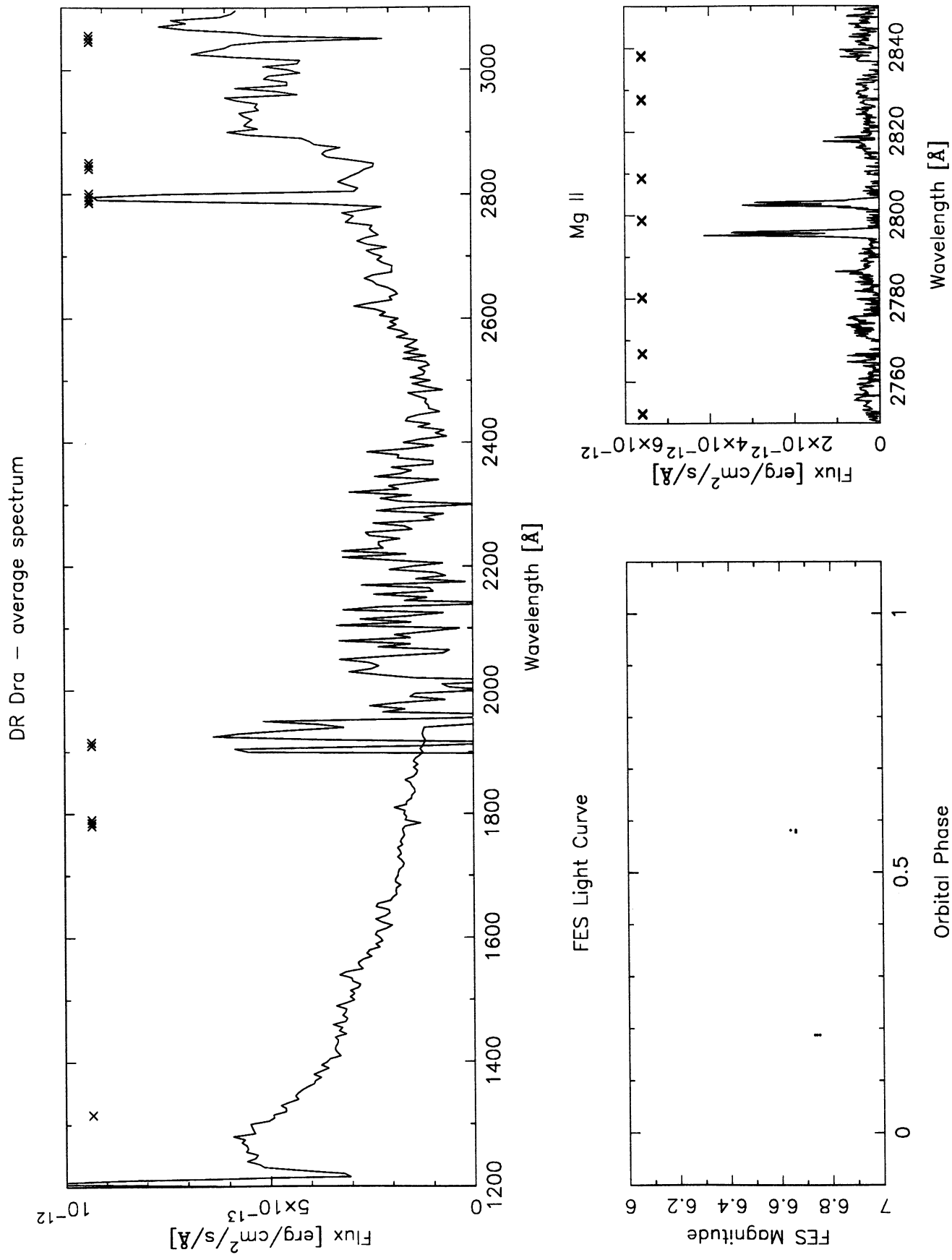
alternative names:	HD 160538, SAO 8842, BD+74 717, 29 Dra
coordinates (2000.0):	$17^h32^m41.2^s$, $74°13'38''$
linear ephemeris:	
Min I = HJD 2447480.5 + 905.9 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.09
masses [$M_\odot$]:	0.55/
radii [$R_\odot$]:	0.012/≥5
spectral type:	WD/K0-2III
distance [pc]:	88
activity parameters:	
P_{phot} [days]:	31.5
ΔV [mag]:	0.12
x-ray luminosity [10^{31} erg/s]:	0.822
Mg II index:	[1.323], 0.962
Ca II index:	strong, cool
$H\alpha$ emission:	filled-in absorption, variable
radio flux density [mJy]:	0.87
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	16±2
ROSAT 110-200Å [ct/ks]:	5±2
EUVE 100Å [ct/s]:	0.027±0.003
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.28\ 10^{-13}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.17\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.15\ 10^{-13}$
U-B:	0.81
B-V:	1.05
V:	6.55
V-R:	
R-I:	
b-y:	0.667
m_1:	0.389
c_1:	0.333
β:	2.560
IRAS [12]:	
IRAS [25]:	

additional references:

Fekel F.C. and Simon T.: 1985, *Astron. J.* **90**, 812-816, *HD 160538 and HD 185510 : two active-chromosphere stars with hot companions*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	18538	L		82.11.12	10:54: 0	45285.9531	55.00	6.66	0.58	0.58	-2	C=1.5X,B=23
2	LWR	14638	H	*	82.11.15	23:53: 0	45289.4961	20.00	6.66	0.58	0.58	-2	E=85,C=60,B=28
3	SWP	18562	L	*	82.11.16	0:43: 0	45289.5313	40.00	6.64	0.58	0.58	-2	C=220,B=25
4	SWP	29641	L	*	86.11. 9	21:35: 0	46744.3984	35.00	6.75	0.19	0.19	0	E=139,C=200,B=28
5	LWP	9503	L		86.11. 9	23:49: 0	46744.4922	12.00	6.73	0.19	0.19	0	E=2X,C=1.5X,B=38
6	LWP	9504	L	*	86.11.10	2:41: 0	46744.6133	5.00	6.74	0.19	0.19	0	E=2X,C=181,B=40

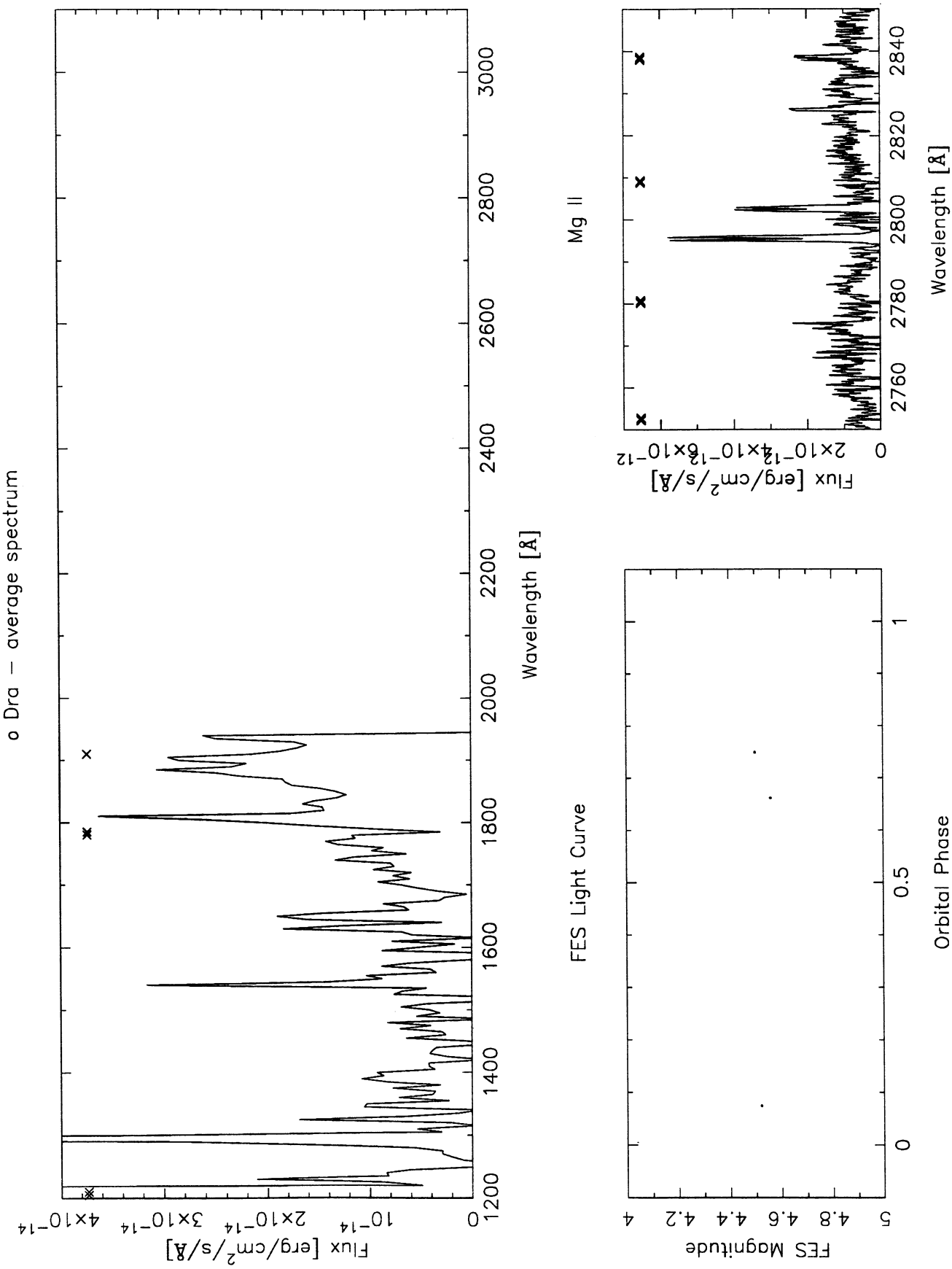

DR Dra – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

o Dra

alternative names:	HD 175306, SAO 31218, HR 7125, BD+59 1925, 47 Dra
coordinates (2000.0):	$18^h51^m12.1^s$, 59°23′18″
linear ephemeris:	
Min I s = HJD 2419256.69 + 138.420 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.114
masses [$M_\odot$]:	f(m)=0.183
radii [$R_\odot$]:	≥37
spectral type:	G9III
distance [pc]:	67
activity parameters:	
P_{phot} [days]:	142.8
ΔV [mag]:	≈0.01
x-ray luminosity [10^{31} erg/s]:	0.025
Mg II index:	0.737
Ca II index:	strong
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.17
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.25 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[5.67 10^{-13}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.76 10^{-12}]
U-B:	1.04
B-V:	1.19
V:	4.64
V-R:	
R-I:	0.64
b-y:	0.730
m_1:	0.465
c_1:	0.335
β:	2.571
IRAS [12]:	8.84
IRAS [25]:	2.10

UE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	8007	H	*	80. 6.11	19: 3: 0	44402.2930	25.00	4.56	0.66	0.66	181	E=142,C=120,B=48
2	SWP	10884	L	*	80.12.24	7:42: 0	44597.8203	125.00	4.52	0.07	0.08	183	E=91,C=120,B=55
3	LWP	11577	H		87. 9. 5	21:54:43	47044.4141	15.00	4.50	0.75	0.75	200	333


o Dra – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

RZ Eri

alternative names:	HD 30050, SAO 149847, BD-10 993
coordinates (2000.0):	$04^h43^m45.8^s$, $-10°40'57''$
linear ephemeris:	
Min I = HJD 2423856.33 + 39.2826 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.35
masses [$M_\odot$]:	1.68/1.62
radii [$R_\odot$]:	2.83/7.0
spectral type:	Am/K0IV
distance [pc]:	143
activity parameters:	
P_{phot} [days]:	31.4
ΔV [mag]:	0.12
x-ray luminosity [10^{31} erg/s]:	2.818
Mg II index:	[0.783]
Ca II index:	cool
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	2.31
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.09\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.73\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.32\ 10^{-13}$
U-B:	0.26/0.68
B-V:	0.43/1.10
V:	7.70
V-R:	
R-I:	
b-y:	0.431
m_1:	0.181
c_1:	0.764
β:	2.691
IRAS [12]:	
IRAS [25]:	

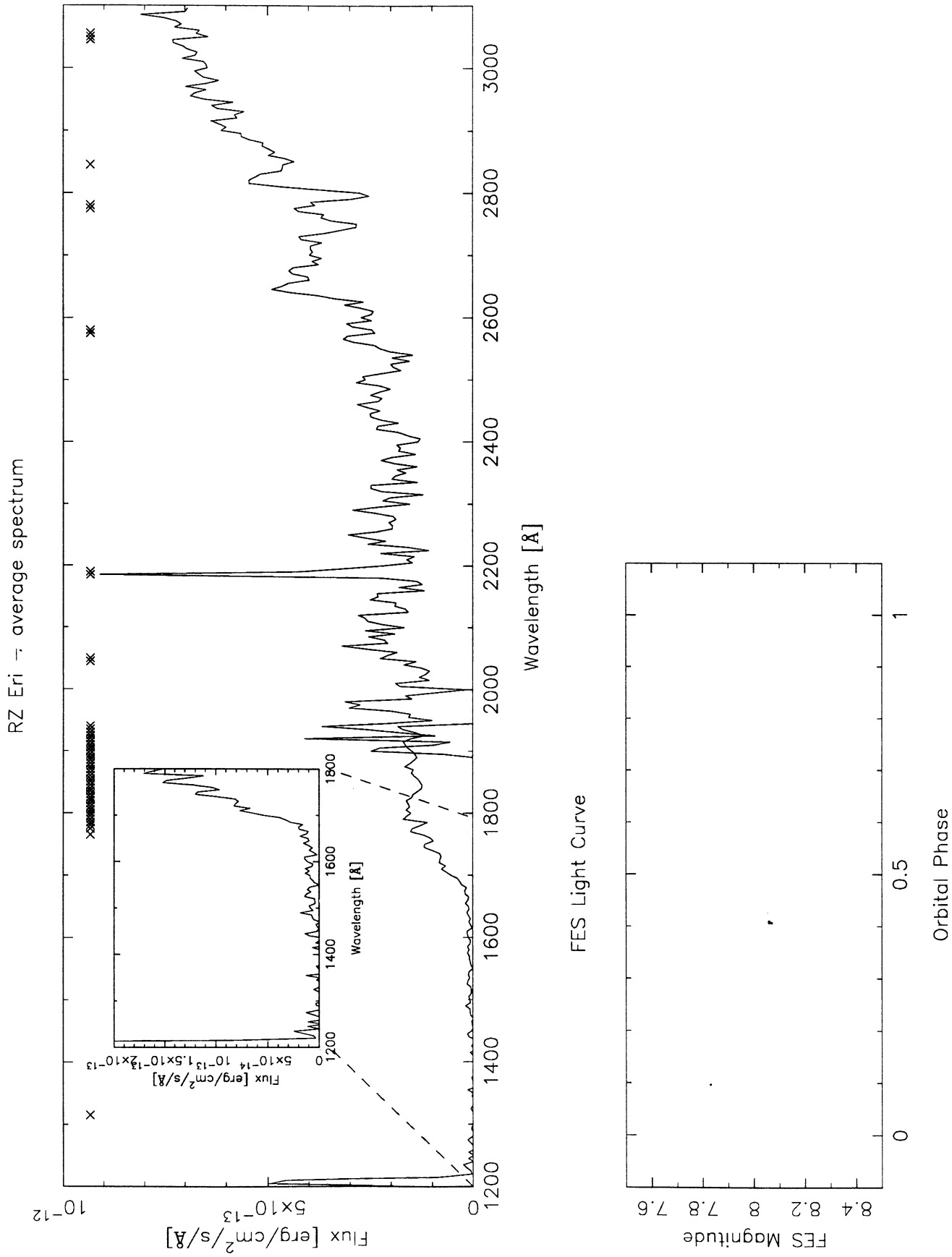
additional references:

Burki G., Kviz Z. and North P.: 1992, *Astron. Astrophys.* **256**, 463-476, *A photometric survey of the eclipsing RS CVn-type system RZ Eridani : starspot variability, circumstellar matter, tidal evolution*

Popper D.M.: 1990, *Astron. J.* **100**, 247, *Orbits of close binaries with Ca II H and K in emission. III. Eleven more systems*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	11571	L	*	81. 9.17	11:27: 0	44864.9766	6.00	7.89	0.86	0.86	534	C=200,B=35
2	LWR	12149	L	*	81.12.14	6: 2: 0	44952.7500	5.00		0.10	0.10	537	E=174,C=150,B=27
3	SWP	15744	L	*	81.12.14	6:11: 0	44952.7578	15.00	7.83	0.10	0.106	537	C=70,B=30
4	LWP	9431	L		86.10.29	3:40: 0	46732.6523	4.00	8.07	0.41	0.41	582	C=179,B=33
5	SWP	29550	L	*	86.10.29	3:52: 0	46732.6602	150.00	8.06	0.41	0.41	582	C=2X,B=60

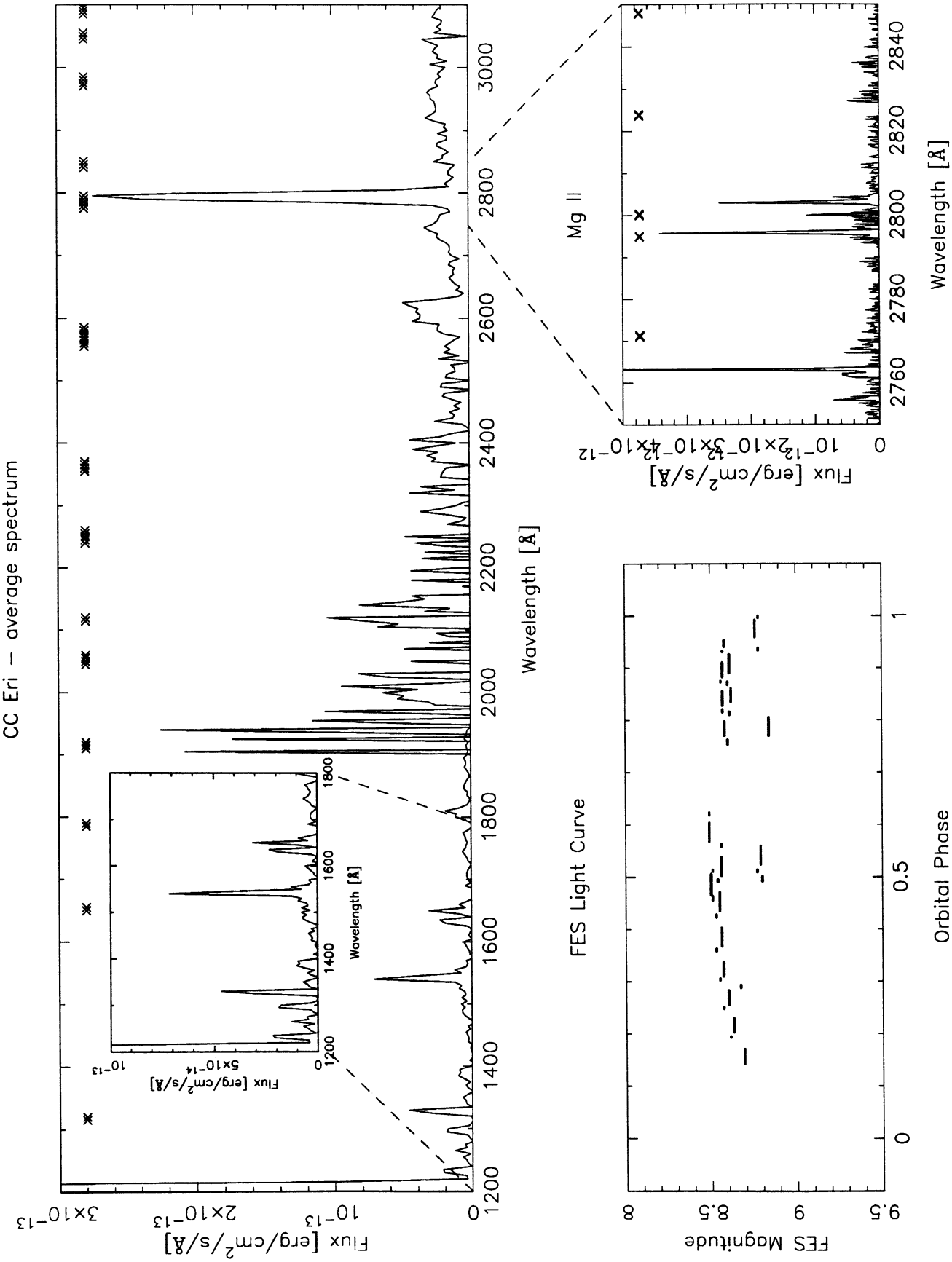

RZ Eri - average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

CC Eri

alternative names:	HD 16157, SAO 215947, CD-44 775
coordinates (2000.0):	$02^h34^m21.8^s$, $-44°47'54''$
linear ephemeris:	
Min I = HJD 2430001.2905 + 1.56145 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.046
masses [$M_\odot$]:	≈0.47/≈0.24
radii [$R_\odot$]:	≈0.7/
spectral type:	K7Ve/≈dM4
distance [pc]:	12
activity parameters:	
P_{phot} [days]:	1.561
ΔV [mag]:	0.3
x-ray luminosity [10^{31} erg/s]:	<0.0001
Mg II index:	[4.874], -
Ca II index:	yes
$H\alpha$ emission:	emission
radio flux density [mJy]:	<0.62
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	42±6
ROSAT 110-200Å [ct/ks]:	51±8
EUVE 100Å [ct/s]:	0.122±0.008
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.64 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.94 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.35 10^{-14}
U-B:	1.06
B-V:	1.39
V:	8.76
V-R:	
R-I:	0.78
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	0.54
IRAS [25]:	0.20

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5558	L	*	79. 9.11	16:16: 0	44128.1797	12.00	8.67	0.29	0.29	9047	353
2	SWP	37192	L		89. 9.26	20:14:59	47796.3438	20.00	8.80	0.49	0.50	11396	130
3	LWP	16431	L		89. 9.26	20:52:47	47796.3711	12.00	8.77	0.51	0.52	11396	261
4	SWP	37193	L		89. 9.26	21:25:25	47796.3945	81.00	8.79	0.52	0.56	11396	250
5	LWP	16719	L		89.11. 2	3:54: 0	47832.6641	20.00	8.60	0.75	0.76	11419	E=248,C=71,B=38
6	SWP	37500	L		89.11. 2	4:35: 0	47832.6914	60.00	8.58	0.77	0.80	11419	E=46,B=18
7	LWP	16720	L		89.11. 2	6:16: 0	47832.7617	10.00	8.57	0.82	0.82	11419	E=159,C=52,B=34
8	SWP	37501	L		89.11. 2	6:44: 0	47832.7813	60.00	8.57	0.83	0.86	11419	E=66,B=33
9	LWP	16721	L		89.11. 2	8:28: 0	47832.8516	6.00	8.56	0.87	0.88	11419	E=126,C=50,B=36
10	SWP	37502	L		89.11. 2	8:50: 0	47832.8672	60.00	8.57	0.88	0.91	11419	E=54,B=30
11	LWP	16722	L		89.11. 2	10:36: 0	47832.9414	6.00	8.57	0.93	0.93	11419	E=128,C=48,B=32
12	SWP	37503	L		89.11. 2	10:58:59	47832.9570	30.00	8.58	0.94	0.95	11419	040
13	SWP	37504	L		89.11. 2	18:36: 0	47833.2734	60.00	8.69	0.14	0.17	11420	E=50,C=43,B=28
14	LWP	16725	L		89.11. 2	20:28: 0	47833.3516	6.00	8.61	0.19	0.20	11420	E=138,C=50,B=34
15	SWP	37505	L		89.11. 2	20:46: 0	47833.3672	60.00	8.63	0.20	0.23	11420	E=38,B=22
16	LWP	16726	L		89.11. 2	22:31: 0	47833.4375	6.00	8.57	0.25	0.25	11420	E=111,C=48,B=34
17	SWP	37506	L		89.11. 2	22:49: 0	47833.4492	60.00	8.60	0.26	0.28	11420	E=42,B=22
18	LWP	16727	L		89.11. 3	0:31: 0	47833.5234	6.00	8.55	0.30	0.31	11420	E=102,C=50,B=26
19	SWP	37507	L		89.11. 3	0:49: 0	47833.5352	60.00	8.57	0.31	0.34	11420	E=38,B=22
20	LWP	16728	L		89.11. 3	2:35: 0	47833.6094	10.00	8.53	0.36	0.36	11420	E=140,C=52,B=36
21	SWP	37508	L		89.11. 3	2:58: 0	47833.6250	80.00	8.56	0.37	0.40	11420	E=82,B=25
22	LWP	16729	L		89.11. 3	5: 6: 0	47833.7109	10.00	8.53	0.42	0.43	11420	E=137,C=53,B=36
23	SWP	37509	L		89.11. 3	5:33: 0	47833.7305	80.00	8.55	0.44	0.47	11420	E=62,B=32
24	LWP	16730	L		89.11. 3	7:35: 0	47833.8164	10.00	8.54	0.49	0.50	11420	E=137,C=57,B=41
25	SWP	37510	L		89.11. 3	8: 1: 0	47833.8359	80.00	8.56	0.50	0.54	11420	E=75,B=40
26	LWP	16731	L		89.11. 3	10: 5: 0	47833.9219	10.00	8.56	0.56	0.56	11420	E=129,C=52,B=35
27	SWP	37511	L		89.11. 3	10:32: 5	47833.9375	80.00	8.49	0.57	0.60	11420	330
28	LWP	16732	L	*	89.11. 3	12:22:54	47834.0156	10.00	8.49	0.62	0.62	11420	342
29	SWP	37513	L		89.11. 3	18: 7: 0	47834.2539	80.00	8.84	0.77	0.81	11420	E=66,B=28
30	LWP	16734	L	*	89.11. 3	19:38: 0	47834.3164	10.00	8.61	0.81	0.82	11420	E=163,B=35
31	SWP	37514	L	*	89.11. 3	20:30: 0	47834.3555	55.00	8.62	0.84	0.86	11420	E=38,B=23
32	LWP	16735	L	*	89.11. 3	21:43: 0	47834.4063	10.00	8.60	0.87	0.87	11420	E=180,B=36
33	SWP	37515	L		89.11. 3	22:38: 0	47834.4414	80.00	8.61	0.89	0.93	11420	E=57,B=26
34	LWP	16736	L	*	89.11. 4	0:14: 0	47834.5078	10.00	8.78	0.93	0.94	11420	E=205,B=35
35	SWP	37516	L		89.11. 4	1: 5: 0	47834.5469	75.00	8.76	0.96	0.99	11420	E=61,B=26
36	LWP	16737	L		89.11. 4	2:31: 0	47834.6055	5.00	8.78	0.00	0.00	11420	E=169,C=48,B=35
37	LWP	19479	H	*	90.12.26	17:32: 0	48252.2305	15.00	8.51	0.46	0.46	11688	E=75,B=35
38	SWP	40462	L	*	90.12.26	17:57: 0	48252.2461	90.00	8.50	0.47	0.51	11688	E=225,B=25
39	LWP	19480	L	*	90.12.26	19:34: 0	48252.3164	5.00	8.51	0.51	0.51	11688	E=153,B=32


CC Eri – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

EI Eri

alternative names:	HD 26337, SAO 130994, BD-08 801
coordinates (2000.0):	$04^h09^m40.7^s$, $-07°53'32''$
linear ephemeris:	
Min I = HJD 2446091.539 + 1.947227 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	$\geq$1.4/$\geq$0.53
radii [$R_\odot$]:	$\geq$1.9/
spectral type:	G5IV
distance [pc]:	75
activity parameters:	
P_{phot} [days]:	1.945
ΔV [mag]:	0.20
x-ray luminosity [10^{31} erg/s]:	1.38
Mg II index:	[0.688], 0.639
Ca II index:	class C
$H\alpha$ emission:	filled-in, variable
radio flux density [mJy]:	4.
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	75±9
ROSAT 110-200Å [ct/ks]:	113±11
EUVE 100Å [ct/s]:	0.133±0.016
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.55 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	6.44 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.36 10^{-12}
U-B:	0.14
B-V:	0.67
V:	6.96
V-R:	0.61
R-I:	0.39
b-y:	0.450
m_1:	0.204
c_1:	0.322
β:	2.574
IRAS [12]:	0.30
IRAS [25]:	<0.25

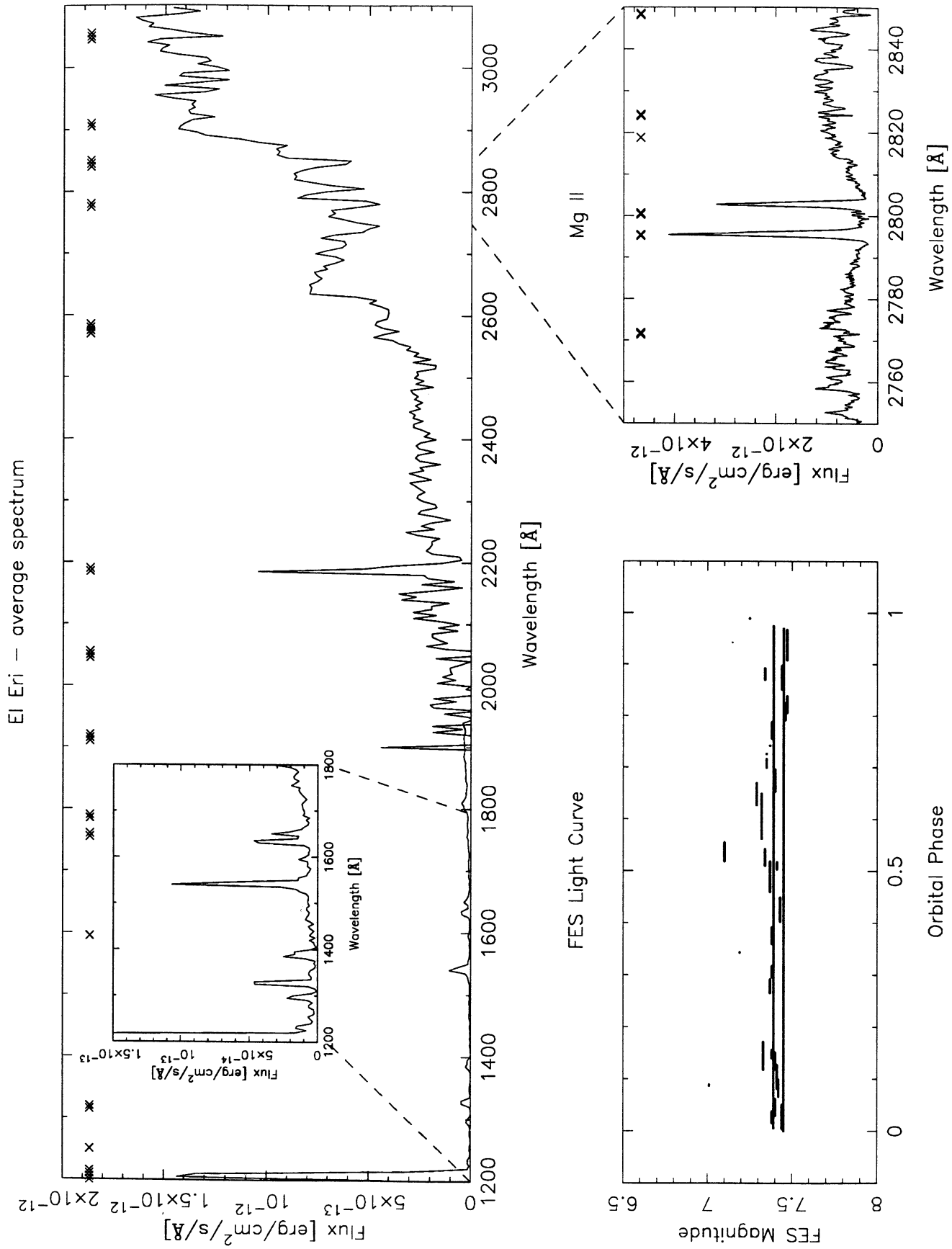
additional references:

Hatzes A.P. and Vogt S.S.: 1992, *Mon. Not. R. Astron. Soc.* **258**, 387-398, *Doppler images of the spotted RS CVn star HD 26337 : 1984-87*

Strassmeier K.G.: 1990, *Astrophys. J.* **348**, 682-699, *Photometric and spectroscopic modeling of starspots on the RS Canum Venaticorum binary HD 26337*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	9658	L	*	81. 1. 7	7:38: 0	44611.8164	6.00	7.01	0.09	0.09	-759	C=150,B=25
2	LWR	14806	H		82.12. 8	5: 6: 0	45311.7109	100.00	7.10	0.52	0.56	-400	E=234,C=200,B=70
3	LWR	15309	L	*	83. 2.17	5:27: 0	45382.7266	2.50	7.25	0.99	0.99	-364	E=169,C=180,B=25
4	LWR	15533	L	*	83. 3.21	18: 8: 0	45415.2539	2.50	7.15	0.69	0.69	-347	C=180,B=26
5	LWR	15547	L		83. 3.23	0:29: 0	45416.5195	2.50	7.19	0.34	0.34	-346	E=188,C=190,B=57
6	SWP	25280	L	*	85. 2.20	13:57: 0	46117.0820	150.00	7.33	0.12	0.17	13	E=184,C=130,B=45
7	SWP	25291	L	*	85. 2.21	13:49: 0	46118.0742	120.00	7.29	0.63	0.67	13	E=186,C=137,B=45
8	LWP	14063	H		88. 9.16	7:44: 0	47420.8203	120.00	7.40	0.65	0.70	682	E=3X,C=215,B=84
9	SWP	34256	L		88. 9.16	9:51: 0	47420.9102	45.00	7.35	0.70	0.72	682	E=226,C=126,B=88
10	LWP	14064	L		88. 9.16	11: 5: 0	47420.9609	2.50	7.35	0.73	0.73	682	C=1.5X,B=43
11	LWP	14065	L	*	88. 9.16	11:47: 0	47420.9922	2.00	7.37	0.74	0.74	682	C=215,B=42
12	LWP	14066	H		88. 9.16	12:28: 0	47421.0195	90.00	7.38	0.76	0.79	682	E=2X,C=225,B=123
13	SWP	34257	L		88. 9.16	14: 8:29	47421.0898	90.00	7.46	0.79	0.82	682	360
14	LWP	14067	H		88. 9.16	14:49:58	47421.1172	90.00	7.47	0.81	0.84	682	551
15	LWP	14068	H		88. 9.16	17:13:18	47421.2188	90.00	7.45	0.86	0.89	682	451
16	LWP	14069	H		88. 9.16	19:34:57	47421.3164	90.00	7.47	0.91	0.94	682	451
17	SWP	34258	L	*	88. 9.16	21:15: 0	47421.3867	60.00	7.47	0.94	0.97	682	E=124,C=73,B=32
18	LWP	14070	H		88. 9.16	22:24: 0	47421.4336	90.00	7.45	0.97	0.00	682	E=240,C=163,B=52
19	SWP	34259	L		88. 9.17	0: 3: 0	47421.5039	60.00	7.44	0.01	0.03	683	E=1.5X,C=77,B=20
20	LWP	14071	H		88. 9.17	0:43: 0	47421.5313	90.00	7.44	0.02	0.05	683	E=243,C=156,B=53
21	LWP	14072	H		88. 9.17	3: 1: 0	47421.6250	90.00	7.42	0.07	0.10	683	
22	SWP	34260	L		88. 9.17	4:46: 0	47421.6992	60.00	7.41	0.12	0.13	683	E=1.5X,C=85,B=32
23	LWP	14073	H		88. 9.17	5:25: 0	47421.7266	90.00	7.40	0.12	0.15	683	E=222,C=165,B=52
24	LWP	14074	H		88. 9.17	7:41: 0	47421.8203	11.00	7.39	0.17	0.17	683	
25	LWP	14075	H		88. 9.17	12:18: 0	47422.0117	75.00	7.37	0.27	0.29	683	E=183,C=145,B=51
26	SWP	34261	L		88. 9.17	13:43:27	47422.0703	60.00	7.38	0.30	0.32	683	350
27	LWP	14076	H		88. 9.17	14:20:51	47422.0977	90.00	7.39	0.31	0.34	683	341
28	LWP	14077	H		88. 9.17	16:40:16	47422.1953	90.00	7.38	0.36	0.39	683	451
29	SWP	34262	L		88. 9.17	18:20:11	47422.2656	60.00	7.39	0.40	0.42	683	360
30	LWP	14078	H		88. 9.17	18:58: 6	47422.2891	90.00	7.39	0.41	0.44	683	451
31	LWP	14079	H		88. 9.17	21:25: 0	47422.3906	90.00	7.37	0.46	0.49	683	E=227,C=168,B=54
32	SWP	34263	L		88. 9.17	23: 6: 0	47422.4609	60.00	7.37	0.50	0.52	683	E=224,C=78,B=17
33	LWP	14080	H		88. 9.17	23:45: 0	47422.4883	90.00	7.34	0.51	0.54	683	E=213,C=161,B=50
34	LWP	14081	H		88. 9.18	2: 7: 0	47422.5898	90.00	7.32	0.56	0.59	683	E=225,C=159,B=54
35	SWP	34264	L		88. 9.18	3:46: 0	47422.6563	70.00	7.32	0.60	0.62	683	E=228,C=82,B=32
36	LWP	14082	H	*	88. 9.18	4:40: 0	47422.6953	90.00	7.32	0.62	0.65	683	E=226,C=157,B=48
37	SWP	34268	L		88. 9.18	15:38:49	47423.1523	60.00	7.44	0.85	0.87	683	360
38	LWP	14087	H		88. 9.18	16:17:50	47423.1797	90.00	7.44	0.87	0.90	683	452
39	LWP	14088	H		88. 9.18	21:25: 0	47423.3906	90.00	7.39	0.97	0.01	683	E=207,C=153,B=46
40	SWP	34269	L		88. 9.18	23:18: 0	47423.4727	60.00	7.38	0.02	0.04	684	C=235,C=74,B=21
41	LWP	14089	H		88. 9.19	0: 2: 0	47423.5000	90.00	7.40	0.03	0.06	684	E=202,C=148,B=47
42	LWP	14090	H		88. 9.19	2:29: 0	47423.6016	90.00	7.41	0.08	0.11	684	E=213,C=150,B=47
43	SWP	34270	L		88. 9.19	4:16: 0	47423.6797	45.00	7.39	0.12	0.14	684	E=185,C=65,B=17
44	LWP	14091	H		88. 9.19	5:11: 0	47423.7148	45.00	7.38	0.14	0.16	684	E=205,C=150,B=50
45	LWP	14098	H		88. 9.19	15:31:40	47424.1484	90.00	7.39	0.36	0.41	684	353
46	SWP	34275	L	*	88. 9.19	17:25:10	47424.2266	60.00	7.43	0.40	0.43	684	332
47	LWP	14099	H		88. 9.19	18: 8:23	47424.2539	90.00	7.43	0.42	0.45	684	353
48	LWP	14100	H		88. 9.19	22: 4:48	47424.4219	42.00	7.41	0.50	0.52	684	333
49	LWP	14685	H		88.12.21	3:47: 0	47516.6563	60.00	7.34	0.87	0.89	731	E=210,C=194,B=108

