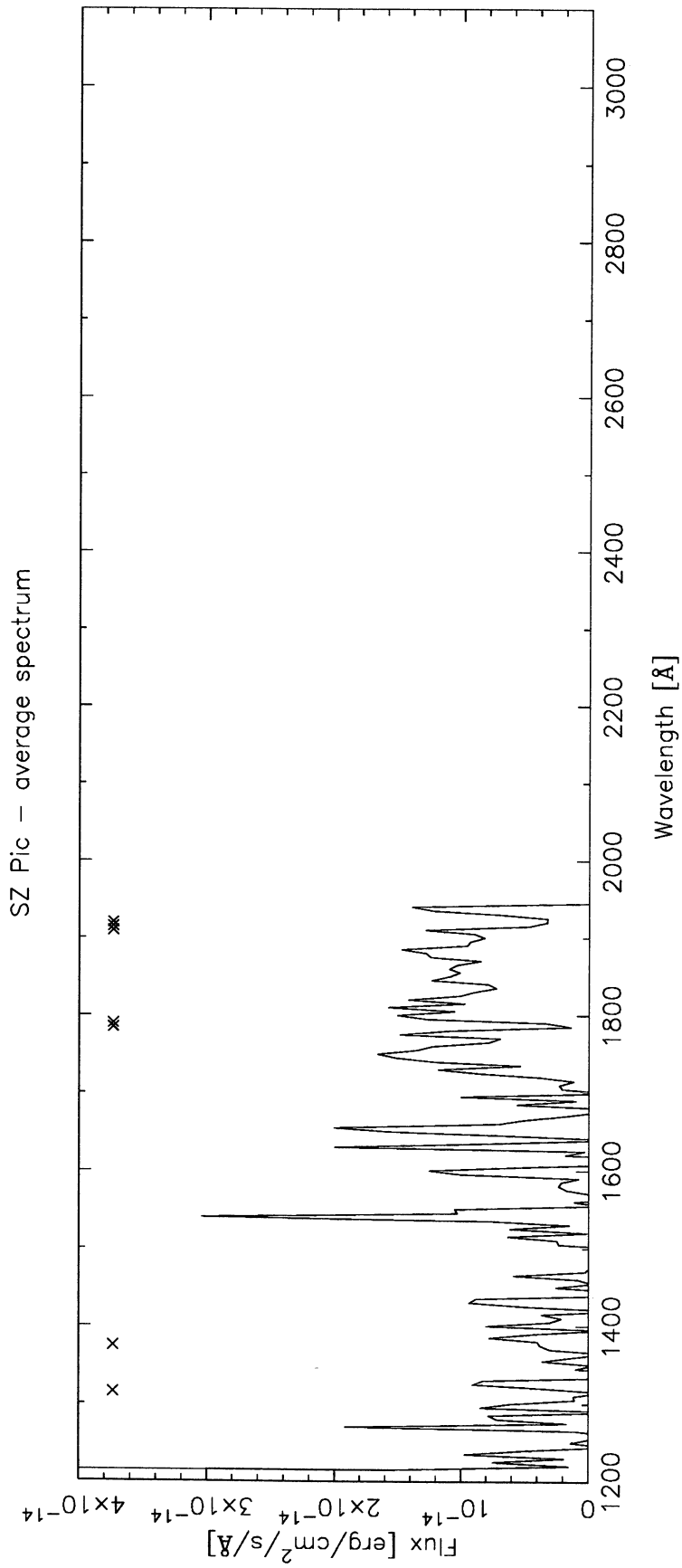
TABLES

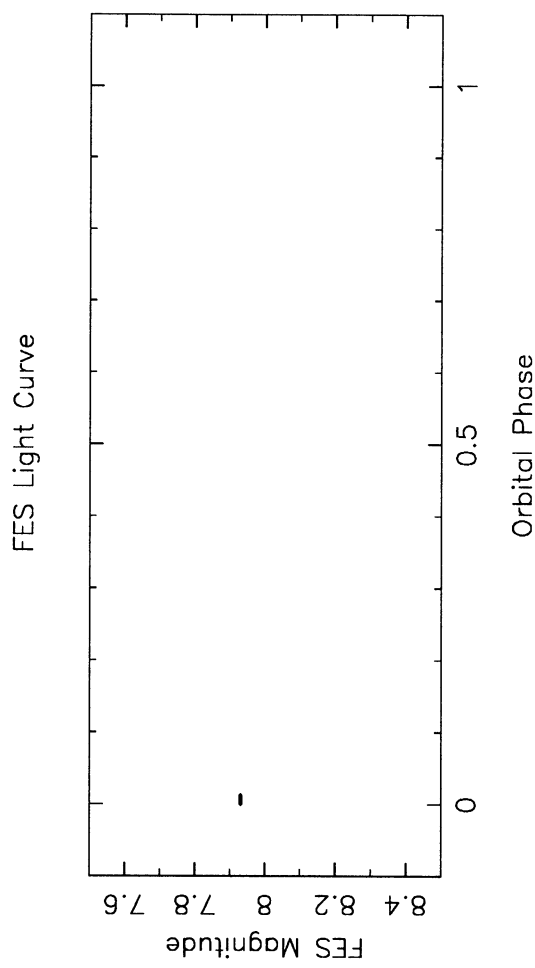
SZ Pic

alternative names:	HD 39917, SAO 217600, CD-43 2114
coordinates (2000.0):	$05^h53^m27.2^s$, $-43°33'30''$
linear ephemeris:	
Min I = HJD ? + 4.96 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	
masses [$M_\odot$]:	
radii [$R_\odot$]:	
spectral type:	G8V
distance [pc]:	30
activity parameters:	
P_{phot} [days]:	4.882
ΔV [mag]:	0.15
x-ray luminosity [10^{31} erg/s]:	0.033
Mg II index:	
Ca II index:	strong, both
$H\alpha$ emission:	
radio flux density [mJy]:	0.37
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.59\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	1.80
B-V:	0.81
V:	7.9
V-R:	
R-I:	
b-y:	0.514
m_1:	0.236
c_1:	0.310
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	SWP	28793	L	*	86. 7.31	7:40: 0	46642.8203	90.00	7.93	[0.00]	[0.01]	[0]	E=64,C=90,B=55


SZ Pic – average spectrum
Flux [erg/cm²/s/Å]
0
10⁻¹⁴
2x10⁻¹⁴
3x10⁻¹⁴
4x10⁻¹⁴
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

TY Pic

alternative names:	HD 42504, SAO 234330, CD-54 1329
coordinates (2000.0):	$06^h07^m56.8^s$, $-54°26'22''$

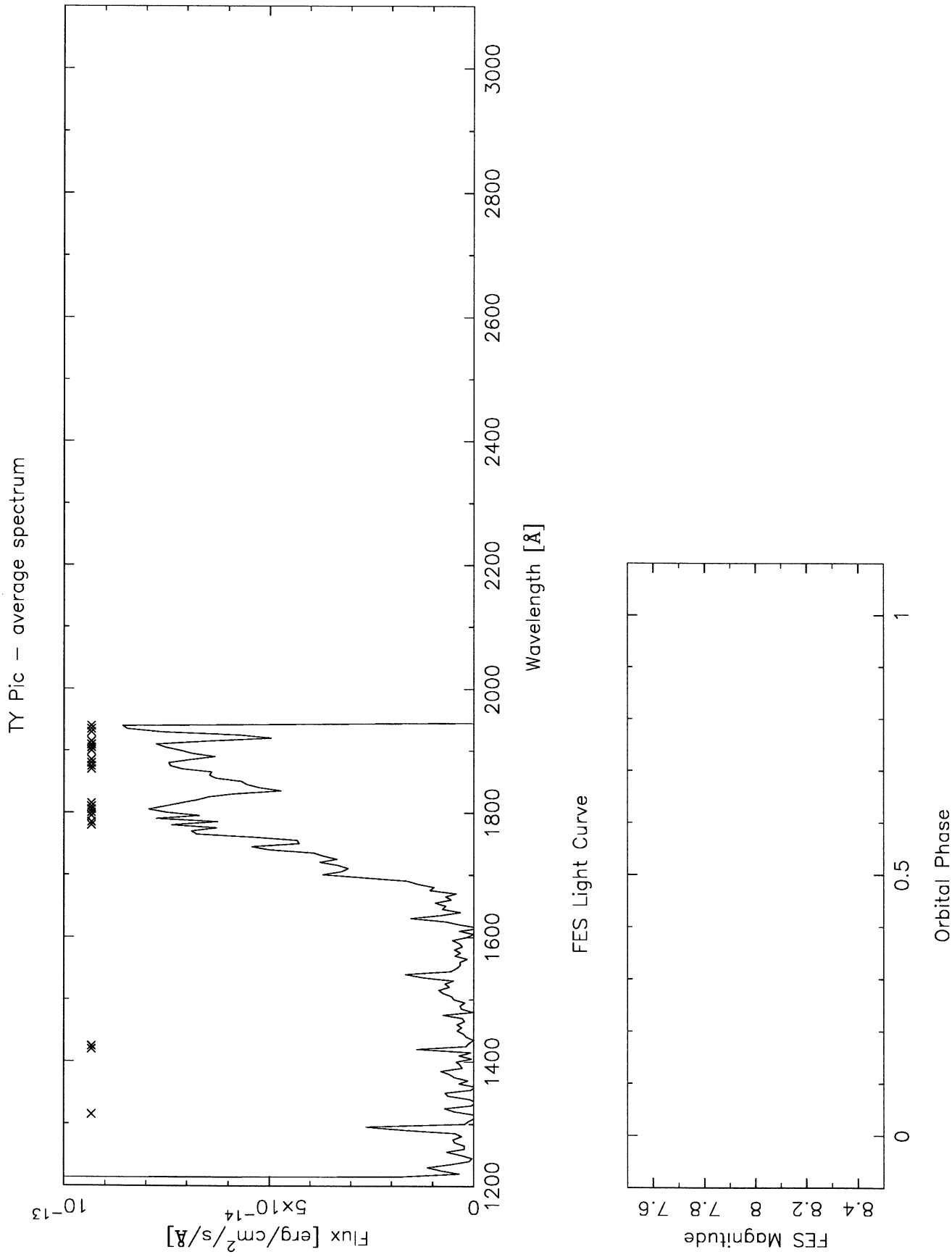
linear ephemeris:

Min I = HJD 2444238.787 + 106.74 E

system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.32
masses [$M_\odot$]	f(m)=0.265
radii [$R_\odot$]:	
spectral type:	F/G8-K0III
distance [pc]:	110
activity parameters:	
P_{phot} [days]:	43.76
ΔV [mag]:	0.05
x-ray luminosity [10^{31} erg/s]:	0.251
Mg II index:	
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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.50\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.67
B-V:	1.02
V:	7.61
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	0.43
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	30977	L	*	87. 5.15	7:59: 0	46930.8320	210.00	7.90	0.22	0.22	25	E=103,C=2X,B=60


TY Pic – 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
8.4
8.2
8
7.8
7.6
0
0.5
1
Orbital Phase

SZ Psc

alternative names:	HD 219113, SAO 128041, BD+01 4695
coordinates (2000.0):	$23^h13^m23.8^s$, $02°40'32''$
linear ephemeris:	
Min I = HJD 2442308.946 + 3.965866 E, variable	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.28/1.62
radii [$R_\odot$]:	1.50/5.1
spectral type:	F8IV/K1IV
distance [pc]:	125
activity parameters:	
P_{phot} [days]:	3.955
ΔV [mag]:	0.213
x-ray luminosity [10^{31} erg/s]:	2.01
Mg II index:	0.751
Ca II index:	strong, cool
$H\alpha$ emission:	weak emission
radio flux density [mJy]:	110
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.35\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$4.16\ 10^{-13}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$8.23\ 10^{-13}$]
U-B:	0.00/0.65
B-V:	0.44/1.00
V:	7.2
V-R:	0.70
R-I:	0.35
b-y:	0.538
m_1:	0.253
c_1:	0.278
β:	2.573
IRAS [12]:	0.50
IRAS [25]:	<0.26

additional references:

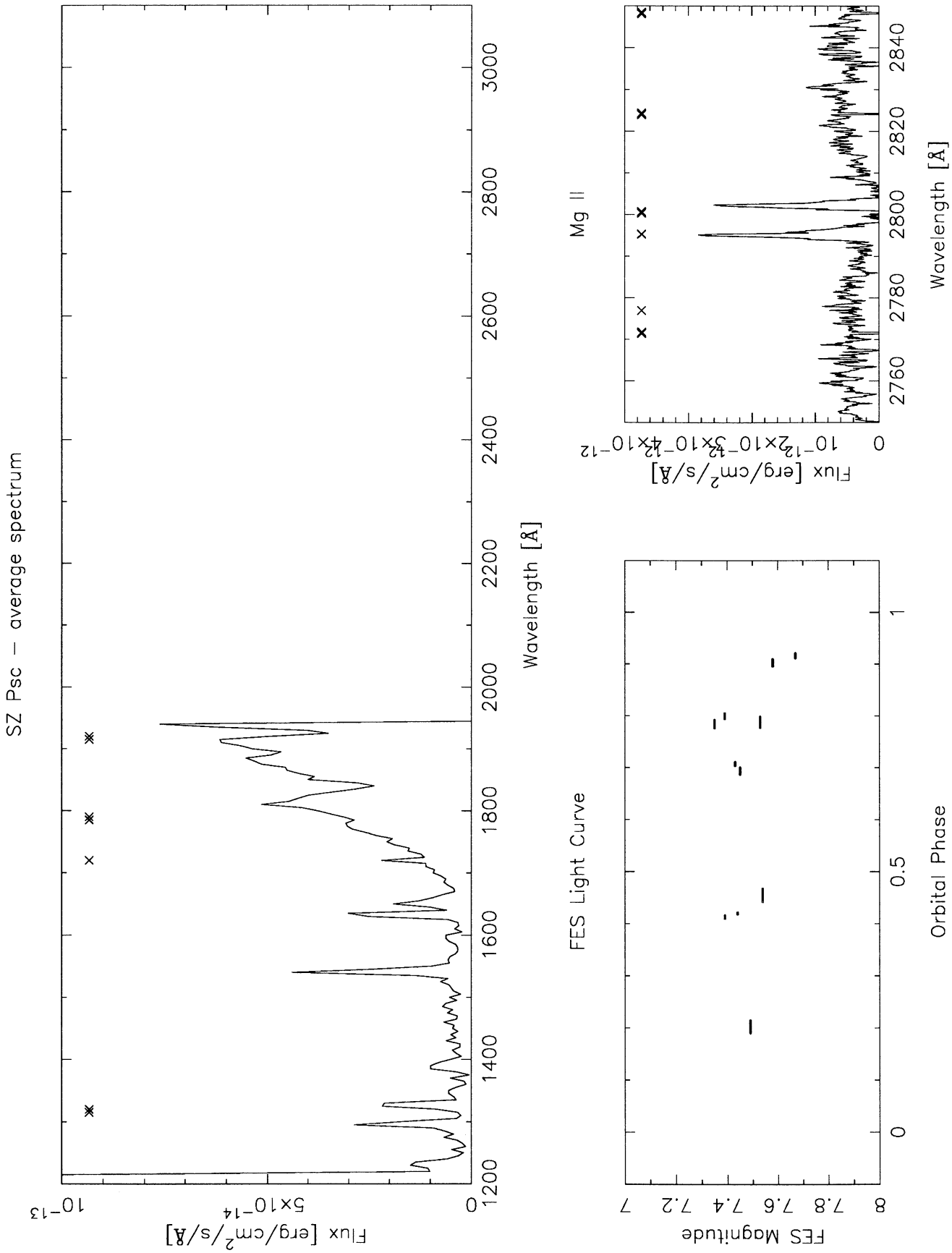
Danezis E., Antonopoulou E. and Theodossiou E.: 1992, *Astrophys. Space Sci.* **187**, 307, *The UV spectrum of the binary system SZ Psc*

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*

Antonopoulou E. and Williams P.M.: 1984, *Astron. Astrophys.* **135**, 61-65, *Infrared photometry of the RS CVn binaries. IV. SZ Piscium.*

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	9679	H		81. 1.10	0:58: 0	44614.5391	35.00	7.39	0.41	0.42	281	E=88,C=100,B=40
2	SWP	11012	L		81. 1.10	1:40: 0	44614.5703	24.98	7.44	0.42	0.42	281	E=94,C=80,B=40
3	SWP	22958	L	*	84. 5. 9	1:12:53	45829.5508	120.00	7.53	0.78	0.80	587	431
4	SWP	39323	L		90. 7.29	11:44: 0	48101.9883	90.00	7.35	0.78	0.79	1160	E=123,C=147,B=40
5	LWP	18466	H	*	90. 7.29	13:24: 0	48102.0586	60.00	7.39	0.79	0.81	1160	E=175,C=130,B=92
6	SWP	42137	L	*	91. 7.28	23:50:40	48466.4922	80.00	7.45	0.69	0.70	1252	332
7	LWP	20902	H		91. 7.29	1:23: 7	48466.5586	44.00	7.43	0.70	0.71	1252	333
8	SWP	42140	L		91. 7.29	19:43:18	48467.3203	80.00	7.58	0.90	0.91	1252	330
9	LWP	20908	H		91. 7.29	21:12:57	48467.3828	55.00	7.67	0.91	0.92	1252	331
10	SWP	42143	L	*	91. 7.30	23:43:29	48468.4883	80.00	7.49	0.19	0.20	1253	330
11	LWP	20914	H		91. 7.31	1: 9:39	48468.5469	58.00	7.49	0.21	0.22	1253	331
12	SWP	42146	L		91. 7.31	23:40:59	48469.4883	75.00	7.54	0.44	0.46	1253	330
13	LWP	20920	H		91. 8. 1	1: 3:17	48469.5430	64.00	7.54	0.46	0.47	1253	331


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

UV Psc

alternative names:	HD 7700, SAO 109778, BD+06 189
coordinates (2000.0):	$01^h16^m55.1^s$, $06°48'42''$
linear ephemeris:	
Min I = HJD 2444932.2985 + 0.861048 E, variable	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.22/0.87
radii [$R_\odot$]:	1.21/0.91
spectral type:	G4-6V/K0-2V
distance [pc]:	125
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	0.04
x-ray luminosity [10^{31} erg/s]:	1.17
Mg II index:	[0.707]
Ca II index:	both
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	0.89
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	9.92 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.07 10^{-13}
U-B:	0.20/0.74
B-V:	0.72/0.89
V:	8.99
V-R:	
R-I:	
b-y:	0.460
m_1:	0.229
c_1:	0.291
β:	2.573
IRAS [12]:	
IRAS [25]:	

additional references:

Jassur D.M.Z. and Kermani M.H.: 1993, *IAU Inform. Bull. Var. Stars* **3896**, 1, *UBV photoelectric observations of UV Piscium*

Popper D.M.: 1991, *Astron. J.* **102**, 699, *Orbits of close binaries with Ca II H and K in emission. V. The main-sequence system UV Piscium*

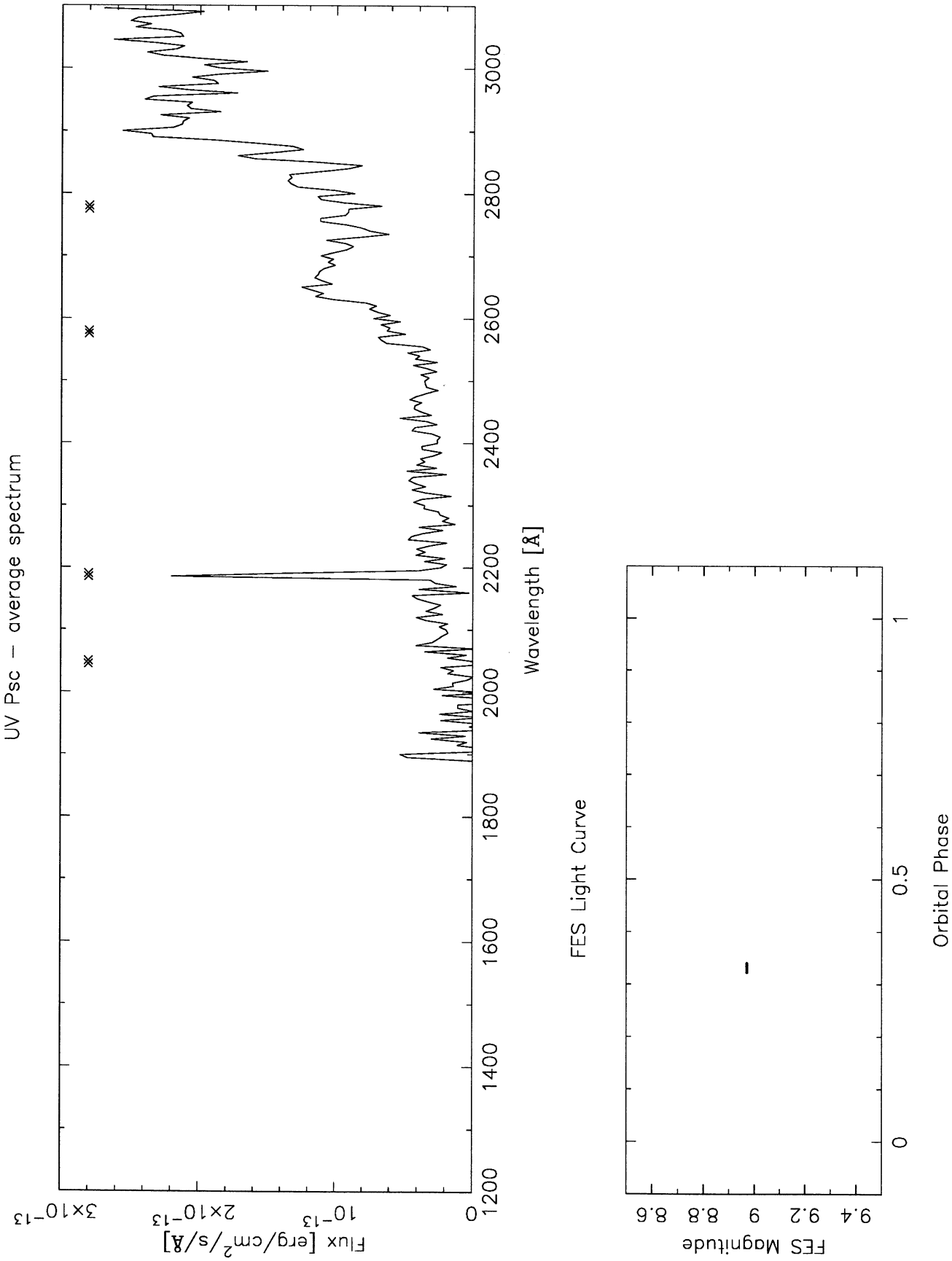
Akan A.C.: 1988, *Astrophys. Space Sci. 143*, 367-376, *Two-colour photoelectric photometry of UV Piscium and Fourier analysis of its out-of-eclipse light variations*

Antonopoulou E.: 1987, *Astrophys. Space Sci.* **135**, 335-345, *Infrared photometry of UV Piscium*

Ibanoglu C.: 1987, *Astrophys. Space Sci.* **139**, 139-147, *The light curve variations in UV Piscium*

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	13608	L	*	82. 7. 5	2: 1: 0	45155.5859	25.00	8.97	0.32	0.34	259	502


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

AP Psc

alternative names:	HD 352, SAO 128602, HR 14, BD-03 3, 5 Cet
coordinates (2000.0):	$00^h08^m12^s$, $-02°26'52''$
linear ephemeris:	
Min I = HJD 2420018.329 + 96.439 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.04
masses [$M_\odot$]:	≈0.81/≈0.086
radii [$R_\odot$]:	
spectral type:	≈F/K1III
distance [pc]:	140
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	<0.014
Mg II index:	[1.56], 1.497
Ca II index:	strong, cool
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.54\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.70\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.02\ 10^{-13}$
U-B:	1.14
B-V:	1.38
V:	6.07
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	3.90
IRAS [25]:	1.15

additional references:

Li Z.-Y. and Ding Y.-R.: 1991, *Acta Astron. Sinica* **32**, 318-325, *The variation of ultraviolet continuum of 5 Cet and its interpretation*

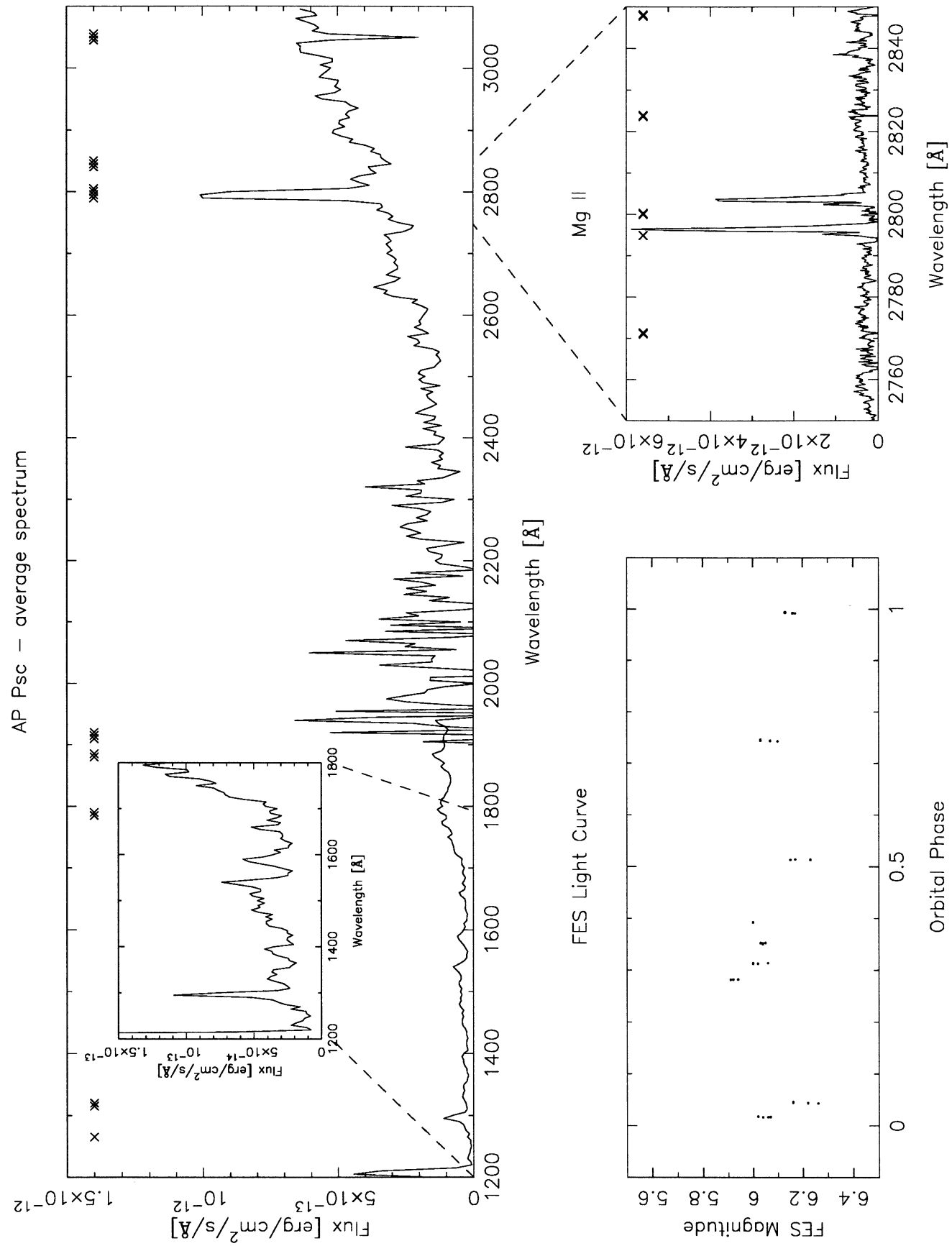
Eaton J.A. and Barden S.C.: 1988, *Acta Astron.* **38**, 353-374, *The long-period semi-detached giant binary system 5 Ceti*

Li Z.-Y., Leung K.-C. and Ding Y.-R.: 1988, *Acta Astron. Sinica* **29**, 374-379, *Long-period contact or semidetached systems : 5 Ceti, CoD -30 5135 and HD 104901B*

Eaton J.A. and Barden S.C.: 1986, *IAU Inform. Bull. Var. Stars* **2952**, 1-4, *The rotational velocity and mass ratio of 5 Ceti*

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	10659	L		81. 5.20	1:41: 0	44744.5703	10.00	6.00	0.39	0.39	256	601
2	SWP	14000	L		81. 5.20	2: 2: 0	44744.5859	60.00	6.00	0.39	0.39	256	541
3	LWP	3573	L	*	84. 6.14	1:44:57	45865.5742	6.00	6.04	0.02	0.02	268	562
4	SWP	23261	L	*	84. 6.14	2: 6:56	45865.5898	70.00	6.06	0.02	0.02	268	532
5	LWP	3574	L		84. 6.14	3:25:14	45865.6406	18.00	6.07	0.02	0.02	268	802
6	LWP	3575	H		84. 6.14	4:17: 5	45865.6797	30.00	6.02	0.02	0.02	268	232
7	LWP	3905	L		84. 7.31	23:54:15	45913.4961	4.00	6.15	0.51	0.51	268	460
8	SWP	23567	L	*	84. 8. 1	0: 5:46	45913.5039	70.00	6.23	0.51	0.51	268	530
9	LWP	3906	H		84. 8. 1	1:22:38	45913.5586	46.00	6.17	0.51	0.51	268	241
10	LWP	5224	L	*	85. 1.18	12:18:33	46084.0117	4.00	5.91	0.28	0.28	270	452
11	SWP	24923	L		85. 1.18	12:33:50	46084.0234	90.00	5.92	0.28	0.28	270	531
12	LWP	5225	H	*	85. 1.18	14:10:22	46084.0898	40.00	5.94	0.28	0.28	270	342
13	LWP	6555	L		85. 8. 2	9:57: 0	46279.9141	6.00	6.02	0.31	0.31	272	E=3X,C=196,B=38
14	SWP	26528	L	*	85. 8. 2	10:10: 0	46279.9219	90.00	6.00	0.31	0.31	272	E=136,C=255,B=81
15	LWP	6556	L	*	85. 8. 2	11:43: 0	46279.9883	2.00	6.06	0.31	0.31	272	E=209,C=112,B=35
16	LWP	6588	H		85. 8. 6	1:22: 0	46283.5586	240.00	6.04	0.35	0.35	272	E=3X,C=180,B=71
17	SWP	26559	L	*	85. 8. 6	5:27: 0	46283.7266	90.00	6.03	0.35	0.35	272	E=154,C=220,B=42
18	LWP	6589	L		85. 8. 6	7: 2: 0	46283.7930	6.00	6.05	0.35	0.35	272	E=3X,C=200,B=40
19	LWP	6589	L		85. 8. 6	7: 2: 0	46283.7930	6.00	6.05	0.35	0.35	272	E=3X,C=200,B=40
20	LWP	8500	L		86. 6.29	5:49: 0	46610.7422	6.00	6.10	0.74	0.74	275	E=2X,C=180,B=35
21	SWP	28576	L	*	86. 6.29	6:43: 0	46610.7813	90.00	6.07	0.74	0.74	275	E=71,C=170,B=45
22	LWP	8501	H		86. 6.29	8:20: 0	46610.8477	270.00	6.03	0.74	0.75	275	E=3X,C=225,B=140
23	LWP	8693	L		86. 7.23	4: 8: 0	46634.6719	6.00	6.17	0.99	0.99	275	E=1.5X,C=157,B=35
24	SWP	28739	L	*	86. 7.23	4:34: 0	46634.6914	90.00	6.16	0.99	0.99	275	E=217,C=208,B=28
25	LWP	8694	H		86. 7.23	6:11: 0	46634.7578	275.00	6.13	0.99	0.99	275	E=5X,C=179,B=88
26	LWP	8747	L		86. 7.28	3:49: 0	46639.6602	6.00	6.26	0.04	0.04	276	E=3X,C=200,B=35
27	SWP	28761	L	*	86. 7.28	4:27: 0	46639.6836	90.00	6.22	0.04	0.04	276	C=220,B=40
28	LWP	8748	H		86. 7.28	6: 5: 0	46639.7539	285.00	6.16	0.04	0.05	276	E=5X,C=233,B=145


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

AR Psc

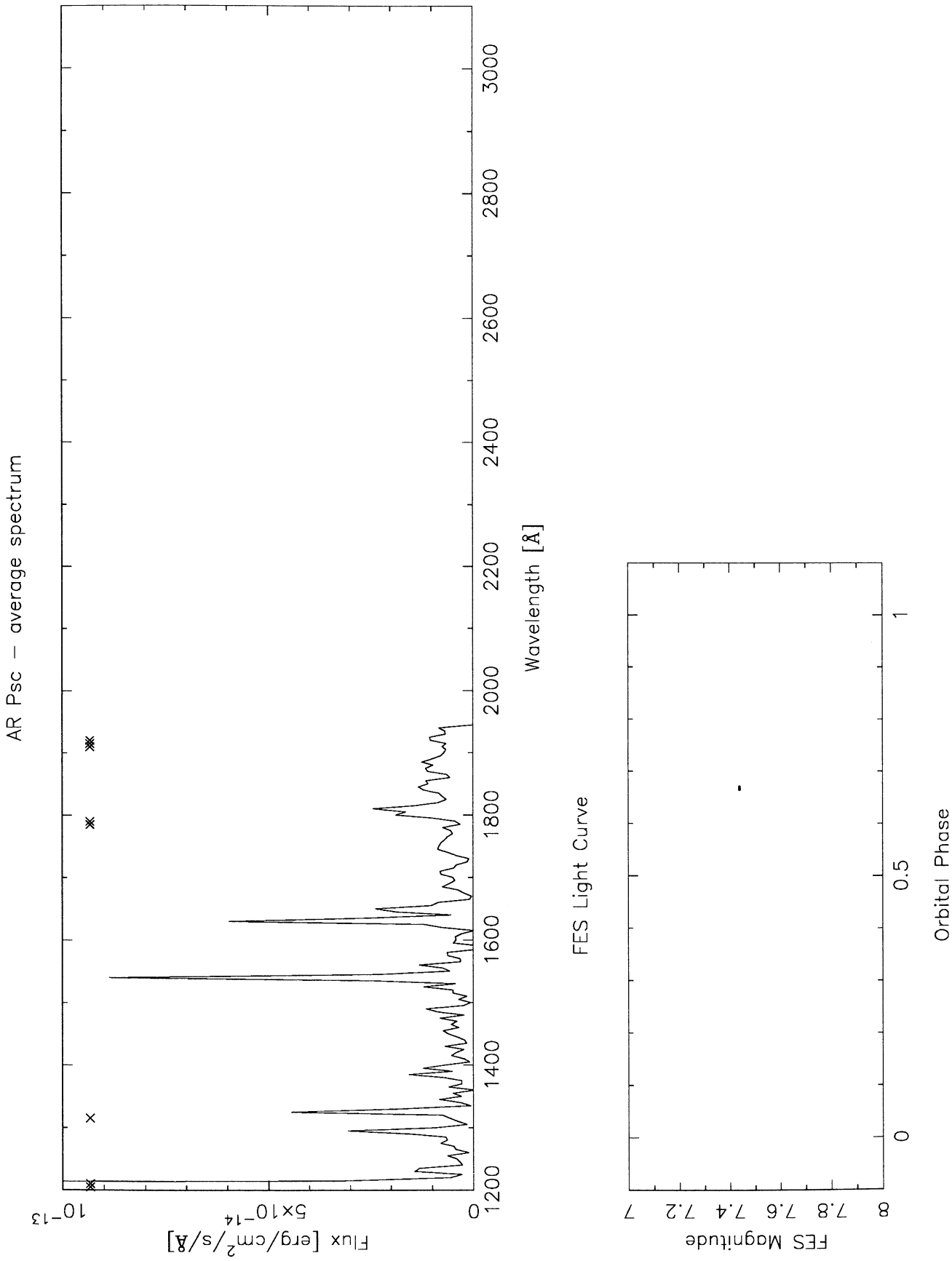
alternative names:	HD 8357, SAO 109841, BD+06 211
coordinates (2000.0):	$01^h22^m56.8^s$, 07°25′09″
linear ephemeris:	
Min I = HJD 2446078.642 + 14.300 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.19
masses [$M_\odot$]:	≥0.143/≥0.110
radii [$R_\odot$]:	/≥1.5
spectral type:	K2V/?
distance [pc]:	17
activity parameters:	
P_{phot} [days]:	12.245
ΔV [mag]:	0.18
x-ray luminosity [10^{31} erg/s]:	1.72
Mg II index:	
Ca II index:	class A
$H\alpha$ emission:	emission, variable
radio flux density [mJy]:	2.35
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	73±8
ROSAT 110-200Å [ct/ks]:	82±11
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.44\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	
B-V:	0.87
V:	7.24
V-R:	0.69
R-I:	
b-y:	0.533
m_1:	0.271
c_1:	0.260
β:	2.522
IRAS [12]:	0.63
IRAS [25]:	0.36

additional references:

Ambruster C., Snyder W.A. and Wood K.S.: 1984, *Astrophys. J.* **284**, 270-277, *Intense X-ray flares from active stellar systems : EV Lacertae and HD8357*

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	15225	L		81.10.10	13:30: 0	44888.0625	13.00	7.33	0.74	0.74	-83	
2	SWP	28524	L	*	86. 6.21	10:36: 0	46602.9414	130.00	7.44	0.66	0.67	36	E=128,C=67,B=44


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

AZ Psc

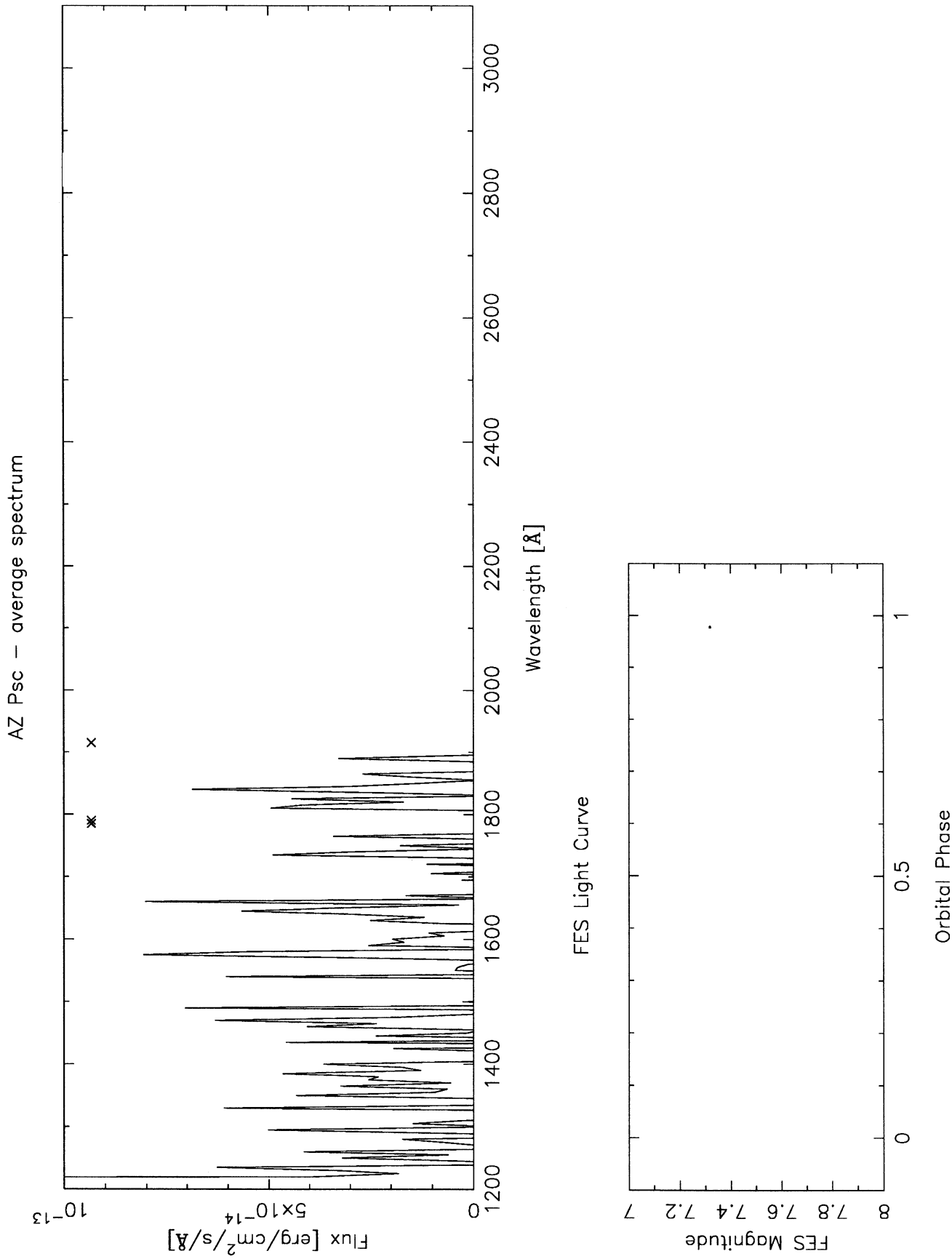
alternative names:	HD 217188, SAO 146421, BD-01 4364
coordinates (2000.0):	$22^h58^m52.7^s$, $00°18'58''$
linear ephemeris:	
Min I = HJD 2448622.544 + 47.121 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.50
masses [$M_\odot$]:	f(m)=0.0041
radii [$R_\odot$]:	$\geq$11
spectral type:	K0III
distance [pc]:	260
activity parameters:	
P_{phot} [days]:	91.2
ΔV [mag]:	0.18
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	
Ca II index:	class C
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.77\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	
B-V:	1.1
V:	7.3
V-R:	
R-I:	
b-y:	0.633
m_1:	0.389
c_1:	0.360
β:	
IRAS [12]:	0.52
IRAS [25]:	<0.61

additional references:

Boyd L.J., Genet R.M., Hall D.S. and Henry G.W.: 1985, *IAU Inform. Bull. Var. Stars* **2727**, 1-3, *HD 217188 : a long-period chromospherically active variable*

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	19946	L	*	83. 5. 9	21: 5: 0	45464.3789	25.00	7.32	0.98	0.98	-67	B=145


AZ Psc – average spectrum
Flux [erg/cm²/s/Å]
10⁻¹³
5×10⁻¹⁴
0
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

