Part II: Tables and Figures

HH 12

Alternative names :

Type : LEO [40]

Coordinates :

$\alpha_{1950} =$ $3^h\ 25^m\ 52\overset{s}{.}1$
$\delta_{1950} =$ $31°\ 09'\ 51''$

Proper motion (Knot B) : [21]

$\mu_\alpha \cos\delta =$ $5''.0 \pm 0''.7$ cen^{-1}
$\mu_\delta =$ $14''.4 \pm 0''.6$ cen^{-1}

Radial velocity : -58 ± 3 km s^{-1} [40]
Suspected source : SVS 12
Region : NGC 1333
Distance : 220 pc
Characteristic size : $45'' \times 70''$
Asociated with molecular outflow : Yes [11]
P.A. of jet : $\sim 10°$

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	05148	L	L	05-01-85	150.0	B=120	338.97
2	SWP	24842	L	L	05-01-85	195.0	B=100	338.97

HH 11

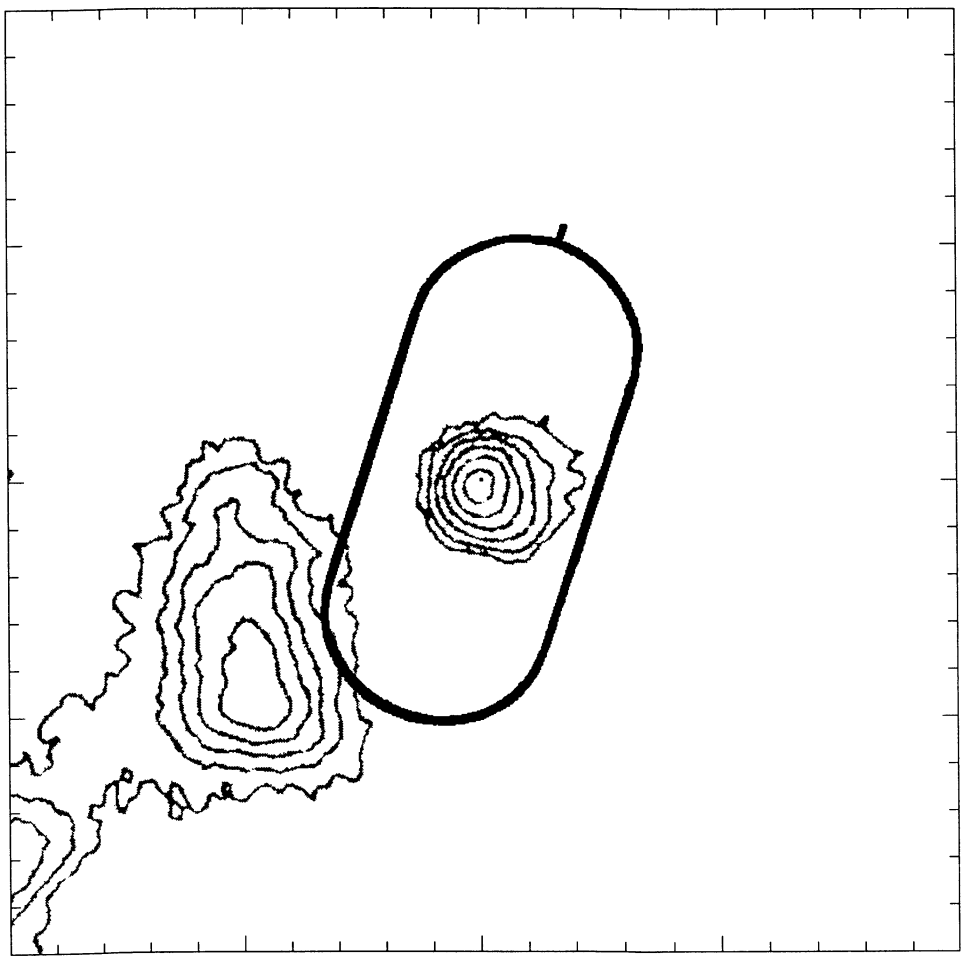
Alternative names :		
Type :	LEO	[2]
Coordinates :		
α_{1950} =	$3^h\ 25^m\ 59\overset{s}{.}0$	
δ_{1950} =	$31°\ 05'\ 35''$	
Proper motion (Knot A) :		[21]
$\mu_\alpha \cos\delta$ =	$3\overset{''}{.}0 \pm 0\overset{''}{.}5$ cen^{-1}	
μ_δ =	$-1\overset{''}{.}8 \pm 0\overset{''}{.}8$ cen^{-1}	
Radial velocity :	-139 ± 17 km s^{-1}	[40]
Suspected source :	SVS 13	
Region :	NGC 1333	
Distance :	220 pc	
Characteristic size :	$8'' \times 8''$	
Asociated with molecular outflow :	Yes	[37]
P.A. of jet :	117°	[32]

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	09798	L	L	27-12-86	240.0	E=183,B=153	343.03
2	LWP	09807	L	L	28-12-86	240.0	E=200,C=202,B=170	342.76
3	LWP	09813	L	L	29-12-86	390.0		342.24
4	SWP	29982	L	L	28-12-86	640.0	C=138,B=115	342.76
5	SWP	32622	L	L	26-12-87	835.0	B=146	343.93

HH 11

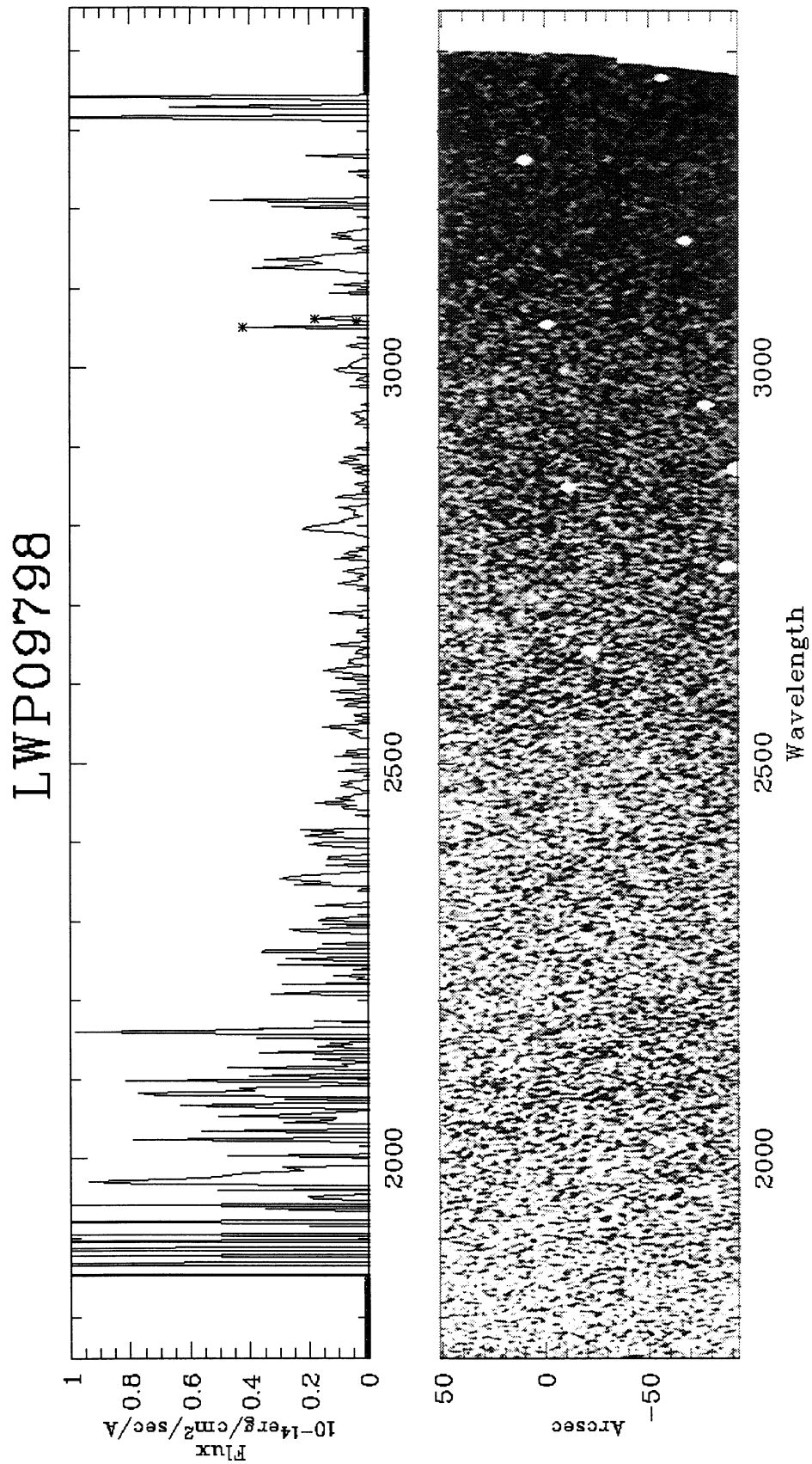
CENTER = HH11A PA = 342°
$\alpha_C = 3^h25^m58^s.99$ $\delta_C = 31°05'33''.1$

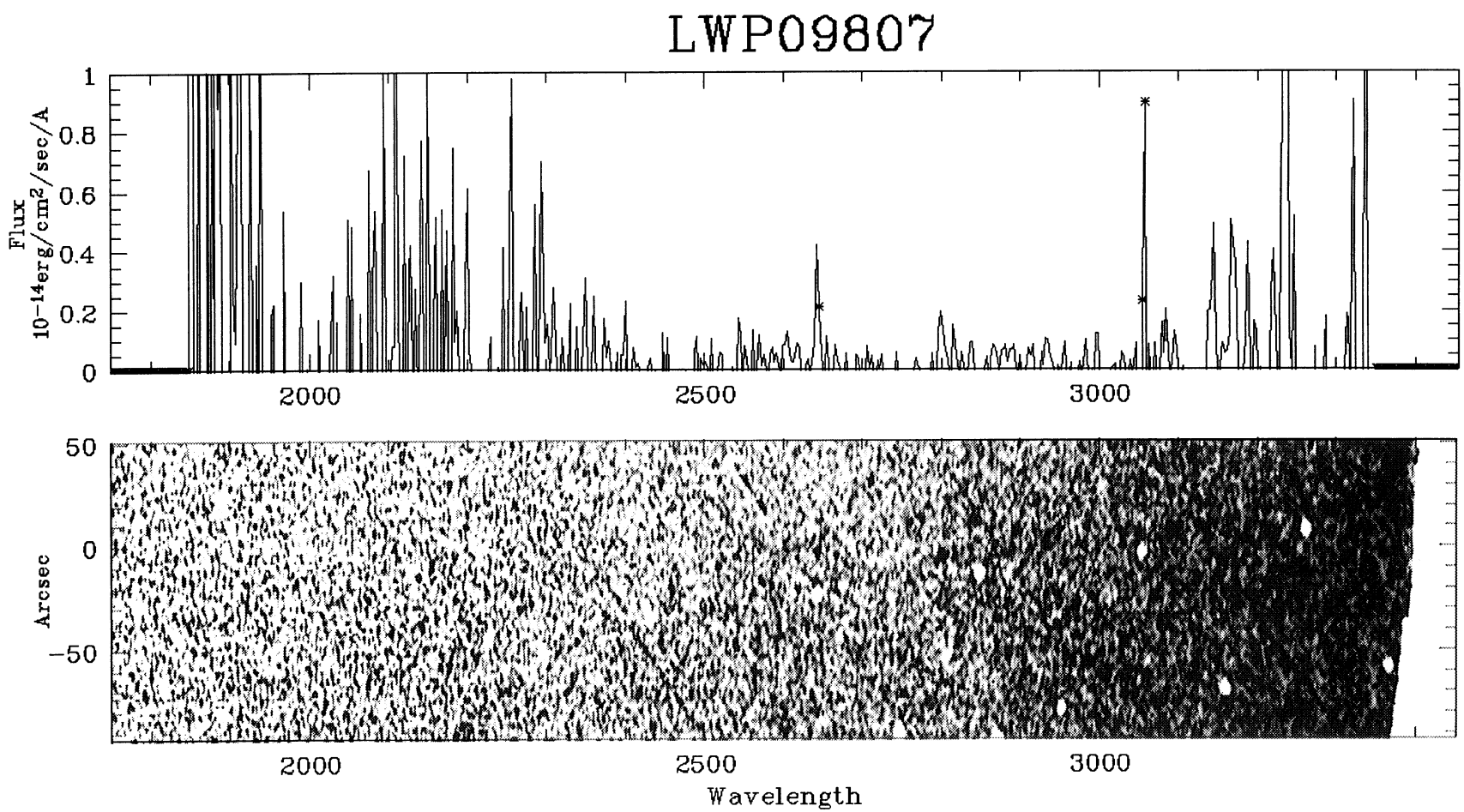


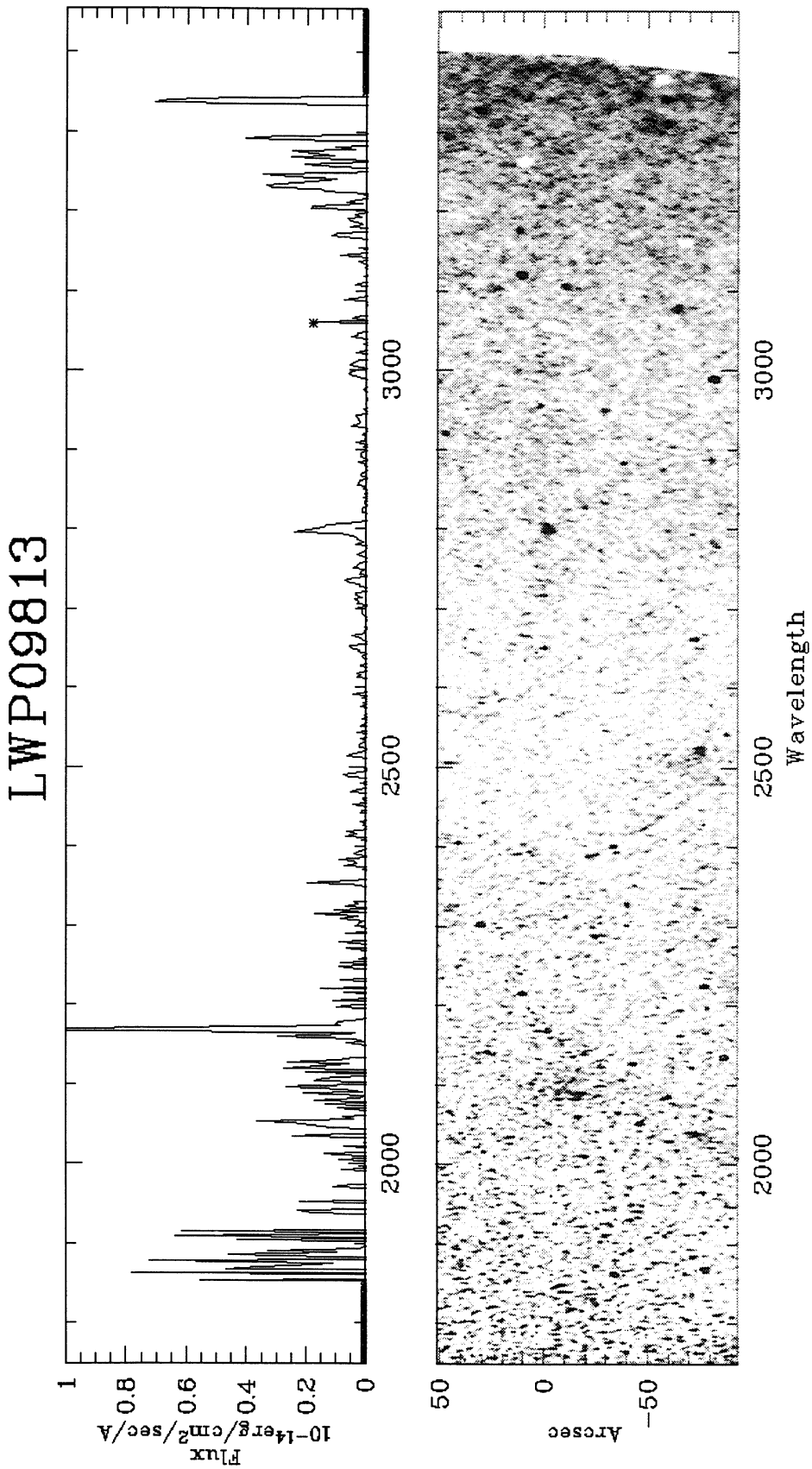
From the [S II] data in Raga *et al.* (1988)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWP	09798	(8.9 ± 1.5)E-15			
LWP	09807				
LWP	09813	(8.7 ± 0.6)E-15			


LWP09798
Flux
10^{-14}erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
Arcsec
50
0
−50
Wavelength


LWP09807
Flux
10^-14erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
Arcsec
50
0
-50
2000
2500
3000
Wavelength


LWP09813
Flux
10^{-14}erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
Arcsec
50
0
−50
Wavelength

HH 7

Alternative names :

Type : LEO [2]

Coordinates :

$\alpha_{1950} =$ $3^h\ 26^m\ 02\overset{s}{.}5$
$\delta_{1950} =$ $31°\ 05'\ 10''$

Proper motion (Knot A) : [21]

$\mu_\alpha \cos\delta =$ $1\overset{''}{.}4 \pm 2\overset{''}{.}0\ \mathrm{cen}^{-1}$
$\mu_\delta =$ $2\overset{''}{.}9 \pm 2\overset{''}{.}0\ \mathrm{cen}^{-1}$

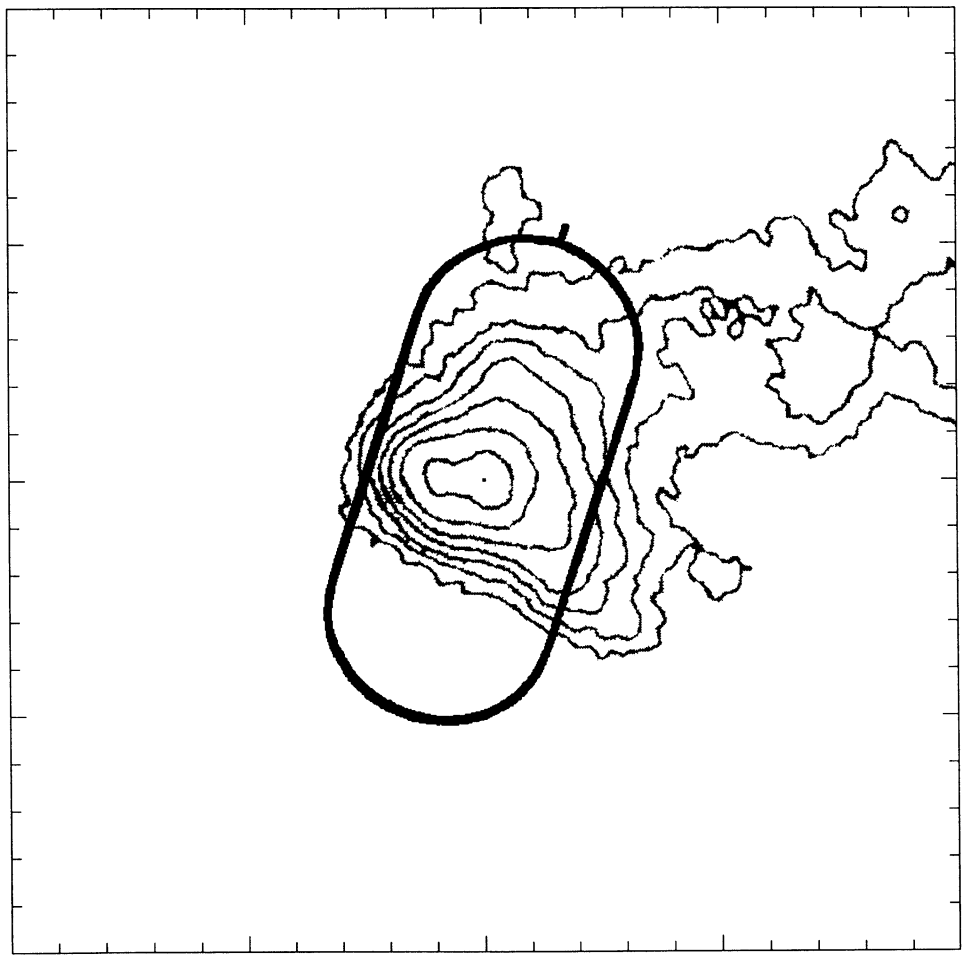
Radial velocity : -51 ± 14 km s^{-1} [40]
Suspected source : SVS 13
Region : NGC 1333
Distance : 220 pc
Characteristic size : $15'' \times 15''$
Asociated with molecular outflow : Yes [37]
P.A. of jet : 117° [32]