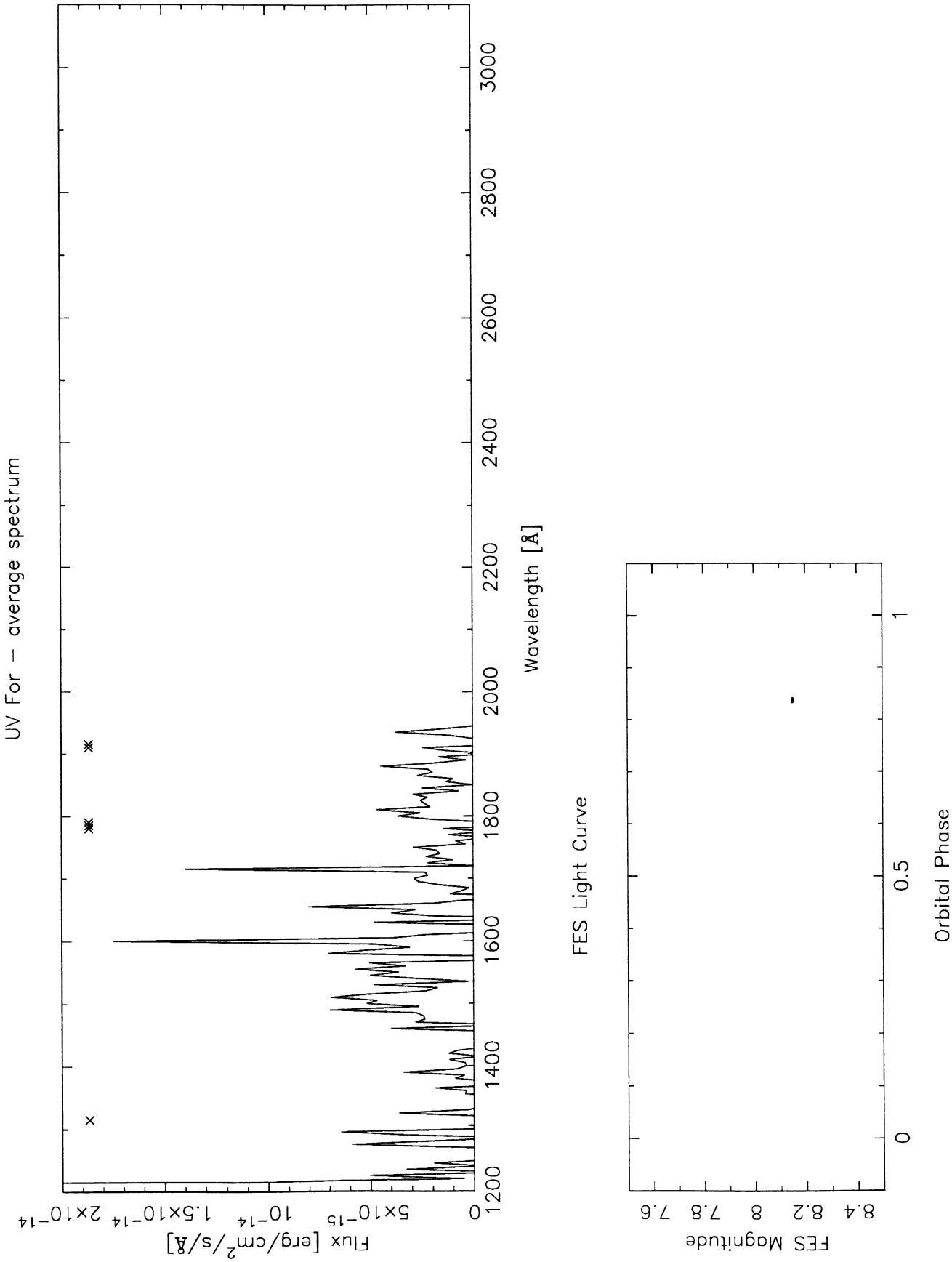

El Eri – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

UV For

alternative names:	HD 10909, SAO 167287, CD-24 751
coordinates (2000.0):	$01^h46^m4104^s$, $-24°00'56''$
linear ephemeris:	
Min I s = HJD 2444378.33 + 15.05 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.39
masses [$M_\odot$]:	f(m)=0.0013
radii [$R_\odot$]:	$\geq$4
spectral type:	K0IV
distance [pc]:	100
activity parameters:	
P_{phot} [days]:	32.28
ΔV [mag]:	0.12
x-ray luminosity [10^{31} erg/s]:	0.107
Mg II index:	
Ca II index:	class C
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.40
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.23 10^{-16}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.61
B-V:	0.96
V:	7.97
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	0.30
IRAS [25]:	0.28

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	29137	L	*	86. 9. 4	23:21: 0	46678.4727	150.00	8.15	0.83	0.84	152	C=61,B=43

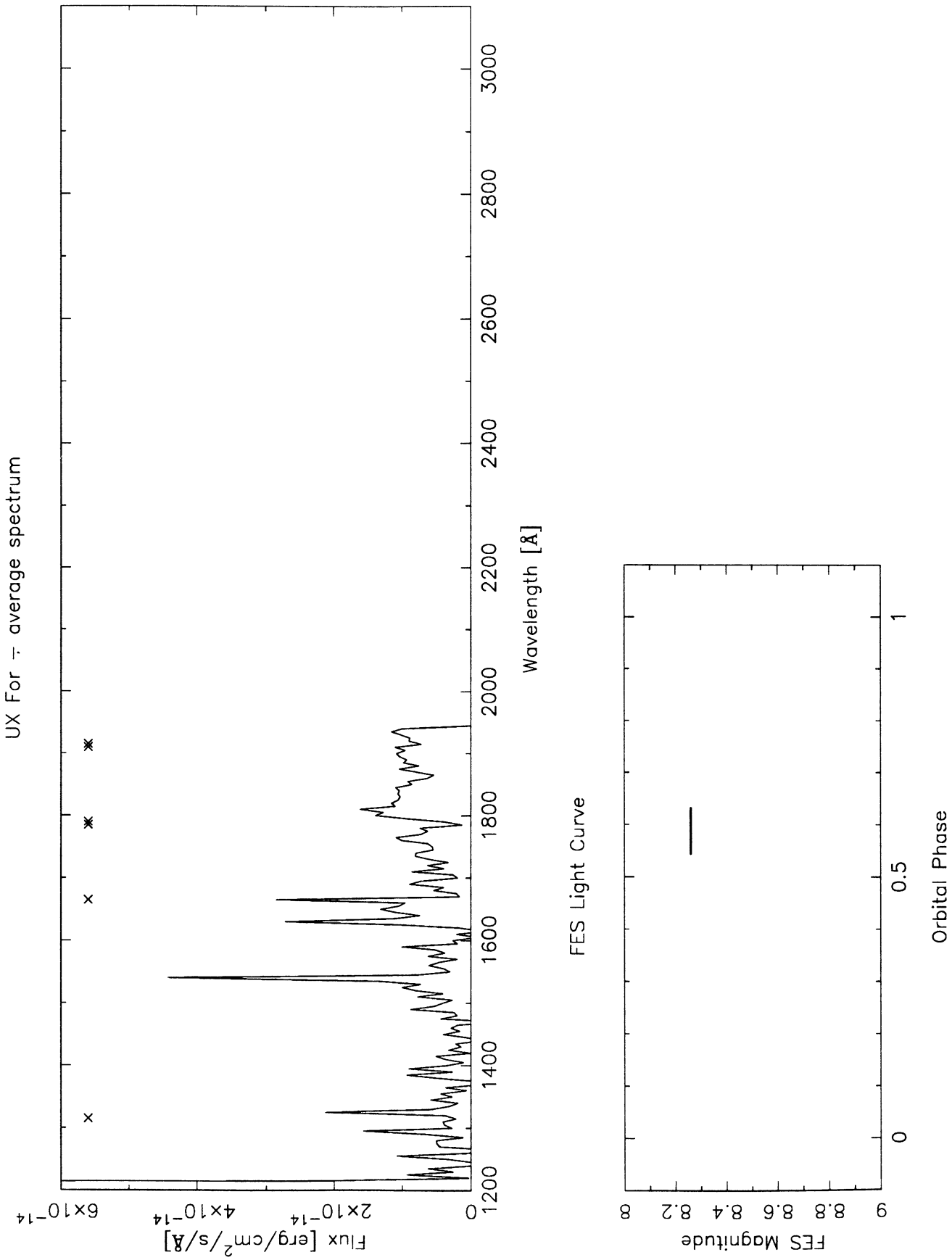

UV For – average spectrum
Flux [erg/cm²/s/Å]
0
5×10⁻¹⁵
10⁻¹⁴
1.5×10⁻¹⁴
2×10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
8.4
8.2
8
7.8
7.6
0
0.5
1
Orbital Phase

UX For

alternative names:	HD 17084, SAO 193879, CD-38 899
coordinates (2000.0):	$02^h43^m25.5^s$, $-37°55'40''$
linear ephemeris:	
Min I = HJD 2444000.512 + 0.95479 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.077
radii [$R_\odot$]:	
spectral type:	G5-8V/
distance [pc]:	35
activity parameters:	
P_{phot} [days]:	0.957
ΔV [mag]:	0.07
x-ray luminosity [10^{31} erg/s]:	0.123
Mg II index:	
Ca II index:	strong
$H\alpha$ emission:	
radio flux density [mJy]:	0.89
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	21±5
ROSAT 110-200Å [ct/ks]:	24±6
EUVE 100Å [ct/s]:	0.079±0.013
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.47\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.21
B-V:	0.73
V:	7.99
V-R:	
R-I:	
b-y:	0.458
m_1:	0.238
c_1:	0.276
β:	
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	28864	L	*	86. 8. 8	1:45: 0	46650.5742	120.00	8.26	0.55	0.63	2775	E=82,C=68,B=45

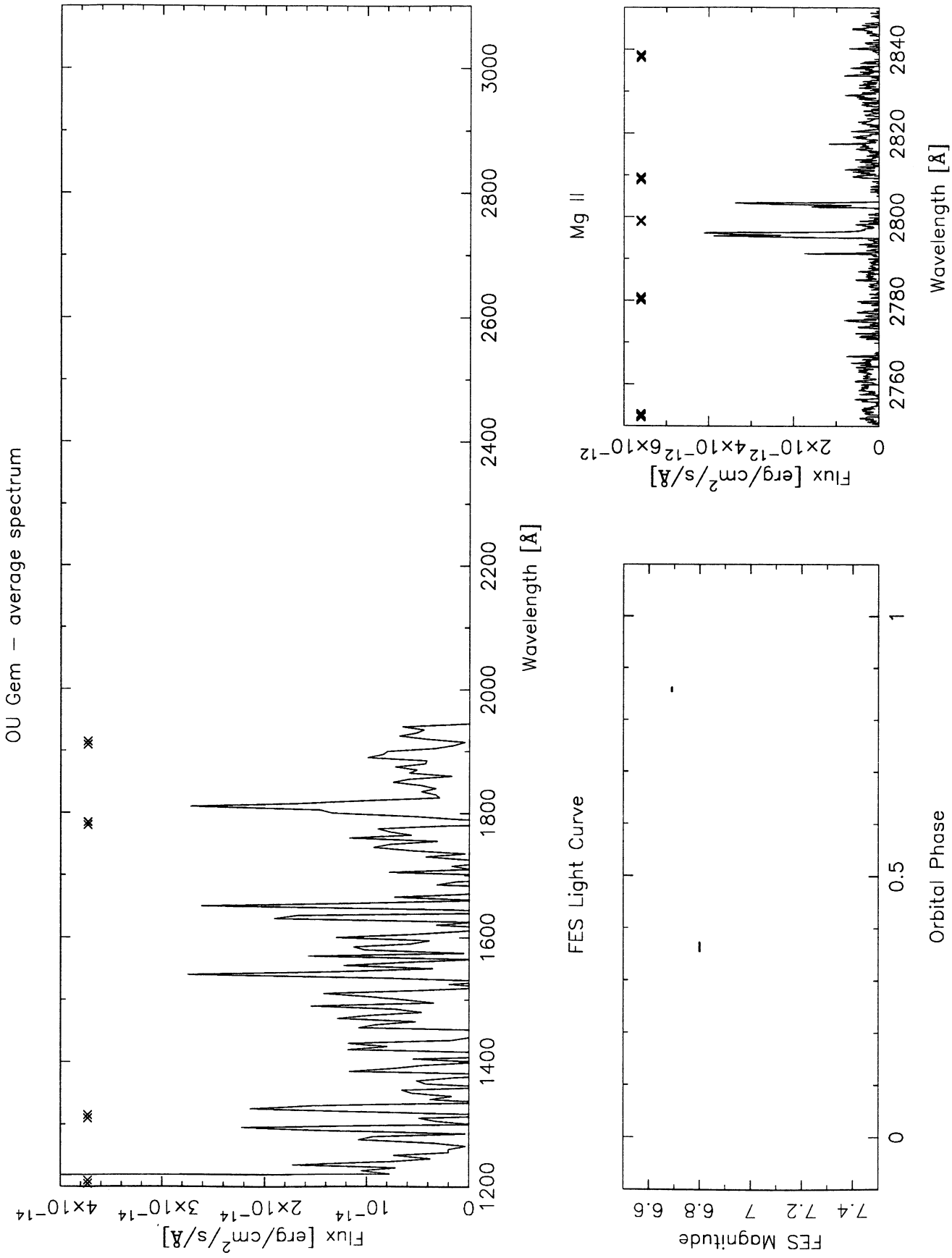

UX For ÷ average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

OU Gem

alternative names:	HD 45088, SAO 95677, BD+18 1214
coordinates (2000.0):	$06^h26^m10.2^s$, $18°45'25''$
linear ephemeris:	
Min I = HJD 2443846.2 + 6.991868 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.15
masses [$M_\odot$]:	$\geq$0.71/$\geq$0.59
radii [$R_\odot$]:	
spectral type:	K3V/K5V
distance [pc]:	12
activity parameters:	
P_{phot} [days]:	7.36
ΔV [mag]:	0.045
x-ray luminosity [10^{31} erg/s]:	0.017
Mg II index:	1.023
Ca II index:	stong, both
$H\alpha$ emission:	emission, cool
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	25±4
ROSAT 110-200Å [ct/ks]:	41±:
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.72\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$1.79\ 10^{-13}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$3.19\ 10^{-13}$]
U-B:	0.62
B-V:	0.95
V:	6.79
V-R:	0.85
R-I:	0.54
b-y:	0.569
m_1:	0.444
c_1:	0.232
β:	2.534
IRAS [12]:	0.92
IRAS [25]:	<0.30

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	10213	H	*	81. 3.26	1:17: 0	44689.5547	18.00	6.70	0.62	0.62	120	E=81,B=28
2	SWP	15154	L	*	81.10. 2	11:37: 0	44879.9844	60.00	6.69	0.86	0.86	147	C=105,B=90
3	SWP	15954	L	*	82. 1. 4	21: 6: 0	44974.3789	155.00	6.80	0.36	0.37	161	E=156,B=50


OU Gem – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

σ Gem

alternative names:	HD 62044, SAO 79638, HR 2973, BD+29 15901 = 75 Gem
coordinates (2000.0):	$07^h43^m18.7^s$, $28°53'01''$
linear ephemeris:	
Min I = HJD 2447227.08 + 19.60447 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.02
masses [$M_\odot$]:	f(m)=0.0857
radii [$R_\odot$]:	
spectral type:	K1III
distance [pc]:	59
activity parameters:	
P_{phot} [days]:	19.410
ΔV [mag]:	0.15
x-ray luminosity [10^{31} erg/s]:	2.67
Mg II index:	[1.895], 1.497
Ca II index:	strong
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	0.62
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	134±10
ROSAT 110-200Å [ct/ks]:	207±13
EUVE 100Å [ct/s]:	0.334±0.021
EUVE 200Å [ct/s]:	0.051±0.014
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.81\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.87\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.64\ 10^{-12}$
U-B:	0.937
B-V:	1.122
V:	4.14
V-R:	0.92
R-I:	0.58
b-y:	0.697
m_1:	0.522
c_1:	0.283
β:	2.566
IRAS [12]:	12.37
IRAS [25]:	2.47

additional references:

Hatzes A.P.: 1993, *Astrophys. J.* **410**, 777-784, *Doppler imaging stars with moderate rotation: the spot distribution on Sigma Geminorum*

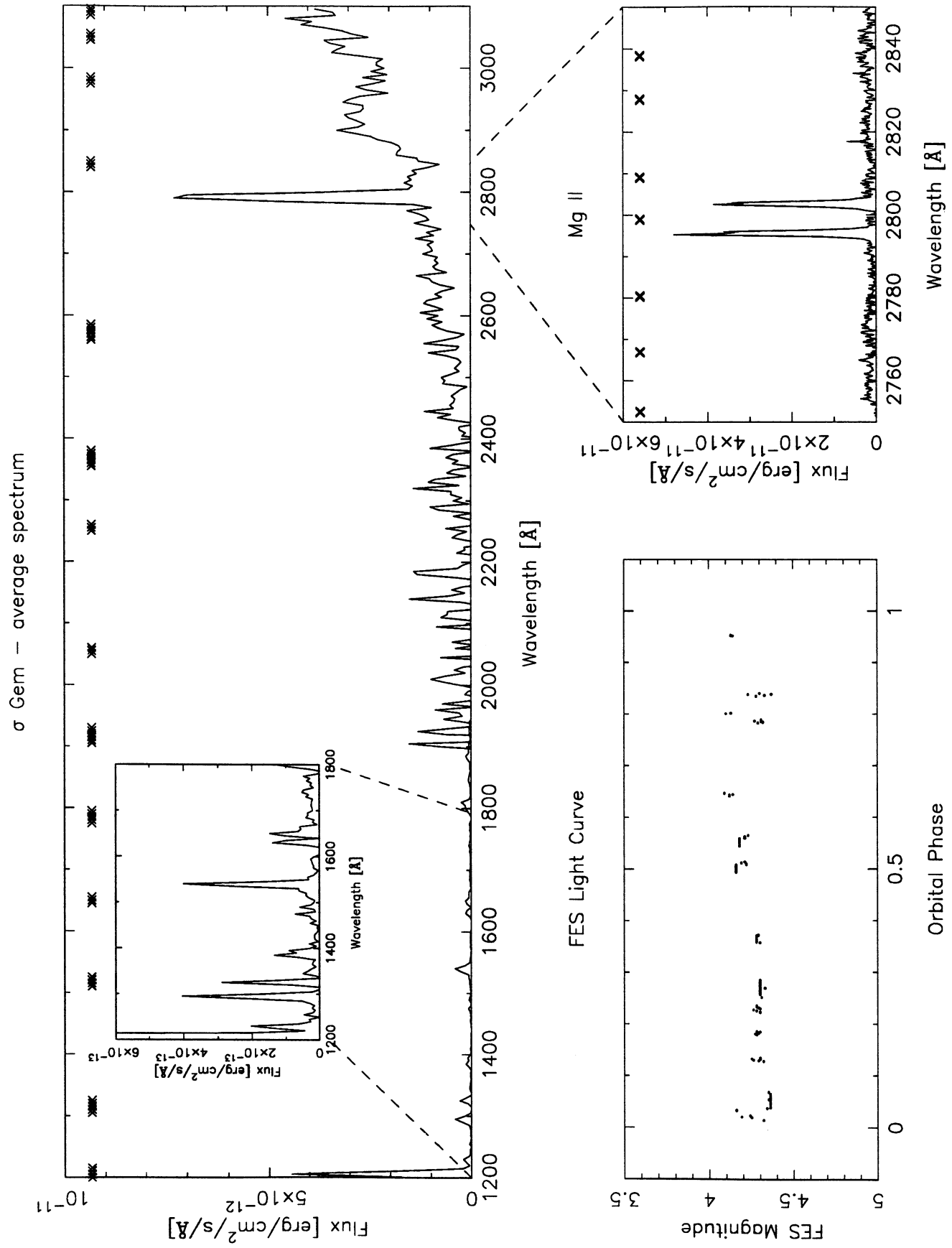
Olah K., Panov K.P., Pettersen B.R., Valtaoja E. and Valtaoja L.: 1989, *Astron. Astrophys.* **218**, 192-194, *Long-lived active longitudes on the spotted RS CVn star sigma Geminorum*

Bopp B.W. and Dempsey R.C.: 1989, *Publ. Astron. Soc. Pac.* **101**, 516-519, *A new orbit for the RS Canum Venaticorum binary sigma Geminorum*

Engvold O., Ayres T.R., Elgaroy O., Jensen E., Joras P.B., Kjeldseth-Moe O., Linsky J.L., Schnopper H.W. and Westergaard N.J.: 1988, *Astron. Astrophys.* **192**, 234-248, *Far-ultraviolet and X-ray emission of the long period RS CVn star sigma Geminorum*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	6872	L		79.10.15	6: 1: 0	44161.7500	70.00	4.12	0.64	0.64	-156	E=2X,C=90,B=65
2	LWR	5841	H		79.10.15	7:17: 0	44161.8047	5.98	4.14	0.64	0.64	-156	E=162,C=75,B=30
3	SWP	6873	L	*	79.10.15	8:22: 0	44161.8477	20.00	4.09	0.65	0.65	-156	E=179,C=79,B=55
4	LWR	5862	H	*	79.10.18	9: 8: 0	44164.8789	5.98	4.10	0.80	0.80	-156	E=180,C=80,B=30
5	SWP	6899	L	*	79.10.18	9:19: 0	44164.8867	25.00	4.13	0.80	0.80	-156	E=136CIV,C=60,B=40
6	LWR	6259	H		79.11.29	12:44: 0	44207.0313	10.00	4.14	0.95	0.95	-154	353
7	SWP	7265	L	*	79.11.29	12:59: 0	44207.0391	40.00	4.13	0.95	0.95	-154	251
8	LWR	6945	L	*	80. 2.17	12:44: 0	44287.0313	0.25	1.65	0.03	0.03	-149	341
9	SWP	7970	L	*	80. 2.17	12:51: 0	44287.0352	30.00	4.16	0.03	0.03	-149	150
10	LWR	6946	H		80. 2.17	13:26: 0	44287.0586	20.00	4.16	0.03	0.03	-149	261
11	SWP	16943	H		82. 5.10	8:41: 0	45099.8633	420.00	4.16	0.49	0.51	-108	E=1.5X,C=120,B=105
12	LWR	13216	H		82. 5.10	15:46: 0	45100.1563	60.00	4.22	0.51	0.51	-108	E=6X,C=190,B=50
13	LWR	13217	H		82. 5.10	17:20: 0	45100.2227	25.00	4.19	0.51	0.51	-108	E=2-3X,C=105,B=45
14	LWR	13218	H		82. 5.10	18:18: 0	45100.2617	10.00	4.21	0.51	0.51	-108	E=246,C=75,B=30
15	SWP	16944	H		82. 5.11	8:44: 0	45100.8633	425.00	4.18	0.54	0.56	-108	E=1.3X,B=80
16	LWR	13226	H		82. 5.11	15:53: 0	45101.1602	60.00	4.21	0.56	0.56	-108	E=5X,C=210,B=70
17	LWR	13227	H		82. 5.11	17:30: 0	45101.2305	25.00	4.21	0.56	0.56	-108	E=2X,C=120,B=40
18	LWR	13228	H		82. 5.11	18:24: 0	45101.2656	10.00	4.23	0.57	0.57	-108	E=238,C=80,B=30
19	LWP	4449	H		84. 9.29	14:35:20	45973.1094	25.00	4.34	0.04	0.04	-63	371
20	SWP	24078	H		84. 9.29	15: 5: 0	45973.1289	757.00	4.36	0.04	0.07	-63	E=2X,C=210,B=162
21	LWP	4450	H		84. 9.29	22:34: 0	45973.4414	25.00	4.35	0.05	0.05	-63	E=2X,C=120,B=40
22	LWP	4451	H		84. 9.30	5: 8: 0	45973.7148	25.00	4.35	0.07	0.07	-63	E=2X,C=120,B=45
23	LWP	4471	H		84.10. 1	9:19: 0	45974.8867	25.00	4.32	0.13	0.13	-63	E=2X,C=2X,B=2X
24	SWP	24090	L		84.10. 1	9:56: 0	45974.9141	10.00	4.29	0.13	0.13	-63	E=191,B=160
25	LWP	4472	H		84.10. 1	10:33: 0	45974.9414	7.50	4.26	0.13	0.13	-63	E=2X,C=2X,B=2X
26	SWP	24091	L		84.10. 1	11: 7: 0	45974.9648	10.00	4.30	0.13	0.13	-63	E=2X,B=3X
27	LWP	4473	H		84.10. 1	11:44: 0	45974.9883	5.00	4.25	0.13	0.13	-63	E=2X,B=181
28	LWP	4474	H		84.10. 1	12:25: 0	45975.0156	23.00	4.30	0.13	0.14	-63	E=2X,C=2X,B=205
29	SWP	24099	L		84.10. 2	9:43: 0	45975.9063	25.00	4.28	0.18	0.18	-63	E=250,C=1.2X,B=195
30	LWP	4480	H		84.10. 2	10:18: 0	45975.9297	10.00	4.27	0.18	0.18	-63	E=2X,C=1.2X,B=200
31	SWP	24100	L		84.10. 2	10:53: 0	45975.9531	10.00	4.29	0.18	0.18	-63	E=193,B=170
32	LWP	4481	H		84.10. 2	11:29: 0	45975.9766	5.00	4.29	0.18	0.18	-63	E=1.2X,C=170,B=130
33	SWP	24101	L		84.10. 2	12: 4: 0	45976.0039	25.00	4.30	0.18	0.19	-63	E=237,B=180
34	LWP	4482	H		84.10. 2	12:39: 0	45976.0273	7.50	4.28	0.19	0.19	-63	E=1.5X,C=118,B=70
35	LWP	4487	H		84.10. 3	5:42: 0	45976.7383	60.00	4.30	0.22	0.22	-63	E=6X,C=190,B=45
36	LWP	4488	H		84.10. 3	7:21: 0	45976.8047	25.00	4.28	0.23	0.23	-63	E=3X,C=112,B=40
37	LWP	4489	H		84.10. 3	8:21: 0	45976.8477	10.00	4.26	0.23	0.23	-63	E=1.2X,C=70,B=35
38	LWP	4490	H		84.10. 3	9: 6: 0	45976.8789	25.00	4.30	0.23	0.23	-63	E=2X,C=123,B=45
39	LWP	4491	H		84.10. 3	10: 6: 0	45976.9219	25.00	4.29	0.23	0.23	-63	E=2X,C=140,B=65
40	LWP	4492	H		84.10. 3	11:10: 0	45976.9648	10.00	4.28	0.23	0.23	-63	E=1.5X,C=100,B=50
41	LWP	4493	H		84.10. 3	11:54: 0	45976.9961	25.00	4.28	0.23	0.24	-63	E=2X,C=135,B=50
42	LWP	4494	H		84.10. 3	19:28:30	45977.3125	25.00	4.31	0.25	0.25	-63	372
43	SWP	24107	H		84.10. 3	22:14: 0	45977.4258	808.00	4.30	0.26	0.29	-63	E=2X,C=220,B=140
44	LWP	4496	H		84.10. 4	4: 2: 0	45977.6680	25.00	4.33	0.27	0.27	-63	E=3X,C=125,B=35
45	LWP	4506	H		84.10. 5	21:22: 0	45979.3906	25.00	4.30	0.36	0.36	-63	E=2-3X,C=125,B=39
46	SWP	24124	H		84.10. 5	21:54: 0	45979.4141	360.00	4.28	0.36	0.37	-63	E=1.5X,B=70
47	LWP	4507	H		84.10. 6	4:11: 0	45979.6758	25.00	4.29	0.37	0.37	-63	E=3X,C=127,B=40
48	LWP	4573	H		84.10.14	5:45: 0	45987.7383	25.00	4.29	0.78	0.78	-63	E=2X,C=180,B=100
49	SWP	24171	L		84.10.14	6:23: 0	45987.7656	25.00	4.32	0.78	0.79	-63	E=2X,C=68,B=36
50	LWP	4574	H		84.10.14	6:57: 0	45987.7891	25.00	4.31	0.79	0.79	-63	E=3X,C=180,B=105
51	SWP	24172	L		84.10.14	7:30: 0	45987.8125	25.00	4.27	0.79	0.79	-63	E=2.5X,C=110,B=70
52	LWP	4575	H		84.10.14	8: 4: 0	45987.8359	10.00	4.31	0.79	0.79	-63	E=1X,C=175,B=102
53	SWP	24173	L		84.10.14	8:35: 0	45987.8594	10.00	4.31	0.79	0.79	-63	E=249,C=122,B=75
54	LWP	4582	H		84.10.15	6: 3: 0	45988.7539	25.00	4.28	0.84	0.84	-63	E=3X,C=160,B=73
55	SWP	24178	L		84.10.15	6:52: 0	45988.7852	25.00	4.33	0.84	0.84	-63	E=2X,C=68,B=26
56	LWP	4583	H		84.10.15	7:28: 0	45988.8125	25.00	4.23	0.84	0.84	-63	E=3X,C=198,B=110
57	SWP	24179	L		84.10.15	8: 0: 0	45988.8320	25.00	4.37	0.84	0.84	-63	E=1.5X,C=139,B=90
58	LWP	4584	H		84.10.15	8:35: 0	45988.8594	10.00	4.30	0.84	0.84	-63	E=2X,C=195,B=137
59	SWP	29306	L	*	86. 9.24	12:44: 0	46698.0313	6.00	4.32	0.01	0.01	-26	E=60,C=48,B=30
60	LWP	15076	L	*	89. 2.22	19:51: 0	47580.3281	1.00	4.25	0.02	0.02	18	E=230,C=112,B=31
61	LWP	15077	L		89. 2.22	20:39: 0	47580.3594	5.00	4.19	0.02	0.02	18	E=4X,C=1.5X,B=33
62	LWP	15078	L		89. 2.22	21:27: 0	47580.3945	20.00	4.24	0.02	0.02	18	E=20X,C=6X,B=41


σ Gem – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

Z Her

alternative names:	HD 163930, SAO 103254, BD+15 3311
coordinates (2000.0):	$17^h58^m07.0^s$, $15°08'22''$
linear ephemeris:	
Min I = HJD 2413086.348 + 3.992801 E, variable	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.61/1.31
radii [$R_\odot$]:	1.85/2.73
spectral type:	F4V-IV/K0IV
distance [pc]:	100
activity parameters:	
P_{phot} [days]:	3.962
ΔV [mag]:	0.038
x-ray luminosity [10^{31} erg/s]:	0.146
Mg II index:	[0.649], 0.509
Ca II index:	strong, cool
$H\alpha$ emission:	emission
radio flux density [mJy]:	<0.18
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.44\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$7.56\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.24\ 10^{-12}$
U-B:	
B-V:	0.59
V:	7.23
V-R:	
R-I:	
b-y:	0.403
m_1:	0.172
c_1:	0.414
β:	2.620
IRAS [12]:	
IRAS [25]:	

additional references:

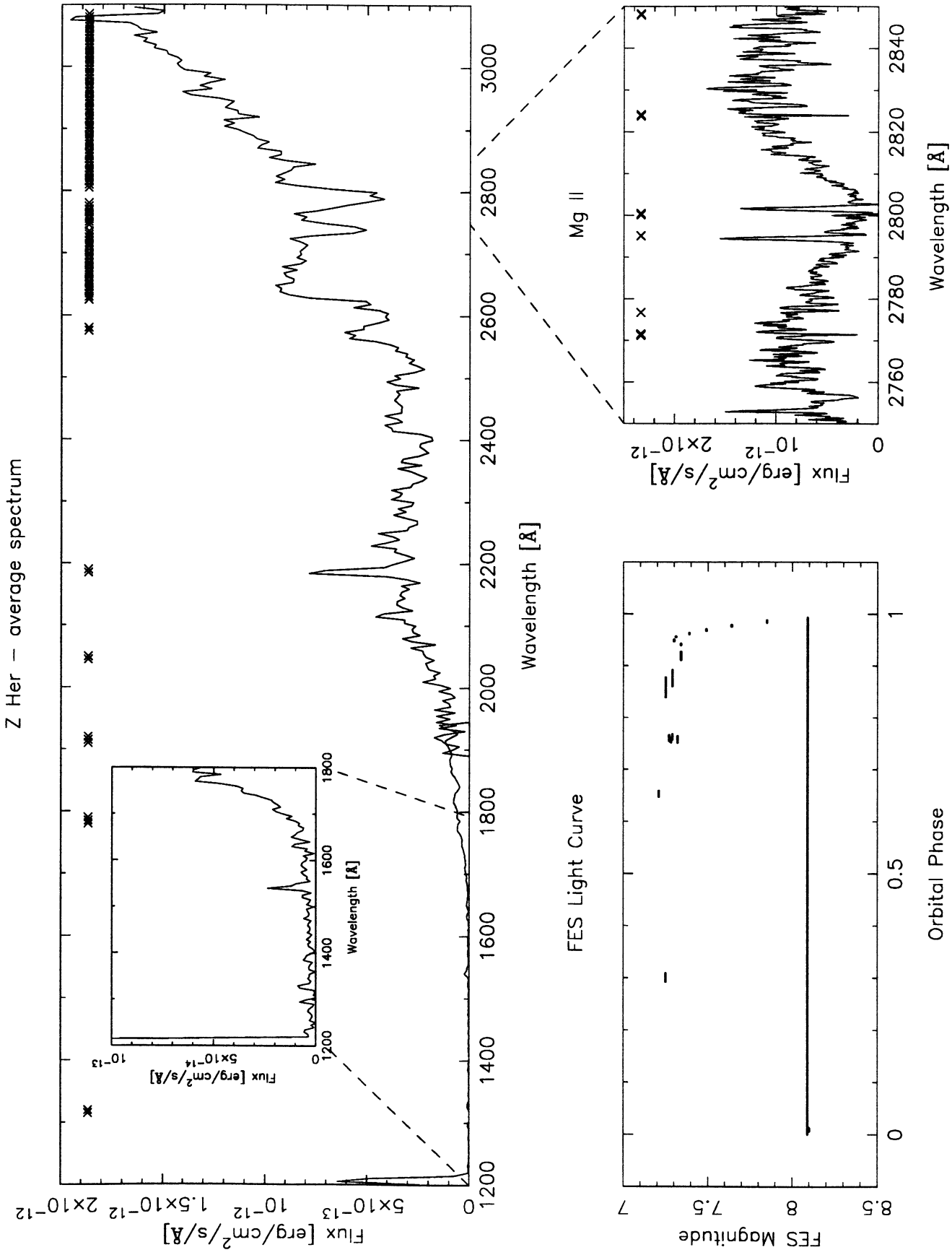
Popper D.M.: 1988, *Astron. J.* **95**, 1242-1250, *Orbits of close binaries with Ca II H and K in emission. I. Z Herculis and RS Canum Venaticorum*

Fernandez-Figueroa M.J., Sedano J.L. and de Castro E.: 1986, *Astron. Astrophys.* **169**, 237-243, *The Mg II emission in a sample of regular-period RS CVn systems*

Tumer O., Ibanoglu C., Tunca Z. and Evren S.: 1984, *Astrophys. Space Sci.* **104**, 225-244, *Light-curve analysis of Z Herculis*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	10305	H		81. 4. 8	0:20: 0	44702.5156	88.00	7.25	0.29	0.31	7918	E=133,C=155,B=50
2	LWR	11568	H		81. 9.16	23:56: 0	44864.4961	80.00	7.29	0.86	0.88	7958	E=116,C=150,B=42
3	SWP	15016	L	*	81. 9.17	1:21: 0	44864.5547	90.00	7.29	0.88	0.89	7958	C=220,B=27
4	LWR	14363	L	*	82.10. 9	14:41:19	45252.1133	9.00	7.34	0.94	0.94	8055	704
5	LWR	14364	L		82.10. 9	15:20: 1	45252.1406	18.00	7.30	0.95	0.95	8055	744
6	LWR	14365	L		82.10. 9	16: 6:23	45252.1719	4.00	7.31	0.96	0.96	8055	502
7	LWR	14366	L		82.10. 9	16:42:42	45252.1953	10.00	7.39	0.96	0.96	8055	702
8	LWR	14367	L		82.10. 9	17:22:17	45252.2227	12.00	7.49	0.97	0.97	8055	703
9	LWR	14368	L		82.10. 9	18: 3:44	45252.2539	16.00	7.64	0.98	0.98	8055	703
10	LWR	14369	L		82.10. 9	18:49:19	45252.2852	23.00	7.85	0.98	0.99	8055	703
11	LWR	14370	L		82.10. 9	19:41:55	45252.3203	50.00	8.09	0.99	0.00	8055	704
12	LWR	14371	L		82.10. 9	21: 7:31	45252.3789	35.00	8.10	0.01	0.01	8056	704
13	SWP	19233	L	*	83. 2.10	6:32:15	45375.7734	90.00	7.34	0.91	0.93	8086	320
14	LWP	18301	L		90. 7. 6	18:47: 0	48079.2813	3.00	8.00	0.01	0.01	8764	C=143,B=30
15	LWP	18367	H		90. 7.13	17:58: 0	48086.2500	52.00	7.28	0.75	0.76	8765	E=108,C=123,B=40
16	LWP	18386	H		90. 7.17	17:53: 0	48090.2461	55.00	7.32	0.75	0.76	8766	C=120,B=40
17	LWP	18417	H	*	90. 7.21	17:36: 0	48094.2344	70.00	7.32	0.75	0.76	8767	E=128,C=131,B=40
18	LWP	18443	H		90. 7.25	17:47: 0	48098.2422	60.00	7.27	0.76	0.77	8768	
19	LWP	18468	H		90. 7.29	17:54: 0	48102.2461	55.00	7.29	0.76	0.77	8769	
20	LWP	18529	H		90. 8. 6	6:56: 0	48109.7891	60.00	7.21	0.65	0.66	8771	E=105,C=122,B=40
21	SWP	39613	L	*	90. 9.11	23:47: 0	48146.4922	120.00	7.25	0.84	0.86	8780	E=44,C=243,B=25
22	LWP	18763	H		90. 9.12	1:52: 0	48146.5781	90.00	7.25	0.86	0.88	8780	E=119,C=160,B=45


Z Her – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

AW Her

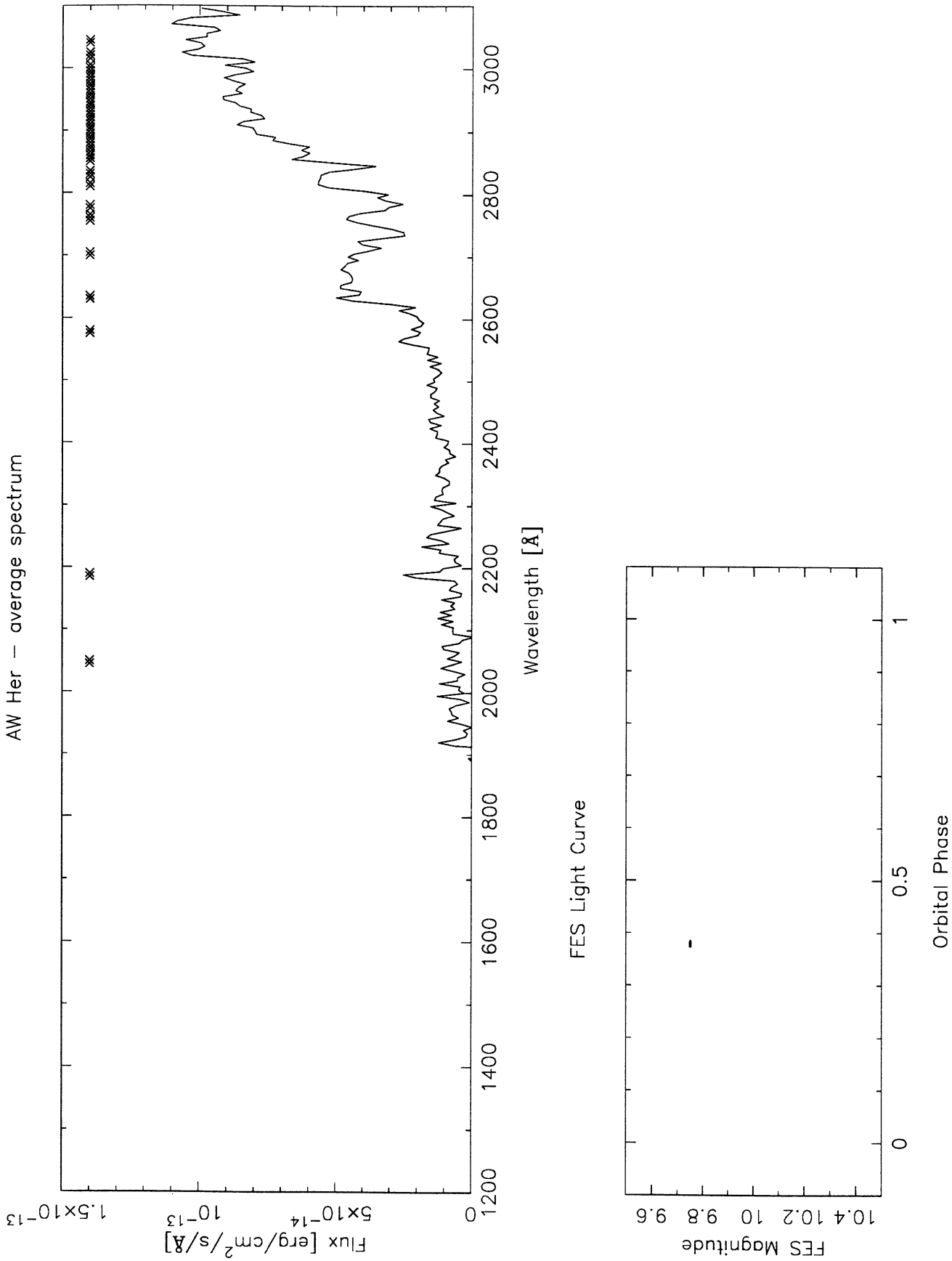
alternative names:	HD 348635, BD+18 3678
coordinates (2000.0):	$18^h25^m38.7^s$, $18°17'40''$
linear ephemeris:	Min I = HJD 2425719.434 + 8.800760 E, variable
system parameters:	
type of binary:	EBT, SB2
eccentricity:	
masses [$M_\odot$]:	1.25/1.33
radii [$R_\odot$]:	2.4:/3.2
spectral type:	G2/G8IV
distance [pc]:	315
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	1.15
Mg II index:	
Ca II index:	cool
$H\alpha$ emission:	
radio flux density [mJy]:	0.86
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.45\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.99\ 10^{-14}$
U-B:	
B-V:	
V:	9.65
V-R:	
R-I:	
b-y:	0.526
m_1:	0.197
c_1:	0.346
β:	2.590
IRAS [12]:	
IRAS [25]:	

additional references:

Popper D.M.: 1990, *Astron. J.* **100**, 247, *Orbits of close binaries with Ca II H and K in emission. III. Eleven more systems*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	13744	L	*	82. 7.22	4:36: 0	45172.6914	130.00	9.75	0.37	0.38	1983	C=2X,B=40


AW Her – average spectrum
Flux [erg/cm²/s/Å]
1.5x10⁻¹³
10⁻¹³
5x10⁻¹⁴
0
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
10.4
10.2
10
9.8
9.6
0
0.5
1
Orbital Phase