BC Psc

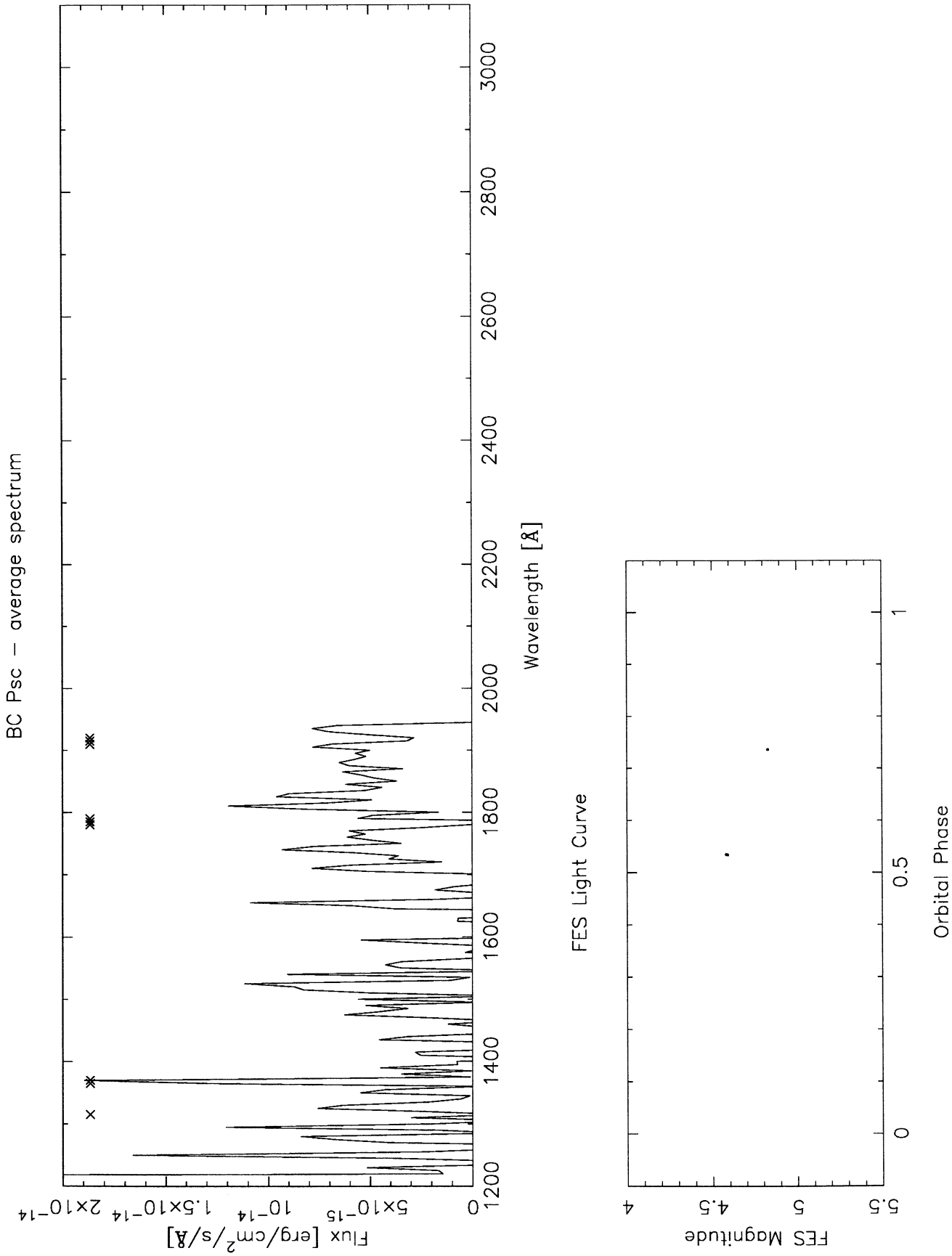
alternative names:	HD 28, SAO 128572, HR 3, BD-06 6357, 33 Psc
coordinates (2000.0):	$00^h05^m20.1^s$, $-05°42'27''$
linear ephemeris:	
Min I = HJD 2445069.0 + 72.93 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.27
masses [$M_\odot$]:	f(m)=0.030
radii [$R_\odot$]:	≈20
spectral type:	K0III
distance [pc]:	111
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	0.0046
Mg II index:	0.422
Ca II index:	very weak, I_K=2
$H\alpha$ emission:	absorption
radio flux density [mJy]:	<0.22
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.59\ 10^{-16}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$4.20\ 10^{-13}$]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[$2.22\ 10^{-12}$]
U-B:	0.89
B-V:	1.04
V:	4.61
V-R:	
R-I:	0.54
b-y:	0.625
m_1:	0.455
c_1:	0.364
β:	2.552
IRAS [12]:	≈1
IRAS [25]:	≈0

additional references:

Hall D.S.: 1990, *Astron. J.* **100**, 554, *Masses and radii for thirteen chromospherically active ellipsoidal variables*

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	9564	H	*	80.12.23	22: 4: 0	44597.4180	40.00	4.59	0.53	0.53	-6	E=111,C=140,B=32
2	SWP	10882	L	*	80.12.23	22:50: 0	44597.4531	120.00	4.58	0.53	0.54	-6	C=75,B=45
3	SWP	28401	L	*	86. 5.30	18:11: 0	46581.2578	60.00	4.83	0.74	0.74	20	C=58,B=45

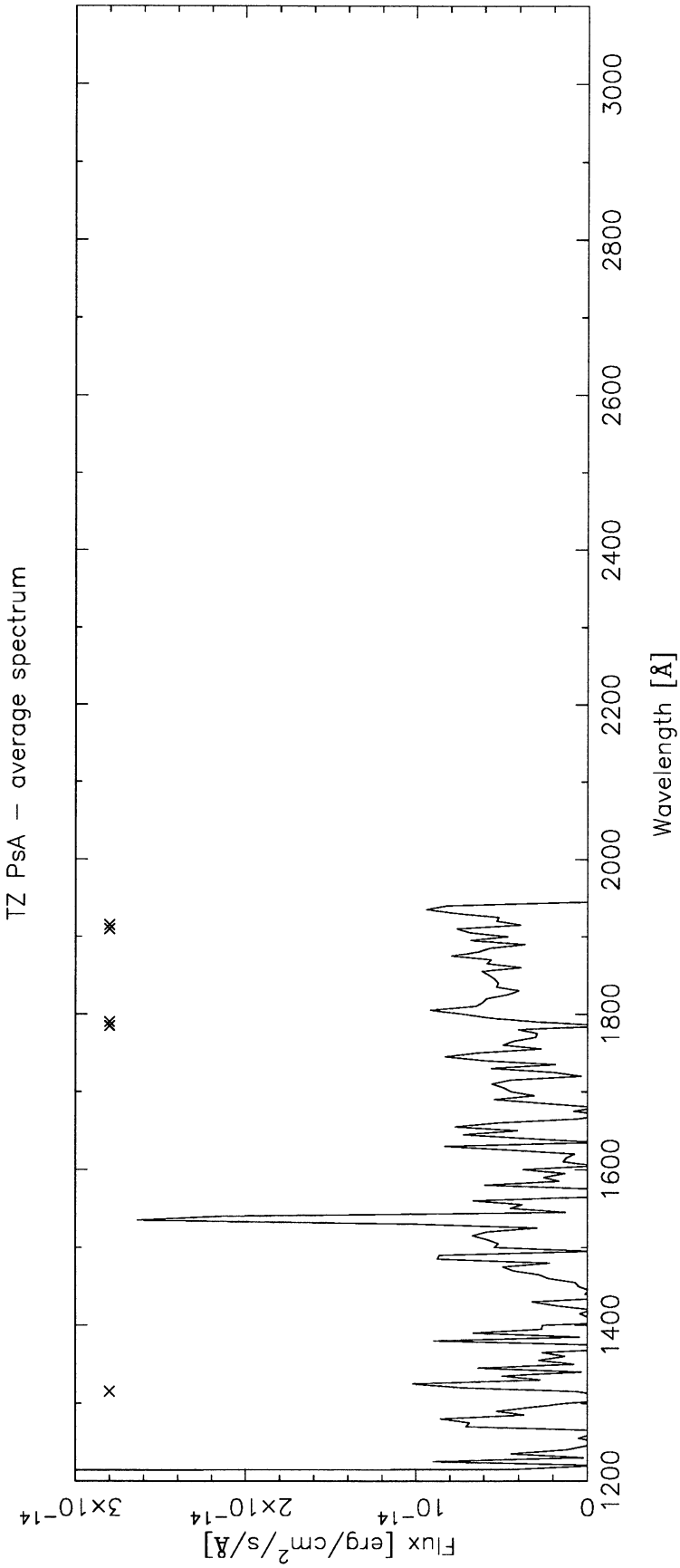

BC Psc – average spectrum
Flux [erg/cm²/s/Å]
0
5x10⁻¹⁵
10⁻¹⁴
1.5x10⁻¹⁴
2x10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
5.5
5
4.5
4
0
0.5
1
Orbital Phase

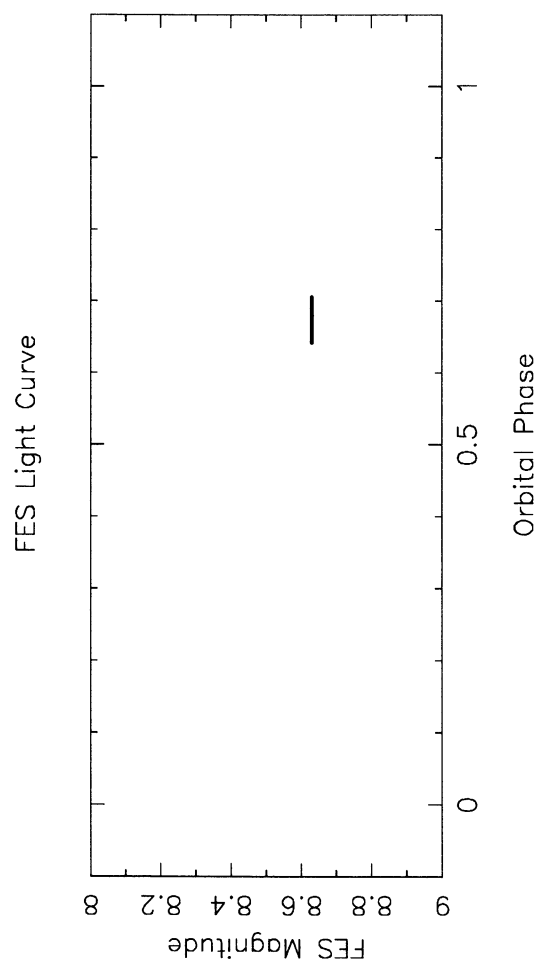
TZ PsA

alternative names:	HD 217344, CD-34 15853
coordinates (2000.0):	$23^h00^m27.7^s$, $-33°44'34''$
linear ephemeris:	
Min I = HJD 2444000.748 + 1.64250 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.054
radii [$R_\odot$]:	
spectral type:	G5Vp
distance [pc]:	46
activity parameters:	
P_{phot} [days]:	1.648
ΔV [mag]:	0.06
x-ray luminosity [10^{31} erg/s]:	0.043
Mg II index:	
Ca II index:	strong
$H\alpha$ emission:	
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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.65 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:	0.71
V:	8.42
V-R:	
R-I:	
b-y:	0.456
m_1:	0.220
c_1:	0.333
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	28812	L	*	86. 8. 2	1:59: 0	46644.5820	154.00	8.63	0.64	0.71	1609	E=79,C=82,B=60


TZ PsA – 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
8.2
8.4
8.6
8.8
9
0
0.5
1
Orbital Phase

TY Pyx

alternative names:	HD 77137, SAO 176805, CD-27 6141
coordinates (2000.0):	$08^h59^m42.5^s$, $-27°48'56''$
linear ephemeris:	
Min I = HJD 2443548.6659 + 3.198584 E	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.22/1.20
radii [$R_\odot$]:	1.59/1.68
spectral type:	G5IV/G5IV
distance [pc]:	55
activity parameters:	
P_{phot} [days]:	3.32
ΔV [mag]:	0.05
x-ray luminosity [10^{31} erg/s]:	0.463
Mg II index:	0.588
Ca II index:	both
$H\alpha$ emission:	absorption
radio flux density [mJy]:	1.28
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	28±5
ROSAT 110-200Å [ct/ks]:	34±8
EUVE 100Å [ct/s]:	0.044±0.008
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.78 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[5.76 10^{-13}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.46 10^{-12}]
U-B:	0.26
B-V:	0.72/0.76
V:	6.83
V-R:	0.55
R-I:	
b-y:	0.433
m_1:	0.229
c_1:	0.372
β:	2.603
IRAS [12]:	0.37
IRAS [25]:	<0.25

additional references:

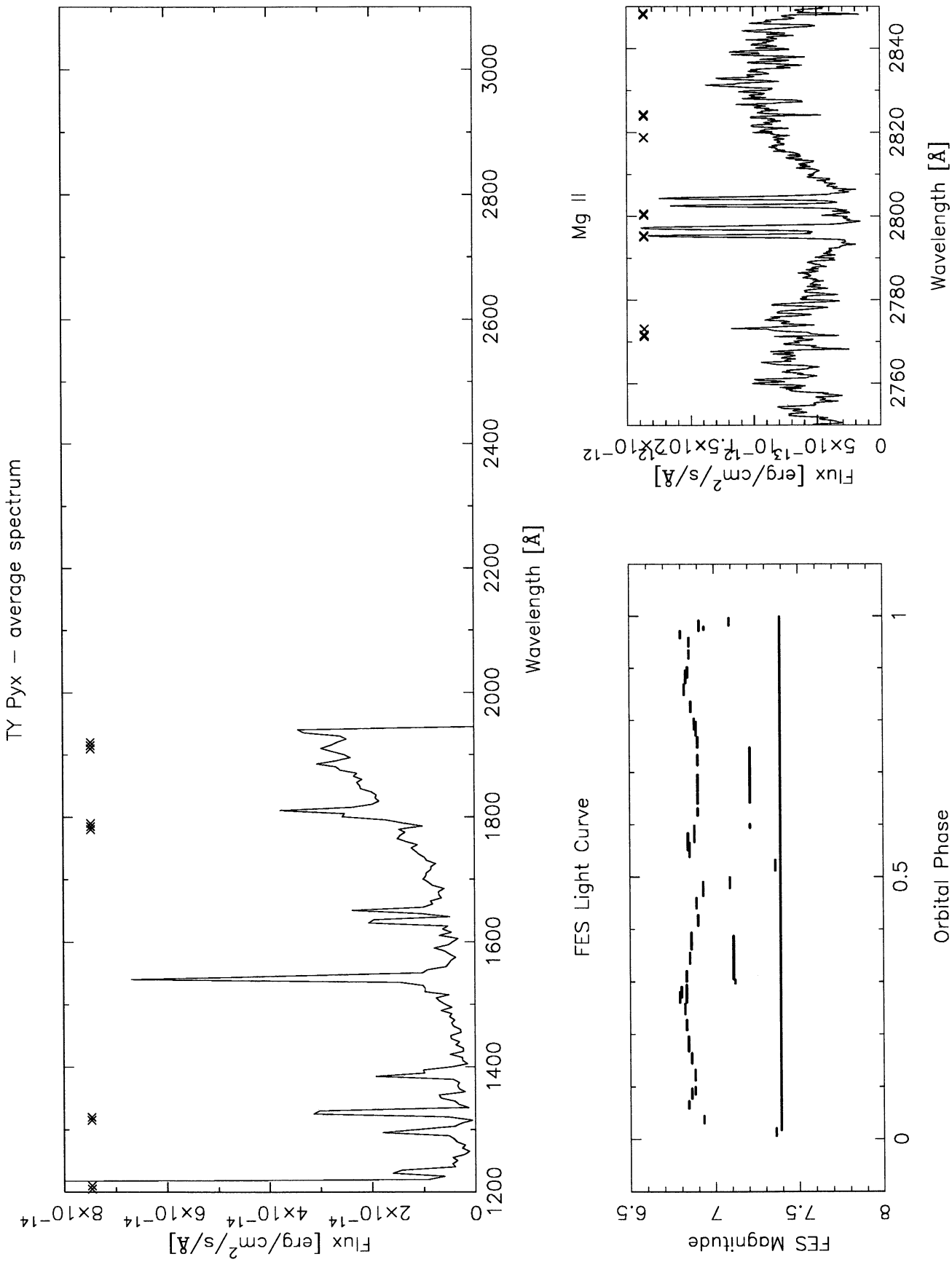
Allen W.H., Budding E., Loudon M. and Priestley J.: 1993, *IAU Inform. Bull. Var. Stars* **3838**, 1, *UBVR light curves of TY Pyxidis*

Culhane J.L., White N.E., Shafer R.A. and Parmar A.N.: 1990, *Mon. Not. R. Astron. Soc.* **243**, 424-430, *The X-ray orbital lightcurve of TY Pyx : a 3.2-day eclipsing RS CVn system*

Fernandez-Figueroa M.J., de Castro E. and Gimenez A.: 1985, *Astron. Astrophys., Suppl. Ser.* **60**, 5-8, *IUE observations of the RS CVn systems Z Her, TY Pyx and HD 155555*

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	9689	H		81. 1.11	0:20: 0	44615.5156	40.00	6.85	0.54	0.55	333	E=111,C=100,B=32
2	SWP	11018	L		81. 1.11	1:21: 0	44615.5547	150.00	6.84	0.55	0.58	333	E=270,C=160,B=60
3	SWP	19234	L	*	83. 2.10	9:21: 3	45375.8906	150.00	6.83	0.26	0.29	571	331
4	LWP	13347	H		88. 6. 2	19:10: 0	47315.2969	35.00	7.21	0.59	0.60	1177	E=93,C=105,B=48
5	LWP	13386	H		88. 6. 8	5:54: 0	47320.7461	30.00	7.12	0.30	0.30	1179	E=85,C=90,B=41
6	SWP	33723	H		88. 6. 8	6:30: 0	47320.7695	380.00	7.11	0.31	0.39	1179	E=78,C=125,B=83
7	SWP	35991	H		89. 4.12	9:59: 0	47628.9141	485.00	7.21	0.64	0.75	1275	E=112,C=205,B=137
8	LWP	19186	H		90.11.10	4: 3: 0	48205.6680	60.00	6.80	0.96	0.97	1455	E=149,C=125,B=49
9	SWP	40092	L		90.11.10	5:14: 0	48205.7188	30.00	6.94	0.97	0.98	1455	E=35,C=40,B=18
10	LWP	19187	H		90.11.10	5:55: 0	48205.7461	60.00	7.09	0.98	0.00	1455	E=148,C=110,B=52
11	SWP	40093	L		90.11.10	7: 7: 7	48205.7969	90.00	7.39	0.00	0.02	1456	330
12	LWP	19188	H		90.11.10	7:47: 0	48205.8242	60.00	7.36	0.01	0.02	1456	E=146,C=118,B=50
13	LWP	19189	H		90.11.10	9:41:32	48205.9023	60.00	6.93	0.03	0.05	1456	341
14	LWP	19190	H		90.11.10	11:48:40	48205.9922	60.00	6.84	0.06	0.07	1456	341
15	SWP	40094	L		90.11.10	13:10:38	48206.0508	90.00	6.86	0.08	0.10	1456	330
16	LWP	19191	H		90.11.10	13:53:21	48206.0781	60.00	6.88	0.09	0.10	1456	331
17	LWP	19192	H		90.11.10	15:57: 0	48206.1641	90.00	6.88	0.11	0.13	1456	441
18	LWP	19193	H		90.11.10	18:21: 0	48206.2656	90.00	6.86	0.15	0.16	1456	E=158,C=170,B=50
19	SWP	40095	L		90.11.10	20:11: 0	48206.3398	90.00	6.84	0.17	0.19	1456	E=89,C=88,B=35
20	LWP	19194	H		90.11.10	20:51: 0	48206.3672	90.00	6.84	0.18	0.20	1456	E=154,C=160,B=47
21	LWP	19195	H		90.11.10	23:14: 0	48206.4688	90.00	6.83	0.21	0.23	1456	E=165,C=170,B=45
22	LWP	19196	H	*	90.11.11	1:37: 0	48206.5664	90.00	6.82	0.24	0.26	1456	E=162,C=160,B=50
23	SWP	40096	L		90.11.11	3:17: 0	48206.6367	90.00	6.79	0.26	0.28	1456	E=87,C=90,B=25
24	LWP	19197	H		90.11.11	4: 0: 0	48206.6680	90.00	6.80	0.27	0.29	1456	E=159,C=170,B=50
25	LWP	19198	H		90.11.11	6:21: 0	48206.7656	90.00	6.83	0.30	0.32	1456	E=225,C=1.5X,B=118
26	LWP	19199	H		90.11.11	9: 2: 3	48206.8750	90.00	6.85	0.34	0.36	1456	442
27	SWP	40097	L		90.11.11	11: 2:29	48206.9609	120.00	6.86	0.36	0.39	1456	330
28	LWP	19200	H		90.11.11	11:57:12	48207.0000	90.00	6.86	0.37	0.39	1456	441
29	LWP	19201	H		90.11.11	14:30:52	48207.1055	90.00	6.90	0.41	0.43	1456	441
30	LWP	19202	H		90.11.11	17: 4: 0	48207.2109	90.00	6.89	0.44	0.46	1456	E=189,C=170,B=47
31	SWP	40098	L		90.11.11	18:59: 0	48207.2891	120.00	6.93	0.47	0.49	1456	E=114,C=90,B=35
32	LWP	19203	H		90.11.11	20: 3: 0	48207.3359	90.00	7.09	0.48	0.50	1456	E=173,C=130,B=45
33	LWP	19204	H		90.11.11	22:36: 0	48207.4414	90.00	7.36	0.51	0.53	1456	E=176,C=140,B=45
34	LWP	19205	H		90.11.12	1: 9: 0	48207.5469	90.00	6.85	0.55	0.57	1456	E=177C=155,B=45
35	SWP	40099	L		90.11.12	2:50: 0	48207.6172	100.00	6.88	0.57	0.59	1456	E=107,C=90,B=32
36	LWP	19206	H		90.11.12	3:41: 0	48207.6523	90.00	6.88	0.58	0.60	1456	E=150,C=160,B=52
37	LWP	19207	H		90.11.12	6:40: 0	48207.7773	60.00	6.90	0.62	0.63	1456	E=179,C=180,B=105
38	LWP	19208	H		90.11.12	8:29: 0	48207.8516	90.00	6.90	0.64	0.66	1456	E=157,C=160,B=55
39	SWP	40100	L		90.11.12	10:10:58	48207.9258	120.00	6.90	0.66	0.69	1456	330
40	LWP	19209	H		90.11.12	11: 9:17	48207.9648	90.00	6.90	0.68	0.70	1456	441
41	LWP	19210	H		90.11.12	14: 5:55	48208.0859	90.00	6.90	0.71	0.73	1456	441
42	LWP	19211	H		90.11.12	16:43:15	48208.1953	90.00	6.90	0.75	0.77	1456	441
43	SWP	40101	L	*	90.11.12	18:30: 0	48208.2695	120.00	6.89	0.77	0.80	1456	E=117,C=100,B=35
44	LWP	19212	H		90.11.12	19:24: 0	48208.3086	90.00	6.88	0.78	0.80	1456	E=154,C=160,B=47
45	LWP	19213	H		90.11.12	21:57: 0	48208.4141	90.00	6.86	0.82	0.84	1456	E=156,C=160,B=50
46	LWP	19214	H		90.11.13	0:28: 0	48208.5195	90.00	6.82	0.85	0.87	1456	E=153,C=160,B=50
47	SWP	40102	L		90.11.13	2:10: 0	48208.5898	110.00	6.83	0.87	0.90	1456	E=118,C=100,B=25
48	LWP	19215	H		90.11.13	3: 2: 0	48208.6250	90.00	6.84	0.88	0.90	1456	E=156,C=160,B=50
49	LWP	19216	H		90.11.13	5:46: 0	48208.7422	70.00	6.85	0.92	0.93	1456	E=191,C=190,B=100
50	LWP	19217	H		90.11.13	7:37: 0	48208.8164	75.00	6.85	0.94	0.96	1456	E=204,C=190,B=85
51	LWP	19218	H		90.11.13	9:48: 0	48208.9102	90.00	6.91	0.97	0.99	1456	E=184,C=145,B=47

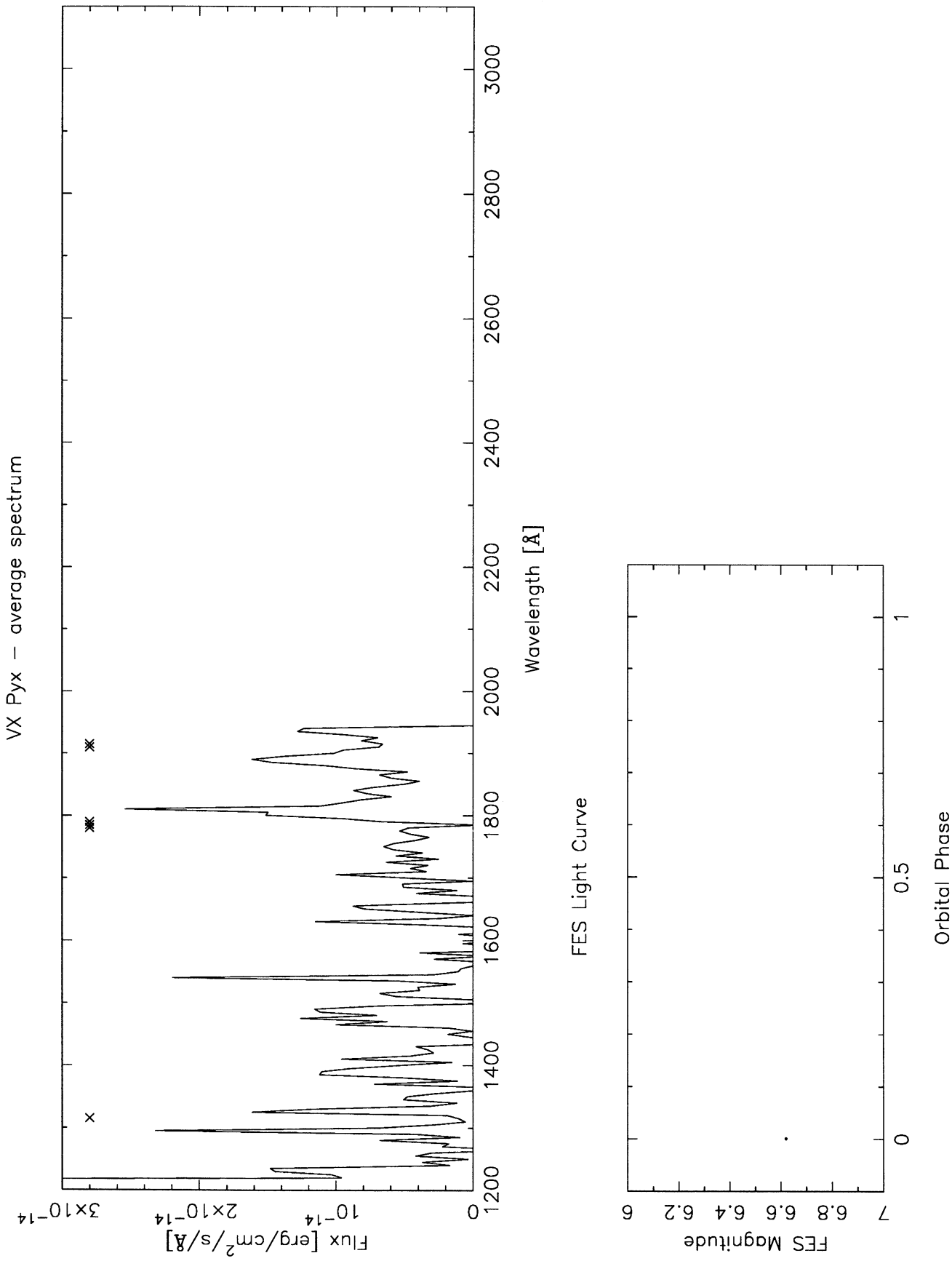

TY Pyx — average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

VX Pyx

alternative names:	HD 72688, SAO 199353, HR 3385, CD-34 4959
coordinates (2000.0):	$08^h32^m59.8^s$, $-34°39'48''$
linear ephemeris:	
Min I = HJD ? + 45.130 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.0048
radii [$R_\odot$]:	$\geq$3
spectral type:	K0III
distance [pc]:	135
activity parameters:	
P_{phot} [days]:	19.34
ΔV [mag]:	0.04
x-ray luminosity [10^{31} erg/s]:	0.965
Mg II index:	
Ca II index:	class C or D
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.54\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.66
B-V:	0.95
V:	6.32
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	0.93
IRAS [25]:	0.26

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	30735	L	*	87. 4. 7	12:13: 0	46893.0078	90.00	6.62	[0.00]	[0.00]	[0]	E=51,C=65,B=41


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

V4046 Sgr

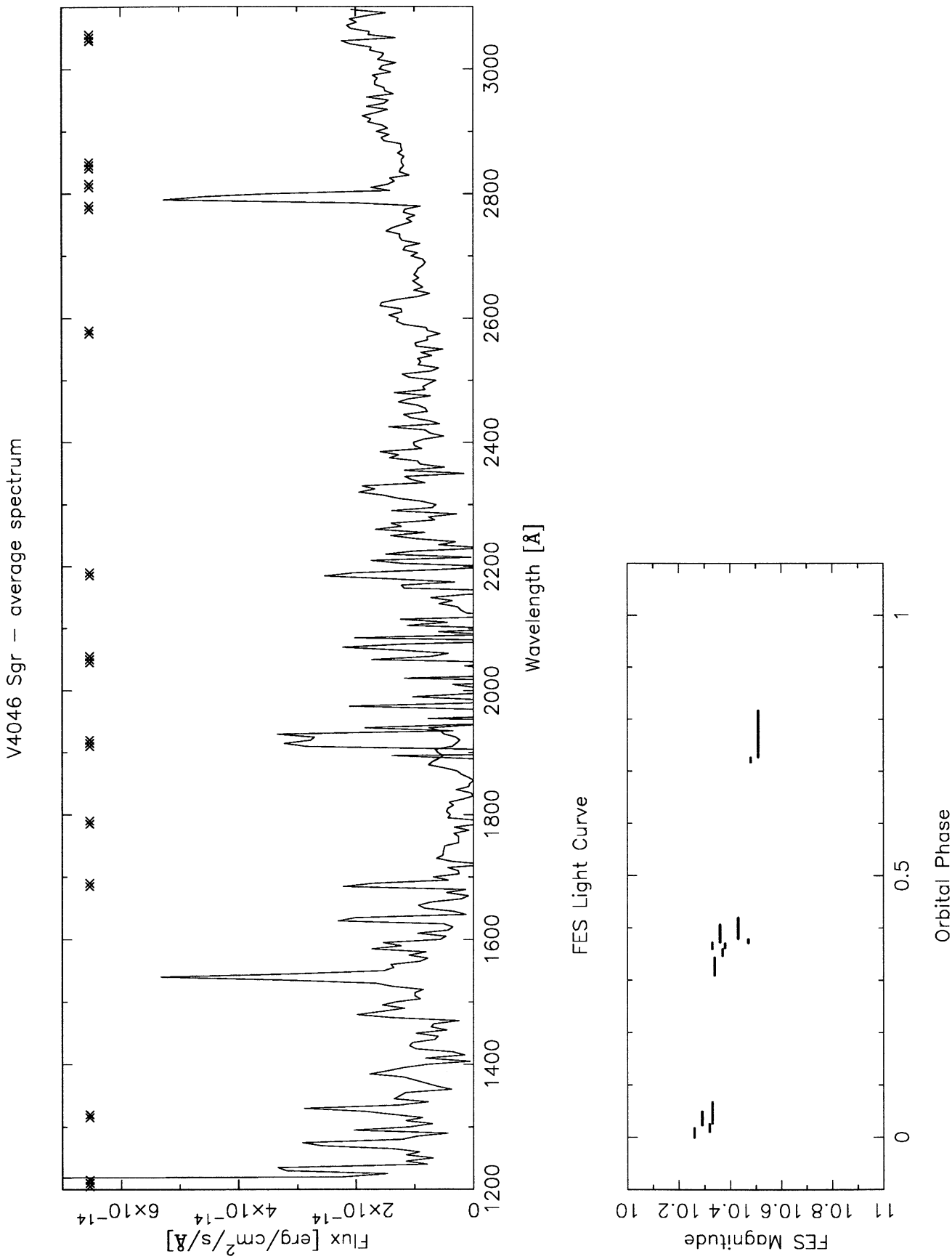
alternative names:	HD 319139, CPD-32 5229
coordinates (2000.0):	$18^h15^m10.7^s$, $-32°47'19''$
linear ephemeris:	
Min I = HJD ? + $\approx P_{phot}$ E	
system parameters:	
type of binary:	- , SB2
eccentricity:	
masses [$M_\odot$]:	
radii [$R_\odot$]:	
spectral type:	K5Ve
distance [pc]:	40
activity parameters:	
P_{phot} [days]:	2.45
ΔV [mag]:	<0.02
x-ray luminosity [10^{31} erg/s]:	<0.002
Mg II index:	[1.840]
Ca II index:	moderate
$H\alpha$ emission:	broad 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.57\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.07\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.61\ 10^{-14}$
U-B:	0.717
B-V:	1.18
V:	10.4
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	<0.25
IRAS [25]:	0.65

additional references:

Hutchinson M.G., Evans A., Winkler H., Spencer Jones: 1990, *J. Astron. Astrophys.* **234**, 230, *Optical-infrared photometry of the "isolated" T Tauri star V4046 Sgr*

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	15982	L	*	83. 5.20	4:51:41	45474.7031	60.00	10.26	[0.00]	[0.02]	[0]	353
2	SWP	20033	L		83. 5.20	6:18:16	45474.7617	89.00	10.29	[0.02]	[0.05]	[0]	221
3	LWP	3838	L	*	84. 7.21	23:33:33	45903.4805	50.00	10.32	[0.01]	[0.03]	[175]	352
4	SWP	23481	L	*	84. 7.22	0:29: 1	45903.5195	138.00	10.33	[0.03]	[0.07]	[175]	231
5	LWP	3844	L	*	84. 7.22	20: 4:20	45904.3359	40.00	10.33	[0.34]	[0.37]	[175]	342
6	SWP	23490	L		84. 7.22	20:50:43	45904.3672	120.00	10.36	[0.37]	[0.41]	[175]	231
7	SWP	28933	L		86. 8.18	18:15:40	46661.2617	120.00	10.34	[0.31]	[0.34]	[484]	161
8	LWP	8924	L		86. 8.18	20:30:37	46661.3555	40.00	10.37	[0.35]	[0.36]	[484]	332
9	SWP	28934	L	*	86. 8.18	21:21: 9	46661.3906	30.00	10.38	[0.36]	[0.37]	[484]	150
10	LWP	8925	L		86. 8.18	21:55:47	46661.4141	23.00	10.47	[0.37]	[0.38]	[484]	332
11	SWP	28935	L		86. 8.18	22:25:14	46661.4336	142.00	10.43	[0.38]	[0.42]	[484]	271
12	SWP	28942	L	*	86. 8.19	18:14:57	46662.2617	30.00	10.48	[0.72]	[0.73]	[484]	150
13	LWP	8932	L		86. 8.19	18:51:18	46662.2852	23.00	10.51	[0.73]	[0.73]	[484]	331
14	SWP	28943	L		86. 8.19	19:24: 9	46662.3086	280.00	10.51	[0.74]	[0.82]	[484]	272

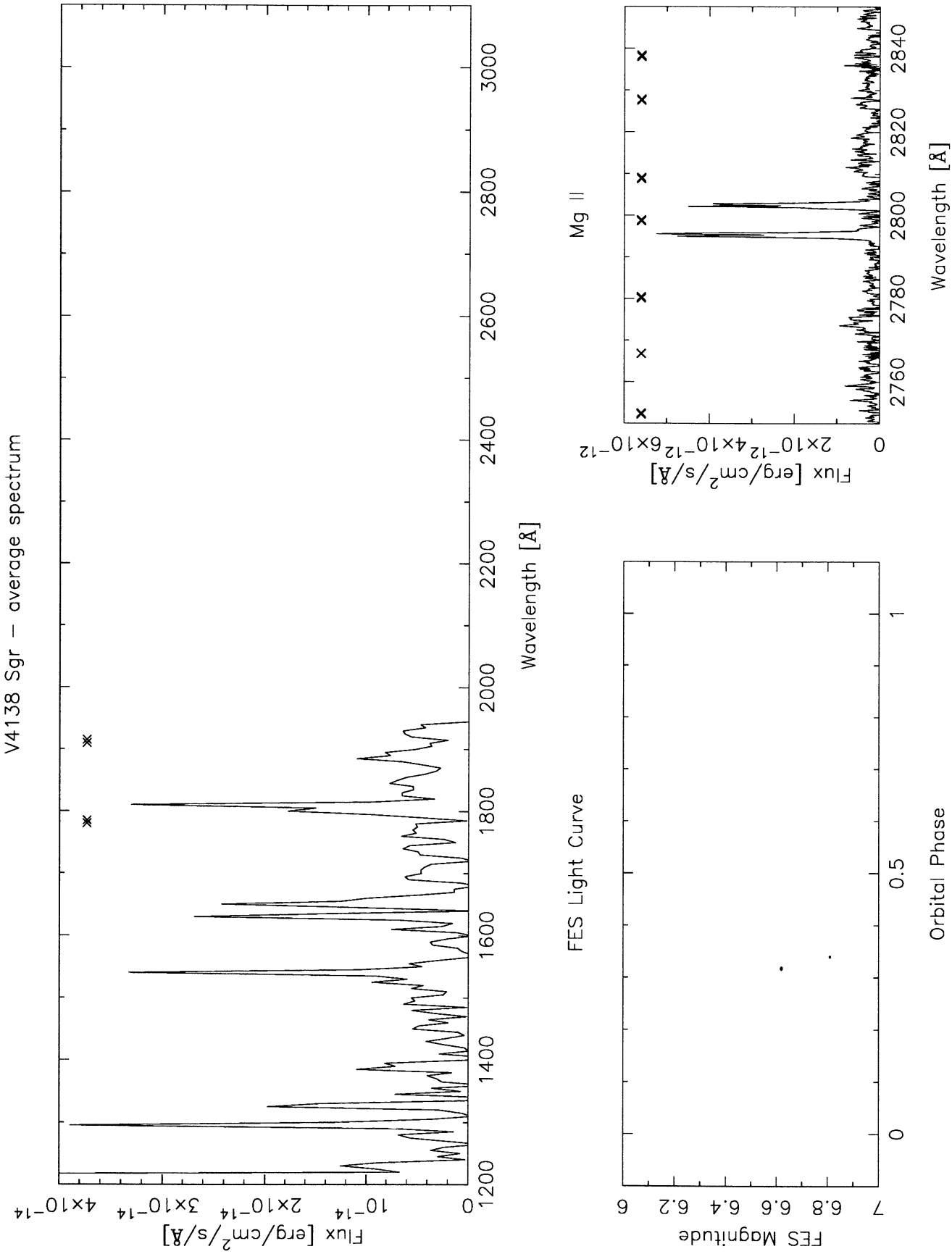

V4046 Sgr – average spectrum
Flux [erg/cm²/s/Å]
2×10⁻¹⁴
4×10⁻¹⁴
6×10⁻¹⁴
0
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
10
10.2
10.4
10.6
10.8
11
0
0.5
1
Orbital Phase

V4138 Sgr

alternative names:	HD 181809, SAO 188043, BD-20 5516
coordinates (2000.0):	$19^h22^m38.4^s$, $-20°38'29''$
linear ephemeris:	
Min I s = HJD 2444004.54 + 13.048 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.05
masses [$M_\odot$]:	f(m)=0.00083
radii [$R_\odot$]:	$\geq$9
spectral type:	K1III
distance [pc]:	210
activity parameters:	
P_{phot} [days]:	60.23
ΔV [mag]:	0.35
x-ray luminosity [10^{31} erg/s]:	0.103
Mg II index:	1.390
Ca II index:	class B
$H\alpha$ emission:	moderate absorption
radio flux density [mJy]:	<0.80
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.70 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.57 10^{-13}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[4.96 10^{-13}]
U-B:	0.71
B-V:	1.03
V:	6.57
V-R:	0.86
R-I:	0.54
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	1.08
IRAS [25]:	<0.56

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	13550	H	*	82. 6.23	15:18: 0	45144.1367	25.00	6.81	0.34	0.34	87	E=107,C=70,B=30
2	SWP	18547	L	*	82.11.13	20:40: 0	45287.3594	75.00	6.62	0.32	0.32	98	E=64,C=40,B=30

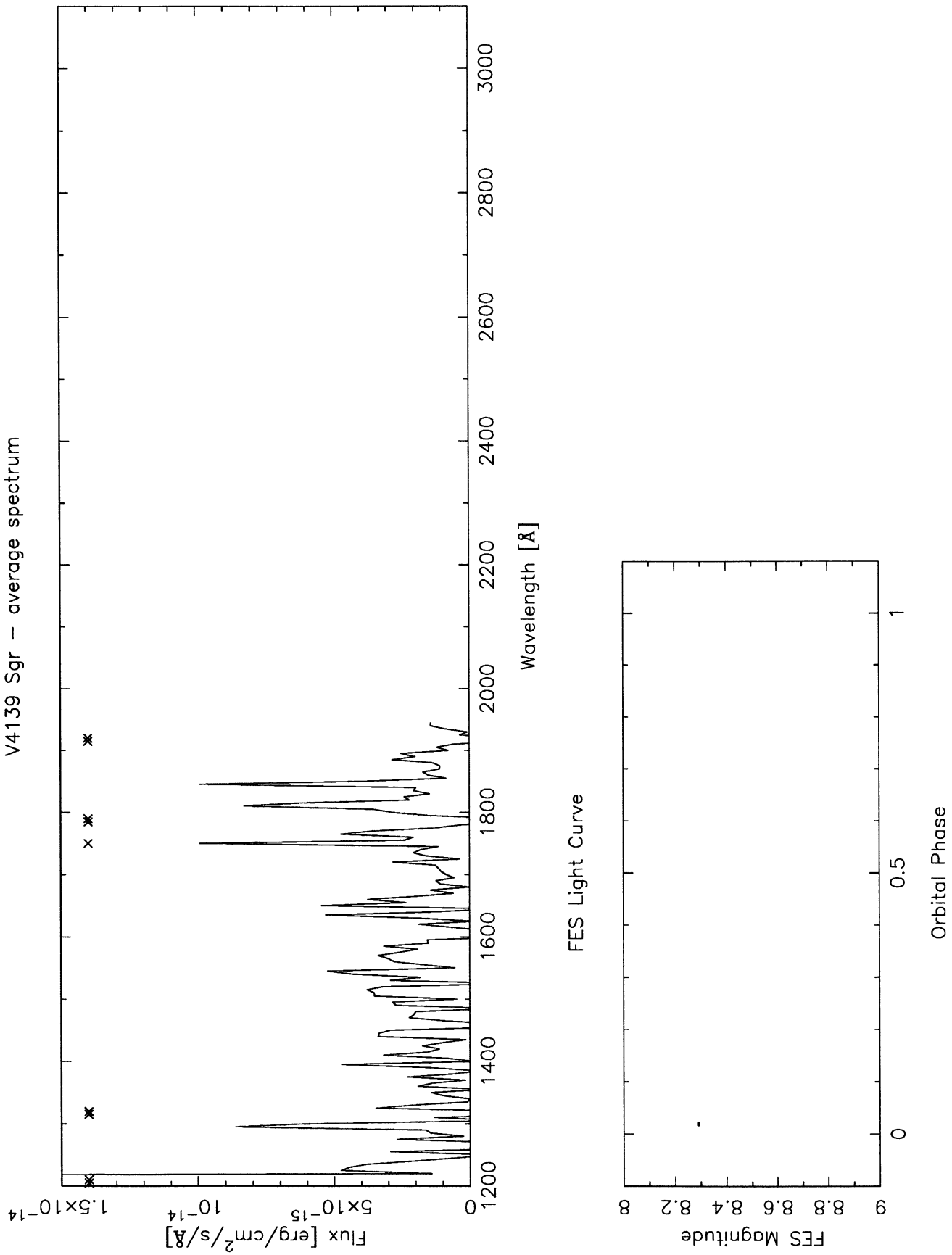

V4138 Sgr – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V4139 Sgr

alternative names:	HD 182776, SAO 229695, CD-41 13525
coordinates (2000.0):	$19^h28^m01.8^s$, $-40°50'04''$
linear ephemeris:	
Min I s = HJD 2444045.535 + 45.180 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.02
masses [$M_\odot$]:	f(m)=0.17
radii [$R_\odot$]:	
spectral type:	K2-3III
distance [pc]:	417
activity parameters:	
P_{phot} [days]:	45.18
ΔV [mag]:	0.29
x-ray luminosity [10^{31} erg/s]:	1.715
Mg II index:	
Ca II index:	strong
$H\alpha$ emission:	filled-in 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.42 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	1.038
B-V:	1.221
V:	8.40
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

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	SWP	38440	L	*	90. 3.26	11:40: 0	47976.9844	270.00	8.29	0.02	0.02	87	E=70,B=50