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	09797	L	L	27-12-86	545.0	E=165,B=138	343.25
2	LWP	12391	L	L	28-12-87	295.0	B=90	342.87
3	SWP	32632	L	L	28-12-87	540.0	B=115	342.87

HH 7

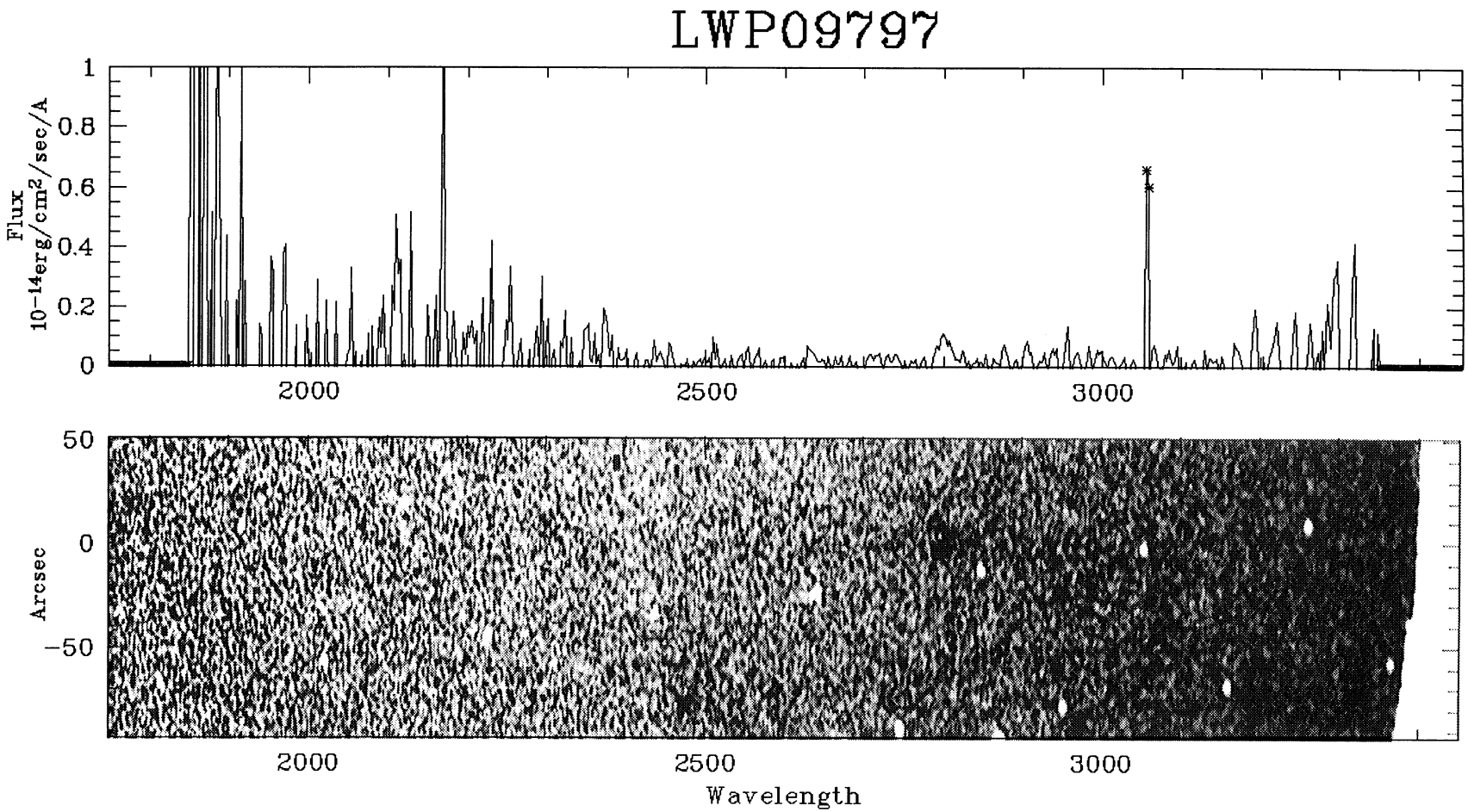
CENTER = HH7A PA = 342°
$\alpha_C = 3^h26^m02^s.78$ $\delta_C = 31°05'10''.8$

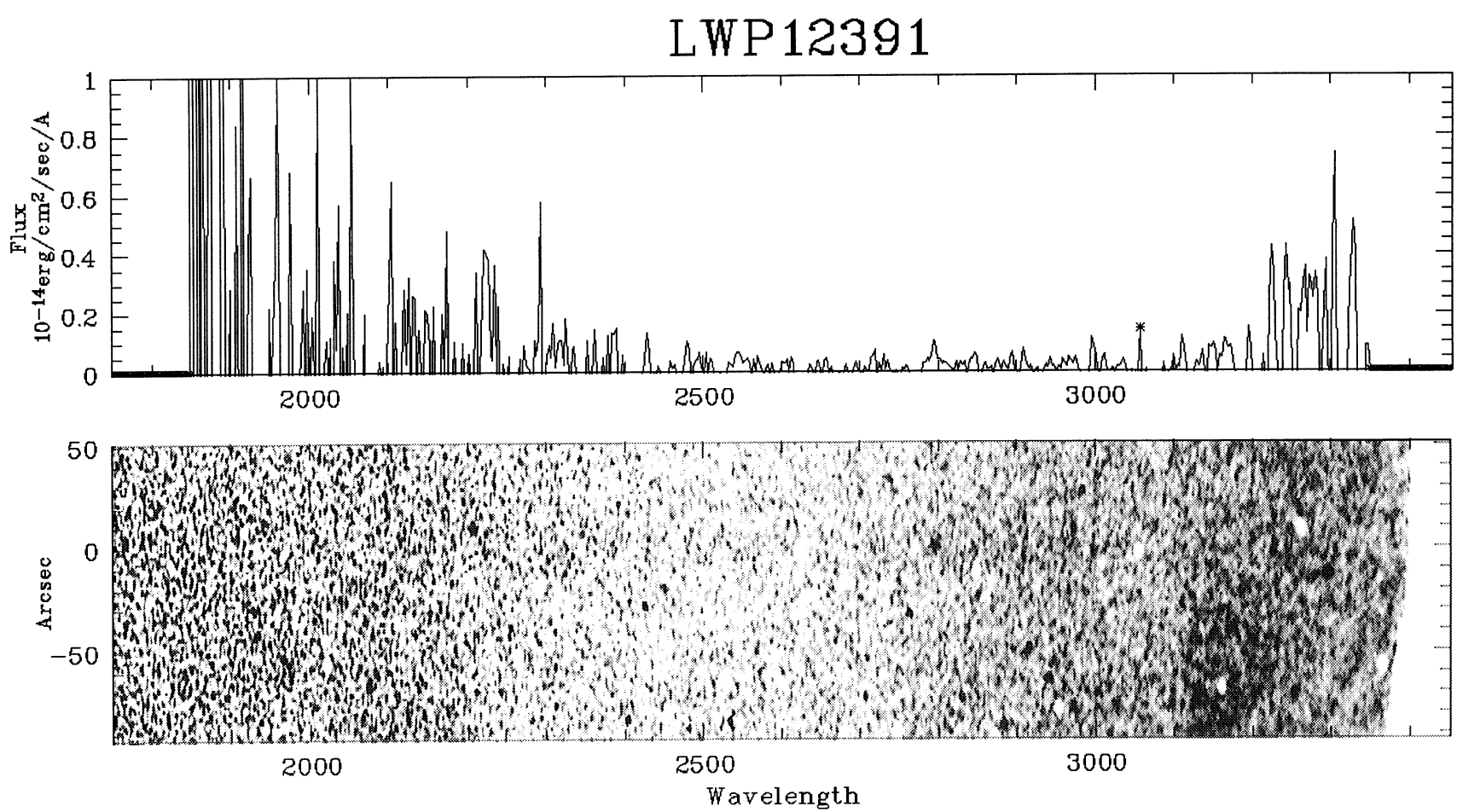


From the [S II] data in Raga *et al.* (1988)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWP LWP	09797 12391	(7.0 ± 1.1)E-15			


LWP09797
Flux
10-14erg/cm2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
50
0
-50
Arcsec
2000
2500
3000
Wavelength


LWP12391
Flux
10^-14 erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
50
0
−50
Arcsec
2000
2500
3000
Wavelength

HH 29

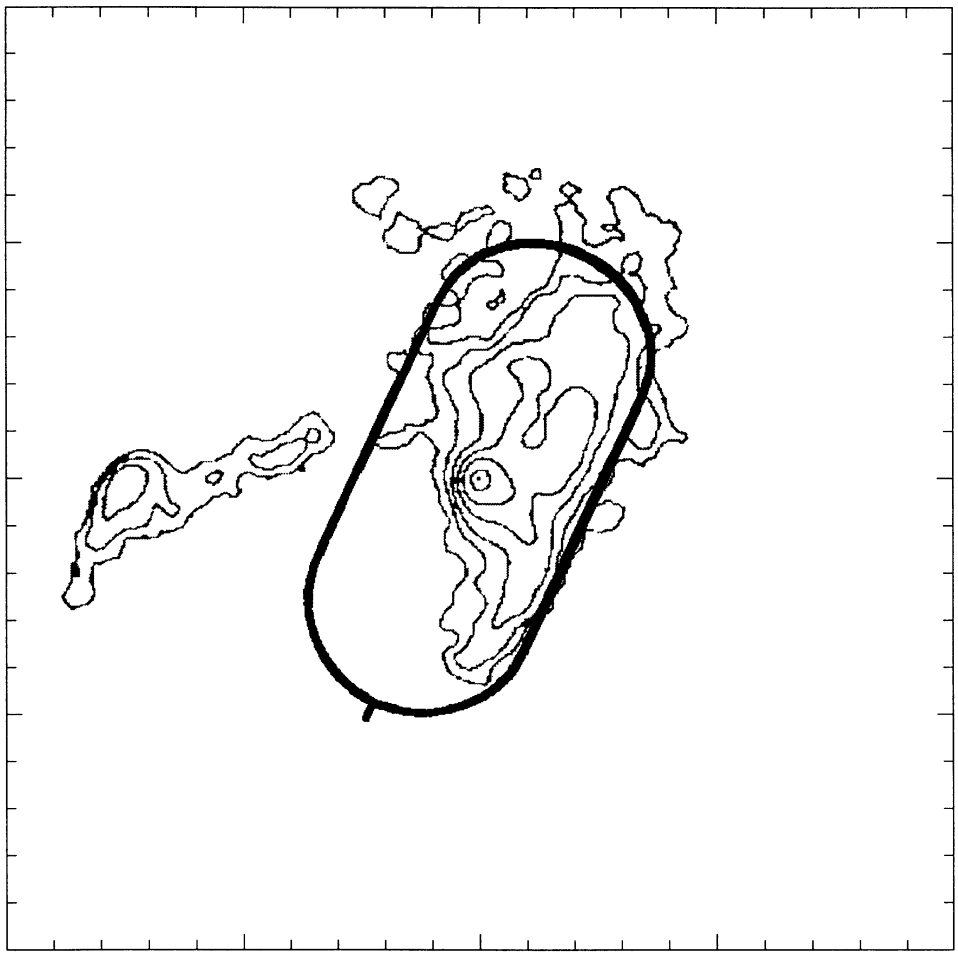
Alternative names :	LP 415–171	
Type :	HEO	[27]
Coordinates :		
α_{1950} =	$4^h\ 28^m\ 33\overset{s}{.}2$	
δ_{1950} =	18° 00′ 00″	
Proper motion :		[7]
$\mu_\alpha \cos\delta$ =	$-12\overset{''}{.}4 \pm 1\overset{''}{.}0$ cen^{-1}	
μ_δ =	$-19\overset{''}{.}0 \pm 1\overset{''}{.}0$ cen^{-1}	
Radial velocity :	-39 ± 2 km s^{-1}	[40]
Suspected source :	L1551 IRS 5	
Region :	L1551	
Distance :	140 pc	
Characteristic size :	10″×20″	
Asociated with molecular outflow :	Yes	[36]
P.A. of jet (CO outflow):	∼ 225°	[36]

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	08959	L	L	23-08-86	340.0		153.53
2	LWP	14267	L	L	17-10-88	367.0		157.90
3	LWP	18777	L	L	13-09-90	360.0		154.87
4	LWP	19742	L	L	12-02-91	311.0		333.03
5	SWP	27471	L	L	07-01-86	580.0	C=170,B=132	329.38
6	SWP	28962	L	L	22-08-86	304.0		153.47
7	SWP	34493	L	L	18-10-88	840.0	C=169,B=121	158.03
8	SWP	35809	L	L	18-03-89	378.0		335.36
9	SWP	39622	L	L	12-09-90	384.0		154.80
10	SWP	40856	L	L	11-02-91	785.0	C=130,B=110	332.96
11	SWP	48808	L	L	29-09-93	655.0	C=191,B=116	156.05
12	SWP	50045	L	L	17-02-94	754.9	C=210,B=170	333.40

HH 29

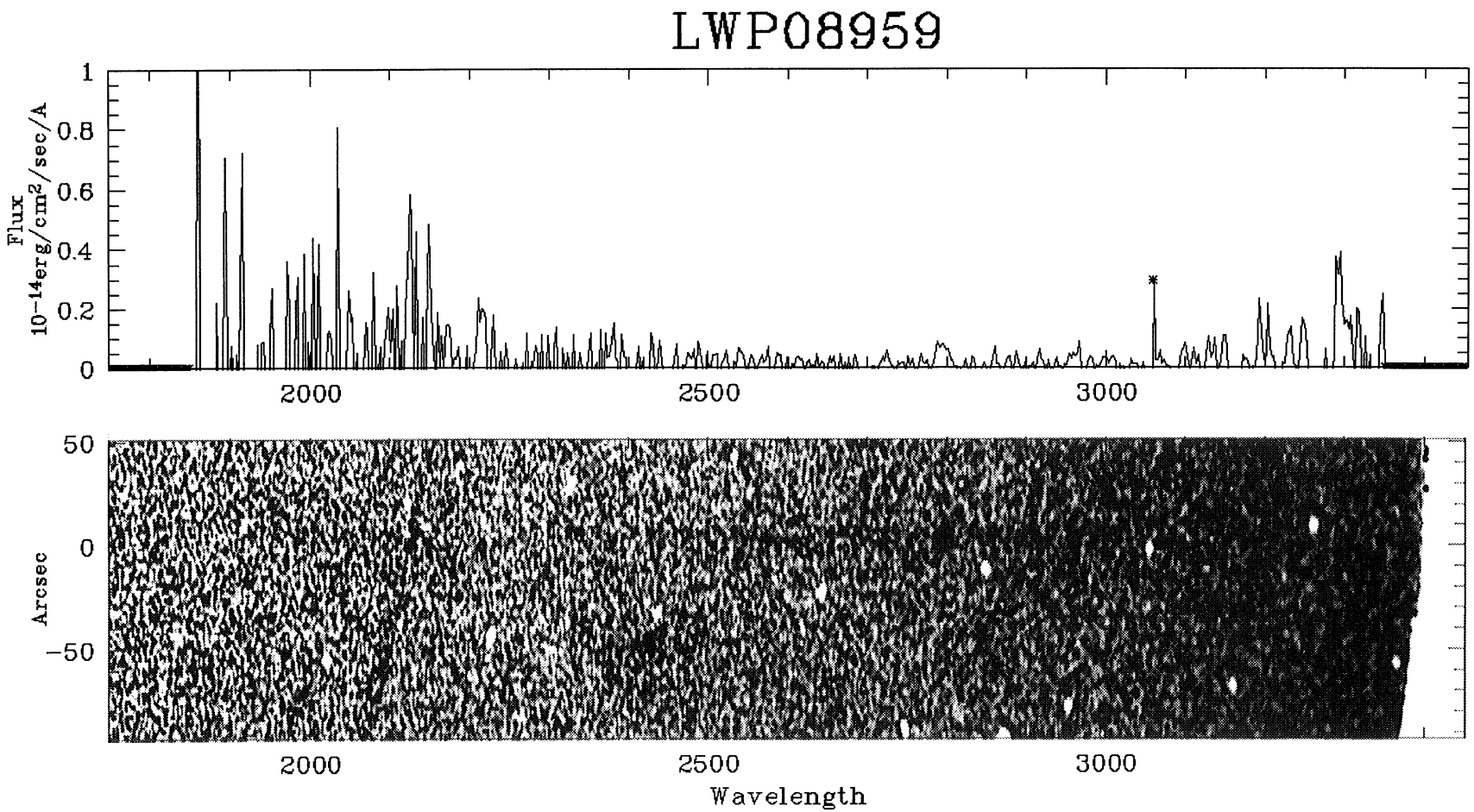
CENTER = HH29A PA = 155°
$\alpha_C = 4^h28^m33\overset{s}{.}3$ $\delta_C = 17°59'56\overset{''}{.}0$