V772 Her

alternative names:	HD 165590, SAO 85723, BD+21 3302
coordinates (2000.0):	$18^h05^m49.7^s$, $21°26'45''$
linear ephemeris:	
Min I = HJD 2447372.568 + 0.879504 E	
system parameters:	
type of binary:	EBP, SB1
eccentricity:	0.045
masses [$M_\odot$]:	{1.04/0.59}0.88
radii [$R_\odot$]:	{1.0:/}0.6:
spectral type:	{G0V/ }G5V
distance [pc]:	42
activity parameters:	
P_{phot} [days]:	0.878
ΔV [mag]:	0.05
x-ray luminosity [10^{31} erg/s]:	0.406
Mg II index:	0.514
Ca II index:	moderate, hot
$H\alpha$ emission:	
radio flux density [mJy]:	0.98
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	36±10
ROSAT 110-200Å [ct/ks]:	35±:
EUVE 100Å [ct/s]:	0.065±0.007
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.85 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[8.86 10^{-13}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.82 10^{-12}]
U-B:	0.13
B-V:	0.59/
V:	7.02
V-R:	
R-I:	
b-y:	0.420
m_1:	0.198
c_1:	0.309
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

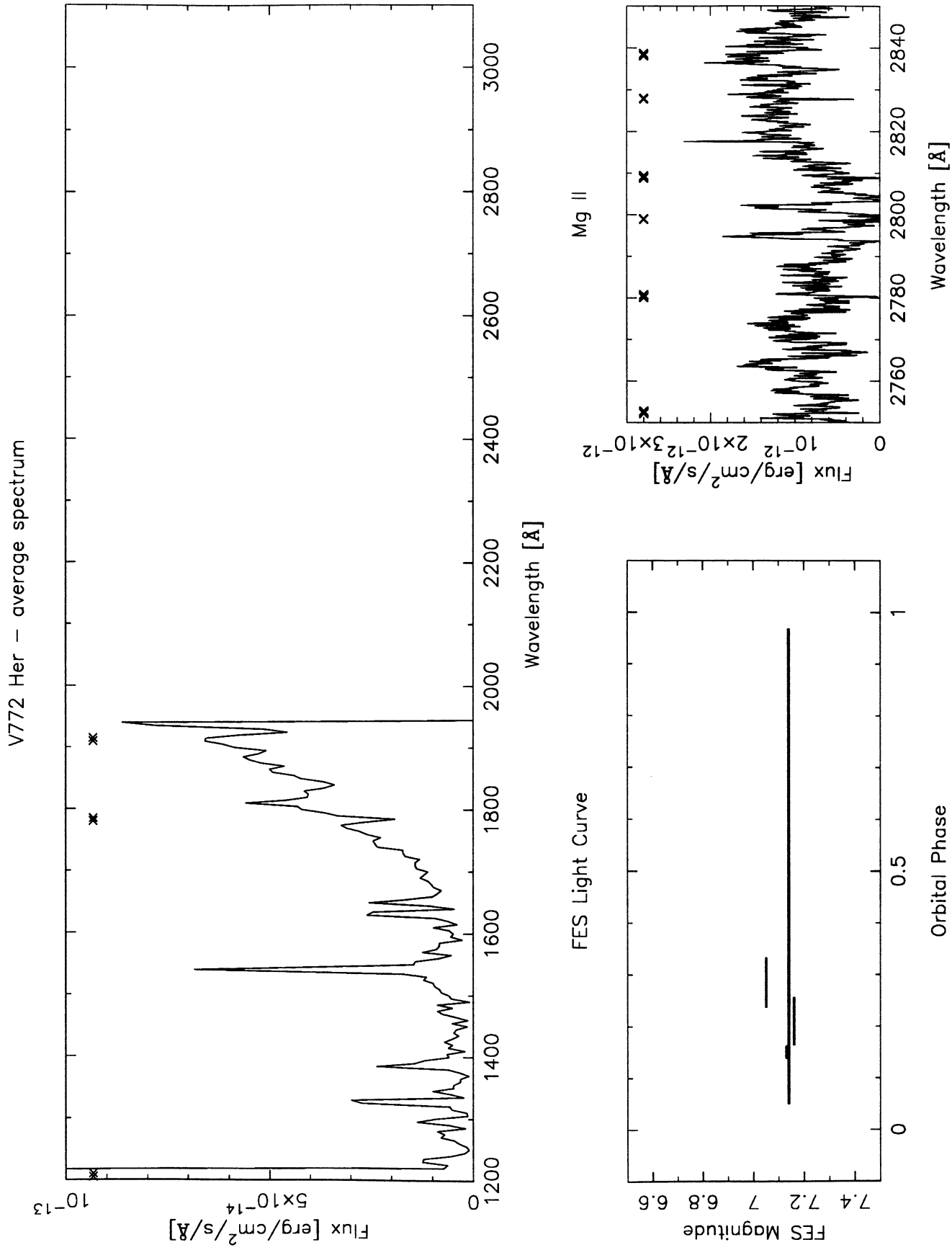
Stern R.A., Uchida Y., Walter F., Vilhu O., Hannikainen D. and Brown A.: 1992, *Astrophys. J.* **391**, 760-772, *Coordinated Ginga, IUE and VLA observations of stellar activity in sigma2 Coronae Borealis*

Reglero V., Fernandez-Figuerora M.J., Gimenez A., de Castro E., Fabregat J., Cornide M. and Armentia J.E.: 1991, *Astron. Astrophys., Suppl. Ser.* **88**, *545, The triple system HD 165590 : a spectroscopic and photometric study*

Bruton J.R., Hall D.S., Boyd L.J., Genet R.M., Lines R.D., Lines H.C. and Scarfe C.D.: 1989, *Astrophys. Space Sci.* **155**, 27-38, *U-B-V photometry of the spectroscopic-visual triple HD 165590*

UE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	14346	L		81. 6.27	18:38: 0	44783.2773	105.00	7.14	0.97	0.05	-2944	E=1.5X,C=200,B=92
2	LWR	10964	H	*	81. 6.28	19:22: 0	44784.3086	30.00	7.13	0.14	0.16	-2942	E=74,C=95,B=32
3	SWP	14353	L	*	81. 6.28	19:56: 0	44784.3320	110.00	7.16	0.17	0.26	-2942	E=243,C=175,B=45
4	SWP	14381	L	*	81. 7. 2	9:54: 0	44787.9141	120.00	7.05	0.24	0.33	-2938	E=128,C=180,B=45


V772 Her – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V775 Her

alternative names:	HD 175742, SAO 86592, BD+23 3500
coordinates (2000.0):	$18^h55^m53.2^s$, $23°33'24''$

linear ephemeris:

Min I = HJD 2443674.167 + 2.879395 E

system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.003
masses [$M_\odot$]:	f(m)=0.0362
radii [$R_\odot$]:	0.85/
spectral type:	K0V/
distance [pc]:	24
activity parameters:	
P_{phot} [days]:	2.898
ΔV [mag]:	0.11
x-ray luminosity [10^{31} erg/s]:	0.007
Mg II index:	
Ca II index:	strong, hot
$H\alpha$ emission:	emission, variable
radio flux density [mJy]:	0.51
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	32±4
ROSAT 110-200Å [ct/ks]:	56±8
EUVE 100Å [ct/s]:	0.058±0.007
EUVE 200Å [ct/s]:	0.040±0.011
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.62\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.55:
B-V:	0.91
V:	8.04
V-R:	0.80
R-I:	0.54
b-y:	0.565
m_1:	0.348
c_1:	0.297
β:	2.532
IRAS [12]:	
IRAS [25]:	

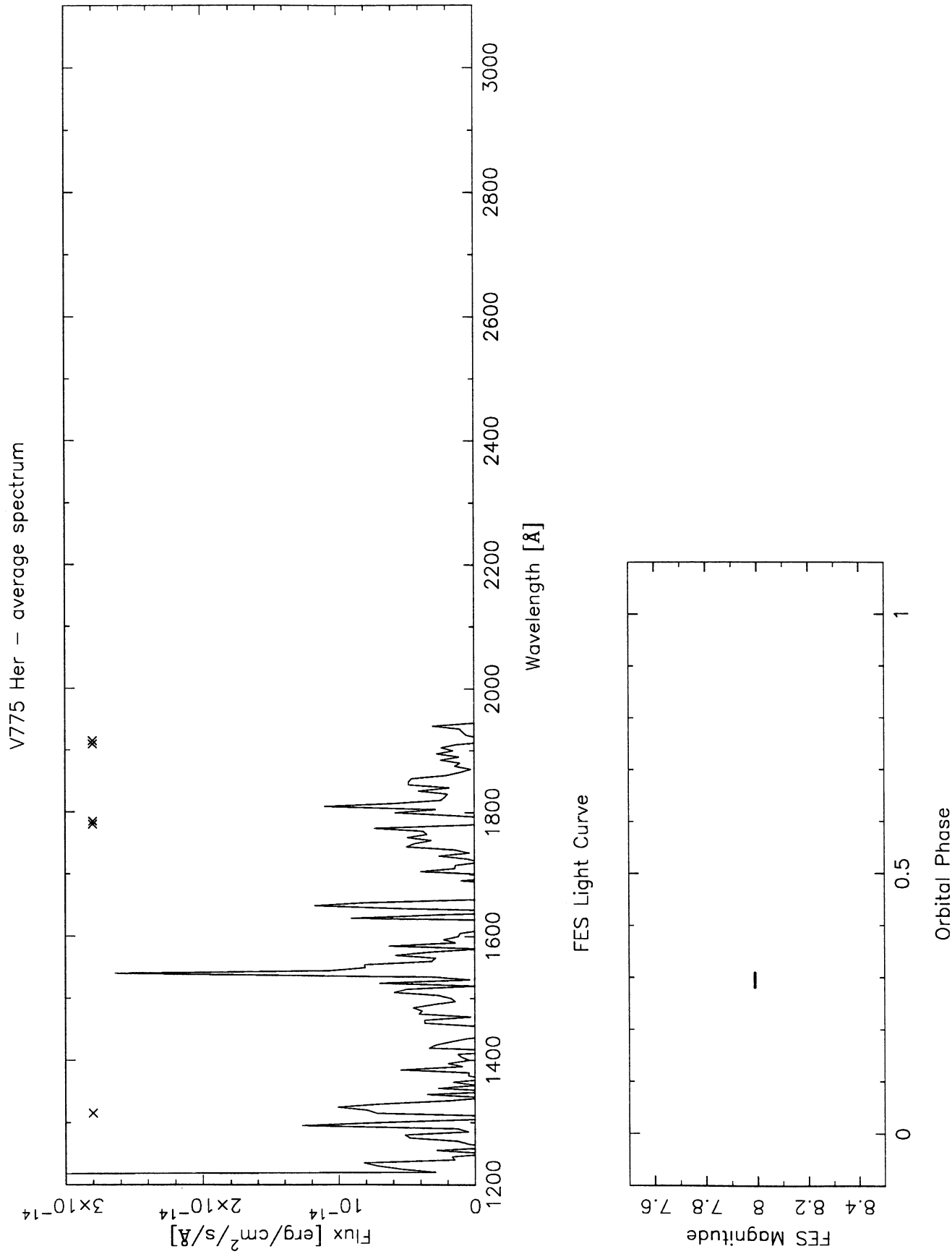
additional references:

Liu X.-F. and Tan H.-S.: 1984, *IAU Inform. Bull. Var. Stars* **2606**, 1-4, *Halpha emission in RS CVn stars : HD 175742 and HR 7428*

Kaluzny J.: 1984, *IAU Inform. Bull. Var. Stars* **2627**, 1-5, *Photometric obervations of active chromsphere stars : HD 175742, II Peg, HD 199178*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	18548	L	*	82.11.13	22:31: 0	45287.4375	120.00	7.99	0.28	0.31	560	E=63,C=40,B=30


V775 Her – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V792 Her

alternative names:	HD 155638, SAO 46541, BD+49 2596
coordinates (2000.0):	$17^h10^m25.6^s$, $48°57'56''$
linear ephemeris:	
Min I = HJD 2446701.719 + 27.5368 E	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.41/1.47
radii [$R_\odot$]:	2.58/12.28
spectral type:	F2IV/K0III
distance [pc]:	310
activity parameters:	
P_{phot} [days]:	27.07
ΔV [mag]:	0.15
x-ray luminosity [10^{31} erg/s]:	2.316
Mg II index:	[0.746]
Ca II index:	strong, cool
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	0.2
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.01\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.55\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.08\ 10^{-13}$
U-B:	
B-V:	0.45/1.07
V:	8.10
V-R:	
R-I:	
b-y:	0.589
m_1:	0.276
c_1:	0.329
β:	2.568
IRAS [12]:	
IRAS [25]:	

additional references:

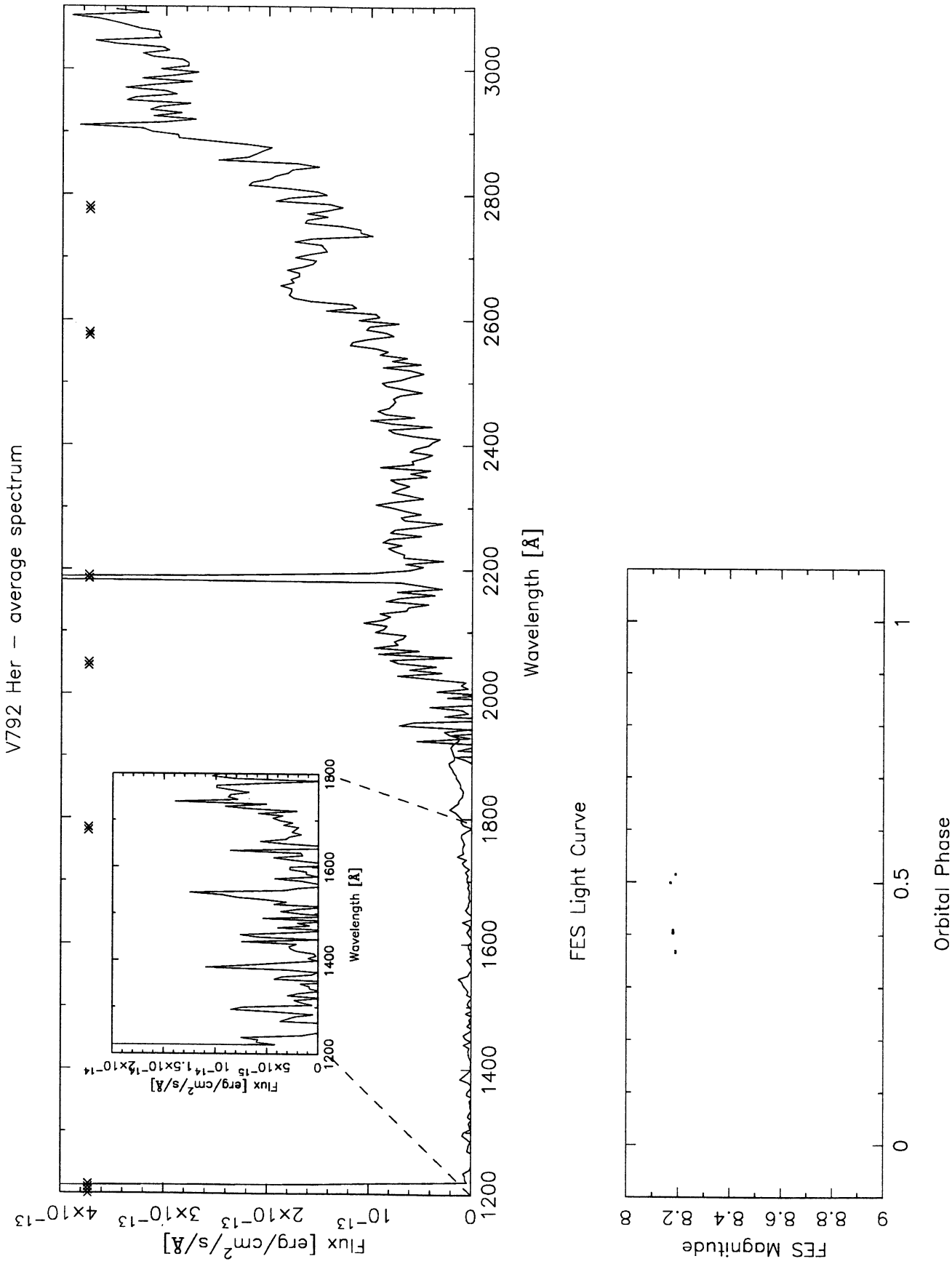
Fekel F.C.: 1991, *Astron. J.* **101**, 1489, *Chromospherically active stars. VIII. HD 155638 = V792 Herculis: observational constraints on evolutionary theory*

Nelson C.H., Hall D.S., Fekel F.C., Fried R.E., Lines R.E. and Lines H.C.: 1991, *Astrophys. Space Sci.* **182**, 1, *V 792 Her = HD 155638 : a totally eclipsing RS CVn binary*

Nations H.L. and Ramsey L.W.: 1985, *Bull. American Astron. Soc.* **17**, 754, *Halpha observations of RS CVn stars : 1981 spectra of UX Ari, HR 1099, BD +61 1211 and HD 155638*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	14352	L		81. 6.28	16:58: 0	44784.2070	120.00	8.19	0.37	0.37	-69	C=165,B=115
2	SWP	14358	L	*	81. 6.29	17:13: 0	44785.2188	277.00	8.18	0.40	0.41	-69	E=108,C=200,B=88
3	LWR	10990	L	*	81. 7. 2	8:46: 0	44787.8672	30.00	8.17	0.50	0.50	-69	C=1.5-2X,B=27
4	LWR	10995	L		81. 7. 2	19:26: 0	44788.3086	15.00	8.19	0.51	0.52	-69	C=208,B=26


V792 Her – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V815 Her

alternative names:	HD 166181, SAO 85767, BD+29 3187
coordinates (2000.0):	$18^h08^m16.0^s$, $29°41'28''$
linear ephemeris:	
Min I = HJD 2441930.4877 + 1.809837 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.029
masses [$M_\odot$]:	f(m)=0.0306
radii [$R_\odot$]:	0.97/
spectral type:	G5V/
distance [pc]:	31
activity parameters:	
P_{phot} [days]:	1.819
ΔV [mag]:	0.13
x-ray luminosity [10^{31} erg/s]:	0.238
Mg II index:	[0.730]
Ca II index:	strong, hot
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	1.56
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	52±6
ROSAT 110-200Å [ct/ks]:	60±11
EUVE 100Å [ct/s]:	0.059±0.007
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.04 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.74 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.81 10^{-13}
U-B:	0.13
B-V:	0.72
V:	7.66
V-R:	0.54
R-I:	
b-y:	0.470
m_1:	0.220
c_1:	0.299
β:	2.568
IRAS [12]:	
IRAS [25]:	

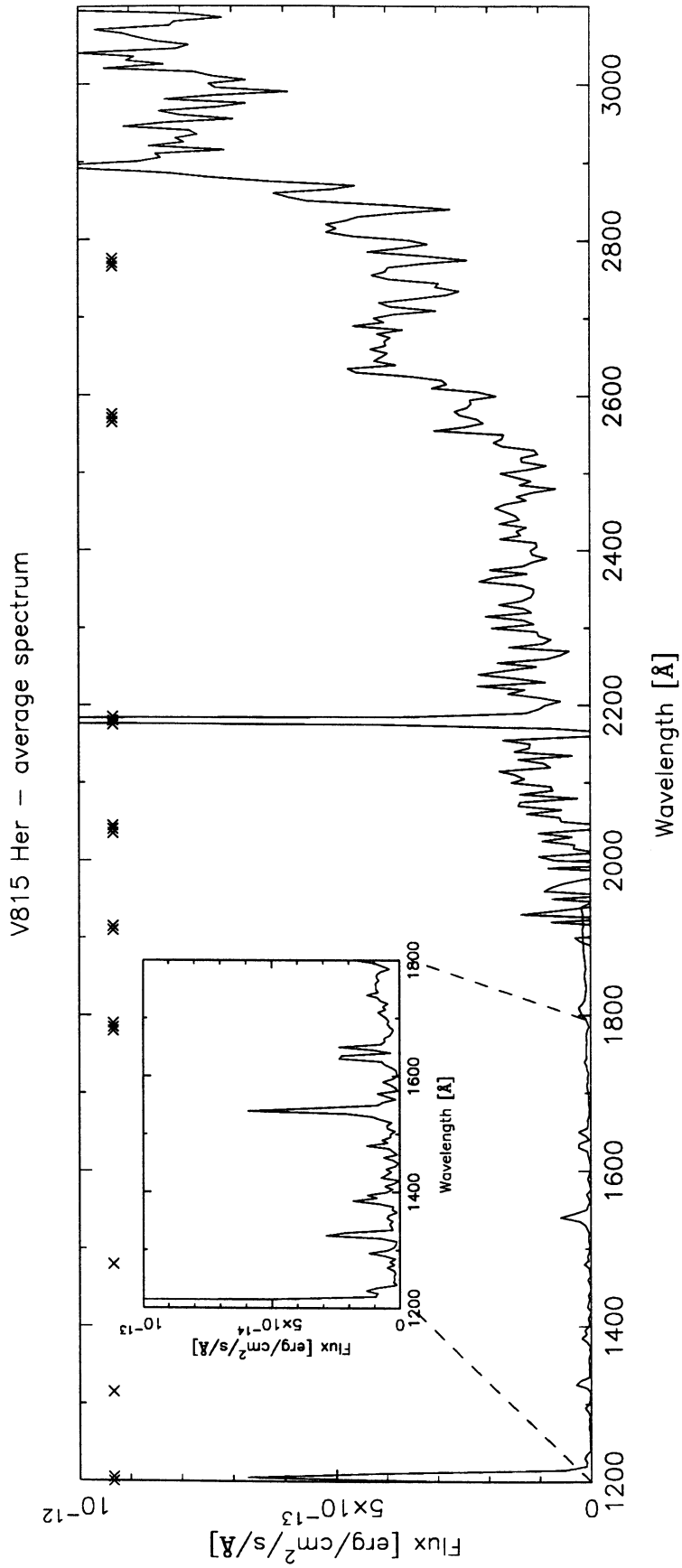
additional references:

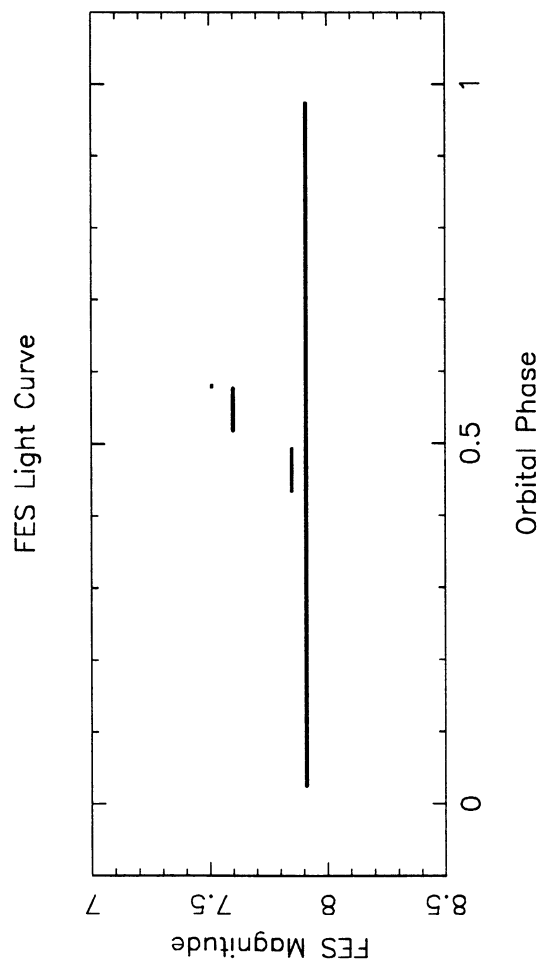
Fernandez-Figueroa M.J., Montesinos B., de Castro E., Rego M., Gimenez A. and Reglero V.: 1986, *Astron. Astrophys.* **169**, 219-226, *Analysis of Ca II emission lines in seven RS CVn systems*

Gimenez A., Reglero V., Ballester J.L., Fernandez-Figueroa M.J. and de Castro E.: 1985, *IAU Inform. Bull. Var. Stars* **2797**, 1-6, *Stromgren uvby photometry of the RS CVn-like binaries sigma CrB and HD 166181*

UE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	15833	L	*	81.12.22	14:17: 0	44961.0938	150.00	7.60	0.52	0.58	1674	331
2	LWR	12192	L	*	81.12.22	16:50: 0	44961.2031	5.00	7.51	0.58	0.58	1674	503
3	SWP	24496	L	*	84.11.17	23:34: 0	46022.4805	135.00	7.91	0.97	0.03	2260	E=152,C=120,B=70
4	SWP	24500	L	*	84.11.18	19:38: 0	46023.3164	150.00	7.85	0.44	0.49	2261	E=149,C=90,B=30


V815 Her – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
0
5x10⁻¹³
10⁻¹²
Flux [erg/cm²/s/Å]
Wavelength [Å]
1200
1400
1600
1800
0
5x10⁻¹⁴
10⁻¹³


FES Light Curve
FES Magnitude
Orbital Phase
8.5
8
7.5
7
0
0.5
1

V819 Her

alternative names:	HD 157482, SAO 46664, HR 6469, BD+40 3136
coordinates (2000.0):	$17^h21^m43.6^s$, $39°58'29''$
linear ephemeris:	
Min I t = HJD 2444062.7 + 2018. E	
system parameters:	
type of binary:	EB, SB1
eccentricity:	0.68
masses [$M_\odot$]:	{1.65/1.15}2.05
radii [$R_\odot$]:	{≥1/}≥10
spectral type:	{F2V/ }G5IV
distance [pc]:	69
activity parameters:	
P_{phot} [days]:	81.9
ΔV [mag]:	0.04
x-ray luminosity [10^{31} erg/s]:	0.030
Mg II index:	0.578
Ca II index:	class E, cool
$H\alpha$ emission:	weakly filled absorption
radio flux density [mJy]:	<0.23
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.14\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$3.31\ 10^{-12}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$5.78\ 10^{-12}$]
U-B:	0.21
B-V:	0.68
V:	5.51
V-R:	0.49
R-I:	
b-y:	0.431
m_1:	0.212
c_1:	0.430
β:	2.611
IRAS [12]:	1.33
IRAS [25]:	0.35

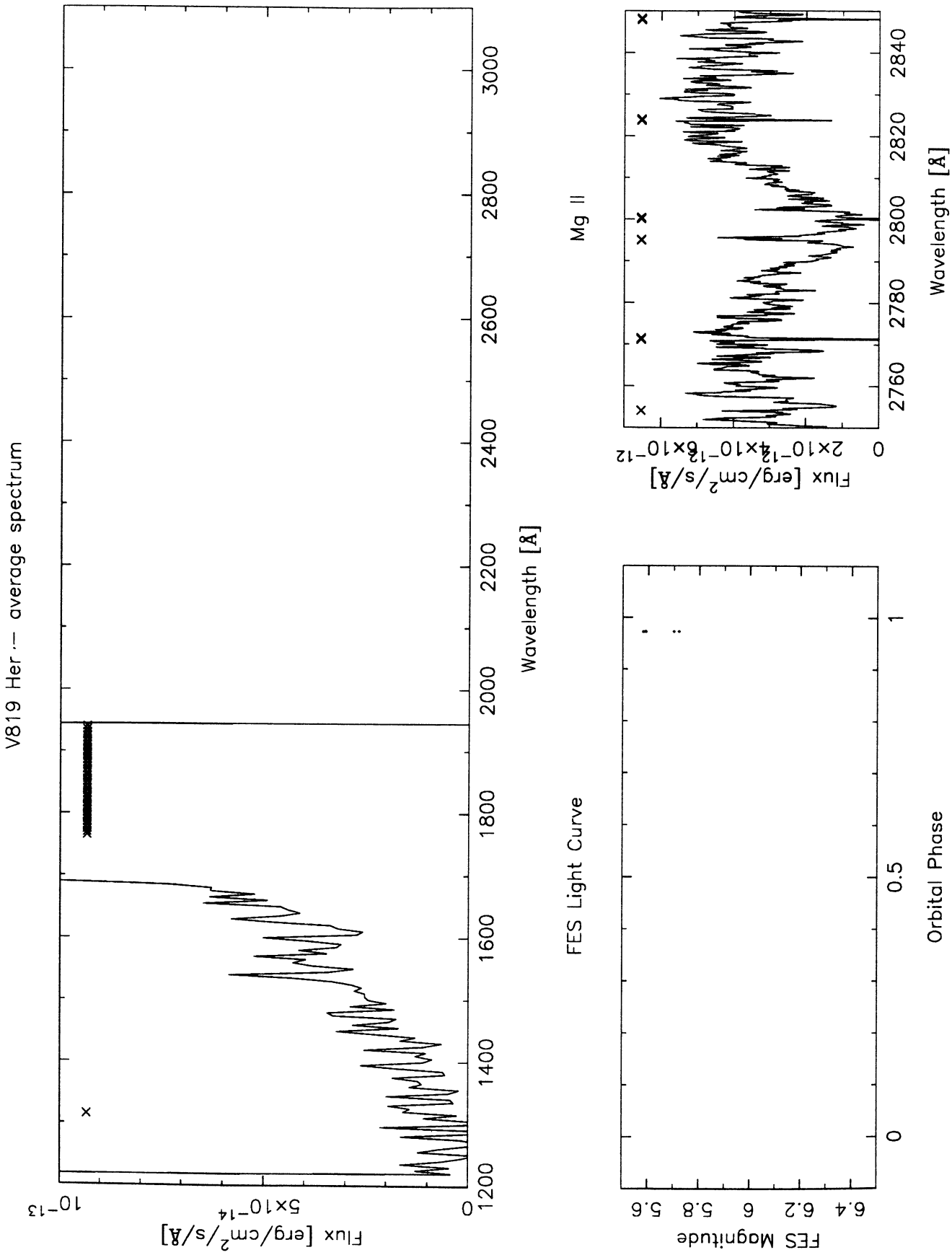
additional references:

Strassmeier K.G., Weichinger S. and Hanslmeier A.: 1986, *IAU Inform. Bull. Var. Stars* **2937**, 1-6, *H-alpha and LiI observations of the RS CVn type binaries : sigma Gem,alpha Aur, 93 Leo and HR 6469*

Boyd L.J., Genet R.M., Hall D.S., Persinger W.T., Fried R.E., Wasson N.F., Stelzer H.J., Lines R.D., Brooks P.A. and Hoff D.: 1985, *IAU Inform. Bull. Var. Stars* **2675**, 1-7, *Discovery of eclipses and long-period variability in the triple system HR 6469*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	4843	H		84.11.20	4:19: 0	46024.6797	20.00	5.58	0.97	0.97	0	E=133,C=165,B=81
2	SWP	24513	L		84.11.20	4:43: 0	46024.6953	25.00	5.59	0.97	0.97	0	E=41,C=2X,B=30
3	LWP	4852	H	*	84.11.21	3:59: 0	46025.6641	30.00	5.70	0.97	0.97	0	E=169,C=225,B=85
4	SWP	24521	L	*	84.11.21	4:34: 0	46025.6914	25.00	5.72	0.97	0.97	0	C=2X,B=43
5	LWP	8407	L		86. 6.17	12:24: 0	46599.0156	10.00	5.85	0.26	0.26	1	C=10X,B=42
6	SWP	28505	L	*	86. 6.17	12:55: 0	46599.0391	38.00	5.85	0.26	0.26	1	C=5X,B=23


V819 Her — average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

IL Hya

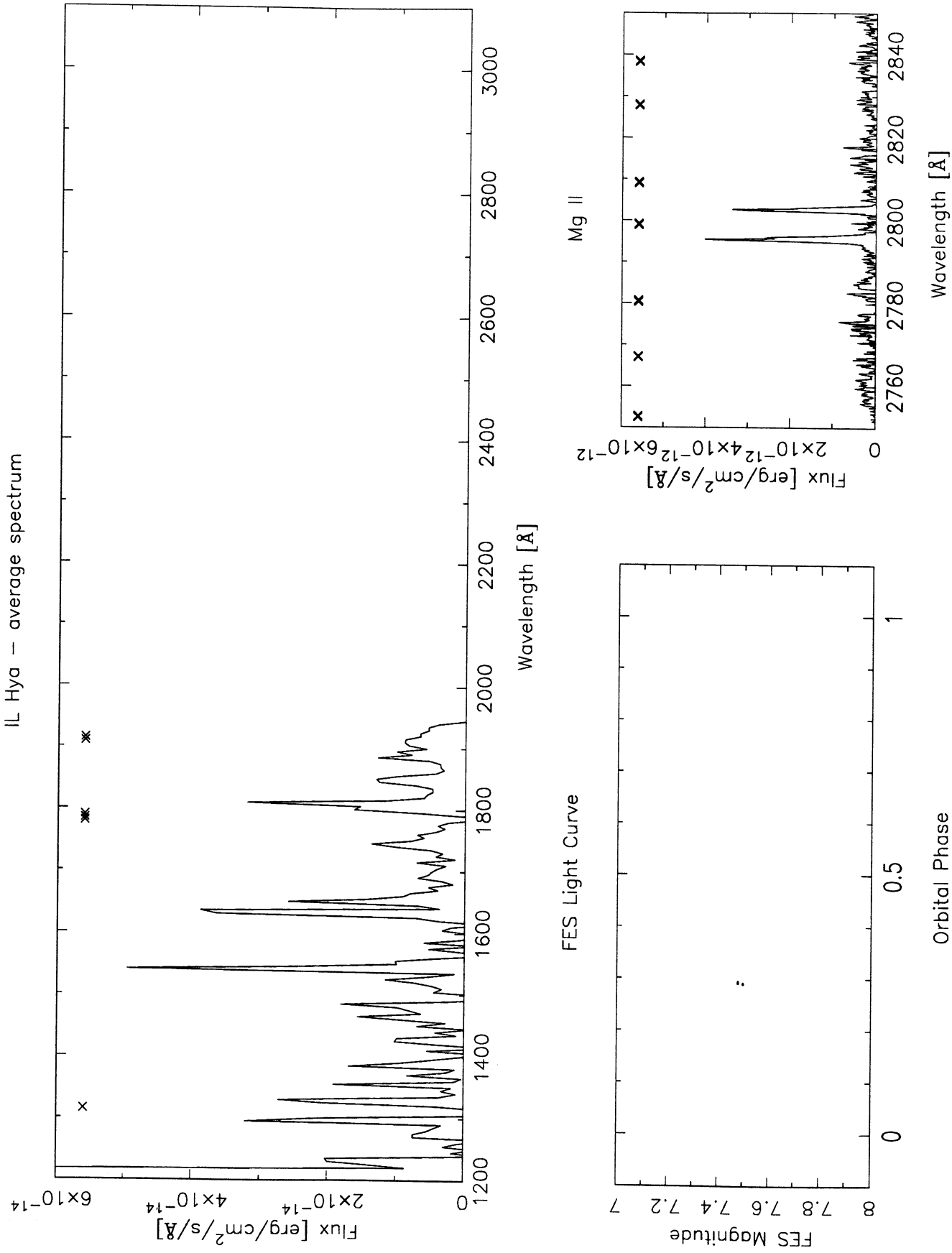
alternative names:	HD 81410, SAO 177412, CD-23 8347
coordinates (2000.0):	$09^h24^m48.8^s$, $-23°49'35''$
linear ephemeris:	
Min I s = HJD 2444208.64 + 12.908 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.05
masses [$M_\odot$]:	f(m)=0.073
radii [$R_\odot$]:	/≥6
spectral type:	K1III
distance [pc]:	263
activity parameters:	
P_{phot} [days]:	12.89
ΔV [mag]:	0.45
x-ray luminosity [10^{31} erg/s]:	2.598
Mg II index:	1.622
Ca II index:	class A
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	2.09
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	20±4
ROSAT 110-200Å [ct/ks]:	15±:
EUVE 100Å [ct/s]:	0.027±0.006
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	6.75 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[6.46 10^{-14}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[2.33 10^{-13}]
U-B:	0.70
B-V:	1.02
V:	7.25
V-R:	0.79
R-I:	0.55
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	0.52
IRAS [25]:	<0.25

additional references:

Mekkaden M.V. and Sinachopoulos D.: 1988, *IAU Inform. Bull. Var. Stars* **3228**, 1-3, *Photometric variability of HD 81410 in 1988*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	14595	H	*	82.11.10	5:29: 0	45283.7266	25.00	7.50	0.29	0.29	83	E=85,C=73,B=25
2	SWP	18520	L	*	82.11.10	5:59: 0	45283.7500	60.00	7.48	0.29	0.29	83	E=58,C=43,B=33


IL Hya – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

LR Hya

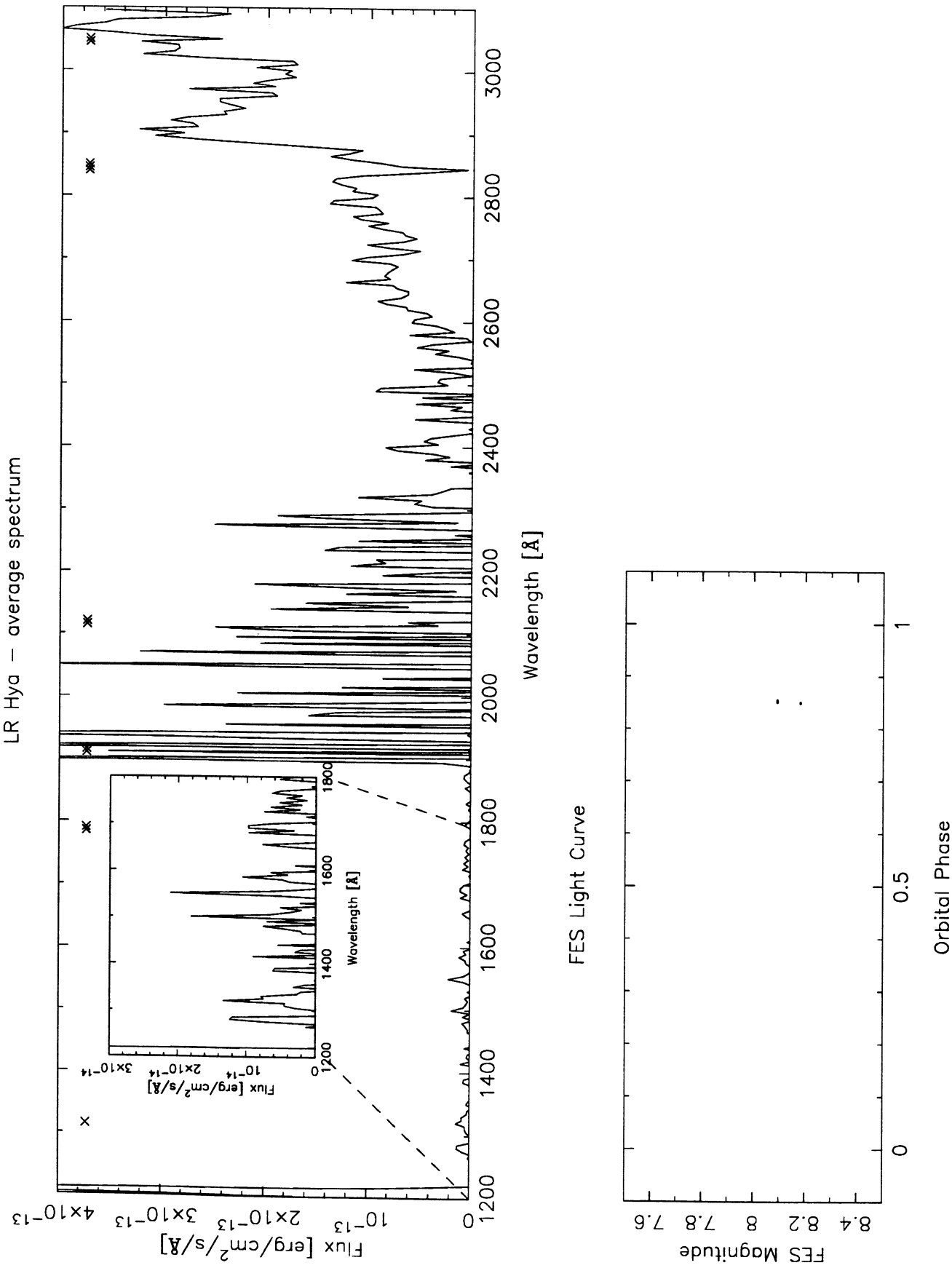
alternative names:	HD 91816, SAO 156090, BD-11 2916
coordinates (2000.0):	$10^h36^m02.2^s$, $-11°54'34''$
linear ephemeris:	
Min I p = HJD 2446539.89 + 6.86569 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.014
masses [$M_\odot$]:	$\geq$0.547/$\geq$0.545
radii [$R_\odot$]:	$\geq$0.8/$\geq$0.8
spectral type:	K0V/K0V
distance [pc]:	34
activity parameters:	
P_{phot} [days]:	3.1448
ΔV [mag]:	$\approx$0.02
x-ray luminosity [10^{31} erg/s]:	0.002
Mg II index:	[0.722]
Ca II index:	strong, both
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$\approx$0.0
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.50 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.36 10^{-13}
U-B:	0.50
B-V:	0.85
V:	7.58
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Fekel F.C., Gillies K., Africano J. and Quigley R.: 1988, *Astron. J.* **96**, 1426-1430, *Chromospherically active stars. V. HD 91816 = LR Hya : a double-lined BY Draconis type binary*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	4911	L	*	84.12. 3	3:48: 0	46037.6602	5.00	8.18	0.85	0.85	-73	E=134,C=90,B=35
2	SWP	24601	L	*	84.12. 3	4: 6: 0	46037.6719	35.00	8.09	0.85	0.85	-73	B=24