V4139 Sgr – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V965 Sco

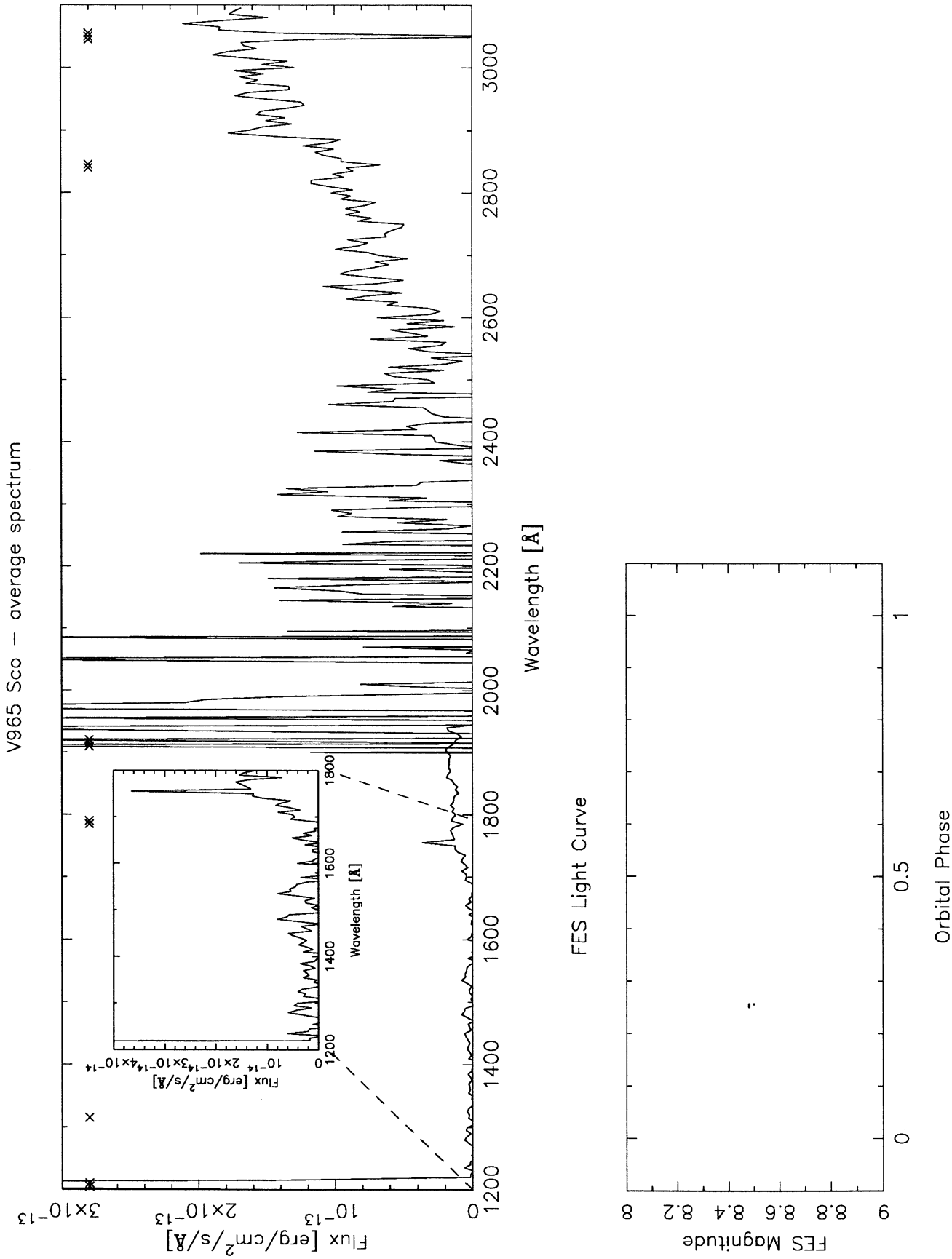
alternative names:	HD 158393, SAO 208895, CD-33 12122
coordinates (2000.0):	$17^h30^m33.8^s$, $-33°39'14''$
linear ephemeris:	
Min I = HJD 2440006.16 + 30.969 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	$\geq$1.7/$\geq$1.7
radii [$R_\odot$]:	$\approx$5.5:/$\approx$14
spectral type:	F2IV/K1III
distance [pc]:	400
activity parameters:	
P_{phot} [days]:	30.9597
ΔV [mag]:	0.10
x-ray luminosity [10^{31} erg/s]:	0.4
Mg II index:	[0.890]
Ca II index:	moderate
$H\alpha$ emission:	absorption
radio flux density [mJy]:	<0.60
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.33 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	6.54 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.49 10^{-13}
U-B:	0.62
B-V:	1.06
V:	8.52
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Evans T.L., Balona L.A. and Fekel F.C.: 1987, *Mon. Not. R. Astron. Soc.* **226**, 813-827, *Studies of calcium emission stars - I. HD 158393 a giant star in a binary system*

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	22254	L	*	84. 2.12	17: 7: 0	45743.2148	201.00	8.48	0.25	0.26	185	C=135,B=73
2	LWP	2772	L	*	84. 2.12	20:35: 0	45743.3594	4.00	8.50	0.26	0.26	185	C=80,B=35


V965 Sco – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V471 Tau

alternative names:	BD+16 516
coordinates (2000.0):	$03^h50^m11.8^s$, $17°15'17''$
linear ephemeris:	
Min I = HJD 2441913.02368 + 0.52118299 E, variable	
system parameters:	
type of binary:	EBT, SB1
eccentricity:	0.0
masses [$M_\odot$]:	0.6/0.8:
radii [$R_\odot$]:	0.012/$\geq$0.6
spectral type:	WD/K2V
distance [pc]:	59
activity parameters:	
P_{phot} [days]:	0.5197
ΔV [mag]:	0.15
x-ray luminosity [10^{31} erg/s]:	0.058
Mg II index:	[1.029], 1.182
Ca II index:	strong, variable; cool
$H\alpha$ emission:	absorption & emission, variable
radio flux density [mJy]:	1.00
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	256±15
ROSAT 110-200Å [ct/ks]:	1048±31
EUVE 100Å [ct/s]:	0.615±0.034
EUVE 200Å [ct/s]:	0.495±0.031
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.04 10^{-12}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.74 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.70 10^{-13}
U-B:	0.41
B-V:	0.87
V:	9.71
V-R:	0.75
R-I:	0.52
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Tunca Z., Keskin V., Evren S., Ibanoglu C. and Akan M.C.: 1993, *Astrophys. Space Sci.* **204**, 297-304, *Light variations and flares on V 471 Tauri*

Clemens J.C., Nather R.E., Winget D.E., Robinson E.L., Wood M.A., Claver C.F., Provencal J., Kleinman S.J., Bradley P.A., Frueh M.L., Grauer A.D., Hine B.P., Fontaine G., Achilleos N., Wickramasinghe D.T. et al.: 1992, *Astrophys. J.* **391**, 773-783, *Whole earth telescope obseravtions of V 471 Tauri : the nature of the white dwarf variations*

Bois B., Lanning H.H. and Mochnacki S.W.: 1991, *Astron. J.* **102**, 2079-2090, *Spectroscopy of V471 Tau. II. Observations of the H-alpha line*

Sion E.M., Bruhweiler F.C., Mullan D. and Carpenter K.: 1989, *Astrophys. J.* **341**, L17-L20, *Discovery of a cool expanding shell at -1200 kilometers per second around V471 Tauri*

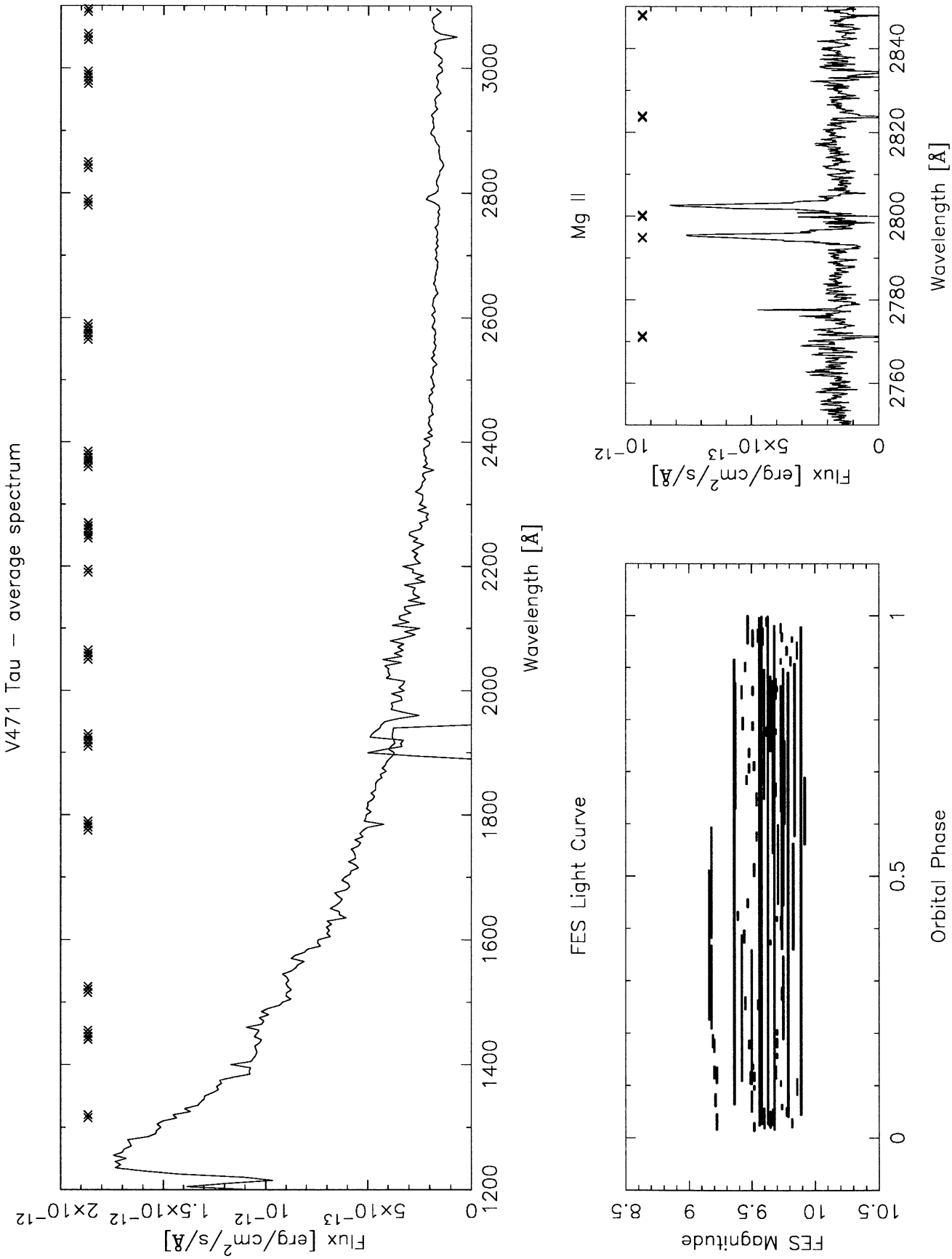
Ibanoglu C.: 1989, *Astrophys. Space Sci.* **161**, 221-231, *Extensive photometric study of V471 Tauri*

Bruhweiler F.C. and Sion E.M.: 1986, *Astrophys. J.* **304**, L21-L24, *Ultraviolet observations of V471 Tauri : evidence for a nova-like outburst ?*

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	5443	L		79. 8.24	7:24: 0	44109.8086	25.00	9.58	0.00	0.03	4215	E=135,C=105,B=30
2	SWP	6273	L		79. 8.24	7:55: 0	44109.8281	3.00	9.56	0.04	0.04	4215	C=75,B=10
3	LWR	5444	L		79. 8.24	8:47: 0	44109.8672	12.00	9.52	0.11	0.13	4215	C=150,B=30
4	SWP	6274	L		79. 8.24	9: 4: 0	44109.8789	8.00	9.51	0.13	0.14	4215	C=160,B=12
5	LWR	5683	L		79. 9.24	13:39: 0	44141.0703	30.00	9.68	0.98	0.02	4274	E=184,C=90,B=30
6	SWP	6622	L		79. 9.24	14:16: 0	44141.0938	10.00	9.64	0.03	0.04	4275	C=209,B=18
7	SWP	9781	L		80. 8.14	2:36: 0	44465.6094	10.00	9.46	0.68	0.69	4897	E=170,C=97,B=20
8	LWR	8498	L		80. 8.14	2:52: 0	44465.6211	12.00	9.48	0.70	0.71	4897	E=162,C=138,B=27
9	SWP	9782	L		80. 8.14	3:19: 0	44465.6367	12.00	9.48	0.73	0.74	4897	E=120,C=200,B=130
10	LWR	8499	L		80. 8.14	3:58: 0	44465.6641	15.00	9.43	0.78	0.80	4897	E=175,C=120,B=120
11	SWP	9783	L		80. 8.14	4:44: 0	44465.6953	12.00	9.64	0.84	0.86	4897	C=125,B=23
12	LWR	8500	L		80. 8.14	5:21: 0	44465.7227	14.00	9.45	0.89	0.91	4897	E=185,C=160,B=35
13	SWP	9784	L		80. 8.14	6: 0: 0	44465.7500	37.00	9.47	0.95	0.00	4897	E=95,C=200,B=23
14	LWR	8501	L		80. 8.14	6:52: 0	44465.7852	10.00	9.52	0.01	0.03	4898	E=67,C=70,B=25
15	SWP	9785	L		80. 8.14	7:19: 0	44465.8047	28.00	9.50	0.05	0.09	4898	C=175,B=23
16	LWR	8502	L		80. 8.14	8: 0: 0	44465.8320	15.00	9.49	0.10	0.13	4898	E=165,C=165,B=33
17	SWP	9786	L		80. 8.14	8:50: 0	44465.8672	12.00	9.48	0.17	0.19	4898	C=205,B=26
18	LWR	8503	L	*	80. 8.14	9:43: 0	44465.9063	16.00	9.45	0.25	0.27	4898	E=220,C=180,B=37
19	SWP	9787	L		80. 8.14	10:37: 0	44465.9414	12.00	9.42	0.31	0.33	4898	C=205,B=31
20	LWR	8504	L		80. 8.14	11:21: 0	44465.9727	16.00	9.44	0.37	0.40	4898	E=229,C=190,B=38
21	SWP	9788	L	*	80. 8.14	12:14: 0	44466.0078	12.00	9.47	0.44	0.46	4898	C=210,B=54
22	LWR	8505	L		80. 8.14	12:57: 0	44466.0391	16.00	9.52	0.50	0.52	4898	E=244,C=180,B=38
23	SWP	9789	L		80. 8.14	13:48: 0	44466.0742	12.00	9.54	0.57	0.58	4898	C=210,B=32
24	LWR	8506	L		80. 8.14	14:37: 0	44466.1094	16.00	9.54	0.64	0.66	4898	E=250,C=185,B=32
25	SWP	9790	L		80. 8.14	15:27: 0	44466.1445	12.00	9.52	0.70	0.72	4898	C=220,B=32
26	SWP	15898	H		81.12.28	23:35: 0	44967.4844	180.00	9.37	0.63	0.87	5860	C=95,B=50
27	SWP	15899	H		81.12.29	3:13: 0	44967.6328	114.00	9.36	0.92	0.07	5860	C=68,B=36
28	SWP	15900	H		81.12.29	5:37: 0	44967.7344	206.00	9.42	0.11	0.39	5861	C=105,B=52
29	SWP	15901	L	*	81.12.29	9:28: 0	44967.8945	12.00	9.39	0.42	0.43	5861	C=175,B=19
30	SWP	23668	L	*	84. 8.11	10:23: 0	45923.9336	12.00	9.51	0.78	0.80	7695	C=180,B=18
31	LWP	3977	L	*	84. 8.11	11:13: 0	45923.9688	12.00	9.51	0.85	0.86	7695	C=152,B=42
32	SWP	23669	L		84. 8.11	12:13: 0	45924.0078	28.00	9.57	0.92	0.96	7695	C=220,B=25
33	LWP	3978	L		84. 8.11	13: 9: 0	45924.0469	20.00	9.63	0.00	0.03	7696	E=166,C=125,B=47
34	SWP	23670	L		84. 8.11	13:59: 0	45924.0820	28.00	9.56	0.07	0.10	7696	C=230,B=28
35	SWP	25304	L		85. 2.23	21:57: 0	46120.4141	12.00	9.62	0.77	0.79	8072	C=210,B=25
36	LWP	5413	L	*	85. 2.23	22:47: 0	46120.4492	12.00	9.64	0.84	0.85	8072	E=223,C=187,B=45
37	SWP	25305	L		85. 2.24	0: 5: 0	46120.5039	16.00		0.94	0.97	8072	C=150,B=27
38	LWP	5414	L		85. 2.24	0:46: 0	46120.5313	20.00	9.56	0.00	0.03	8073	E=133,C=128,B=50
39	SWP	25306	L		85. 2.24	1:22: 0	46120.5586	24.00	9.68	0.05	0.08	8073	C=198,B=30
40	SWP	25307	L		85. 2.24	4:10: 0	46120.6719	18.00	9.74	0.27	0.29	8073	C=185,B=20
41	SWP	26541	L		85. 8. 4	13:43: 0	46282.0703	22.00	9.51	0.94	0.97	8382	C=186,B=122
42	SWP	26542	L		85. 8. 4	14:49: 0	46282.1172	19.50	9.67	0.03	0.06	8383	C=224,B=170
43	LWP	6579	L		85. 8. 4	15:16: 0	46282.1367	10.00	9.57	0.07	0.08	8383	C=240,B=150
44	SWP	26543	L		85. 8. 4	15:48: 0	46282.1602	15.00	9.69	0.11	0.14	8383	C=1.2X,B=117
45	SWP	26544	L		85. 8. 4	16:36: 0	46282.1914	12.00	9.70	0.17	0.19	8383	C=229,B=45
46	SWP	26554	L		85. 8. 5	14:46: 0	46283.1172	19.50	9.55	0.95	0.97	8384	C=209,B=145
47	LWP	6587	L		85. 8. 5	15:12: 0	46283.1328	12.00	9.62	0.98	0.00	8384	E=194,C=211,B=155
48	SWP	26555	L		85. 8. 5	15:44: 0	46283.1563	19.50	9.67	0.03	0.05	8385	C=180,B=118
49	SWP	26556	L		85. 8. 5	16:34: 0	46283.1914	12.00		0.09	0.11	8385	C=221,B=41
50	SWP	27863	L		86. 3. 7	19:41: 0	46497.3203	23.42	9.59	0.94	0.98	8795	C=105,B=20
51	SWP	27864	L		86. 3. 7	20:39: 0	46497.3594	26.42	9.60	0.02	0.06	8796	C=112,B=25
52	SWP	27865	L		86. 3. 7	22: 8: 0	46497.4219	30.00	9.57	0.14	0.18	8796	C=232,B=28
53	SWP	27876	L		86. 3. 8	19:22: 0	46498.3086	30.00	9.69	0.84	0.88	8797	C=255,B=65
54	SWP	27877	L		86. 3. 8	20:40: 0	46498.3594	24.62	9.58	0.94	0.97	8797	C=118,B=25
55	SWP	27878	L		86. 3. 8	21:42: 0	46498.4023	23.77	9.65	0.02	0.05	8798	C=125,B=44
56	LWP	8826	H		86. 8. 4	2:25: 0	46646.6016	115.00	9.68	0.37	0.52	9082	E=104,C=105,B=58
57	SWP	28826	H		86. 8. 4	4:37: 0	46646.6914	250.00	9.67	0.55	0.87	9082	C=125,B=73
58	SWP	31610	L		87. 8.21	23:42: 0	47029.4883	14.00	9.82	0.02	0.04	9817	C=55,B=18

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
59	SWP	31611	H		87. 8.22	0:43: 0	47029.5313	190.00	9.50	0.10	0.36	9817	C=120,B=55
60	LWP	11455	H		87. 8.22	7:29: 0	47029.8125	120.00	9.67	0.64	0.80	9817	E=193,C=195,B=135
61	SWP	31612	L		87. 8.22	9:36: 0	47029.8984	5.00	9.66	0.81	0.82	9817	C=100,B=19
62	LWP	11456	L	*	87. 8.22	10:15: 0	47029.9258	5.00	9.66	0.86	0.87	9817	E=119,C=115,B=42
63	SWP	31613	L		87. 8.22	11:18: 0	47029.9727	12.00	9.74	0.95	0.97	9817	C=220,B=78
64	SWP	31614	L		87. 8.22	12:37: 0	47030.0273	5.00	9.74	0.06	0.06	9818	C=130,B=60
65	SWP	31615	L		87. 8.22	13:12: 0	47030.0508	5.00	9.73	0.10	0.11	9818	C=140,B=61
66	SWP	31616	L		87. 8.22	13:52: 0	47030.0781	5.00	9.70	0.15	0.16	9818	C=130,B=58
67	SWP	31617	L	*	87. 8.22	14:26: 0	47030.1016	5.00	9.70	0.20	0.21	9818	C=120,B=40
68	LWP	11461	L	*	87. 8.23	3:20: 0	47030.6406	10.00	9.58	0.23	0.25	9819	E=184,C=154,B=36
69	SWP	31622	L		87. 8.23	3:36: 0	47030.6484	10.00	9.55	0.25	0.26	9819	C=182,B=16
70	SWP	31630	H		87. 8.23	23:33: 0	47031.4805	390.00	9.74	0.84	0.36	9820	C=170,B=99
71	LWP	11472	H		87. 8.24	9: 1: 0	47031.8750	120.00	9.76	0.60	0.76	9821	E=121,C=120,B=65
72	SWP	31631	L		87. 8.24	11:10: 0	47031.9648	5.00	9.69	0.77	0.78	9821	C=103,B=15
73	SWP	31632	L	*	87. 8.24	12:14: 0	47032.0078	5.00	9.70	0.86	0.86	9821	C=120,B=19
74	SWP	31633	L		87. 8.24	12:52: 0	47032.0352	5.00	9.73	0.91	0.92	9821	C=105,B=19
75	SWP	31634	L		87. 8.24	13:34: 0	47032.0664	14.00	9.73	0.97	0.98	9821	C=88,B=63
76	LWP	11473	L		87. 8.24	14:31: 0	47032.1055	10.00	9.78	0.04	0.06	9822	C=162,B=40
77	LWP	11475	H		87. 8.24	23:14: 0	47032.4688	106.00	9.65	0.74	0.88	9822	E=98,C=116,B=50
78	LWP	11476	H		87. 8.25	1:44: 0	47032.5703	100.00	9.57	0.94	0.07	9822	C=115,B=52
79	SWP	31637	L		87. 8.25	3:39: 0	47032.6523	5.00	9.52	0.09	0.10	9823	C=104,B=16
80	SWP	31638	L		87. 8.25	7: 6: 0	47032.7969	5.00	9.65	0.37	0.38	9823	C=95,B=16
81	SWP	31639	L	*	87. 8.25	7:41: 0	47032.8203	5.00	9.70	0.42	0.42	9823	C=96,B=16
82	LWP	11477	H		87. 8.25	8: 0: 0	47032.8320	100.00		0.44	0.57	9823	E=109,C=96,B=54
83	LWP	11478	H		87. 8.25	10:20: 0	47032.9297	180.00	9.73	0.63	0.86	9823	E=191,C=193,B=125
84	SWP	31640	L		87. 8.25	14: 3: 0	47033.0859	14.00	9.78	0.93	0.94	9823	C=215,B=24
85	SWP	32649	H		88. 1. 1	16:44: 0	47162.1953	186.00	9.60	0.65	0.90	10071	C=124,B=50
86	LWP	12408	L		88. 1. 1	20: 4: 0	47162.3359	24.00	9.86	0.92	0.95	10071	C=180,B=35
87	SWP	32650	L		88. 1. 1	20:50: 0	47162.3672	50.00	9.89	0.98	0.05	10071	C=285,B=23
88	LWP	12409	L		88. 1. 1	22: 7: 0	47162.4219	24.00	9.86	0.08	0.11	10072	C=185,B=35
89	LWP	12435	H		88. 1. 3	16:11: 0	47164.1758	110.00	9.71	0.45	0.60	10075	E=107,C=100,B=52
90	SWP	32659	H		88. 1. 3	18:12: 0	47164.2578	217.00	9.75	0.61	0.90	10075	C=115,B=54
91	LWP	12436	L		88. 1. 3	21:59: 0	47164.4141	14.00	9.81	0.91	0.92	10075	E=242,C=190,B=36
92	SWP	32660	L		88. 1. 3	22:32: 0	47164.4375	8.00	9.82	0.95	0.96	10075	C=120,B=18
93	LWP	12447	H		88. 1. 6	16: 2: 0	47167.1680	120.00	9.75	0.19	0.35	10081	E=92,C=103,B=52
94	SWP	32673	L		88. 1. 6	18:39: 0	47167.2773	15.00	9.73	0.40	0.42	10081	C=112,B=18
95	LWP	12448	H		88. 1. 6	19:12: 0	47167.3008	120.00	9.75	0.44	0.60	10081	E=114,C=108,B=54
96	SWP	32674	L		88. 1. 6	21:48: 0	47167.4102	15.00	9.69	0.65	0.68	10081	C=116,B=18
97	LWP	12449	H		88. 1. 6	22:20: 0	47167.4297	30.00	9.68	0.69	0.72	10081	C=80,B=40
98	LWP	17043	H	*	89.12.30	18:52: 0	47891.2852	97.00	9.92	0.56	0.69	11470	E=101,C=78,B=44
99	LWP	17044	H		89.12.30	21:20: 0	47891.3906	60.00	9.79	0.76	0.85	11470	E=74,C=70,B=40
100	LWP	17045	H		89.12.30	22:58: 0	47891.4570	110.00	9.79	0.89	0.04	11470	E=79,C=83,B=43
101	LWP	17057	H		89.12.31	17:22: 0	47892.2227	150.00	9.83	0.36	0.56	11472	E=127,C=110,B=60
102	SWP	37928	H		89.12.31	20: 1: 0	47892.3359	250.00	9.84	0.58	0.91	11472	C=110,B=52
103	SWP	40824	L		91. 2. 5	5:49: 4	48292.7422	15.00	9.42	0.84	0.86	12240	500
104	LWP	20970	L		91. 8. 7	20: 1:19	48476.3359	20.00	9.22	0.11	0.14	12593	600
105	SWP	42192	L		91. 8. 7	20:49:51	48476.3672	15.00	9.20	0.17	0.19	12593	500
106	LWP	20971	H		91. 8. 7	21:20:55	48476.3906	120.00	9.18	0.21	0.37	12593	331
107	SWP	42193	H		91. 8. 7	23:29:38	48476.4805	157.00	9.18	0.38	0.59	12593	301
108	LWP	20975	L		91. 8. 8	19:57: 2	48477.3320	20.00	9.22	0.02	0.05	12595	400
109	SWP	42199	L		91. 8. 8	20:32:10	48477.3555	15.00	9.21	0.06	0.08	12595	500
110	LWP	20976	L	*	91. 8. 8	21: 9:48	48477.3828	15.00	9.20	0.11	0.14	12595	500
111	SWP	42200	L	*	91. 8. 8	21:55:51	48477.4141	15.00	9.19	0.17	0.20	12595	500
112	LWP	20977	H		91. 8. 8	22:35:35	48477.4414	211.00	9.16	0.23	0.51	12595	332


V471 Tau – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V711 Tau

alternative names:	HD 22468, SAO 111291, HR 1099, BD+00 6161
coordinates (2000.0):	$03^h36^m47.3^s$, $00°35'16''$
linear ephemeris:	
Min I = HJD 2442766.080 + 2.83774 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.1/1.4
radii [$R_\odot$]:	1.3/3.9
spectral type:	G5IV/K1IV
distance [pc]:	36
activity parameters:	
P_{phot} [days]:	2.841
ΔV [mag]:	0.22
x-ray luminosity [10^{31} erg/s]:	2.377
Mg II index:	[1.252], 1.590
Ca II index:	strong, both
$H\alpha$ emission:	emission, variable
radio flux density [mJy]:	5-180
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	304±15
ROSAT 110-200Å [ct/ks]:	413±18
EUVE 100Å [ct/s]:	0.586±0.023
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.73 10^{-14}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.15 10^{-12}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.52 10^{-12}
U-B:	0.46
B-V:	0.92
V:	5.7
V-R:	0.77
R-I:	0.39
b-y:	0.579
m_1:	0.293
c_1:	0.266
β:	2.526
IRAS [12]:	≈0
IRAS [25]:	≈0

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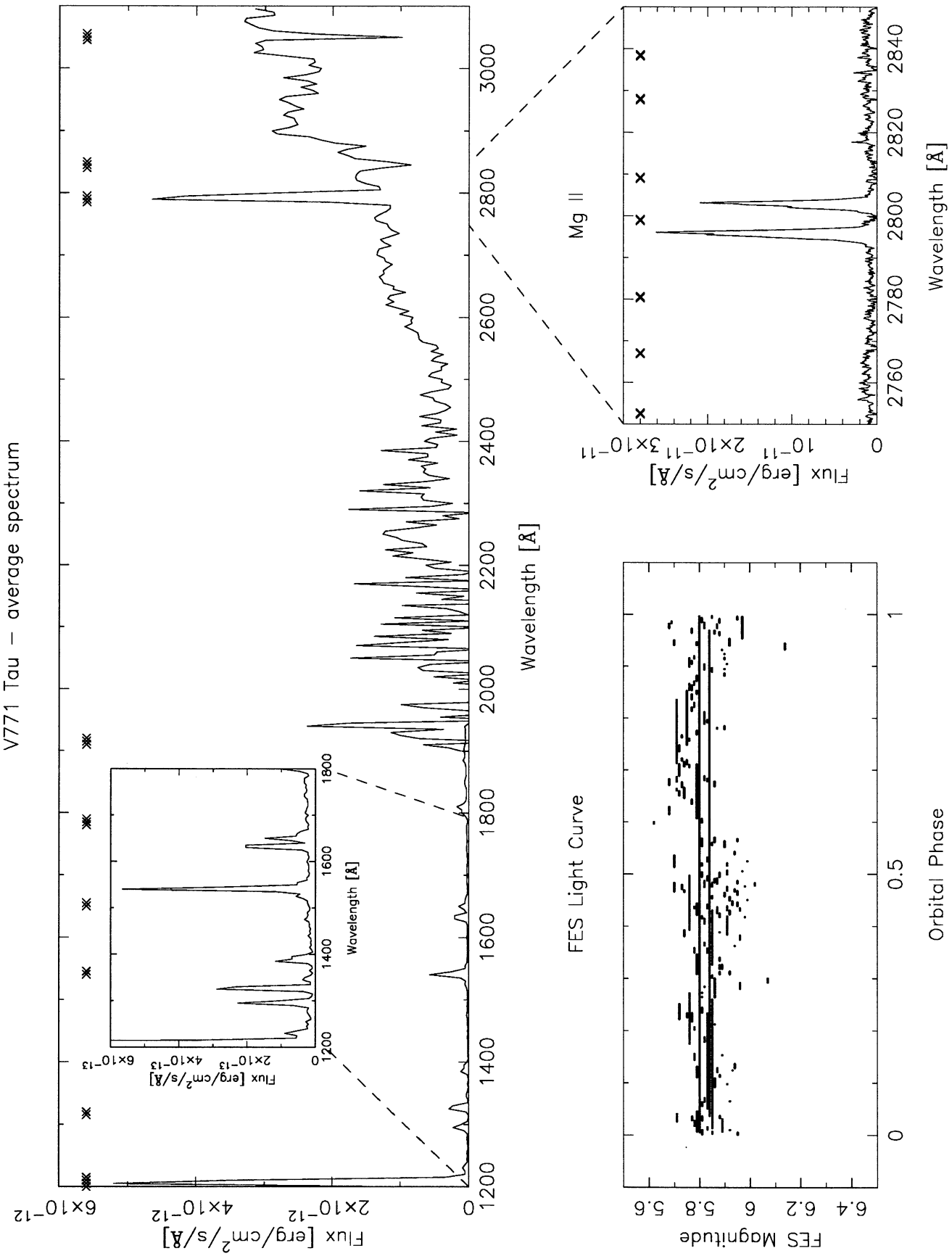
E spectra:

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	2079	H		78. 8.15	11: 6: 0	43735.9609	5.02	5.87	0.78	0.78	341	
2	SWP	2300	L		78. 8.15	11:41: 0	43735.9883	30.00	5.82	0.79	0.80	341	E = 160
3	LWR	2080	H		78. 8.15	12:25: 0	43736.0156	15.00	5.82	0.80	0.80	341	
4	LWR	2098	H		78. 8.17	13: 3: 0	43738.0430	15.00	5.70	0.51	0.52	342	
5	SWP	2321	L		78. 8.17	13:28: 0	43738.0625	60.00	5.70	0.52	0.54	342	Lyman Alpha = 255
6	LWR	2110	H		78. 8.19	5:41: 0	43739.7383	15.00	5.79	0.11	0.12	343	
7	SWP	2335	L		78. 8.19	6: 7: 0	43739.7539	60.00	5.79	0.12	0.13	343	MAX DN = 190
8	SWP	6874	L		79.10.15	10:25: 0	44161.9336	30.00	5.85	0.89	0.90	491	E=193,C=80,B=58
9	LWR	5843	H		79.10.15	11: 0: 0	44161.9570	14.98	5.84	0.90	0.90	491	E=230,C=100,B=40
10	SWP	6901	L		79.10.18	12:58: 0	44165.0391	30.00	5.88	0.98	0.99	492	E=212O,C=70,B=40
11	LWR	5866	H		79.10.18	13:33: 0	44165.0664	11.98	5.85	0.99	0.00	492	E=201MGII,C=80,B=32
12	SWP	7652	L		80. 1.14	14:34: 0	44253.1055	50.00	5.89	0.02	0.03	524	351
13	LWR	6663	H		80. 1.14	15:32: 0	44253.1484	15.00	5.88	0.03	0.04	524	353
14	SWP	9530	H		80. 7.16	4:53: 0	44436.7031	435.00	5.71	0.72	0.82	588	E=1.5X,C=110,B=105
15	SWP	9571	H		80. 7.23	4:33: 0	44443.6914	375.00	5.76	0.18	0.27	591	E=1.5-2X,B=90
16	SWP	15153	L		81.10. 2	9:48: 0	44879.9102	60.00	5.76	0.90	0.92	744	E=5X,C=75,B=46
17	LWR	11660	H		81.10. 2	10:53: 0	44879.9531	15.00	5.78	0.92	0.92	744	E=210,C=88,B=34
18	LWR	11665	H		81.10. 2	21: 6: 0	44880.3789	15.00	5.06	0.07	0.07	745	353
19	SWP	15161	L		81.10. 3	4:54: 0	44880.7031	35.00	5.82	0.18	0.19	745	E=1.5X,C=56,B=30
20	LWR	11668	H		81.10. 3	6:27: 0	44880.7695	15.00	5.78	0.20	0.21	745	E=192,C=80,B=30
21	LWR	11670	H	*	81.10. 3	10:39: 0	44880.9453	15.00	5.86	0.27	0.27	745	E=220,C=85,B=33
22	SWP	15163	H		81.10. 3	11: 8: 0	44880.9648	120.00	5.86	0.27	0.30	745	E=219,B=60-80
23	LWR	11671	H		81.10. 3	13:14: 0	44881.0508	15.00	5.85	0.30	0.31	745	E=225,C=85,B=30
24	SWP	15164	L	*	81.10. 3	13:41: 0	44881.0703	15.00	5.88	0.31	0.31	745	E=137,C=50,B=28
25	LWR	11674	H		81.10. 3	21:27: 0	44881.3945	15.00	5.92	0.42	0.43	745	253
26	SWP	15158	L		81.10. 3	21:38: 0	44881.4023	45.00	5.87	0.43	0.44	745	E=1.5X,C=80,B=20
27	LWR	11679	H		81.10. 4	6:31: 0	44881.7734	15.00	5.85	0.56	0.56	745	E=208,C=80,B=30
28	SWP	15170	L		81.10. 4	6:54: 0	44881.7891	35.00	5.86	0.56	0.57	745	E=213,C=70,B=20-30
29	SWP	15173	L		81.10. 4	14:14: 0	44882.0938	35.00	5.86	0.67	0.68	745	350
30	LWR	11683	H		81.10. 4	14:53: 0	44882.1211	15.00	5.83	0.68	0.68	745	353
31	SWP	15167	L		81.10. 4	21:45: 0	44882.4063	25.00	5.90	0.78	0.79	745	E=168,C=40,B=16
32	LWR	11691	H		81.10. 5	13: 4: 0	44883.0430	12.00	5.85	0.00	0.01	746	E=231,B=50
33	SWP	15183	L		81.10. 5	13:20: 0	44883.0547	28.00	5.89	0.01	0.02	746	E=255,C=90,B=50
34	LWR	11715	H		81.10. 7	10:48: 0	44884.9492	15.00	5.80	0.68	0.68	746	E=216,C=95,B=40
35	SWP	15197	L		81.10. 7	11: 9: 0	44884.9648	30.00	5.82	0.68	0.69	746	E=255,C=100,B=60
36	LWR	14822	H		82.12.11	18:31: 0	45315.2734	30.00	5.88	0.32	0.33	898	E=1.5X,C=100,B=30
37	SWP	18777	H		82.12.11	19: 7: 0	45315.2969	420.00	5.85	0.33	0.43	898	E=164,C=100,B=75
38	LWR	14823	H		82.12.12	2:20: 0	45315.5977	45.00	5.79	0.43	0.44	898	E=2X,C=110,B=32
39	LWR	14826	H		82.12.12	18:35: 0	45316.2734	45.00	5.68	0.67	0.68	898	E=2X,C=110,B=30
40	SWP	18785	H		82.12.12	21:39: 0	45316.4023	420.00	5.71	0.72	0.82	898	E=180,C=230,B=143
41	LWR	14828	H		82.12.13	4:57: 0	45316.7070	45.00	5.71	0.82	0.84	898	E=2X,C=125,B=38
42	LWR	14831	H		82.12.13	18:38: 0	45317.2773	45.00	5.79	0.03	0.04	899	E=2X,C=120,B=30
43	SWP	18791	H		82.12.13	19:30: 0	45317.3125	420.00	5.84	0.04	0.14	899	E=212,C=230,B=115
44	LWR	14832	H		82.12.14	2:48: 0	45317.6172	45.00	5.78	0.15	0.16	899	E=2X,C=125,B=35
45	LWR	14837	H		82.12.14	18:57: 0	45318.2891	45.00	5.74	0.38	0.39	899	E=2X,C=110,B=30
46	SWP	18797	H		82.12.14	19:49: 0	45318.3242	420.00	5.76	0.39	0.50	899	E=162,C=115,B=72
47	LWR	14838	H		82.12.15	3: 6: 0	45318.6289	45.00	5.80	0.50	0.51	899	E=2X,C=122,B=32
48	LWR	14840	H		82.12.15	19: 5: 0	45319.2969	45.00	5.72	0.74	0.75	899	E=2X,C=120,B=27
49	SWP	18802	H		82.12.15	19:56: 0	45319.3320	420.00	5.75	0.75	0.85	899	E=191,C=114,B=65
50	LWR	14841	H		82.12.16	3:10: 0	45319.6328	45.00	5.76	0.86	0.87	899	E=2X,C=130,B=33
51	LWR	14843	H		82.12.16	18:59: 0	45320.2891	45.00	5.83	0.09	0.10	900	E=213,C=115,B=32
52	SWP	18808	H		82.12.16	19:51: 0	45320.3281	420.00	5.83	0.10	0.20	900	E=158,C=125,B=72
53	LWR	14844	H		82.12.17	3: 3: 0	45320.6289	45.00	5.76	0.21	0.22	900	E=2X,C=112,B=32
54	SWP	18809	L		82.12.17	3:57: 0	45320.6641	60.00	5.77	0.22	0.23	900	E=198,C=87,B=30
55	SWP	19166	L		83. 2. 2	2: 1: 0	45367.5859	35.00	5.71	0.75	0.76	916	E=247,C=110,B=40
56	LWR	15160	H		83. 2. 2	2:42: 0	45367.6133	15.00	5.73	0.76	0.77	916	E=1.5X,C=85,B=33
57	SWP	19176	L		83. 2. 3	1:50: 0	45368.5781	35.00	5.83	0.10	0.11	917	E=232,C=48,B=25
58	LWR	15168	H		83. 2. 3	2:32: 0	45368.6055	14.00	5.88	0.11	0.12	917	E=192,C=80,B=26