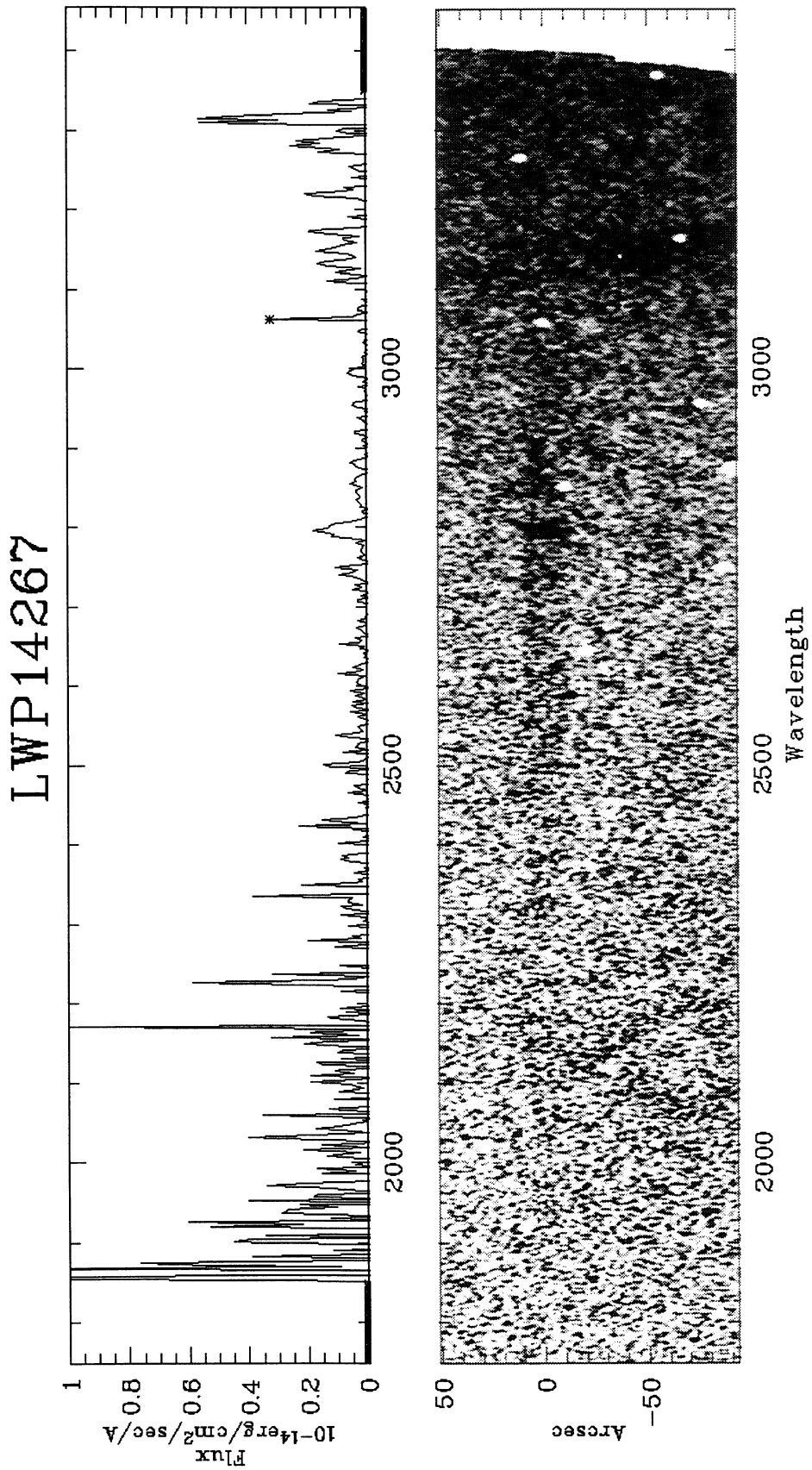


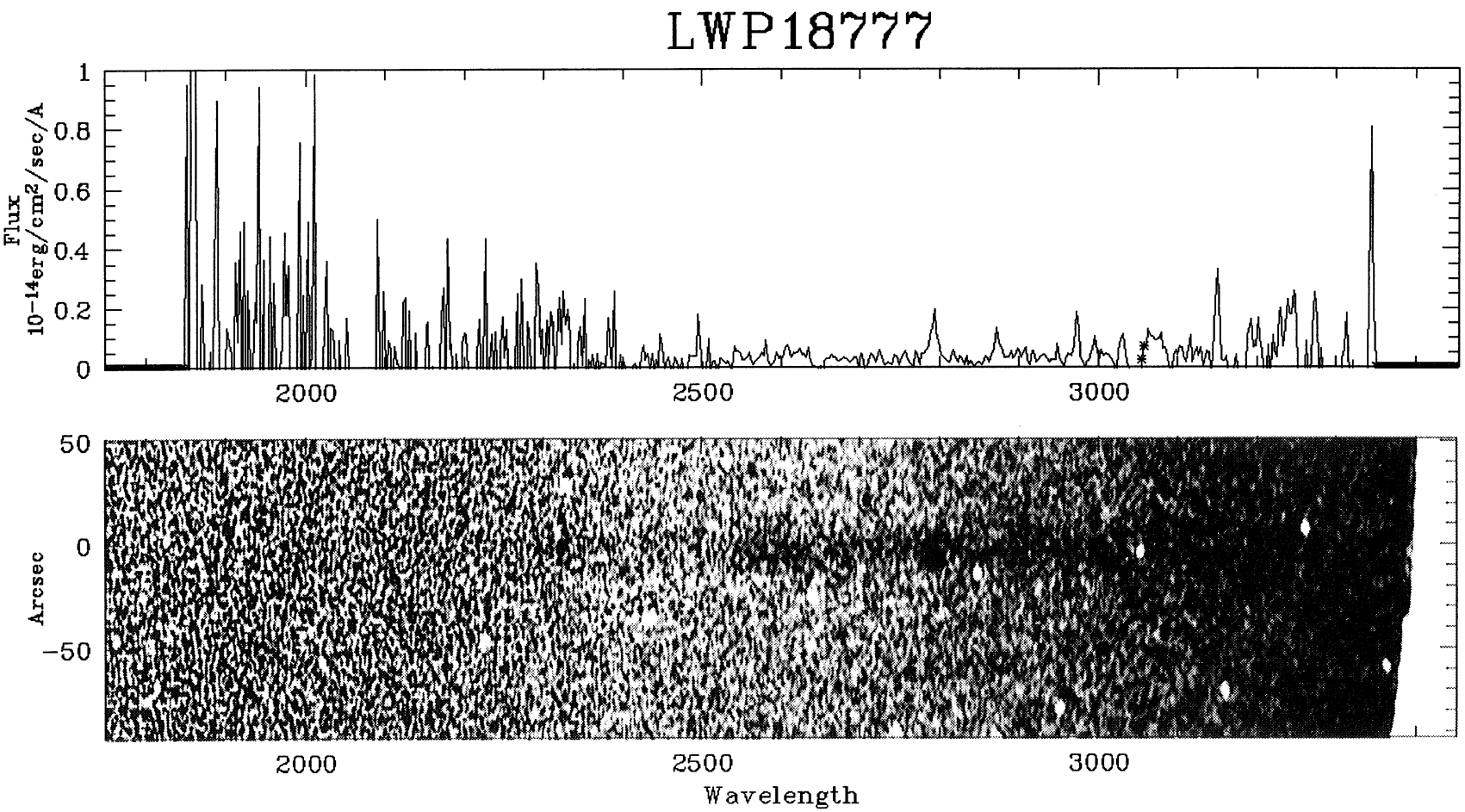
From the Hα data in Fridlund *et al.* (1993)

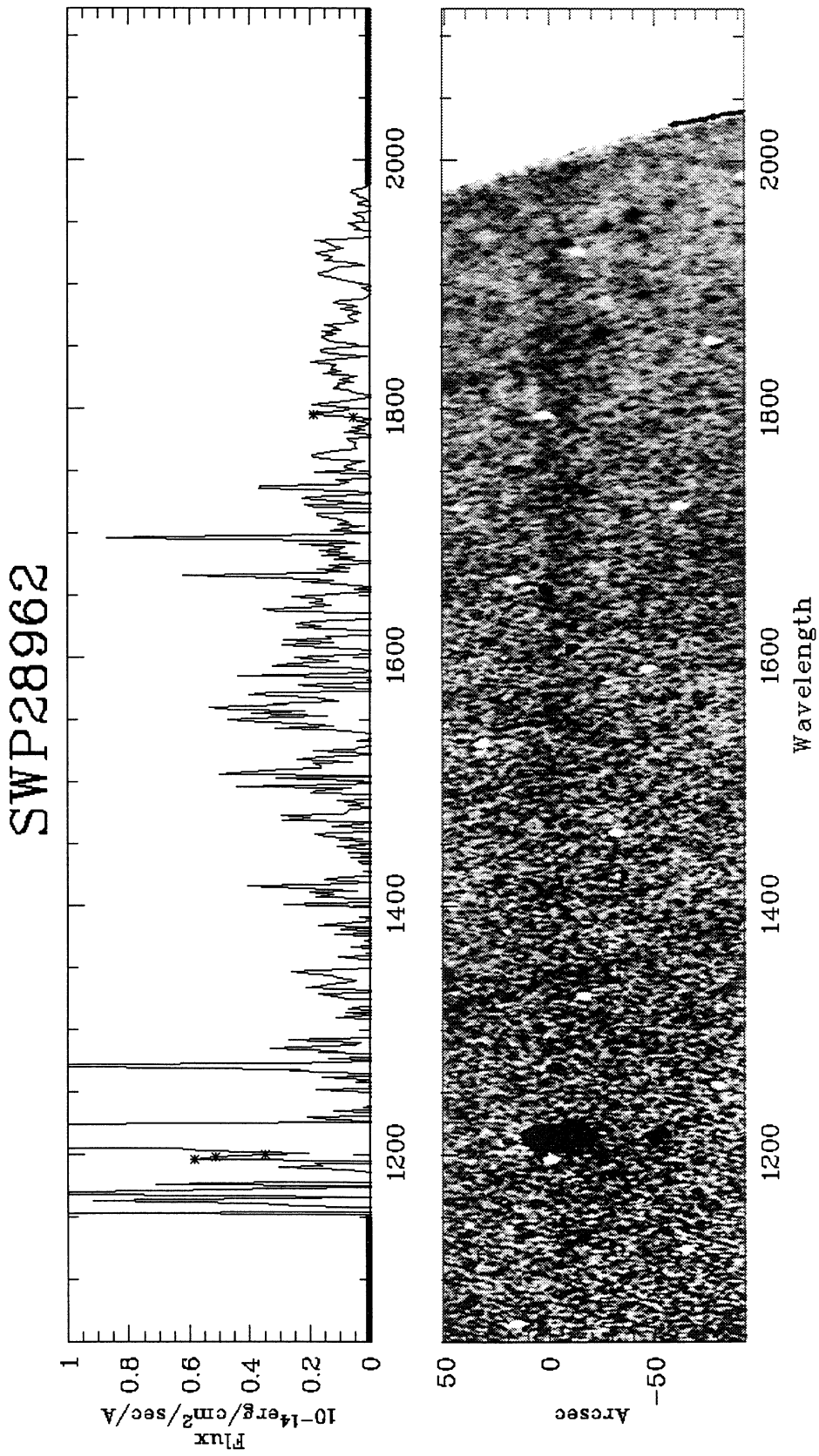
IUE Data:

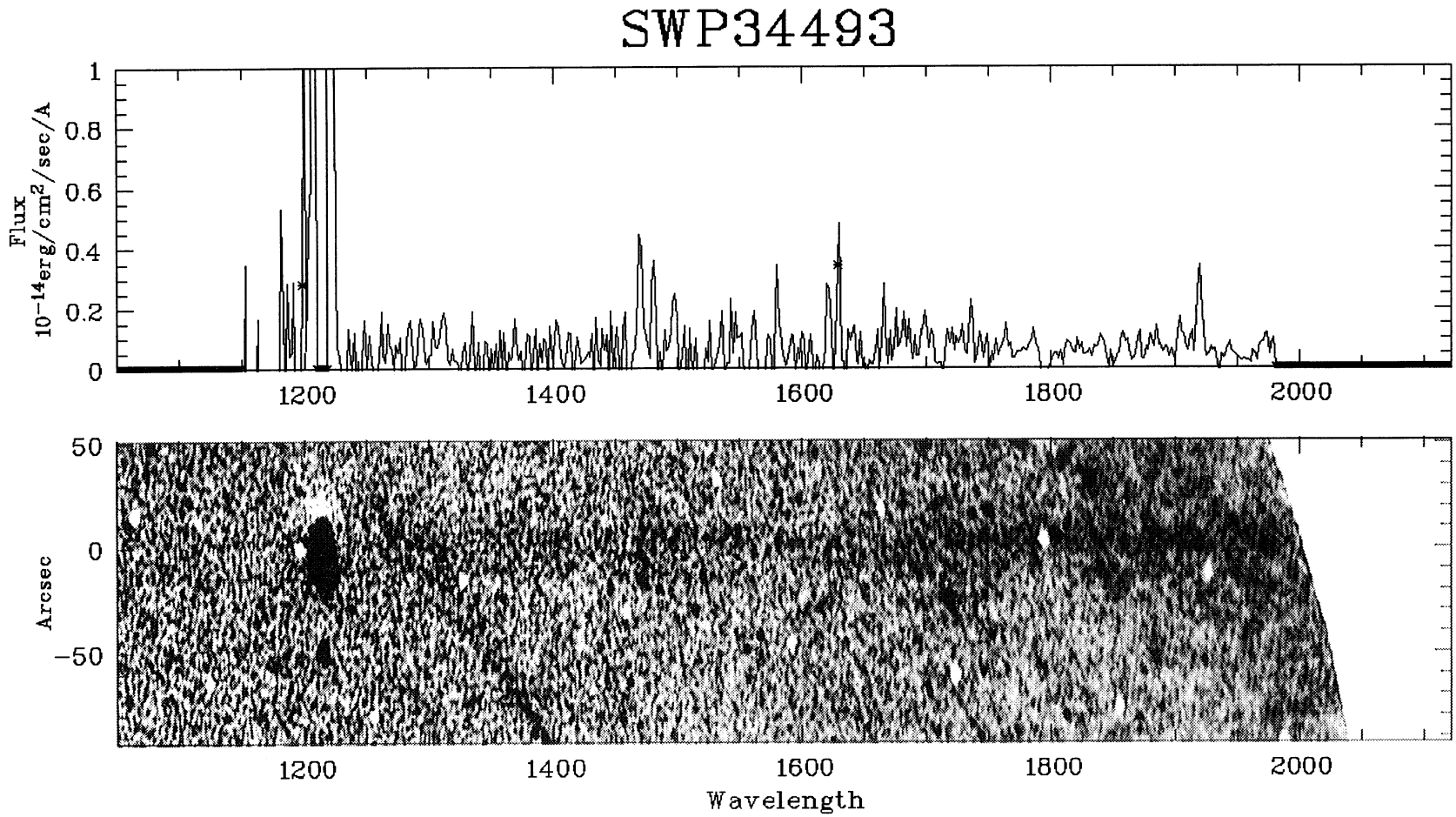
Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWP	08959				
LWP	14267	(1.0 ± 0.2)E-14			
LWP	18777	(6.4 ± 2.2)E-15			
SWP	28962				
SWP	34493				
SWP	39622				
SWP	48808				

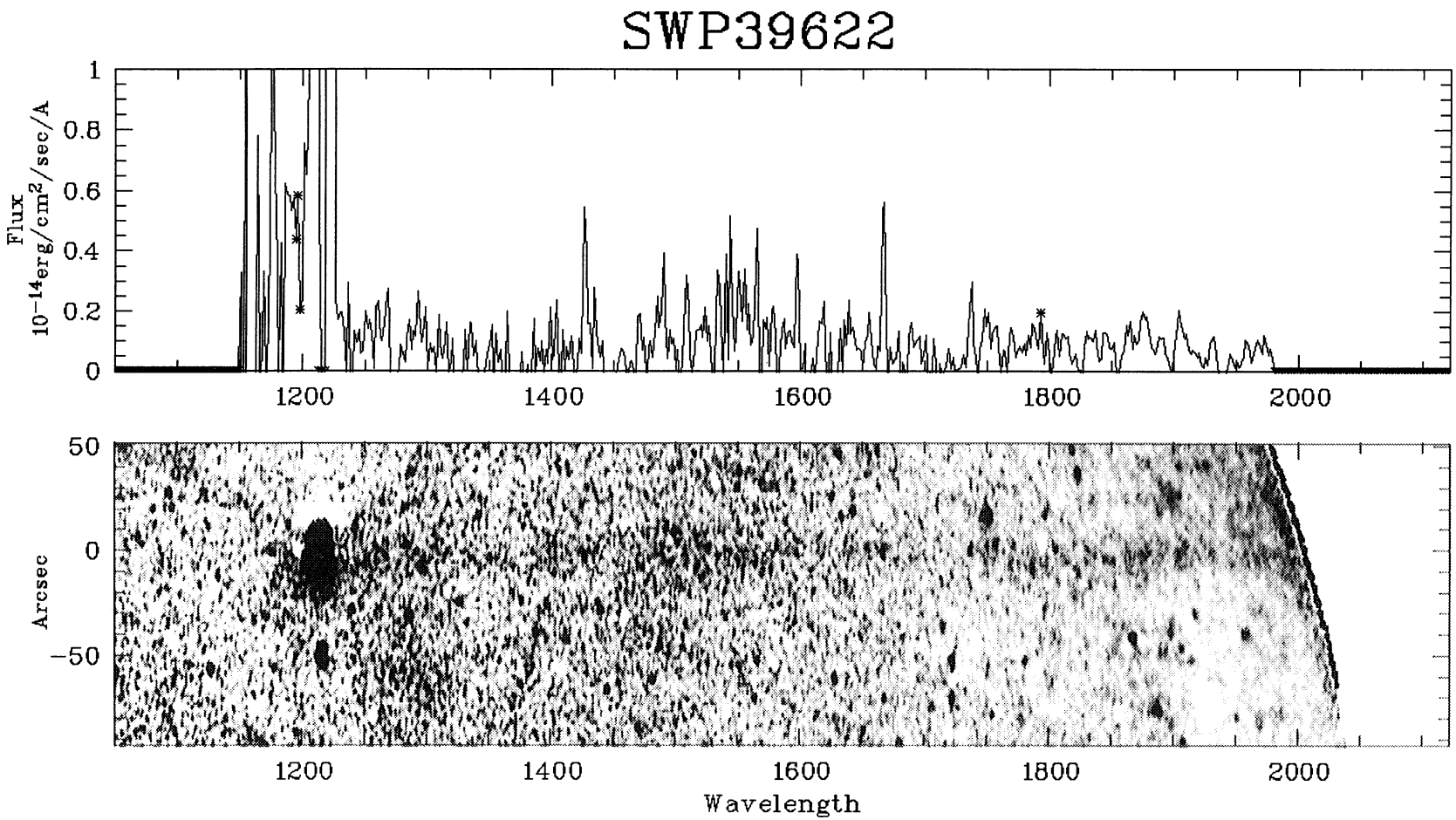

LWP08959
Flux
10^-14 erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
50
0
−50
Arcsec
2000
2500
3000
Wavelength

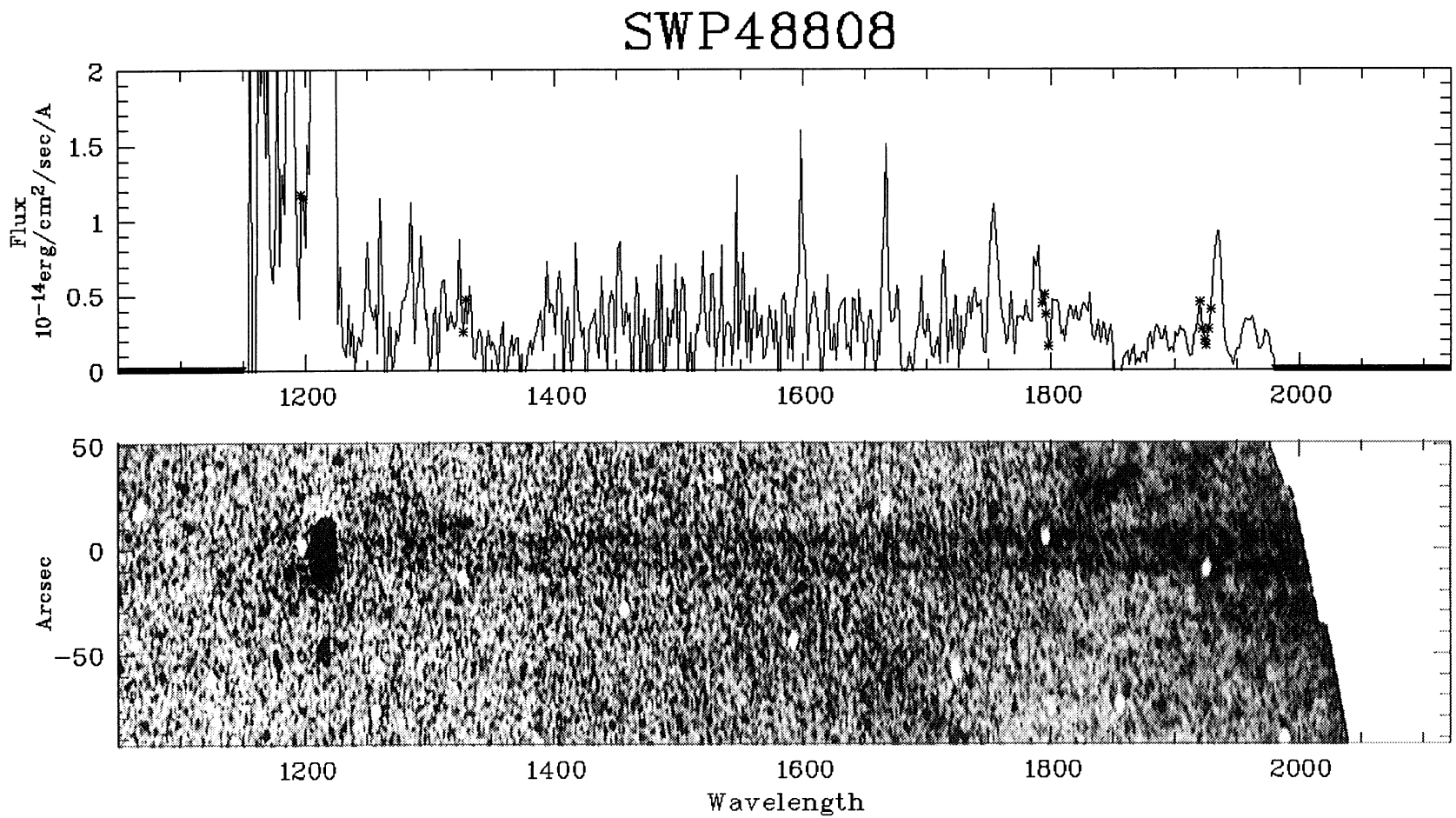

LWP14267
Flux
10-14erg/cm2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
Arcsec
50
0
-50
Wavelength


LWP18777
Flux
10⁻¹⁴erg/cm²/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
50
0
−50
Arcsec
2000
2500
3000
Wavelength


SWP28962
Flux
10⁻¹⁴erg/cm²/sec/A
0
0.2
0.4
0.6
0.8
1
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength