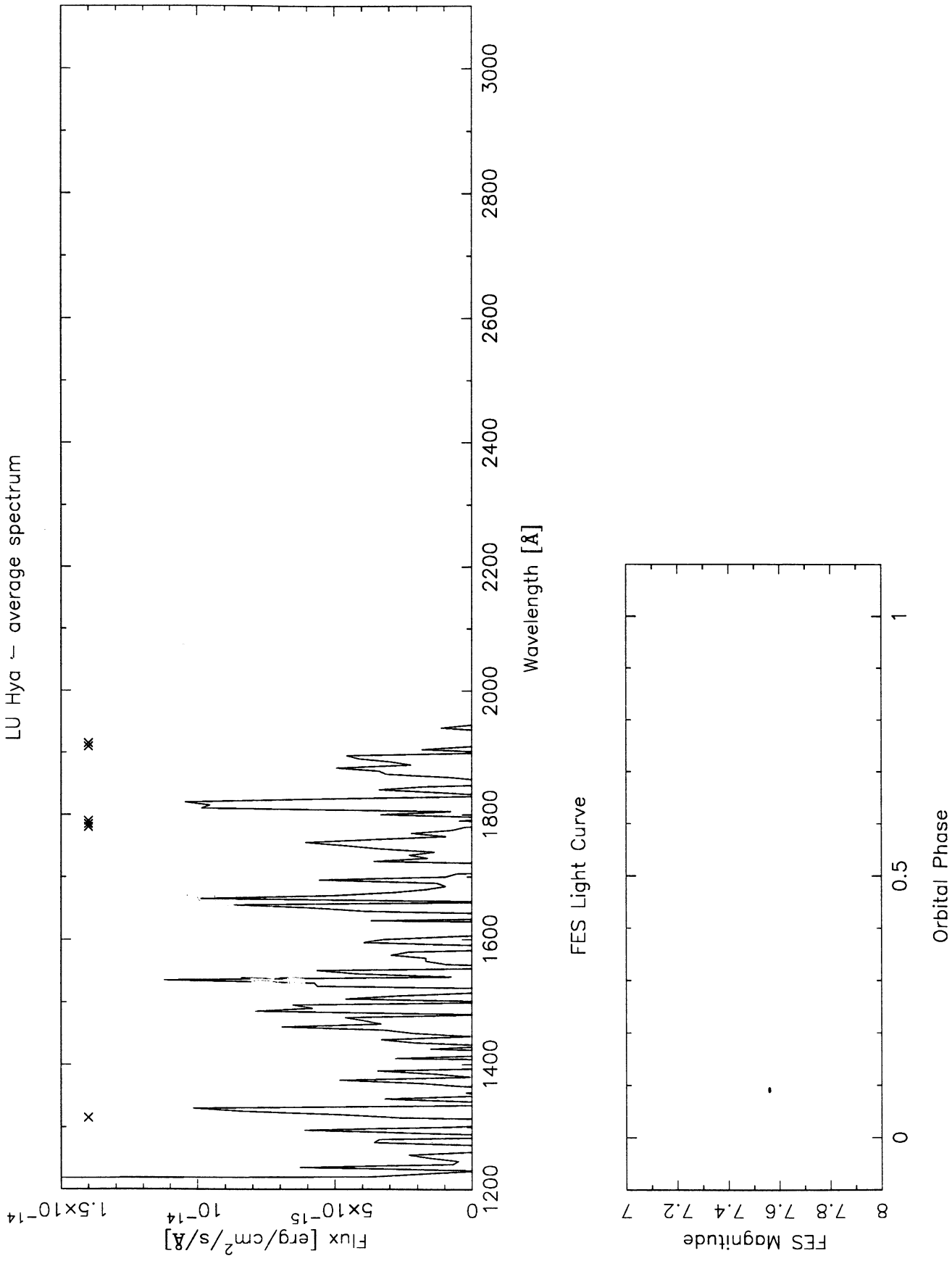

LR Hya – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

LU Hya

alternative names:	HD 71071, SAO 135893, BD-06 2585
coordinates (2000.0):	$08^h25^m14.5^s$, $-07°10'13''$
linear ephemeris:	
Min I s = HJD 2444394.56 + 16.537 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.13
masses [$M_\odot$]:	f(m)=0.0021
radii [$R_\odot$]:	$\geq$5
spectral type:	K1IV
distance [pc]:	95
activity parameters:	
P_{phot} [days]:	21.
ΔV [mag]:	0.04
x-ray luminosity [10^{31} erg/s]:	0.170
Mg II index:	
Ca II index:	class C
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.40
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.08 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.67
B-V:	0.95
V:	7.34
V-R:	
R-I:	
b-y:	0.582
m_1:	0.343
c_1:	0.428
β:	
IRAS [12]:	0.41
IRAS [25]:	<0.25

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	30736	L	*	87. 4. 7	14:28: 0	46893.1016	145.00	7.56	0.09	0.09	151	B=60


LU Hya – average spectrum
Flux [erg/cm²/s/Å]
0
5×10⁻¹⁵
10⁻¹⁴
1.5×10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
7
7.2
7.4
7.6
7.8
8
0
0.5
1
Orbital Phase

RT Lac

alternative names:	HD 209318, SAO 51563, BD+43 4112
coordinates (2000.0):	$22^h01^m30.7^s$, $43°53'26''$
linear ephemeris:	
Min I = HJD 2440382.891 + 5.074015 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	0.78/1.66
radii [$R_\odot$]:	4.2/3.4
spectral type:	G5:/G9IV
distance [pc]:	205
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.17
x-ray luminosity [10^{31} erg/s]:	0.416
Mg II index:	[2.119], 1.974
Ca II index:	strong, both
$H\alpha$ emission:	absorption
radio flux density [mJy]:	0.76
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.31\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.53\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.97\ 10^{-14}$
U-B:	0.90
B-V:	1.14
V:	8.84
V-R:	0.77
R-I:	
b-y:	0.700
m_1:	0.364
c_1:	0.333
β:	0.542
IRAS [12]:	
IRAS [25]:	

additional references:

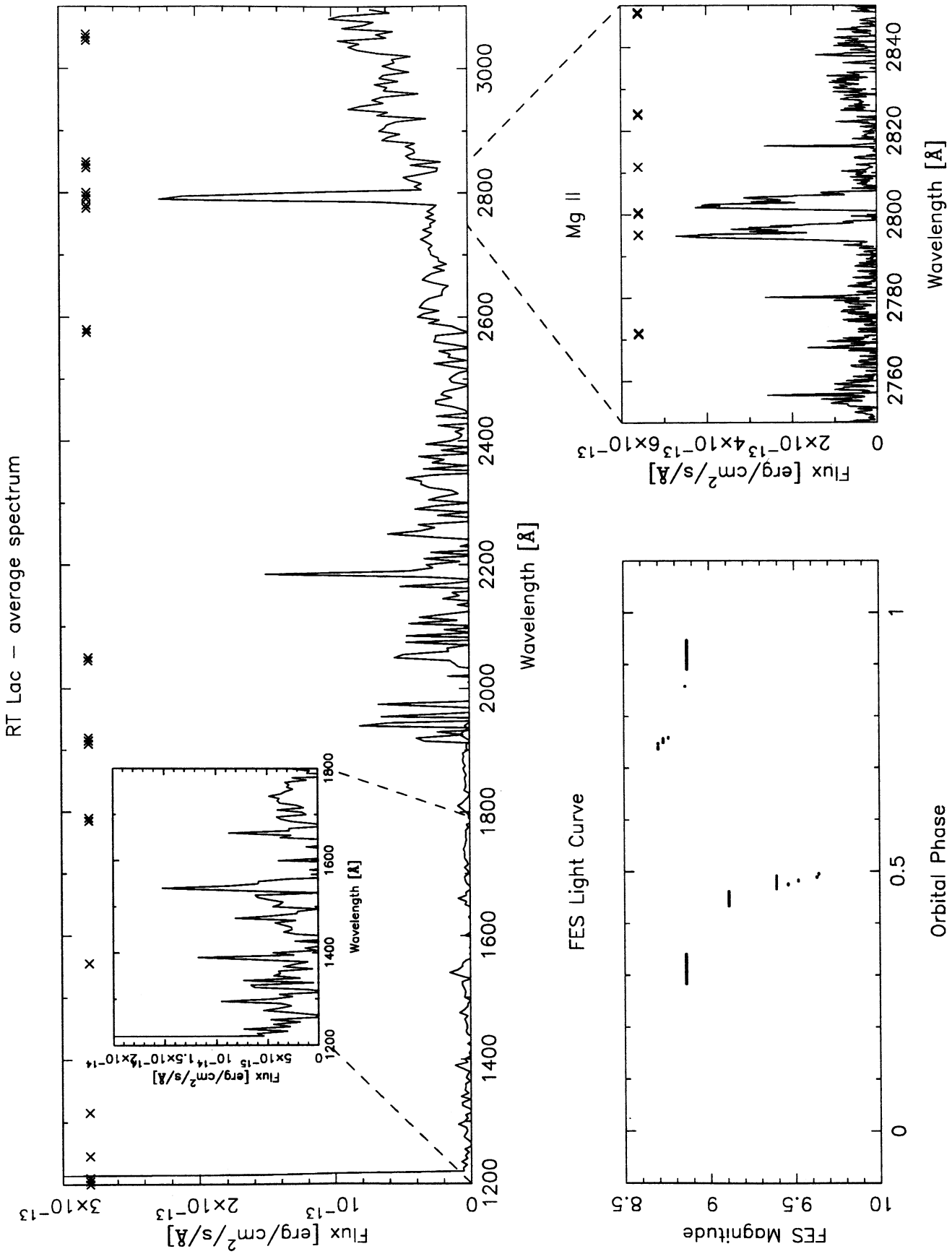
Evren S.: 1989, *Astrophys. Space Sci.* **161**, 303-320, *Light variations of RT Lac during the last ten years*

Huenemoerder D.P.: 1988, *Publ. Astron. Soc. Pac.* **100**, 600-603, *Optical and ultraviolet activity in RT Lacertae during 1985 and 1986*

Huenemoerder D.P. and Barden S.C.: 1986, *Astron. J.* **91**, 583-589, *Optical and UV spectroscopy of the peculiar RS CVn system RT Lacertae*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	11552	L	*	81. 9.14	23:56: 0	44862.4961	7.00	8.86	0.86	0.86	-2	E=151,C=60,B=28
2	LWP	4244	H	*	84. 9.17	21:38: 0	45961.4023	210.00	9.11	0.43	0.46	214	E=130,C=110,B=62
3	LWP	4245	H		84. 9.18	1:40: 0	45961.5703	185.00	9.39	0.47	0.49	214	E=123,C=120,B=75
4	LWP	4253	L		84. 9.19	10:35: 0	45962.9414	35.00	8.70	0.74	0.74	214	E=1.5X,C=220,B=105
5	LWP	4254	L		84. 9.19	11:43: 0	45962.9883	15.00	8.70	0.75	0.75	214	E=255,C=120,B=55
6	SWP	24006	L	*	84. 9.19	12: 4: 0	45963.0039	60.00	8.73	0.75	0.76	214	C=60,B=40
7	LWP	4255	L	*	84. 9.19	13:10: 0	45963.0469	15.00	8.76	0.76	0.76	214	E=255,C=115,B=38
8	LWP	4524	L		84.10. 8	9:42: 0	45981.9023	20.00	9.46	0.47	0.48	218	E=1.5X,C=150,B=115
9	LWP	4525	L		84.10. 8	10:38: 0	45981.9414	15.00	9.52	0.48	0.48	218	E=228,C=158,B=125
10	LWP	4526	L		84.10. 8	11:26: 0	45981.9766	15.00	9.63	0.49	0.49	218	E=239,C=153,B=125
11	LWP	4527	L		84.10. 8	12:13: 0	45982.0078	15.00	9.64	0.49	0.50	218	E=174,C=100,B=70
12	SWP	28414	L	*	86. 6. 1	6: 2: 0	46582.7500	410.00	8.87	0.89	0.95	336	E=139,C=125,B=100
13	SWP	28422	L	*	86. 6. 3	5:47: 0	46584.7422	420.00	8.86	0.28	0.34	337	E=170,C=139,B=102


RT Lac – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

AR Lac

alternative names:	HD 210334, SAO 51684, HR 8448, BD+45 3813
coordinates (2000.0):	$22^h08^m40.8^s$, $45°44'32''$
linear ephemeris:	
Min I = HJD 2426624.3628 + 1.983222 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	$\geq$1.30/$\geq$1.30
radii [$R_\odot$]:	1.8/3.1
spectral type:	G2IV/K0IV
distance [pc]:	47
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.13
x-ray luminosity [10^{31} erg/s]:	1.05
Mg II index:	[0.717], 0.680
Ca II index:	strong, both
$H\alpha$ emission:	emission, variable
radio flux density [mJy]:	2.3-16.5
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	104±7
ROSAT 110-200Å [ct/ks]:	171±10
EUVE 100Å [ct/s]:	0.140±0.007
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	9.24 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.13 10^{-12}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.60 10^{-12}
U-B:	0.26
B-V:	0.72
V:	6.09
V-R:	0.77
R-I:	0.33
b-y:	0.477
m_1:	0.235
c_1:	0.329
β:	2.577
IRAS [12]:	0.85
IRAS [25]:	<0.25

additional references:

Ottmann R.: 1993, *Astron. Astrophys.* **273**, 546-554, *Loop modeling of coronal X-ray emission from AR Lacertae*

Patterer R.J., Wedder P.W., Jelinsky P., Brown A. and Bowyer S.: 1993, *Astrophys. J.* **414**, L57-L60, *Extreme Ultraviolet Explorer observations of the RS Canum Venaticorum systems AR Lacertae and II Pegasi*

Rodono, M.: 1993, *Mem. Soc. Astron. Ital.* **64**, 287-305, *Prospects for studying active cool stars in the ultraviolet spectral domain*

Jeffries R.D.: 1991, *Mon. Not. R. Astron. Soc.* **253**, 369, *The transition region structure of AR Lacertae*

Popper D.M.: 1990, *Astron. J.* **100**, 247, *Orbits of close binaries with Ca II H and K in emission. III. Eleven more systems*

Chaubey U.S. and Singh M.:1990, *Astrophys. Space Sci.* **166**, 177-182, *Spectrophotometry of AR Lacertae*

Arevalo M.J. and Lazaro C.: 1990, *Astrophys. Space Sci.* **169**, 255, *Photometry of AR Lac*

Neff J.E., Walter F.M., Rodono M. and Linsky J.L.: 1989, *Astron. Astrophys.* **215**, 79-91, *Rotational modulation and flares on RS Canum Venaticorum and BY Draconis stars. XI. Ultraviolet spectral images of AR Lacertae in September 1985*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	5286	L		79. 5.18	8:53: 0	44011.8711	20.00	6.18	0.30	0.31	8767	E=58,C=57,B=27
2	LWR	4534	L		79. 5.18	9:20: 0	44011.8906	6.00	6.18	0.31	0.32	8767	C=2X,B=25
3	SWP	5287	L		79. 5.18	9:53: 0	44011.9102	60.00	6.18	0.32	0.34	8767	E=140,C=110,B=38
4	LWR	4535	L		79. 5.18	11:24: 0	44011.9766	2.00	6.22	0.36	0.36	8767	C=260,B=22
5	SWP	5288	L		79. 5.18	11:33: 0	44011.9805	60.00	6.22	0.36	0.38	8767	E=131,C=107,B=40
6	LWR	4536	L		79. 5.18	13: 6: 0	44012.0469	1.67	6.23	0.39	0.39	8767	E=245,C=247,B=20
7	SWP	5289	L		79. 5.18	13:13: 0	44012.0508	60.00	6.23	0.39	0.42	8767	E=123,C=108,B=40
8	LWR	4537	L		79. 5.18	14:47: 0	44012.1172	1.67	6.32	0.43	0.43	8767	E=160,C=240,B=22
9	SWP	5290	L		79. 5.18	14:55: 0	44012.1211	60.00	6.36	0.43	0.45	8767	E=120,C=105,B=35
10	LWR	4538	L		79. 5.18	16:24: 0	44012.1836	1.67	6.53	0.46	0.46	8767	C=205,B=20
11	SWP	5291	L		79. 5.18	16:36: 0	44012.1914	60.00	6.52	0.46	0.49	8767	E=2X,C=140,B=55
12	LWR	4539	L		79. 5.18	18: 6: 0	44012.2539	1.67	6.50	0.50	0.50	8767	E=228,C=225,B=23
13	SWP	5292	L		79. 5.18	18:13: 0	44012.2578	60.00	6.49	0.50	0.52	8767	E=2.5X,C=175,B=95
14	LWR	4540	L		79. 5.18	19:43: 0	44012.3203	1.67	6.34	0.53	0.53	8767	E=1.5X,C=230,B=25
15	SWP	5293	L		79. 5.18	19:50: 0	44012.3281	60.00	6.31	0.53	0.56	8767	C=1.5X,C=155,B=68
16	LWR	4541	L		79. 5.18	21:26: 0	44012.3945	1.67	6.22	0.57	0.57	8767	E=252,C=210,B=25
17	SWP	5294	L		79. 5.18	21:34: 0	44012.3984	60.00	6.20	0.57	0.59	8767	E=250,C=145,B=35
18	LWR	4542	L	*	79. 5.18	23: 3: 0	44012.4609	1.67	6.21	0.60	0.60	8767	E=250,C=210,B=30
19	SWP	5295	L	*	79. 5.18	23:10: 0	44012.4648	40.00	6.21	0.60	0.62	8767	E=1.5X,C=100,B=33
20	LWR	4549	L		79. 5.20	8:56: 0	44013.8711	1.67	6.18	0.31	0.32	8768	E=194,C=205,B=25
21	SWP	5311	L		79. 5.20	9: 5: 0	44013.8789	60.00	6.17	0.32	0.34	8768	E=169,C=104,B=26
22	LWR	4550	L		79. 5.20	10:38: 0	44013.9414	1.67	6.19	0.35	0.35	8768	E=204,C=220,B=25
23	SWP	5312	L		79. 5.20	10:46: 0	44013.9492	60.00	6.18	0.35	0.37	8768	E=179,C=110,B=32
24	LWR	4551	L		79. 5.20	12:16: 0	44014.0117	1.67	6.19	0.38	0.38	8768	E=192,C=220,B=25
25	SWP	5313	L		79. 5.20	12:23: 0	44014.0156	60.00	6.19	0.38	0.41	8768	E=137,C=108,B=34
26	LWR	4552	L		79. 5.20	13:54: 0	44014.0781	1.67	6.26	0.42	0.42	8768	E=189,C=220,B=25
27	SWP	5314	L		79. 5.20	14: 2: 0	44014.0859	60.00	6.27	0.42	0.44	8768	E=134,C=106,B=34
28	LWR	4553	L		79. 5.20	15:32: 0	44014.1484	1.67	6.47	0.45	0.45	8768	E=185,C=215,B=20
29	SWP	5315	L		79. 5.20	15:39: 0	44014.1523	60.00	6.46	0.45	0.48	8768	E=140,C=125,B=48
30	LWR	4554	L		79. 5.20	17: 9: 0	44014.2148	1.67	6.47	0.48	0.48	8768	E=168,C=215,B=25
31	SWP	5316	L		79. 5.20	17:17: 0	44014.2188	60.00	6.46	0.49	0.51	8768	E=185,C=175,B=110
32	LWR	4555	L		79. 5.20	18:49: 0	44014.2852	1.67	6.33	0.52	0.52	8768	E=190,C=225,B=25
33	SWP	5317	L		79. 5.20	18:56: 0	44014.2891	60.00	6.31	0.52	0.54	8768	E=160,C=160,B=85
34	LWR	4556	L		79. 5.20	20:26: 0	44014.3516	1.67	6.22	0.55	0.55	8768	E=195,C=250,B=20
35	SWP	5318	L		79. 5.20	20:33: 0	44014.3555	60.00	6.21	0.56	0.58	8768	E=172,C=160,B=72
36	LWR	4557	L		79. 5.20	22: 3: 0	44014.4180	1.67	6.17	0.59	0.59	8768	E=200,C=239,B=25
37	SWP	5319	L		79. 5.20	22:10: 0	44014.4219	70.00	6.19	0.59	0.61	8768	E=178,C=190,B=85
38	LWR	4558	L	*	79. 5.20	23:40: 0	44014.4844	1.67	6.17	0.62	0.62	8768	E=210,C=230,B=28
39	SWP	5777	L		79. 7.12	22:50: 0	44067.4531	100.00	6.15	0.33	0.36	8795	45
40	LWR	5023	H		79. 7.13	0:35: 0	44067.5234	30.00	6.17	0.36	0.37	8795	34
41	SWP	5810	L		79. 7.15	22:16: 0	44070.4297	100.00	6.21	0.83	0.87	8796	45
42	LWR	5059	H		79. 7.16	0: 2: 0	44070.5000	50.00	6.24	0.87	0.88	8796	45
43	SWP	7650	L	*	80. 1.14	8:29: 0	44252.8516	90.00	6.19	0.81	0.84	8888	451
44	LWR	6661	H		80. 1.14	10: 2: 0	44252.9180	45.00	6.20	0.85	0.86	8888	343
45	SWP	9273	L		80. 6.13	8: 2: 0	44403.8359	90.00	6.67	0.94	0.98	8964	E=131,C=38,B=26
46	LWR	8016	L		80. 6.13	9:39: 0	44403.9023	2.50	6.72	0.98	0.98	8964	E=157,C=125,B=21
47	LWR	8017	H		80. 6.13	11:45: 0	44403.9883	40.00	6.37	0.02	0.03	8965	E=103,C=95,B=30
48	SWP	9275	L		80. 6.13	12:29: 0	44404.0195	55.00	6.27	0.04	0.06	8965	E=255,C=172,B=90
49	LWR	8018	L		80. 6.13	13:30: 0	44404.0625	2.50	6.19	0.06	0.06	8965	E=1.5X,C=217,B=23,
50	LWR	8029	H		80. 6.13	21:35: 0	44404.3984	17.00	6.10	0.23	0.23	8965	C=85,B=30
51	SWP	10329	L		80.10.11	14:59: 0	44524.1250	115.00	6.16	0.60	0.64	9025	451
52	LWR	9003	H		80.10.11	16:58: 0	44524.2070	50.00	6.16	0.64	0.66	9025	442
53	SWP	10352	L		80.10.12	19:15: 0	44525.3008	97.00	6.19	0.19	0.22	9026	451

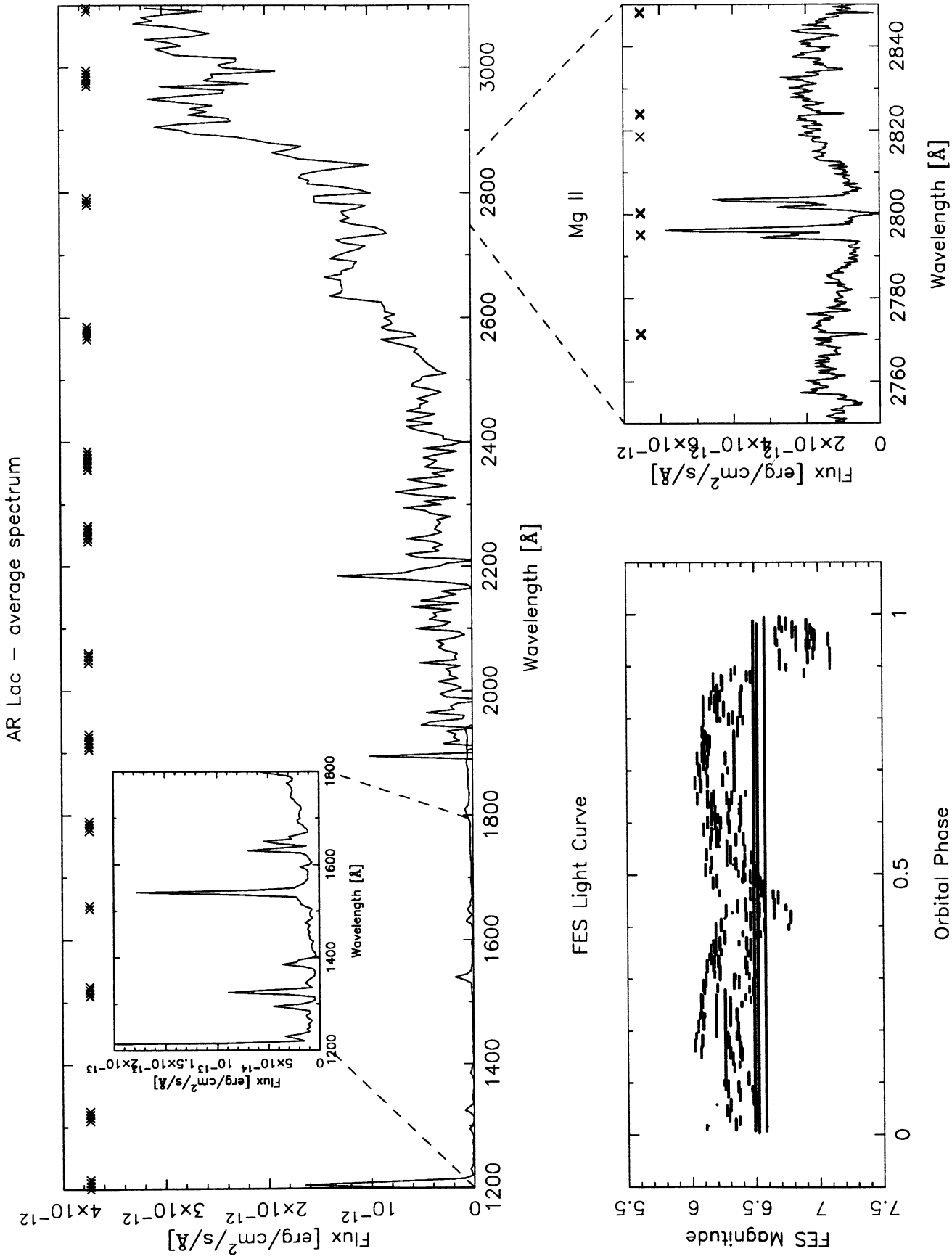
no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
54	LWR	9010	H		80.10.12	20:59: 0	44525.3750	50.00	6.19	0.23	0.24	9026	531
55	LWR	11662	H		81.10. 2	14:36: 0	44880.1094	30.00	6.25	0.10	0.11	9205	333
56	SWP	15155	L		81.10. 2	15:10: 0	44880.1328	100.00	6.26	0.11	0.14	9205	441
57	LWR	11666	H		81.10. 2	23:14: 0	44880.4688	40.00	6.20	0.28	0.29	9205	E=139,C=110,B=32
58	LWR	11672	H		81.10. 3	15:12: 0	44881.1328	60.00	6.19	0.61	0.63	9205	354
59	SWP	15165	L	*	81.10. 3	16:17: 0	44881.1797	80.00	6.18	0.63	0.66	9205	440
60	SWP	15159	L		81.10. 3	23:57: 0	44881.4961	100.00	6.21	0.79	0.83	9205	E=222,C=148,B=37
61	LWR	11676	H		81.10. 4	1: 2: 0	44881.5430	60.00	6.15	0.82	0.84	9205	E=180,C=140,B=40
62	SWP	15168	L		81.10. 4	23:53: 0	44882.4961	80.00	6.22	0.30	0.33	9206	E=161,C=130,B=36
63	SWP	21224	L		83.10. 3	1:51: 0	45610.5781	80.00	6.53	0.42	0.45	9573	E=134,C=75,B=35
64	LWR	16915	L		83.10. 3	19:44:41	45611.3242	19.07	6.23	0.80	0.80	9573	802
65	SWP	21222	L		83.10. 3	20:13:31	45611.3438	80.00	6.26	0.81	0.83	9573	341
66	LWR	16916	H		83.10. 3	21:38: 0	45611.4023	50.00	6.23	0.83	0.85	9573	E=163,C=140,B=35
67	SWP	21223	L		83.10. 3	22:35: 0	45611.4414	80.00	6.25	0.86	0.88	9573	E=171,C=125,B=30
68	LWR	16917	H		83.10. 4	0: 5: 0	45611.5039	42.00	6.35	0.89	0.90	9573	E=126,C=112,B=35
69	LWR	16918	H		83.10. 4	2:16: 0	45611.5938	45.00	6.83	0.93	0.95	9573	E=141,C=100,B=35
70	SWP	21225	L		83.10. 4	3: 5: 0	45611.6289	80.00	6.83	0.95	0.98	9573	E=113,B=35
71	LWR	16922	H		83.10. 4	12:26: 0	45612.0195	55.00	6.26	0.15	0.17	9574	E=178,C=150,B=42
72	SWP	21230	L		83.10. 4	13:27:55	45612.0625	80.00	6.27	0.17	0.20	9574	341
73	LWR	16925	H		83.10. 5	1: 5: 0	45612.5469	45.00	6.43	0.41	0.43	9574	E=148,C=130,B=35
74	SWP	21234	L		83.10. 5	1:56: 0	45612.5820	100.00	6.57	0.43	0.47	9574	E=168,C=130,B=37
75	LWR	16926	H		83.10. 5	3:42: 0	45612.6523	55.00	6.52	0.47	0.48	9574	E=150,C=120,B=35
76	SWP	21235	L		83.10. 5	4:43: 0	45612.6953	80.00	6.41	0.49	0.51	9574	E=170,C=125,B=39
77	LWR	16927	H		83.10. 5	6: 9: 0	45612.7578	55.00	6.28	0.52	0.54	9574	E=169,C=140,B=40
78	SWP	21236	L		83.10. 5	7:10: 0	45612.7969	80.00	6.28	0.54	0.57	9574	E=160,C=125,B=39
79	LWR	16928	H		83.10. 5	8:36: 0	45612.8594	45.00	6.22	0.57	0.59	9574	E=162,C=120,B=39
80	SWP	21237	L		83.10. 5	9:31: 0	45612.8984	60.00	6.23	0.59	0.61	9574	E=146,C=120,B=47
81	LWP	4111	H		84. 8.31	6:40: 0	45943.7773	45.00	6.58	0.43	0.44	9741	E=230,C=195,B=101
82	SWP	23826	L		84. 8.31	7:32: 0	45943.8125	30.00	6.58	0.45	0.46	9741	E=1.5X,C=118,B=71
83	LWP	4112	H		84. 8.31	8: 9: 0	45943.8398	35.00	6.55	0.47	0.47	9741	E=236,C=215,B=139
84	SWP	23827	L		84. 8.31	8:51: 0	45943.8672	20.00	6.52	0.47	0.48	9741	E=126,C=96,B=70
85	LWP	4113	H		84. 8.31	9:25: 0	45943.8906	25.00	6.40	0.49	0.49	9741	E=174,C=185,B=120
86	LWP	4118	H		84. 9. 1	6:43: 0	45944.7813	45.00	6.93	0.93	0.95	9741	E=164,C=112,B=60
87	SWP	23835	L		84. 9. 1	7:34: 0	45944.8164	30.00	6.98	0.95	0.96	9741	E=70,C=52,B=40
88	LWP	4119	H		84. 9. 1	8:10: 0	45944.8398	45.00	6.94	0.96	0.98	9741	E=214,C=140,B=105
89	SWP	23836	L		84. 9. 1	9: 5: 0	45944.8789	35.00	6.70	0.98	0.00	9741	E=139,C=124,B=89
90	LWP	4125	H		84. 9. 2	6:43: 0	45945.7813	45.00	6.57	0.44	0.45	9742	E=173,C=140,B=50
91	SWP	23846	L		84. 9. 2	7:34: 0	45945.8164	30.00	6.57	0.46	0.47	9742	E=69,C=72,B=35
92	LWP	4126	H		84. 9. 2	8:14: 0	45945.8438	50.00	6.56	0.47	0.49	9742	E=187,C=175,B=69
93	SWP	23847	L		84. 9. 2	9:11: 0	45945.8828	35.00	6.42	0.49	0.50	9742	E=88,C=84,B=41
94	LWP	4133	H		84. 9. 3	6:35: 0	45946.7734	45.00	6.92	0.94	0.95	9742	E=148,C=100,B=47
95	SWP	23858	L		84. 9. 3	7:27: 0	45946.8086	30.00	6.92	0.96	0.97	9742	E=47,C=39,B=30
96	LWP	4134	H		84. 9. 3	8: 5: 0	45946.8359	55.00	6.91	0.97	0.99	9742	E=166,C=120,B=52
97	SWP	23859	L		84. 9. 3	9: 9: 0	45946.8828	40.00	6.58	0.99	0.01	9742	E=95,C=78,B=39
98	LWP	6746	H		85. 9.18	5:43: 0	46326.7383	60.00	6.12	0.53	0.55	9934	E=218,C=183,B=80
99	SWP	26676	L		85. 9.18	6:55: 0	46326.7891	60.00	6.20	0.55	0.58	9934	E=108,C=105,B=58
100	LWP	6747	H		85. 9.18	7:34: 0	46326.8164	60.00	6.16	0.57	0.59	9934	E=216,C=173,B=70
101	LWP	6748	H		85. 9.18	9:20: 0	46326.8906	35.00	6.18	0.61	0.62	9934	E=202,C=190,B=119
102	LWP	6749	H		85. 9.18	10:30: 0	46326.9375	30.00	6.15	0.63	0.64	9934	E=3X,C=2X,B=207
103	LWP	6750	H		85. 9.18	14:30:16	46327.1055	60.00	6.27	0.71	0.74	9934	454
104	SWP	26677	L		85. 9.18	15:37:39	46327.1523	90.00	6.13	0.74	0.77	9934	331
105	LWP	6751	H		85. 9.18	16:16:27	46327.1797	60.00	6.12	0.75	0.77	9934	454
106	LWP	6752	H		85. 9.18	18: 3:43	46327.2539	60.00	6.30	0.79	0.81	9934	453
107	LWP	6753	H		85. 9.18	20: 5:27	46327.3359	60.00	6.16	0.83	0.85	9934	453
108	SWP	26678	L		85. 9.18	21:13: 0	46327.3828	95.00	6.18	0.85	0.89	9934	E=214,C=80,B=38
109	LWP	6754	H		85. 9.18	22: 7: 0	46327.4219	60.00	6.32	0.87	0.90	9934	E=182,C=152,B=47
110	LWP	6755	H		85. 9.19	0:57: 0	46327.5391	54.00	6.91	0.93	0.95	9934	E=172,C=98,B=42
111	SWP	26679	L		85. 9.19	2: 3: 0	46327.5859	87.00	6.80	0.96	0.99	9934	E=79,C=90,B=36
112	LWP	6756	H		85. 9.19	2:46: 0	46327.6172	60.00	6.75	0.97	0.99	9934	E=179,C=130,B=46
113	LWP	6757	H		85. 9.19	4:34: 0	46327.6914	60.00	6.34	0.01	0.03	9935	E=191,C=165,B=50
114	LWP	6758	H		85. 9.19	6:23: 0	46327.7656	60.00	6.30	0.05	0.07	9935	E=200,C=165,B=52
115	SWP	26680	L		85. 9.19	7:36: 0	46327.8164	90.00	6.28	0.07	0.10	9935	E=105,C=110,B=60
116	LWP	6759	H		85. 9.19	8:13: 0	46327.8438	60.00	6.26	0.09	0.11	9935	E=190,C=157,B=45
117	LWP	6760	H		85. 9.19	12: 6: 0	46328.0039	60.00	6.29	0.17	0.19	9935	E=227,C=207,B=90
118	LWP	6761	H		85. 9.19	14:10:24	46328.0898	60.00	6.30	0.21	0.23	9935	344

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
119	SWP	26681	L	*	85. 9.19	15:18:35	46328.1367	90.00	6.30	0.23	0.27	9935	341
120	LWP	6762	H		85. 9.19	15:54:31	46328.1641	60.00	6.19	0.25	0.27	9935	444
121	LWP	6763	H		85. 9.19	17:47:35	46328.2422	60.00	6.33	0.29	0.31	9935	343
122	LWP	6764	H		85. 9.19	19:30:16	46328.3125	60.00	6.21	0.32	0.34	9935	344
123	SWP	26682	L		85. 9.19	20:36:31	46328.3594	30.00	6.23	0.35	0.36	9935	331
124	LWP	6765	H		85. 9.19	21:31:30	46328.3984	17.00	6.37	0.37	0.37	9935	333
125	SWP	31082	H		87. 6. 2	5:54: 0	46948.7461	330.00	6.26	0.16	0.28	10248	E=126,C=120,B=90
126	LWP	10894	H		87. 6. 2	11:34: 0	46948.9805	40.00	6.33	0.28	0.30	10248	E=153,C=130,B=50
127	SWP	31083	L		87. 6. 2	12:22: 0	46949.0156	30.00	6.34	0.30	0.31	10248	E=66,C=57,B=20
128	SWP	31096	H		87. 6. 3	5:38: 0	46949.7344	330.00	6.34	0.66	0.78	10248	E=127,C=140,B=90
129	LWP	10903	H		87. 6. 3	11:18: 0	46949.9727	55.00	6.37	0.78	0.80	10248	E=195,C=170,B=50
130	SWP	31097	L		87. 6. 3	12:21: 0	46950.0156	29.00	6.39	0.80	0.81	10248	E=59,C=65,B=19
131	SWP	31588	L		87. 8.19	11:51: 0	47026.9922	30.00	6.38	0.62	0.63	10287	E=145,C=160,B=122
132	LWP	11430	L		87. 8.19	12:41: 0	47027.0273	7.00	6.38	0.64	0.64	10287	C=3X,B=210
133	LWP	11601	H		87. 9.13	8:14: 0	47051.8438	60.00	6.38	0.15	0.17	10300	E=206,C=185,B=65
134	SWP	31832	L		87. 9.13	9:23: 0	47051.8906	50.00	6.37	0.17	0.19	10300	E=167,C=200,B=155
135	LWP	11602	H		87. 9.13	9:59: 0	47051.9141	40.00	6.35	0.18	0.20	10300	E=154,C=1.2X,B=175
136	SWP	31833	L		87. 9.13	13:20: 0	47052.0547	30.00	6.46	0.26	0.27	10300	E=140,C=140,B=100
137	LWP	11603	H	*	87. 9.13	13:56: 0	47052.0820	60.00	6.48	0.27	0.29	10300	E=224,C=195,B=65
138	SWP	31834	L		87. 9.13	15:25:39	47052.1445	30.00	6.45	0.30	0.31	10300	330
139	LWP	11604	H		87. 9.13	16: 4:29	47052.1680	60.00	6.43	0.31	0.33	10300	452
140	SWP	31835	L		87. 9.13	17:15:17	47052.2188	30.00	6.46	0.34	0.35	10300	330
141	LWP	11605	H		87. 9.13	18: 1:33	47052.2500	60.00	6.46	0.35	0.38	10300	342
142	SWP	31836	L		87. 9.13	19:11:45	47052.3008	30.00	6.51	0.39	0.39	10300	330
143	LWP	11606	H		87. 9.13	19:52:37	47052.3281	60.00	6.57	0.39	0.41	10300	342
144	SWP	31837	L		87. 9.13	21: 1:33	47052.3750	30.00	6.65	0.42	0.43	10300	330
145	LWP	11607	H		87. 9.13	21:44: 7	47052.4063	60.00	6.65	0.43	0.45	10300	352
146	SWP	31838	L		87. 9.13	22:52: 0	47052.4531	40.00	6.64	0.46	0.47	10300	E=65,C=80,B=20
147	LWP	11608	H		87. 9.13	23:41: 0	47052.4883	60.00	6.54	0.47	0.50	10300	E=210,C=170,B=47
148	SWP	31839	L		87. 9.14	0:49: 0	47052.5352	30.00	6.37	0.50	0.51	10300	E=72,C=65,B=19
149	LWP	11609	H		87. 9.14	1:32: 0	47052.5625	60.00	6.35	0.51	0.53	10300	E=203,C=165,B=51
150	SWP	31841	L		87. 9.14	6:50: 0	47052.7852	60.00	6.30	0.62	0.65	10300	E=80,C=82,B=32
151	LWP	11611	H		87. 9.14	7:28: 0	47052.8125	60.00	6.28	0.64	0.66	10300	E=202,C=165,B=50
152	LWP	11612	H		87. 9.14	9:13: 0	47052.8828	60.00	6.25	0.67	0.69	10300	E=235,C=215,B=105
153	SWP	31842	L		87. 9.14	10:21: 0	47052.9297	30.00	6.29	0.70	0.71	10300	E=125,C=132,B=93
154	LWP	11614	H		87. 9.14	13:43: 0	47053.0703	60.00	6.37	0.77	0.79	10300	E=238,C=205,B=90
155	SWP	31843	L		87. 9.14	14:50:33	47053.1172	40.00	6.41	0.79	0.80	10300	330
156	SWP	31844	L		87. 9.14	16: 2:15	47053.1680	30.00	6.39	0.82	0.83	10300	330
157	LWP	11615	H		87. 9.14	16:40:11	47053.1953	60.00	6.39	0.83	0.85	10300	442
158	SWP	31845	L		87. 9.14	17:49: 8	47053.2422	30.00	6.40	0.85	0.86	10300	330
159	LWP	11616	H		87. 9.14	18:31: 9	47053.2734	60.00	6.47	0.87	0.89	10300	342
160	SWP	31846	L		87. 9.14	19:39:39	47053.3203	35.00	6.75	0.89	0.90	10300	330
161	LWP	11617	H		87. 9.14	20:23:11	47053.3477	60.00	6.92	0.91	0.93	10300	342
162	SWP	31847	L		87. 9.14	21:34:23	47053.3984	30.00	6.97	0.93	0.94	10300	230
163	LWP	11618	H		87. 9.14	22:16: 0	47053.4297	60.00	6.97	0.95	0.97	10300	E=173,C=112,B=46
164	SWP	31848	L		87. 9.14	23:26: 0	47053.4766	60.00	6.70	0.97	0.99	10300	E=69,C=75,B=30
165	LWP	11619	H		87. 9.15	0:10: 0	47053.5078	60.00	6.49	0.99	0.01	10300	E=165,C=160,B=48
166	LWP	11620	H		87. 9.15	2: 2: 0	47053.5859	60.00	6.29	0.03	0.05	10301	E=170,C=164,B=52
167	SWP	31850	L		87. 9.15	7:13: 0	47053.8008	60.00	6.32	0.14	0.16	10301	E=86,C=102,B=60
168	LWP	11622	H		87. 9.15	7:49: 0	47053.8242	60.00	6.30	0.15	0.17	10301	E=178,C=165,B=50
169	LWP	11623	H		87. 9.15	9:38: 0	47053.9023	30.00	6.28	0.19	0.20	10301	E=211,C=210,B=145
170	LWP	11625	H		87. 9.15	14:15:56	47054.0938	60.00	6.37	0.28	0.31	10301	444
171	SWP	31853	L		87. 9.15	15:26:27	47054.1445	30.00	6.43	0.31	0.32	10301	330
172	LWP	11626	H		87. 9.15	16: 4:16	47054.1680	60.00	6.42	0.32	0.34	10301	453
173	SWP	31854	L		87. 9.15	17:11:26	47054.2148	30.00	6.44	0.34	0.35	10301	330
174	LWP	11627	H		87. 9.15	17:49: 2	47054.2422	60.00	6.43	0.36	0.38	10301	443
175	SWP	31855	L		87. 9.15	18:58:28	47054.2891	30.00	6.54	0.38	0.39	10301	330
176	LWP	11629	H		87. 9.15	23:31: 0	47054.4805	60.00	6.50	0.48	0.50	10301	E=181,C=166,B=48
177	SWP	31857	L		87. 9.16	0:42: 0	47054.5273	65.00	6.41	0.50	0.53	10301	E=81,C=88,B=32
178	LWP	11630	H		87. 9.16	1:23: 0	47054.5586	60.00	6.42	0.52	0.54	10301	E=223,C=74,B=50
179	LWP	11631	H		87. 9.16	3:16: 0	47054.6367	60.00	6.35	0.56	0.58	10301	E=211,C=170,B=53
180	SWP	31858	L	*	87. 9.16	4:26: 0	47054.6836	70.00	6.30	0.58	0.60	10301	E=82,C=90,B=40
181	LWP	11632	H		87. 9.16	5:14: 0	47054.7188	60.00	6.29	0.60	0.62	10301	E=206,C=173,B=63
182	LWP	11633	H		87. 9.16	7: 8: 0	47054.7969	60.00	6.32	0.64	0.66	10301	E=194,C=160,B=50
183	SWP	31859	L		87. 9.16	8:16: 0	47054.8438	60.00	6.34	0.66	0.68	10301	E=135,C=145,B=100