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
59	LWR	15171	H		83. 2. 3	9:54: 0	45368.9141	14.00	5.76	0.22	0.22	917	E=163,C=70,B=25
60	SWP	19179	L		83. 2. 3	10:15: 0	45368.9258	35.00	5.75	0.23	0.23	917	E=232,C=70,B=30
61	SWP	19182	L		83. 2. 3	22:30: 0	45369.4375	35.00	5.82	0.41	0.41	917	E=203,C=44,B=24
62	LWR	15174	H		83. 2. 3	23:10: 0	45369.4648	15.00	5.81	0.42	0.42	917	E=194,C=83,B=33
63	SWP	19183	L		83. 2. 3	23:39: 0	45369.4844	35.00	5.79	0.42	0.43	917	E=193,C=46,B=26
64	SWP	19185	L		83. 2. 4	3:27: 0	45369.6445	35.00	5.82	0.48	0.48	917	E=205,C=55,B=33
65	LWR	15176	H		83. 2. 4	4: 8: 0	45369.6719	15.00	5.83	0.49	0.49	917	E=220,C=80,B=27
66	SWP	19186	L		83. 2. 4	4:35: 0	45369.6914	35.00	5.81	0.50	0.50	917	E=187,C=45,B=25
67	LWR	15178	H		83. 2. 4	8:35: 6	45369.8594	15.00	5.81	0.56	0.56	917	252
68	SWP	19188	L	*	83. 2. 4	9: 1:17	45369.8750	35.00	5.81	0.56	0.57	917	351
69	SWP	19193	L		83. 2. 4	19: 4: 0	45370.2930	35.00	5.74	0.71	0.72	917	E=1.5X,C=70,B=25
70	LWR	15182	H		83. 2. 4	19:45: 0	45370.3242	15.00	5.73	0.72	0.72	917	E=232,C=80,B=25
71	SWP	19195	L		83. 2. 4	23:17: 0	45370.4688	30.00	5.79	0.77	0.78	917	E=194,C=60,B=25
72	LWR	15184	H		83. 2. 4	23:53: 0	45370.4961	15.00	5.80	0.78	0.78	917	E=231,C=80,B=26
73	SWP	19201	L		83. 2. 5	10:57:29	45370.9570	35.00	5.70	0.94	0.95	917	251
74	LWR	15190	H		83. 2. 5	11:37:46	45370.9844	15.00	7.37	0.95	0.96	917	252
75	SWP	19203	L		83. 2. 5	15: 5: 0	45371.1289	35.00	5.81	0.00	0.01	918	E=197,C=65,B=25
76	LWR	15192	H		83. 2. 5	15:46: 0	45371.1563	15.00	5.83	0.01	0.02	918	E=235,C=65,B=27
77	SWP	19204	L		83. 2. 5	16:13: 0	45371.1758	35.00	5.79	0.02	0.03	918	E=194,C=70,B=25
78	SWP	19206	L		83. 2. 5	20: 4: 0	45371.3359	35.00	5.84	0.08	0.08	918	E=218,C=85,B=40
79	LWR	15194	H		83. 2. 5	20:45: 0	45371.3633	15.00	5.83	0.09	0.09	918	E=226,C=80,B=32
80	SWP	19207	L		83. 2. 5	21:13: 0	45371.3828	35.00	5.80	0.14	0.10	918	E=224,C=120,B=74
81	SWP	19217	L		83. 2. 7	2:10: 0	45372.5898	15.00	5.81	0.52	0.52	918	E=2X,B=3X
82	LWR	15204	H		83. 2. 7	2:42: 0	45372.6133	10.00	5.83	0.53	0.53	918	E=2X,C=2X,B=2X
83	LWP	4968	H		84.12.12	2: 1: 0	46046.5859	35.00	5.81	0.03	0.04	1156	E=2X,C=135,B=32
84	SWP	24664	L		84.12.12	2:42: 0	46046.6133	50.00	5.85	0.04	0.05	1156	E=197,C=80,B=20
85	LWP	4969	H		84.12.12	3:38: 0	46046.6523	35.00	5.83	0.05	0.06	1156	E=2X,C=130,B=34
86	SWP	24665	L		84.12.12	4:19: 0	46046.6797	50.00	5.83	0.06	0.07	1156	E=50,B=20
87	LWP	4970	H		84.12.12	5:15: 0	46046.7188	35.00	5.83	0.08	0.08	1156	E=2X,C=145,B=50
88	LWP	4973	H		84.12.12	8:56: 4	46046.8711	35.00	5.94	0.13	0.14	1156	363
89	SWP	24667	H		84.12.12	10:17:45	46046.9297	342.00	5.83	0.15	0.23	1156	363
90	LWP	4974	H		84.12.12	16: 5:26	46047.1719	42.00	5.81	0.24	0.25	1156	372
91	LWP	4977	H		84.12.13	1:43: 0	46047.5703	30.00	5.96	0.36	0.38	1156	E=2X,C=135,B=50
92	SWP	24668	L	*	84.12.13	2:18: 0	46047.5977	40.00	5.91	0.39	0.40	1156	E=1.5X,C=80,B=18
93	LWP	4978	H		84.12.13	3: 5: 0	46047.6289	30.00	5.91	0.40	0.40	1156	E=2X,C=115,B=40
94	SWP	24669	L		84.12.13	3:44: 0	46047.6563	25.00	5.91	0.41	0.41	1156	E=152,C=55,B=18
95	LWP	4979	H		84.12.13	4:18: 0	46047.6797	25.00	5.91	0.41	0.42	1156	E=1.5X,C=100,B=32
96	SWP	24670	L		84.12.13	4:56: 0	46047.7070	30.00	5.92	0.42	0.43	1156	E=143,C=62,B=20
97	LWP	4980	H		84.12.13	5:33: 0	46047.7305	30.00	5.91	0.43	0.44	1156	E=2X,C=140,B=66
98	SWP	24671	L		84.12.13	6: 9: 0	46047.7578	30.00	5.93	0.44	0.45	1156	E=164,C=80,B=35
99	LWP	4981	H		84.12.13	6:45: 0	46047.7813	30.00	5.92	0.45	0.46	1156	E=2X,C=145,B=72
100	SWP	24672	L		84.12.13	7:20: 0	46047.8047	30.00	5.90	0.46	0.47	1156	E=185,C=70,B=26
101	LWP	4982	H		84.12.13	8: 2: 0	46047.8359	30.00	5.91	0.47	0.48	1156	E=2X,C=120,B=40
102	SWP	24673	L		84.12.13	9: 1:52	46047.8750	40.00	5.87	0.48	0.49	1156	441
103	LWP	4983	H		84.12.13	9:50: 0	46047.9102	35.00	5.88	0.50	0.50	1156	372
104	LWP	4984	H		84.12.13	16:57: 0	46048.2070	30.00	5.81	0.60	0.61	1156	E=2X,C=108,B=37
105	SWP	24674	H		84.12.13	17:34: 0	46048.2305	420.00	5.79	0.61	0.71	1156	E=130,B=92
106	LWP	4985	H		84.12.13	19:26: 0	46048.3086	35.00	5.77	0.64	0.64	1156	E=2X,C=115,B=40
107	SWP	24676	L		84.12.13	20: 9: 0	46048.3398	35.00	5.74	0.65	0.66	1156	E=121,C=69,B=31
108	LWP	4986	H		84.12.13	20:52: 0	46048.3711	35.00	5.74	0.66	0.67	1156	E=2X,C=115,B=41
109	SWP	24677	L		84.12.13	21:33: 0	46048.3984	40.00	5.73	0.67	0.68	1156	E=138,C=74,B=32
110	LWP	4987	H		84.12.13	22:20: 0	46048.4297	35.00	5.71	0.68	0.69	1156	E=2X,C=122,B=47
111	SWP	24678	L		84.12.13	23: 2: 0	46048.4609	50.00	5.72	0.69	0.70	1156	E=169,C=90,B=40
112	LWP	4988	H		84.12.13	23:58: 0	46048.5000	35.00	5.72	0.70	0.71	1156	E=2X,C=135,B=58
113	SWP	24679	L		84.12.14	0:47: 0	46048.5313	45.00	5.71	0.71	0.73	1156	E=167,C=85,B=33
114	LWP	4991	H		84.12.14	6: 5: 0	46048.7539	15.00	5.83	0.79	0.80	1156	E=1.3X,C=140,B=87
115	SWP	24681	L		84.12.14	6:26: 0	46048.7695	25.00	5.82	0.80	0.80	1156	E=168,C=110,B=76
116	LWP	4992	H		84.12.14	7: 4: 0	46048.7930	20.00	5.82	0.81	0.81	1156	E=2X,C=147,B=90
117	SWP	24682	L		84.12.14	7:35: 0	46048.8164	30.00	5.77	0.81	0.82	1156	E=152,C=90,B=43
118	LWP	4993	H		84.12.14	8:12: 0	46048.8398	30.00	5.78	0.82	0.83	1156	E=2X,C=130,B=54
119	SWP	24683	L		84.12.14	9: 4:35	46048.8789	40.00	5.77	0.84	0.85	1156	341
120	LWP	4994	H		84.12.14	9:50:10	46048.9102	20.00	5.79	0.85	0.85	1156	351
121	SWP	24684	L		84.12.14	10:18:58	46048.9297	40.00	5.77	0.85	0.86	1156	341
122	LWP	4995	H		84.12.14	11: 4: 2	46048.9609	20.00	5.78	0.87	0.87	1156	351
123	SWP	24685	L		84.12.14	11:32:15	46048.9805	40.00	5.79	0.87	0.88	1156	341

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
124	LWP	4996	H		84.12.14	12:20:25	46049.0156	20.00	5.80	0.89	0.89	1156	361
125	SWP	24686	L		84.12.14	13: 0: 8	46049.0430	40.00	5.82	0.89	0.90	1156	341
126	LWP	4997	H		84.12.14	13:48:41	46049.0742	20.00	5.77	0.91	0.91	1156	361
127	SWP	24687	L		84.12.14	14:25:42	46049.1016	100.00	5.84	0.92	0.94	1156	361
128	LWP	4998	H		84.12.14	16:11:29	46049.1758	20.00	5.79	0.94	0.95	1156	361
129	SWP	24688	L		84.12.14	16:45: 0	46049.1992	40.00	5.80	0.95	0.96	1156	E=165,C=83,B=23
130	LWP	4999	H		84.12.14	17:47: 0	46049.2422	35.00	5.77	0.96	0.97	1156	E=2X,C=125,B=42
131	SWP	24689	L		84.12.14	18:29: 0	46049.2695	40.00	5.82	0.97	0.98	1156	E=201,C=78,B=25
132	LWP	5000	H		84.12.14	19:15: 0	46049.3008	35.00	5.81	0.99	0.99	1156	E=2X,C=125,B=42
133	SWP	24690	L		84.12.14	19:56: 0	46049.3320	40.00	5.80	0.00	0.01	1157	E=164,C=77,B=35
134	LWP	5001	H		84.12.14	20:43: 0	46049.3633	35.00	5.79	0.01	0.02	1157	E=2X,C=123,B=42
135	SWP	24691	L		84.12.14	21:29: 0	46049.3945	40.00	5.78	0.02	0.03	1157	E=244,C=80,B=25
136	LWP	5002	H		84.12.14	22:15: 0	46049.4258	30.00	5.77	0.03	0.04	1157	E=2X,C=120,B=50
137	SWP	24692	L		84.12.14	22:52: 0	46049.4531	30.00	5.79	0.04	0.05	1157	E=178,C=70,B=35
138	LWP	5003	H		84.12.14	23:29: 0	46049.4766	30.00	5.80	0.05	0.05	1157	E=2X,C=135,B=60
139	SWP	24693	L		84.12.15	0: 5: 0	46049.5039	30.00	5.81	0.06	0.06	1157	E=177,C=75,B=40
140	LWP	5004	H		84.12.15	0:42: 0	46049.5273	30.00	5.82	0.07	0.07	1157	E=2X,C=126,B=50
141	SWP	24694	L		84.12.15	1:18: 0	46049.5547	30.00	5.84	0.08	0.08	1157	E=151,C=75,B=26
142	LWP	5005	H		84.12.15	1:57: 0	46049.5820	30.00	5.85	0.08	0.09	1157	E=2X,C=130,B=52
143	SWP	24695	L		84.12.15	2:32: 0	46049.6055	35.00	5.86	0.09	0.10	1157	E=166,C=75,B=25
144	LWP	5006	H		84.12.15	3:13: 0	46049.6328	30.00	5.86	0.10	0.11	1157	E=2X,C=125,B=49
145	SWP	24696	L		84.12.15	3:49: 0	46049.6602	35.00	5.84	0.11	0.12	1157	E=180,C=77,B=32
146	LWP	5007	H		84.12.15	4:30: 0	46049.6875	30.00	5.87	0.12	0.13	1157	E=2X,C=160,B=82
147	SWP	24697	L		84.12.15	5: 6: 0	46049.7109	35.00	5.85	0.13	0.14	1157	E=196,C=120,B=80
148	LWP	5008	H		84.12.15	5:47: 0	46049.7422	25.00	5.83	0.14	0.15	1157	E=2X,C=185,B=118
149	SWP	24698	L		84.12.15	6:18: 0	46049.7617	25.00	5.84	0.15	0.15	1157	E=184,C=115,B=72
150	LWP	5009	H		84.12.15	6:50: 0	46049.7852	25.00	5.85	0.16	0.16	1157	E=2X,C=180,B=115
151	LWP	5046	H		84.12.20	9:55:13	46054.9141	20.00	5.86	0.96	0.97	1158	361
152	SWP	24722	H		84.12.20	10:21:22	46054.9297	385.00	5.84	0.97	0.06	1158	262
153	LWP	6780	H		85. 9.23	2:34: 0	46331.6055	15.00	5.94	0.47	0.47	1256	E=193,C=80,B=35
154	SWP	26704	L		85. 9.23	3:10: 0	46331.6328	30.00	5.85	0.48	0.48	1256	E=66,C=52,B=32
155	LWP	6781	H		85. 9.23	4:13: 0	46331.6758	15.00	5.83	0.49	0.50	1256	E=208,C=93,B=42
156	SWP	26705	L		85. 9.23	4:49: 0	46331.6992	30.00	5.91	0.50	0.51	1256	E=77,C=63,B=26
157	LWP	6782	H		85. 9.23	5:57: 0	46331.7461	15.00	5.91	0.52	0.52	1256	E=213,C=95,B=43
158	SWP	26706	L		85. 9.23	6:29: 0	46331.7695	30.00	5.83	0.53	0.53	1256	E=90,C=63,B=26
159	LWP	6783	H		85. 9.23	7:33: 0	46331.8164	15.00		0.54	0.55	1256	E=227,C=98,B=50
160	SWP	26707	L	*	85. 9.23	8: 5: 0	46331.8359	30.00	5.84	0.55	0.56	1256	E=69,C=60,B=23
161	LWP	6784	H		85. 9.23	9: 8: 0	46331.8789	15.00	5.95	0.56	0.57	1256	E=219,C=85,B=40
162	SWP	26708	L		85. 9.23	9:39: 0	46331.9023	30.00	5.84	0.57	0.58	1256	E=170,C=180,B=145
163	LWP	7621	H		86. 2. 3	12:17:47	46465.0117	15.00	6.02	0.48	0.48	1303	352
164	SWP	27655	L		86. 2. 3	12:36:30	46465.0234	15.00	5.95	0.48	0.49	1303	230
165	LWP	9171	H		86. 9.25	8:24: 0	46698.8516	15.00	5.90	0.88	0.89	1385	E=207,C=95,B=45
166	LWP	9172	L	*	86. 9.25	9:19: 0	46698.8867	1.00	5.90	0.90	0.90	1385	E=1.2X,C=195,B=50
167	LWP	9173	L		86. 9.25	9:57: 0	46698.9141	0.83	5.91	0.90	0.90	1385	E=248,C=177,B=40
168	LWP	9174	L		86. 9.25	10:34: 0	46698.9414	8.50	5.90	0.91	0.92	1385	E=241,C=10X,B=160
169	LWP	9175	L	*	86. 9.25	11:16: 0	46698.9688	0.83	5.90	0.92	0.96	1385	E=240,C=165,B=50
170	LWP	9176	L		86. 9.25	11:49: 0	46698.9922	0.83	5.89	0.93	0.93	1385	E=240,C=165,B=45
171	LWP	9177	H		86. 9.25	12:25: 0	46699.0156	15.00	5.92	0.94	0.94	1385	E=1.3X,C=181,B=127
172	LWP	9178	H		86. 9.25	13:17:16	46699.0547	170.00	5.97	0.95	0.00	1385	774
173	LWP	9179	L		86. 9.25	17: 7:31	46699.2148	0.83	5.92	0.01	0.01	1386	561
174	SWP	29309	H		86. 9.25	17:25: 0	46699.2266	999.00	5.85	0.01	0.26	1386	E=10X,C=1.5X,B=235
175	LWP	9180	L		86. 9.25	18:57: 1	46699.2891	0.83	5.85	0.04	0.04	1386	461
176	LWP	9181	L		86. 9.25	20:54:47	46699.3711	0.83	5.92	0.07	0.07	1386	461
177	LWP	9182	L		86. 9.25	23: 9: 0	46699.4648	0.83	5.91	0.10	0.10	1386	E=1.2X,C=178,B=50
178	LWP	9183	L		86. 9.26	0:59: 0	46699.5391	0.67	5.93	0.13	0.13	1386	E=255,C=160,B=45
179	LWP	9184	L		86. 9.26	2:55: 0	46699.6211	0.67	5.89	0.15	0.15	1386	E=211,C=140,B=50
180	LWP	9185	L		86. 9.26	4:26: 0	46699.6836	0.67	5.76	0.18	0.18	1386	E=222,C=140,B=45
181	LWP	9186	L		86. 9.26	6:57: 0	46699.7891	0.67	5.86	0.21	0.21	1386	E=222,C=140,B=45
182	LWP	9187	H		86. 9.26	7:37: 0	46699.8164	120.00	5.72	0.22	0.25	1386	E=6X,C=3X,B=200
183	LWP	9188	L		86. 9.26	10:30: 0	46699.9375	0.67	5.81	0.27	0.27	1386	E=213,C=140,B=45
184	LWP	9189	L		86. 9.26	11: 6: 0	46699.9609	0.67	5.81	0.27	0.27	1386	E=229,C=145,B=45
185	LWP	9190	L	*	86. 9.26	11:46: 0	46699.9922	0.67	5.82	0.28	0.28	1386	E=236,C=145,B=45
186	LWP	9191	H		86. 9.26	12:27: 0	46700.0195	15.00	5.84	0.29	0.30	1386	E=1.2X,C=167,B=110
187	LWP	9192	H		86. 9.26	13:31:12	46700.0625	150.00	5.79	0.31	0.35	1386	774
188	LWP	9193	L		86. 9.26	17:11:30	46700.2148	0.67	5.94	0.36	0.36	1386	461

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
189	LWP	9194	L		86. 9.26	18:57:51	46700.2891	0.67	5.88	0.39	0.39	1386	451
190	LWP	9195	L		86. 9.26	20:55:55	46700.3711	0.67	5.98	0.42	0.42	1386	451
191	LWP	9196	L		86. 9.26	23: 8: 0	46700.4648	0.67	5.99	0.458	0.45	1386	E=206,C=155,B=45
192	LWP	9197	L		86. 9.27	0:56: 0	46700.5391	0.67	5.98	0.48	0.48	1386	E=210,C=148,B=43
193	LWP	9198	L	*	86. 9.27	2:57: 0	46700.6211	0.67	5.97	0.51	0.51	1386	E=191,C=138,B=45
194	LWP	9199	L		86. 9.27	4:11: 0	46700.6758	0.67	5.99	0.53	0.53	1386	E=194,C=142,B=45
195	LWP	9200	H		86. 9.27	5: 9: 0	46700.7148	15.00	5.94	0.54	0.54	1386	E=226,C=91,B=42
196	LWP	9201	H		86. 9.27	6: 4: 0	46700.7539	45.00	5.90	0.55	0.56	1386	E=3X,C=160,B=65
197	SWP	30035	L		87. 1. 7	0:44: 0	46802.5313	30.00	5.88	0.42	0.43	1422	E=60,C=43,B=27
198	LWP	9880	H		87. 1. 7	1:33: 0	46802.5664	15.00	5.96	0.43	0.44	1422	E=185,C=85,B=38
199	SWP	30036	L		87. 1. 7	2: 7: 0	46802.5898	30.00	5.95	0.44	0.45	1422	E=60,C=45,B=28
200	LWP	9881	H		87. 1. 7	3:10: 0	46802.6328	15.00	5.85	0.45	0.46	1422	E=200,C=87,B=42
201	SWP	30037	L		87. 1. 7	3:40: 0	46802.6523	30.00	5.95	0.46	0.47	1422	E=79,C=60,B=39
202	LWP	9882	H		87. 1. 7	4:43: 0	46802.6953	15.00	5.82	0.48	0.48	1422	E=207,C=95,B=45
203	SWP	30038	L	*	87. 1. 7	5:17: 0	46802.7188	30.00	5.86	0.48	0.49	1422	E=76,C=48,B=32
204	LWP	16928	H		89.12.16	3:45: 0	47876.6563	45.00	6.14	0.93	0.94	1800	E=4X,C=165,B=52
205	SWP	37828	L		89.12.16	4:41: 0	47876.6953	30.00	5.92	0.95	0.95	1800	E=129,C=58,B=22
206	LWP	16929	H		89.12.16	5:40: 0	47876.7344	20.00	5.88	0.96	0.97	1800	E=232,C=70,B=41
207	SWP	37829	L		89.12.16	6:34: 0	47876.7734	30.00	5.87	0.97	0.98	1800	E=85,C=55,B=20
208	LWP	16930	H		89.12.16	7:39: 0	47876.8203	20.00	5.95	0.99	0.00	1800	E=187,C=72,B=38
209	SWP	37830	L		89.12.16	8:29: 0	47876.8516	15.00	5.95	0.00	0.01	1801	E=96,C=48,B=17
210	LWP	16931	H		89.12.17	3:27: 0	47877.6445	45.00	5.96	0.28	0.29	1801	E=4X,C=158,B=52
211	SWP	37834	L		89.12.17	4:20: 0	47877.6797	30.00	6.07	0.29	0.30	1801	E=88,B=22
212	LWP	16932	H		89.12.17	5:18: 0	47877.7227	20.00	5.92	0.31	0.31	1801	E=149,C=75,B=45
213	SWP	37835	L		89.12.17	6: 8: 0	47877.7539	30.00	5.89	0.32	0.33	1801	E=98,C=50,B=19
214	LWP	16933	H		89.12.17	7: 8: 0	47877.7969	20.00	5.88	0.34	0.34	1801	E=146,C=75,B=38
215	LWP	16934	H		89.12.17	8:12: 0	47877.8398	36.00	5.83	0.35	0.36	1801	E=3.5X,C=125,B=38
216	LWP	17287	H		90. 2. 3	19:45: 0	47926.3242	30.00	5.83	0.44	0.44	1818	E=163,C=81,B=41
217	LWP	17288	H		90. 2. 3	20:48: 0	47926.3672	20.00	5.76	0.45	0.46	1818	E=203,C=82,B=37
218	LWP	17289	H		90. 2. 3	21:54: 0	47926.4141	67.00	5.70	0.47	0.48	1818	E=3X,C=195,B=45
219	SWP	39386	L		90. 8. 3	2:23: 0	48106.5977	30.00		0.96	0.97	1881	E=168,C=65,B=26
220	LWP	18552	H		90. 8.10	13:45: 0	48114.0742	13.00	5.62	0.60	0.60	1884	E=177,C=92,B=48
221	LWP	18568	H		90. 8.12	22:53: 0	48116.4531	13.00	5.78	0.44	0.44	1885	E=172,C=80,B=38
222	SWP	39459	L		90. 8.14	11:33: 0	48117.9805	32.00	5.68	0.97	0.98	1885	E=158,C=60,B=18
223	LWP	18583	H		90. 8.14	12:13: 0	48118.0078	13.00	5.69	0.98	0.99	1885	E=192,C=80,B=41
224	LWP	18596	H		90. 8.16	7:12: 0	48119.8008	13.00	5.68	0.62	0.62	1886	E=180,C=74,B=36
225	SWP	39469	L		90. 8.16	7:33: 0	48119.8164	32.00	5.68	0.62	0.63	1886	E=164,C=55,B=18
226	LWP	18606	H		90. 8.17	11:15: 0	48120.9688	13.00	5.71	0.03	0.03	1887	E=209,C=95,B=54
227	SWP	39475	L		90. 8.17	11:38: 0	48120.9844	32.00	5.71	0.03	0.04	1887	E=195,C=80,B=75
228	SWP	40687	L		91. 1.26	22:24: 0	48283.4336	30.00	5.80	0.28	0.29	1944	E=121,C=64,B=24
229	SWP	42404	L	*	91. 9. 6	8: 1: 0	48505.8359	31.00	5.72	0.65	0.66	2022	E=115,C=58,B=18
230	LWP	21170	H		91. 9. 6	8:41: 0	48505.8633	13.00	5.71	0.66	0.66	2022	E=148,C=80,B=35
231	SWP	42415	L		91. 9. 8	7:44: 0	48507.8203	35.00	5.78	0.35	0.36	2023	E=134,C=67,B=18
232	LWP	21186	H		91. 9. 8	8:35: 0	48507.8594	15.00	5.82	0.36	0.37	2023	E=157,C=79,B=32
233	LWP	21199	H		91. 9. 9	7:53: 0	48508.8281	15.00	5.76	0.71	0.71	2023	E=157,C=79,B=35
234	SWP	42426	L		91. 9. 9	8:16: 0	48508.8438	35.00	5.75	0.71	0.72	2023	E=125,C=56,B=18
235	LWP	21207	H		91. 9.10	7:37: 0	48509.8164	15.00	5.83	0.05	0.06	2024	E=197,C=76,B=35
236	SWP	42434	L		91. 9.10	8: 1: 0	48509.8359	35.00	5.84	0.06	0.07	2024	E=170,C=70,B=18
237	LWP	21221	H		91. 9.12	7:29: 0	48511.8125	14.00	5.76	0.76	0.76	2024	E=150,C=75,B=38
238	SWP	42447	L		91. 9.12	7:51: 0	48511.8281	33.00	5.75	0.76	0.77	2024	E=138,C=60,B=18
239	LWP	21235	H		91. 9.14	7:45: 0	48513.8242	14.00	5.74	0.47	0.47	2025	E=150,C=79,B=38
240	SWP	42460	L		91. 9.14	8: 8: 0	48513.8398	33.00	5.73	0.47	0.48	2025	E=102,C=62,B=20

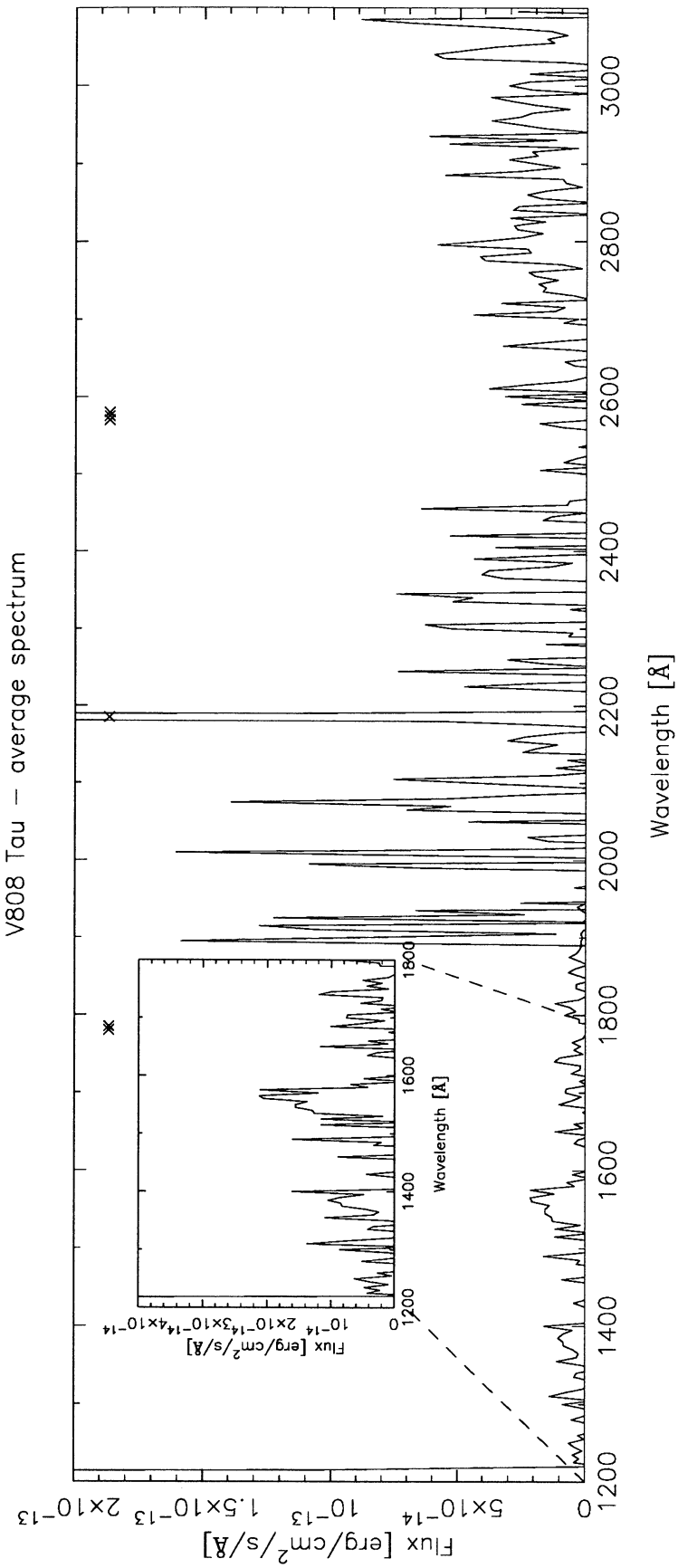

V771 Tau – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V808 Tau

alternative names:	HD 283882, SAO 76773, BD+24 692
coordinates (2000.0):	$04^h49^m11.4^s$, $24°48'43''$
linear ephemeris:	
Min I = HJD 2442881.99 + 11.9293 E	
system parameters:	
type of binary:	possibly EB, SB2
eccentricity:	0.511
masses [$M_\odot$]:	$\geq$0.77/$\geq$0.75
radii [$R_\odot$]:	$\approx$0.8/$\approx$0.8
spectral type:	K3V/K3V
distance [pc]:	42
activity parameters:	
P_{phot} [days]:	6.82
ΔV [mag]:	$\approx$0.1
x-ray luminosity [10^{31} erg/s]:	0.01
Mg II index:	[2.217]
Ca II index:	strong
$H\alpha$ emission:	weak 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$\approx$0.0
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.03 10^{-15}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.34 10^{-14}
U-B:	0.92
B-V:	1.06
V:	9.67
V-R:	
R-I:	0.420
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	10989	L	*	81. 1. 7	5: 4: 0	44611.7109	100.00	9.36	0.00	0.00	144	B=100
2	LWR	9657	L	*	81. 1. 7	6: 8: 0	44611.7539	8.00	9.35	0.00	0.00	145	E=58,C=5-10,B=25


V808 Tau – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V818 Tau

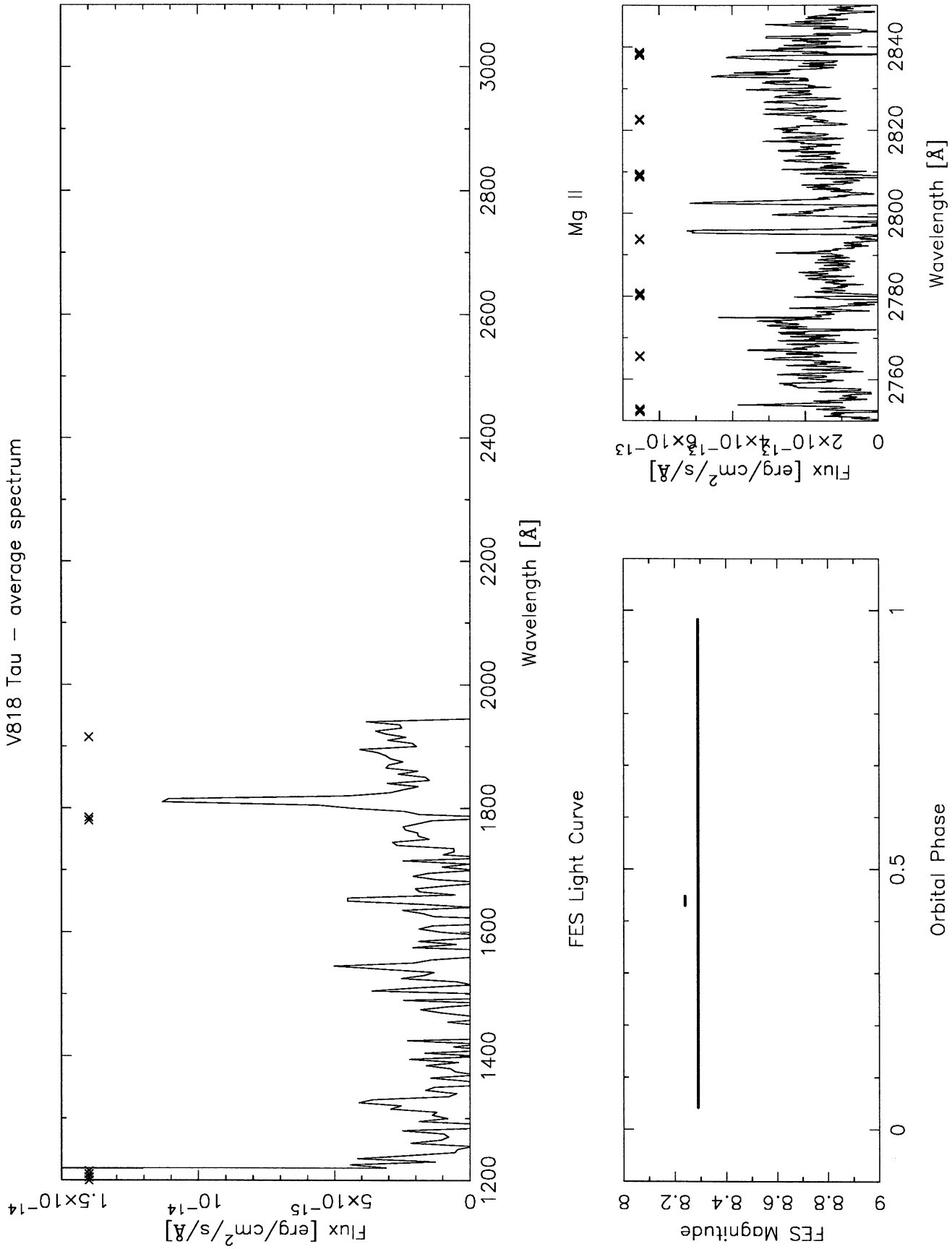
alternative names:	HD 27130, SAO 93845, BD+16 577
coordinates (2000.0):	$04^h17^m38.9^s$, $16°56'52''$
linear ephemeris:	
Min I = HJD 2444506.915 + 5.609198 E	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.086/0.776
radii [$R_\odot$]:	
spectral type:	G6V/K6V
distance [pc]:	45
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	0.032
Mg II index:	0.603
Ca II index:	yes
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.68 10^{-17}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.20 10^{-13}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[3.19 10^{-13}]
U-B:	0.33
B-V:	0.775
V:	8.31
V-R:	
R-I:	0.254
b-y:	0.463
m_1:	0.278
c_1:	0.288
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Schiller S.J. and Milone E.F.: 1987, *Astron. J.* **93**, 1471-1483, *Photometric analysis of the Hyades eclipsing binary HD 27130*

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	15311	L	*	81.10.21	23: 6: 0	44899.4609	480.00	8.29	0.98	0.04	69	E=107,C=120,B=81
2	LWR	11829	H	*	81.10.24	11:14: 0	44901.9688	150.00	8.24	0.43	0.45	70	E=121,C=122,B=61


V818 Tau – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

V833 Tau

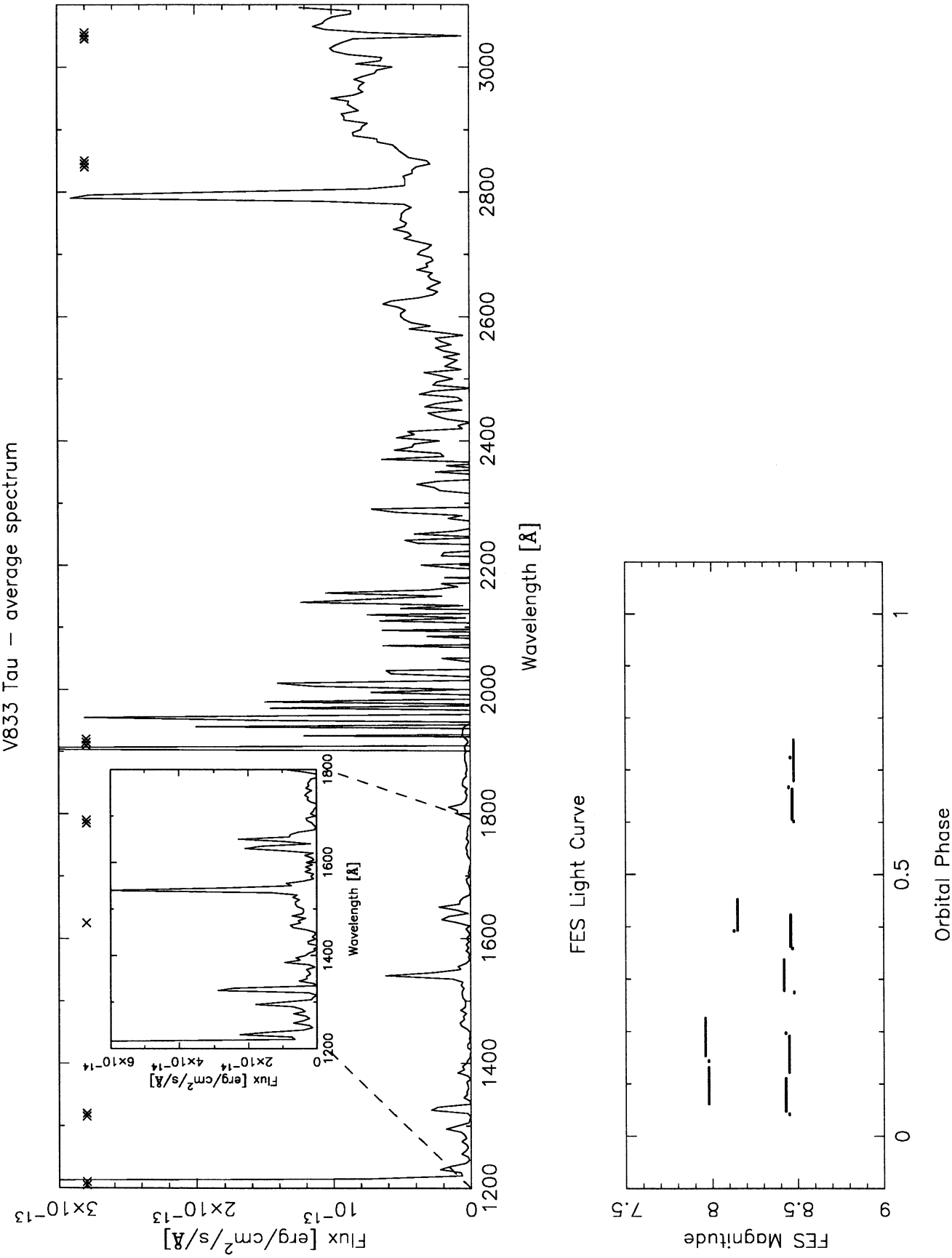
alternative names:	HD 283750, SAO 76672, BD+26 730
coordinates (2000.0):	$04^h36^m4706^s$, $27°08'02''$
linear ephemeris:	
Min I = HJD 2444610.794 + 1.787797 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	≈0.1/≈0.8
radii [$R_\odot$]:	≥0.22
spectral type:	dK5e
distance [pc]:	17
activity parameters:	
P_{phot} [days]:	1.797
ΔV [mag]:	0.07:
x-ray luminosity [10^{31} erg/s]:	0.042
Mg II index:	[2.132]
Ca II index:	strong
$H\alpha$ emission:	emission, variable
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	54±7
ROSAT 110-200Å [ct/ks]:	92±11
EUVE 100Å [ct/s]:	0.0833±0.013
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.82\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.5\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.05\ 10^{-14}$
U-B:	0.95
B-V:	1.085
V:	8.16
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Naftilan S.A. and Fairchild K.: 1993, *Publ. Astron. Soc. Pac.* **105**, 565-567, *Abundance analysis of the BY Draconis variable, hot flare star V 833 Tauri*

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	9654	L		81. 1. 6	23:46: 0	44611.4922	3.00	8.13	0.39	0.39	0	E=162,C=5-10,B=23
2	SWP	10987	L		81. 1. 6	23:54: 0	44611.4961	150.00	8.15	0.39	0.45	0	E=1.3X,C=5-10,B=100
3	LWP	14323	L		88.10.27	21:40: 0	47462.4023	5.00	8.45	0.04	0.04	1595	E=145,C=65,B=32
4	SWP	34614	H		88.10.27	21:54: 0	47462.4141	150.00	8.43	0.05	0.11	1595	E=247,C=64,B=45
5	LWP	14324	L		88.10.28	0:34: 0	47462.5234	5.00	8.43	0.11	0.11	1595	E=162,C=68,B=32
6	SWP	34615	L		88.10.28	1: 9: 0	47462.5469	180.00	8.45	0.12	0.19	1595	E=1.5X,C=85,B=50
7	LWP	14325	L	*	88.10.28	4:17: 0	47462.6797	5.00	8.43	0.20	0.20	1595	E=148,C=67,B=32
8	LWP	14331	L		88.10.28	21:39: 0	47463.4023	5.00	8.48	0.60	0.60	1595	E=161,C=65,B=33
9	SWP	34621	L		88.10.28	21:51: 0	47463.4102	150.00	8.47	0.61	0.66	1595	E=1.5X,C=64,B=47
10	LWP	14332	L		88.10.29	0:28: 0	47463.5195	5.00	8.45	0.67	0.67	1595	E=140,C=64,B=32
11	SWP	34622	L	*	88.10.29	1: 1: 0	47463.5430	205.00	8.48	0.68	0.76	1595	E=160,C=74,B=56
12	LWP	14333	L		88.10.29	2:53: 0	47463.6211	5.00	8.46	0.72	0.73	1595	E=136,C=65,B=32
13	LWP	14357	L		88.10.31	21:26: 0	47466.3945	5.00	8.48	0.27	0.28	1597	E=153,C=70,B=34
14	SWP	34652	L		88.10.31	21:38: 0	47466.4023	150.00	8.42	0.28	0.34	1597	E=1.5X,C=65,B=50
15	LWP	14370	L	*	88.11. 2	19:57: 0	47468.3320	5.00	8.47	0.36	0.36	1598	E=152,C=66,B=31
16	SWP	34666	L	*	88.11. 2	20:12: 0	47468.3398	158.00	8.46	0.36	0.42	1598	E=125,C=61,B=47
17	SWP	42350	L		91. 8.29	1:47: 0	48497.5742	180.00	7.98	0.06	0.13	2174	E=141,C=84,B=35
18	LWP	21106	L		91. 8.29	2:46: 0	48497.6172	6.00	7.98	0.09	0.09	2174	E=184,C=78,B=32
19	LWP	21107	L	*	91. 8.29	5:16: 0	48497.7188	7.00	7.98	0.14	0.15	2174	E=199,C=84,B=32
20	SWP	42351	L	*	91. 8.29	5:45: 0	48497.7383	185.00	7.96	0.15	0.23	2174	E=145,C=90,B=40


V833 Tau – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

V837 Tau

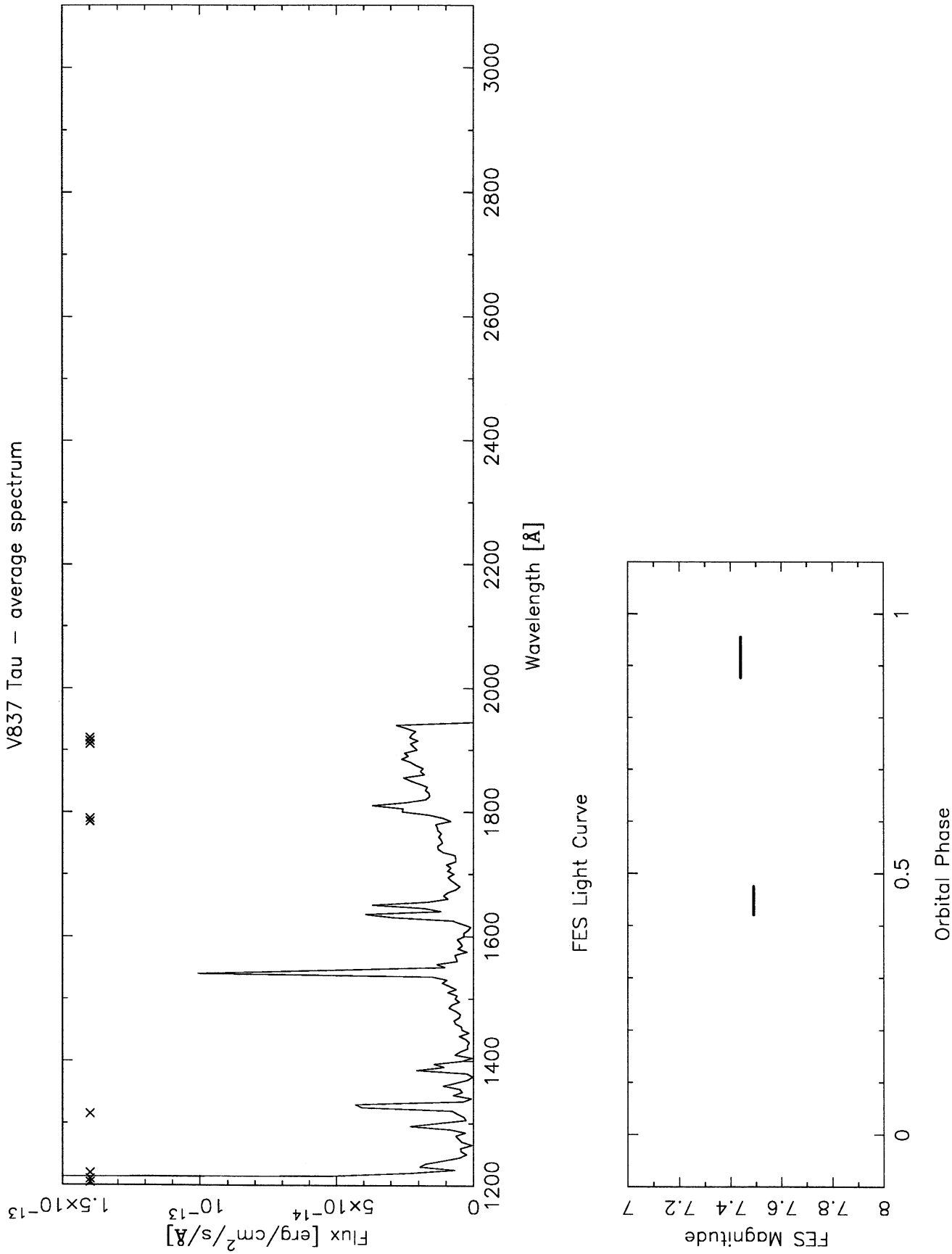
alternative names:	HD 22403, SAO 76031, BD+25 580
coordinates (2000.0):	$03^h37^m11.0^s$, $25°59'26''$
linear ephemeris:	
Min I = HJD 2448161.244 + 1.929927 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.0/0.67
radii [$R_\odot$]:	$\geq$1/$\geq$0.7
spectral type:	G2V/K5V
distance [pc]:	55
activity parameters:	
P_{phot} [days]:	1.89
ΔV [mag]:	0.09
x-ray luminosity [10^{31} erg/s]:	1.01
Mg II index:	
Ca II index:	strong, hot
$H\alpha$ emission:	
radio flux density [mJy]:	2.9-4.9
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	71±8
ROSAT 110-200Å [ct/ks]:	106±9
EUVE 100Å [ct/s]:	0.094±0.016
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.16 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:	0.70
V:	8.1
V-R:	
R-I:	
b-y:	0.436
m_1:	0.228
c_1:	0.307
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Raveendran A.V., Mohin S. and Mekkaden M.V.: 1985, *IAU Inform. Bull. Var. Stars* **2694**, 1-2, *HD 22403 : a new variable with Ca II H and K emission*

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	25281	L	*	85. 2.20	17: 4: 0	46117.2109	220.00	7.44	0.88	0.96	-1059	E=252,C=170,B=55
2	SWP	25292	L	*	85. 2.21	18:19: 0	46118.2617	150.00	7.49	0.42	0.48	-1058	E=192,C=127,B=45