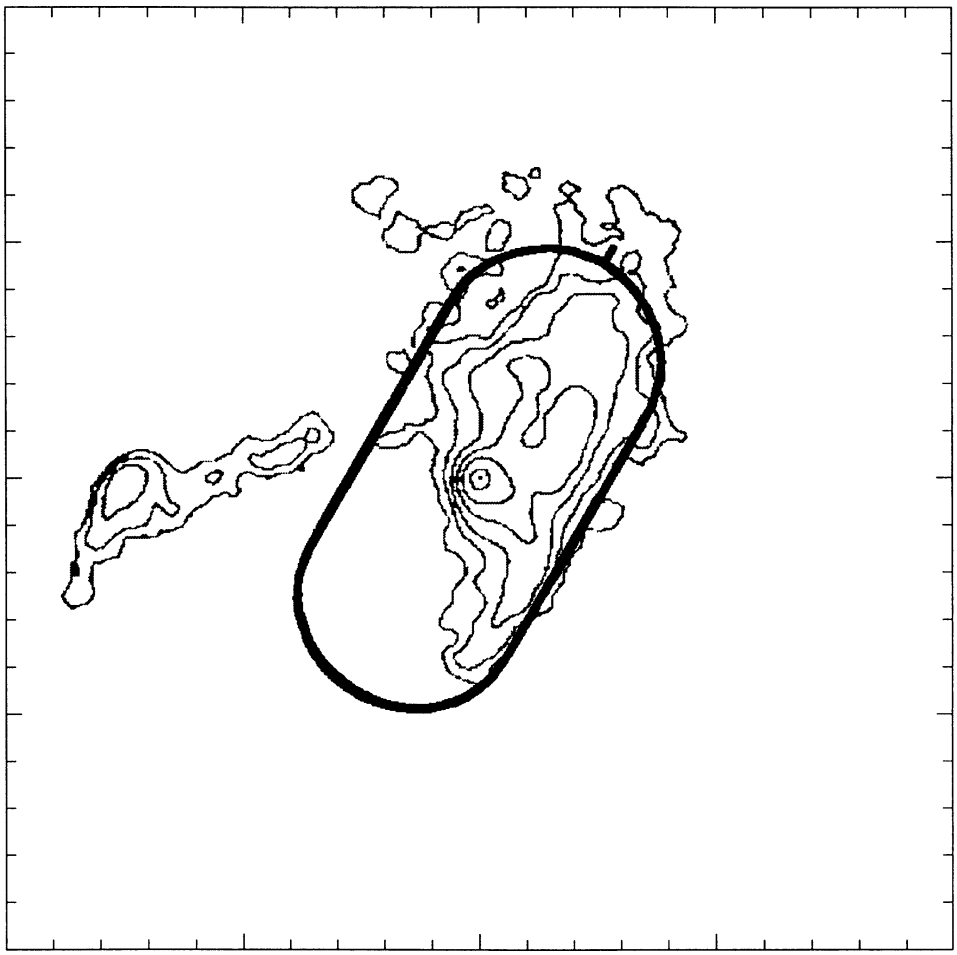

SWP34493
Flux
10^-14 erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength


SWP39622
Flux
10^-14erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength


SWP48808
Flux
10^-14 erg/cm^2/sec/A
2
1.5
1
0.5
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength

HH 29

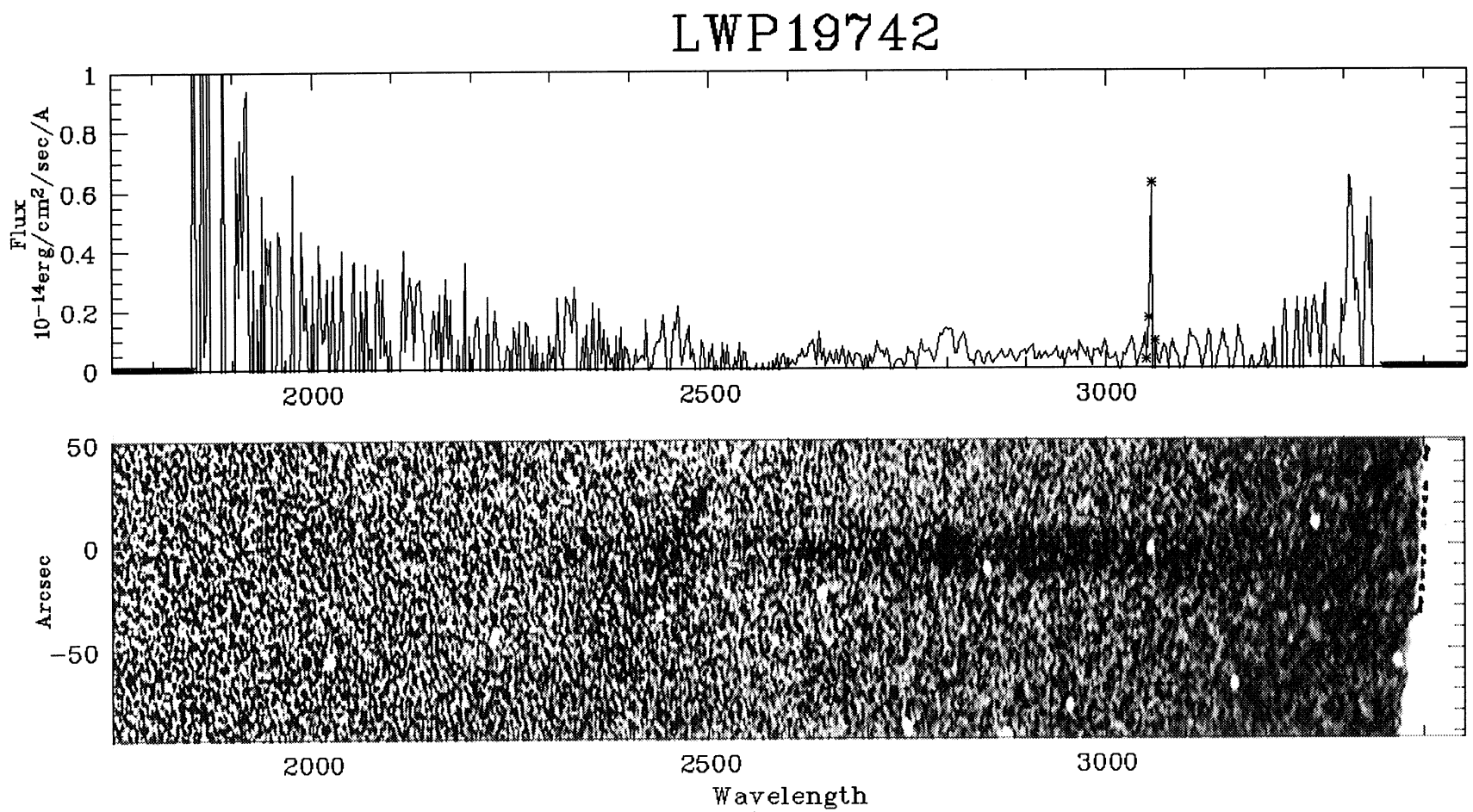
CENTER = HH29A PA = 330°
$\alpha_C = 4^h28^m33^s.3$ $\delta_C = 17°59'56''.0$

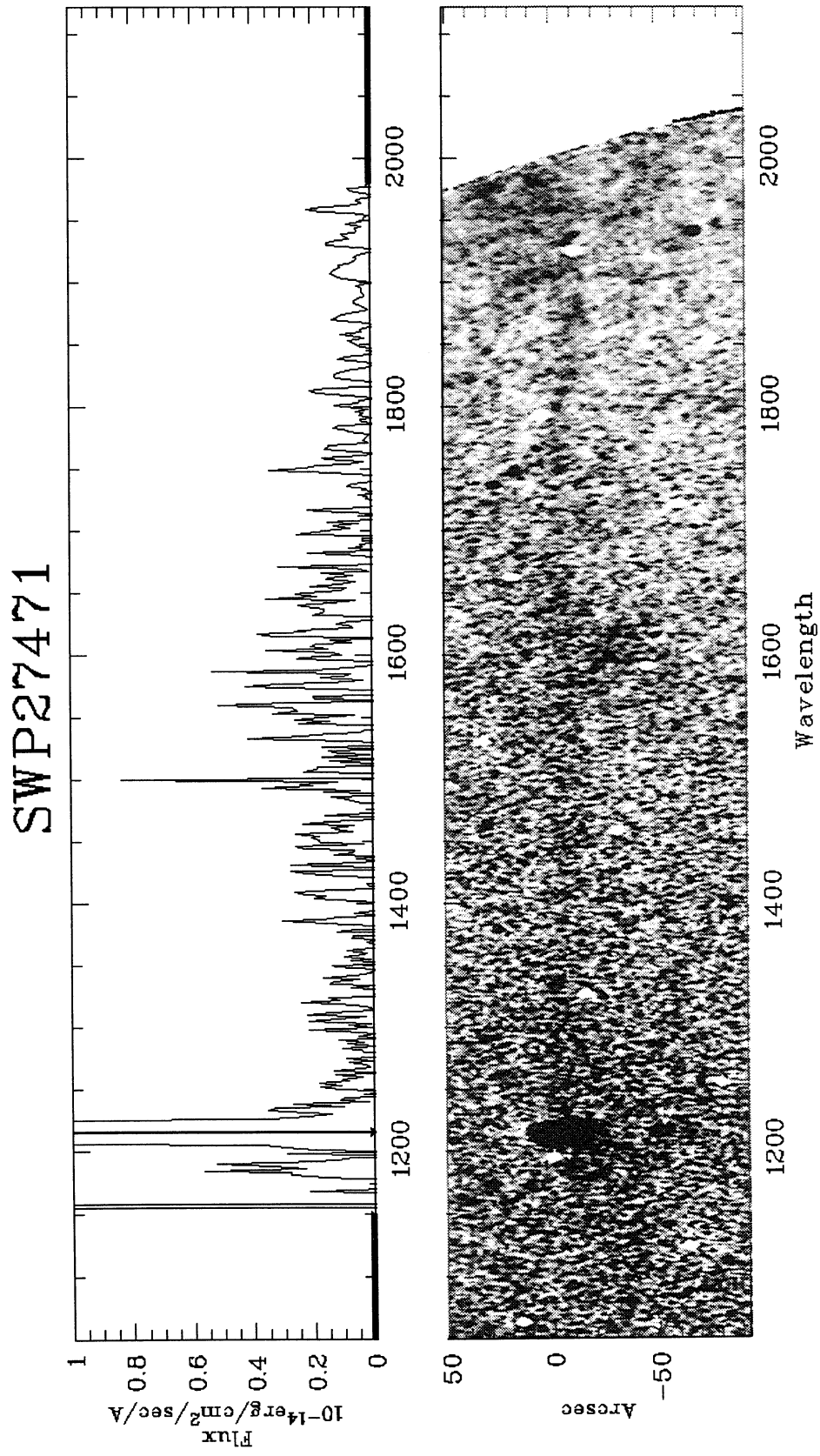


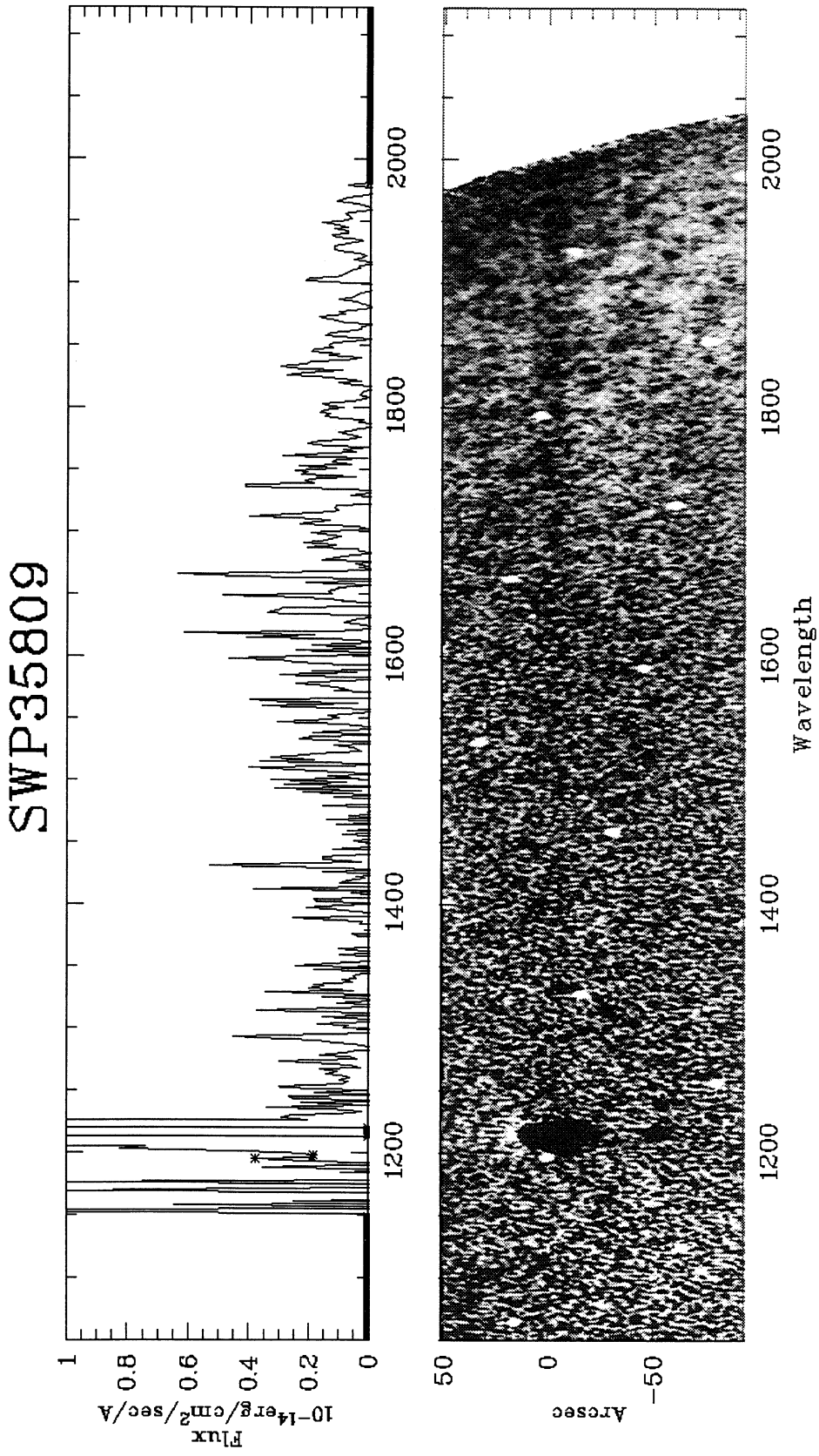
From the Hα data in Fridlund *et al.* (1993)

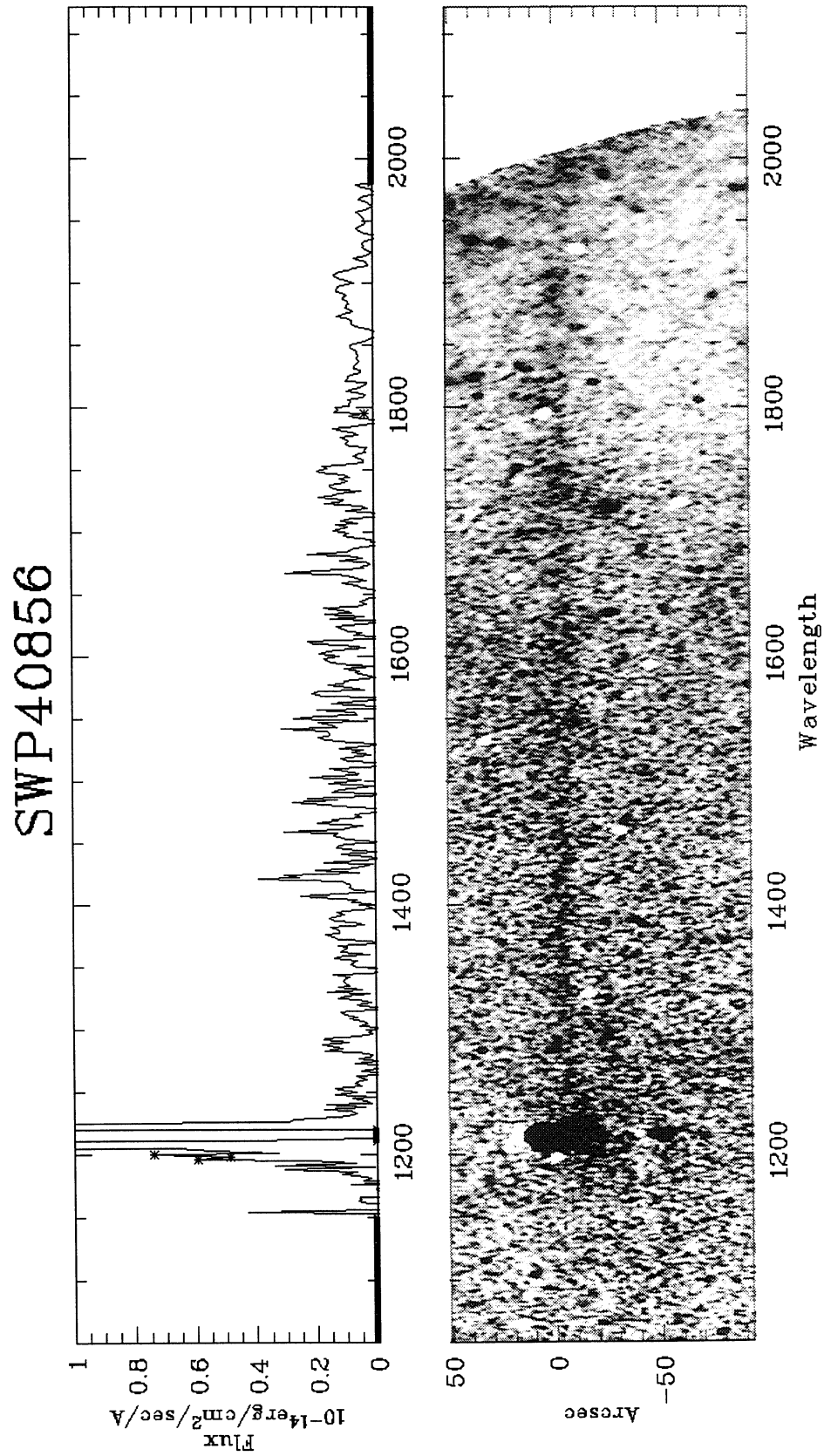
IUE Data:

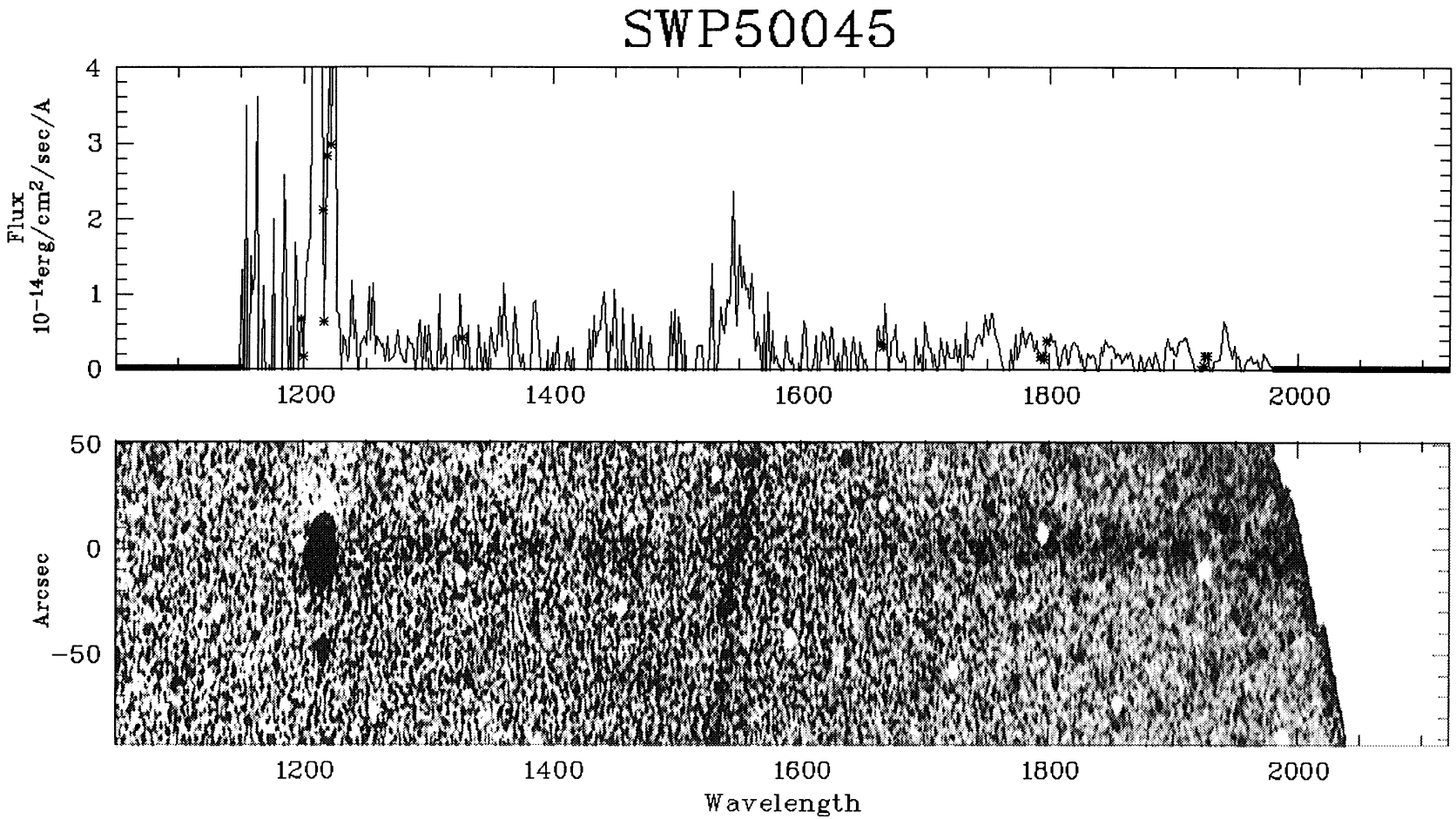
Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWP	19742				
SWP	27471				
SWP	35809				
SWP	40856				
SWP	50045				