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
184	LWP	11634	H		87. 9.16	8:55: 0	47054.8711	60.00	6.34	0.68	0.70	10301	E=247,C=205,B=102
185	LWP	11636	H		87. 9.16	14:28:19	47055.1016	60.00	6.33	0.79	0.81	10301	452
186	LWP	11638	H		87. 9.16	20:20: 0	47055.3477	60.00	6.96	0.92	0.94	10301	341
187	SWP	31863	L		87. 9.16	21:27:36	47055.3945	30.00	6.97	0.94	0.95	10301	240
188	LWP	11639	H		87. 9.16	22:10: 0	47055.4219	60.00	6.95	0.95	0.97	10301	E=172,C=122,B=47
189	SWP	31865	L		87. 9.17	3:32: 0	47055.6484	60.00	6.37	0.07	0.09	10302	E=72,C=70,B=44
190	LWP	11641	H		87. 9.17	4:19: 0	47055.6797	55.00	6.36	0.08	0.10	10302	E=197,C=165,B=60
191	LWP	11642	H		87. 9.17	6: 9: 0	47055.7578	40.00	6.33	0.12	0.14	10302	E=130,C=135,B=58
192	SWP	36902	L		89. 8.30	15:40:11	47769.1523	30.00	6.50	0.84	0.85	10661	330
193	LWP	16243	H		89. 8.30	16:25:25	47769.1836	70.00	6.58	0.85	0.88	10661	451
194	SWP	36903	L		89. 8.30	17:42:49	47769.2383	40.00	6.89	0.88	0.89	10661	330
195	LWP	16244	H		89. 8.30	18:30:42	47769.2695	75.00	7.09	0.90	0.92	10661	451
196	SWP	36904	L		89. 8.30	19:53:59	47769.3281	30.00	7.09	0.93	0.94	10661	130
197	LWP	16245	H		89. 8.30	20:38:19	47769.3594	60.00	7.08	0.94	0.96	10661	341
198	SWP	36905	L		89. 8.30	21:49:30	47769.4102	30.00	6.72	0.97	0.98	10661	330
199	LWP	16246	H		89. 8.30	22:33: 0	47769.4414	60.00	6.52	0.98	0.00	10661	E=177,C=155,B=42
200	SWP	36906	L		89. 8.30	23:48: 0	47769.4922	30.00	6.49	0.01	0.02	10662	E=60,C=47,B=24
201	LWP	16247	H		89. 8.31	0:26: 0	47769.5195	60.00	6.49	0.02	0.04	10662	E=153,C=160,B=43
202	SWP	36907	L		89. 8.31	1:35: 0	47769.5664	30.00	6.49	0.05	0.06	10662	E=56,C=50,B=24
203	LWP	16248	H		89. 8.31	2:15: 0	47769.5938	60.00	6.50	0.06	0.08	10662	E=166,C=164,B=43
204	SWP	36908	L		89. 8.31	3:23: 0	47769.6406	30.00	6.47	0.08	0.09	10662	E=54,C=51,B=25
205	LWP	16249	H		89. 8.31	4: 2: 0	47769.6680	70.00	6.44	0.10	0.12	10662	E=186,C=184,B=42
206	SWP	36909	L		89. 8.31	5:39: 0	47769.7344	30.00	6.37	0.13	0.14	10662	E=64,C=49,B=25
207	LWP	16250	H		89. 8.31	6:18: 0	47769.7617	60.00	6.39	0.14	0.17	10662	E=176,C=155,B=45
208	SWP	36910	L		89. 8.31	7:27: 0	47769.8086	30.00	6.38	0.17	0.18	10662	E=59,C=60,B=27
209	LWP	16251	H		89. 8.31	8:10: 0	47769.8398	60.00	6.36	0.18	0.21	10662	E=177,C=157,B=51
210	SWP	36911	L		89. 8.31	9:19: 0	47769.8867	30.00	6.36	0.21	0.22	10662	E=52,C=66,B=33
211	LWP	16252	H		89. 8.31	9:58: 0	47769.9141	60.00	6.35	0.22	0.24	10662	E=230,C=210,B=115
212	SWP	36912	L		89. 8.31	11: 8: 0	47769.9648	30.00	6.39	0.25	0.26	10662	E=106,C=108,B=67
213	LWP	16253	H		89. 8.31	11:46: 0	47769.9922	30.00	6.42	0.26	0.27	10662	E=226,C=222,B=161
214	SWP	36913	L		89. 8.31	12:29: 0	47770.0195	30.00	6.45	0.27	0.28	10662	E=115,C=120,B=79
215	LWP	16254	H		89. 8.31	13:11: 0	47770.0508	30.00	6.48	0.29	0.30	10662	E=169,C=171,B=103
216	SWP	36914	L		89. 8.31	13:50: 0	47770.0781	30.00	6.50	0.30	0.31	10662	E=77,C=75,B=38
217	LWP	16255	H		89. 8.31	14:29: 9	47770.1055	70.00	6.49	0.32	0.34	10662	451
218	SWP	36915	L		89. 8.31	15:59:45	47770.1680	40.00	6.46	0.35	0.36	10662	330
219	LWP	16256	H		89. 8.31	16:52:22	47770.2031	70.00	6.58	0.37	0.39	10662	451
220	SWP	36916	L		89. 8.31	18:11:25	47770.2578	30.00	6.76	0.40	0.40	10662	330
221	LWP	16257	H		89. 8.31	18:48:28	47770.2852	60.00	6.78	0.41	0.43	10662	440
222	SWP	36917	L		89. 8.31	19:57:47	47770.3320	30.00	6.74	0.43	0.44	10662	330
223	LWP	16258	H		89. 8.31	20:37:14	47770.3594	60.00	6.68	0.45	0.47	10662	441
224	SWP	36918	L		89. 8.31	21:47:32	47770.4063	30.00	6.55	0.47	0.48	10662	330
225	LWP	16259	H		89. 8.31	22:27: 0	47770.4336	60.00	6.50	0.48	0.50	10662	E=200,C=165,B=37
226	SWP	36919	L		89. 8.31	23:35: 0	47770.4844	30.00	6.50	0.51	0.52	10662	E=73,C=55,B=28
227	LWP	16260	H		89. 9. 1	0:15: 0	47770.5117	60.00	6.47	0.52	0.54	10662	E=202,C=160,B=43
228	SWP	36920	L		89. 9. 1	1:23: 0	47770.5586	30.00	6.42	0.55	0.56	10662	E=81,C=57,B=28
229	LWP	16261	H		89. 9. 1	2: 0: 0	47770.5820	60.00	6.41	0.56	0.58	10662	E=203,C=168,B=42
230	SWP	36921	L		89. 9. 1	3: 9: 0	47770.6328	30.00	6.38	0.58	0.59	10662	E=50,C=54,B=28
231	LWP	16262	H		89. 9. 1	3:48: 0	47770.6602	60.00	6.39	0.60	0.62	10662	E=180,C=162,B=42
232	SWP	36922	L		89. 9. 1	4:56: 0	47770.7070	30.00	6.39	0.62	0.63	10662	E=83,C=53,B=28
233	LWP	16263	H		89. 9. 1	5:33: 0	47770.7305	50.00	6.39	0.63	0.65	10662	E=165,C=151,B=45
234	SWP	36923	L	*	89. 9. 1	6:28: 0	47770.7695	20.00	6.43	0.65	0.66	10662	E=49,C=55,B=16
235	LWP	16266	H		89. 9. 2	0:14: 0	47771.5078	50.00	6.50	0.02	0.04	10663	E=141,C=148,B=41
236	SWP	36927	L		89. 9. 2	1:12: 0	47771.5508	30.00	6.50	0.05	0.06	10663	E=60,C=66,B=20
237	LWP	16267	H		89. 9. 2	1:49: 0	47771.5742	60.00	6.48	0.06	0.08	10663	E=174,C=166,B=41
238	SWP	39187	L		90. 7. 6	15:38: 0	48079.1523	60.00	6.07	0.15	0.17	10818	E=190,C=65,B=20
239	LWP	18300	H		90. 7. 6	16:43: 0	48079.1953	60.00	6.08	0.17	0.19	10818	E=198,C=190,B=45
240	SWP	39221	L		90. 7.13	15: 5: 0	48086.1289	60.00	6.03	0.67	0.69	10821	E=159,C=120,B=45
241	LWP	18366	H		90. 7.13	16:13: 0	48086.1758	60.00	6.07	0.69	0.71	10821	E=197,C=170,B=55
242	SWP	39235	L		90. 7.17	14:55: 0	48090.1211	60.00	6.07	0.68	0.70	10823	E=171,C=120,B=45
243	LWP	18385	H		90. 7.17	16: 3: 0	48090.1680	60.00	6.10	0.70	0.72	10823	E=195,C=170,B=50
244	SWP	39275	L		90. 7.21	14:45: 0	48094.1133	60.00	6.06	0.69	0.71	10825	E=112,C=122,B=53
245	LWP	18416	H		90. 7.21	15:51: 0	48094.1602	60.00	6.11	0.72	0.74	10825	
246	SWP	39302	L		90. 7.25	14:57: 0	48098.1211	60.00	6.05	0.71	0.73	10827	E=122,C=126,B=50
247	LWP	18442	H		90. 7.25	16: 5: 0	48098.1719	60.00	6.10	0.74	0.76	10827	
248	SWP	39324	L		90. 7.29	15: 3: 0	48102.1289	60.00	6.09	0.73	0.76	10829	E=123,C=118,B=28

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
249	LWP	18467	H		90. 7.29	16: 8: 0	48102.1719	60.00	6.11	0.76	0.78	10829	E=174,C=170,B=45
250	LWP	18530	H		90. 8. 6	8:48: 0	48109.8672	60.00	6.05	0.64	0.66	10833	E=219,C=160,B=40
251	SWP	39406	L		90. 8. 6	9:55: 0	48109.9141	60.00	6.08	0.66	0.68	10833	E=113,C=107,B=18
252	LWP	19393	H		90.12.12	9:59:19	48237.9180	60.00	6.09	0.20	0.22	10898	441
253	SWP	40313	L		90.12.12	11:11: 9	48237.9648	30.00	6.08	0.23	0.24	10898	330
254	LWP	19394	H		90.12.12	11:58:50	48238.0000	70.00	6.08	0.24	0.27	10898	552
255	SWP	40314	L		90.12.12	13:19:15	48238.0547	60.00	6.10	0.27	0.29	10898	330
256	LWP	19395	H		90.12.12	13:59:17	48238.0820	70.00	6.11	0.29	0.31	10898	452
257	SWP	40315	L		90.12.12	17:16: 0	48238.2188	60.00	6.19	0.35	0.38	10898	E=120,C=100,B=33
258	LWP	19397	H		90.12.12	17:57: 0	48238.2461	70.00	6.26	0.37	0.39	10898	E=204,C=160,B=50
259	LWP	19398	H		90.12.12	23: 3: 0	48238.4609	70.00	6.20	0.48	0.50	10898	E=231,C=180,B=41
260	SWP	40316	L		90.12.13	0:21: 0	48238.5156	30.00	6.15	0.50	0.51	10898	E=154,C=65,B=25
261	SWP	40317	L		90.12.13	9:52:15	48238.9102	60.00	6.10	0.70	0.73	10898	340
262	LWP	19404	H		90.12.13	10:31:16	48238.9375	70.00	6.09	0.72	0.74	10898	352
263	LWP	19405	H		90.12.13	12:42:43	48239.0313	60.00	6.09	0.76	0.79	10898	441
264	SWP	40318	L		90.12.13	13:55: 6	48239.0781	30.00	6.10	0.79	0.80	10898	330
265	LWP	19406	H		90.12.13	14:37:59	48239.1094	60.00	6.10	0.80	0.83	10898	451
266	SWP	40319	L		90.12.13	15:48:23	48239.1602	40.00	6.10	0.83	0.84	10898	340
267	SWP	40320	L		90.12.13	17:55: 0	48239.2461	50.00	6.44	0.87	0.89	10898	E=109,C=46,B=32
268	LWP	19408	H		90.12.13	18:57: 0	48239.2891	50.00	6.70	0.89	0.91	10898	E=173,C=95,B=42
269	SWP	40321	L		90.12.13	19:58: 0	48239.3320	50.00	6.70	0.92	0.93	10898	E=86,C=44,B=32
270	LWP	19409	H		90.12.13	21: 7: 0	48239.3789	32.00	6.68	0.94	0.95	10898	E=131,C=85,B=42
271	LWP	19410	H		90.12.14	0:27: 0	48239.5195	22.00	6.11	0.01	0.02	10899	E=102,C=95,B=38
272	LWP	22105	H		91.12.28	2:45: 0	48618.6133	60.00	6.02	0.16	0.18	11090	E=198,C=150,B=60
273	SWP	43488	L		91.12.28	3:54: 0	48618.6641	30.00	6.03	0.19	0.20	11090	E=102,C=70,B=18
274	LWP	22106	H		91.12.28	4:32: 0	48618.6875	60.00	6.05	0.20	0.22	11090	E=212,C=170,B=55
275	SWP	43489	L		91.12.28	5:41: 0	48618.7383	30.00	6.06	0.22	0.23	11090	E=69,C=65,B=18
276	LWP	22107	H		91.12.28	6:20: 0	48618.7656	60.00	6.07	0.24	0.26	11090	E=191,C=161,B=42
277	SWP	43490	L		91.12.28	7:31: 0	48618.8125	30.00	6.07	0.26	0.27	11090	E=78,C=62,B=18
278	LWP	22108	H		91.12.28	8:13: 7	48618.8438	60.00	6.09	0.28	0.30	11090	451
279	SWP	43491	L		91.12.28	9:23:18	48618.8906	30.00	6.11	0.30	0.31	11090	350
280	LWP	22109	H		91.12.28	10: 2: 1	48618.9180	60.00	6.12	0.31	0.34	11090	451
281	SWP	43492	L		91.12.28	11:10: 6	48618.9648	30.00	6.14	0.34	0.35	11090	350
282	LWP	22110	H		91.12.28	11:48: 8	48618.9922	75.00	6.19	0.35	0.38	11090	451
283	SWP	43493	L		91.12.28	13:16:56	48619.0547	25.00	6.40	0.38	0.39	11090	340
284	LWP	22111	H		91.12.28	13:52:18	48619.0781	60.00	6.46	0.40	0.42	11090	451
285	SWP	43494	L		91.12.28	15: 0:20	48619.1250	30.00	6.46	0.42	0.43	11090	350
286	LWP	22112	H		91.12.28	15:39: 0	48619.1523	60.00	6.42	0.43	0.45	11090	E=189,C=169,B=45
287	SWP	43495	L		91.12.28	17: 0: 0	48619.2070	30.00	6.22	0.46	0.47	11090	E=65,C=67,B=18
288	LWP	22113	H		91.12.28	17:39: 0	48619.2344	60.00	6.17	0.47	0.50	11090	E=203,C=170,B=40
289	SWP	43496	L		91.12.28	18:49: 0	48619.2852	60.00	6.11	0.50	0.52	11090	E=62,C=71,B=18
290	LWP	22114	H		91.12.28	19:30: 0	48619.3125	60.00	6.16	0.51	0.53	11090	E=209,C=180,B=40
291	LWP	22115	H		91.12.28	21:19: 0	48619.3867	60.00	6.15	0.55	0.57	11090	E=205,C=180,B=40
292	SWP	43497	L		91.12.28	22:28: 0	48619.4375	60.00	6.10	0.58	0.60	11090	E=61,C=65,B=18
293	LWP	22116	H		91.12.28	23: 8: 0	48619.4648	60.00	6.13	0.59	0.61	11090	E=138,C=165,B=45
294	LWP	22117	H		91.12.29	1: 2: 0	48619.5430	60.00	6.13	0.63	0.65	11090	E=147,C=170,B=45
295	SWP	43498	L		91.12.29	2:11: 0	48619.5898	30.00	6.13	0.65	0.66	11090	E=68,C=58,B=18
296	LWP	22118	H		91.12.29	2:56: 0	48619.6211	60.00	6.13	0.67	0.69	11090	E=156,C=175,B=62
297	SWP	43499	L		91.12.29	4: 5: 0	48619.6719	30.00	6.12	0.69	0.70	11090	E=62,C=68,B=18
298	LWP	22119	H		91.12.29	4:44: 0	48619.6953	60.00	6.13	0.71	0.73	11090	E=141,C=160,B=51
299	SWP	43500	L		91.12.29	5:53: 0	48619.7461	30.00	6.14	0.74	0.74	11090	E=69,C=66,B=18
300	LWP	22120	H		91.12.29	6:31: 0	48619.7734	60.00	6.15	0.75	0.77	11090	E=148,C=162,B=45
301	SWP	43501	L		91.12.29	7:40: 0	48619.8203	30.00	6.15	0.77	0.78	11090	E=63,C=65,B=18
302	LWP	22121	H		91.12.29	8:19:20	48619.8477	60.00	6.15	0.78	0.81	11090	442
303	SWP	43502	L	*	91.12.29	9:40: 8	48619.9023	30.00	6.16	0.81	0.82	11090	350
304	LWP	22122	H		91.12.29	10:18:33	48619.9297	60.00	6.16	0.82	0.85	11090	451
305	SWP	43503	L		91.12.29	11:27:32	48619.9766	25.00	6.28	0.85	0.86	11090	340
306	LWP	22123	H		91.12.29	12: 4: 7	48620.0039	55.00	6.44	0.86	0.88	11090	341
307	SWP	43504	L		91.12.29	13: 5:30	48620.0469	55.00	6.75	0.88	0.90	11090	251
308	LWP	22124	H		91.12.29	13:45:14	48620.0742	60.00	6.77	0.90	0.92	11090	341
309	LWP	22125	H		91.12.29	15:34: 0	48620.1484	60.00	6.68	0.94	0.96	11090	
310	SWP	43505	L		91.12.29	16:45: 0	48620.1992	60.00	6.29	0.96	0.98	11090	E=61,C=72,B=18
311	LWP	22126	H		91.12.29	18:13: 0	48620.2578	60.00	6.11	0.99	0.01	11090	E=185,C=182,B=40
312	SWP	43506	L		91.12.29	19:23: 0	48620.3086	60.00	6.09	0.02	0.04	11091	E=65,C=75,B=18
313	LWP	22127	H		91.12.29	20: 3: 0	48620.3359	60.00	6.13	0.03	0.05	11091	E=189,C=185,B=40

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
314	LWP	22128	H		91.12.29	21:51: 0	48620.4102	60.00	6.15	0.07	0.09	11091	E=202,C=185,B=40
315	SWP	43507	L		91.12.29	23: 0: 0	48620.4570	60.00	6.10	0.09	0.11	11091	E=60,C=66,B=18
316	LWP	22129	H		91.12.29	23:41: 0	48620.4883	60.00	6.14	0.11	0.13	11091	E=176,C=170,B=45
317	LWP	22130	H		91.12.30	1:30: 0	48620.5625	60.00	6.13	0.14	0.17	11091	E=190,C=170,B=50
318	SWP	43508	L		91.12.30	2:39: 0	48620.6094	30.00	6.14	0.17	0.18	11091	E=59,C=70,B=18
319	LWP	22131	H		91.12.30	3:22: 0	48620.6406	60.00	6.13	0.18	0.20	11091	E=193,C=175,B=60
320	SWP	43509	L		91.12.30	4:31: 0	48620.6875	30.00	6.14	0.21	0.22	11091	E=52,C=59,B=18
321	LWP	22132	H		91.12.30	5:10: 0	48620.7148	60.00	6.14	0.22	0.24	11091	E=196,C=170,B=48
322	SWP	43510	L		91.12.30	6:19: 0	48620.7617	30.00	6.15	0.24	0.25	11091	E=67,C=65,B=18
323	LWP	22133	H		91.12.30	6:58: 0	48620.7891	60.00	6.15	0.26	0.28	11091	E=209,C=170,B=45
324	SWP	43511	L		91.12.30	8: 8: 0	48620.8398	30.00	6.17	0.28	0.29	11091	E=75,C=62,B=18
325	LWP	22134	H		91.12.30	8:47:15	48620.8672	60.00	6.17	0.30	0.32	11091	451
326	SWP	43512	L		91.12.30	9:57:12	48620.9141	30.00	6.18	0.32	0.33	11091	350
327	LWP	22135	H		91.12.30	10:35:44	48620.9414	60.00	6.18	0.33	0.36	11091	451
328	SWP	43513	L		91.12.30	11:44:13	48620.9883	40.00	6.24	0.36	0.37	11091	350
329	LWP	22136	H		91.12.30	12:34:26	48621.0234	60.00	6.35	0.38	0.40	11091	451
330	SWP	43514	L		91.12.30	13:42:30	48621.0703	30.00	6.43	0.40	0.41	11091	240
331	LWP	22137	H		91.12.30	14:19:56	48621.0977	60.00	6.44	0.41	0.44	11091	351
332	SWP	43515	L		91.12.30	15:37:53	48621.1523	30.00	6.36	0.44	0.45	11091	340
333	LWP	22138	H		91.12.30	16:16: 0	48621.1797	60.00	6.28	0.45	0.48	11091	E=196,C=180,B=40
334	SWP	43516	L		91.12.30	17:24: 0	48621.2266	60.00	6.14	0.48	0.50	11091	E=58,C=73,B=18
335	LWP	22139	H		91.12.30	18: 5: 0	48621.2539	60.00	6.17	0.49	0.51	11091	E=221,C=185,B=40
336	LWP	22140	H		91.12.30	19:52: 0	48621.3281	60.00	6.18	0.53	0.55	11091	E=211,C=185,B=40
337	SWP	43517	L		91.12.30	21: 1: 0	48621.3750	60.00	6.13	0.55	0.57	11091	E=67,C=77,B=18
338	LWP	22141	H		91.12.30	21:40: 0	48621.4023	60.00	6.17	0.57	0.59	11091	E=218,C=185,B=40
339	LWP	22142	H		91.12.30	23:29: 0	48621.4766	60.00	6.12	0.61	0.63	11091	E=141,C=172,B=40
340	LWP	22150	H		91.12.31	0: 0: 0	48621.5000	60.00	6.74	0.62	0.64	11091	331
341	SWP	43518	L		91.12.31	0:40: 0	48621.5273	60.00	6.09	0.63	0.65	11091	E=82,C=72,B=18
342	LWP	22143	H		91.12.31	1:21: 0	48621.5547	60.00	6.13	0.64	0.67	11091	E=154,C=180,B=50
343	LWP	22144	H		91.12.31	3: 9: 0	48621.6328	60.00	6.14	0.68	0.70	11091	E=165,C=175,B=58
344	SWP	43519	L		91.12.31	4:22: 0	48621.6836	30.00	6.15	0.70	0.72	11091	E=74,C=60,B=18
345	LWP	22145	H		91.12.31	5: 2: 0	48621.7109	60.00	6.14	0.72	0.74	11091	E=210,C=180,B=45
346	SWP	43520	L		91.12.31	6:11: 0	48621.7578	30.00	6.16	0.75	0.76	11091	E=56,C=60,B=18
347	LWP	22146	H		91.12.31	6:52: 0	48621.7852	60.00	6.16	0.76	0.78	11091	E=164,C=170,B=45
348	SWP	43521	L		91.12.31	8: 3: 0	48621.8359	30.00	6.17	0.79	0.80	11091	E=69,C=65,B=18
349	LWP	22147	H		91.12.31	8:43: 9	48621.8633	60.00	6.17	0.80	0.82	11091	451
350	SWP	43522	L		91.12.31	9:53: 1	48621.9102	40.00	6.18	0.82	0.84	11091	350
351	LWP	22148	H		91.12.31	10:39: 8	48621.9453	60.00	6.22	0.84	0.86	11091	441
352	SWP	43523	L		91.12.31	11:50:30	48621.9922	40.00	6.49	0.86	0.88	11091	250
353	LWP	22149	H		91.12.31	12:40:41	48622.0273	60.00	6.72	0.88	0.90	11091	341
354	SWP	43524	L		91.12.31	13:47: 6	48622.0742	50.00	6.73	0.91	0.92	11091	340
355	SWP	43525	L		91.12.31	15:48: 0	48622.1602	40.00	6.52	0.95	0.96	11091	E=81,C=63,B=21
356	LWP	22151	H		91.12.31	16:33: 0	48622.1914	60.00	6.32	0.97	0.99	11091	E=165,C=179,B=40
357	SWP	43526	L		91.12.31	17:50: 0	48622.2422	60.00	6.15	0.99	0.01	11091	E=58,C=76,B=25
358	LWP	22152	H		91.12.31	18:28: 0	48622.2695	60.00	6.19	0.00	0.03	11092	E=181,C=180,B=40
359	LWP	22153	H		91.12.31	20:11: 0	48622.3398	60.00	6.20	0.04	0.06	11092	E=198,C=189,B=40
360	SWP	43527	L		91.12.31	21:19: 0	48622.3867	60.00	6.15	0.06	0.09	11092	E=67,C=71,B=20
361	LWP	22154	H		91.12.31	21:55: 0	48622.4141	60.00	6.18	0.08	0.10	11092	E=192,C=187,B=40
362	LWP	22155	H		91.12.31	23:38: 0	48622.4844	60.00	6.17	0.11	0.13	11092	E=186,C=190,B=46


AR Lac – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

HK Lac

alternative names:	HD 209813, SAO 51628, BD+46 3572
coordinates (2000.0):	$22^h04^m56.6^s$, $47°14'05''$
linear ephemeris:	
Min I = HJD 2440005.024 + 24.4284 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.01
masses [$M_\odot$]:	f(m)=0.105
radii [$R_\odot$]:	
spectral type:	F1V/K0III
distance [pc]:	150
activity parameters:	
P_{phot} [days]:	24.461
ΔV [mag]:	0.28
x-ray luminosity [10^{31} erg/s]:	3.12
Mg II index:	[1.249], 1.643
Ca II index:	yes, cool
$H\alpha$ emission:	sporadic emission
radio flux density [mJy]:	4.57
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/Å$]:	$3.53\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/Å$]:	$2.03\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/Å$]:	$4.72\ 10^{-13}$
U-B:	0.76
B-V:	1.08
V:	6.52
V-R:	0.75
R-I:	
b-y:	0.662
m_1:	0.373
c_1:	0.280
β:	2.553
IRAS [12]:	0.99
IRAS [25]:	0.22

additional references:

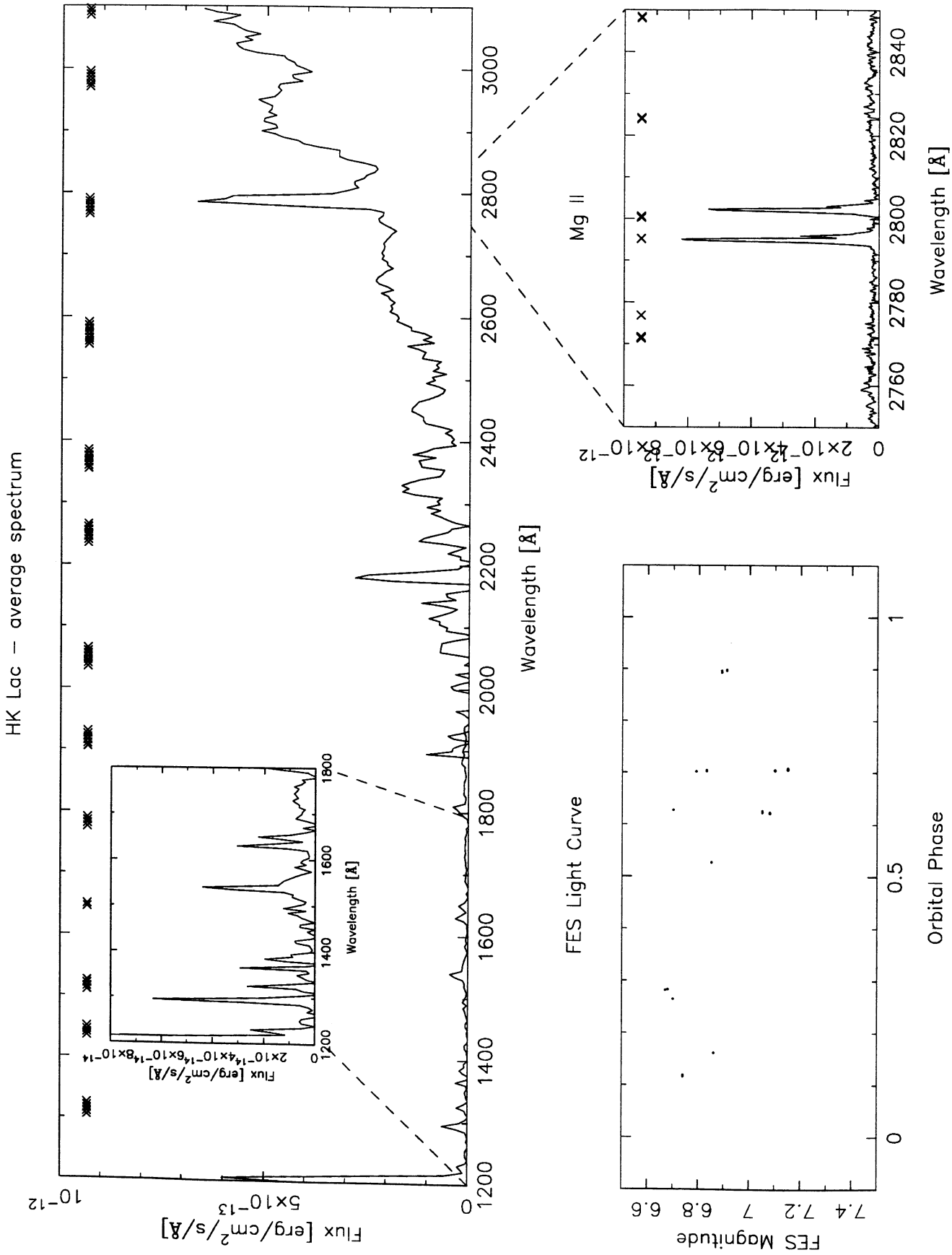
Olah K., Budding E., Butler C.J., Houdebine E.R., Gimenez A. and Zeilik M.: 1992, *Mon. Not. R. Astron. Soc.* **259**, 302-314, *The interrelation of UV and optical activity diagnostics in HK Lacertae*

Olah K., Hall D.S. and Henry G.W.: 1991, *Astron. Astrophys.* **251**, 531, *Long-term behaviour of starspots. III. Active longitudes on the long-period RS CVn star HK Lacertae*

Derman E., Demircan O. and Kahraman G.: 1990, *Astron. Astrophys. Suppl. Ser.* **86**, 421, *UBV photometry of the RS CVn-type binary HK Lacertae*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5012	L		79. 7.12	2:35: 0	44066.6094	5.00	6.70	0.27	0.27	166	46
2	LWR	5128	L	*	79. 7.20	23:16: 0	44075.4688	4.00	6.70	0.63	0.63	166	34
3	SWP	7651	L	*	80. 1.14	11: 5: 0	44252.9609	110.00	6.89	0.89	0.90	173	241
4	LWR	6662	H		80. 1.14	13: 1: 0	44253.0430	60.00	6.91	0.90	0.90	173	354
5	LWR	6942	L	*	80. 2.17	9:24: 0	44286.8906	8.00	6.67	0.28	0.28	175	561
6	SWP	7969	L	*	80. 2.17	9:47: 0	44286.9063	27.00	6.68	0.28	0.28	175	110
7	LWR	9035	L	*	80.10.14	14:48: 0	44527.1172	4.00	6.74	0.12	0.12	185	362
8	SWP	10365	L	*	80.10.14	15: 5: 0	44527.1289	100.00	6.74	0.12	0.12	185	231
9	LWR	9137	L	*	80.10.24	15:42: 0	44537.1523	4.00	6.85	0.53	0.53	185	461
10	LWR	9682	H		81. 1.10	5: 3: 0	44614.7109	25.00	6.79	0.70	0.70	188	E=118,C=80,B=40
11	SWP	11014	L		81. 1.10	5:31: 0	44614.7305	60.00	6.83	0.70	0.71	188	E=250,C=5,B=67
12	LWP	11468	H		87. 8.23	15:32:36	47031.1484	60.00	7.08	0.62	0.62	287	354
13	SWP	31627	L		87. 8.23	16:39:31	47031.1953	100.00	7.05	0.62	0.63	287	331
14	LWP	11479	H	*	87. 8.25	15:41:59	47033.1523	60.00	7.10	0.70	0.71	287	353
15	SWP	31641	L		87. 8.25	16:47:25	47033.1992	115.00	7.15	0.71	0.71	287	331
16	LWP	11576	H		87. 9. 5	20:32: 3	47044.3555	35.00	6.86	0.16	0.16	288	343


HK Lac – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V350 Lac

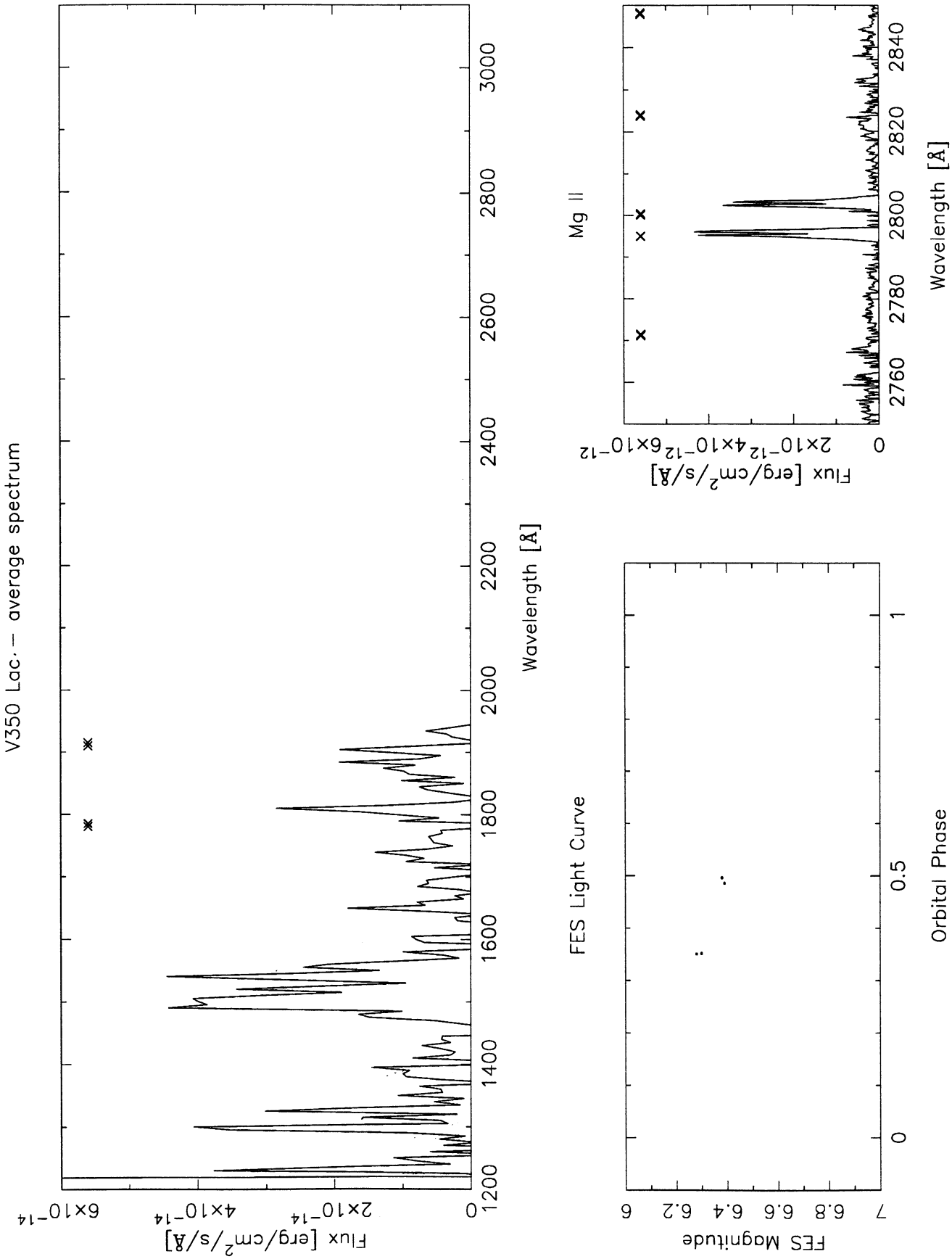
alternative names:	HD 213389, SAO 52073, HR 8575, BD+48 3747
coordinates (2000.0):	$22^h30^m06.5^s$, $49°21'23''$
linear ephemeris:	
Min I s = HJD 2431665.161 + 17.755 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.02
masses [$M_\odot$]:	≈1.1/≈0.9
radii [$R_\odot$]:	≥11
spectral type:	K2III
distance [pc]:	69
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	0.24
Mg II index:	1.829
Ca II index:	class B
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	<0.24
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.96 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[9.88 10^{-14}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[3.33 10^{-13}]
U-B:	1.00
B-V:	1.17
V:	6.38
V-R:	0.84
R-I:	
b-y:	0.728
m_1:	0.503
c_1:	0.287
β:	2.559
IRAS [12]:	≈0
IRAS [25]:	≈0

additional references:

Demircan O., Derman E. and Kahraman G.: 1992, *Astrophys. Space Sci.* **188**, 151-158, *Photometric observations of the binary system V 350 Lacertae*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	9683	H		81. 1.10	6:43: 0	44614.7813	20.00	6.28	0.35	0.35	729	E=93,B=32
2	SWP	11015	L	*	81. 1.10	7: 8: 0	44614.7969	40.00	6.30	0.35	0.35	729	E=165,B=30
3	LWP	4667	H	*	84.10.28	13:44:34	46002.0742	20.00	6.39	0.49	0.49	807	231
4	LWP	4670	H		84.10.28	18: 2:49	46002.2539	40.00	6.38	0.50	0.50	807	232