V837 Tau – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

TZ Tri

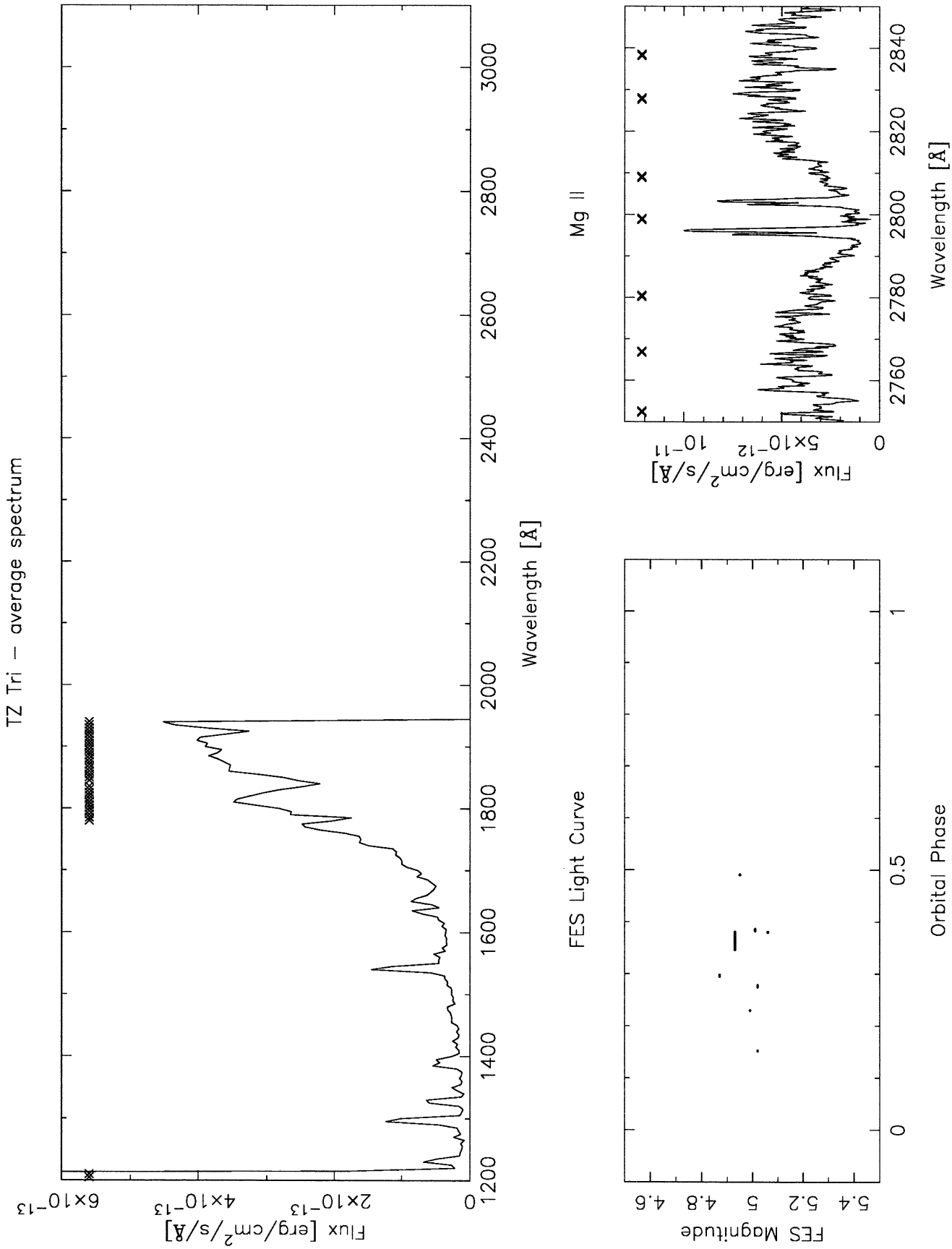
alternative names:	HD 13480, SAO 55347, HR 642, BD+29 371, 6 Tri, ι Tri
coordinates (2000.0):	$02^h12^m22.3^s$, $30°18'11''$
linear ephemeris:	
Min I = HJD 2448605.32 + 14.7339 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.04
masses [$M_\odot$]:	$\geq$1.12/$\geq$1.10
radii [$R_\odot$]:	13
spectral type:	F5/K0III
distance [pc]:	75
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	$\approx$0.02
x-ray luminosity [10^{31} erg/s]:	1.15
Mg II index:	0.586
Ca II index:	moderate
$H\alpha$ emission:	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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.35 10^{-14}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[3.55 10^{-12}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[7.56 10^{-12}]
U-B:	
B-V:	0.78
V:	4.94
V-R:	
R-I:	
b-y:	0.510
m_1:	0.273
c_1:	0.325
β:	
IRAS [12]:	$\approx$0
IRAS [25]:	$\approx$0

additional references:

Little-Marenin I.R., Ayres T.R. and Young A.: 1985, *Bull. American Astron. Soc.* **16**, 912, *IUE observations of the RS CVn binary - TZ Tri*

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	9691	H		81. 1.11	7:30: 0	44615.8125	15.00	4.99	0.23	0.23	-270	E=142,C=100,B=25
2	SWP	11034	L	*	81. 1.12	6:52: 0	44616.7852	60.00	4.87	0.30	0.30	-270	E=270,B=50
3	LWR	9721	H		81. 1.15	3:52: 0	44619.6602	25.00	4.95	0.49	0.49	-270	E=168,C=117,B=35
4	LWR	11573	H		81. 9.17	15:33: 0	44865.1484	15.00	5.02	0.15	0.15	-253	E=131,C=105,B=27
5	SWP	15041	L	*	81. 9.19	11: 0: 0	44866.9570	80.00	5.02	0.28	0.28	-253	E=159,C=3X,B=35
6	SWP	17412	H		82. 7.12	4:38: 0	45162.6914	730.00	4.93	0.35	0.38	-233	E=232,C=2X,B=135
7	LWR	13664	H	*	82. 7.12	16:17: 0	45163.1797	30.00	5.06	0.38	0.38	-233	E=220,C=160,B=38
8	LWR	13665	H		82. 7.12	17:23: 0	45163.2227	90.00	5.01	0.38	0.39	-233	E=2.5X,C=2.5X,B=72

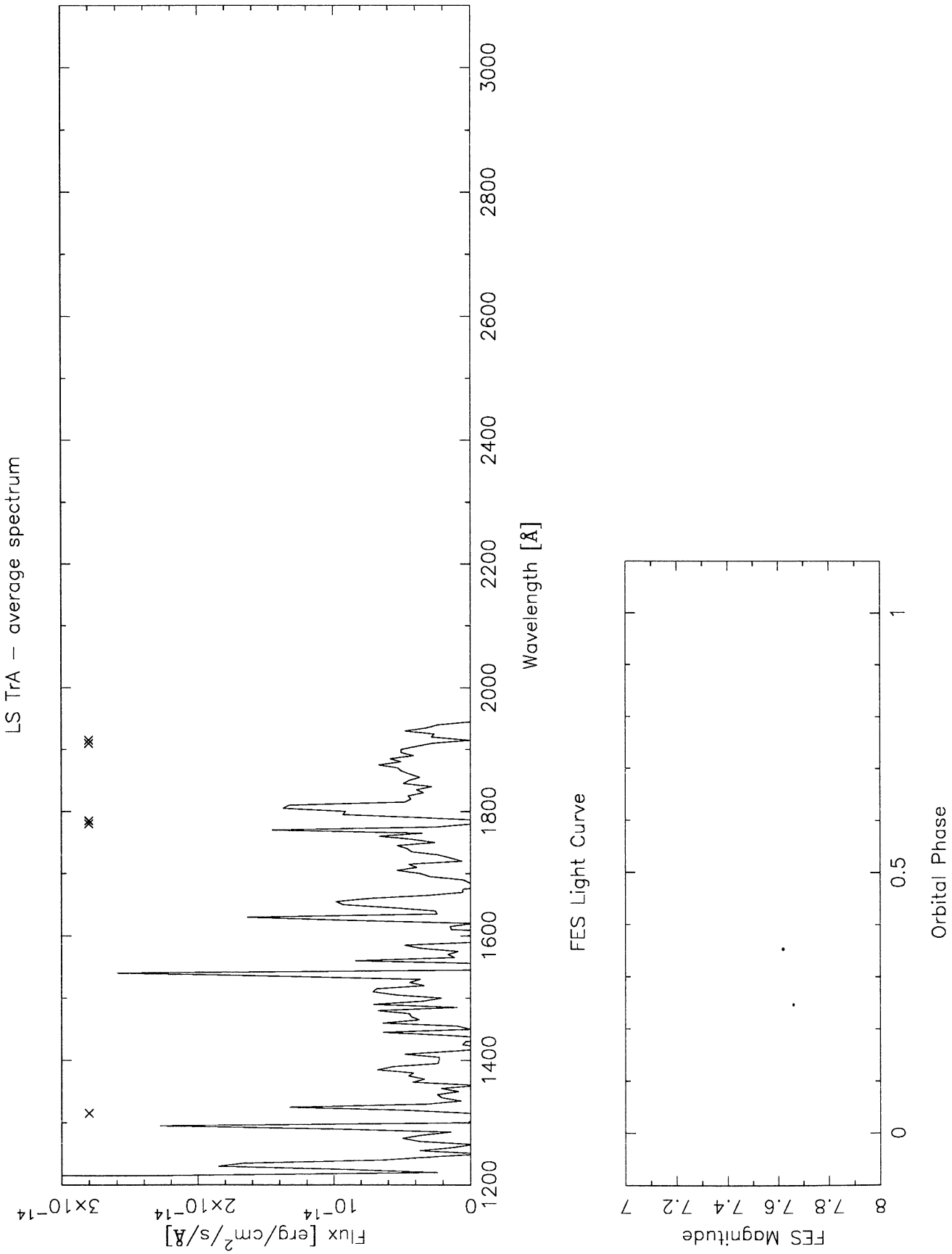

TZ Tri – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

LS TrA

alternative names:	HD 137164, SAO 253175, CD-62 937
coordinates (2000.0):	$15^h27^m38.9^s$, $-63°01'13''$
linear ephemeris:	
Min I s = HJD 2444689.206 + 49.431 E	
system parameters:	
type of binary:	NEB, SB2
eccentricity:	0.516
masses [$M_\odot$]:	f(m)=2.89
radii [$R_\odot$]:	
spectral type:	K2IV/K2IV
distance [pc]:	54
activity parameters:	
P_{phot} [days]:	46.19
ΔV [mag]:	0.22
x-ray luminosity [10^{31} erg/s]:	0.233
Mg II index:	
Ca II index:	class AB
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	7.7
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.46\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.78
B-V:	1.04
V:	7.31
V-R:	
R-I:	
b-y:	0.670
m_1:	0.379
c_1:	0.395
β:	
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	29138	L		86. 9. 5	2:43: 0	46678.6133	73.00	7.66	0.25	0.25	40	E=49,B=30
2	SWP	30978	L	*	87. 5.15	12:14: 0	46931.0078	150.00	7.62	0.35	0.35	45	E=88,C=65,B=50


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

CF Tuc

alternative names:	HD 5303, SAO 255716, CD-75 26
coordinates (2000.0):	$00^h52^m58.3^s$, $-74°39'07''$
linear ephemeris:	
Min I = HJD 2444001.009 + 2.79786 E	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.057/1.205
radii [$R_\odot$]:	1.67/3.32
spectral type:	G0V/K4IV
distance [pc]:	54
activity parameters:	
P_{phot} [days]:	2.798
ΔV [mag]:	0.37
x-ray luminosity [10^{31} erg/s]:	0.34
Mg II index:	[0.715], 0.629
Ca II index:	class C, cool
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	7.1
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	18±4
ROSAT 110-200Å [ct/ks]:	16±:
EUVE 100Å [ct/s] [c/s]:	0.034±0.007
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.96 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	5.87 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.03 10^{-12}
U-B:	0.18
B-V:	0.735
V:	7.41
V-R:	
R-I:	
b-y:	0.476
m_1:	0.193
c_1:	0.289
β:	2.609
IRAS [12]:	0.36
IRAS [25]:	<0.25

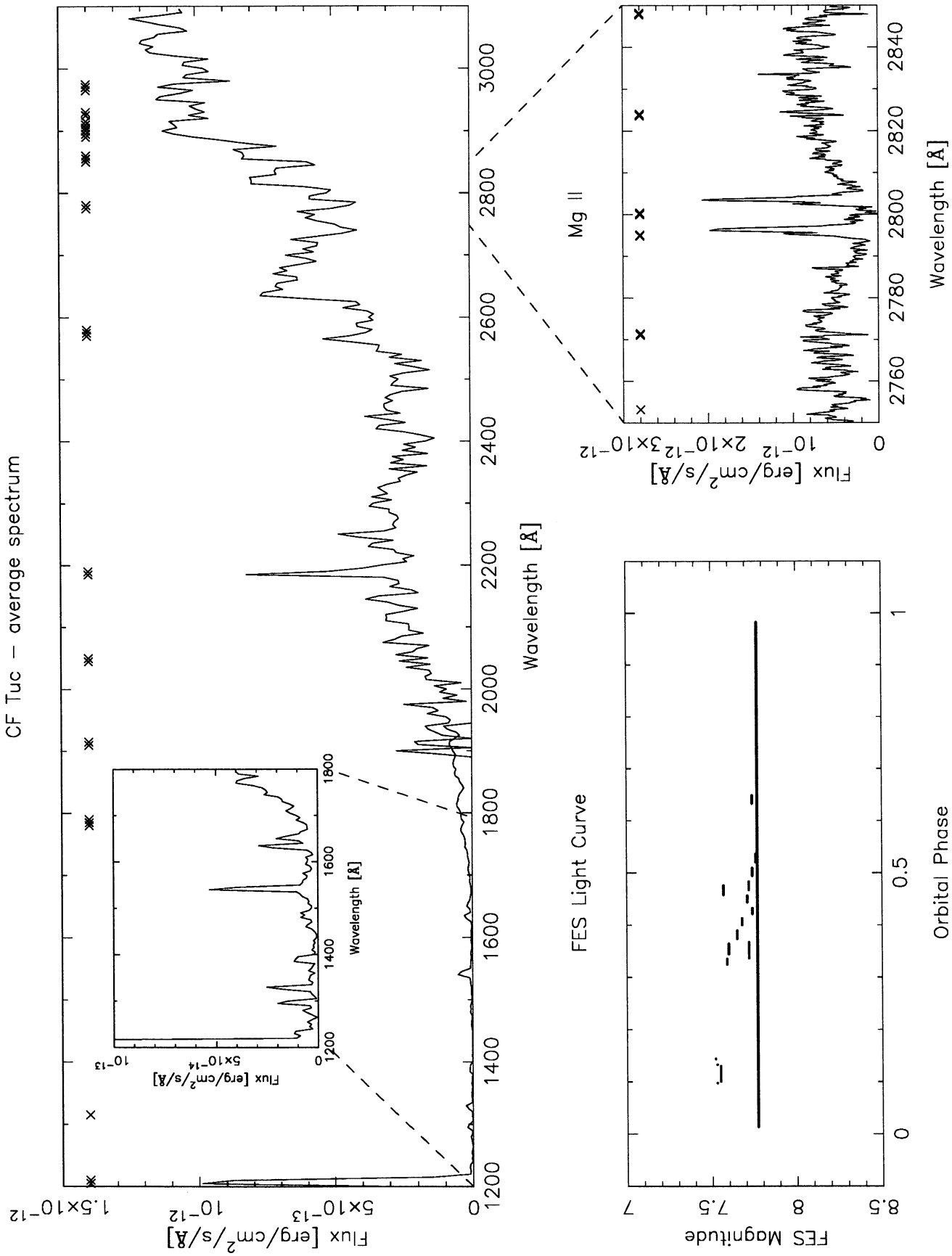
additional references:

Antonopoulou E.: 1987, *Astron. Astrophys., Suppl. Ser.* **68**, 521-527, *Infrared photometry of the RS CVn binaries. V. The southern systems HD 5303 and AD Cap*

Budding E. and McLaughlin E.: 1987, *Astrophys. Space Sci.* **133**, 45-58, *Observations and analysis of CF Tuc*

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	10274	L		81. 4. 3	10:48: 0	44697.9492	0.75	7.53	0.10	0.10	249	C=75,B=24
2	SWP	13647	L	*	81. 4. 3	11: 0: 0	44697.9570	120.00	7.55	0.10	0.13	249	C=220,B=30
3	LWR	10275	L		81. 4. 3	13: 5: 0	44698.0469	2.25	7.53	0.13	0.13	249	C=120,B=30
4	LWR	10276	L	*	81. 4. 3	13:54: 0	44698.0781	2.25	7.52	0.14	0.14	249	C=140,B=22
5	LWR	11569	L	*	81. 9.17	7:37: 0	44864.8164	7.00	7.44	0.74	0.74	308	C=1.5X,B=25
6	SWP	21254	L	*	83.10. 7	19:44:22	45615.3242	123.00	7.77	0.98	0.01	576	531
7	LWP	9556	H		86.11.20	12:15:57	46755.0117	40.00	7.59	0.33	0.34	984	332
8	SWP	29729	L	*	86.11.20	13: 2: 0	46755.0430	125.00	7.72	0.34	0.37	984	E=73,C=205,B=45
9	LWP	9557	H	*	86.11.20	13:36:30	46755.0664	80.00	7.60	0.35	0.36	984	333
10	LWP	9558	H		86.11.20	15:35:35	46755.1484	60.00	7.65	0.37	0.39	984	333
11	LWP	9559	H		86.11.20	17:18:22	46755.2227	50.00	7.68	0.40	0.41	984	333
12	LWP	9560	H		86.11.20	18:47: 0	46755.2813	43.00	7.74	0.42	0.43	984	E=101,C=98,B=40
13	LWP	9561	H		86.11.20	20:15: 0	46755.3438	50.00	7.71	0.44	0.46	984	C=102,B=40
14	SWP	29730	L		86.11.20	21:12: 0	46755.3828	75.00	7.57	0.46	0.48	984	E=46,C=141,B=35
15	LWP	9562	H		86.11.20	21:50: 0	46755.4102	60.00	7.72	0.47	0.48	984	E=111,C=110,B=40
16	LWP	9563	H		86.11.20	23:39: 0	46755.4844	60.00	7.74	0.49	0.51	984	E=113,C=110,B=50
17	LWP	9564	H		86.11.21	1:24: 0	46755.5586	60.00	7.76	0.52	0.54	984	E=125,C=115,B=49
18	LWP	10605	H		87. 4.18	15:52: 0	46904.1602	60.00	7.74	0.63	0.65	1037	C=110,B=45


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

RW UMa

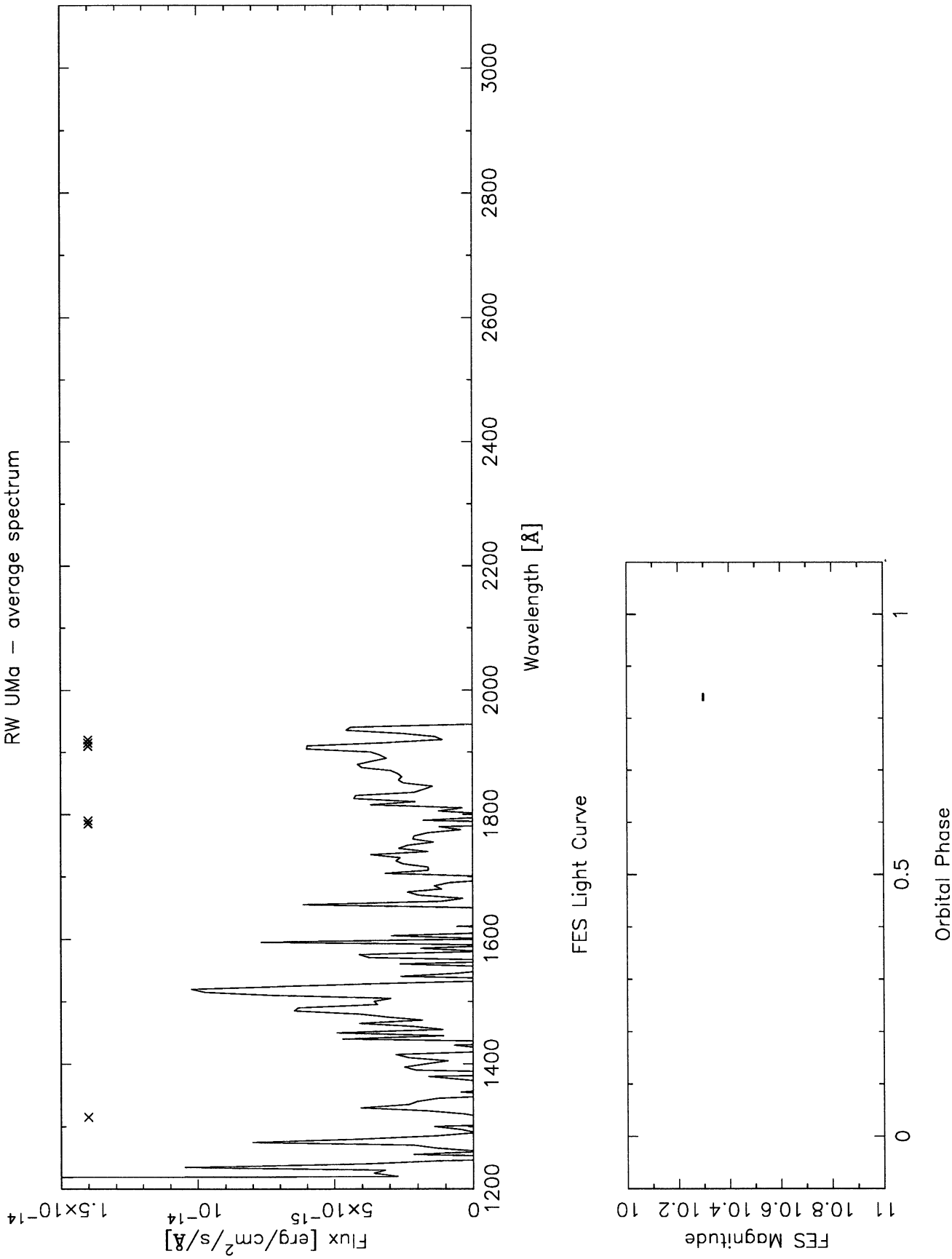
alternative names:	BD+52 1579
coordinates (2000.0):	$11^h40^m46.2^s$, $51°59'53''$
linear ephemeris:	
Min I = HJD 2418987.4082 + 7.328223 E, variable	
system parameters:	
type of binary:	EBT, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.56/1.49
radii [$R_\odot$]:	2.31/4.24
spectral type:	F8IV/K0IV
distance [pc]:	150
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.103
x-ray luminosity [10^{31} erg/s]:	0.25-16
Mg II index:	
Ca II index:	I_K=4, cool
$H\alpha$ emission:	
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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.85 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.02/0.77
B-V:	0.5/1.07
V:	10.16
V-R:	
R-I:	
b-y:	0.432
m_1:	0.174
c_1:	0.370
β:	2.614
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	SWP	25490	L	*	85. 3.20	3:34:52	46144.6484	120.00	10.30	0.84	0.85	92	211


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

XY UMa

alternative names:	HD 237786, SAO 27143, BD+55 1317
coordinates (2000.0):	$09^h09^m31.4^s$, $54°23'51''$
linear ephemeris:	
Min I = HJD 2435216.5011 + 0.4789944 E	
system parameters:	
type of binary:	EB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	0.95/0.70
radii [$R_\odot$]:	0.98/0.73
spectral type:	G3V/
distance [pc]:	100
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.11
x-ray luminosity [10^{31} erg/s]:	0.34-1.1
Mg II index:	[1.078]
Ca II index:	hot
$H\alpha$ emission:	strong absorption
radio flux density [mJy]:	0.30
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.41\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$2.41\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.07\ 10^{-14}$
U-B:	
B-V:	0.80
V:	9.62
V-R:	
R-I:	
b-y:	0.548
m_1:	0.294
c_1:	0.306
β:	2.558
IRAS [12]:	
IRAS [25]:	

additional references:

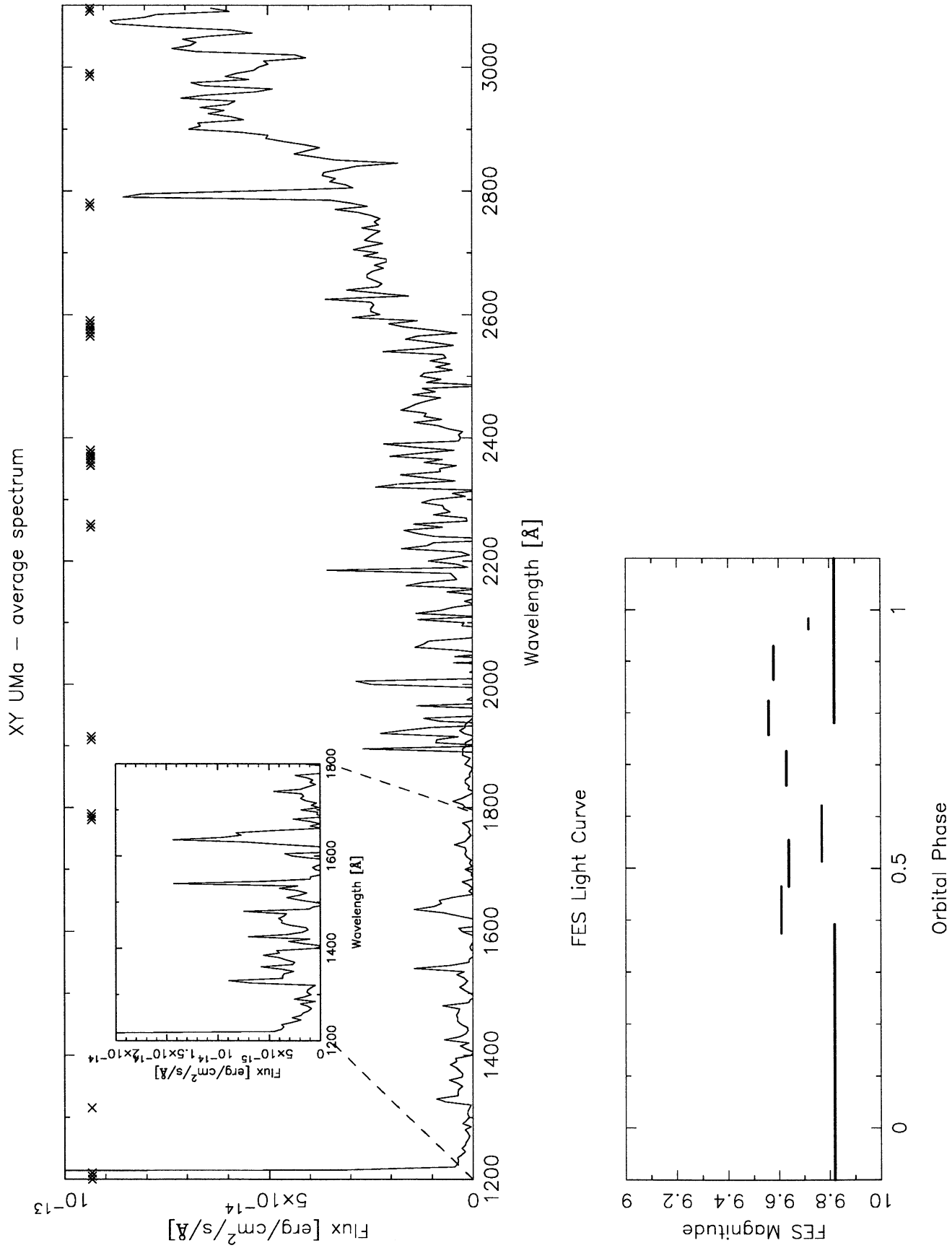
Hilditch R.W. and Bell S.A.: 1994, *Mon. Not. R. Astron. Soc.* **267**, 1081, *High-precision photometry of the RS CVn binary system XY UMa and a dark-zone photometric model*

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*

Bedford D.K., Jefferies R.D., Geyer E.H. and Vilhu O.: 1990, *Mon. Not. R. Astron. Soc.* **243**, 557, *Coronal x-ray emission from the short-period eclipsing binary XY UMa*

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	6669	L		80. 1.15	8:46: 0	44253.8672	60.00	9.61	0.38	0.47	18867	562
2	SWP	7660	L		80. 1.15	9:50: 0	44253.9102	60.00	9.64	0.47	0.56	18867	112
3	LWR	6670	L	*	80. 1.15	10:55: 0	44253.9531	45.00	9.77	0.56	0.62	18867	452
4	LWR	6671	L		80. 1.15	12: 5: 0	44254.0039	45.00	9.63	0.66	0.73	18867	452
5	LWR	6672	L		80. 1.15	13:15: 0	44254.0508	45.00	9.56	0.76	0.82	18867	452
6	LWR	6673	L		80. 1.15	14:24: 0	44254.1016	45.00	9.58	0.87	0.93	18867	452
7	LWR	6674	L		80. 1.15	15:34: 0	44254.1484	15.00	9.72	0.96	0.99	18867	332
8	LWR	10639	L		81. 5.18	0:13: 0	44742.5078	50.00	9.77	0.51	0.59	19887	354
9	SWP	30327	L	*	87. 2.17	11:37: 0	46843.9844	420.00	9.82	0.78	0.39	24274	E=144,C=118,B=90


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

DM UMa

alternative names:	SAO 15338, BD+61 1211
coordinates (2000.0):	$10^h55^m43.5^s$, $60°28'10''$
linear ephemeris:	
Min I p = HJD 2447623.38 + 7.4949 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.02
masses [$M_\odot$]:	f(m)=0.011
radii [$R_\odot$]:	$\geq$3.8
spectral type:	K0-1IV-III
distance [pc]:	130
activity parameters:	
P_{phot} [days]:	7.478
ΔV [mag]:	0.32
x-ray luminosity [10^{31} erg/s]:	0.1-2.2
Mg II index:	[1.818]
Ca II index:	strong
$H\alpha$ emission:	emission
radio flux density [mJy]:	3.0
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.73 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.12 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.24 10^{-14}
U-B:	
B-V:	1.065
V:	9.55
V-R:	
R-I:	
b-y:	0.652
m_1:	0.407
c_1:	0.182
β:	2.532
IRAS [12]:	
IRAS [25]:	

additional references:

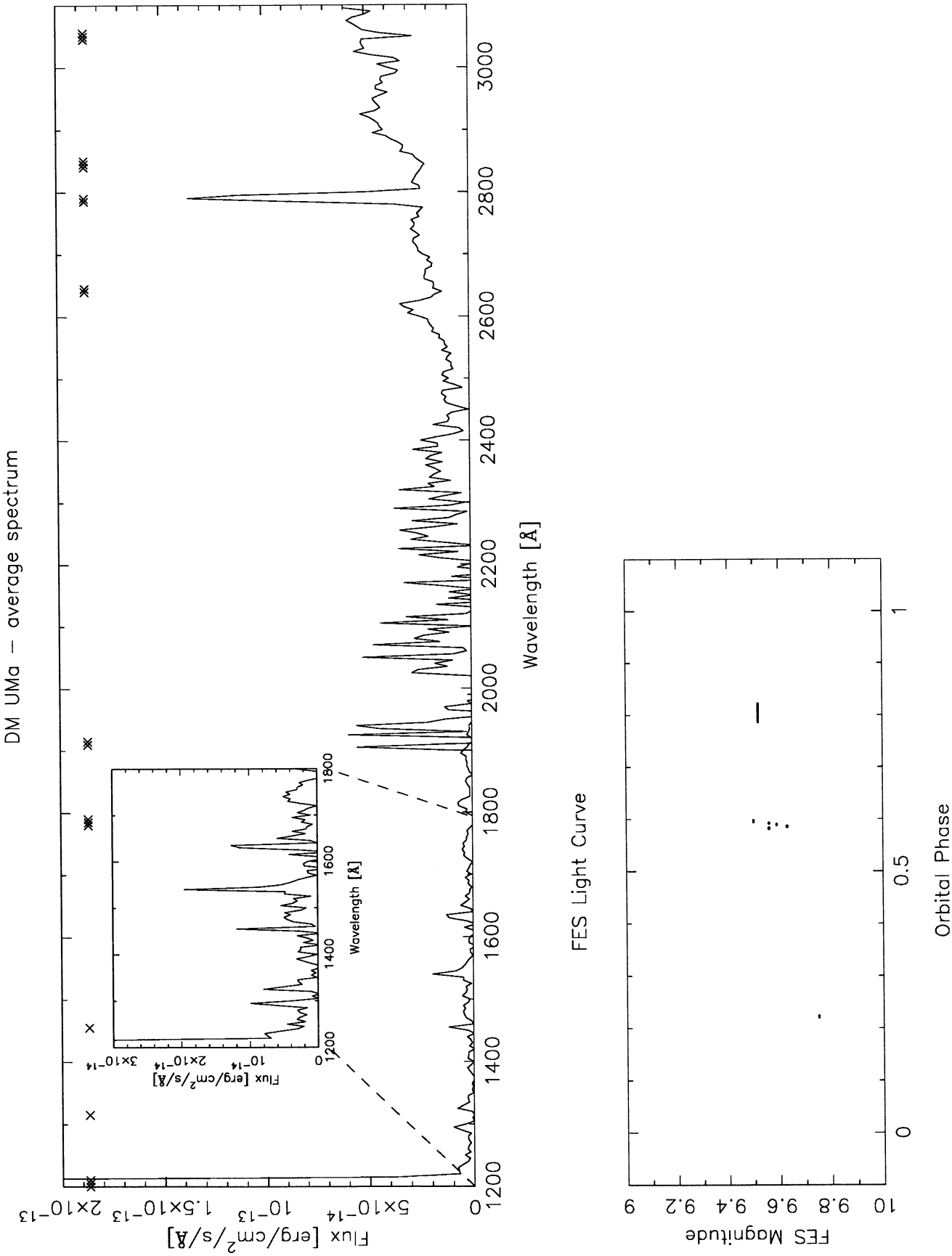
Mohin S. and Raveendran A.V.: 1992, *Astron. Astrophys.* **256**, 487-494, *Photometric study of the RS CVn binary DM Ursa Majoris*

Nations H.L. and Ramsey L.W.: 1986, *Astron. J.* **92**, 1403-1408, *Halpha observations of RS Canum Venaticorum stars. II. 1981 observations for UX Arietis, HR 1099, and BD +61 1211*

Mohin S., Raveendran A.V., Mekkaden M.V., Hall D.S., Henry G.W., Lines R.D., Fried R.E., Louth H. and Stelzer H.J.: 1985, *Astrophys. Space Sci.* **115**, 353-368, *Evolution of starspot regions in DM UMa*

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	6878	L		79.10.15	21:19: 0	44162.3867	27.00	9.75	0.22	0.22	-461	101
2	LWP	5648	L	*	85. 4. 3	5:36:12	46158.7344	30.00	9.56	0.58	0.58	-195	452
3	SWP	25571	L		85. 4. 3	6:13:14	46158.7578	30.00	9.63	0.58	0.59	-195	100
4	LWP	5649	L		85. 4. 3	6:54: 5	46158.7891	25.00	9.59	0.59	0.59	-195	353
5	SWP	25572	L		85. 4. 3	7:24: 4	46158.8086	25.00	9.56	0.59	0.59	-195	100
6	LWP	5650	L	*	85. 4. 3	7:56: 7	46158.8320	40.00	9.50	0.59	0.60	-195	342
7	SWP	29356	L	*	86.10. 3	21:37: 0	46707.4023	378.00	9.52	0.79	0.82	-122	E=155,C=110,B=85

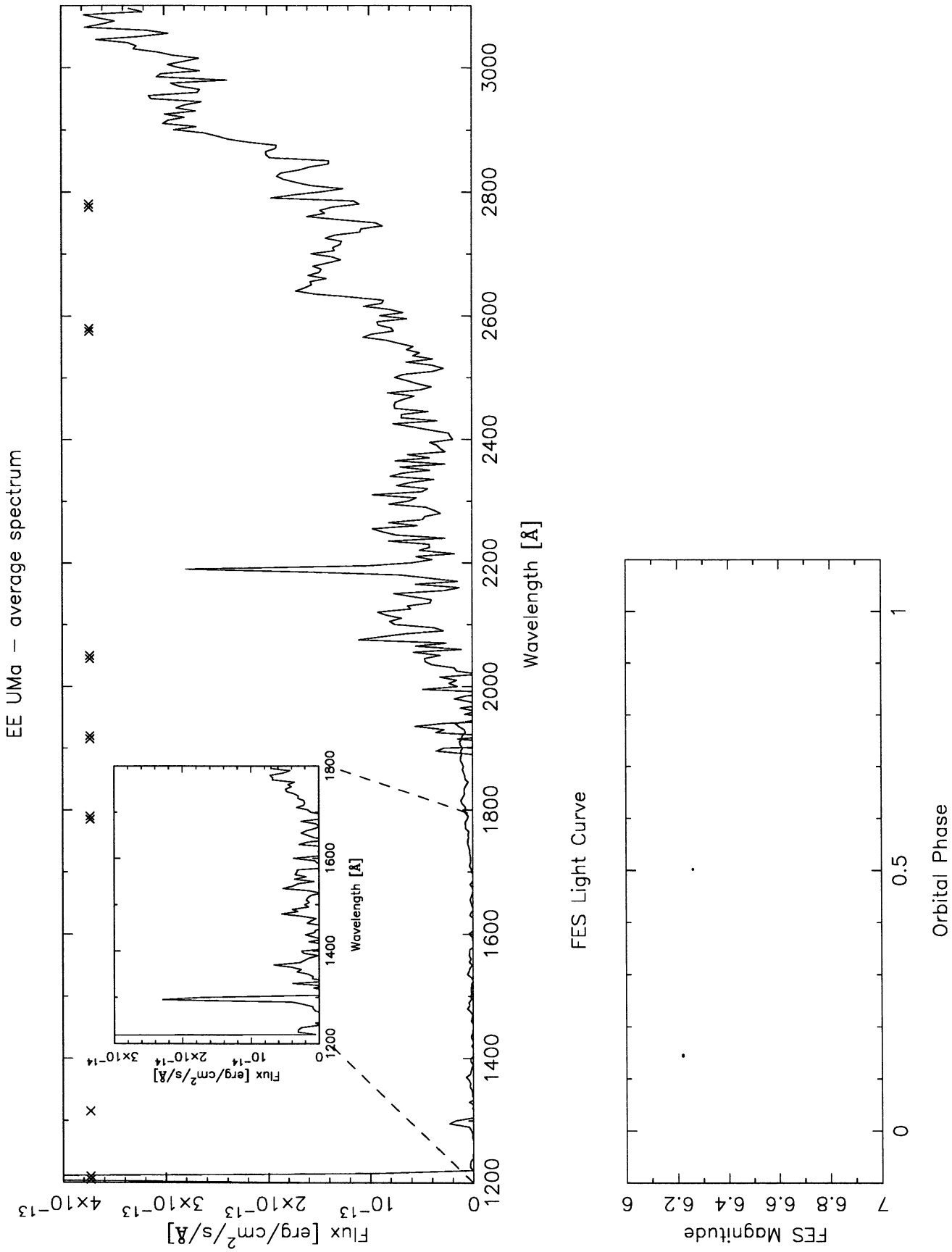

DM UMa – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

EE UMa

alternative names:	HD 99967, SAO 43784, HR 4430, BD+47 1880
coordinates (2000.0):	$11^h30^m24.9^s$, $46°39'27''$
linear ephemeris:	
Min I = HJD 2447334.269 + 74.8737 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.024
masses [$M_\odot$]:	≈1.0/≈1.6
radii [$R_\odot$]:	/31
spectral type:	K2III
distance [pc]:	160
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	0.035
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	
Ca II index:	very weak
$H\alpha$ emission:	very strong absorption
radio flux density [mJy]:	<0.21
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.08 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.30 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.85 10^{-13}
U-B:	1.18
B-V:	1.27
V:	6.35
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	2.32
IRAS [25]:	0.57

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	13414	L	*	82. 6. 5	4:27: 0	45125.6836	12.00	6.26	0.50	0.50	-29	402
2	SWP	22479	L	*	84. 3.13	4: 9:30	45772.6719	270.00	6.22	0.14	0.15	-20	332

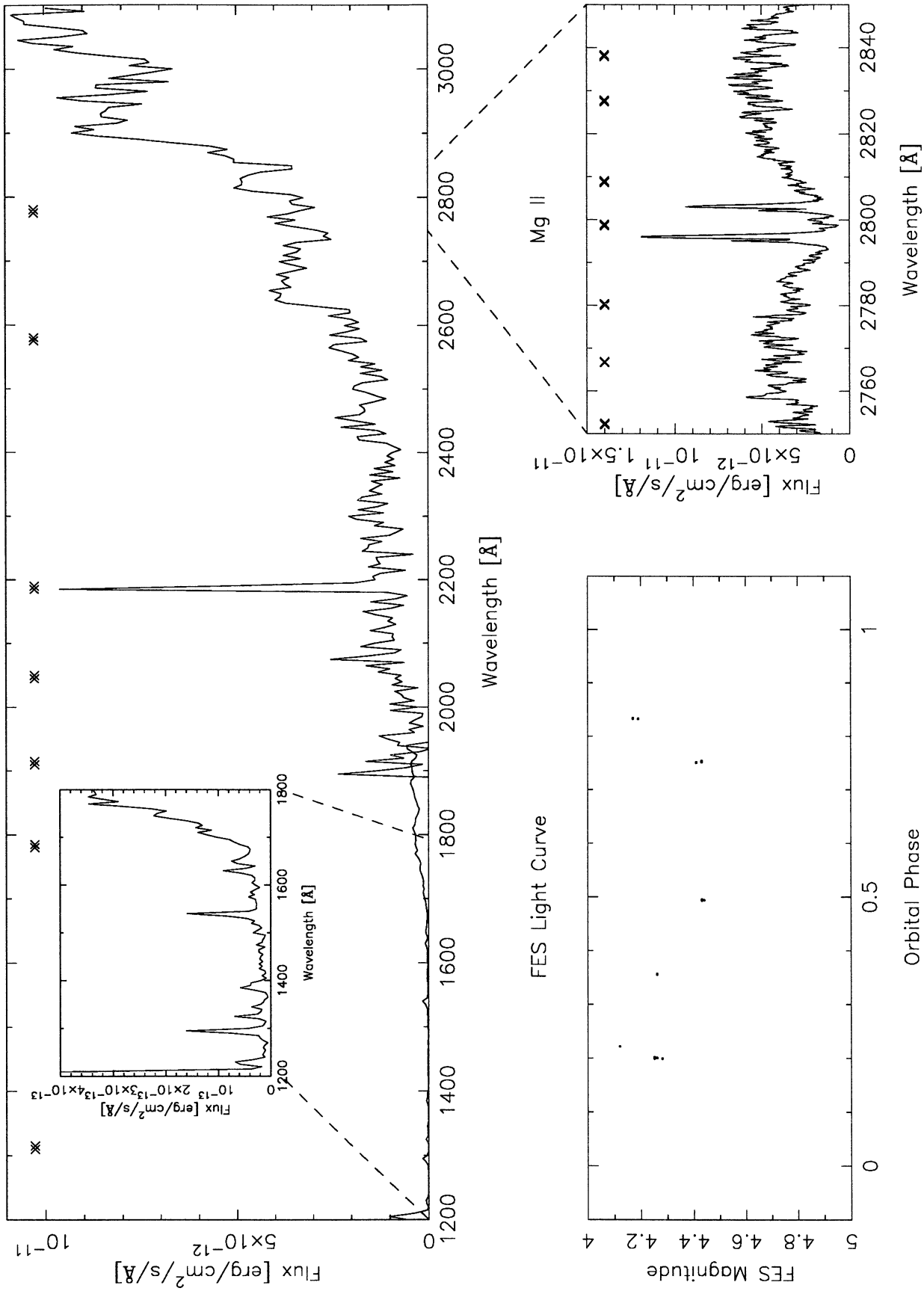

EE UMa – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

ϵ UMi

alternative names:	HD 153751, SAO 2770, HR 6322, BD+82 498, 22 UMi
coordinates (2000.0):	$16^h45^m58.1^s$, $82°02'14''$
linear ephemeris:	
Min I = HJD 2431913.204 + 39.4809 E	
system parameters:	
type of binary:	EBT, SB1
eccentricity:	0.04
masses [$M_\odot$]:	1.3/2.8
radii [$R_\odot$]:	1.7/12
spectral type:	A8-F0V/G5III
distance [pc]:	71
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	0.458
Mg II index:	[0.672], 0.573
Ca II index:	I_K=3, cool
$H\alpha$ emission:	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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.83\ 10^{-14}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.22\ 10^{-12}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$8.21\ 10^{-12}$
U-B:	0.55
B-V:	0.89
V:	4.23
V-R:	
R-I:	0.47
b-y:	0.567
m_1:	0.330
c_1:	0.367
β:	2.576
IRAS [12]:	6.22
IRAS [25]:	1.55