LWP19742
Flux
10^-14erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
50
0
-50
Arcsec
2000
2500
3000
Wavelength


SWP27471
Flux
10⁻¹⁴erg/cm²/sec/A
1
0.8
0.6
0.4
0.2
0
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP35809
Flux
10^{-14}erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP40856
Flux
10⁻¹⁴erg/cm²/sec/A
0
0.2
0.4
0.6
0.8
1
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP50045
Flux
10^-14 erg/cm^2/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength

HH 30

Alternative names :

Type : LEO [4]

Coordinates :

$\alpha_{1950} = 4^h\ 28^m\ 43\overset{s}{.}6$
$\delta_{1950} = 18°\ 06'\ 03''$

Proper motion : [23]

$\mu_\alpha \cos\delta = 1''.6 \pm 0''.6\ \mathrm{cen}^{-1}$
$\mu_\delta = -2''.1 \pm 0''.9\ \mathrm{cen}^{-1}$

Radial velocity (Knot A) : $+77 \pm 24$ [5]
Suspected source : HH30 IRS
Region : L1551
Distance : 140 pc
Characteristic size (Knots A–C) : $20'' \times 3''$
Asociated with molecular outflow :
P.A. of jet : $\sim 30°$

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	04529	L	L	08-10-84	25.0	B=36	156.82
2	SWP	24144	L	L	07-10-84	435.0	E=101,C=100,B=85	156.75
3	SWP	24149	L	L	08-10-84	444.0	E=126,C=115,B=70	156.82
4	SWP	24150	L	L	08-10-84	345.0	C=110,B=73	156.85

HH 203

Alternative names :	M42–HH3	
Type :	HEO	[30]
Coordinates :		
α_{1950} =	$5^h\ 32^m\ 54\overset{s}{.}8$	
δ_{1950} =	$-5°\ 26'\ 51''$	
Proper motion :		
$\mu_\alpha \cos\delta$ =		
μ_δ =		
Radial velocity :	~ -55 km s^{-1}	[41]
Suspected source :		
Region :	M 42	
Distance :	470 pc	
Characteristic size :	$5'' \times 10''$	
Asociated with molecular outflow :	Yes	[1]
P.A. of jet :		

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	19334	L	L	01-12-90	50.0	C=4X,B=40	223.64
2	LWP	19334	L	S	01-12-90	50.0		223.64
3	LWP	23946	L	L	16-09-92	10.0	C=3X,B=33	160.17
4	LWP	23946	L	S	16-09-92	10.0		160.17
5	LWP	23947	L	S	16-09-92	75.0	C=241,B=50	160.22
6	LWP	23947	L	L	16-09-92	75.0		160.22
7	LWP	24798	L	S	27-01-93	50.0	C=197,B=47	314.05
8	LWP	24798	L	L	27-01-93	50.0		314.05
9	LWP	24804	L	S	28-01-93	60.0	C=217,B=50	314.83
10	LWP	24804	L	L	28-01-93	60.0		314.83
11	LWP	24805	L	S	28-01-93	50.0	C=173,B=44	314.91
12	LWP	24805	L	L	28-01-93	50.0		314.91
13	LWP	26759	L	S	15-11-93	60.0	E=163,C=229,B=45	200.33
14	LWP	26759	L	L	15-11-93	60.0		200.33
15	LWP	26760	L	S	16-11-93	50.0	E=130,C=163,B=40	200.48
16	LWP	26760	L	L	16-11-93	50.0		200.48
17	SWP	45653	L	L	16-09-92	53.0	C=10X,B=44	160.17
18	SWP	45653	L	S	16-09-92	53.0		160.17
19	SWP	45654	L	S	16-09-92	45.0	C=217,B=26	160.22
20	SWP	45654	L	L	16-09-92	45.0		160.22

21	SWP	46831	L	S	27-01-93	90.0	C=2X,B=50	314.05
22	SWP	46831	L	L	27-01-93	90.0		314.05
23	SWP	46837	L	S	28-01-93	80.0	C=2X,B=46	314.83
24	SWP	46837	L	L	28-01-93	80.0		314.83
25	SWP	46840	L	S	28-01-93	50.0	C=161,B=33	314.91
26	SWP	46840	L	L	28-01-93	50.0		314.91
27	SWP	49235	L	S	15-11-93	90.0	C=2X,B=38	200.33
28	SWP	49235	L	L	15-11-93	90.0		200.33
29	SWP	49236	L	S	15-11-93	60.0	E=141,C=220,B=25	200.48
30	SWP	49236	L	L	15-11-93	60.0		200.48

HH 204

Alternative names :	M42–HH4	
Type :	HEO	[30]
Coordinates :		
α_{1950} =	$5^h\ 32^m\ 55\overset{s}{.}2$	
δ_{1950} =	$-5°\ 27'\ 06''$	
Proper motion :		[6]
$\mu_\alpha \cos\delta$ =	$2\overset{''}{.}4 \pm 0\overset{''}{.}7$ cen^{-1}	
μ_δ =	$1\overset{''}{.}7 \pm 0\overset{''}{.}3$ cen^{-1}	
Radial velocity :	~ -20 km s^{-1}	[41]
Suspected source :		
Region :	M 42	
Distance :	470 pc	
Characteristic size :	$5'' \times 5''$	
Asociated with molecular outflow :	Yes	[1]
P.A. of jet :		

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	23948	L	L	16-09-92	20.0	C=1.5X,B=38	160.26
2	LWP	23948	L	S	16-09-92	20.0		160.26
3	LWP	24799	L	S	27-01-93	60.0	C=151,B=47	314.14
4	LWP	24799	L	L	27-01-93	60.0		314.14
5	SWP	45655	L	S	16-09-92	35.0	C=6X,B=26	160.26
6	SWP	45655	L	L	16-09-92	35.0		160.26
7	SWP	46832	L	S	27-01-93	75.0	C=212,B=38	314.14
8	SWP	46832	L	L	27-01-93	75.0		314.14
9	SWP	46838	L	S	28-01-93	60.0	C=213,B=39	314.91
10	SWP	46838	L	L	28-01-93	60.0		314.91

HH 34

Alternative names :

Type : Undetermined

Coordinates :

$\alpha_{1950} =$ $5^h\ 33^m\ 03\overset{s}{.}0$
$\delta_{1950} =$ $-6°\ 28'\ 53''$

Proper motion (Knot NA) : [13]

$\mu_\alpha \cos\delta =$ $-15\overset{''}{.}2 \pm 7\overset{''}{.}2\ \mathrm{cen}^{-1}$
$\mu_\delta =$ $10\overset{''}{.}2 \pm 4\overset{''}{.}8\ \mathrm{cen}^{-1}$

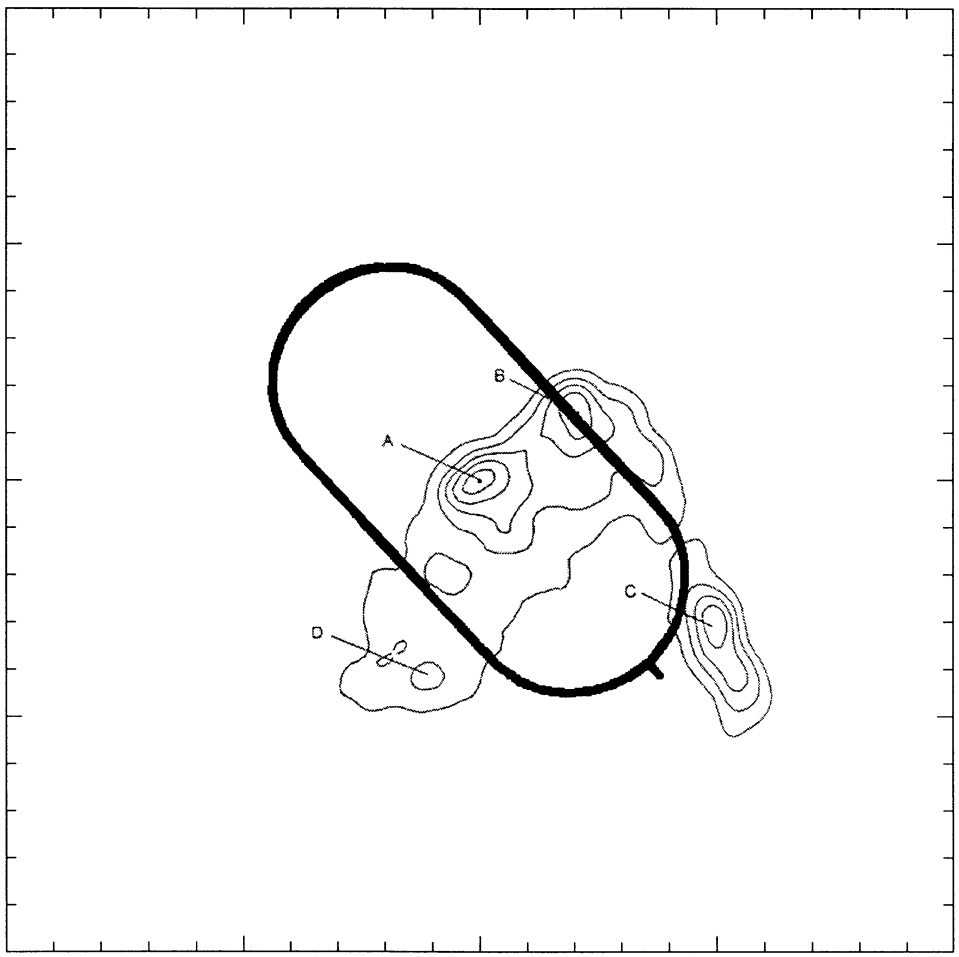
Radial velocity : $+192\,\mathrm{km\ s}^{-1}$ [9]
Suspected source : HH 34 IRS
Region : L1641
Distance : 470 pc
Characteristic size : $20'' \times 20''$
Asociated with molecular outflow : No [12]
P.A. of jet : $\sim 166°$

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	17136	L	L	12-01-90	420.0	B=90	298.45
2	SWP	37708	L	L	30-11-89	365.0	C=110,B=72	222.68
3	SWP	37992	L	L	11-01-90	780.0	C=140,B=105	297.26
4	SWP	38217	L	L	21-02-90	375.0	C=100,B=77	329.55
5	SWP	40240	L	L	30-11-90	380.0	C=115,B=60	222.24
6	SWP	40244	L	L	01-12-90	270.0	C=75,B=45	223.86

HH 34

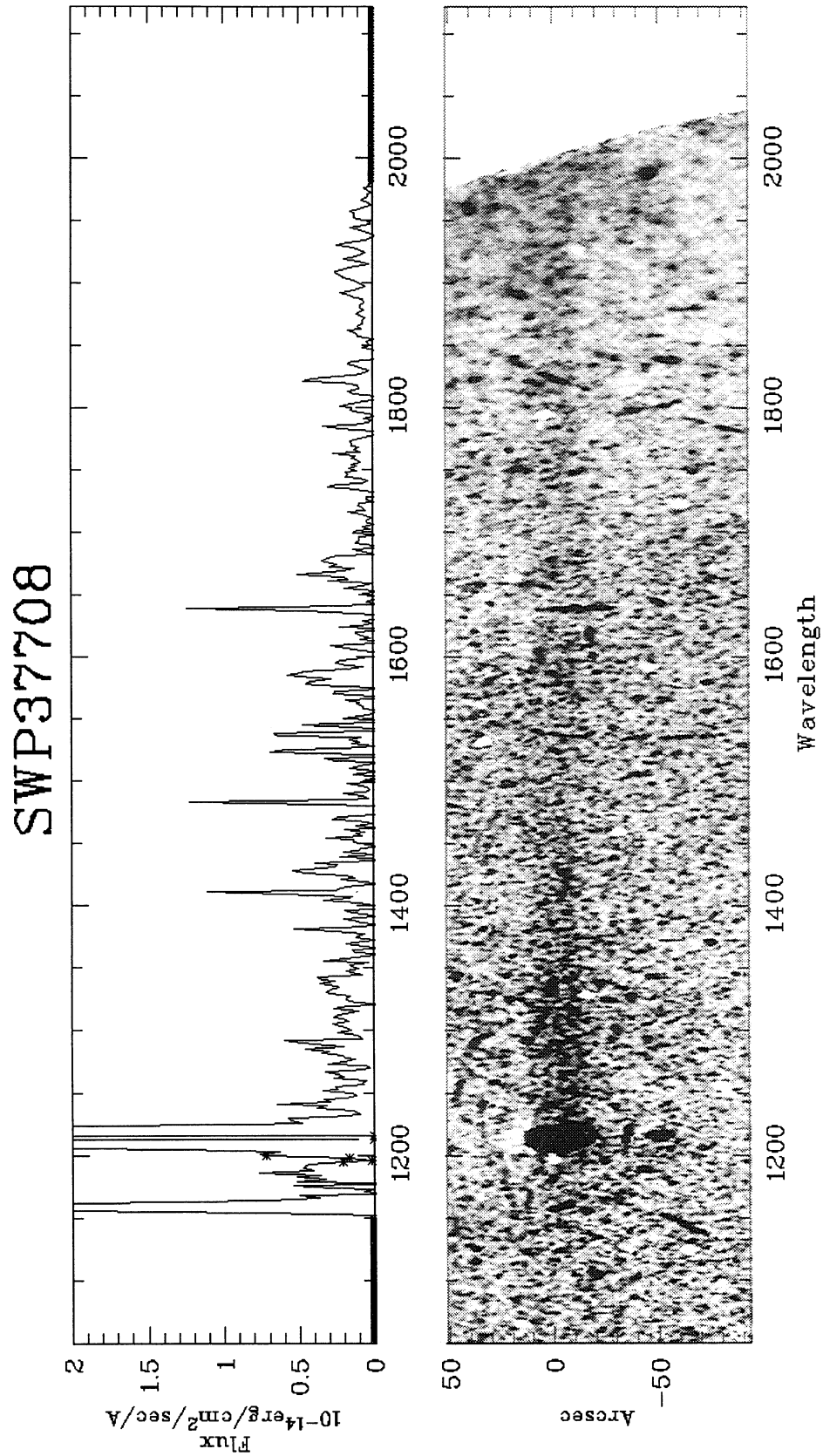
CENTER = HH34NA PA = 223°
$\alpha_C = 5^h33^m01^s.92$ $\delta_C = -6°27'04''.1$