V350 Lac. – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

DH Leo

alternative names:	HD 86590, SAO 81134, BD+25 2191
coordinates (2000.0):	$10^h00^m01.7^s$, $24°33'10''$
linear ephemeris:	
Min I = HJD 2445430.504 + 1.070354 E	
system parameters:	
type of binary:	NEB, SB3
eccentricity:	0.0
masses [$M_\odot$]:	{0.83/0.58}
radii [$R_\odot$]:	{0.97/0.67}
spectral type:	{K0V/K7V}K5V
distance [pc]:	32
activity parameters:	
P_{phot} [days]:	1.0665
ΔV [mag]:	0.15
x-ray luminosity [10^{31} erg/s]:	0.124
Mg II index:	[1.018]
Ca II index:	yes
$H\alpha$ emission:	{variable emission/emission} absorption
radio flux density [mJy]:	0.77
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	37±6
ROSAT 110-200Å [ct/ks]:	44±9
EUVE 100Å [ct/s]:	0.055±0.007
EUVE 200Å [ct/s]:	0.038±0.010
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.51 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.02 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.54 10^{-13}
U-B:	0.43
B-V:	0.88
V:	7.75
V-R:	0.53
R-I:	0.385
b-y:	0.564
m_1:	0.329
c_1:	0.283
β:	2.567
IRAS [12]:	
IRAS [25]:	

additional references:

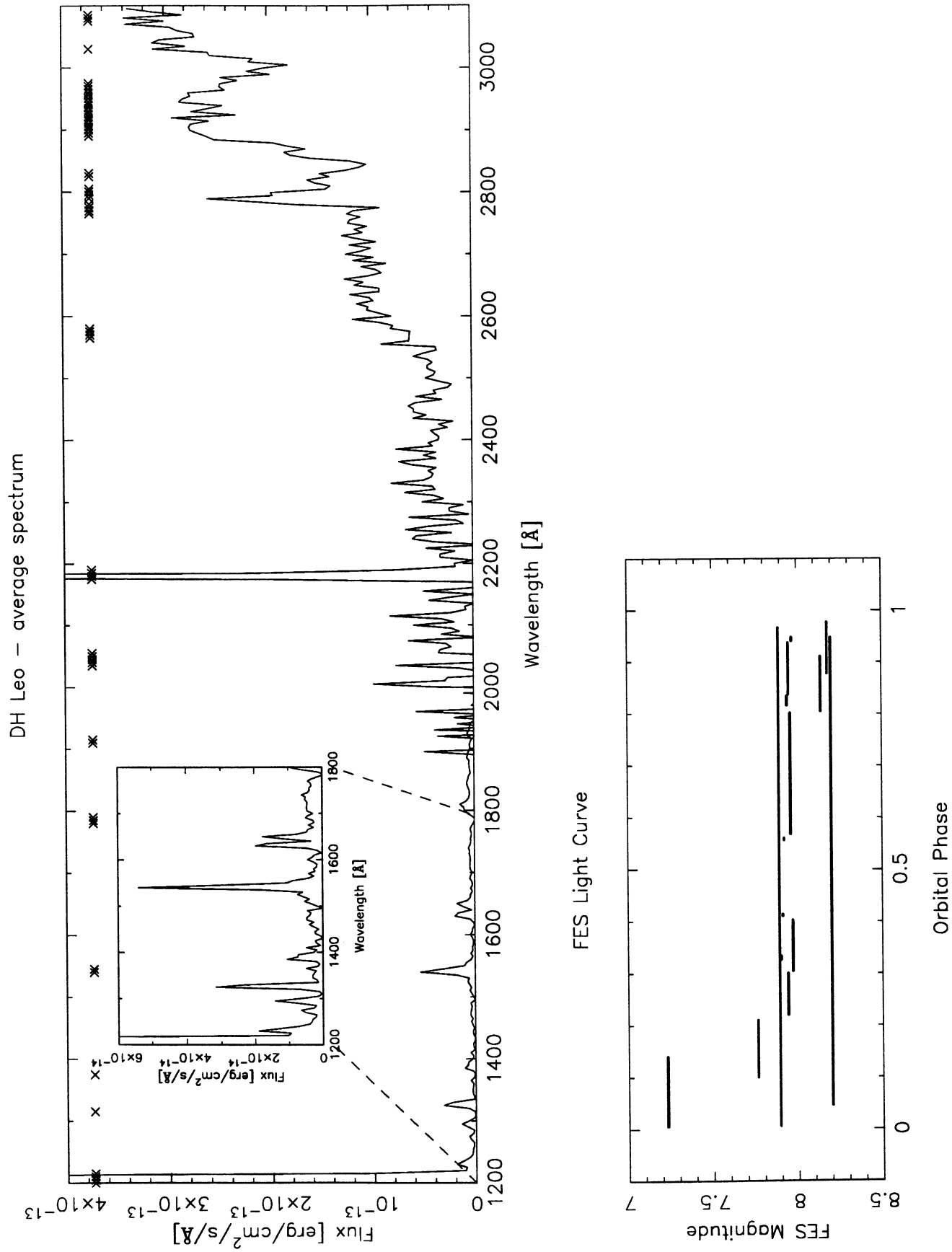
Aslan Z., Derman E., Akalin A. and Ozdemir T.: 1992, *Astron. Astrophys.* **257**, 580-586, *Long-term photometric variations in DH Leonis.*

Newmark J.S., Buzasi D.L., Huenemoerder D.P. and Ramsey L.W.: 1990, *Astron. J.* **100**, 560, *Coordinated optical and ultraviolet observations of DH Leo*

Barden S.C.: 1984, *Astron. J.* **89**, 683-688, *The triple nature of the short-period RS CVn system HD 86590*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	15832	L	*	81.12.22	10:40: 0	44960.9453	150.00	7.97	0.31	0.40	-438	331
2	LWR	12191	L	*	81.12.22	13:23: 0	44961.0586	5.00	7.91	0.41	0.42	-438	343
3	SWP	15896	H		81.12.28	18:37: 0	44967.2773	122.20	7.94	0.22	0.30	-432	E=108,B=33
4	SWP	15897	L		81.12.28	21:20: 0	44967.3906	10.00	7.90	0.33	0.33	-432	E=82,B=17
5	LWR	15875	L		83. 5. 4	10:21: 0	45458.9297	8.00	7.92	0.56	0.56	26	E=178,C=120,B=21
6	SWP	19899	L	*	83. 5. 4	10:36: 0	45458.9414	360.00	7.96	0.57	0.80	26	E=1.2X,C=146,B=90
7	LWR	15876	L	*	83. 5. 4	16:58: 0	45459.2070	30.00	7.94	0.82	0.84	26	E=2X,C=2X,B=30
8	SWP	19900	L		83. 5. 4	17:33: 0	45459.2305	150.00	7.95	0.84	0.94	26	E=148,C=108,B=80
9	LWR	15877	L		83. 5. 4	20: 8: 0	45459.3398	10.00	7.97	0.94	0.95	26	E=211,C=160,B=32
10	SWP	19901	L		83. 5. 4	20:51: 0	45459.3672	60.00	7.89	0.97	0.01	26	E=150,B=73
11	SWP	30653	L		87. 3.29	11:42: 0	46883.9883	150.00	8.20	0.95	0.05	1357	E=107,C=76,B=55
12	SWP	30654	L		87. 3.29	15:40: 0	46884.1523	170.00	7.76	0.10	0.21	1358	E=194,C=120,B=90
13	SWP	30660	L	*	87. 3.30	11:39: 0	46884.9844	150.00	8.18	0.88	0.98	1358	E=126,C=74,B=45
14	SWP	30661	L		87. 3.30	14:53: 0	46885.1211	210.00	7.23	0.01	0.14	1359	E=164,C=121,B=90
15	SWP	30667	L	*	87. 3.31	11:27: 0	46885.9766	165.00	8.14	0.81	0.91	1359	E=130,C=71,B=45

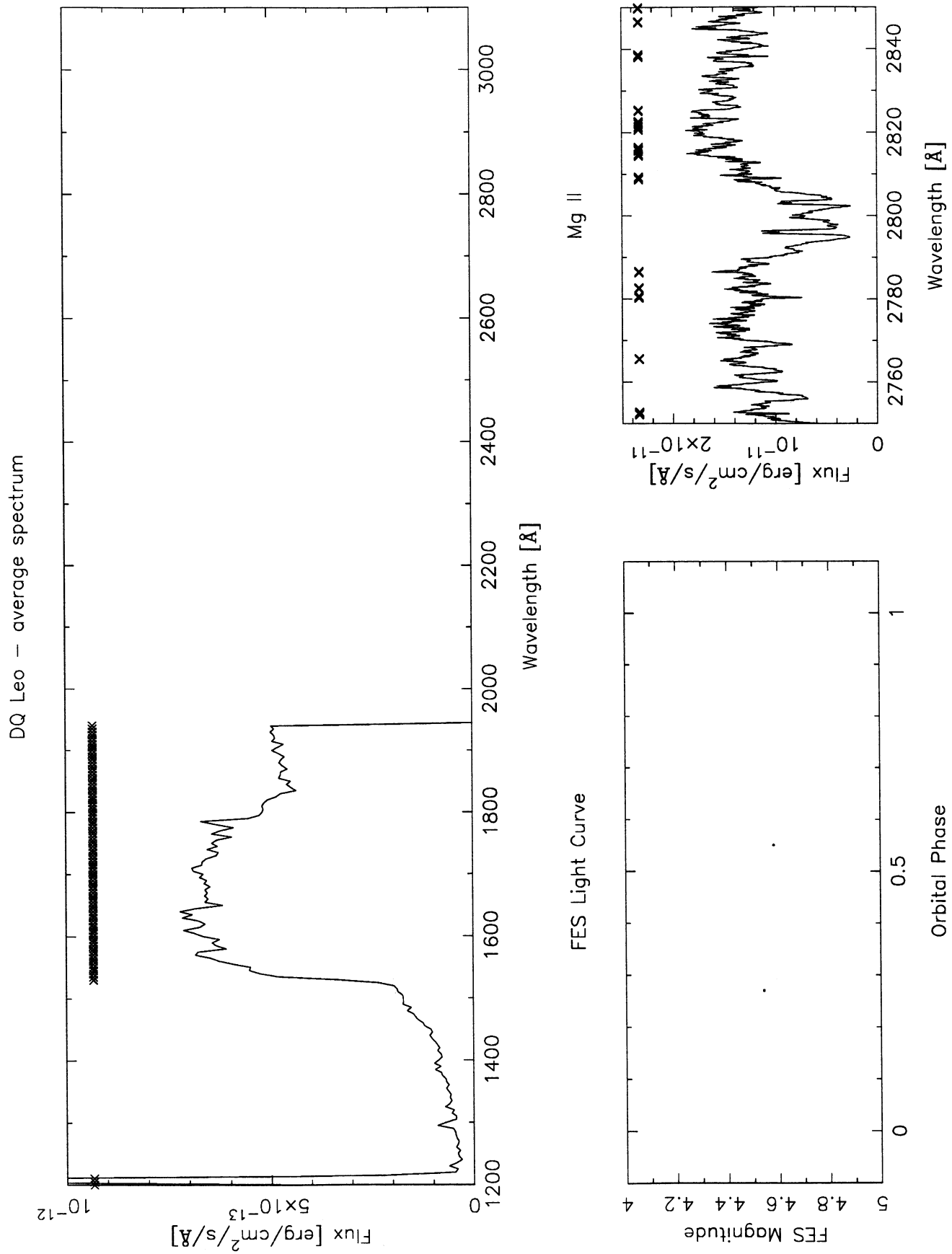

DH Leo – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

DQ Leo

alternative names:	HD 102509, SAO 81998, HR 4527, BD+21 2358, 93 Leo
coordinates (2000.0):	$11^h47^m59.1^s$, $20°13'08''$
linear ephemeris:	
Min I = HJD 2443144.142 + 71.6900 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	$\geq$0.89/$\geq$1.02
radii [$R_\odot$]:	1.7/5.9
spectral type:	A6:V/G5IV-III
distance [pc]:	36
activity parameters:	
P_{phot} [days]:	55.
ΔV [mag]:	0.067
x-ray luminosity [10^{31} erg/s]:	0.097
Mg II index:	0.690
Ca II index:	weak, cool
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	<0.17
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	21±4
ROSAT 110-200Å [ct/ks]:	24±7
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.17 10^{-13}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.25 10^{-11}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.84 10^{-11}]
U-B:	0.28
B-V:	0.55
V:	4.5
V-R:	
R-I:	0.36
b-y:	0.356
m_1:	0.195
c_1:	0.704
β:	2.681
IRAS [12]:	≈0
IRAS [25]:	≈0

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	8008	H	*	80. 6.11	20:24: 0	44402.3516	25.00	4.58	0.55	0.55	17	E=255,C=255,B=58
2	SWP	10880	L	*	80.12.23	18:39: 0	44597.2773	90.00	4.54	0.27	0.27	20	E=2X,C=20X,B=27


DQ Leo – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

TW Lep

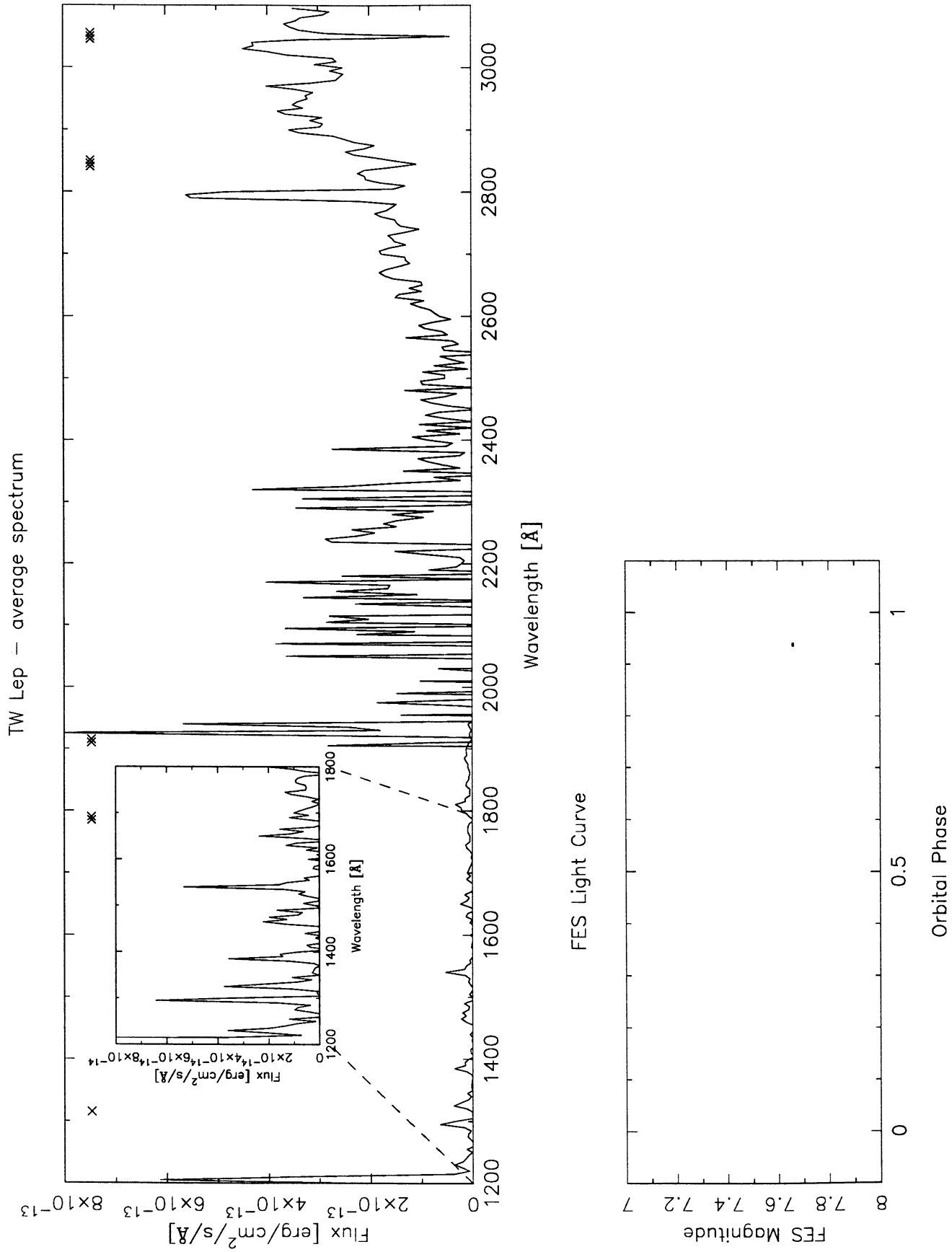
alternative names:	HD 37847 , SAO 170678, BD-20 1149
coordinates (2000.0):	$05^h40^m39.6^s$, $-20°17'56''$
linear ephemeris:	
Min I = HJD 2444240.34 + 28.344 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.05
masses [$M_\odot$]:	>0.97/>1.02
radii [$R_\odot$]:	/≥9
spectral type:	F6IV/K2III
distance [pc]:	220
activity parameters:	
P_{phot} [days]:	28.22
ΔV [mag]:	0.32
x-ray luminosity [10^{31} erg/s]:	6.133
Mg II index:	[1.328]
Ca II index:	class A, cool
$H\alpha$ emission:	emission & absorption, variable
radio flux density [mJy]:	2.1
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	16±4
ROSAT 110-200Å [ct/ks]:	11±:
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.92\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.24\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.16\ 10^{-13}$
U-B:	0.74
B-V:	1.02
V:	7.0
V-R:	
R-I:	
b-y:	0.687
m_1:	0.352
c_1:	0.265
β:	2.565
IRAS [12]:	0.65
IRAS [25]:	<0.25

additional references:

Tan H.-S. and Liu X.F.: 1985, *IAU Inform. Bull. Var. Stars* **2669**, 1-4, *Halpha emission in RS CVn stars BD +61 1211 and HD 37847*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	9432	L	*	86.10.29	7:11: 0	46732.8008	2.00	7.66	0.94	0.94	87	E=136,C=80,B=30
2	SWP	29551	L	*	86.10.29	7:20: 0	46732.8047	120.00	7.66	0.94	0.94	87	E=136,C=110,B=82


TW Lep – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

RV Lib

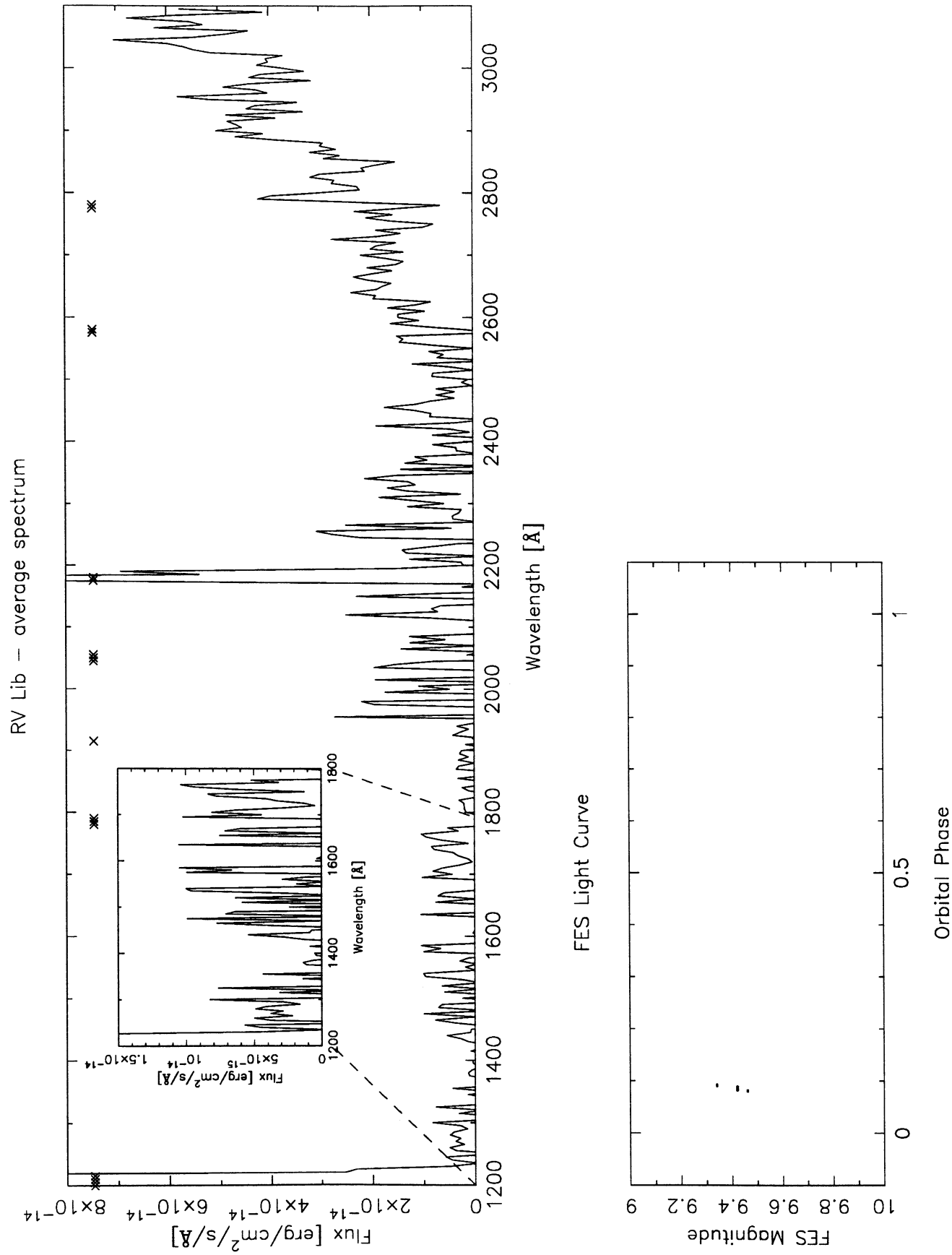
alternative names:	HD 128171, SAO 158665, BD-17 4122
coordinates (2000.0):	$14^h35^m47.9^s$, $-18°02'15''$
linear ephemeris:	
Min I = HJD 2430887.236 + 10.72216 E	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	2.36/0.43
radii [$R_\odot$]:	/6.8
spectral type:	G8IV/K3IV
distance [pc]:	270
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.06
x-ray luminosity [10^{31} erg/s]:	1.15
Mg II index:	[0.891]
Ca II index:	both
$H\alpha$ emission:	
radio flux density [mJy]:	2
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.85\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.69\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.30\ 10^{-14}$
U-B:	0.66
B-V:	1.04
V:	9.0
V-R:	
R-I:	
b-y:	0.672
m_1:	0.332
c_1:	0.291
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Popper D.M.: 1991, *Astron. J.* **101**, 220, *Orbits of close binaries with Ca II H and K in emission. IV. Three systems with mass ratios far from unity*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	13427	L	*	82. 6. 6	14:53: 0	45127.1211	20.00	9.46	0.08	0.08	1328	E=93,C=90,B=30
2	SWP	17138	L	*	82. 6. 6	15:18: 0	45127.1367	120.00	9.42	0.08	0.09	1328	B=90
3	LWR	13428	L	*	82. 6. 6	17:26: 0	45127.2266	40.00	9.34	0.09	0.09	1328	E=162,C=140,B=39


RV Lib – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

UZ Lib

alternative names:	BD-08 3999
coordinates (2000.0):	$15^h33^m14.2^s$, $-08°32'07''$
linear ephemeris:	
Min I = HJD 2445428.846 + 4.767885 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.05
masses [$M_\odot$]:	0.34/1.1
radii [$R_\odot$]:	1./21.
spectral type:	≈A8/K0III
distance [pc]:	550
activity parameters:	
P_{phot} [days]:	4.7357
ΔV [mag]:	0.35
x-ray luminosity [10^{31} erg/s]:	<1.727
Mg II index:	[1.388], 1.059
Ca II index:	strong, cool
$H\alpha$ emission:	emission
radio flux density [mJy]:	<0.4
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.73 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.28 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.77 10^{-14}
U-B:	0.65
B-V:	1.06
V:	9.3
V-R:	0.94
R-I:	0.78
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

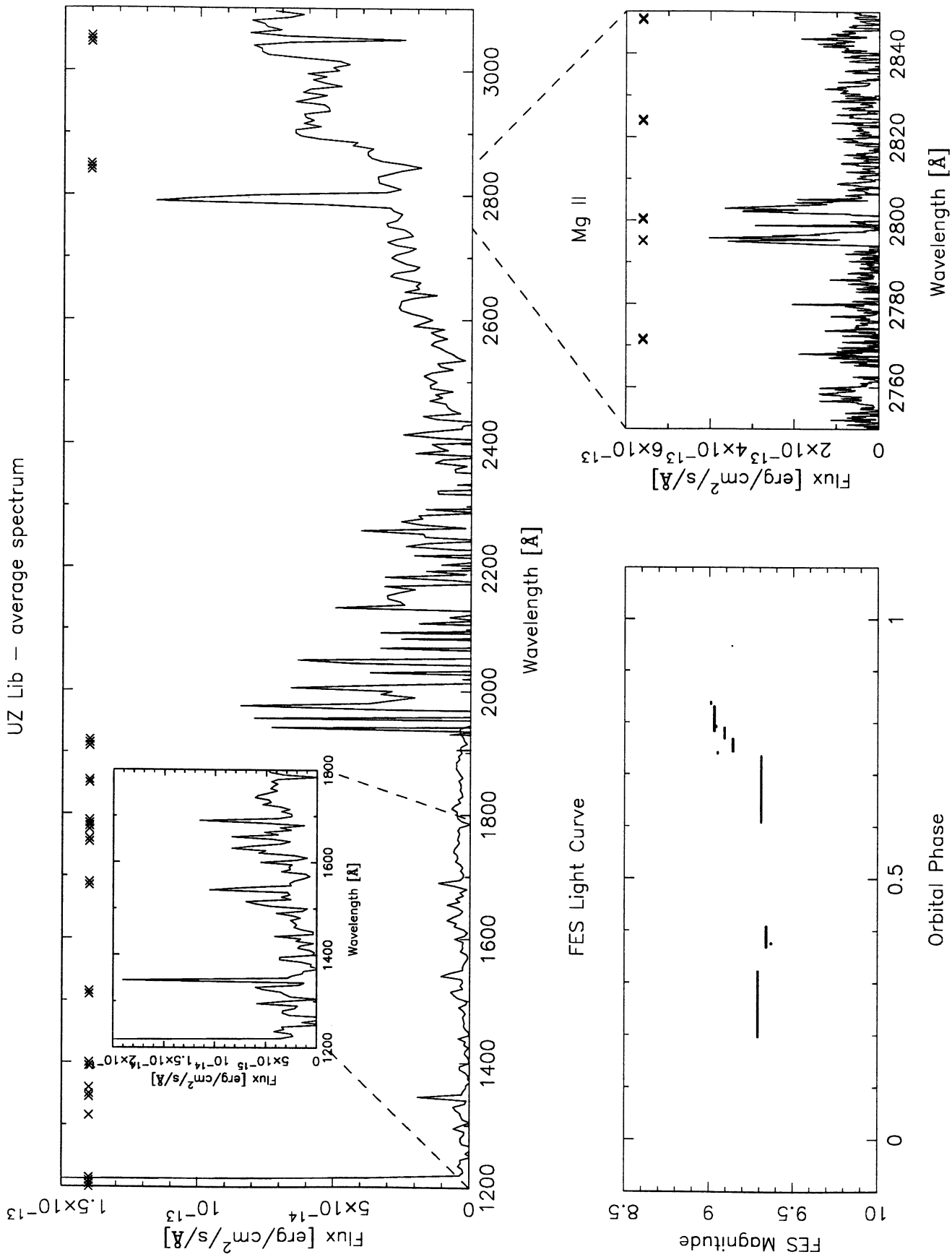
additional references:

Grewing M., Bianchi L. and Garrido R.: 1989, *Astron. Astrophys.* **223**, 172-178, *Properties of the components of the UZ Librae system*

Nations H.L. and Holtzman J.A.: 1987, *Bull. American Astron. Soc.* **19**, 955, *UBVRI photometry and starspot modelling of UZ Librae*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	9634	L		81. 1. 4	21:48: 0	44609.4102	6.00	9.21	0.13	0.14	-171	E=90,C=60,B=25
2	LWP	5711	L		85. 4.11	3:10:40	46166.6328	9.00	9.05	0.74	0.74	154	331
3	SWP	25661	L	*	85. 4.11	3:40:10	46166.6523	165.00	9.14	0.75	0.77	154	221
4	LWP	5712	H	*	85. 4.11	6:31:13	46166.7734	136.00	9.09	0.77	0.79	154	232
5	SWP	25681	L	*	85. 4.14	3: 3:24	46169.6289	269.00	9.34	0.37	0.41	155	222
6	LWP	5747	L	*	85. 4.14	3:50:29	46169.6602	12.00	9.37	0.38	0.38	155	342
7	LWP	5748	L		85. 4.14	4:56:14	46169.7070	35.00	9.34	0.39	0.39	155	461
8	SWP	25694	L	*	85. 4.16	2:29:19	46171.6055	325.00	9.03	0.78	0.83	155	313
9	LWP	5763	L		85. 4.16	3:30:40	46171.6445	12.00	9.04	0.79	0.79	155	331
10	LWP	5764	L	*	85. 4.16	8:35:14	46171.8594	18.00	9.01	0.84	0.84	155	342
11	SWP	28547	L	*	86. 6.25	23: 0: 0	46607.4570	855.00	9.29	0.20	0.32	247	E=185,C=225,B=142
12	SWP	28561	L		86. 6.27	22: 4: 0	46609.4180	865.00	9.31	0.61	0.74	247	E=210,C=3X,B=170


UZ Lib – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

GX Lib

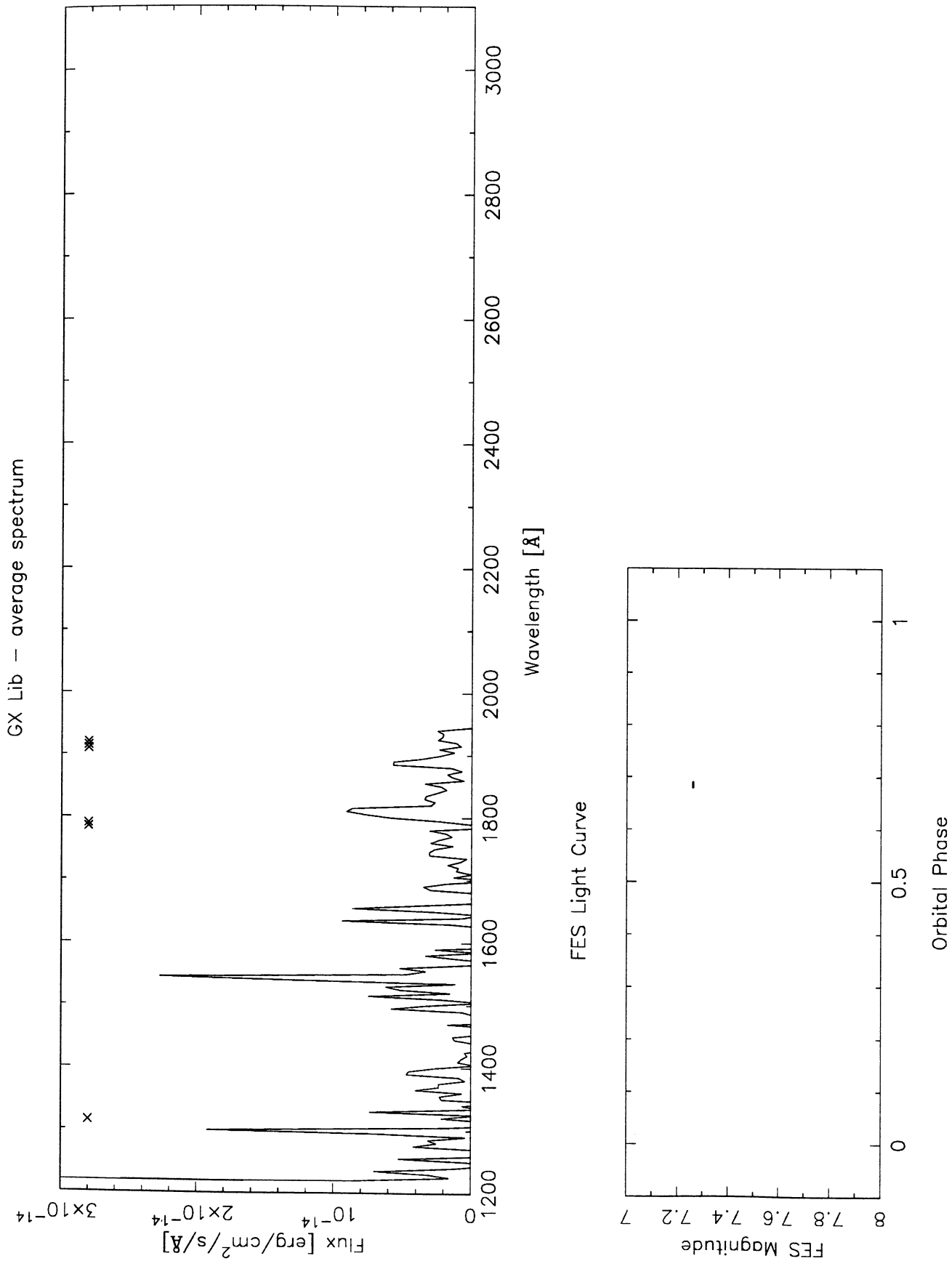
alternative names:	HD 136905, SAO 140499, BD-06 4193
coordinates (2000.0):	$15^h23^m25.8^s$, $-06°36'37''$
linear ephemeris:	
Min I = HJD 2445067.438 + 11.1345 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.066
radii [$R_\odot$]:	/≥7
spectral type:	/K1III
distance [pc]:	219
activity parameters:	
P_{phot} [days]:	11.134
ΔV [mag]:	0.1
x-ray luminosity [10^{31} erg/s]:	0.27
Mg II index:	
Ca II index:	class C
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	<0.18
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	≈0
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.73
B-V:	1.02
V:	7.29
V-R:	0.84
R-I:	0.55
b-y:	0.650
m_1:	0.351
c_1:	0.397
β:	2.549
IRAS [12]:	
IRAS [25]:	

additional references:

Fekel F.C., Hall D.S., Africano J.L., Gillies K., Quigley R. and Fried R.E.: 1985, *Astron. J.* **90**, 2581-2585, *Chromospherically active stars. I. HD 136905*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	21964	L		84. 1. 8	0:20: 0	45707.5156	30.00	7.33	0.49	0.49	57	B=80
2	SWP	22253	L	*	84. 2.12	14: 0: 0	45743.0820	150.00	7.26	0.68	0.69	60	E=63,C=55,B=45

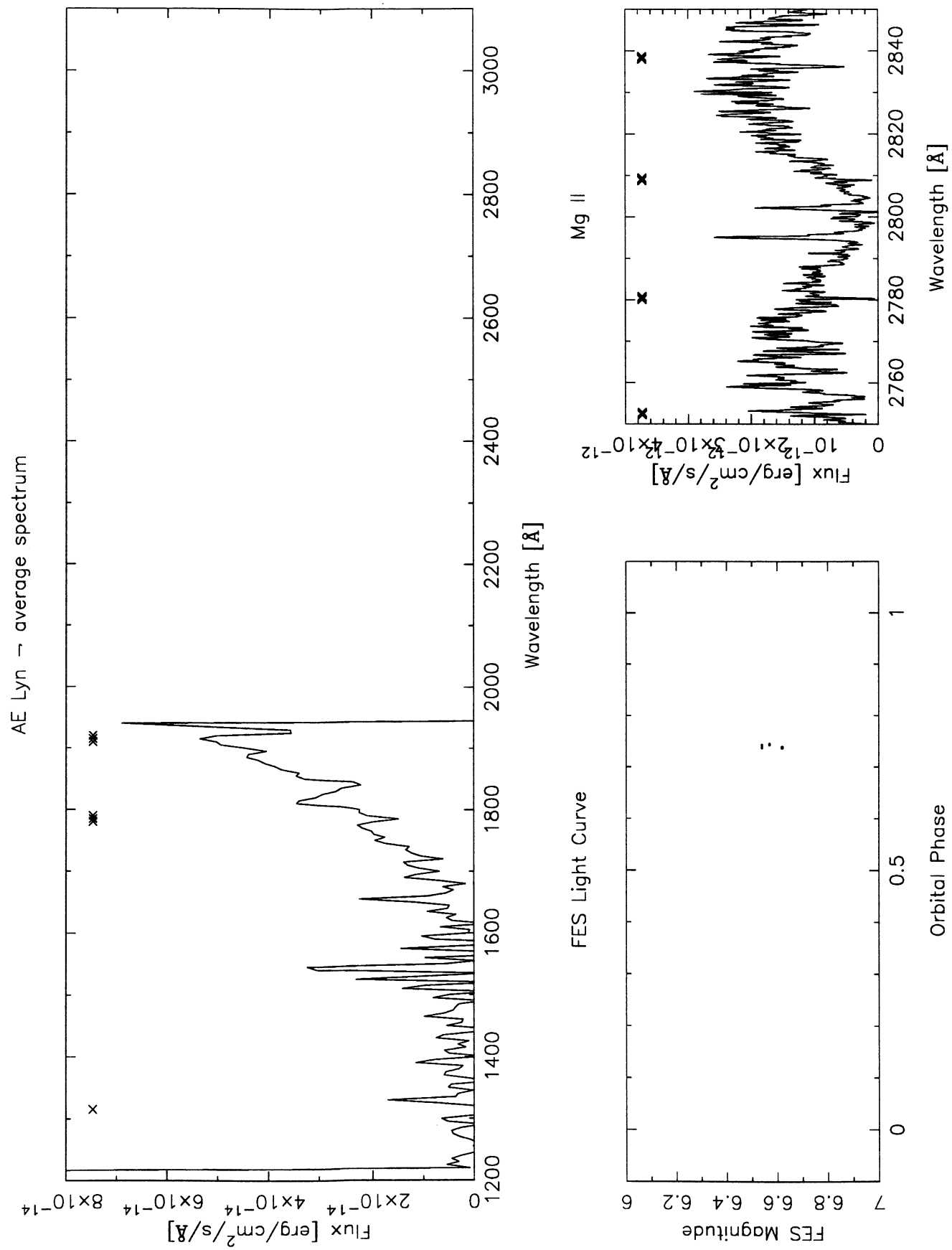

GX Lib – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

AE Lyn

alternative names:	HD 65626, SAO 26634, HR 3119, BD+57 1118, 54 Cam
coordinates (2000.0):	$08^h02^m35.8^s$, $57°16'25''$
linear ephemeris:	
Min I = HJD 2422379.518 + 11.06803 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.11
masses [$M_\odot$]:	1.64/1.61
radii [$R_\odot$]:	3.14/2.64
spectral type:	F9IV/G5IV
distance [pc]:	38
activity parameters:	
P_{phot} [days]:	10.163
ΔV [mag]:	0.05
x-ray luminosity [10^{31} erg/s]:	0.15
Mg II index:	0.427
Ca II index:	moderate
$H\alpha$ emission:	moderate absorption, both
radio flux density [mJy]:	<1
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.76\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$1.17\ 10^{-12}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$2.84\ 10^{-12}$]
U-B:	0.165
B-V:	0.62
V:	6.50
V-R:	
R-I:	
b-y:	0.403
m_1:	0.200
c_1:	0.379
β:	2.584
IRAS [12]:	0.44
IRAS [25]:	<0.25

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	15040	L	*	81. 9.19	8:18: 0	44866.8477	90.00	6.54	0.74	0.74	2031	E=186,C=125,B=32
2	LWR	11586	H	*	81. 9.19	9:52: 0	44866.9102	35.00	6.57	0.74	0.75	2031	E=83,C=120,B=32
3	SWP	22960	L	*	84. 5. 9	6: 9:28	45829.7578	38.00	6.62	0.74	0.74	2118	320


AE Lyn – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V478 Lyr

alternative names:	HD 178450, SAO 67836, BD+30 3425
coordinates (2000.0):	$19^h07^m32.4^s$, $30°15'16''$
linear ephemeris:	
Min I = HJD 2445940.3336 + 2.130514 E	
system parameters:	
type of binary:	EBP, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.0118
radii [$R_\odot$]:	$\geq$0.9/
spectral type:	G8V/
distance [pc]:	26
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.10
x-ray luminosity [10^{31} erg/s]:	0.115
Mg II index:	
Ca II index:	class C, hot
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	0.67
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	39±6
ROSAT 110-200Å [ct/ks]:	22±:
EUVE 100Å [ct/s]:	0.074±0.007
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.31 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.21
B-V:	0.74
V:	7.68
V-R:	0.65
R-I:	0.43
b-y:	0.478
m_1:	0.253
c_1:	0.297
β:	2.564
IRAS [12]:	
IRAS [25]:	