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	5684	H		79. 9.24	15:48: 0	44141.1602	3.98	4.12	0.22	0.22	280	C=70,B=25
2	LWR	8005	H		80. 6.11	15:50: 0	44402.1602	10.00	4.19	0.83	0.83	286	E=123,C=115,B=30
3	SWP	9259	L		80. 6.11	16: 5: 0	44402.1719	90.00	4.17	0.83	0.84	286	E=177,C=255,5X,B=60
4	LWR	13429	L	*	82. 6. 6	18:53: 0	45127.2852	0.33	4.25	0.20	0.20	305	C=135,B=25
5	SWP	17139	L		82. 6. 6	18:58: 0	45127.2891	30.00	4.28	0.20	0.20	305	E=86,C=1.5X,B=60
6	LWR	13430	H	*	82. 6. 6	19:57: 0	45127.3320	30.00	4.26	0.20	0.20	305	E=228,C=230,B=45
7	LWR	13431	L	*	82. 6. 6	21:37: 0	45127.4023	0.50	4.25	0.20	0.20	305	C=190,B=25
8	SWP	17463	L		82. 7.22	10:41: 0	45172.9453	70.00	4.26	0.36	0.36	306	E=154,C=4-5X,B=98
9	LWP	11574	H		87. 9. 5	15:42:28	47044.1563	30.00	4.41	0.75	0.75	353	453
10	SWP	31724	L		87. 9. 5	16:18:45	47044.1797	40.00	4.43	0.75	0.75	353	661
11	LWP	11575	H		87. 9. 5	17: 9:10	47044.2148	120.00	4.43	0.75	0.76	353	773
12	LWP	13854	H		88. 8.15	19:29:22	47389.3125	20.00	4.43	0.49	0.49	362	442
13	SWP	34090	L	*	88. 8.15	19:55:27	47389.3320	27.00	4.44	0.49	0.49	362	530
14	LWP	13855	H		88. 8.15	20:34:50	47389.3594	72.00	4.43	0.50	0.50	362	773

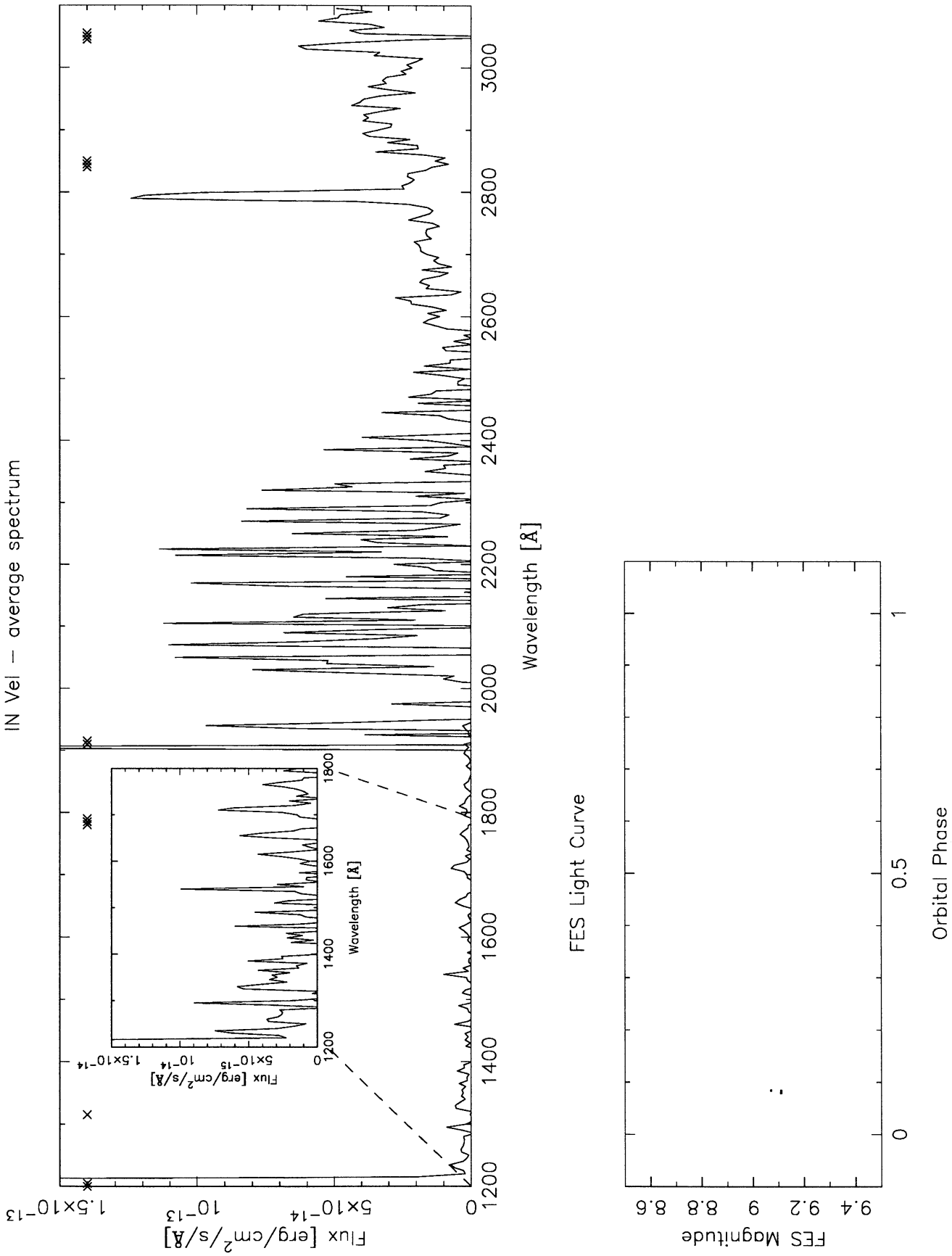

ε UMi – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

IN Vel

alternative names:	HD 83442, SAO 221347, CD-41 5219
coordinates (2000.0):	$09^h37^m13.2^s$, $-42°01'16''$
linear ephemeris:	
Min I s = HJD 2444220.46 + 52.270 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.13
masses [$M_\odot$]:	f(m)=0.048
radii [$R_\odot$]:	
spectral type:	K2IIIp
distance [pc]:	500
activity parameters:	
P_{phot} [days]:	54.95
ΔV [mag]:	0.3
x-ray luminosity [10^{31} erg/s]:	2.253
Mg II index:	[2.387]
Ca II index:	strong
$H\alpha$ emission:	
radio flux density [mJy]:	<0.32
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.87\ 10^{-16}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.41\ 10^{-14}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$3.22\ 10^{-14}$
U-B:	1.00
B-V:	1.17
V:	8.83
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	29554	L	*	86.10.30	1:46: 0	46733.5742	350.00	9.11	0.08	0.08	48	E=114,B=80
2	LWP	9439	L	*	86.10.30	7:43: 0	46733.8203	14.00	9.07	0.08	0.08	48	E=194,C=85,B=50


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

BH Vir

alternative names:	HD 121909, BD-00 2769
coordinates (2000.0):	$13^h58^m24.9^s$, $-01°39'36''$
linear ephemeris:	
Min I = HJD 2438107.1904 + 0.816871 E	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.04/1.02
radii [$R_\odot$]:	1.10/1.20
spectral type:	F8V-IV/G2V
distance [pc]:	166
activity parameters:	
P_{phot} [days]:	$\approx P_{orb}$
ΔV [mag]:	≈0.1
x-ray luminosity [10^{31} erg/s]:	<0.004
Mg II index:	[0.634]
Ca II index:	
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.47 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.49 10^{-13}
U-B:	0.08
B-V:	0.57
V:	9.60
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

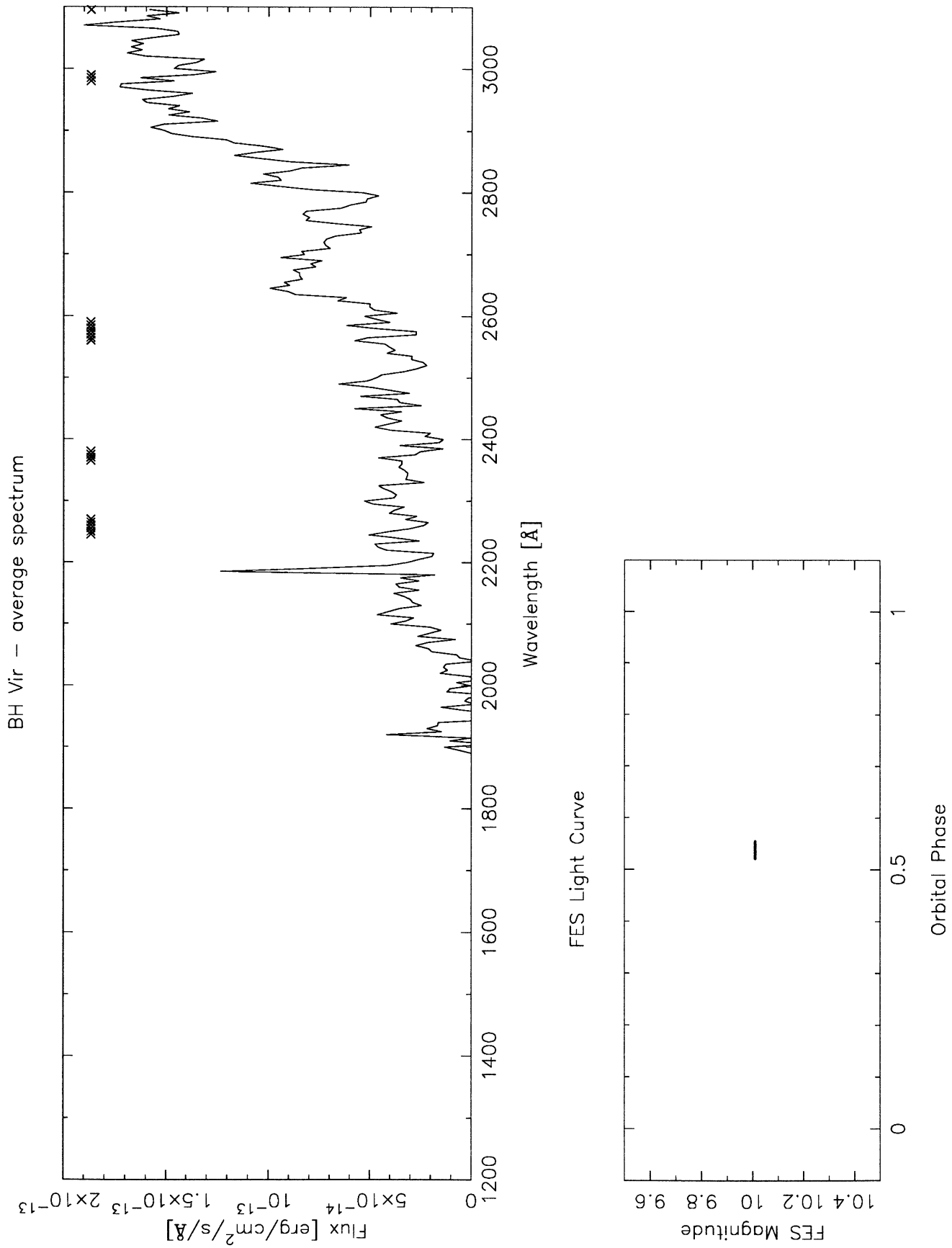
Zhai D.S., Qiao G.J. and ZHANG X.Y.: 1990, *Astron. Astrophys.* **237**, 148, *An analysis of basic parameters and spot activities of the solar-type binary system BH Virginis*

Zeilik M., Ledlow M., Rhodes M., Arevalo M.J. and Budding E.: 1009, *Astrophys. J.* **354**, 352-358, *Long-term starspot activity of short-period RS Canum Venaticorum stars. III. BH Virginis*

Arevalo M.J. and Lazaro C.: 1990, *Astrophys. Space Sci.* **169**, 245, *The photometric behaviour of BH Vir*

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	8277	L	*	80. 7.17	20:47: 0	44438.3672	38.00	10.01	0.52	0.56	7750	500


BH Vir – average spectrum
Flux [erg/cm²/s/Å]
0
5x10⁻¹⁴
10⁻¹³
1.5x10⁻¹³
2x10⁻¹³
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

HU Vir

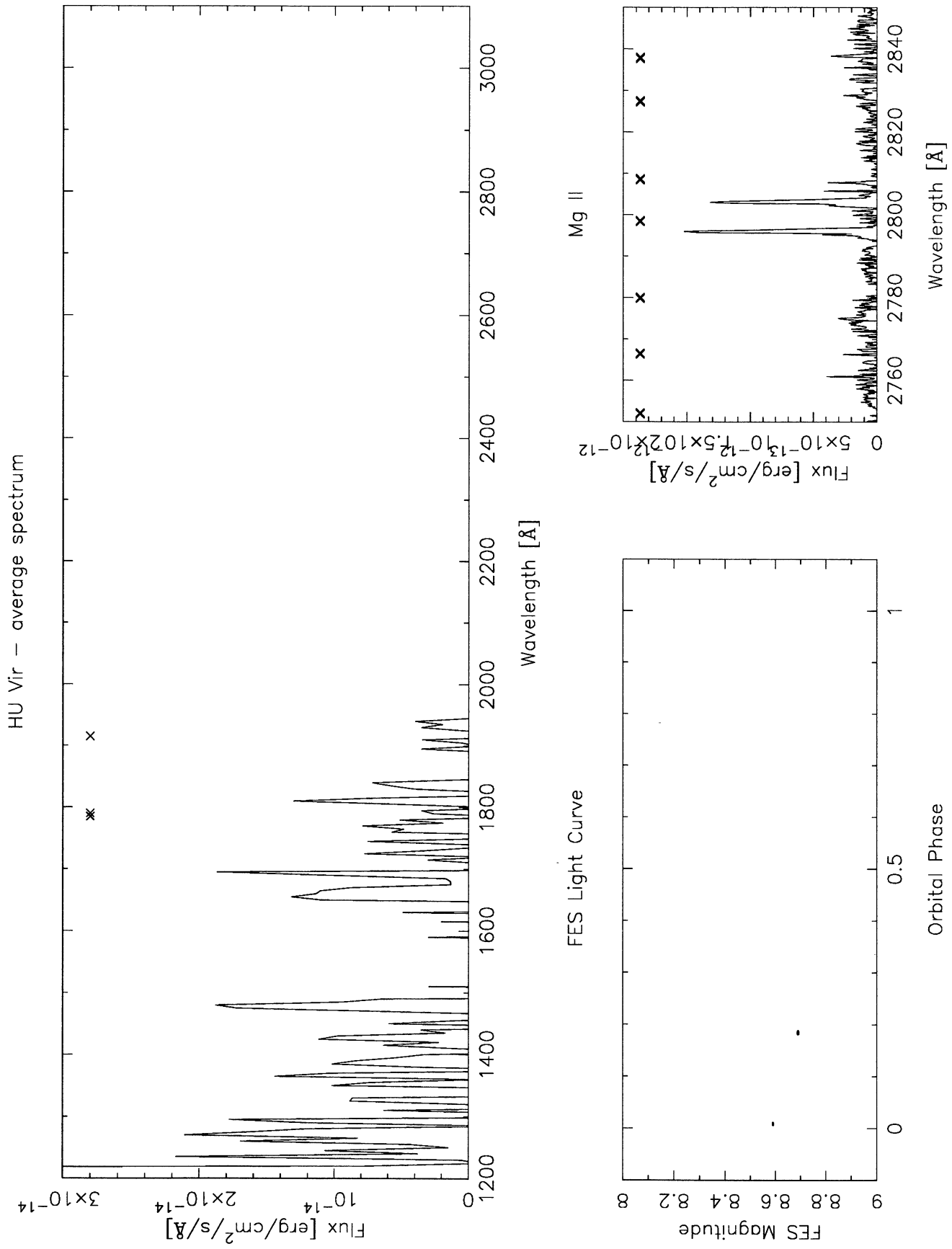
alternative names:	HD 106225, SAO 138652, BD-08 3301
coordinates (2000.0):	$12^h13^m20.6^s$, $-09°04'47''$
linear ephemeris:	
Min I p = HJD 2448372.91 + 10.3876 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.036
masses [$M_\odot$]:	f(m)=0.098
radii [$R_\odot$]:	>5.7
spectral type:	K0IV
distance [pc]:	220
activity parameters:	
P_{phot} [days]:	10.28
ΔV [mag]:	0.25
x-ray luminosity [10^{31} erg/s]:	2.500
Mg II index:	1.306
Ca II index:	strong
$H\alpha$ emission:	emission, absorption, variable
radio flux density [mJy]:	1.34
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.64 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[5.02 10^{-14}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[1.09 10^{-13}]
U-B:	0.66
B-V:	1.02
V:	8.57
V-R:	
R-I:	
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Hall D.S. and Henry G.W.: 1991, *IAU Inform. Bull. Var. Stars* **3693**, 1, *Two-spot modelling of HD 106225 = HU Vir in 1990 and 1991*

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	13551	H	*	82. 6.23	18: 7: 0	45144.2539	90.00	8.69	0.18	0.19	-310	E=136,C=90,B=40
2	SWP	19947	L	*	83. 5. 9	22:56: 0	45464.4570	52.00	8.59	0.01	0.01	-279	B=70


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

ER Vul

alternative names:	HD 200391, SAO 89396, BD+27 3952
coordinates (2000.0):	$21^h02^m25.9^s$, $27°48'26''$
linear ephemeris:	
Min I = HJD 2440182.2593 + 0.6980951 E, variable	
system parameters:	
type of binary:	EBP, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.10/1.05
radii [$R_\odot$]:	1.07/1.07
spectral type:	G0V/G5V
distance [pc]:	46
activity parameters:	
P_{phot} [days]:	0.6942
ΔV [mag]:	0.06
x-ray luminosity [10^{31} erg/s]:	0.375
Mg II index:	[0.662], 0.613
Ca II index:	yes
$H\alpha$ emission:	filled-in absorption
radio flux density [mJy]:	2.7
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	45±7
ROSAT 110-200Å [ct/ks]:	55±10
EUVE 100Å [ct/s]:	0.051±0.010
EUVE 200Å [ct/s]:	0.252±0.079
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$4.94\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$6.78\ 10^{-13}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.41\ 10^{-12}$
U-B:	
B-V:	0.68
V:	7.27
V-R:	
R-I:	
b-y:	0.393
m_1:	0.185
c_1:	0.329
β:	2.587
IRAS [12]:	
IRAS [25]:	

additional references:

Ibanoglu C., Evren S., Akan M.C., Tunca Z. and Keskin V.: 1993, *Astron. Astrophys.* **269**, 310-318, *Photometry of ER Vulpeculae : photometric analysis with the WINK-10 code*

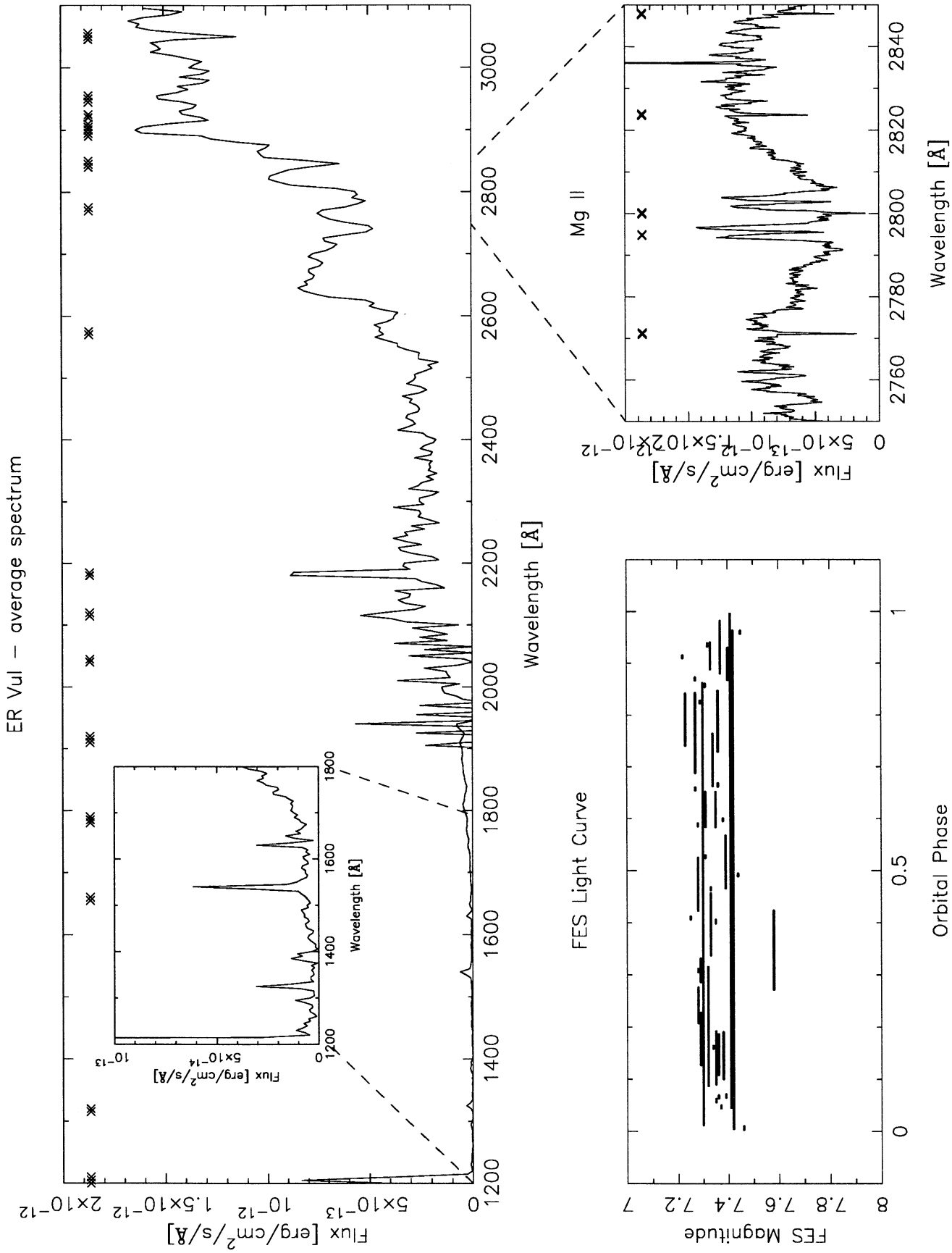
Rucinski S.M.: 1992, *Publ. Astron. Soc. Pac.* **104**, 1177-1186, *VLA radio light curves of ER Vulpeculae at 3.6 and 6 cm*

Hill G., Fisher W.A. and Holmgren D.: 1990, *Astron. Astrophys.* **238**, 145, *Studies of late-type binaries. IV. The physical parameters of ER Vulpeculae*

White N.E., Culhane J.L., Parmar A.N. and Sweeney M.A.: 1987, *Mon. Not. R. Astron. Soc.* **227**, 545-551, *An EXOSAT observation of 1.5 orbital cycles of the 0.7 day short-period RS CVn system ER Vul*

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	8279	L		80. 7.17	23:34: 0	44438.4805	4.00	7.22	0.91	0.92	6096	502
2	LWR	10642	L		81. 5.18	4:10: 0	44742.6719	4.00	7.27	0.66	0.66	6532	603
3	LWR	10643	H		81. 5.18	4:41: 0	44742.6953	154.00	7.27	0.69	0.84	6532	407
4	LWR	10644	L	*	81. 5.18	7:41: 0	44742.8203	4.00	7.27	0.87	0.87	6532	602
5	SWP	14922	L	*	81. 9. 7	20:50: 0	44855.3672	177.00	7.32	0.09	0.26	6694	532
6	LWR	11554	H		81. 9.15	4:42: 0	44862.6953	70.00	7.31	0.59	0.65	6704	E=98,C=125,B=35
7	SWP	14998	L		81. 9.15	7:19: 0	44862.8047	100.00	7.23	0.74	0.84	6704	E=1.5X,C=165,B=50
8	LWR	13605	L		82. 7. 4	20:45: 0	45155.3633	4.00	7.29	0.82	0.83	7123	502
9	LWR	13606	H		82. 7. 4	21:23: 0	45155.3906	150.00	7.30	0.86	0.01	7123	404
10	LWP	12250	H	*	87.12. 9	11: 7:57	47138.9648	150.00	7.58	0.27	0.42	9965	454
11	LWP	20336	H		91. 5. 8	10:43: 0	48384.9453	90.00	7.38	0.10	0.19	11750	C=150,B=47
12	SWP	41635	L		91. 5.15	23:26:34	48392.4766	50.00	7.33	0.89	0.94	11760	330
13	SWP	41636	L		91. 5.16	1:15:52	48392.5508	50.00	7.41	0.00	0.05	11760	330
14	LWP	20380	L		91. 5.16	2:13:55	48392.5938	4.00	7.35	0.06	0.06	11761	561
15	SWP	41637	L		91. 5.16	2:48:23	48392.6172	100.00	7.35	0.09	0.19	11761	330
16	LWP	20381	H		91. 5.16	4:46:18	48392.6992	70.00	7.28	0.21	0.28	11761	441
17	SWP	41638	L		91. 5.16	6: 3:19	48392.7539	44.00	7.29	0.29	0.33	11761	330
18	LWP	20386	H		91. 5.17	0:23:56	48393.5156	80.00	7.33	0.38	0.46	11762	430
19	SWP	41645	L	*	91. 5.17	1:53:18	48393.5781	100.00	7.39	0.47	0.57	11762	430
20	LWP	20387	H		91. 5.17	3:51:11	48393.6602	70.00	7.35	0.58	0.65	11762	340
21	SWP	41646	L		91. 5.17	5:11:27	48393.7148	100.00	7.34	0.66	0.76	11762	330
22	SWP	42568	L		91. 9.26	23:53: 0	48526.4961	60.00	7.40	0.87	0.93	11952	E=62,C=95,B=26
23	LWP	21339	L		91. 9.27	1:23: 0	48526.5586	7.33	7.45	0.96	0.96	11952	E=194,C=1.5X,B=38
24	SWP	42569	L		91. 9.27	1:32: 0	48526.5625	80.00	7.42	0.96	0.04	11952	E=80,C=109,B=28
25	LWP	21340	L	*	91. 9.27	3:11: 0	48526.6328	6.67	7.36	0.06	0.07	11953	E=182,C=1.5X,B=35
26	SWP	42570	L		91. 9.27	3:55: 0	48526.6641	80.00	7.36	0.11	0.19	11953	E=84,C=120,B=26
27	LWP	21341	L		91. 9.27	4:45: 0	48526.6992	6.33	7.34	0.16	0.16	11953	E=211,C=1.5X,B=35
28	LWP	21342	H		91. 9.27	5:43: 0	48526.7383	100.00	7.32	0.22	0.32	11953	E=128,C=150,B=45
29	SWP	42571	L		91. 9.27	7:48: 0	48526.8242	100.00	7.33	0.34	0.44	11953	E=100,C=140,B=35
30	LWP	21343	L		91. 9.27	8:50: 0	48526.8672	6.00	7.35	0.40	0.41	11953	C=1.5X,B=35
31	LWP	21344	L		91. 9.27	10:18: 0	48526.9297	6.00	7.44	0.49	0.49	11953	C=1.5X,B=35
32	SWP	42572	L		91. 9.27	11:20: 0	48526.9727	100.00	7.41	0.55	0.65	11953	E=80,C=140,B=25
33	LWP	21345	L		91. 9.27	12: 4: 0	48527.0039	6.00	7.38	0.60	0.60	11953	C=1.5X,B=35
34	LWP	21346	L		91. 9.27	13:11: 0	48527.0508	6.00	7.36	0.66	0.67	11953	C=1.5X,B=36
35	LWP	21347	H		91. 9.27	14:18: 5	48527.0977	120.00	7.36	0.73	0.85	11953	431
36	SWP	42573	L	*	91. 9.27	16:51:29	48527.2031	100.00	7.37	0.88	0.98	11953	450
37	LWP	21348	L		91. 9.27	17:38:29	48527.2344	5.33	7.37	0.93	0.93	11953	500
38	LWP	21349	L		91. 9.27	18:55: 9	48527.2891	5.33	7.46	0.00	0.01	11954	500
39	LWP	21350	L		91. 9.27	19:58:18	48527.3320	5.33	7.39	0.07	0.07	11954	500
40	SWP	42574	L		91. 9.27	20:58: 0	48527.3750	100.00	7.29	0.13	0.23	11954	E=80,C=139,B=27
41	LWP	21351	L		91. 9.27	21:53:28	48527.4141	5.33	7.29	0.18	0.19	11954	500
42	LWP	21352	L		91. 9.27	22:58: 0	48527.4570	5.33	7.30	0.24	0.25	11954	E=183,C=1.5X,B=37
43	LWP	21353	L		91. 9.27	23:58: 0	48527.5000	5.00	7.28	0.31	0.31	11954	E=180,C=1.5X,B=34
44	LWP	21354	L		91. 9.28	1:39: 0	48527.5703	5.00	7.25	0.41	0.41	11954	E=176,C=240,B=35
45	SWP	42575	L	*	91. 9.28	1:56: 0	48527.5820	100.00	7.28	0.42	0.52	11954	E=66,C=133,B=26
46	LWP	21355	L		91. 9.28	2:36: 0	48527.6094	5.00	7.33	0.46	0.47	11954	E=150,C=235,B=33
47	LWP	21356	L		91. 9.28	3:41: 0	48527.6523	5.00	7.31	0.52	0.53	11954	E=148,C=230,B=33
48	LWP	21357	L		91. 9.28	4:39: 0	48527.6953	5.00	7.28	0.59	0.59	11954	E=157,C=222,B=33
49	SWP	42577	L		91. 9.28	7:20: 0	48527.8047	100.00	7.27	0.74	0.84	11954	E=110,C=160,B=65
50	LWP	21359	L		91. 9.28	8: 5: 0	48527.8359	5.00	7.27	0.79	0.79	11954	C=200,B=35
51	LWP	21360	L		91. 9.28	9:14: 0	48527.8828	5.00	7.31	0.86	0.86	11954	C=200,B=40
52	LWP	21361	L		91. 9.28	10:32: 0	48527.9375	5.00	7.32	0.93	0.94	11954	C=200,B=35
53	SWP	42578	L		91. 9.28	11:42: 0	48527.9883	100.00	7.42	0.01	0.11	11955	E=82,C=135,B=25
54	LWP	21362	L		91. 9.28	12:24: 0	48528.0156	5.00	7.37	0.05	0.05	11955	C=200,B=35
55	LWP	21363	L		91. 9.28	13:32: 0	48528.0625	5.00	7.35	0.11	0.12	11955	C=210,B=35
56	LWP	21364	L	*	91. 9.28	14:27: 0	48528.1016	2.50	7.29	0.17	0.17	11955	C=210,B=35


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

HD 12545

alternative names:	SAO 55233, BD+34 363
coordinates (2000.0):	$02^h03^m4701^s$, $35°35'29''$
linear ephemeris:	
Min I = HJD ? + 23.9824 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.049
masses [$M_\odot$]:	f(m)=0.011
radii [$R_\odot$]:	$\geq$8
spectral type:	K0III
distance [pc]:	310
activity parameters:	
P_{phot} [days]:	24.3
ΔV [mag]:	0.6
x-ray luminosity [10^{31} erg/s]:	0.370
Mg II index:	[2.916]
Ca II index:	strong
$H\alpha$ emission:	emission, variable
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.84 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	3.17 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.01 10^{-14}
U-B:	0.78
B-V:	1.21
V:	8.11
V-R:	
R-I:	0.62
b-y:	0.716
m_1:	0.483
c_1:	0.186
β:	
IRAS [12]:	0.43
IRAS [25]:	0.63

additional references:

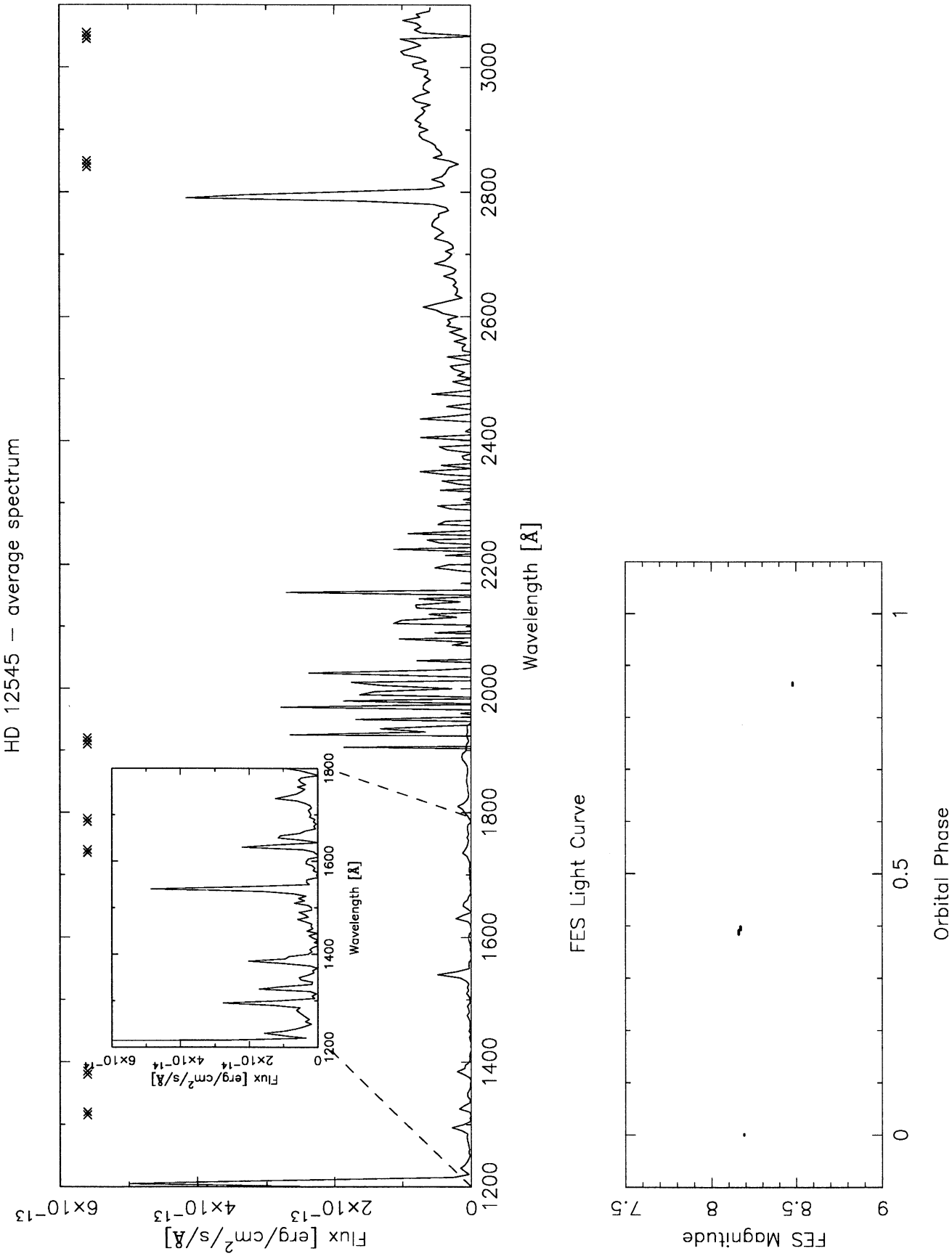
Strassmeier K.G. and Olah K.: 1992, *Astron. Astrophys.* **259**, 595-599, *On the starspot temperature of HD 12545*

Nolthenius R.: 1991, *IAU Inform. Bull. Var. Stars* **3589**, 1, *HD 12545 : a record photometric amplitude for an RS CVn star*

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	SWP	26482	L		85. 7.26	13:56: 0	46273.0820	60.00	8.19	[0.00]	[0.00]	[0]	B=92
2	SWP	29132	L	*	86. 9. 3	23:12: 0	46677.4648	180.00	8.48	[0.86]	[0.87]	[16]	E=131,C=82,B=62
3	LWP	17365	L	*	90. 2.14	13:50: 0	47937.0781	4.00	8.16	[0.38]	[0.38]	[69]	E=174,C=65,B=35
4	SWP	38192	L	*	90. 2.14	14: 2: 0	47937.0859	270.00	8.16	[0.38]	[0.39]	[69]	E=189,C=78,B=48
5	LWP	17366	H		90. 2.14	18:41: 0	47937.2773	240.00	8.17	[0.39]	[0.40]	[69]	E=1.5X,C=110,B=38

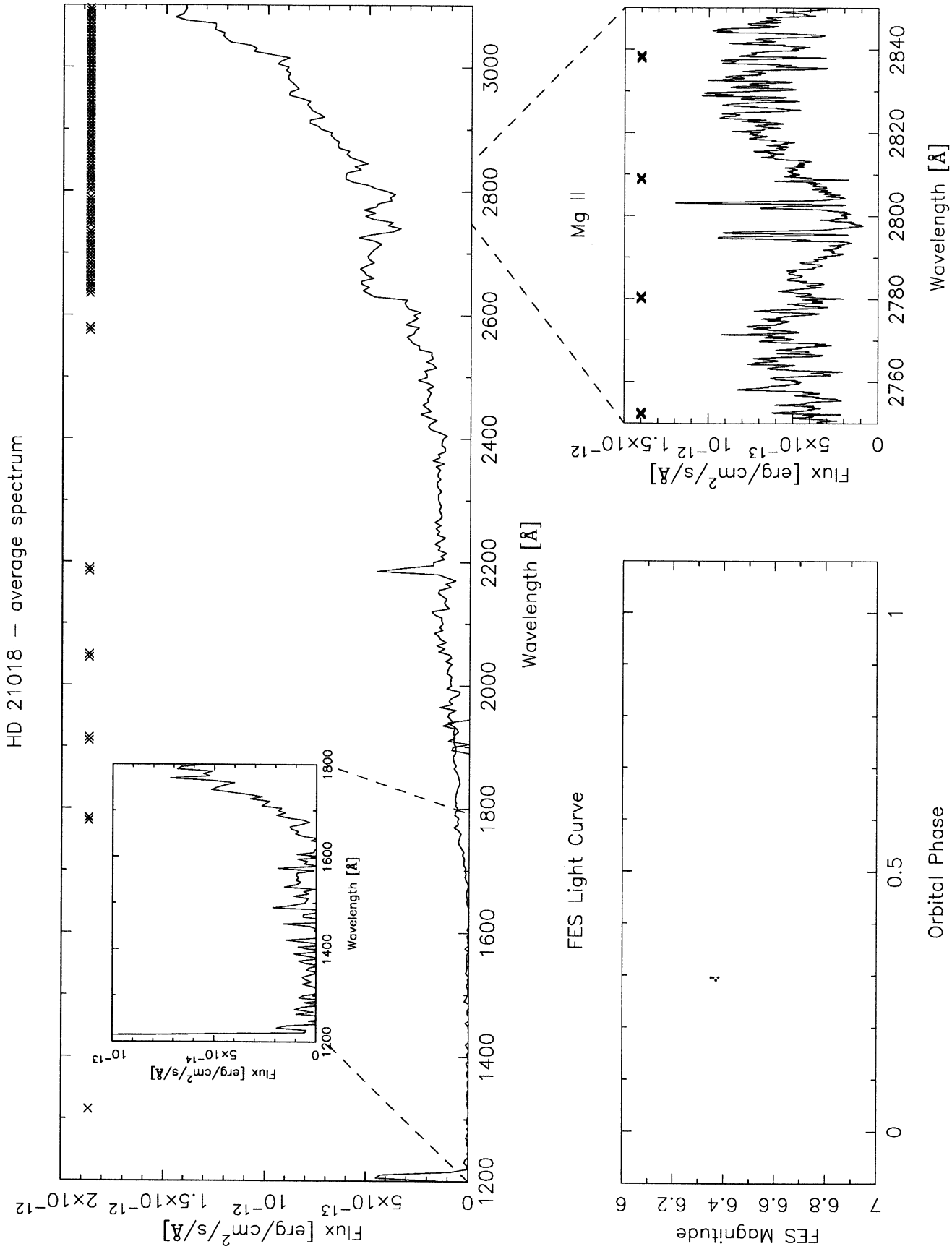

HD 12545 – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

HD 21018

alternative names:	SAO 111161, HR 1023, BD+04 532
coordinates (2000.0):	$03^h23^m39.0^s$, $04°52'56''$
linear ephemeris:	
Min I = HJD 2443858.1 + 287.201 E	
system parameters:	
type of binary:	- , SB1
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.038
radii [$R_\odot$]:	10
spectral type:	G1III:
distance [pc]:	125
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	[0.729], 0.534
Ca II index:	weak emission
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.58 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.46 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	8.30 10^{-13}
U-B:	0.51
B-V:	0.86
V:	6.38
V-R:	
R-I:	
b-y:	0.546
m_1:	0.260
c_1:	0.531
β:	2.624
IRAS [12]:	0.86
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	LWR	11082	L	*	81. 7.17	19:30: 0	44803.3125	15.00	6.37	0.29	0.29	3	C=3-5X,B=27
2	SWP	14520	L	*	81. 7.19	4:55: 0	44804.7031	15.00	6.36	0.30	0.30	3	C=52,B=26
3	LWR	11093	H	*	81. 7.19	5:15: 0	44804.7188	240.00	6.35	0.30	0.30	3	E=234,C=265,B=57
4	SWP	14521	L	*	81. 7.19	9:19: 0	44804.8867	60.00	6.38	0.30	0.30	3	C=122,B=33


HD 21018 – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

HD 23838

alternative names:	SAO 39134, HR 1176, BD+44 801
coordinates (2000.0):	$03^h50^m04.4^s$, $44°58'05''$
linear ephemeris:	
Min I = HJD 2442288.1 + 962.8 E	
system parameters:	
type of binary:	- , SB2
eccentricity:	0.72
masses [$M_\odot$]:	f(m)=0.28
radii [$R_\odot$]:	
spectral type:	F2:V/G8III
distance [pc]:	100
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	
Ca II index:	weak, cool
$H\alpha$ emission:	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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.07 10^{-14}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	0.152
B-V:	0.466
V:	5.66
V-R:	
R-I:	0.29:
b-y:	0.485
m_1:	0.256
c_1:	0.443
β:	2.592
IRAS [12]:	1.47
IRAS [25]:	0.39