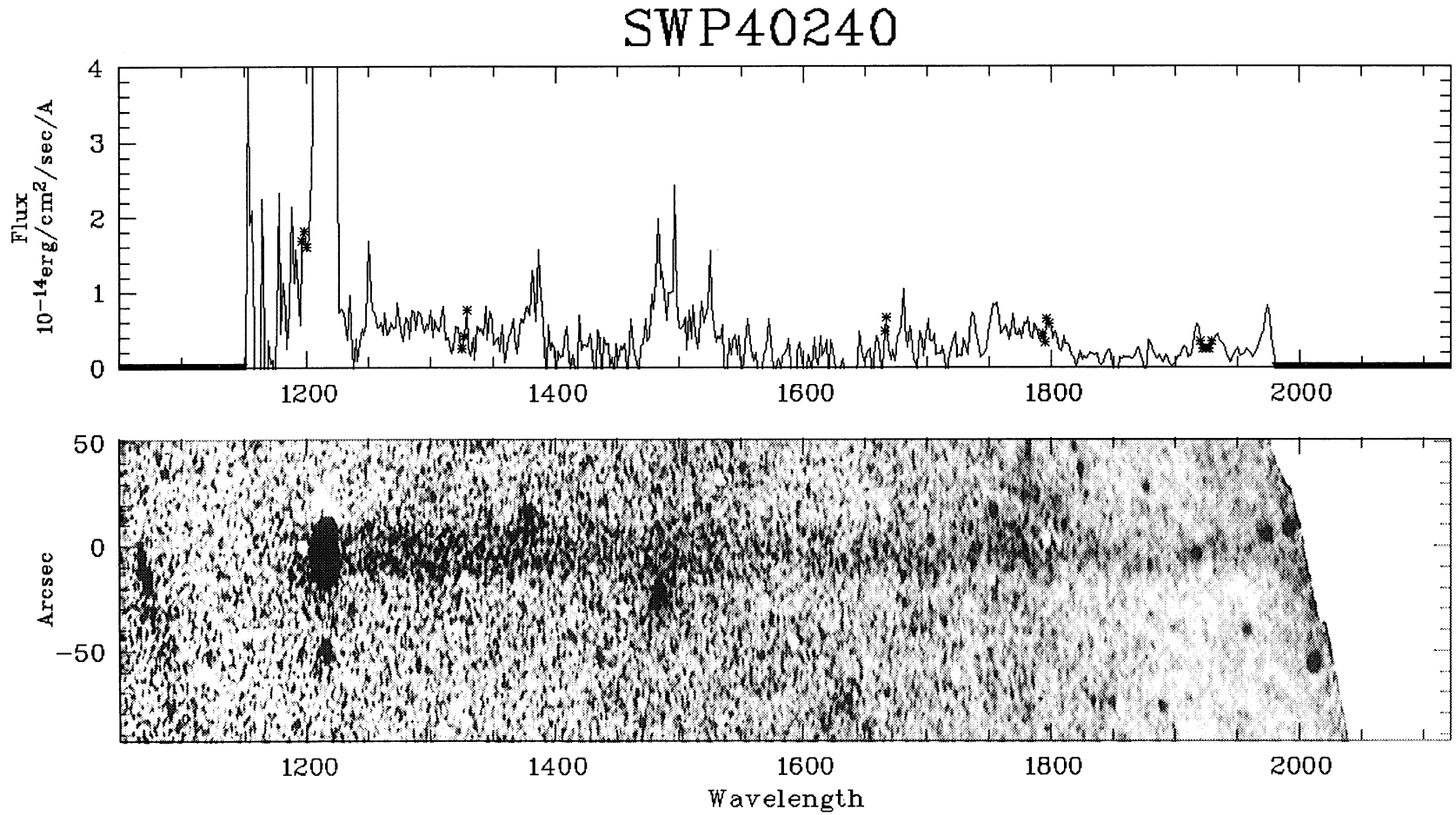


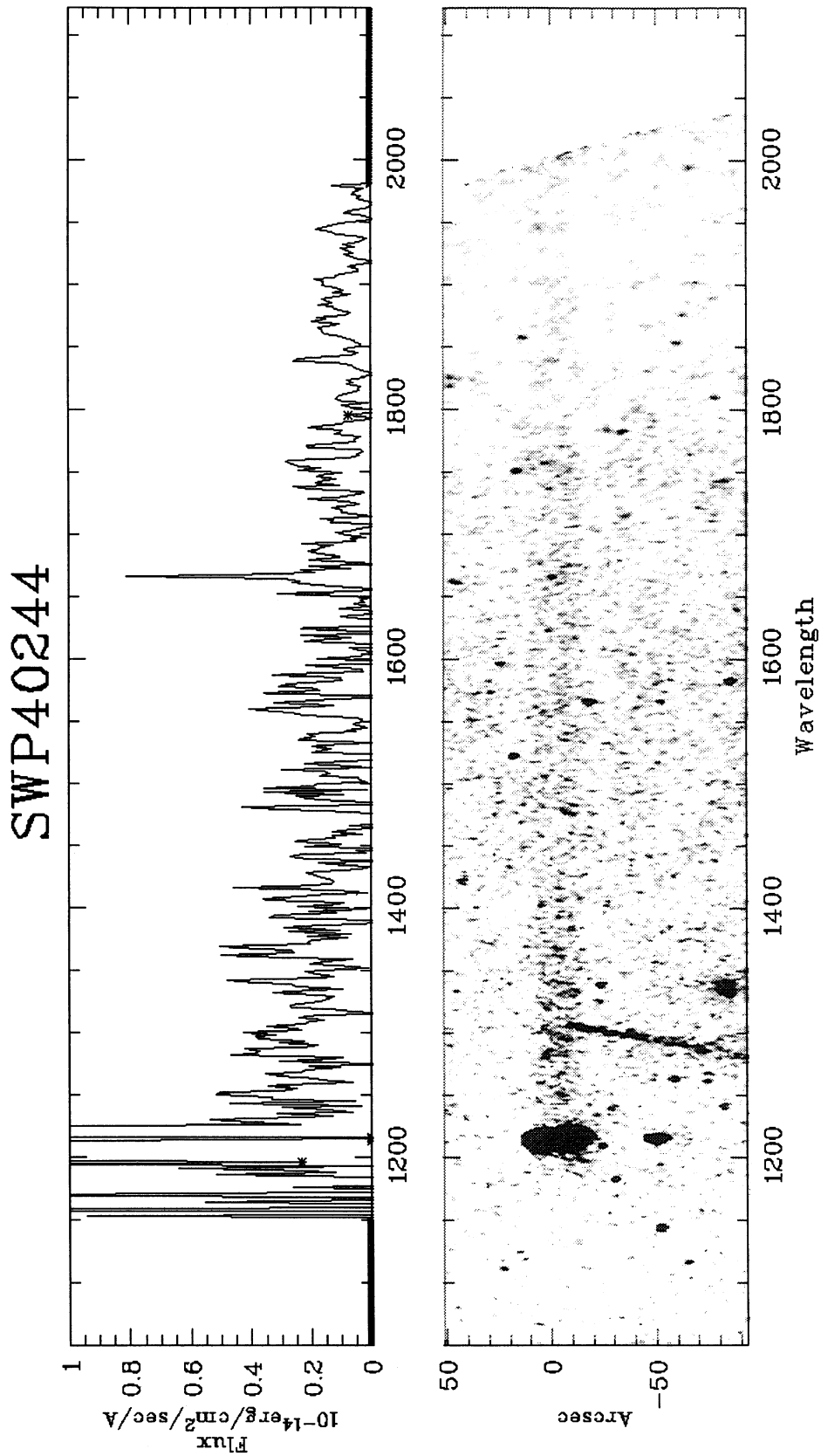
From the [S II] data in Eislöffel *et al.* (1992)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	37708				
SWP	40240				
SWP	40244				


SWP37708
Flux
10⁻¹⁴erg/cm²/sec/A
2
1.5
1
0.5
0
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP40240
Flux
10^-14erg/cm^2/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
-50
1200
1400
1600
1800
2000
Wavelength


SWP40244
Flux
10-14erg/cm2/sec/A
1
0.8
0.6
0.4
0.2
0
1200
1400
1600
1800
2000
Arcsec
50
0
-50
Wavelength

HH 1

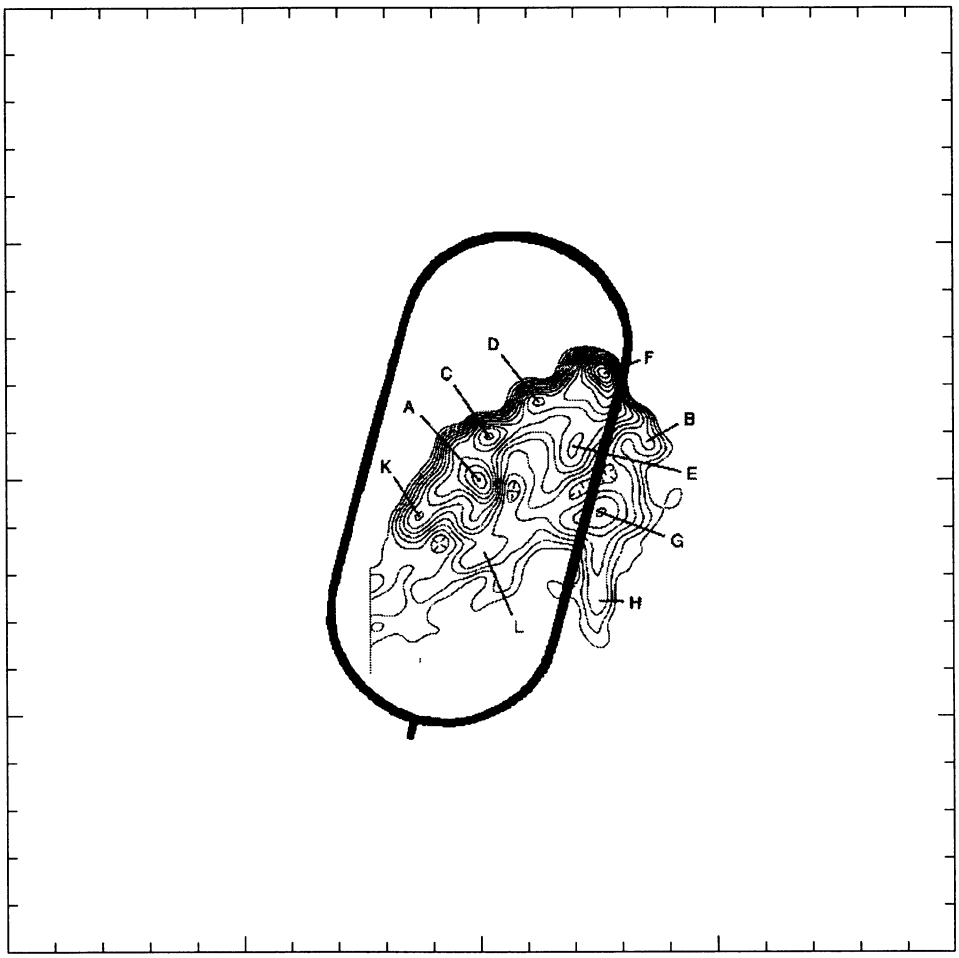
Alternative names :	Haro 11a	
Type :	HEO	[2]
Coordinates :		
α_{1950} =	$5^h\ 33^m\ 54\overset{s}{.}5$	
δ_{1950} =	$-6°\ 46'\ 57''$	
Proper motion (knot F) :		[15]
$\mu_\alpha \cos\delta$ =	$-12\overset{''}{.}0 \pm 0\overset{''}{.}9\ \mathrm{cen}^{-1}$	
μ_δ =	$13\overset{''}{.}1 \pm 1\overset{''}{.}0\ \mathrm{cen}^{-1}$	
Radial velocity :	$< 20\,\mathrm{km\ s}^{-1}$	[39]
Suspected source :	HH1/2 VLA1	
Region :	L1641	
Distance :	470 pc	
Characteristic size :	$15'' \times 15''$	
Asociated with molecular outflow :	No	[12]
P.A. of jet :	$\sim 329°$	

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWR	07116	L	L	07-03-80	120.0	B=40	337.11
2	LWR	07150	L	L	10-03-80	120.0	E=116,C=100,B=52	338.70
3	LWR	08912	L	L	29-09-80	134.0	E=109,C=95,B=48	166.92
4	LWR	12905	L	L	30-03-82	125.0	B=38	348.43
5	SWP	06630	L	L	25-09-79	360.0		164.59
6	SWP	08188	L	L	07-03-80	270.0	E=255,C=108,B=87	337.11
7	SWP	08209	L	L	10-03-80	30.0	E=58,B=15	338.70
8	SWP	16668	L	L	30-03-82	270.0	C=50,B=45	348.43
9	SWP	24914	L	L	16-01-85	729.0	E=193,C=150,B=115	302.54
10	SWP	24914	L	S	16-01-85	729.0		302.54
11	SWP	26950	L	L	18-10-85	281.0	E=111,C=133,B=90	177.70
12	SWP	27443	L	L	03-01-86	290.0	E=155,C=158,B=118	285.98
13	SWP	40657	L	L	22-01-91	633.0	E=156,C=125,B=84	308.30
14	SWP	40657	L	S	22-01-91	633.0		308.30

HH 1

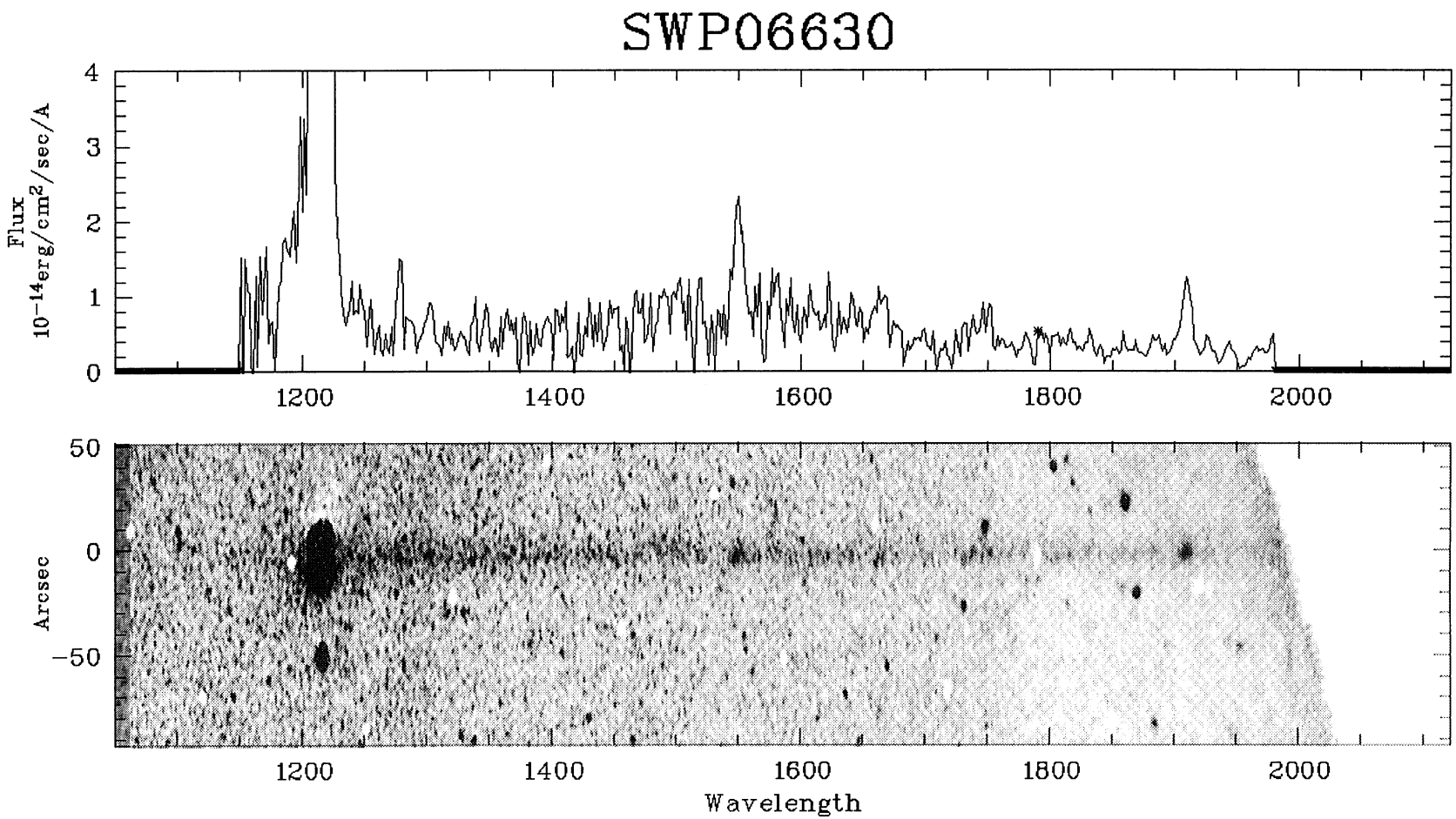
CENTER = HH1A PA = 165°
$\alpha_C = 5^h33^m54^s.85$ $\delta_C = -6°47'01''.2$



From the [S II] data in Eislöffel *et al.* (1994a)

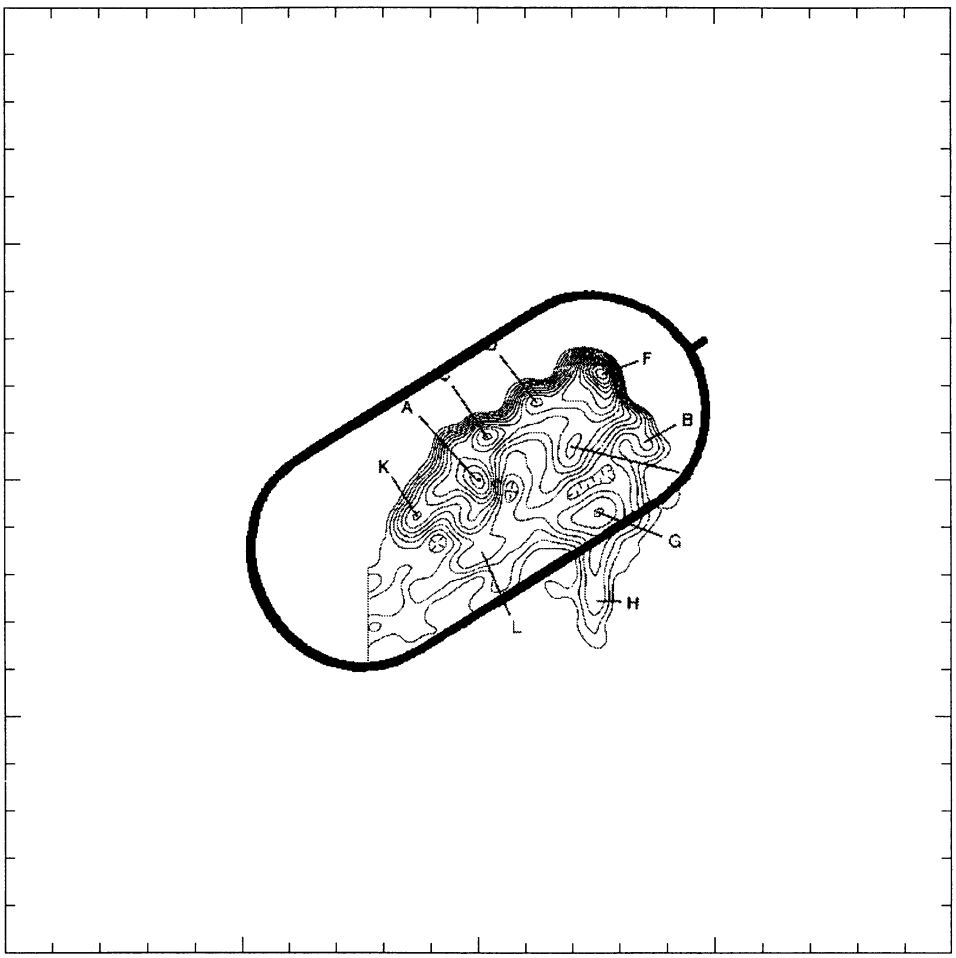
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	06630			(5.3 ± 1.5)E-14	(1.2 ± 0.5)E-13


SWP06630
Flux
10^-14 erg/cm^2/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
-50
1200
1400
1600
1800
2000
Wavelength

HH 1

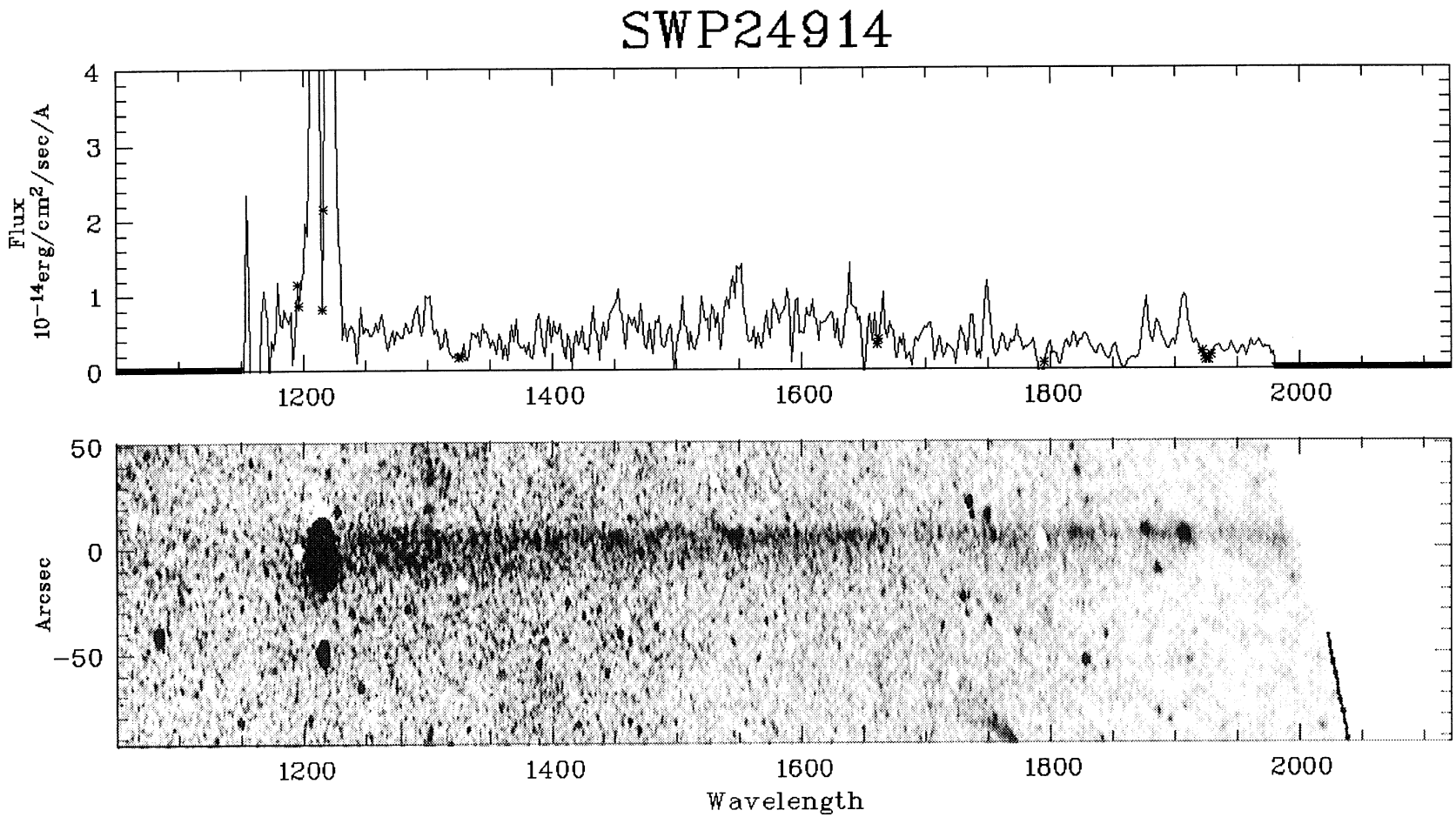
CENTER = HH1A PA = 302°
$\alpha_C = 5^h33^m54^s.85$ $\delta_C = -6°47'01''.2$



From the [S II] data in Eislöffel *et al.* (1994a)