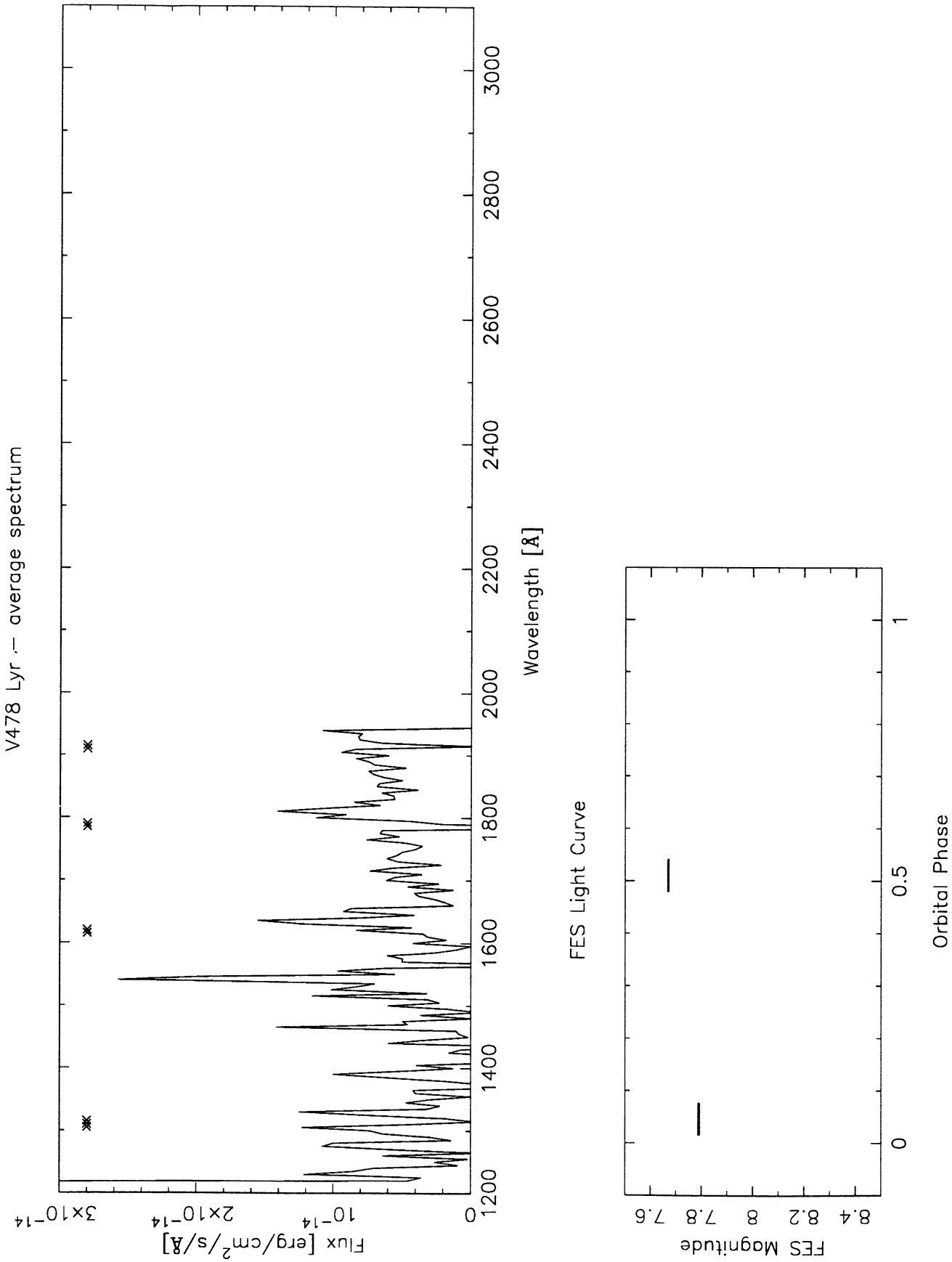
additional references:

Hall D.S., Sowell J.R. and Henry G.W.: 1989, *Bull. American Astron. Soc.* **21**, 709, *Discovery of eclipses in the chromospherically active binary V478 Lyrae=HD 178450*

Fekel F.C.: 1988, *Astron. J.* **95**, 215-219, *Chromospherically active stars. IV. HD 178450 = V478 LYR : an early-type BY Draconis type binary*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	24495	L	*	84.11.17	19:37: 0	46022.3164	180.00	7.67	0.48	0.54	38	E=87,C=85,B=37
2	SWP	24501	L	*	84.11.18	22:58: 0	46023.4570	180.00	7.79	0.02	0.18	39	E=200,C=208,B=170

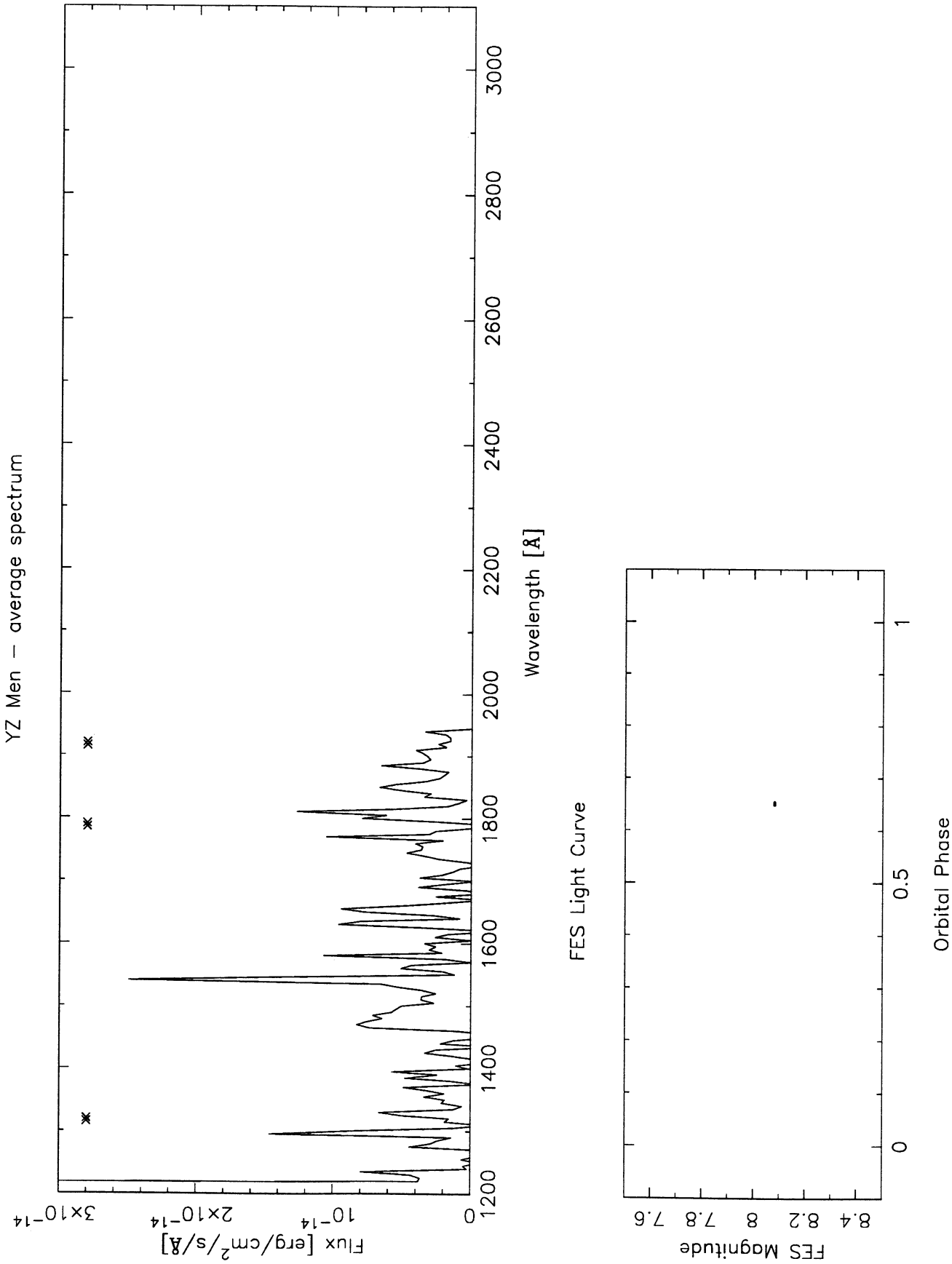

V478 Lyr - average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

YZ Men

alternative names:	HD 34802, SAO 256167, CD-77 188
coordinates (2000.0):	$05^h10^m26.6^s$, $-77°13'01''$
linear ephemeris:	
Min I s = HJD 2444016.609 + 19.310 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.11
radii [$R_\odot$]:	
spectral type:	K1IIIp
distance [pc]:	82
activity parameters:	
P_{phot} [days]:	20.38
ΔV [mag]:	0.07
x-ray luminosity [10^{31} erg/s]:	0.176
Mg II index:	
Ca II index:	class C
$H\alpha$ emission:	
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.87 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.79
B-V:	1.09
V:	7.57
V-R:	
R-I:	
b-y:	0.693
m_1:	0.350
c_1:	0.389
β:	
IRAS [12]:	0.49
IRAS [25]:	<0.25

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	37652	L	*	89.11.22	0: 9: 0	47852.5078	162.00	8.08	0.65	0.65	198	E=71,C=60,B=42


YZ Men – average spectrum
Flux [erg/cm²/s/Å]
0
10⁻¹⁴
2×10⁻¹⁴
3×10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
8.4
8.2
8
7.8
7.6
0
0.5
1
Orbital Phase

AR Mon

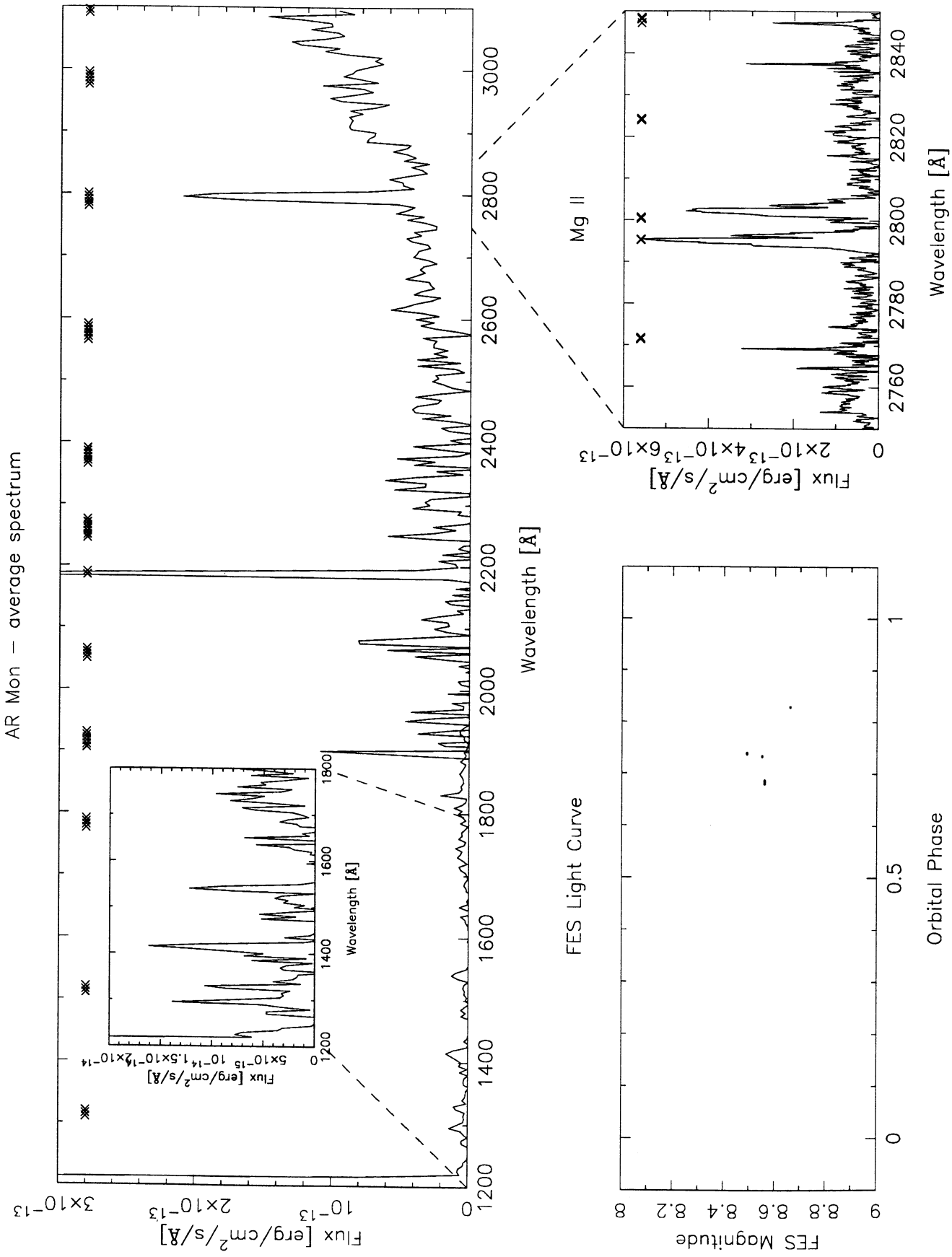
alternative names:	HD 57364, SAO 134544, BD-04 1915
coordinates (2000.0):	$07^h20^m48.0^s$, $-05°15'31''$
linear ephemeris:	Min I = HJD 2426606.585 + 21.20812 E, variable
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	2.7/0.8
radii [$R_\odot$]:	10.8/14.2
spectral type:	G8III/K2-3III
distance [pc]:	525
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	2.36
Mg II index:	[1.617], 1.498
Ca II index:	both
$H\alpha$ emission:	absorption
radio flux density [mJy]:	0.64
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.00 10^{-16}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.62 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	8.46 10^{-14}
U-B:	
B-V:	1.08
V:	8.62
V-R:	
R-I:	
b-y:	0.690
m_1:	0.353
c_1:	0.371
β:	2.599
IRAS [12]:	
IRAS [25]:	

additional references:

Popper D.M.: 1991, *Astron. J.* **101**, 220, *Orbits of close binaries with Ca II H and K in emission. IV. Three systems with mass ratios far from unity*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	6809	L	*	80. 1.28	18:47: 0	44267.2813	30.00	8.55	0.73	0.73	832	E=1.5X,B=30
2	SWP	7798	L	*	80. 1.28	21: 6: 0	44267.3789	90.00	8.49	0.74	0.74	832	E=80,C=55,B=30
3	LWR	11558	L	*	81. 9.15	15:24: 0	44863.1406	9.00	8.66	0.83	0.83	860	E=184,C=75,B=25
4	LWP	21367	H	*	91. 9.29	11:48: 0	48528.9922	220.00	8.56	0.68	0.69	1033	E=146,C=110,B=55

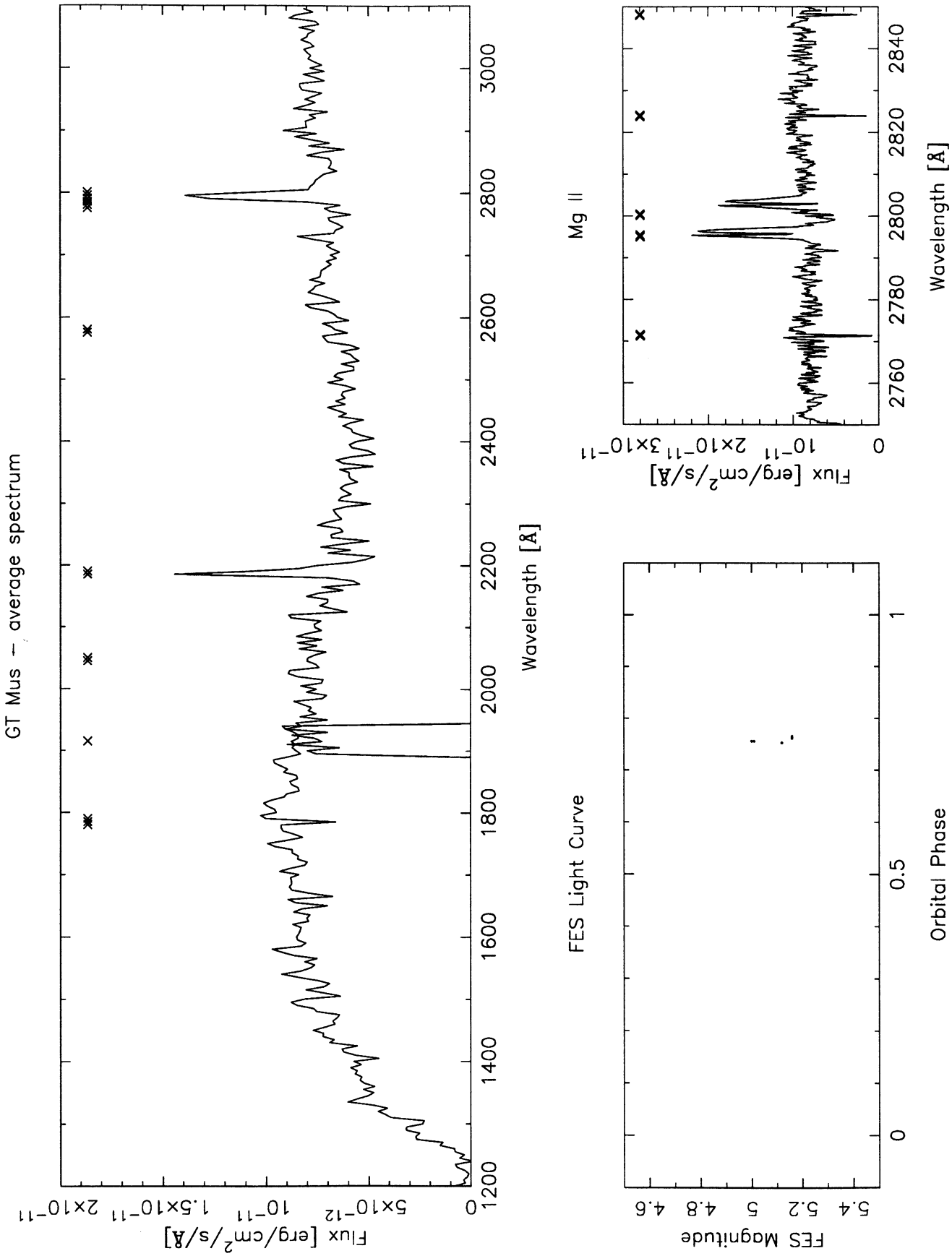

AR Mon – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

GT Mus

alternative names:	HD 101379, CPD-64 1685A
coordinates (2000.0):	$11^h39^m29.5^s$, $-65°23'52''$
linear ephemeris:	
Min I s = HJD 2444044.610 + 61.360 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	≈2.0/≈2.5
radii [$R_\odot$]:	
spectral type:	A0/K2-4III
distance [pc]:	140
activity parameters:	
P_{phot} [days]:	56.03
ΔV [mag]:	0.10
x-ray luminosity [10^{31} erg/s]:	4.501
Mg II index:	[1.221], 1.052
Ca II index:	class B, cool
$H\alpha$ emission:	emission + absorption core
radio flux density [mJy]:	10-65
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	6.82 10^{-12}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.19 10^{-12}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.90 10^{-12}
U-B:	0.26
B-V:	0.79
V:	5.08
V-R:	0.63
R-I:	
b-y:	0.542
m_1:	0.140
c_1:	0.621
β:	2.672
IRAS [12]:	
IRAS [25]:	

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	13097	L	*	82. 4.28	23:25: 0	45088.4766	0.50	5.01	0.76	0.76	74	C=200,B=25
2	SWP	16852	L	*	82. 4.28	23:30: 0	45088.4805	1.00	5.00	0.76	0.76	74	C=170,B=19
3	LWP	8971	H		86. 8.30	23:56: 0	46673.4961	11.00	5.22	0.11	0.11	210	E=185,C=132,B=41
4	LWP	9399	H	*	86.10.24	8:12: 0	46727.8398	14.00	5.12	0.75	0.75	214	E=234,C=190,B=95
5	SWP	29522	H		86.10.24	10:40: 0	46727.9453	70.00	5.16	0.76	0.77	214	C=230,B=95


GT Mus – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V1149 Ori

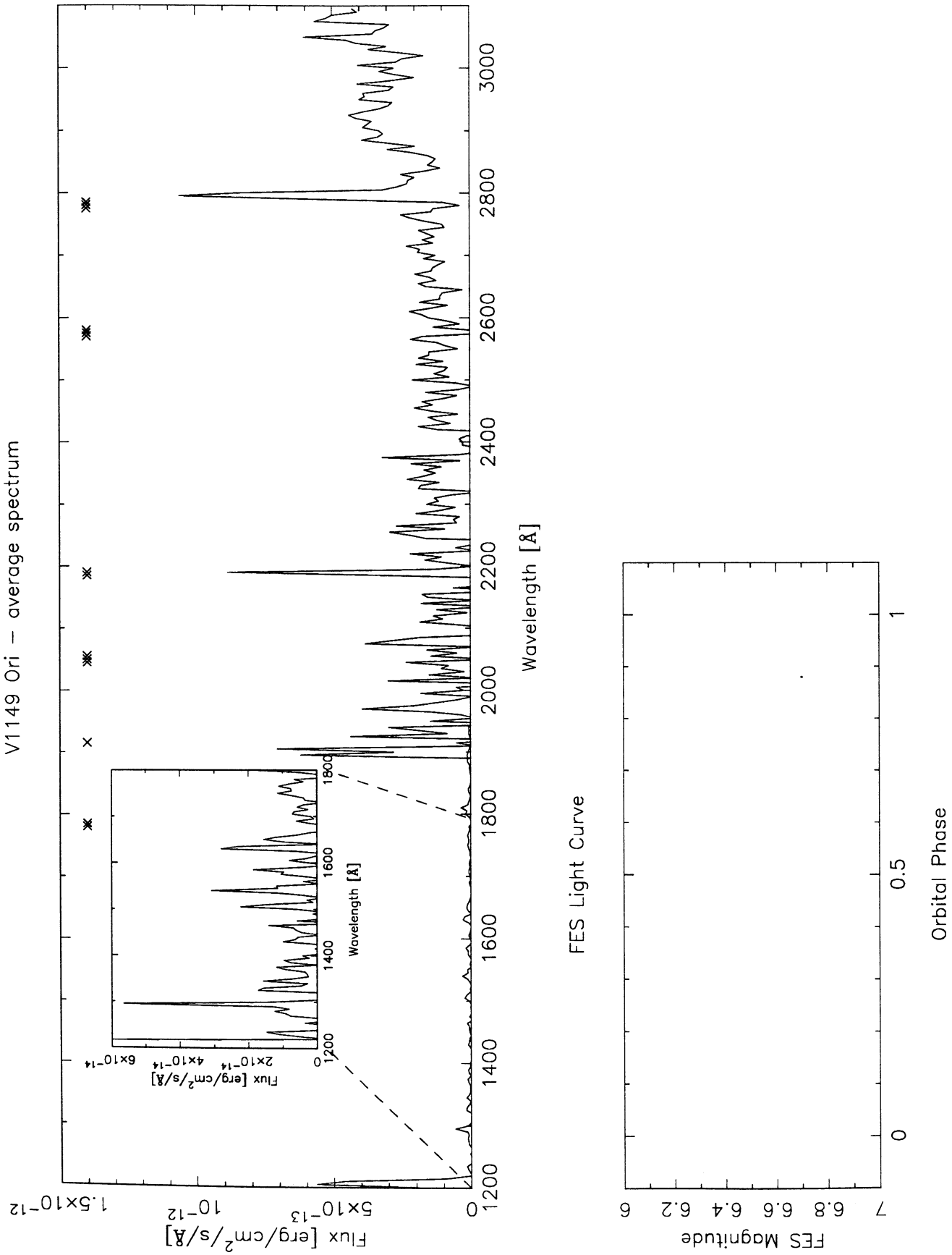
alternative names:	HD 37824, SAO 113040, BD+03 1007
coordinates (2000.0):	$05^h41^m26.8^s$, $03°46'41''$
linear ephemeris:	
Min I = HJD 2444325.93 + 53.580 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.090
radii [$R_\odot$]:	/≥11
spectral type:	K1III
distance [pc]:	164
activity parameters:	
P_{phot} [days]:	54.1
ΔV [mag]:	0.40
x-ray luminosity [10^{31} erg/s]:	1.59
Mg II index:	[1.718]
Ca II index:	class B
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	0.68
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.40 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.38 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.38 10^{-13}
U-B:	0.90
B-V:	1.14
V:	6.58
V-R:	0.90
R-I:	0.58
b-y:	0.738
m_1:	0.441
c_1:	0.344
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Hall D.S., Fekel F.C., Henry G.W. and Barksdale W.S.: 1991, *Astron. J.* **102**, 1808, *The 11 year history of starspots on V1149 Ori = HD 37824*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	18522	L	*	82.11.10	9:15: 0	45283.8867	45.00	6.70	0.88	0.88	17	E=38,B=26
2	LWR	14675	L	*	82.11.20	9:33: 0	45293.8984	2.50	6.64	0.07	0.07	18	E=88,C=60,B=25

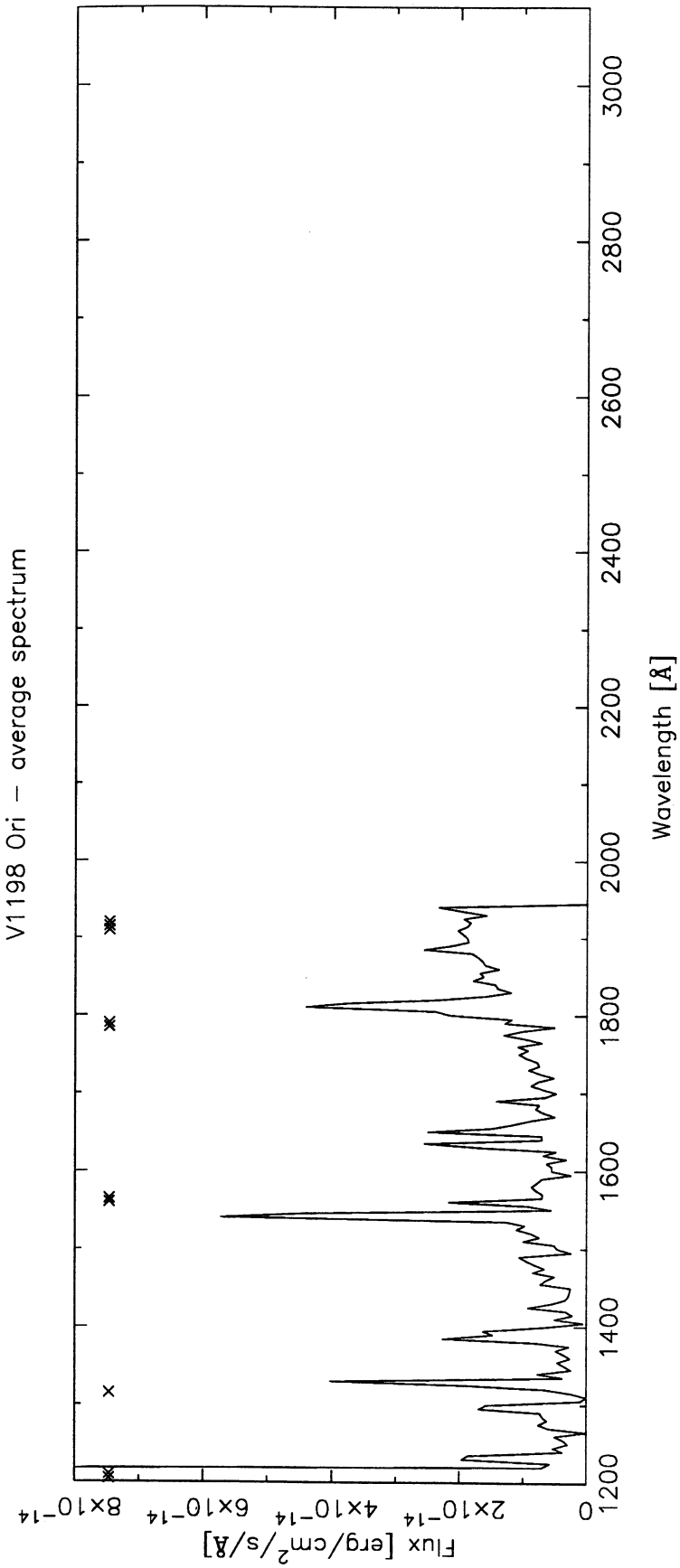

V1149 Ori – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V1198 Ori

alternative names:	HD 31738, SAO 112278, BD+00 908
coordinates (2000.0):	$04^h58^m17.0^s$, $00°27'14''$
linear ephemeris:	
Min I = HJD ? + ? E	
system parameters:	
type of binary:	- , SB2
eccentricity:	
masses [$M_\odot$]:	
radii [$R_\odot$]:	$\geq$1.5
spectral type:	G5IV
distance [pc]:	60
activity parameters:	
P_{phot} [days]:	4.55
ΔV [mag]:	0.063
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	
Ca II index:	very strong
$H\alpha$ emission:	weak filled-in
radio flux density [mJy]:	0.79
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	31±6
ROSAT 110-200Å [ct/ks]:	69±12
EUVE 100Å [ct/s]:	0.045±0.009
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.52 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.20
B-V:	0.71
V:	7.12
V-R:	
R-I:	
b-y:	0.452
m_1:	0.235
c_1:	0.311
β:	
IRAS [12]:	0.39
IRAS [25]:	<0.25

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	21475	L	*	83.11. 8	1: 5: 0	45646.5469	180.00	7.28				E=134,C=125,B=52


V1198 Ori – average spectrum
Flux [erg/cm²/s/Å]
0
2×10⁻¹⁴
4×10⁻¹⁴
6×10⁻¹⁴
8×10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]

II Peg

alternative names:	HD 224085, SAO 91578, BD+27 4642
coordinates (2000.0):	$23^h55^m04.0^s$, $28°38'01''$
linear ephemeris:	
Min I = HJD 2443030.239 + 6.724183 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.035
radii [$R_\odot$]:	2.2
spectral type:	K2-3V-IV
distance [pc]:	29
activity parameters:	
P_{phot} [days]:	6.718
ΔV [mag]:	0.50
x-ray luminosity [10^{31} erg/s]:	0.606
Mg II index:	[1.859], 2.455
Ca II index:	strong
$H\alpha$ emission:	emission, var
radio flux density [mJy]:	<2-26.7
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	115±10
ROSAT 110-200Å [ct/ks]:	213±17
EUVE 100Å [ct/s]:	0.134±0.011
EUVE 200Å [ct/s]:	0.033±0.010
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.74\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.09\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.38\ 10^{-13}$
U-B:	0.66
B-V:	1.01
V:	7.2
V-R:	0.89
R-I:	0.50
b-y:	0.638
m_1:	0.340
c_1:	0.323
β:	2.512
IRAS [12]:	0.97
IRAS [25]:	<0.34

additional references:

Mohin S. and Raveendran A.V.: 1993, *Astron. Astrophys.* **277**, 155-164, *BV photmetry and H-alpha spectroscopy of the RS Canum Venaticorum binary II Pegasi*

Doyle J.G., Mathioudakis M., Murphy H.M., Avgoloupis S., Mavridis L.N.: 1993, *Astron. Astrophys.* **278**, 499-510, *Rotational modulation and flares on the RS Canum Venaticorum binary II Pagasi in July/September 1990 : spots and flares on II Peg*

Patterer R.J., Wedder P.W., Jelinsky P., Brown A. and Bowyer S.: 1993, *Astrophys. J.* **414**, L57-L60, *Extreme Ultraviolet Explorer observations of the RS Canum Venaticorum systems AR Lacertae and II Pegasi*

Doyle J.G., van den Oord G.H.J. and Kellett B.J.: 1992, *Astron. Astrophys.* **262**, 533-543, *Dynamic phenomena on the RS Canum Venaticorum binary II Pegasi in August 1989. II. An interpretation*

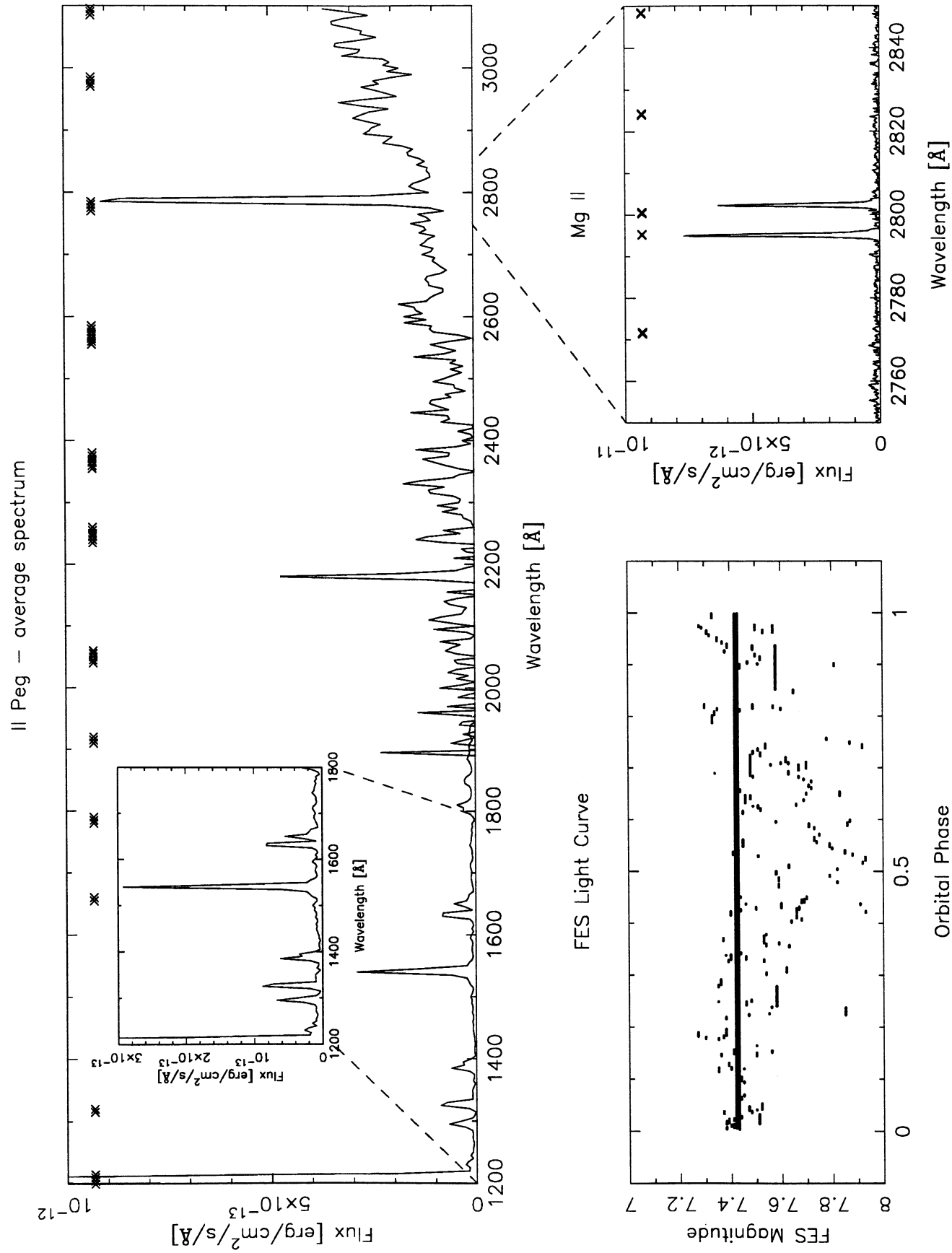
Tagliaferri G., White N.E., Doyle J.G., Culhane J.L., Hassall B.J.M. and Swank J.H.: 1991, *Astron. Astrophys.* **251**, 161, *A study of the flaring and quiscent X-ray and UV emission from II Pegasi*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	5011	L	*	79. 7.12	1:35: 0	44066.5664	5.00	7.45	0.12	0.12	154	36
2	LWR	5022	L		79. 7.12	22:22: 0	44067.4336	4.00	7.35	0.25	0.25	154	35
3	LWR	5058	L		79. 7.15	21:31: 0	44070.3984	4.00	7.34	0.69	0.69	154	36
4	LWR	5127	L		79. 7.20	22:15: 0	44075.4258	4.00	7.46	0.44	0.34	155	25
5	LWR	5498	L		79. 9. 2	19: 8: 0	44119.2969	5.00	7.53	0.96	0.96	161	352
6	SWP	6362	L		79. 9. 2	19:17: 0	44119.3047	40.00	7.53	0.96	0.97	161	122
7	LWR	5499	L		79. 9. 2	20: 4: 0	44119.3359	90.00	7.50	0.97	0.98	161	702
8	LWR	6943	L		80. 2.17	10:51: 0	44286.9531	4.00	7.42	0.90	0.90	186	342
9	LWR	6944	L		80. 2.17	11:48: 0	44286.9922	15.00	7.51	0.90	0.90	186	461
10	SWP	9531	L		80. 7.16	14: 1: 0	44437.0859	30.00	7.47	0.22	0.23	209	E=87,B=25
11	LWR	8263	L		80. 7.16	14:38: 0	44437.1094	10.00	7.55	0.23	0.23	209	E=2-5X,C=140,B=30
12	LWR	8991	L	*	80.10.10	18:47: 0	44523.2813	4.00	7.50	0.04	0.04	222	363
13	SWP	10328	L		80.10.10	19: 4: 0	44523.2930	100.00	7.52	0.04	0.05	222	262
14	LWR	9002	L		80.10.11	14:36: 0	44524.1094	4.00	7.50	0.16	0.17	222	351
15	LWR	9009	L	*	80.10.12	18:41: 0	44525.2773	4.00	7.38	0.34	0.34	222	351
16	LWR	9036	L		80.10.14	17: 8: 0	44527.2148	4.00	7.49	0.63	0.63	222	262
17	LWR	11555	H		81. 9.15	9:39: 0	44862.9023	60.00	7.45	0.55	0.56	272	E=255,C=60,B=40
18	SWP	14999	L		81. 9.15	10:43: 0	44862.9453	70.00	7.45	0.56	0.56	272	E=2X,C=53,B=50
19	LWR	11652	H		81.10. 1	15:17: 0	44879.1367	25.00	7.57	0.96	0.97	274	232
20	SWP	15147	L		81.10. 1	15:46: 0	44879.1563	100.00	7.57	0.97	0.98	274	261
21	LWR	11655	H		81.10. 2	3: 4: 0	44879.6289	25.00	7.48	0.04	0.04	275	E=110,B=26
22	SWP	15151	L		81.10. 2	3:40: 0	44879.6523	80.00	7.47	0.04	0.05	275	E=129,C=80,B=26
23	LWR	11667	H		81.10. 3	2: 0: 0	44880.5820	35.00	7.30	0.18	0.18	275	E=115,C=70,B=32
24	SWP	15160	L		81.10. 3	2:40: 0	44880.6094	80.00	7.27	0.18	0.19	275	E=116,B=18
25	LWR	11673	H		81.10. 3	18: 3: 0	44881.2539	35.00	7.35	0.28	0.28	275	333
26	SWP	15166	L		81.10. 3	18:44: 0	44881.2813	100.00	7.36	0.28	0.29	275	251
27	LWR	11680	H		81.10. 4	8:28: 0	44881.8516	45.00	7.37	0.37	0.37	275	E=180,C=90,B=42
28	SWP	15171	L	*	81.10. 4	9:19: 0	44881.8867	80.00	7.42	0.37	0.38	275	E=161,B=51
29	SWP	15174	L		81.10. 4	16:21: 0	44882.1797	80.00	7.40	0.42	0.42	275	331
30	LWR	11684	H		81.10. 4	17:44: 0	44882.2383	35.00	7.44	0.42	0.43	275	343
31	LWR	11690	H		81.10. 5	10:36: 0	44882.9414	30.00	7.51	0.53	0.53	275	E=201,B=65
32	SWP	15182	L		81.10. 5	11:14: 0	44882.9688	50.00	7.41	0.53	0.54	275	E=1.5X, C=166, B=11
33	LWR	11714	H		81.10. 7	8:34: 0	44884.8555	35.00	7.60	0.81	0.82	275	E=196,B=37
34	SWP	15196	L		81.10. 7	9:13: 0	44884.8828	40.00	7.57	0.82	0.82	275	E=1.5X, B=40
35	SWP	19165	L		83. 2. 1	23:13: 0	45367.4688	80.00	7.43	0.59	0.59	347	E=1.5X,C=65,B=38
36	LWR	15159	H		83. 2. 2	0:39: 0	45367.5273	40.00	7.42	0.60	0.60	347	E=239,C=70,B=33
37	SWP	19167	L		83. 2. 2	3:29: 0	45367.6445	50.00	7.45	0.61	0.62	347	E=194,C=100,B=66
38	LWR	15161	H		83. 2. 2	4:25: 0	45367.6836	40.00	7.52	0.62	0.62	347	E=1.5X,C=80,B=35
39	SWP	19168	L	*	83. 2. 2	5:11: 0	45367.7148	50.00	7.51	0.63	0.63	347	E=177,C=35,B=30
40	SWP	19174	L		83. 2. 2	22:13: 0	45368.4258	50.00	7.49	0.73	0.73	347	E=89,C=43,B=30
41	LWR	15167	H		83. 2. 2	23: 9: 0	45368.4648	40.00	7.51	0.73	0.74	347	E=193,C=80,B=35
42	SWP	19175	L		83. 2. 2	23:55: 0	45368.4961	80.00	7.54	0.74	0.75	347	E=152,C=40,B=30
43	LWR	15172	H		83. 2. 3	11:29: 0	45368.9766	40.00	7.44	0.81	0.81	347	E=163,C=60,B=32
44	SWP	19180	L		83. 2. 3	12:15: 0	45369.0117	80.00	7.49	0.82	0.82	347	E=138,C=55,B=35
45	SWP	19184	L		83. 2. 4	0:52: 0	45369.5352	80.00	7.44	0.89	0.90	347	E=223,C=63,B=42
46	LWR	15175	H		83. 2. 4	2:18: 0	45369.5977	40.00	7.47	0.90	0.91	347	E=190,C=90,B=38
47	LWR	15177	H		83. 2. 4	5:49:27	45369.7422	40.00	7.38	0.92	0.93	347	242
48	SWP	19187	L		83. 2. 4	6:38:18	45369.7773	80.00	7.49	0.93	0.94	347	241
49	SWP	19192	L		83. 2. 4	16:29: 0	45370.1875	80.00	7.33	0.99	0.00	347	E=113,C=40,B=32
50	LWR	15181	H		83. 2. 4	17:53: 0	45370.2461	40.00	7.43	0.00	0.00	348	E=153,C=55,B=30
51	SWP	19194	L		83. 2. 4	20:39: 0	45370.3594	80.00	7.39	0.02	0.02	348	E=125,C=53,B=31
52	LWR	15183	H		83. 2. 4	22: 6: 0	45370.4219	40.00	7.44	0.03	0.03	348	E=152,C=75,B=27
53	SWP	19202	L		83. 2. 5	12:30:43	45371.0195	80.00	7.35	0.11	0.12	348	241
54	LWR	15191	H		83. 2. 5	13:53: 0	45371.0781	40.00	7.43	0.12	0.13	348	E=127,C=60,B=30