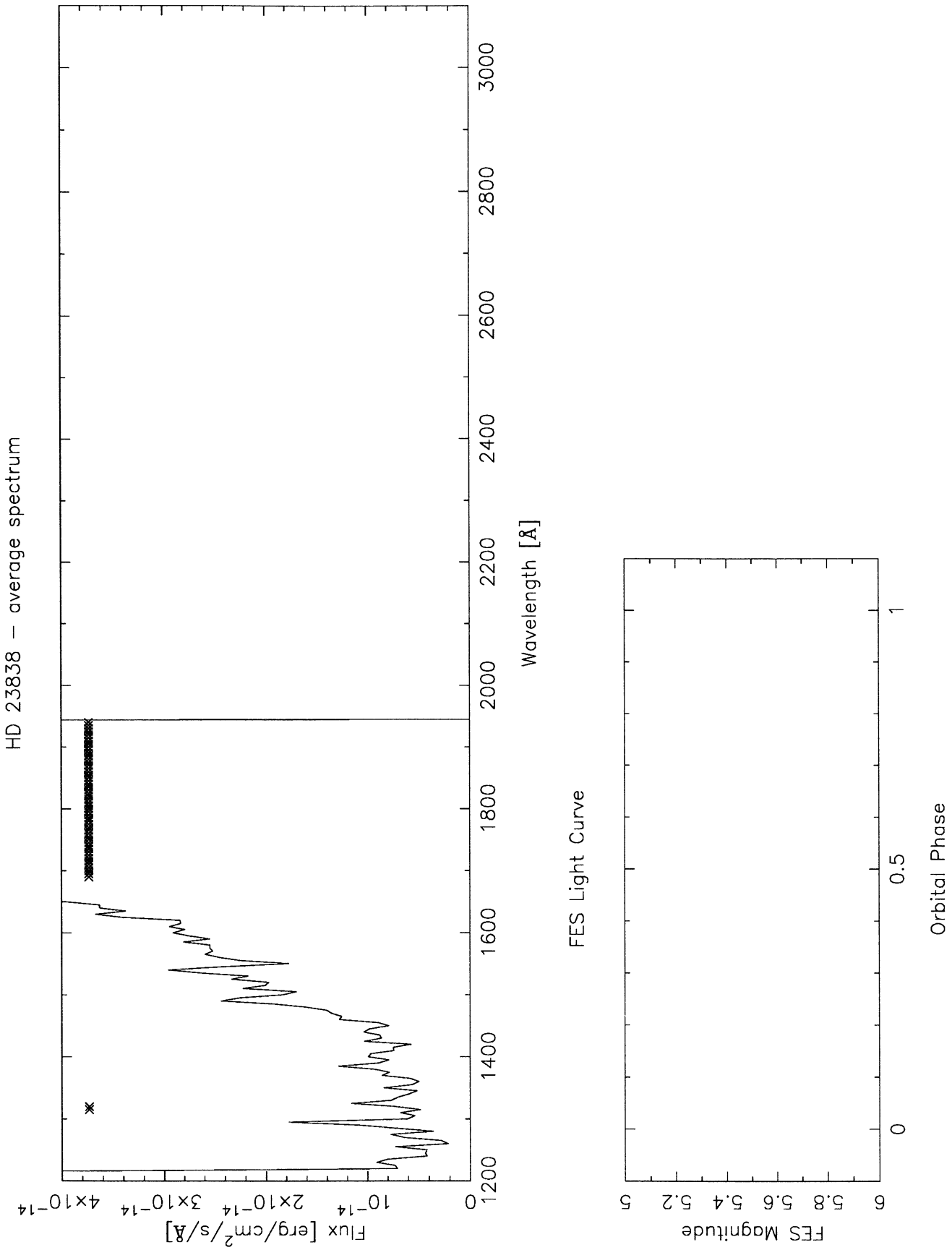
additional references:

Demircan O., Ozeren F.F. and Derman E.: 1989, *Astrophys. Space Sci.* **162**, 337-340, *UBV photometry of HR 1176*

Pedoussaut A., Carquillat J.M. and Ginestet N.: 1987, *Astron. Astrophys.* **175**, 136-140, *Contribution a l'etude des binaires des types F, G, K, M. IV. Elements orbitaux de la binaire spectroscopique HD 23838*

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	39550	L	*	90. 8.29	13:32: 0	48133.0625	192.00	5.68	0.07	0.07	6	E=211,C=4X,B=29

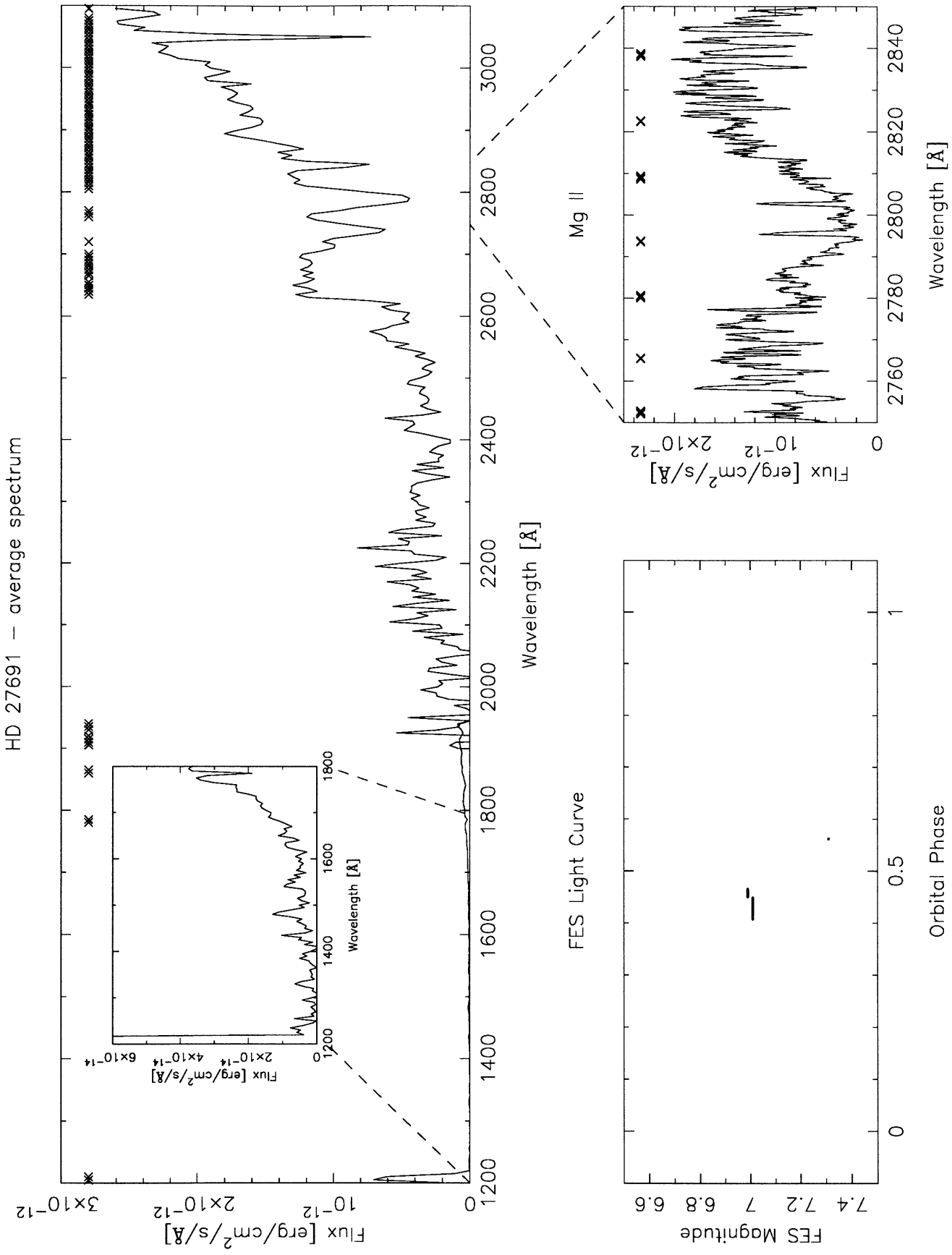

HD 23838 – average spectrum
Flux [erg/cm²/s/Å]
0
10⁻¹⁴
2x10⁻¹⁴
3x10⁻¹⁴
4x10⁻¹⁴
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
5
5.2
5.4
5.6
5.8
6
0
0.5
1
Orbital Phase

HD 27691

alternative names:	SAO 93896, BD+14 690
coordinates (2000.0):	$04^h22^m44.2^s$, $15°03'23''$
linear ephemeris:	
Min I = HJD 2422275.8 + 4.00000 E	
system parameters:	
type of binary:	- , SB1
eccentricity:	0.06
masses [$M_\odot$]:	f(m)=0.0193
radii [$R_\odot$]:	
spectral type:	G0V
distance [pc]:	45
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	0.032
Mg II index:	[0.610], 0.469
Ca II index:	yes
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$5.19\ 10^{-15}$
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.02\ 10^{-12}$
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	$1.71\ 10^{-12}$
U-B:	0.09
B-V:	0.56
V:	7.00
V-R:	
R-I:	0.33
b-y:	0.361
m_1:	0.199
c_1:	0.359
β:	2.626
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	15320	L	*	81.10.23	22:21: 0	44901.4297	240.00	7.01	0.41	0.45	5656	C=2X,B=38
2	LWR	11828	H	*	81.10.24	2:24: 0	44901.6016	90.00	6.99	0.45	0.47	5656	E=97,C=170,B=38
3	LWP	13941	L	*	88. 8.28	13: 5: 0	47402.0469	3.50	7.31	0.56	0.56	6281	C=2X,B=46


HD 27691 – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

HD 57853

alternative names:	SAO 235111, HR 2814, CPD-52 1153B
coordinates (2000.0):	$07^h20^m21.7^s$, $-52°18'34''$

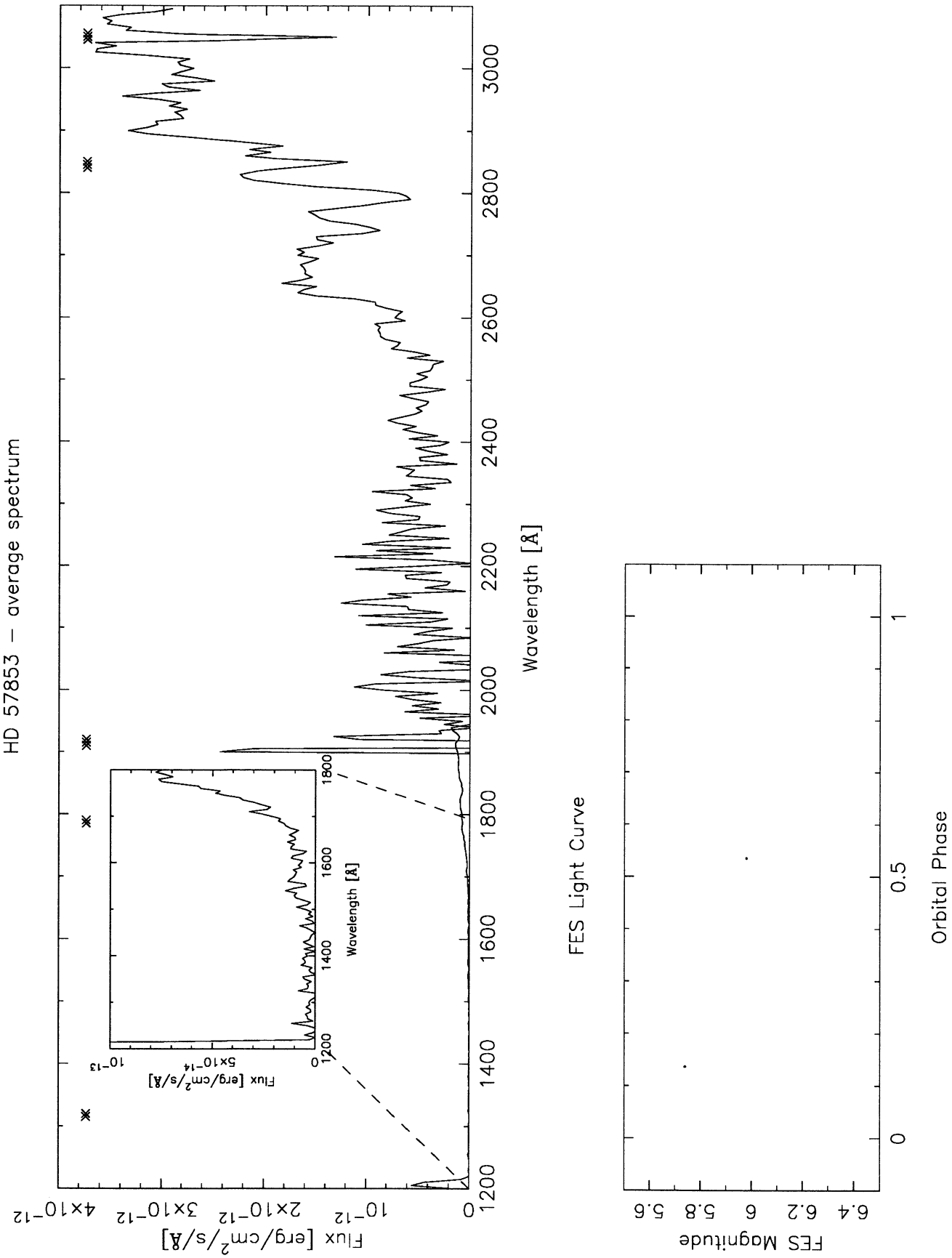
linear ephemeris:

Min I = HJD 2442911.88 + 122.169 E

system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.0
masses [$M_\odot$]:	
radii [$R_\odot$]:	
spectral type:	F9.5V{K3:V/ }
distance [pc]:	26
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	[0.531]
Ca II index:	sharp central
$H\alpha$ emission:	
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	0.014±0.003
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.79 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.36 10^{-12}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.92 10^{-12}
U-B:	0.05
B-V:	0.59
V:	6.60
V-R:	
R-I:	
b-y:	0.369
m_1:	0.199
c_1:	0.336
β:	2.613
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	34865	L		88.12. 2	0:14: 0	47497.5078	35.00	5.98	0.54	0.54	37	E=176,C=106,B=31
2	LWP	17367	L	*	90. 2.14	23:49: 0	47937.4922	1.00	5.74	0.14	0.14	41	C=243,B=32
3	SWP	38193	L	*	90. 2.15	0:20: 0	47937.5156	70.00	5.74	0.14	0.14	41	C=198,B=26

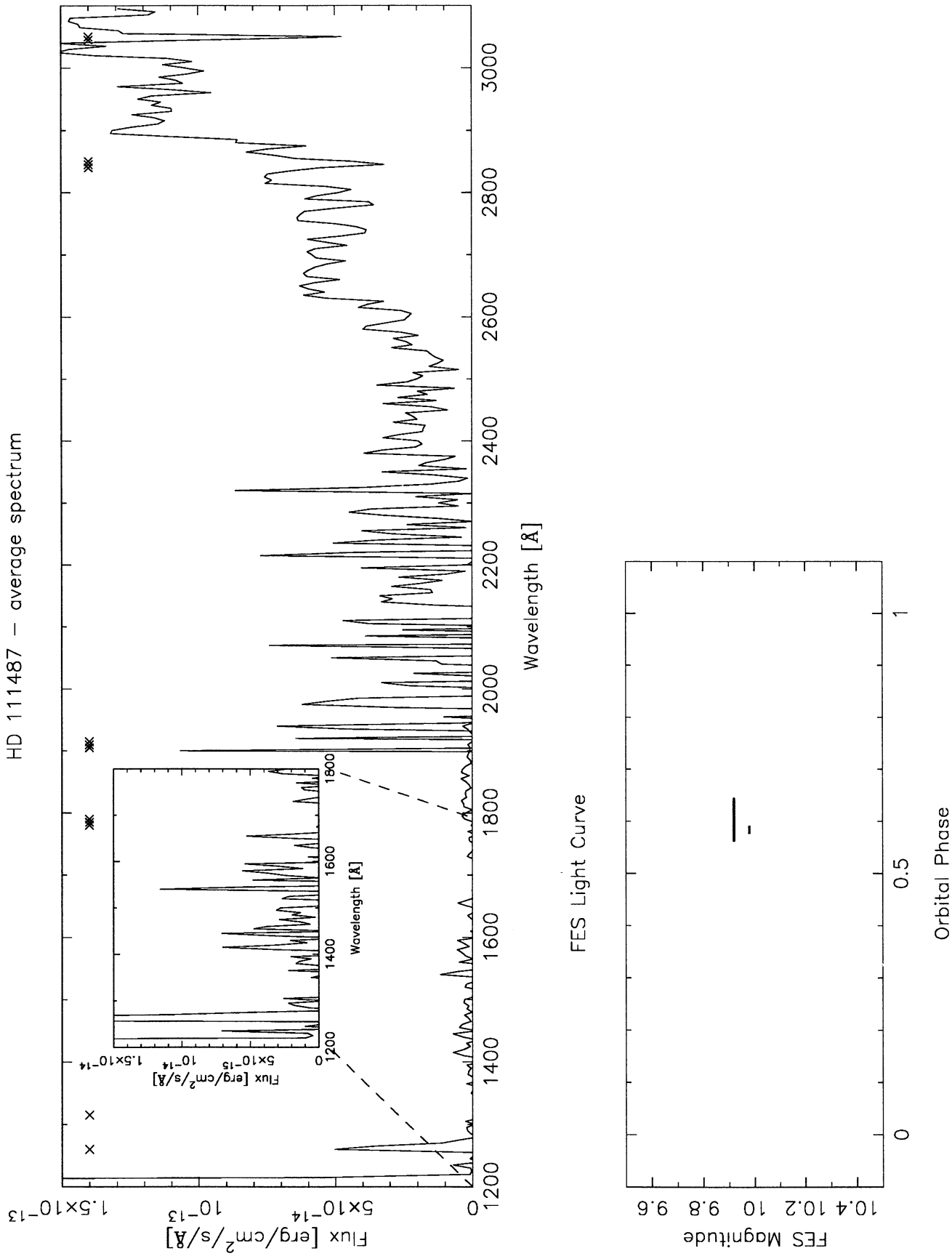

HD 57853 – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

HD 111487

alternative names:	SAO 138983, BD-05 3578
coordinates (2000.0):	$12^h49^m38.5^s$, $-06°04'42''$
linear ephemeris:	
Min I = HJD 2447000.52 + 1.3086 E	
system parameters:	
type of binary:	EB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	f(m)=0.106
radii [$R_\odot$]:	
spectral type:	G5V/
distance [pc]:	60
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	[0.663]
Ca II index:	
$H\alpha$ emission:	filled-in 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.09 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.91 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.13 10^{-13}
U-B:	
B-V:	
V:	9.0
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	27654	L	*	86. 2. 3	5:31:27	46464.7305	150.00	9.92	0.56	0.64	-409	211
2	LWP	7620	L	*	86. 2. 3	6: 2:21	46464.7500	20.00	9.98	0.58	0.59	-409	513

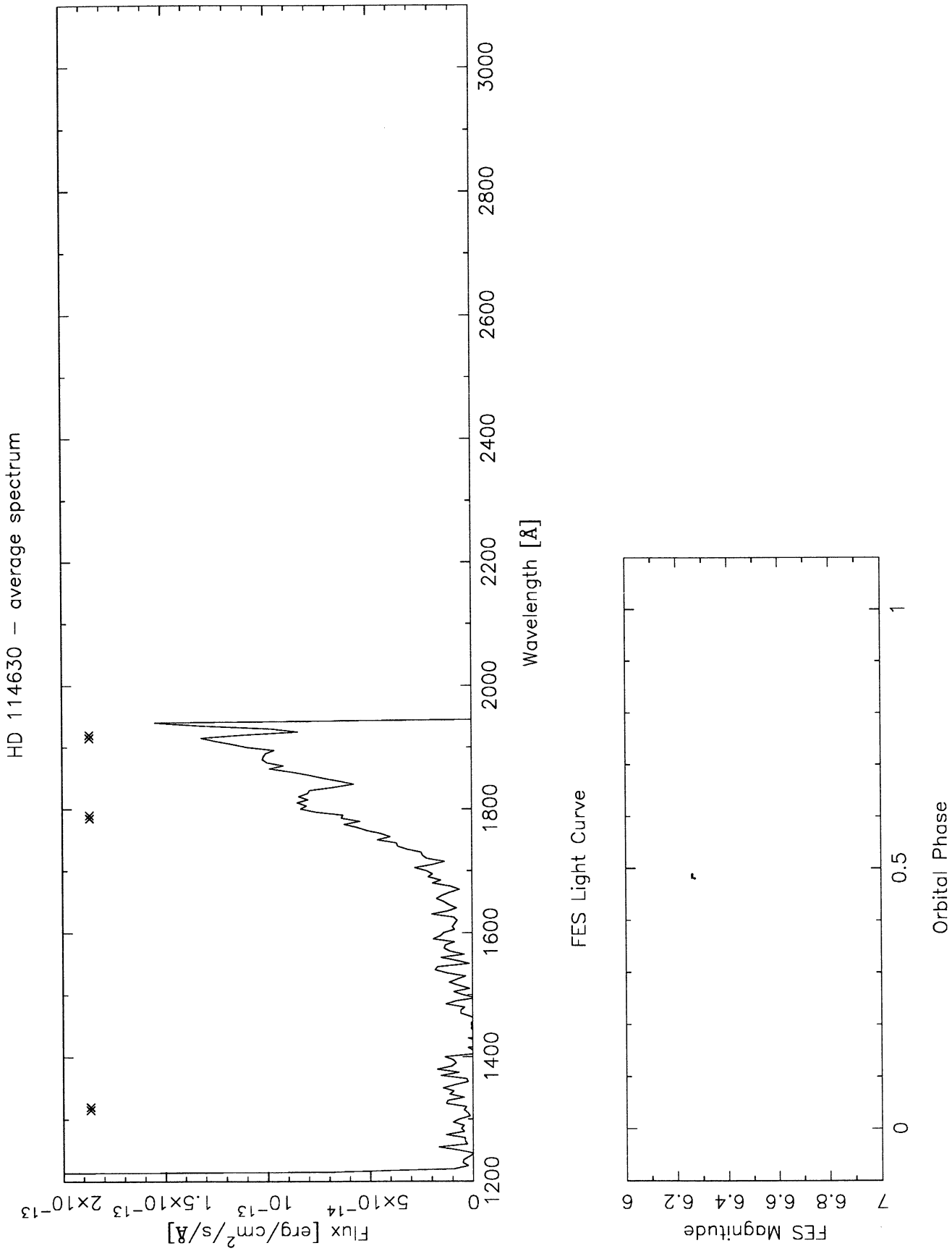

HD 111487 – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

HD 114630

alternative names:	SAO 240653, HR 4980, CD-59 4623
coordinates (2000.0):	$13^h12^m55.9^s$, $-59°49'00''$
linear ephemeris:	
Min I = HJD 2447189.886 + 4.23342 E	
system parameters:	
type of binary:	possibly EB, SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.085/1.082
radii [$R_\odot$]:	
spectral type:	G0V/G0V
distance [pc]:	25
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	
Ca II index:	
$H\alpha$ 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]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	≈0
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
U-B:	
B-V:	0.60
V:	6.16
V-R:	
R-I:	
b-y:	0.376
m_1:	0.174
c_1:	0.354
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	LWP	17364	L		90. 2.14	12: 3: 0	47937.0039	1.00	6.27	0.48	0.48	176	C=1.5X,B=37
2	SWP	38191	L	*	90. 2.14	12:16: 0	47937.0117	35.00	6.26	0.48	0.91	176	C=112,B=21

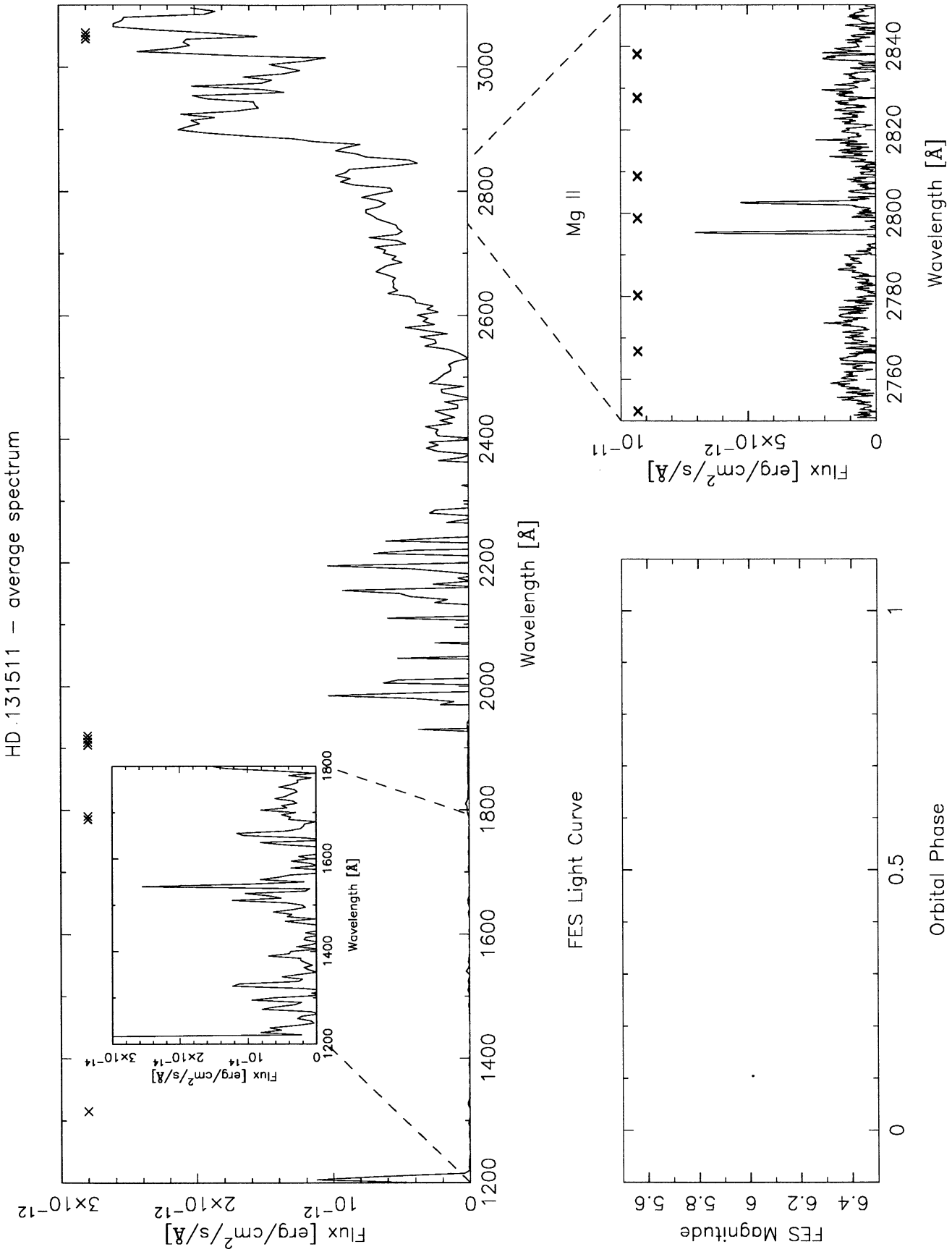

HD 114630 – average spectrum
Flux [erg/cm²/s/Å]
5×10⁻¹⁴
10⁻¹³
1.5×10⁻¹³
2×10⁻¹³
0
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
Wavelength [Å]
FES Light Curve
FES Magnitude
6
6.2
6.4
6.6
6.8
7
0
0.5
1
Orbital Phase

HD 131511

alternative names:	SAO 101276, HR 5553, BD+19 2881
coordinates (2000.0):	$14^h53^m23.8^s$, 19°09′10″
linear ephemeris:	
Min I = HJD ≈2442062.5 + 125.369 E	
system parameters:	
type of binary:	- , SB1
eccentricity:	0.51
masses [$M_\odot$]:	f(m)=0.061
radii [$R_\odot$]:	
spectral type:	K2V
distance [pc]:	12
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	[0.653], 0.552
Ca II index:	moderate
$H\alpha$ emission:	absorption, variable?
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.26 10^{-15}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	4.87 10^{-13}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.70 10^{-12}
U-B:	0.49
B-V:	0.84
V:	5.97
V-R:	
R-I:	
b-y:	0.504
m_1:	0.359
c_1:	0.298
β:	
IRAS [12]:	1.23
IRAS [25]:	0.34

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	13075	H	*	82. 4.24	22:40: 0	45084.4453	20.00	6.01	0.10	0.11	24	E=139,C=100,B=50
2	SWP	28514	L	*	86. 6.20	8:32: 0	46601.8555	110.00	6.15	0.21	0.21	36	E=79,C=70,B=40
3	LWP	11232	L	*	87. 7.17	17:39: 0	46994.2344	1.50	6.25	0.34	0.34	39	C=188,B=35

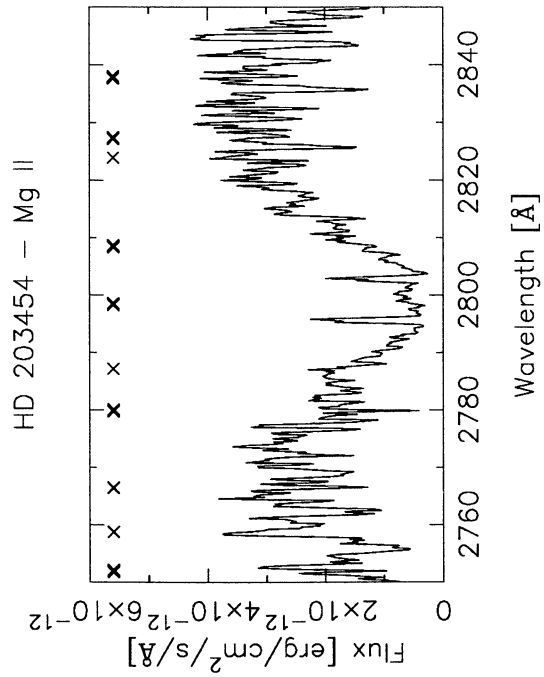

HD 131511 – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
Mg II
FES Light Curve
FES Magnitude
Orbital Phase

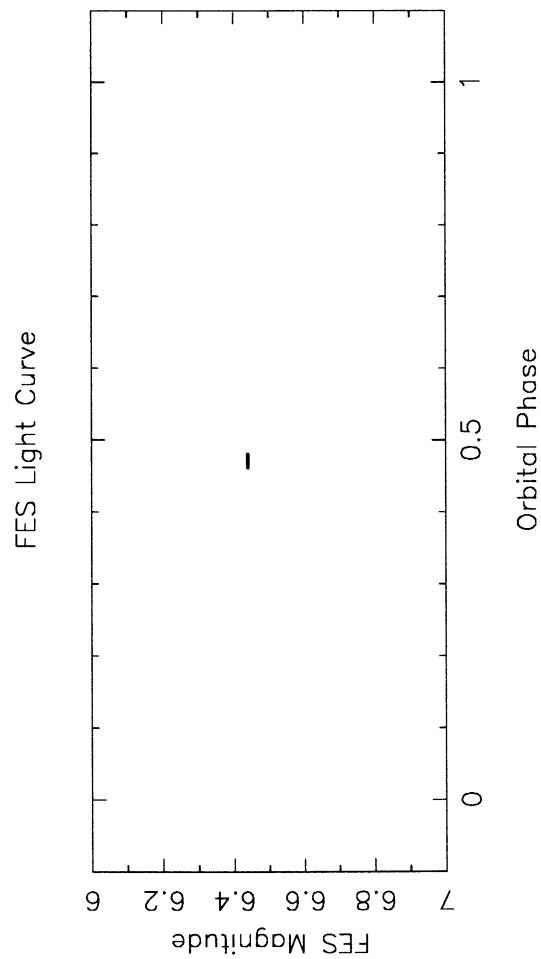
HD 203454

alternative names:	SAO 50739, HR 8170, BD+39 4529
coordinates (2000.0):	$21^h21^m01.4^s$, $40°20'42''$
linear ephemeris:	
Min I = HJD 2448345.931 + 3.243347 E	
system parameters:	
type of binary:	- , SB2
eccentricity:	0.0
masses [$M_\odot$]:	1.17/0.66
radii [$R_\odot$]:	1.11/0.74
spectral type:	F8V/≈K5V
distance [pc]:	29
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	
x-ray luminosity [10^{31} erg/s]:	
Mg II index:	0.440
Ca II index:	yes
$H\alpha$ emission:	
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	16±3
ROSAT 110-200Å [ct/ks]:	14±:
EUVE 100Å [ct/s]:	0.027±0.005
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[2.11 10^{-12}]
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	[4.46 10^{-12}]
U-B:	-0.01
B-V:	0.53
V:	6.40
V-R:	
R-I:	0.34
b-y:	0.352
m_1:	0.173
c_1:	0.326
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	14716	H	*	82.11.25	4:20: 0	45298.6797	90.00	6.44	0.46	0.48	-939	E=176,C=1.5X,B=37


HD 203454 – Mg II
Flux [erg/cm²/s/Å]
0
2×10⁻¹²
4×10⁻¹²
6×10⁻¹²
2760
2780
2800
2820
2840
Wavelength [Å]


FES Light Curve
FES Magnitude
6
6.2
6.4
6.6
6.8
7
0
0.5
1
Orbital Phase

HD 284163

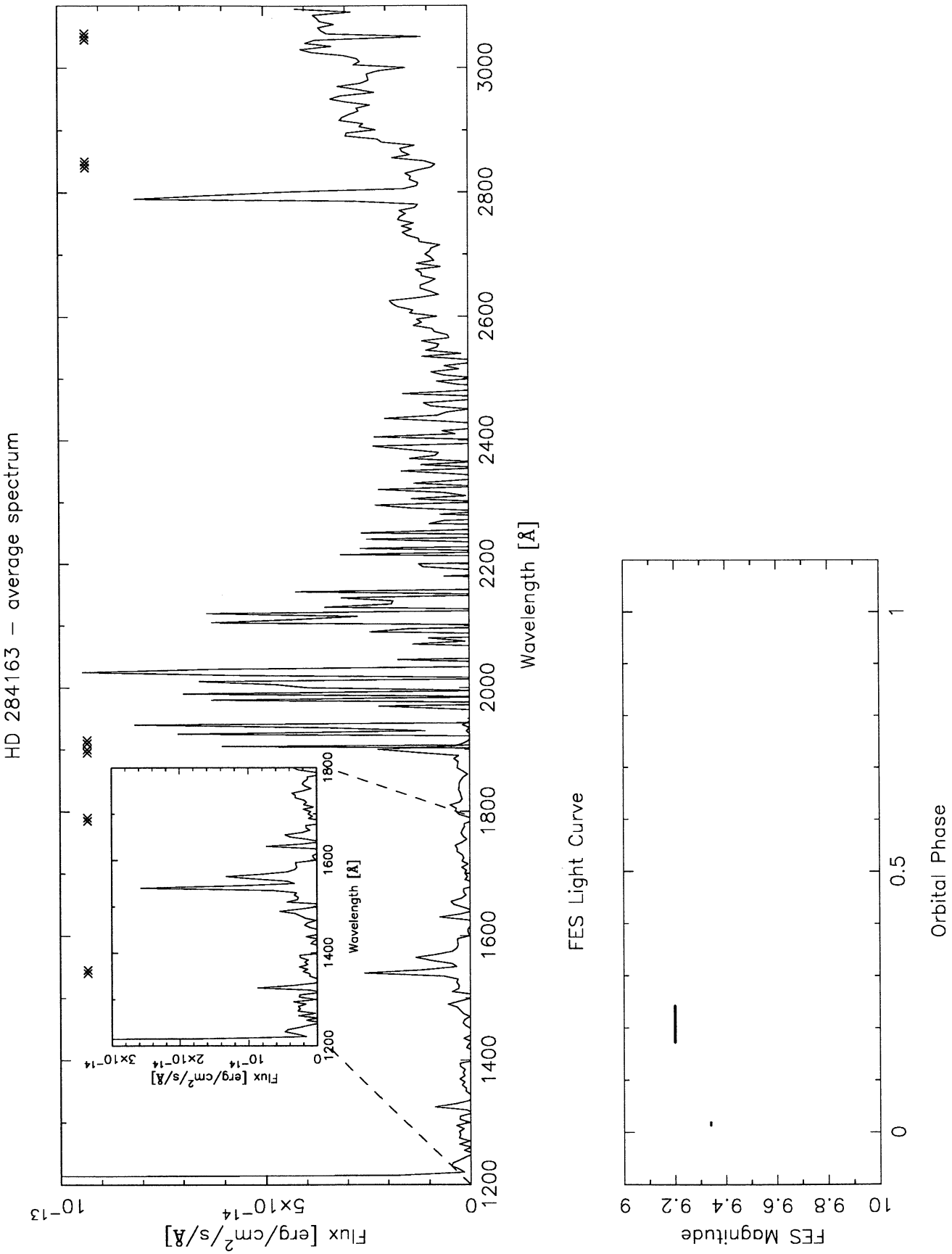
alternative names:	BD+23 635
coordinates (2000.0):	$04^h12^m26.0^s$, $23°40'30''$
linear ephemeris:	
Min I = HJD 2443892.992 + 2.394357 E	
system parameters:	
type of binary:	NEB, SB1
eccentricity:	0.06
masses [$M_\odot$]:	f(m)=0.0719
radii [$R_\odot$]:	
spectral type:	dK0/dM0:
distance [pc]:	40
activity parameters:	
P_{phot} [days]:	
ΔV [mag]:	const
x-ray luminosity [10^{31} erg/s]:	<0.001
Mg II index:	[1.686]
Ca II index:	
$H\alpha$ emission:	weak emission, hot
radio flux density [mJy]:	
photometric parameters:	
ROSAT 60-140Å [ct/ks]:	
ROSAT 110-200Å [ct/ks]:	
EUVE 100Å [ct/s]:	
EUVE 200Å [ct/s]:	
$F_{1400\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	7.79 10^{-16}
$F_{2650\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	1.15 10^{-14}
$F_{2950\mathring{A}}$ [$erg/s/cm^2/\mathring{A}$]:	2.64 10^{-14}
U-B:	0.80
B-V:	1.09
V:	9.34
V-R:	
R-I:	0.51
b-y:	
m_1:	
c_1:	
β:	
IRAS [12]:	
IRAS [25]:	

additional references:

Bopp B.W., Africano J.L. and Goodrich B.D.: 1986, *Publ. Astron. Soc. Pac.* **98**, 457-460, *Chromospheric activity in the Hyades triple system BD +23 635*

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	21049	L	*	91. 8.21	16:34: 0	48490.1914	15.00	9.34	0.01	0.02	1920	E=151,C=78,B=35
2	SWP	42305	L	*	91. 8.22	1:44: 0	48490.5703	240.00	9.20	0.17	0.24	1920	E=85,C=58,B=38


HD 284163 – average spectrum
Flux [erg/cm²/s/Å]
Wavelength [Å]
FES Light Curve
FES Magnitude
Orbital Phase

Index and Cross-References:

AR Lac	= HD 210334	= SAO 51684	= HR 8448	= BD+45 3813	.....	.....	p.	166
HK Lac	= HD 209813	= SAO 51628	= BD+46 3572	.....	.....	.....	p.	174
V350 Lac	= HD 213389	= SAO 52073	= HR 8575	= BD+48 3747	.....	.....	p.	177
DH Leo	= HD 86590	= SAO 81134	= BD+25 2191	.....	.....	.....	p.	179
DQ Leo	= HD 102509	= SAO 81998	= HR 4527	= BD+21 2358	= 93 Leo	.....	p.	181
TW Lep	= HD 37847 G	= SAO 170678	= BD-20 1149	.....	.....	.....	p.	184
RV Lib	= HD 128171	= SAO 158665	= BD-17 4122	.....	.....	.....	p.	186
UZ Lib	= BD-08 3999	.....	.....	.....	.....	.....	p.	188
GX Lib	= HD 136905	= SAO 140499	= BD-06 4193	.....	.....	.....	p.	191
AE Lyn	= HD 65626	= SAO 26634	= HR 3119	= BD+57 1118	= 54 Cam	.....	p.	193
V478 Lyr	= BD+30 3425	= HD 178450	= SAO 67836	.....	.....	.....	p.	195
YZ Men	= HD 34802	= SAO 256167	= CD-77 188	.....	.....	.....	p.	197
AR Mon	= HD 57364	= SAO 134544	= BD-04 1915	.....	.....	.....	p.	199
GT Mus	= HD 101379	= CPD-64 1685A	.....	.....	.....	.....	p.	201
V1149 Ori	= HD 37824	= SAO 113040	= BD+03 1007	.....	.....	.....	p.	203
V1198 Ori	= HD 31738	= SAO 112278	= BD+00 908	.....	.....	.....	p.	205
II Peg	= HD 224085	= SAO 91578	= BD+27 4642	.....	.....	.....	p.	207
IM Peg	= HD 216489	= SAO 108231	= HR 8703	= BD+16 4831	.....	.....	p.	212
KU Peg	= HD 218153	= SAO 91000	= BD+25 4870	.....	.....	.....	p.	215
LX Per	= SAO 38651	= BD+47 781	.....	.....	.....	.....	p.	217
BC Phe	= HD 8435	= SAO 232399	= CD-57 268	.....	.....	.....	p.	219
SZ Pic	= HD 39917	= SAO 217600	= CD-43 2114	.....	.....	.....	p.	222
TY Pic	= HD 42504	= SAO 234330	= CD-54 1329	.....	.....	.....	p.	224
SZ Psc	= HD 219113	= SAO 128041	= BD+01 4695	.....	.....	.....	p.	226
UV Psc	= HD 7700	= SAO 109778	= BD+06 189	.....	.....	.....	p.	229
AP Psc	= HD 352	= SAO 128602	= HR 14	= BD-03 3	= 5 Cet	.....	p.	232
AR Psc	= HD 8357	= SAO 109841	= BD+06 211	.....	.....	.....	p.	235
AZ Psc	= HD 217188	= SAO 146421	= BD-01 4364	.....	.....	.....	p.	237
BC Psc	= HD 28	= SAO 128572	= HR 3	= BD-06 6357	= 33 Psc	.....	p.	239
TZ PsA	= HD 217344	= CD-34 15853	.....	.....	.....	.....	p.	241
TY Pyx	= HD 77137	= SAO 176805	= CD-27 6141	.....	.....	.....	p.	243
VX Pyx	= HD 72688	= SAO 199353	= HR 3385	= CD-34 4959	.....	.....	p.	246
V4046 Sgr	= HD 319139	= CPD-32 5229	.....	.....	.....	.....	p.	248
V4138 Sgr	= HD 181809	= SAO 188043	= BD-20 5516	.....	.....	.....	p.	251
V4139 Sgr	= HD 182776	= SAO 229695	= CD-41 13525	.....	.....	.....	p.	253
V965 Sco	= HD 158393	= SAO 208895	= CD-33 12122	.....	.....	.....	p.	255
V471 Tau	= BD+16 516	.....	.....	.....	.....	.....	p.	257
V711 Tau	= HD 22468	= SAO 111291	= HR 1099	= BD+00 6161	.....	.....	p.	261
V808 Tau	= HD 283882	= SAO 76773	= BD+24 692	.....	.....	.....	p.	267
V818 Tau	= HD 27130	= SAO 93845	= BD+16 577	.....	.....	.....	p.	269
V833 Tau	= HD 283750	= SAO 76672	= BD+26 730	.....	.....	.....	p.	271
V837 Tau	= HD 22403	= SAO 76031	= BD+25 580	.....	.....	.....	p.	274
TZ Tri	= HD 13480	= SAO 55347	= HR 642	= BD+29 371	= 6 Tri	= ι Tri	p.	276
LS TrA	= HD 137164	= SAO 253175	= CD-62 937	.....	.....	.....	p.	279
CF Tuc	= HD 5303	= SAO 255716	= CD-75 26	.....	.....	.....	p.	281
RW UMa	= BD+52 1579	.....	.....	.....	.....	.....	p.	284
XY UMa	= HD 237786	= SAO 27143	= BD+55 1317	.....	.....	.....	p.	286
DM UMa	= SAO 15338	= BD+61 1211	.....	.....	.....	.....	p.	289
EE UMa	= HD 99967	= SAO 43784	= HR 4430	= BD+47 1880	.....	.....	p.	292
IN Vel	= HD 83442	= SAO 221347	= CD-41 5219	.....	.....	.....	p.	297
BH Vir	= HD 121909	= BD-00 2769	.....	.....	.....	.....	p.	299
HU Vir	= HD 106225	= SAO 138652	= BD-08 3301	.....	.....	.....	p.	301
ER Vul	= HD 200391	= SAO 89396	= BD+27 3952	.....	.....	.....	p.	303
16 And	= HD 222107	= SAO 53204	= HR 8961	= BD+45 4283	= λ And	.....	p.	6
34 And	= HD 4502	= SAO 74267	= HR 215	= BD+23 106	= ζ And	.....	p.	3
13 Aur	= HD 34029	= SAO 40186	= HR 1708	= BD+45 1077	= α Aur A	= Capella	p.	36
12 Cam	= HD 32357	= SAO 25003	= HR 1623	= BD+58 805	= BM Cam	.....	p.	50
54 Cam	= HD 65626	= SAO 26634	= AE Lyn	= HR 3119	= BD+57 1118	.....	p.	193
42 Cap	= HD 206301	= SAO 164580	= HR 8283	= BD-14 6102	.....	.....	p.	67