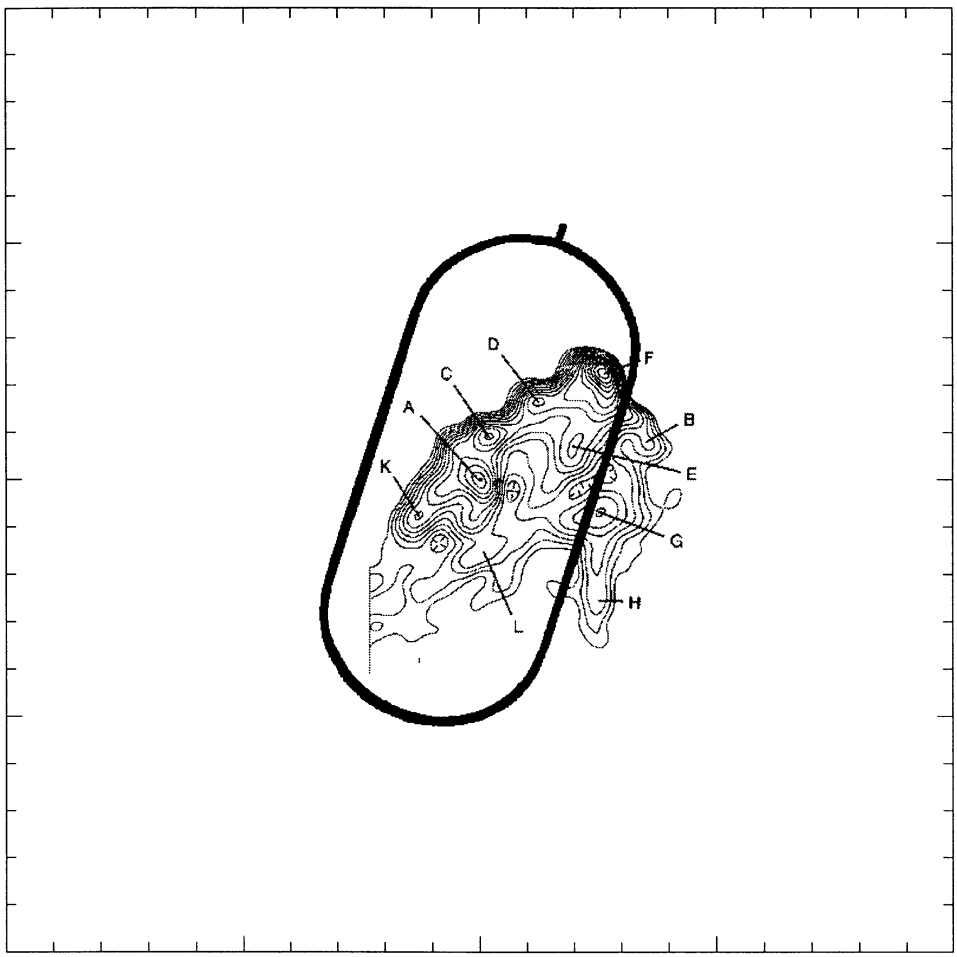
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	24914			(5.2 ± 2.4)E-14	(8.9 ± 4.6)E-14


SWP24914
Flux
10^-14 erg/cm^2/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
Arcsec
50
0
-50
1200
1400
1600
1800
2000
Wavelength

HH 1

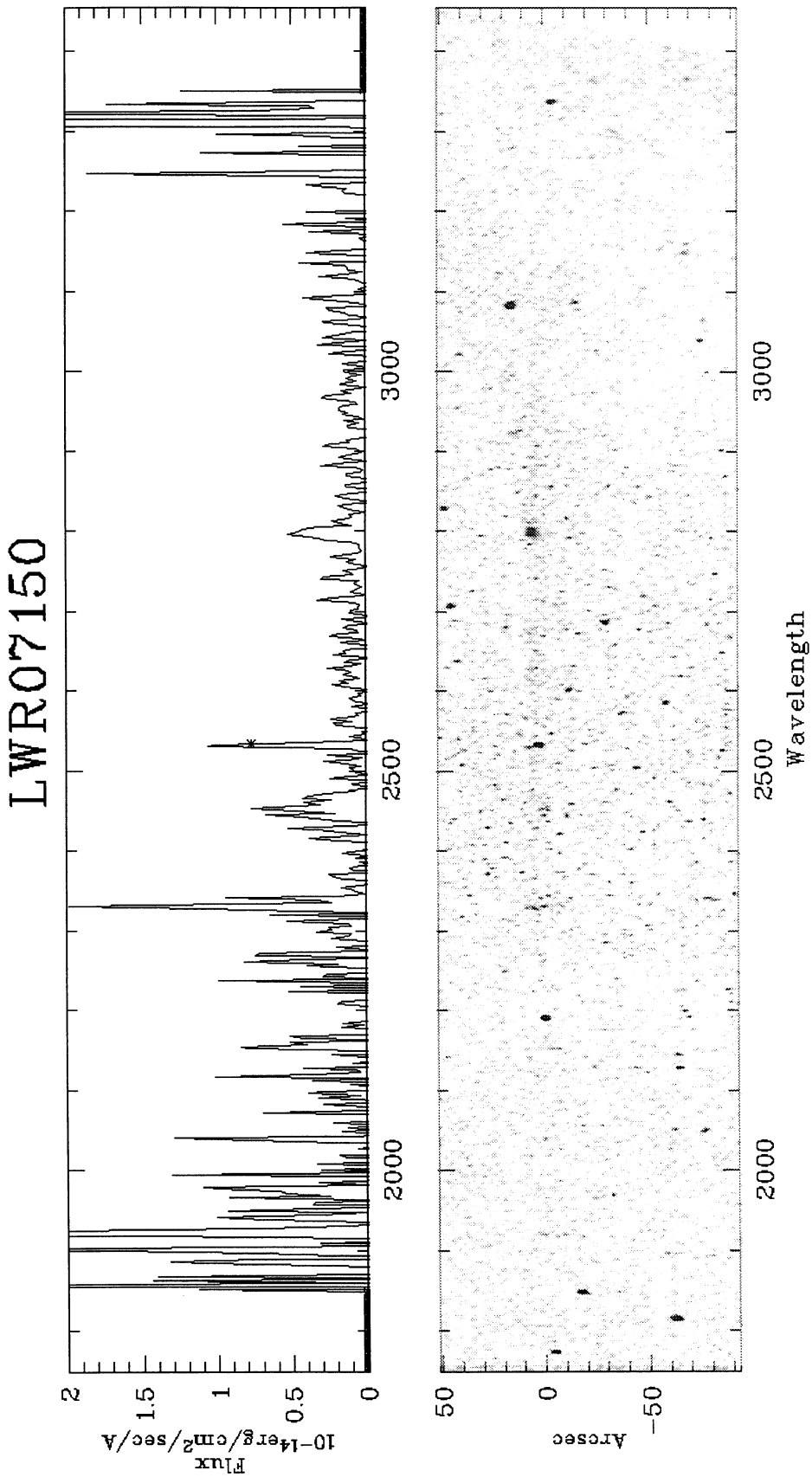
CENTER = HH1A PA = 342°
$\alpha_C = 5^h33^m54^s.85$ $\delta_C = -6°47'01''.2$

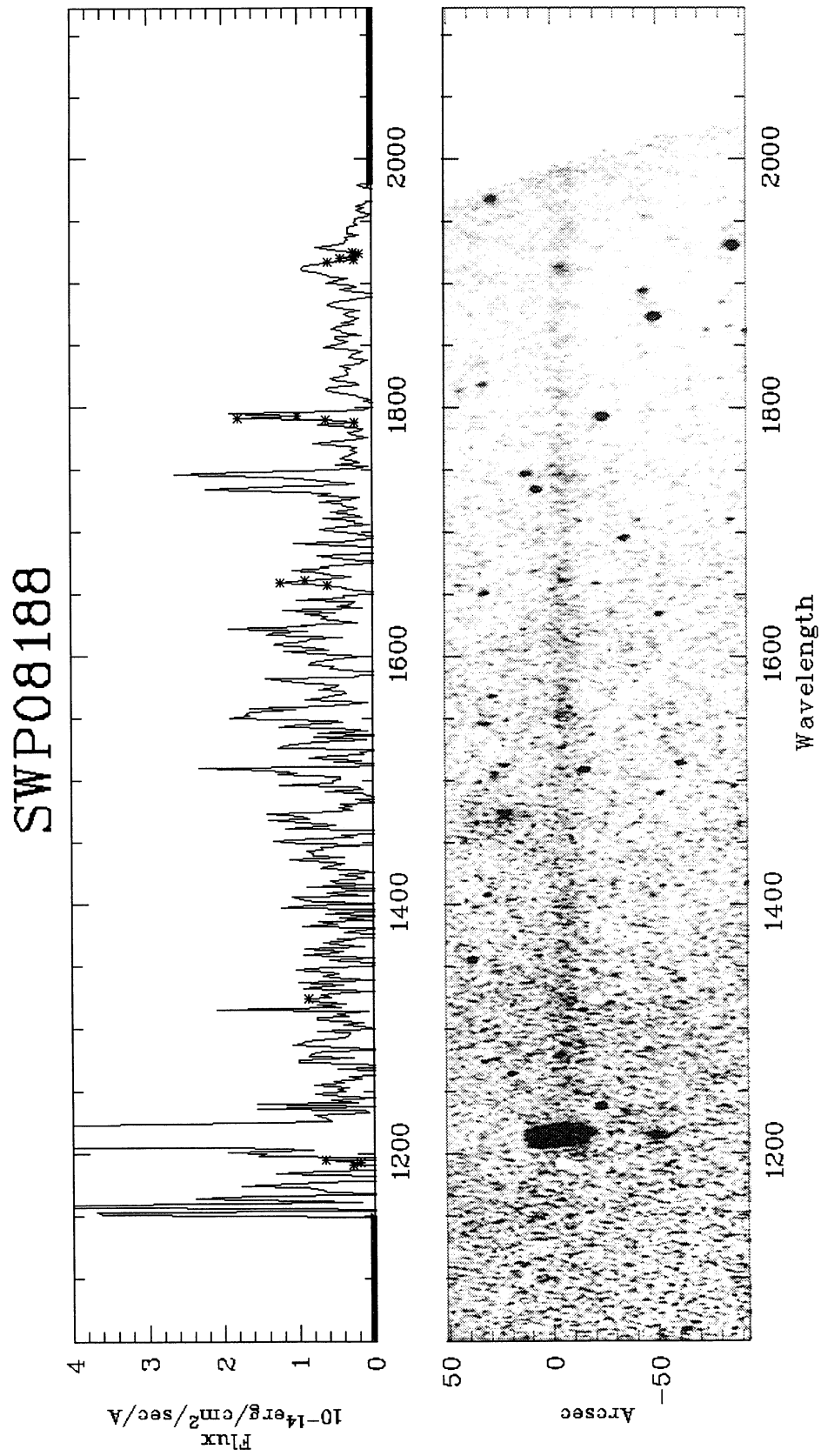


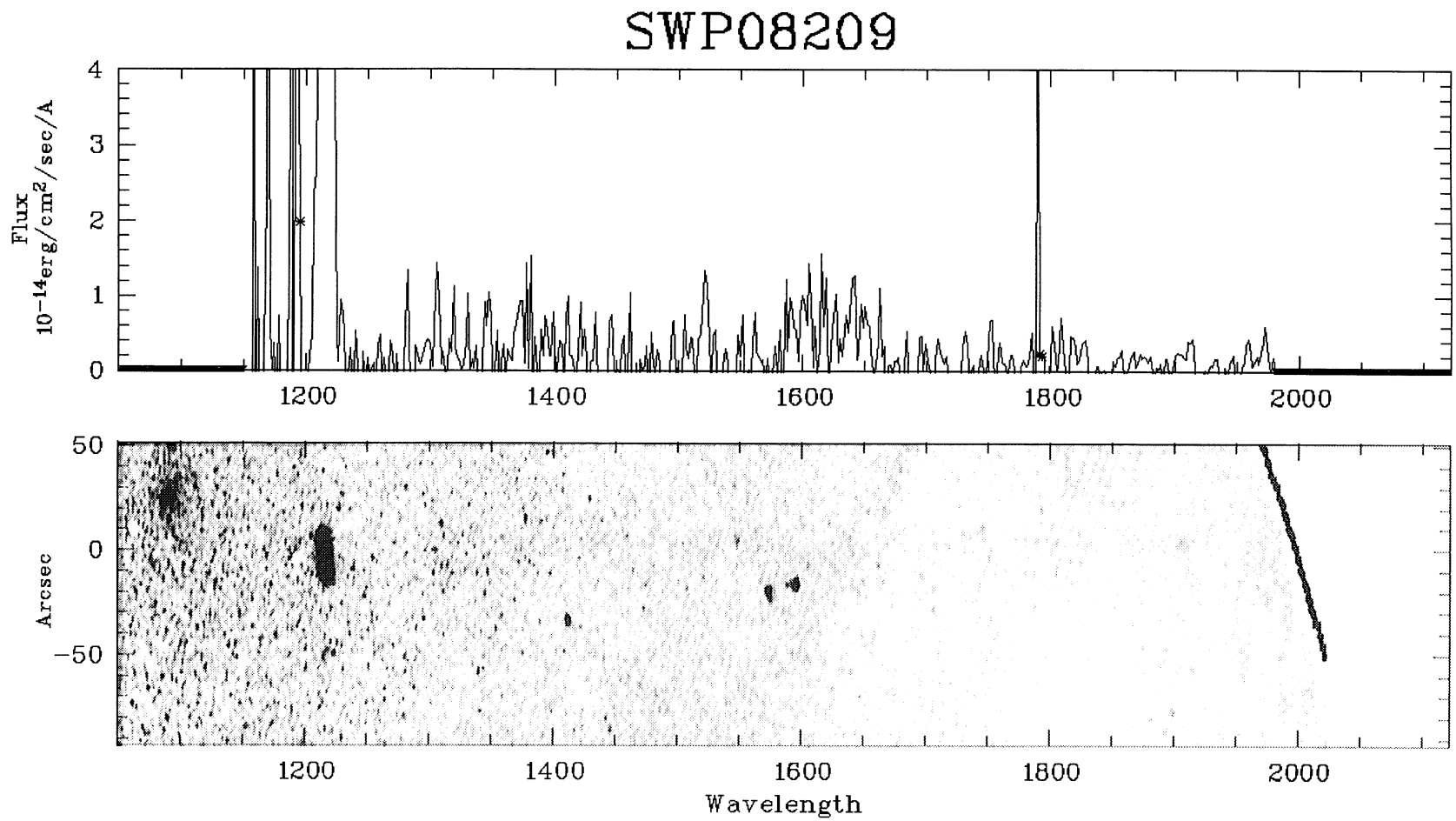
From the [S II] data in Eislöffel *et al.* (1994a)

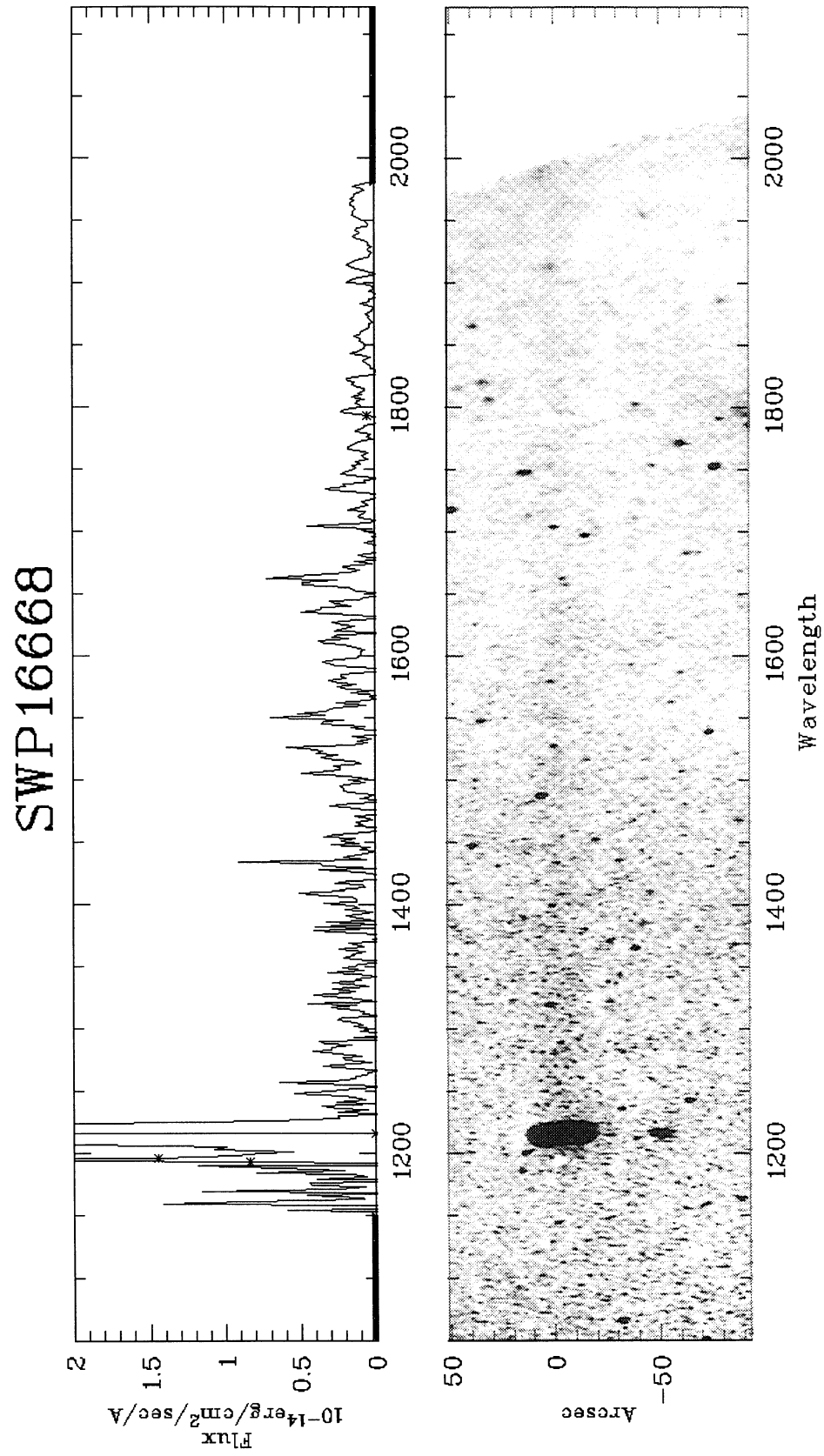
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWR	07150	(2.6 ± 0.5)E-14			
SWP	08188			(5.9 ± 2.8)E-14	(9.5 ± 4.2)E-14
SWP	08209				
SWP	16668				


LWR07150
Flux
10⁻¹⁴erg/cm²/sec/A
2
1.5
1
0.5
0
2000
2500
3000
Arcsec
50
0
−50
Wavelength

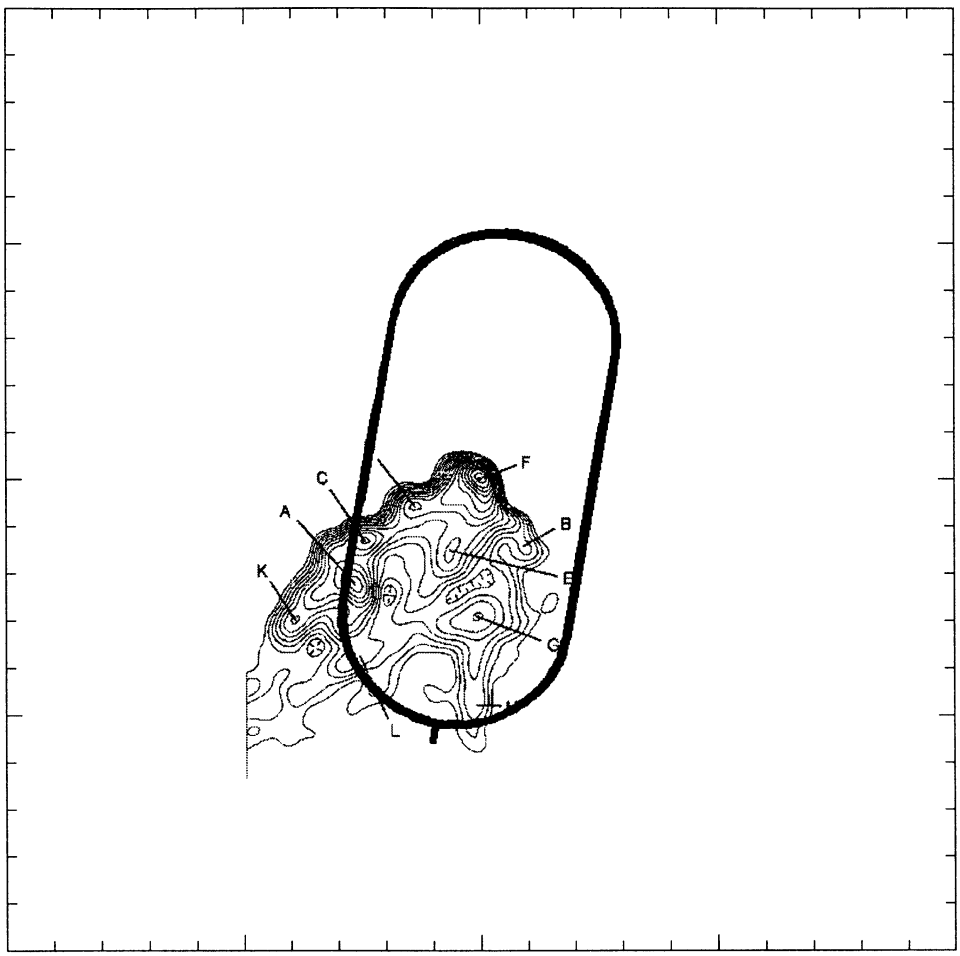

SWP08188
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP08209
Flux
10^-14erg/cm^2/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength