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
55	LWR	15193	H		83. 2. 5	17:23: 0	45371.2227	40.00	7.36	0.14	0.15	348	E=140,C=65,B=30
56	SWP	19205	L		83. 2. 5	18: 7: 0	45371.2539	80.00	7.41	0.15	0.16	348	E=121,C=30,B=30
57	LWR	15195	H		83. 2. 5	22:22: 0	45371.4336	30.00	7.35	0.18	0.18	348	E=152,C=125,B=67
58	SWP	19208	L		83. 2. 5	22:58: 0	45371.4570	40.00	7.37	0.18	0.18	348	E=64,C=60,B=45
59	LWR	15196	H		83. 2. 5	23:44: 0	45371.4883	40.00	7.38	0.18	0.19	348	E=153,C=169,B=32
60	SWP	19209	L		83. 2. 6	0:30: 0	45371.5195	40.00	7.38	0.19	0.19	348	E=68,C=60,B=43
61	LWR	15197	H		83. 2. 6	1:16: 0	45371.5547	30.00	7.38	0.19	0.20	348	E=175,C=110,B=50
62	SWP	19211	L		83. 2. 6	4:53: 0	45371.7031	40.00	7.38	0.22	0.22	348	E=91,C=80,B=59
63	SWP	19215	L		83. 2. 6	22:44: 0	45372.4453	30.00	7.39	0.33	0.33	348	E=214,C=245,B=210
64	LWR	15202	H		83. 2. 6	23:19: 0	45372.4727	26.00	7.40	0.33	0.33	348	E=166,C=170,B=115
65	SWP	19216	L		83. 2. 6	23:56: 0	45372.4961	60.00	7.40	0.33	0.34	348	E=249,C=2X,B=221
66	LWR	15203	H		83. 2. 7	1: 8: 0	45372.5469	30.00	7.44	0.34	0.34	348	E=223,C=225,B=160
67	LWP	3760	H		84. 7.14	20: 5:41	45896.3359	20.00	7.56	0.24	0.24	426	133
68	SWP	23465	H		84. 7.14	20:31:35	45896.3555	376.00	7.58	0.24	0.28	426	133
69	LWP	3791	H		84. 7.17	19:46:14	45899.3242	30.00	7.49	0.68	0.69	426	243
70	SWP	23473	H		84. 7.17	20:21: 8	45899.3477	386.00	7.48	0.69	0.73	426	133
71	SWP	26446	L		85. 7.20	11:14: 0	46266.9688	40.00	7.54	0.36	0.36	481	E=96,B=50
72	LWP	6438	H		85. 7.20	12:13: 0	46267.0078	30.00	7.53	0.36	0.37	481	E=165,B=85
73	SWP	26447	L		85. 7.20	12:49: 0	46267.0352	65.00	7.53	0.37	0.37	481	E=157,B=125
74	LWP	6439	H		85. 7.20	14: 0: 0	46267.0820	30.00	7.53	0.37	0.38	481	E=234,B=178
75	SWP	26448	L		85. 7.20	14:40: 0	46267.1094	15.00	7.54	0.38	0.38	481	B=80
76	SWP	26456	L		85. 7.22	19:32: 7	46269.3125	20.00	7.56	0.71	0.71	481	130
77	LWP	6463	H		85. 7.22	19:57:17	46269.3320	30.00	7.60	0.71	0.71	481	253
78	SWP	26457	L		85. 7.22	20:33:39	46269.3555	40.00	7.62	0.71	0.72	481	230
79	LWP	6464	H	*	85. 7.22	21:21:57	46269.3906	40.00	7.62	0.72	0.72	481	253
80	SWP	26468	L		85. 7.24	19:39:14	46271.3203	40.00	7.38	0.00	0.01	482	230
81	LWP	6479	H		85. 7.24	20:25:52	46271.3516	40.00	7.40	0.01	0.01	482	252
82	SWP	26469	L		85. 7.24	21:12:47	46271.3828	60.00	7.38	0.01	0.02	482	230
83	LWP	6480	H		85. 7.24	22:19:38	46271.4297	40.00	7.41	0.02	0.02	482	252
84	SWP	26485	L		85. 7.26	19:42:15	46273.3203	40.00	7.54	0.30	0.31	482	230
85	LWP	6498	H		85. 7.26	20:26:53	46273.3516	40.00	7.62	0.31	0.31	482	252
86	SWP	26486	L		85. 7.26	21:11:45	46273.3828	50.00	7.62	0.31	0.32	482	230
87	SWP	29181	L		86. 9.10	8:26: 0	46683.8516	40.00	7.63	0.35	0.36	543	E=57,B=20
88	LWP	9050	H		86. 9.10	9:22: 0	46683.8906	30.00	7.59	0.36	0.36	543	E=120,C=80,B=41
89	SWP	29185	L		86. 9.10	16: 9:49	46684.1719	40.00	7.64	0.40	0.41	543	231
90	LWP	9054	H		86. 9.10	16:54:34	46684.2031	30.00	7.68	0.41	0.41	543	232
91	SWP	29186	L		86. 9.10	17:30:29	46684.2305	180.00	7.66	0.41	0.43	543	242
92	LWP	9055	H		86. 9.10	20:36: 2	46684.3594	90.00	7.60	0.43	0.44	543	252
93	SWP	29198	L		86. 9.12	7:32: 0	46685.8125	40.00	7.83	0.65	0.65	543	E=44,B=20
94	LWP	9061	H		86. 9.12	8:19: 0	46685.8477	30.00	7.83	0.65	0.65	543	E=132,C=75,B=39
95	LWP	9067	L		86. 9.13	1: 1: 0	46686.5430	40.00	7.78	0.76	0.76	543	E=4X,C=2X,B=40
96	SWP	29209	L		86. 9.13	15:40:39	46687.1523	60.00	7.65	0.85	0.85	543	131
97	LWP	9072	H		86. 9.13	16:47:42	46687.1992	40.00	7.58	0.85	0.86	543	243
98	SWP	29210	H		86. 9.13	17:35: 0	46687.2344	775.00	7.58	0.86	0.94	543	E=221,B=183
99	SWP	29202	L		86. 9.14	0: 3: 0	46687.5039	50.00	7.81	0.90	0.90	543	E=56,C=50,B=30
100	SWP	29214	L		86. 9.14	16:23:57	46688.1836	70.00	7.42	0.00	0.01	544	131
101	LWP	9079	H		86. 9.14	17:40:33	46688.2383	70.00	7.41	0.01	0.01	544	353
102	SWP	29215	L	*	86. 9.14	18:56:54	46688.2891	180.00	7.51	0.01	0.03	544	242
103	LWP	9080	H		86. 9.14	22: 3:44	46688.4180	45.00	7.37	0.03	0.04	544	253
104	SWP	29217	L		86. 9.15	15:56:55	46689.1641	60.00	7.50	0.14	0.15	544	130
105	LWP	9089	H		86. 9.15	17: 5:23	46689.2109	40.00	7.56	0.15	0.16	544	242
106	SWP	29220	L		86. 9.16	7:45: 0	46689.8242	60.00	7.46	0.24	0.25	544	E=67,B=25
107	LWP	9093	H		86. 9.16	8:53: 0	46689.8711	30.00	7.48	0.25	0.25	544	E=137,C=83,B=52
108	LWP	9099	H		86. 9.16	21:23:40	46690.3906	30.00	7.53	0.33	0.33	544	332
109	SWP	29227	L		86. 9.16	22: 3:14	46690.4180	50.00	7.46	0.33	0.34	544	130
110	SWP	29232	L		86. 9.17	15:43: 3	46691.1563	60.00	7.69	0.44	0.45	544	230
111	LWP	9107	H		86. 9.17	16:50:34	46691.2031	40.00	7.70	0.45	0.45	544	342
112	SWP	29243	L		86. 9.18	15:34: 6	46692.1484	60.00	7.86	0.59	0.60	544	131
113	LWP	9114	H		86. 9.18	16:46:15	46692.1992	40.00	7.87	0.606	0.60	544	242
114	SWP	29253	L		86. 9.19	15:52:49	46693.1602	60.00	7.92	0.74	0.75	544	131
115	LWP	9125	H		86. 9.19	17: 9:34	46693.2148	40.00	7.87	0.75	0.75	544	242
116	SWP	29265	L		86. 9.20	19:25: 8	46694.3086	60.00	7.52	0.91	0.92	544	131
117	LWP	9135	H		86. 9.20	20:34:33	46694.3555	40.00	7.50	0.92	0.92	544	342
118	SWP	29278	L		86. 9.21	19:51:54	46695.3281	45.00	7.44	0.06	0.07	545	131
119	LWP	9143	H		86. 9.21	20:57: 8	46695.3711	30.00	7.45	0.07	0.07	545	332

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
120	LWP	16125	H		89. 8.14	22:42: 0	47753.4453	30.00	7.93	0.42	0.42	702	E=109,B=28
121	SWP	36844	L		89. 8.14	23:40: 0	47753.4844	50.00	7.67	0.43	0.43	702	E=36,B=20
122	LWP	16126	H		89. 8.15	1: 0: 0	47753.5430	30.00	7.91	0.44	0.44	702	E=124,B=39
123	SWP	36845	L		89. 8.15	1:41: 0	47753.5703	60.00	7.68	0.44	0.45	702	E=49,B=25
124	SWP	36846	L		89. 8.15	6:34: 0	47753.7734	60.00	7.59	0.47	0.48	702	E=48,B=34
125	LWP	16127	H		89. 8.15	7:52: 0	47753.8281	30.00	7.82	0.48	0.48	702	E=132,B=39
126	SWP	36847	L		89. 8.15	8:34: 0	47753.8555	60.00	7.59	0.48	0.49	702	E=36,B=32
127	LWP	16128	H		89. 8.15	9:53: 0	47753.9102	30.00	7.79	0.49	0.49	702	E=150,B=40
128	SWP	36848	L		89. 8.15	10:36: 0	47753.9414	60.00	7.58	0.50	0.50	702	E=45,B=34
129	LWP	16129	H		89. 8.15	11:55: 0	47753.9961	30.00	7.82	0.50	0.51	702	E=157,B=42
130	SWP	36849	L		89. 8.15	12:35: 0	47754.0234	60.00	7.63	0.51	0.51	702	E=89,B=81
131	LWP	16130	H		89. 8.15	13:57: 0	47754.0820	30.00	7.92	0.52	0.52	702	E=174,B=75
132	SWP	36850	L		89. 8.15	14:56: 5	47754.1211	60.00	7.93	0.52	0.53	702	130
133	LWP	16131	H		89. 8.15	16:21:57	47754.1836	30.00	7.88	0.53	0.53	702	141
134	SWP	36851	L		89. 8.15	17: 6:16	47754.2109	60.00	7.85	0.54	0.54	702	130
135	LWP	16132	H		89. 8.15	18:22:45	47754.2656	30.00	7.80	0.54	0.55	702	141
136	SWP	36852	L		89. 8.15	19: 5:26	47754.2969	60.00	7.79	0.55	0.55	702	130
137	LWP	16133	H		89. 8.15	20:20:42	47754.3477	30.00	7.74	0.56	0.56	702	141
138	SWP	36853	L		89. 8.15	21: 5:55	47754.3789	60.00	7.73	0.56	0.57	702	130
139	LWP	16134	H		89. 8.15	22:40: 0	47754.4453	30.00	7.75	0.57	0.57	702	E=153,B=39
140	LWP	16135	H		89. 8.16	0:44: 0	47754.5313	30.00	7.73	0.58	0.59	702	E=146,B=38
141	SWP	36855	L		89. 8.16	1:26: 0	47754.5586	60.00	7.71	0.59	0.59	702	E=111,B=36
142	LWP	16136	H		89. 8.16	2:41: 0	47754.6133	27.00	7.58	0.60	0.60	702	E=196,B=108
143	SWP	36856	L		89. 8.16	6:36: 0	47754.7734	60.00	7.43	0.62	0.63	702	E=137,B=85
144	LWP	16138	H		89. 8.16	8: 2: 0	47754.8359	30.00	7.66	0.63	0.63	702	E=230,B=138
145	SWP	36857	L		89. 8.16	8:46: 0	47754.8672	30.00	7.46	0.63	0.64	702	E=57,B=46
146	LWP	16139	H		89. 8.16	9:26: 0	47754.8945	30.00	7.69	0.64	0.64	702	E=208,B=125
147	SWP	36858	L		89. 8.16	10: 7: 0	47754.9219	60.00	7.48	0.64	0.65	702	E=86,B=66
148	LWP	16140	H		89. 8.16	11:28: 0	47754.9766	30.00	7.70	0.65	0.65	702	E=184,B=104
149	SWP	36859	L		89. 8.16	12:16: 0	47755.0117	45.00	7.44	0.65	0.66	702	E=83,B=59
150	LWP	16141	H		89. 8.16	13:11: 0	47755.0508	30.00	7.72	0.66	0.66	702	E=194,B=105
151	SWP	36860	L		89. 8.16	13:49: 0	47755.0742	45.00	7.71	0.66	0.67	702	E=71,B=51
152	LWP	16142	H		89. 8.16	15:18:40	47755.1367	30.00	7.72	0.67	0.68	702	144
153	SWP	36861	L		89. 8.16	15:57:40	47755.1641	30.00	7.69	0.68	0.68	702	120
154	LWP	16143	H		89. 8.16	16:41: 8	47755.1953	30.00	7.67	0.68	0.68	702	144
155	SWP	36862	L		89. 8.16	17:43:28	47755.2383	60.00	7.63	0.69	0.69	702	121
156	LWP	16144	H		89. 8.16	19: 0:20	47755.2930	30.00	7.67	0.70	0.70	702	143
157	SWP	36863	L		89. 8.16	19:43:46	47755.3203	60.00	7.67	0.70	0.71	702	121
158	LWP	16145	H		89. 8.16	21: 1: 7	47755.3750	35.00	7.63	0.71	0.71	702	143
159	SWP	36854	L		89. 8.16	23:24: 0	47755.4766	60.00	7.52	0.72	0.73	702	E=41,B=24
160	LWP	16664	H		89.10.26	13:58: 8	47826.0820	142.00	7.85	0.22	0.24	713	369
161	LWP	16695	H		89.10.29	18:43:24	47829.2813	123.00	7.70	0.70	0.71	713	363
162	LWP	18570	H		90. 8.13	2:17: 0	48116.5938	40.00	7.50	0.43	0.43	756	E=154,C=78,B=39
163	SWP	39450	L		90. 8.13	5:50: 0	48116.7422	25.00	7.44	0.45	0.45	756	C=30,B=18
164	LWP	18701	H		90. 9. 4	16:30:54	48139.1875	140.00	7.33	0.79	0.80	759	361
165	SWP	39579	L		90. 9. 4	19: 3: 0	48139.2930	60.00	7.34	0.80	0.81	759	130
166	LWP	18702	H		90. 9. 4	20:33:36	48139.3555	30.00	7.35	0.81	0.82	759	130
167	SWP	39580	L		90. 9. 4	21:16:27	48139.3867	60.00	7.30	0.82	0.82	759	120
168	SWP	39584	L		90. 9. 5	16: 2: 9	48140.1680	60.00	7.39	0.93	0.94	759	130
169	LWP	18706	H		90. 9. 5	17:23:25	48140.2227	30.00	7.37	0.94	0.94	759	142
170	SWP	39585	L		90. 9. 5	18: 3:35	48140.2539	60.00	7.35	0.95	0.95	759	130
171	LWP	18707	H		90. 9. 5	19:32:52	48140.3164	30.00	7.32	0.96	0.96	759	141
172	SWP	39586	L		90. 9. 5	20:17:40	48140.3438	60.00	7.31	0.96	0.97	759	130
173	LWP	18708	H		90. 9. 5	21:53:39	48140.4141	30.00	7.29	0.97	0.97	759	141
174	SWP	39587	L		90. 9. 5	22:31:47	48140.4375	20.00	7.28	0.97	0.98	759	130
175	SWP	39591	L		90. 9. 6	16: 1:25	48141.1680	80.00	7.43	0.08	0.09	760	130
176	LWP	18712	H		90. 9. 6	17:42:55	48141.2383	30.00	7.45	0.09	0.10	760	131
177	SWP	39592	L	*	90. 9. 6	18:22:10	48141.2656	80.00	7.44	0.10	0.11	760	250
178	LWP	18713	H		90. 9. 6	19:56:37	48141.3320	30.00	7.42	0.11	0.11	760	131
179	SWP	39593	L		90. 9. 6	20:36:52	48141.3594	60.00	7.42	0.11	0.12	760	130
180	LWP	18714	H		90. 9. 6	21:56:46	48141.4141	40.00	7.40	0.12	0.12	760	141
181	SWP	40464	L		90.12.26	23:30: 0	48252.4805	60.00	7.46	0.64	0.64	776	E=58,C=40,B=30
182	LWP	19482	H		90.12.27	0:38: 0	48252.5273	40.00	7.46	0.64	0.65	776	E=167,C=72,B=32
183	LWP	20714	L		91. 6.29	19:50: 0	48437.3281	0.40	7.39	0.13	0.13	804	E=80,C=45,B=32
184	SWP	41959	L	*	91. 6.29	19:55: 0	48437.3281	52.00	7.39	0.13	0.13	804	E=160,C=45,B=22


II Peg – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

IM Peg

alternative names:	HD 216489, SAO 108231, HR 8703, BD+16 4831
coordinates (2000.0):	$22^h53^m02.3^s$, $16°50'28''$
linear ephemeris:	
Min I = HJD 2422243.316 + 24.65 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.0937
radii [$R_\odot$]:	$/\geq 12$
spectral type:	K2III-II
distance [pc]:	50
activity parameters:	
P_{phot} [days]:	24.39
ΔV [mag]:	0.24
x-ray luminosity [10^{31} erg/s]:	0.5-2.7
Mg II index:	1.941
Ca II index:	class A
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	2-9
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.38\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$3.57\ 10^{-13}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$7.44\ 10^{-13}$]
U-B:	0.90
B-V:	1.12
V:	5.60
V-R:	0.90
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	2.83
IRAS [25]:	0.66

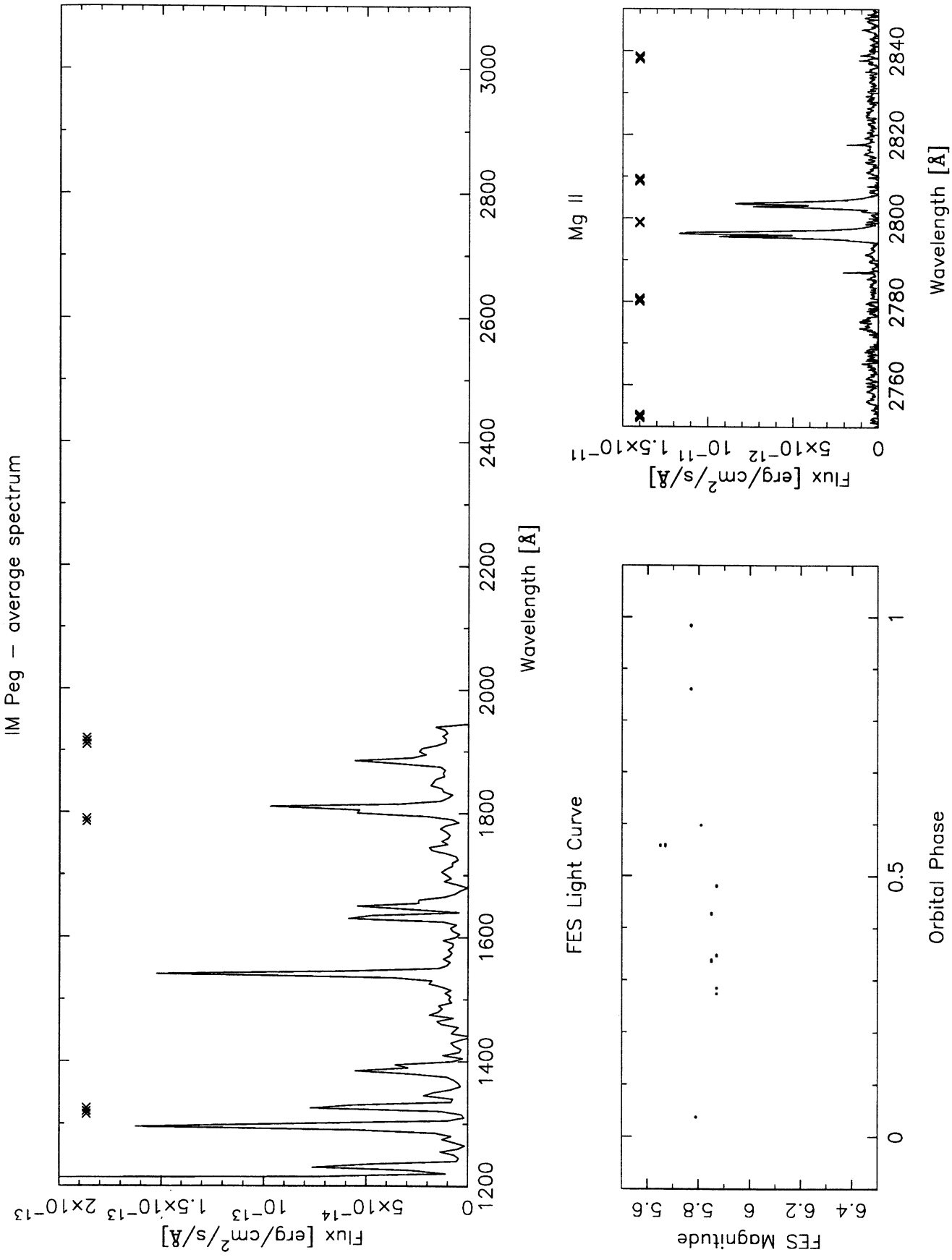
additional references:

Huenemoerder D.P., Ramsey L.W. and Buzasi D.L.: 1990, *Astrophys. J.* **350**, 763-766, *Coordinated optical and ultraviolet observations of IM Pegasi*

Buzasi D.L., Ramsey L.W. and Huenemoerder D.P.: 1987, *Astrophys. J.* **322**, 353-359, *A flare event on the long-period RS Canum Venaticorum system IM Pegasi*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	9680	H		81. 1.10	2:28: 0	44614.6016	15.00	5.67	0.56	0.56	907	E=136,C=90,B=30
2	SWP	11013	L		81. 1.10	2:56: 0	44614.6211	60.00	5.65	0.56	0.56	907	E=210,C=80,B=53
3	LWR	9681	H	*	81. 1.10	4: 1: 0	44614.6680	30.00	5.67	0.56	0.56	907	E=202,C=100,B=37
4	SWP	26334	L		85. 7. 2	11:13: 0	46248.9688	50.00	5.77	0.86	0.86	973	E=84,C=58,B=41
5	SWP	26349	L		85. 7. 5	11:38: 0	46251.9844	65.00	5.77	0.98	0.98	973	E=209,C=140,B=43
6	SWP	26403	L		85. 7.12	15:54: 0	46259.1641	25.00	5.87	0.27	0.27	974	E=184,B=130
7	SWP	26423	L		85. 7.16	10:32: 0	46262.9375	50.00	5.85	0.43	0.43	974	E=154,B=105
8	SWP	26449	L		85. 7.20	15:38: 0	46267.1523	20.00	5.81	0.60	0.60	974	E=178,B=136
9	SWP	26507	L	*	85. 7.31	11:26: 0	46277.9766	50.00	5.79	0.04	0.04	975	E=105,C=47,B=25
10	SWP	26562	L		85. 8. 6	13:42: 0	46284.0703	30.00	5.87	0.28	0.29	975	E=196,B=155
11	SWP	26589	L	*	85. 8.11	9:36: 0	46288.8984	60.00	5.87	0.48	0.49	975	E=158,C=65,B=38
12	SWP	28400	L	*	86. 5.30	15:30: 0	46581.1445	120.00	5.85	0.34	0.34	987	E=242,C=79,B=40
13	SWP	28403	L		86. 5.30	21:44: 0	46581.4063	65.00	5.87	0.35	0.35	987	E=172,C=61,B=21


IM Peg – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

KU Peg

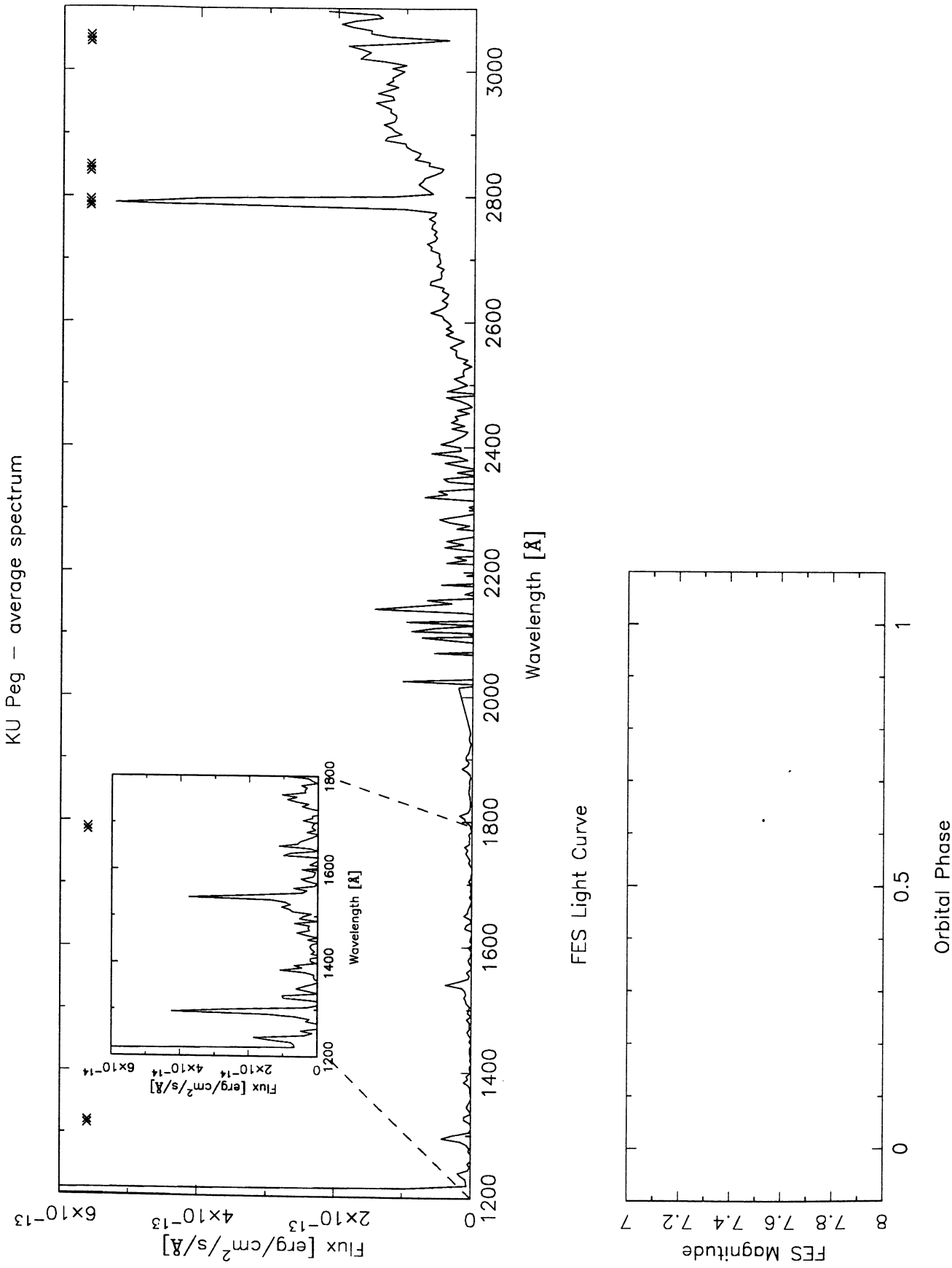
alternative names:	HD 218153, SAO 91000, BD+25 4870
coordinates (2000.0):	$23^h05^m29.3^s$, $26°00'33''$
linear ephemeris:	
Min I = HJD 2447175. + 1411. E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.39
masses [$M_\odot$]:	f(m)=0.0018
radii [$R_\odot$]:	$\geq$12
spectral type:	G8II
distance [pc]:	950
activity parameters:	
P_{phot} [days]:	$\approx$22.
ΔV [mag]:	0.07
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	[2.363]
Ca II index:	strong
$H\alpha$ emission:	
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.06 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.87 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.22 10^{-13}]
U-B:	
B-V:	1.12
V:	7.9
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Renan de Medeiros J., Mayor M. and Simon T.: 1992, *Astron. Astrophys.* **254**, L36-L38, *An extremely active giant star : HD 218153*

IUE spectra: (not available)

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWP	18107	L	*	90. 6.15	14: 0: 0	48058.0820	7.00	7.53	0.63	0.63	0	E=1.5X,C=99,B=35
2	SWP	39094	L	*	90. 6.15	14:15: 0	48058.0938	180.00	7.53	0.63	0.63	0	E=112,C=57,B=40


KU Peg – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

LX Per

alternative names:	SAO 38651, BD+47 781
coordinates (2000.0):	$03^h13^m22.4^s$, 48°06′31″
linear ephemeris:	Min I = HJD 2427033.120 + 8.038207 E, variable:
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.24/1.32
radii [$R_\odot$]:	1.64/3.05
spectral type:	G0IV/K0IV
distance [pc]:	130
activity parameters:	
P_{phot} [days]:	7.905
ΔV [mag]:	0.08
x-ray luminosity [10^{31} erg/s]:	0.589
Mg II index:	[0.589]
Ca II index:	weak, cool
$H\alpha$ emission:	absorption
radio flux density [mJy]:	0.47
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.55\ 10^{-16}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.91\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.43\ 10^{-13}$
U-B:	0.01/0.62
B-V:	0.56/0.94
V:	8.14
V-R:	0.70/0.50
R-I:	
b-y:	0.488
m_1:	0.233
c_1:	0.337
β:	2.558
IRAS [12]:	
IRAS [25]:	

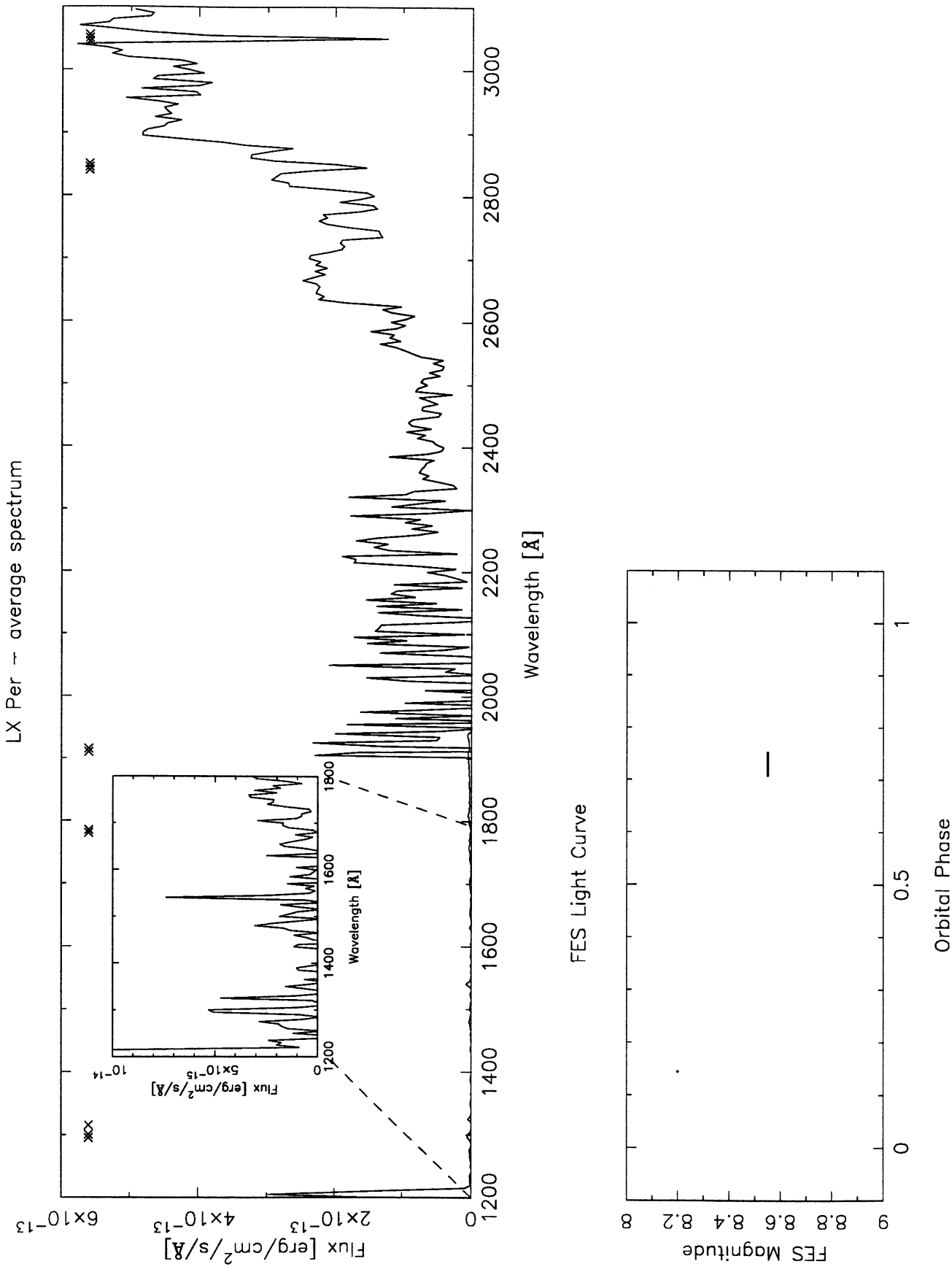
additional references:

Popper D.M.: 1988, *Astron. J.* **96**, 1040-1055, erratum *Astron. J.* **99**, 735, *Orbits of close binaries with Ca II and K in emission. II. Rediscussion of six systems with previously published orbits*

Tumer O., Ibanoglu C., Evren S. and Tunca Z.: 1985, *Astrophys. Space Sci.* **112**, 273-286, *Photoelectric photometry and photometric elements of LX Persei*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	LWR	11556	L		81. 9.15	12:27: 0	44863.0195	6.00	8.20	0.14	0.15	2218	C=160,B=25
2	SWP	29549	L	*	86.10.28	22: 8: 0	46732.4219	500.00	8.55	0.71	0.75	2450	E=97,C=117,B=67
3	LWP	9430	L	*	86.10.29	0:21: 0	46732.5156	7.00	8.49	0.72	0.72	2450	C=200,B=38


LX Per - average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

BC Phe

alternative names:	HD 8435, SAO 232399, CD-57 268
coordinates (2000.0):	$01^h22^m21.6^s$, $-56°43'52''$
linear ephemeris:	
Min I = HJD 2444000.318 + 0.65690 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.0056
radii [$R_\odot$]:	
spectral type:	G6-8IV-IIIe
distance [pc]:	100
activity parameters:	
P_{phot} [days]:	0.657
ΔV [mag]:	0.07
x-ray luminosity [10^{31} erg/s]:	<0.296
Mg II index:	
Ca II index:	moderate
$H\alpha$ emission:	possible emission
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.80\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	
B-V:	0.7:
V:	8.66
V-R:	
R-I:	
b-y:	0.495
m_1:	0.264
c_1:	0.301
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Cameron A.C.: 1987, *South Afr. Astron. Obs. Circ.* **11**, 13-19, *Radial velocities of calcium emission stars. 2. Observations at Mt Stromlo and Siding Spring Observatories and at Mt John University Observatory*

Evans T.L. and Koen M.C.J.: 1987, *South Afr. Astron. Obs. Circ* **11**, 21-56, *UBV(RI)c photometry for CAII emission stars. I. Observations at Sutherland*

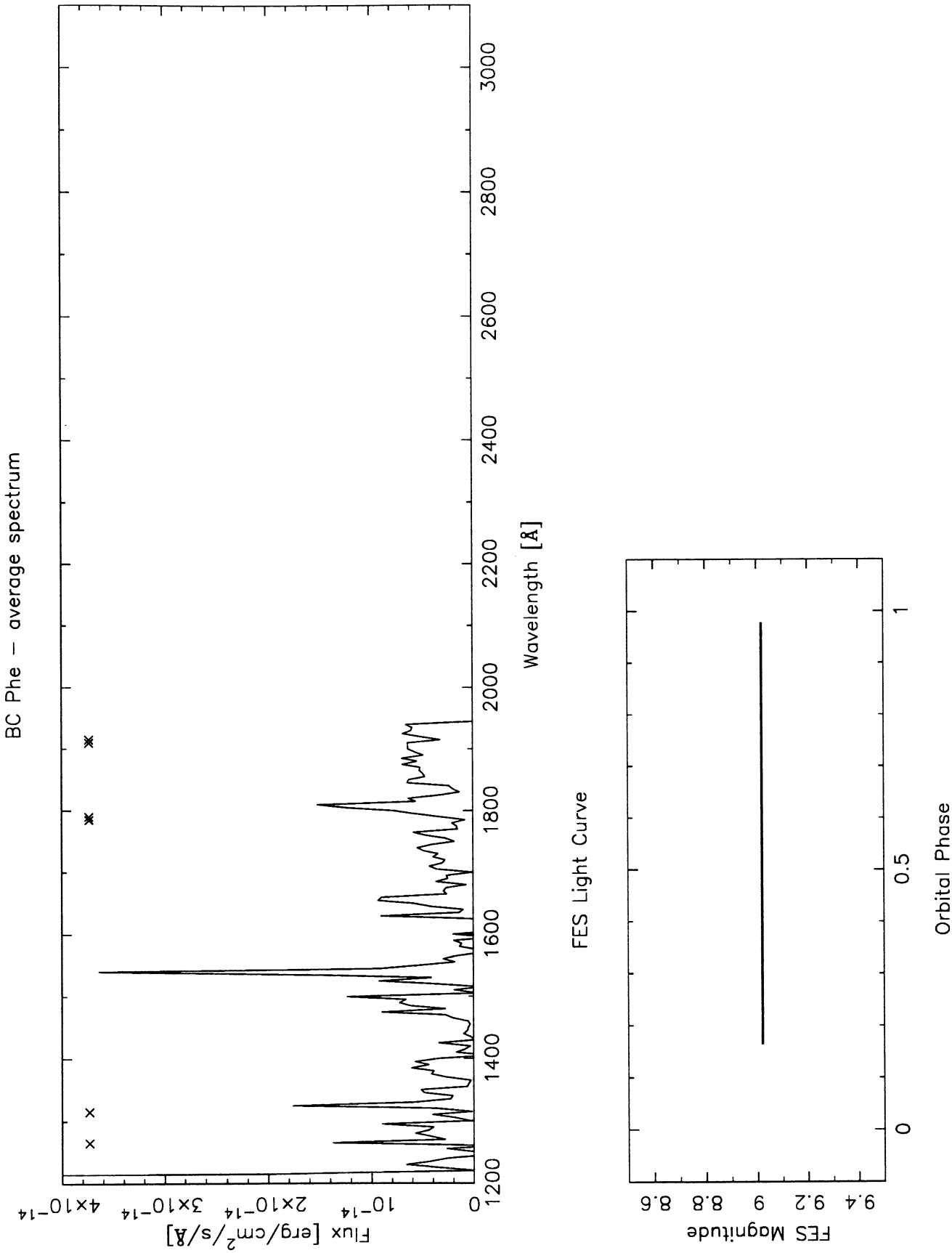
Cameron A.C.: 1987, *South Afr. Astron. Obs. Circ.* **11**, 57-71, *UBV(RI)c photometry for CAII emission stars. 2. Observations at Mt JohnUniversity Observatory and at Mt Stromlo*

Lloyd Evans T. : 1986, *South Afr. Astron. Obs. Circ.* **10**, 11-16, *Radial velocities of Ca II emission stars : photographic data*

Kholopov P.N., Samus N. N., Kazarovets E.V. and Perova N.B.: 1985, *IAU Inform. Bull. Var. Stars* **2681**, 1-32, *The 67th name list of variable stars*

IUE spectra:

no.	cam.	image	dis	av.	date	start hhmmss	start JD	t_{int} [min]	m_{FES}	ϕ_{orb} start	ϕ_{orb} end	cycles since T_o	quality
1	SWP	28854	L	*	86. 8. 7	1:53: 0	46649.5781	180.00	9.02	0.98	0.17	4032	E=142,C=75,B=51


BC Phe – average spectrum
Flux [erg/cm²/s/Å]
0
10⁻¹⁴
2×10⁻¹⁴
3×10⁻¹⁴
4×10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
9.4
9.2
9
8.8
8.6
0
0.5
1
Orbital Phase