5 Cet	= HD 352	= SAO 128602	= AP Psc	= HR 14	= BD-03 3	.....	p.	232
13 Cet	= HD 3196	= SAO 128839	= HR 142	= BD-04 62	.....	.....	p.	80
39 Cet	= HD 7672	= SAO 129204	= AY Cet	= HR 373	= BD-03 172	.....	p.	73
17 CrB A	= HD 146361	= TZ CrB	= HR 6063	= BD+34 2750A	= σ CrB A	.....	p.	87
29 Dra	= HD 160538	= SAO 8842	= DR Dra	= BD+74 717	.....	.....	p.	116
47 Dra	= HD 175306	= SAO 31218	= HR 7125	= BD+59 1925	= o Dra	.....	p.	118
75 Gem	= HD 62044	= SAO 79638	= HR 2973	= BD+29 15901	= σ Gem	.....	p.	135
93 Leo	= HD 102509	= SAO 81998	= DQ Leo	= HR 4527	= BD+21 2358	.....	p.	181
33 Psc	= HD 28	= SAO 128572	= BC Psc	= HR 3	= BD-06 6357	.....	p.	239
6 Tri	= HD 13480	= SAO 55347	= TZ Tri	= HR 642	= BD+29 371	= ι Tri	p.	276
22 UMi	= HD 153751	= SAO 2770	= HR 6322	= BD+82 498	= ϵ UMi	.....	p.	294
ζ And	= HD 4502	= SAO 74267	= HR 215	= BD+23 106	= 34 And	.....	p.	3
λ And	= HD 222107	= SAO 53204	= HR 8961	= BD+45 4283	= 16 And	.....	p.	6
α Aur A	= HD 34029	= SAO 40186	= HR 1708	= BD+45 1077	= 13 Aur	= Capella	p.	36
σ CrB A	= HD 146361	= TZ CrB	= HR 6063	= BD+34 2750A	= 17 CrB A	.....	p.	87
o Dra	= HD 175306	= SAO 31218	= HR 7125	= BD+59 1925	= 47 Dra	.....	p.	118
σ Gem	= HD 62044	= SAO 79638	= HR 2973	= BD+29 15901	= 75 Gem	.....	p.	135
ι Tri	= HD 13480	= SAO 55347	= TZ Tri	= HR 642	= BD+29 371	= 6 Tri	p.	276
ϵ UMi	= HD 153751	= SAO 2770	= HR 6322	= BD+82 498	= 22 UMi	.....	p.	294
Capella	= HD 34029	= SAO 40186	= HR 1708	= BD+45 1077	= 13 Aur	= α Aur A	p.	36
BD+00 6161	= HD 22468	= SAO 111291	= V711 Tau	= HR 1099	.....	.....	p.	261
BD+00 908	= HD 31738	= SAO 112278	= V1198 Ori	.....	.....	.....	p.	205
BD+01 4695	= HD 219113	= SAO 128041	= SZ Psc	.....	.....	.....	p.	226
BD+03 1007	= HD 37824	= SAO 113040	= V1149 Ori	.....	.....	.....	p.	203
BD+04 532	= HD 21018	= SAO 111161	= HR 1023	.....	.....	.....	p.	309
BD+06 189	= HD 7700	= SAO 109778	= UV Psc	.....	.....	.....	p.	229
BD+06 211	= HD 8357	= SAO 109841	= AR Psc	.....	.....	.....	p.	235
BD+14 690	= HD 27691	= SAO 93896	.....	.....	.....	.....	p.	313
BD+15 3311	= HD 163930	= SAO 103254	= Z Her	.....	.....	.....	p.	138
BD+16 4831	= HD 216489	= SAO 108231	= IM Peg	= HR 8703	.....	.....	p.	212
BD+16 516	= V471 Tau	.....	.....	.....	.....	.....	p.	257
BD+16 577	= HD 27130	= SAO 93845	= V818 Tau	.....	.....	.....	p.	269
BD+18 1214	= HD 45088	= SAO 95677	= OU Gem	.....	.....	.....	p.	133
BD+18 3678	= HD 348635	= AW Her	.....	.....	.....	.....	p.	141
BD+19 2881	= HD 131511	= SAO 101276	= HR 5553	.....	.....	.....	p.	321
BD+21 2358	= HD 102509	= SAO 81998	= DQ Leo	= HR 4527	= 93 Leo	.....	p.	181
BD+21 3302	= HD 165590	= SAO 85723	= V772 Her	.....	.....	.....	p.	143
BD+23 106	= HD 4502	= SAO 74267	= HR 215	= 34 And	= ζ And	.....	p.	3
BD+23 3500	= HD 175742	= SAO 86592	= V775 Her	.....	.....	.....	p.	146
BD+23 635	= HD 284163	.....	.....	.....	.....	.....	p.	325
BD+24 692	= HD 283882	= SAO 76773	= V808 Tau	.....	.....	.....	p.	267
BD+25 2191	= HD 86590	= SAO 81134	= DH Leo	.....	.....	.....	p.	179
BD+25 4870	= HD 218153	= SAO 91000	= KU Peg	.....	.....	.....	p.	215
BD+25 580	= HD 22403	= SAO 76031	= V837 Tau	.....	.....	.....	p.	274
BD+26 2347	= HD 108102	= SAO 82295	= IL Com	.....	.....	.....	p.	82
BD+26 2405	= HD 112313	= SAO 82570	= IN Com	.....	.....	.....	p.	84
BD+26 2685	= HD 136901	= SAO 83795	= UV CrB	.....	.....	.....	p.	90
BD+26 730	= HD 283750	= SAO 76672	= V833 Tau	.....	.....	.....	p.	271
BD+27 1706	= WY Cnc	.....	.....	.....	.....	.....	p.	54
BD+27 3444	= HD 185151	= SAO 87451	= V1764 Cyg	.....	.....	.....	p.	97
BD+27 3952	= HD 200391	= SAO 89396	= ER Vul	.....	.....	.....	p.	303
BD+27 4642	= HD 224085	= SAO 91578	= II Peg	.....	.....	.....	p.	207
BD+28 532	= HD 21242	= SAO 75927	= UX Ari	.....	.....	.....	p.	29
BD+29 15901	= HD 62044	= SAO 79638	= HR 2973	= 75 Gem	= σ Gem	.....	p.	135
BD+29 3187	= HD 166181	= SAO 85767	= V815 Her	.....	.....	.....	p.	151
BD+29 371	= HD 13480	= SAO 55347	= TZ Tri	= HR 642	= 6 Tri	= ι Tri	p.	276
BD+30 3425	= HD 178450	= SAO 67836	= V478 Lyr	.....	.....	.....	p.	195

BD+30 448	= HD 17433	= SAO 55899	= VY Ari	.....	.....	.....	p. 33
BD+32 1772	= HD 73343	= SAO 60954	= RZ Cnc	.....	.....	.....	p. 52
BD+34 2750A	= HD 146361	= TZ CrB	= HR 6063	= 17 CrB A	= σ CrB A	.....	p. 87
BD+34 363	= HD 12545	= SAO 55233	.....	.....	.....	.....	p. 306
BD+34 4217	= CG Cyg	.....	.....	.....	.....	.....	p. 92
BD+36 2344	= HD 114519	= SAO 63382	= RS CVn	.....	.....	.....	p. 57
BD+37 2426	= HD 118216	= SAO 63623	= BH CVn	= HR 5110	.....	.....	p. 60
BD+39 2635	= HD 116204	= SAO 63494	= BM CVn	.....	.....	.....	p. 63
BD+39 2849	= SS Boo	.....	.....	.....	.....	.....	p. 42
BD+39 4529	= HD 203454	= SAO 50739	= HR 8170	.....	.....	.....	p. 323
BD+40 3136	= HD 157482	= SAO 46664	= V819 Her	= HR 6469	.....	.....	p. 154
BD+43 4112	= HD 209318	= SAO 51563	= RT Lac	.....	.....	.....	p. 163
BD+44 801	= HD 23838	= SAO 39134	= HR 1176	.....	.....	.....	p. 311
BD+45 1077	= HD 34029	= SAO 40186	= HR 1708	= 13 Aur	= α Aur A	= Capella	p. 36
BD+45 3813	= HD 210334	= SAO 51684	= AR Lac	= HR 8448	.....	.....	p. 166
BD+45 4283	= HD 222107	= SAO 53204	= HR 8961	= 16 And	= λ And	.....	p. 6
BD+46 3572	= HD 209813	= SAO 51628	= HK Lac	.....	.....	.....	p. 174
BD+47 1880	= HD 99967	= SAO 43784	= EE UMa	= HR 4430	.....	.....	p. 292
BD+47 781	= SAO 38651	= LX Per	.....	.....	.....	.....	p. 217
BD+48 3747	= HD 213389	= SAO 52073	= V350 Lac	= HR 8575	.....	.....	p. 177
BD+49 2596	= HD 155638	= SAO 46541	= V792 Her	.....	.....	.....	p. 148
BD+51 2402	= HD 234677	= SAO 31048	= BY Dra	.....	.....	.....	p. 108
BD+52 1579	= RW UMa	.....	.....	.....	.....	.....	p. 284
BD+52 2350	= HD 179094	= SAO 31413	= V1762 Cyg	= HR 7275	.....	.....	p. 94
BD+52 3383a	= RT And	.....	.....	.....	.....	.....	p. 1
BD+55 1317	= HD 237786	= SAO 27143	= XY UMa	.....	.....	.....	p. 286
BD+55 2215	= HD 184398	= SAO 31741	= V1817 Cyg	= HR 7428	.....	.....	p. 100
BD+57 1118	= HD 65626	= SAO 26634	= AE Lyn	= HR 3119	= 54 Cam	.....	p. 193
BD+58 805	= HD 32357	= SAO 25003	= HR 1623	= 12 Cam	= BM Cam	.....	p. 50
BD+59 1925	= HD 175306	= SAO 31218	= HR 7125	= 47 Dra	= o Dra	.....	p. 118
BD+60 1691	= HD 150708	= SAO 17176	= WW Dra	.....	.....	.....	p. 104
BD+61 1211	= SAO 15338	= DM UMa	.....	.....	.....	.....	p. 289
BD+73 549	= HD 106677	= SAO 7533	= DK Dra	= HR 4665	.....	.....	p. 114
BD+74 493	= HD 107760	= SAO 7552	= AS Dra	.....	.....	.....	p. 106
BD+74 717	= HD 160538	= SAO 8842	= DR Dra	= 29 Dra	.....	.....	p. 116
BD+82 174	= HD 44982	= SAO 1038	= SV Cam	.....	.....	.....	p. 47
BD+82 498	= HD 153751	= SAO 2770	= HR 6322	= 22 UMi	= ϵ UMi	.....	p. 294
BD-00 210	= HD 8358	= SAO 109840	= BI Cet	.....	.....	.....	p. 78
BD-00 2769	= HD 121909	= BH Vir	.....	.....	.....	.....	p. 299
BD-01 4364	= HD 217188	= SAO 146421	= AZ Psc	.....	.....	.....	p. 237
BD-03 172	= HD 7672	= SAO 129204	= AY Cet	= HR 373	= 39 Cet	.....	p. 73
BD-03 3	= HD 352	= SAO 128602	= AP Psc	= HR 14	= 5 Cet	.....	p. 232
BD-03 5357	= SAO 145804	= FF Aqr	.....	.....	.....	.....	p. 12
BD-04 1915	= HD 57364	= SAO 134544	= AR Mon	.....	.....	.....	p. 199
BD-04 62	= HD 3196	= SAO 128839	= HR 142	= 13 Cet	.....	.....	p. 80
BD-05 3578	= HD 111487	= SAO 138983	.....	.....	.....	.....	p. 317
BD-06 2585	= HD 71071	= SAO 135893	= LU Hya	.....	.....	.....	p. 161
BD-06 4193	= HD 136905	= SAO 140499	= GX Lib	.....	.....	.....	p. 191
BD-06 5221	= HD 185510	= SAO 143657	= V1379 Aql	.....	.....	.....	p. 21
BD-06 6357	= HD 28	= SAO 128572	= BC Psc	= HR 3	= 33 Psc	.....	p. 239
BD-08 3301	= HD 106225	= SAO 138652	= HU Vir	.....	.....	.....	p. 301
BD-08 3999	= UZ Lib	.....	.....	.....	.....	.....	p. 188
BD-08 801	= HD 26337	= SAO 130994	= EI Eri	.....	.....	.....	p. 126
BD-10 58	= HD 1833	= SAO 128725	= BD Cet	.....	.....	.....	p. 76
BD-10 993	= HD 30050	= SAO 149847	= RZ Eri	.....	.....	.....	p. 120
BD-11 2916	= HD 91816	= SAO 156090	= LR Hya	.....	.....	.....	p. 159
BD-14 6070	= HD 205249	= SAO 164484	= AS Cap	.....	.....	.....	p. 65
BD-14 6102	= HD 206301	= SAO 164580	= HR 8283	= 42 Cap	.....	.....	p. 67
BD-17 4122	= HD 128171	= SAO 158665	= RV Lib	.....	.....	.....	p. 186
BD-20 1149	= HD 37847 G	= SAO 170678	= TW Lep	.....	.....	.....	p. 184

BD-20 5516	= HD 181809	= SAO 188043	= V4138 Sgr	.....	.....	.....	p.	251
BD-21 6267	= HD 214479	= SAO 191294	= FK Aqr	.....	.....	.....	p.	15
CD-23 8347	= HD 81410	= SAO 177412	= IL Hya	.....	.....	.....	p.	157
CD-24 751	= HD 10909	= SAO 167287	= UV For	.....	.....	.....	p.	129
CD-27 6141	= HD 77137	= SAO 176805	= TY Pyx	.....	.....	.....	p.	243
CD-33 12122	= HD 158393	= SAO 208895	= V965 Sco	.....	.....	.....	p.	255
CD-34 15853	= HD 217344	= TZ PsA	.....	.....	.....	.....	p.	241
CD-34 4959	= HD 72688	= SAO 199353	= VX Pyx	= HR 3385	.....	.....	p.	246
CD-38 899	= HD 17084	= SAO 193879	= UX For	.....	.....	.....	p.	131
CD-41 13525	= HD 182776	= SAO 229695	= V4139 Sgr	.....	.....	.....	p.	253
CD-41 5219	= HD 83442	= SAO 221347	= IN Vel	.....	.....	.....	p.	297
CD-43 2114	= HD 39917	= SAO 217600	= SZ Pic	.....	.....	.....	p.	222
CD-44 775	= HD 16157	= SAO 215947	= CC Eri	.....	.....	.....	p.	123
CD-48 12280	= HD 165141	= SAO 228707	= V832 Ara	.....	.....	.....	p.	27
CD-52 858	= HD 26354	= SAO 233401	= AG Dor	.....	.....	.....	p.	102
CD-54 1329	= HD 42504	= SAO 234330	= TY Pic	.....	.....	.....	p.	224
CD-57 268	= HD 8435	= SAO 232399	= BC Phe	.....	.....	.....	p.	219
CD-59 4623	= HD 114630	= SAO 240653	= HR 4980	.....	.....	.....	p.	319
CD-59 5306	= HD 127535	= SAO 252794	= V841 Cen	.....	.....	.....	p.	69
CD-60 4859	= HD 119285	= SAO 252429	= V851 Cen	.....	.....	.....	p.	71
CD-62 937	= HD 137164	= SAO 253175	= LS TrA	.....	.....	.....	p.	279
CD-75 26	= HD 5303	= SAO 255716	= CF Tuc	.....	.....	.....	p.	281
CD-77 188	= HD 34802	= SAO 256167	= YZ Men	.....	.....	.....	p.	197
CPD-32 5229	= HD 319139	= V4046 Sgr	.....	.....	.....	.....	p.	248
CPD-52 1153B	= HD 57853	= SAO 235111	= HR 2814	.....	.....	.....	p.	315
CPD-64 1685A	= HD 101379	= GT Mus	.....	.....	.....	.....	p.	201
CPD-66 3080	= HD 155555	= SAO 253856	= V824 Ara	.....	.....	.....	p.	24
HD 28	= SAO 128572	= BC Psc	= HR 3	= BD-06 6357	= 33 Psc	.....	p.	239
HD 352	= SAO 128602	= AP Psc	= HR 14	= BD-03 3	= 5 Cet	.....	p.	232
HD 1833	= SAO 128725	= BD Cet	= BD-10 58	.....	.....	.....	p.	76
HD 3196	= SAO 128839	= HR 142	= BD-04 62	= 13 Cet	.....	.....	p.	80
HD 4502	= SAO 74267	= HR 215	= BD+23 106	= 34 And	= ζ And	.....	p.	3
HD 5303	= SAO 255716	= CF Tuc	= CD-75 26	.....	.....	.....	p.	281
HD 7672	= SAO 129204	= AY Cet	= HR 373	= BD-03 172	= 39 Cet	.....	p.	73
HD 7700	= SAO 109778	= UV Psc	= BD+06 189	.....	.....	.....	p.	229
HD 8357	= SAO 109841	= AR Psc	= BD+06 211	.....	.....	.....	p.	235
HD 8358	= SAO 109840	= BI Cet	= BD-00 210	.....	.....	.....	p.	78
HD 8435	= SAO 232399	= BC Phe	= CD-57 268	.....	.....	.....	p.	219
HD 10909	= SAO 167287	= UV For	= CD-24 751	.....	.....	.....	p.	129
HD 12545	= SAO 55233	= BD+34 363	.....	.....	.....	.....	p.	306
HD 13480	= SAO 55347	= TZ Tri	= HR 642	= BD+29 371	= 6 Tri	= ι Tri	p.	276
HD 16157	= SAO 215947	= CC Eri	= CD-44 775	.....	.....	.....	p.	123
HD 17084	= SAO 193879	= UX For	= CD-38 899	.....	.....	.....	p.	131
HD 17433	= SAO 55899	= VY Ari	= BD+30 448	.....	.....	.....	p.	33
HD 21018	= SAO 111161	= HR 1023	= BD+04 532	.....	.....	.....	p.	309
HD 21242	= SAO 75927	= UX Ari	= BD+28 532	.....	.....	.....	p.	29
HD 22403	= SAO 76031	= V837 Tau	= BD+25 580	.....	.....	.....	p.	274
HD 22468	= SAO 111291	= V711 Tau	= HR 1099	= BD+00 6161	.....	.....	p.	261
HD 23838	= SAO 39134	= HR 1176	= BD+44 801	.....	.....	.....	p.	311
HD 26337	= SAO 130994	= EI Eri	= BD-08 801	.....	.....	.....	p.	126
HD 26354	= SAO 233401	= AG Dor	= CD-52 858	.....	.....	.....	p.	102
HD 27130	= SAO 93845	= V818 Tau	= BD+16 577	.....	.....	.....	p.	269
HD 27691	= SAO 93896	= BD+14 690	.....	.....	.....	.....	p.	313
HD 30050	= SAO 149847	= RZ Eri	= BD-10 993	.....	.....	.....	p.	120
HD 31738	= SAO 112278	= V1198 Ori	= BD+00 908	.....	.....	.....	p.	205
HD 32357	= SAO 25003	= HR 1623	= BD+58 805	= BM Cam	= 12 Cam	.....	p.	50
HD 34029	= SAO 40186	= HR 1708	= BD+45 1077	= 13 Aur	= α Aur A	= Capella	p.	36
HD 34802	= SAO 256167	= YZ Men	= CD-77 188	.....	.....	.....	p.	197

HD 37824	= SAO 113040	= V1149 Ori	= BD+03 1007	.....	.....	.....	p. 203
HD 37847 G	= SAO 170678	= TW Lep	= BD-20 1149	.....	.....	.....	p. 184
HD 39917	= SAO 217600	= SZ Pic	= CD-43 2114	.....	.....	.....	p. 222
HD 42504	= SAO 234330	= TY Pic	= CD-54 1329	.....	.....	.....	p. 224
HD 44982	= SAO 1038	= SV Cam	= BD+82 174	.....	.....	.....	p. 47
HD 45088	= SAO 95677	= OU Gem	= BD+18 1214	.....	.....	.....	p. 133
HD 57364	= SAO 134544	= AR Mon	= BD-04 1915	.....	.....	.....	p. 199
HD 57853	= SAO 235111	= HR 2814	= CPD-52 1153B	.....	.....	.....	p. 315
HD 62044	= SAO 79638	= HR 2973	= BD+29 15901	= 75 Gem	= σ Gem	.....	p. 135
HD 65626	= SAO 26634	= AE Lyn	= HR 3119	= BD+57 1118	= 54 Cam	.....	p. 193
HD 71071	= SAO 135893	= LU Hya	= BD-06 2585	.....	.....	.....	p. 161
HD 72688	= SAO 199353	= VX Pyx	= HR 3385	= CD-34 4959	.....	.....	p. 246
HD 73343	= SAO 60954	= RZ Cnc	= BD+32 1772	.....	.....	.....	p. 52
HD 77137	= SAO 176805	= TY Pyx	= CD-27 6141	.....	.....	.....	p. 243
HD 81410	= SAO 177412	= IL Hya	= CD-23 8347	.....	.....	.....	p. 157
HD 83442	= SAO 221347	= IN Vel	= CD-41 5219	.....	.....	.....	p. 297
HD 86590	= SAO 81134	= DH Leo	= BD+25 2191	.....	.....	.....	p. 179
HD 91816	= SAO 156090	= LR Hya	= BD-11 2916	.....	.....	.....	p. 159
HD 99967	= SAO 43784	= EE UMa	= HR 4430	= BD+47 1880	.....	.....	p. 292
HD 101379	= GT Mus	= CPD-64 1685A	.....	.....	.....	.....	p. 201
HD 102509	= SAO 81998	= DQ Leo	= HR 4527	= BD+21 2358	= 93 Leo	.....	p. 181
HD 106225	= SAO 138652	= HU Vir	= BD-08 3301	.....	.....	.....	p. 301
HD 106677	= SAO 7533	= DK Dra	= HR 4665	= BD+73 549	.....	.....	p. 114
HD 107760	= SAO 7552	= AS Dra	= BD+74 493	.....	.....	.....	p. 106
HD 108102	= SAO 82295	= IL Com	= BD+26 2347	.....	.....	.....	p. 82
HD 111487	= SAO 138983	= BD-05 3578	.....	.....	.....	.....	p. 317
HD 112313	= SAO 82570	= IN Com	= BD+26 2405	.....	.....	.....	p. 84
HD 114519	= SAO 63382	= RS CVn	= BD+36 2344	.....	.....	.....	p. 57
HD 114630	= SAO 240653	= HR 4980	= CD-59 4623	.....	.....	.....	p. 319
HD 116204	= SAO 63494	= BM CVn	= BD+39 2635	.....	.....	.....	p. 63
HD 118216	= SAO 63623	= BH CVn	= HR 5110	= BD+37 2426	.....	.....	p. 60
HD 119285	= SAO 252429	= V851 Cen	= CD-60 4859	.....	.....	.....	p. 71
HD 121909	= BH Vir	= BD-00 2769	.....	.....	.....	.....	p. 299
HD 127535	= SAO 252794	= V841 Cen	= CD-59 5306	.....	.....	.....	p. 69
HD 128171	= SAO 158665	= RV Lib	= BD-17 4122	.....	.....	.....	p. 186
HD 131511	= SAO 101276	= HR 5553	= BD+19 2881	.....	.....	.....	p. 321
HD 136901	= SAO 83795	= UV CrB	= BD+26 2685	.....	.....	.....	p. 90
HD 136905	= SAO 140499	= GX Lib	= BD-06 4193	.....	.....	.....	p. 191
HD 137164	= SAO 253175	= LS TrA	= CD-62 937	.....	.....	.....	p. 279
HD 146361	= TZ CrB	= HR 6063	= BD+34 2750A	= 17 CrB A	= σ CrB A	.....	p. 87
HD 150708	= SAO 17176	= WW Dra	= BD+60 1691	.....	.....	.....	p. 104
HD 153751	= SAO 2770	= HR 6322	= BD+82 498	= 22 UMi	= ϵ UMi	.....	p. 294
HD 155555	= SAO 253856	= V824 Ara	= CPD-66 3080	.....	.....	.....	p. 24
HD 155638	= SAO 46541	= V792 Her	= BD+49 2596	.....	.....	.....	p. 148
HD 157482	= SAO 46664	= V819 Her	= HR 6469	= BD+40 3136	.....	.....	p. 154
HD 158393	= SAO 208895	= V965 Sco	= CD-33 12122	.....	.....	.....	p. 255
HD 160538	= SAO 8842	= DR Dra	= BD+74 717	= 29 Dra	.....	.....	p. 116
HD 163930	= SAO 103254	= Z Her	= BD+15 3311	.....	.....	.....	p. 138
HD 165141	= SAO 228707	= V832 Ara	= CD-48 12280	.....	.....	.....	p. 27
HD 165590	= SAO 85723	= V772 Her	= BD+21 3302	.....	.....	.....	p. 143
HD 166181	= SAO 85767	= V815 Her	= BD+29 3187	.....	.....	.....	p. 151
HD 175306	= SAO 31218	= HR 7125	= BD+59 1925	= 47 Dra	= o Dra	.....	p. 118
HD 175742	= SAO 86592	= V775 Her	= BD+23 3500	.....	.....	.....	p. 146
HD 178450	= SAO 67836	= V478 Lyr	= BD+30 3425	.....	.....	.....	p. 195
HD 179094	= SAO 31413	= V1762 Cyg	= HR 7275	= BD+52 2350	.....	.....	p. 94
HD 181809	= SAO 188043	= V4138 Sgr	= BD-20 5516	.....	.....	.....	p. 251
HD 182776	= SAO 229695	= V4139 Sgr	= CD-41 13525	.....	.....	.....	p. 253
HD 184398	= SAO 31741	= V1817 Cyg	= HR 7428	= BD+55 2215	.....	.....	p. 100
HD 185151	= SAO 87451	= V1764 Cyg	= BD+27 3444	.....	.....	.....	p. 97
HD 185510	= SAO 143657	= V1379 Aql	= BD-06 5221	.....	.....	.....	p. 21

HD 200391	= SAO 89396	= ER Vul	= BD+27 3952	.....	.....	.....	p.	303
HD 203454	= SAO 50739	= HR 8170	= BD+39 4529	.....	.....	.....	p.	323
HD 205249	= SAO 164484	= AS Cap	= BD-14 6070	.....	.....	.....	p.	65
HD 206301	= SAO 164580	= HR 8283	= BD-14 6102	= 42 Cap	.....	.....	p.	67
HD 209318	= SAO 51563	= RT Lac	= BD+43 4112	.....	.....	.....	p.	163
HD 209813	= SAO 51628	= HK Lac	= BD+46 3572	.....	.....	.....	p.	174
HD 210334	= SAO 51684	= AR Lac	= HR 8448	= BD+45 3813	.....	.....	p.	166
HD 213389	= SAO 52073	= V350 Lac	= HR 8575	= BD+48 3747	.....	.....	p.	177
HD 214479	= SAO 191294	= FK Aqr	= BD-21 6267	.....	.....	.....	p.	15
HD 216489	= SAO 108231	= IM Peg	= HR 8703	= BD+16 4831	.....	.....	p.	212
HD 217188	= SAO 146421	= AZ Psc	= BD-01 4364	.....	.....	.....	p.	237
HD 217344	= TZ PsA	= CD-34 15853	.....	.....	.....	.....	p.	241
HD 218153	= SAO 91000	= KU Peg	= BD+25 4870	.....	.....	.....	p.	215
HD 219113	= SAO 128041	= SZ Psc	= BD+01 4695	.....	.....	.....	p.	226
HD 222107	= SAO 53204	= HR 8961	= BD+45 4283	= 16 And	= λ And	.....	p.	6
HD 224085	= SAO 91578	= II Peg	= BD+27 4642	.....	.....	.....	p.	207
HD 234677	= SAO 31048	= BY Dra	= BD+51 2402	.....	.....	.....	p.	108
HD 237786	= SAO 27143	= XY UMa	= BD+55 1317	.....	.....	.....	p.	286
HD 283750	= SAO 76672	= V833 Tau	= BD+26 730	.....	.....	.....	p.	271
HD 283882	= SAO 76773	= V808 Tau	= BD+24 692	.....	.....	.....	p.	267
HD 284163	= BD+23 635	.....	.....	.....	.....	.....	p.	325
HD 319139	= V4046 Sgr	= CPD-32 5229	.....	.....	.....	.....	p.	248
HD 348635	= AW Her	= BD+18 3678	.....	.....	.....	.....	p.	141
HR 3	= HD 28	= SAO 128572	= BC Psc	= BD-06 6357	= 33 Psc	.....	p.	239
HR 14	= HD 352	= SAO 128602	= AP Psc	= BD-03 3	= 5 Cet	.....	p.	232
HR 142	= HD 3196	= SAO 128839	= BD-04 62	= 13 Cet	.....	.....	p.	80
HR 215	= HD 4502	= SAO 74267	= BD+23 106	= 34 And	= ζ And	.....	p.	3
HR 373	= HD 7672	= SAO 129204	= AY Cet	= BD-03 172	= 39 Cet	.....	p.	73
HR 642	= HD 13480	= SAO 55347	= TZ Tri	= BD+29 371	= 6 Tri	= ι Tri	p.	276
HR 1023	= HD 21018	= SAO 111161	= BD+04 532	.....	.....	.....	p.	309
HR 1099	= HD 22468	= SAO 111291	= V711 Tau	= BD+00 6161	.....	.....	p.	261
HR 1176	= HD 23838	= SAO 39134	= BD+44 801	.....	.....	.....	p.	311
HR 1623	= HD 32357	= SAO 25003	= BD+58 805	= BM Cam	= 12 Cam	.....	p.	50
HR 1708	= HD 34029	= SAO 40186	= BD+45 1077	= 13 Aur	= α Aur A	= Capella	p.	36
HR 2814	= HD 57853	= SAO 235111	= CPD-52 1153B	.....	.....	.....	p.	315
HR 2973	= HD 62044	= SAO 79638	= BD+29 15901	= 75 Gem	= σ Gem	.....	p.	135
HR 3119	= HD 65626	= SAO 26634	= AE Lyn	= BD+57 1118	= 54 Cam	.....	p.	193
HR 3385	= HD 72688	= SAO 199353	= VX Pyx	= CD-34 4959	.....	.....	p.	246
HR 4430	= HD 99967	= SAO 43784	= EE UMa	= BD+47 1880	.....	.....	p.	292
HR 4527	= HD 102509	= SAO 81998	= DQ Leo	= BD+21 2358	= 93 Leo	.....	p.	181
HR 4665	= HD 106677	= SAO 7533	= DK Dra	= BD+73 549	.....	.....	p.	114
HR 4980	= HD 114630	= SAO 240653	= CD-59 4623	.....	.....	.....	p.	319
HR 5110	= HD 118216	= SAO 63623	= BH CVn	= BD+37 2426	.....	.....	p.	60
HR 5553	= HD 131511	= SAO 101276	= BD+19 2881	.....	.....	.....	p.	321
HR 6063	= HD 146361	= TZ CrB	= BD+34 2750A	= 17 CrB A	= σ CrB A	.....	p.	87
HR 6322	= HD 153751	= SAO 2770	= BD+82 498	= 22 UMi	= ϵ UMi	.....	p.	294
HR 6469	= HD 157482	= SAO 46664	= V819 Her	= BD+40 3136	.....	.....	p.	154
HR 7125	= HD 175306	= SAO 31218	= BD+59 1925	= 47 Dra	= o Dra	.....	p.	118
HR 7275	= HD 179094	= SAO 31413	= V1762 Cyg	= BD+52 2350	.....	.....	p.	94
HR 7428	= HD 184398	= SAO 31741	= V1817 Cyg	= BD+55 2215	.....	.....	p.	100
HR 8170	= HD 203454	= SAO 50739	= BD+39 4529	.....	.....	.....	p.	323
HR 8283	= HD 206301	= SAO 164580	= BD-14 6102	= 42 Cap	.....	.....	p.	67
HR 8448	= HD 210334	= SAO 51684	= AR Lac	= BD+45 3813	.....	.....	p.	166
HR 8575	= HD 213389	= SAO 52073	= V350 Lac	= BD+48 3747	.....	.....	p.	177
HR 8703	= HD 216489	= SAO 108231	= IM Peg	= BD+16 4831	.....	.....	p.	212
HR 8961	= HD 222107	= SAO 53204	= BD+45 4283	= 16 And	= λ And	.....	p.	6
SAO 1038	= HD 44982	= SV Cam	= BD+82 174	.....	.....	.....	p.	47
SAO 2770	= HD 153751	= HR 6322	= BD+82 498	= 22 UMi	= ϵ UMi	.....	p.	294

SAO 7533	= HD 106677	= DK Dra	= HR 4665	= BD+73 549	.....	.....	p.	114
SAO 7552	= HD 107760	= AS Dra	= BD+74 493	.....	.....	.....	p.	106
SAO 8842	= HD 160538	= DR Dra	= BD+74 717	= 29 Dra	.....	.....	p.	116
SAO 15338	= DM UMa	= BD+61 1211	.....	.....	.....	.....	p.	289
SAO 17176	= HD 150708	= WW Dra	= BD+60 1691	.....	.....	.....	p.	104
SAO 25003	= HD 32357	= HR 1623	= BD+58 805	= BM Cam	= 12 Cam	.....	p.	50
SAO 26634	= HD 65626	= AE Lyn	= HR 3119	= BD+57 1118	= 54 Cam	.....	p.	193
SAO 27143	= HD 237786	= XY UMa	= BD+55 1317	.....	.....	.....	p.	286
SAO 31048	= HD 234677	= BY Dra	= BD+51 2402	.....	.....	.....	p.	108
SAO 31218	= HD 175306	= HR 7125	= BD+59 1925	= 47 Dra	= o Dra	.....	p.	118
SAO 31413	= HD 179094	= V1762 Cyg	= HR 7275	= BD+52 2350	.....	.....	p.	94
SAO 31741	= HD 184398	= V1817 Cyg	= HR 7428	= BD+55 2215	.....	.....	p.	100
SAO 38651	= LX Per	= BD+47 781	.....	.....	.....	.....	p.	217
SAO 39134	= HD 23838	= HR 1176	= BD+44 801	.....	.....	.....	p.	311
SAO 40186	= HD 34029	= HR 1708	= BD+45 1077	= 13 Aur	= α Aur A	= Capella	p.	36
SAO 43784	= HD 99967	= EE UMa	= HR 4430	= BD+47 1880	.....	.....	p.	292
SAO 46541	= HD 155638	= V792 Her	= BD+49 2596	.....	.....	.....	p.	148
SAO 46664	= HD 157482	= V819 Her	= HR 6469	= BD+40 3136	.....	.....	p.	154
SAO 50739	= HD 203454	= HR 8170	= BD+39 4529	.....	.....	.....	p.	323
SAO 51563	= HD 209318	= RT Lac	= BD+43 4112	.....	.....	.....	p.	163
SAO 51628	= HD 209813	= HK Lac	= BD+46 3572	.....	.....	.....	p.	174
SAO 51684	= HD 210334	= AR Lac	= HR 8448	= BD+45 3813	.....	.....	p.	166
SAO 52073	= HD 213389	= V350 Lac	= HR 8575	= BD+48 3747	.....	.....	p.	177
SAO 53204	= HD 222107	= HR 8961	= BD+45 4283	= 16 And	= λ And	.....	p.	6
SAO 55233	= HD 12545	= BD+34 363	.....	.....	.....	.....	p.	306
SAO 55347	= HD 13480	= TZ Tri	= HR 642	= BD+29 371	= 6 Tri	= ι Tri	p.	276
SAO 55899	= HD 17433	= VY Ari	= BD+30 448	.....	.....	.....	p.	33
SAO 60954	= HD 73343	= RZ Cnc	= BD+32 1772	.....	.....	.....	p.	52
SAO 63382	= HD 114519	= RS CVn	= BD+36 2344	.....	.....	.....	p.	57
SAO 63494	= HD 116204	= BM CVn	= BD+39 2635	.....	.....	.....	p.	63
SAO 63623	= HD 118216	= BH CVn	= HR 5110	= BD+37 2426	.....	.....	p.	60
SAO 67836	= HD 178450	= V478 Lyr	= BD+30 3425	.....	.....	.....	p.	195
SAO 74267	= HD 4502	= HR 215	= BD+23 106	= 34 And	= ζ And	.....	p.	3
SAO 75927	= HD 21242	= UX Ari	= BD+28 532	.....	.....	.....	p.	29
SAO 76031	= HD 22403	= V837 Tau	= BD+25 580	.....	.....	.....	p.	274
SAO 76672	= HD 283750	= V833 Tau	= BD+26 730	.....	.....	.....	p.	271
SAO 76773	= HD 283882	= V808 Tau	= BD+24 692	.....	.....	.....	p.	267
SAO 79638	= HD 62044	= HR 2973	= BD+29 15901	= 75 Gem	= σ Gem	.....	p.	135
SAO 81134	= HD 86590	= DH Leo	= BD+25 2191	.....	.....	.....	p.	179
SAO 81998	= HD 102509	= DQ Leo	= HR 4527	= BD+21 2358	= 93 Leo	.....	p.	181
SAO 82295	= HD 108102	= IL Com	= BD+26 2347	.....	.....	.....	p.	82
SAO 82570	= HD 112313	= IN Com	= BD+26 2405	.....	.....	.....	p.	84
SAO 83795	= HD 136901	= UV CrB	= BD+26 2685	.....	.....	.....	p.	90
SAO 85723	= HD 165590	= V772 Her	= BD+21 3302	.....	.....	.....	p.	143
SAO 85767	= HD 166181	= V815 Her	= BD+29 3187	.....	.....	.....	p.	151
SAO 86592	= HD 175742	= V775 Her	= BD+23 3500	.....	.....	.....	p.	146
SAO 87451	= HD 185151	= V1764 Cyg	= BD+27 3444	.....	.....	.....	p.	97
SAO 89396	= HD 200391	= ER Vul	= BD+27 3952	.....	.....	.....	p.	303
SAO 91000	= HD 218153	= KU Peg	= BD+25 4870	.....	.....	.....	p.	215
SAO 91578	= HD 224085	= II Peg	= BD+27 4642	.....	.....	.....	p.	207
SAO 93845	= HD 27130	= V818 Tau	= BD+16 577	.....	.....	.....	p.	269
SAO 93896	= HD 27691	= BD+14 690	.....	.....	.....	.....	p.	313
SAO 95677	= HD 45088	= OU Gem	= BD+18 1214	.....	.....	.....	p.	133
SAO 101276	= HD 131511	= HR 5553	= BD+19 2881	.....	.....	.....	p.	321
SAO 103254	= HD 163930	= Z Her	= BD+15 3311	.....	.....	.....	p.	138
SAO 108231	= HD 216489	= IM Peg	= HR 8703	= BD+16 4831	.....	.....	p.	212
SAO 109778	= HD 7700	= UV Psc	= BD+06 189	.....	.....	.....	p.	229
SAO 109840	= HD 8358	= BI Cet	= BD-00 210	.....	.....	.....	p.	78
SAO 109841	= HD 8357	= AR Psc	= BD+06 211	.....	.....	.....	p.	235
SAO 111161	= HD 21018	= HR 1023	= BD+04 532	.....	.....	.....	p.	309

SAO 111291	= HD 22468	= V711 Tau	= HR 1099	= BD+00 6161	.....	.....	p.	261
SAO 112278	= HD 31738	= V1198 Ori	= BD+00 908	.....	.....	.....	p.	205
SAO 113040	= HD 37824	= V1149 Ori	= BD+03 1007	.....	.....	.....	p.	203
SAO 128041	= HD 219113	= SZ Psc	= BD+01 4695	.....	.....	.....	p.	226
SAO 128572	= HD 28	= BC Psc	= HR 3	= BD-06 6357	= 33 Psc	.....	p.	239
SAO 128602	= HD 352	= AP Psc	= HR 14	= BD-03 3	= 5 Cet	.....	p.	232
SAO 128725	= HD 1833	= BD Cet	= BD-10 58	.....	.....	.....	p.	76
SAO 128839	= HD 3196	= HR 142	= BD-04 62	= 13 Cet	.....	.....	p.	80
SAO 129204	= HD 7672	= AY Cet	= HR 373	= BD-03 172	= 39 Cet	.....	p.	73
SAO 130994	= HD 26337	= EI Eri	= BD-08 801	.....	.....	.....	p.	126
SAO 134544	= HD 57364	= AR Mon	= BD-04 1915	.....	.....	.....	p.	199
SAO 135893	= HD 71071	= LU Hya	= BD-06 2585	.....	.....	.....	p.	161
SAO 138652	= HD 106225	= HU Vir	= BD-08 3301	.....	.....	.....	p.	301
SAO 138983	= HD 111487	= BD-05 3578	.....	.....	.....	.....	p.	317
SAO 140499	= HD 136905	= GX Lib	= BD-06 4193	.....	.....	.....	p.	191
SAO 143657	= HD 185510	= V1379 Aql	= BD-06 5221	.....	.....	.....	p.	21
SAO 145804	= FF Aqr	= BD-03 5357	.....	.....	.....	.....	p.	12
SAO 146421	= HD 217188	= AZ Psc	= BD-01 4364	.....	.....	.....	p.	237
SAO 149847	= HD 30050	= RZ Eri	= BD 10 993	.....	.....	.....	p.	120
SAO 156090	= HD 91816	= LR Hya	= BD-11 2916	.....	.....	.....	p.	159
SAO 158665	= HD 128171	= RV Lib	= BD-17 4122	.....	.....	.....	p.	186
SAO 164484	= HD 205249	= AS Cap	= BD-14 6070	.....	.....	.....	p.	65
SAO 164580	= HD 206301	= HR 8283	= BD-14 6102	= 42 Cap	.....	.....	p.	67
SAO 167287	= HD 10909	= UV For	= CD-24 751	.....	.....	.....	p.	129
SAO 170678	= HD 37847 G	= TW Lep	= BD-20 1149	.....	.....	.....	p.	184
SAO 176805	= HD 77137	= TY Pyx	= CD-27 6141	.....	.....	.....	p.	243
SAO 177412	= HD 81410	= IL Hya	= CD-23 8347	.....	.....	.....	p.	157
SAO 188043	= HD 181809	= V4138 Sgr	= BD-20 5516	.....	.....	.....	p.	251
SAO 191294	= HD 214479	= FK Aqr	= BD-21 6267	.....	.....	.....	p.	15
SAO 193879	= HD 17084	= UX For	= CD-38 899	.....	.....	.....	p.	131
SAO 199353	= HD 72688	= VX Pyx	= HR 3385	= CD-34 4959	.....	.....	p.	246
SAO 208895	= HD 158393	= V965 Sco	= CD-33 12122	.....	.....	.....	p.	255
SAO 215947	= HD 16157	= CC Eri	= CD-44 775	.....	.....	.....	p.	123
SAO 217600	= HD 39917	= SZ Pic	= CD-43 2114	.....	.....	.....	p.	222
SAO 221347	= HD 83442	= IN Vel	= CD-41 5219	.....	.....	.....	p.	297
SAO 228707	= HD 165141	= V832 Ara	= CD-48 12280	.....	.....	.....	p.	27
SAO 229695	= HD 182776	= V4139 Sgr	= CD-41 13525	.....	.....	.....	p.	253
SAO 232399	= HD 8435	= BC Phe	= CD-57 268	.....	.....	.....	p.	219
SAO 233401	= HD 26354	= AG Dor	= CD-52 858	.....	.....	.....	p.	102
SAO 234330	= HD 42504	= TY Pic	= CD-54 1329	.....	.....	.....	p.	224
SAO 235111	= HD 57853	= HR 2814	= CPD-52 1153B	.....	.....	.....	p.	315
SAO 240653	= HD 114630	= HR 4980	= CD-59 4623	.....	.....	.....	p.	319
SAO 252429	= HD 119285	= V851 Cen	= CD-60 4859	.....	.....	.....	p.	71
SAO 252794	= HD 127535	= V841 Cen	= CD-59 5306	.....	.....	.....	p.	69
SAO 253175	= HD 137164	= LS TrA	= CD-62 937	.....	.....	.....	p.	279
SAO 253856	= HD 155555	= V824 Ara	= CPD-66 3080	.....	.....	.....	p.	24
SAO 255716	= HD 5303	= CF Tuc	= CD-75 26	.....	.....	.....	p.	281
SAO 256167	= HD 34802	= YZ Men	= CD-77 188	.....	.....	.....	p.	197