SWP16668
Flux
10⁻¹⁴erg/cm²/sec/A
2
1.5
1
0.5
0
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength

HH 1

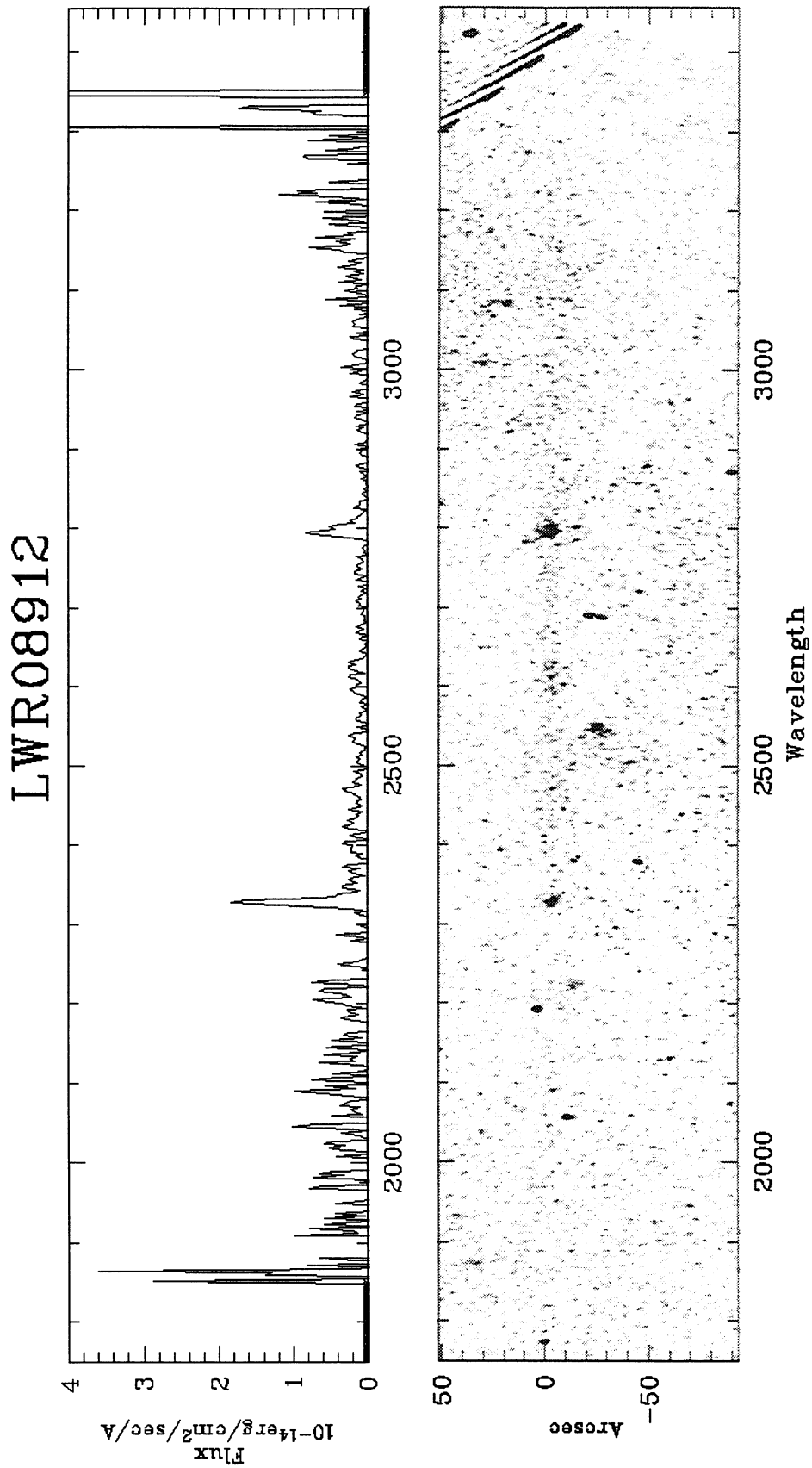
CENTER = HH1F PA = 170°
$\alpha_C = 5^h33^m54\overset{s}{.}54$ $\delta_C = -6°46'57\overset{''}{.}0$

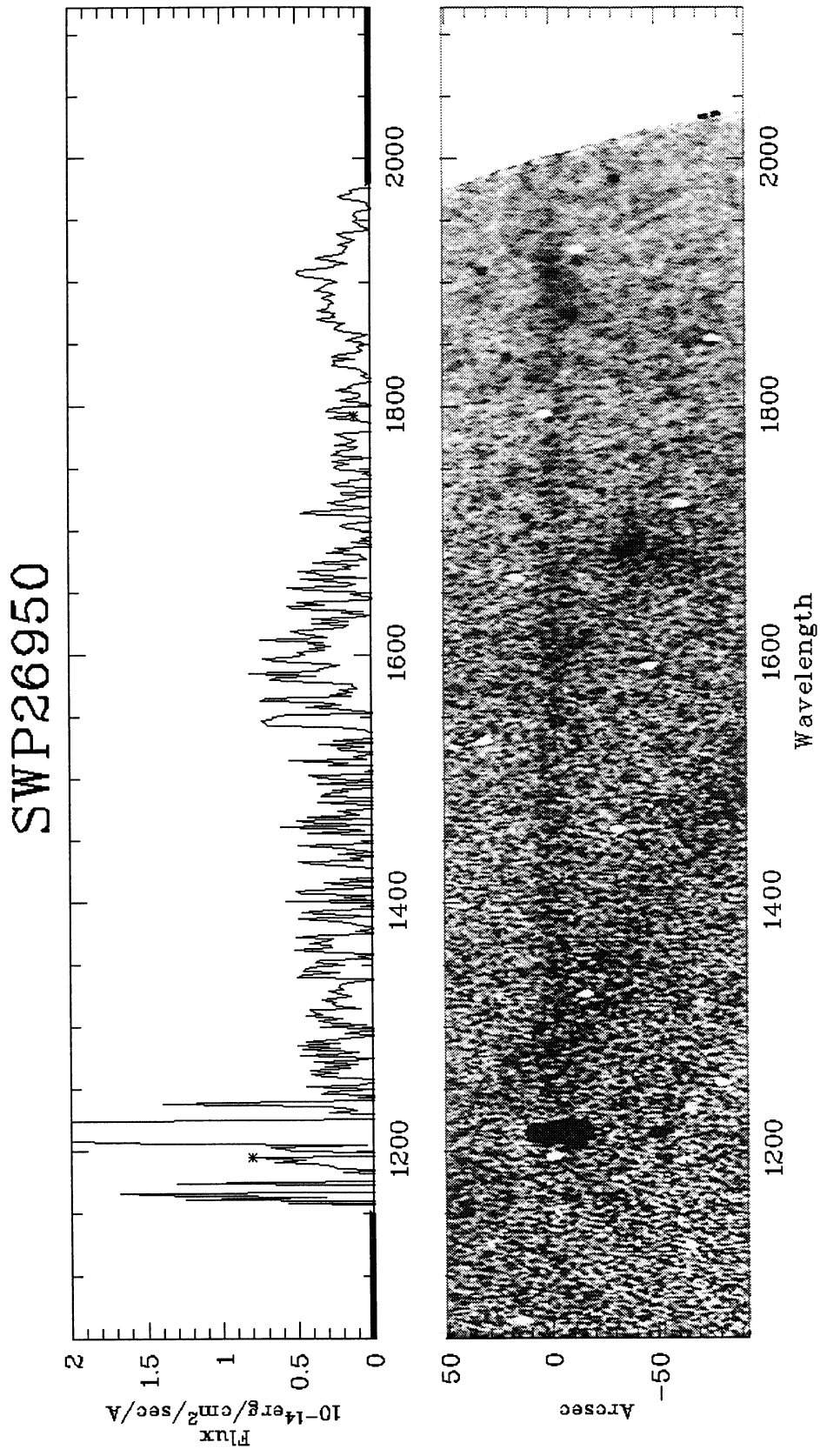


From the [S II] data in Eislöffel *et al.* (1994a)

IUE Data:

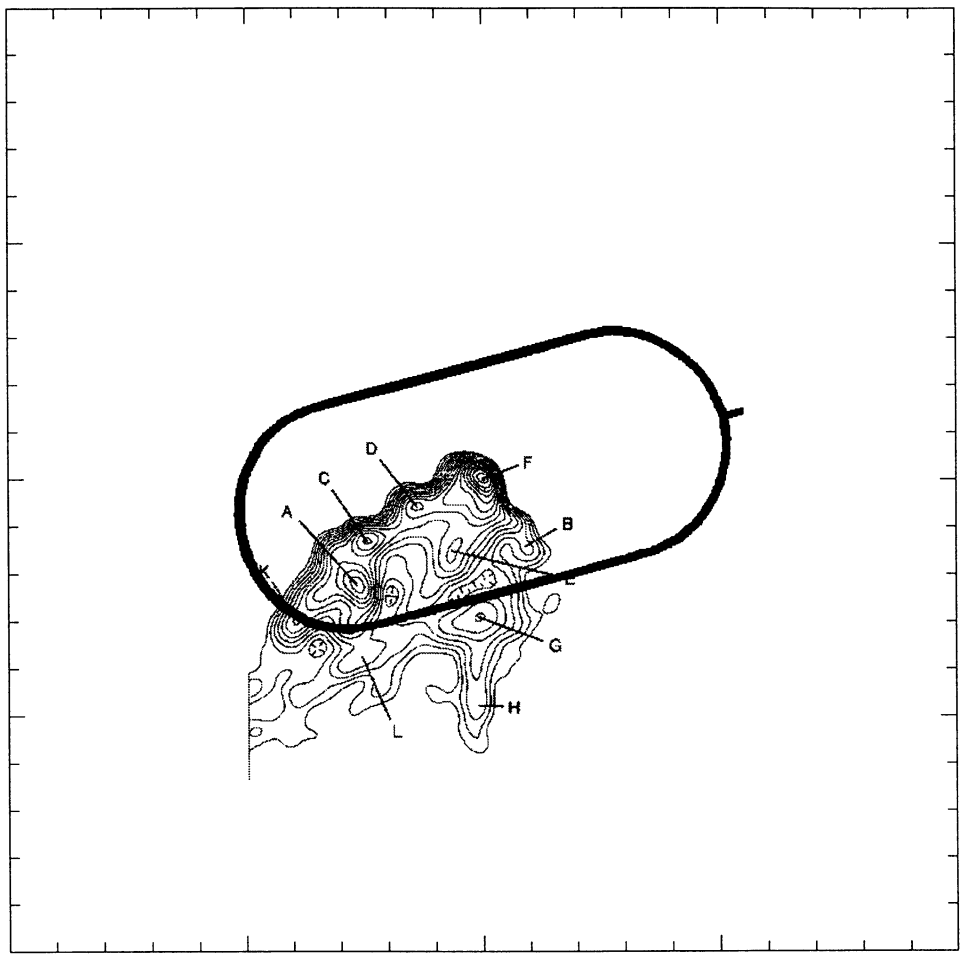
Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWR SWP	08912 26950	(3.6 ± 0.4)E-14	(6.5 ± 0.8)E-14	(2.5 ± 1.2)E-14	


LWR08912
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
2000
2500
3000
Arcsec
50
0
−50
Wavelength


SWP26950
Flux
10⁻¹⁴erg/cm²/sec/A
0
0.5
1
1.5
2
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength

HH 1

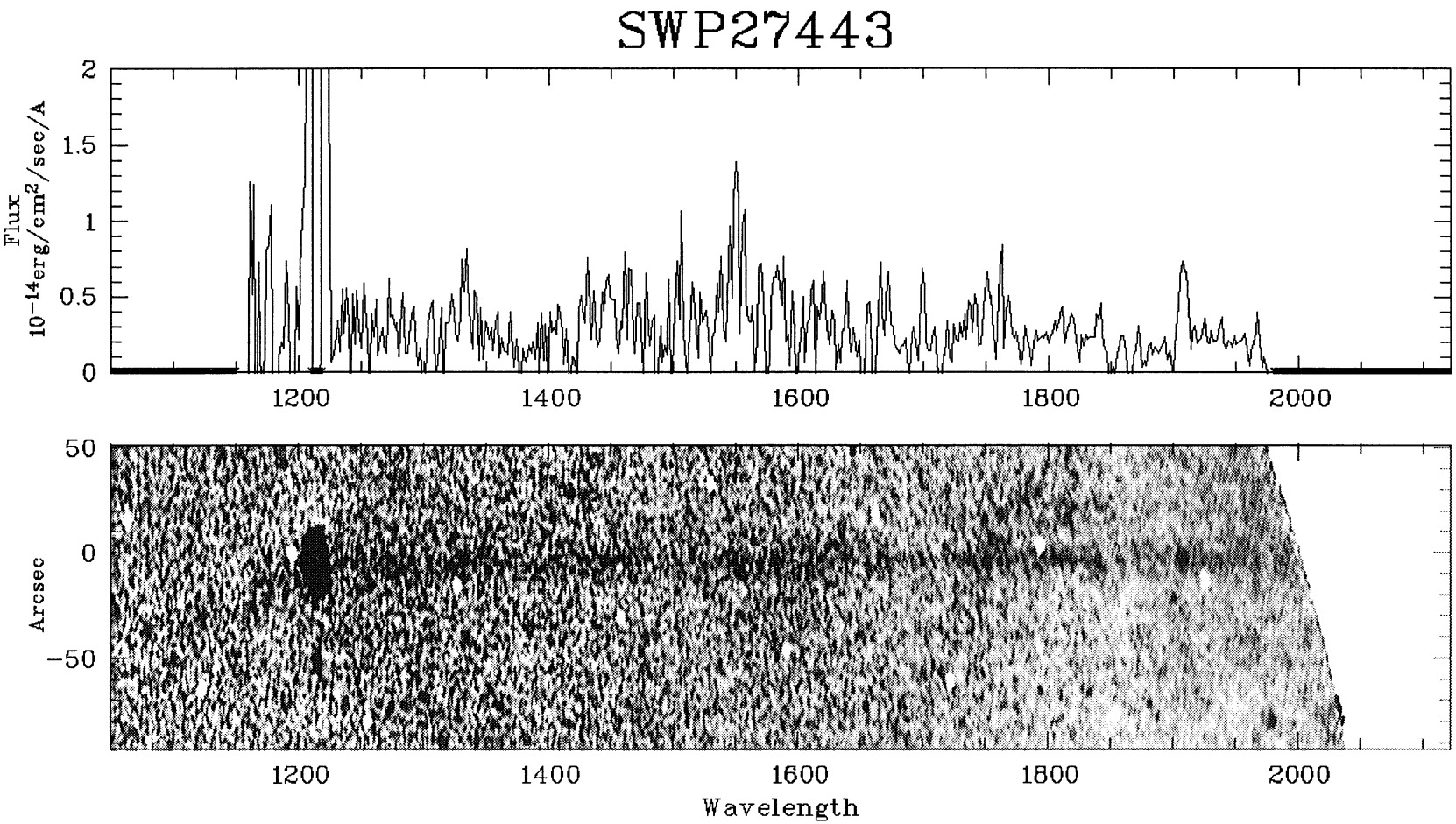
CENTER = HH1F PA = 285°
$\alpha_C = 5^h33^m54^s.54$ $\delta_C = -6°46'57''.0$

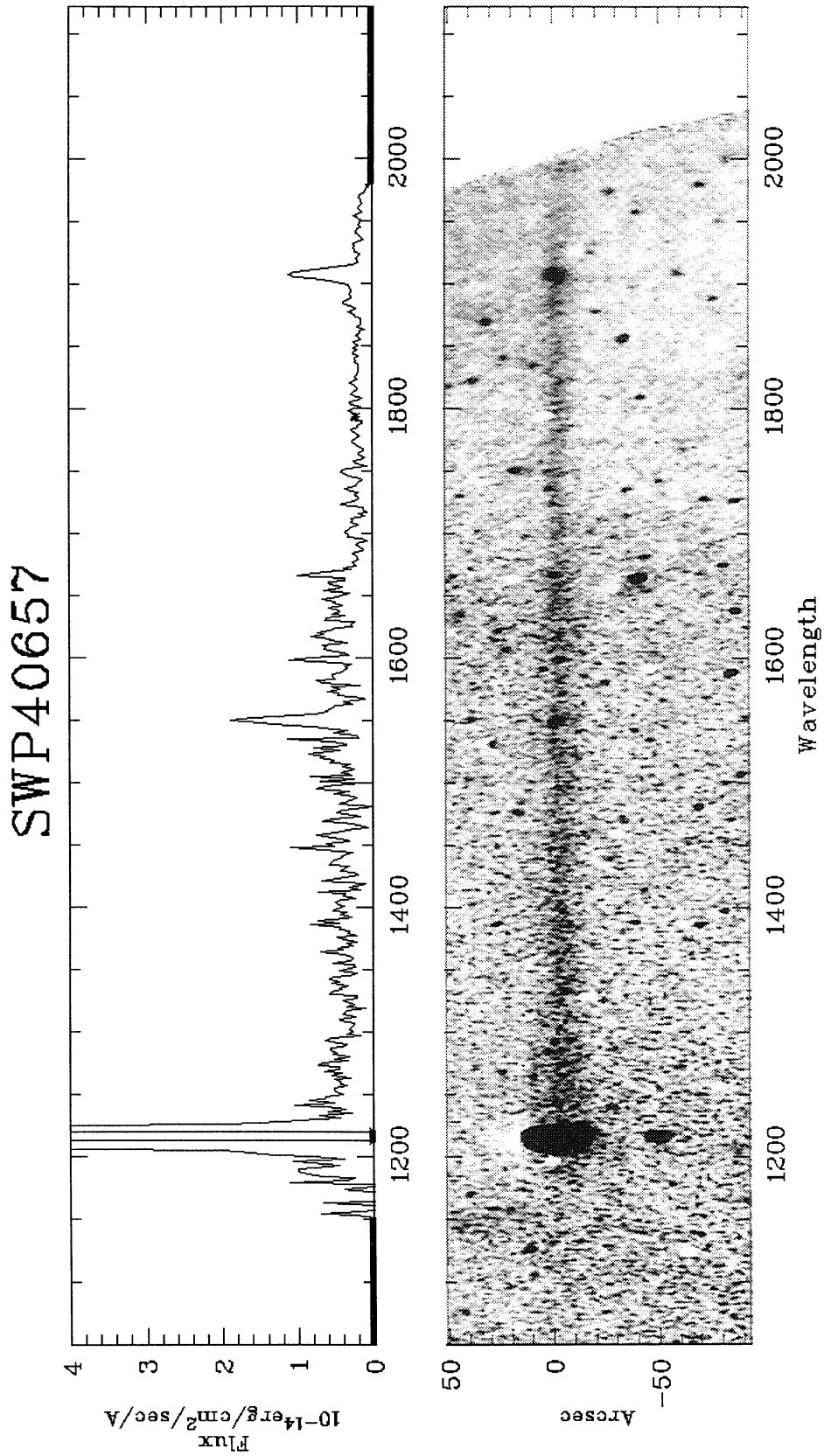


From the [S II] data in Eislöffel *et al.* (1994a)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP SWP	27443 40657			(6.9 ± 1.8)E-14	(1.1 ± 0.5)E-13


SWP27443
Flux
10^-14erg/cm^2/sec/A
2
1.5
1
0.5
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength


SWP40657
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength

HH 2

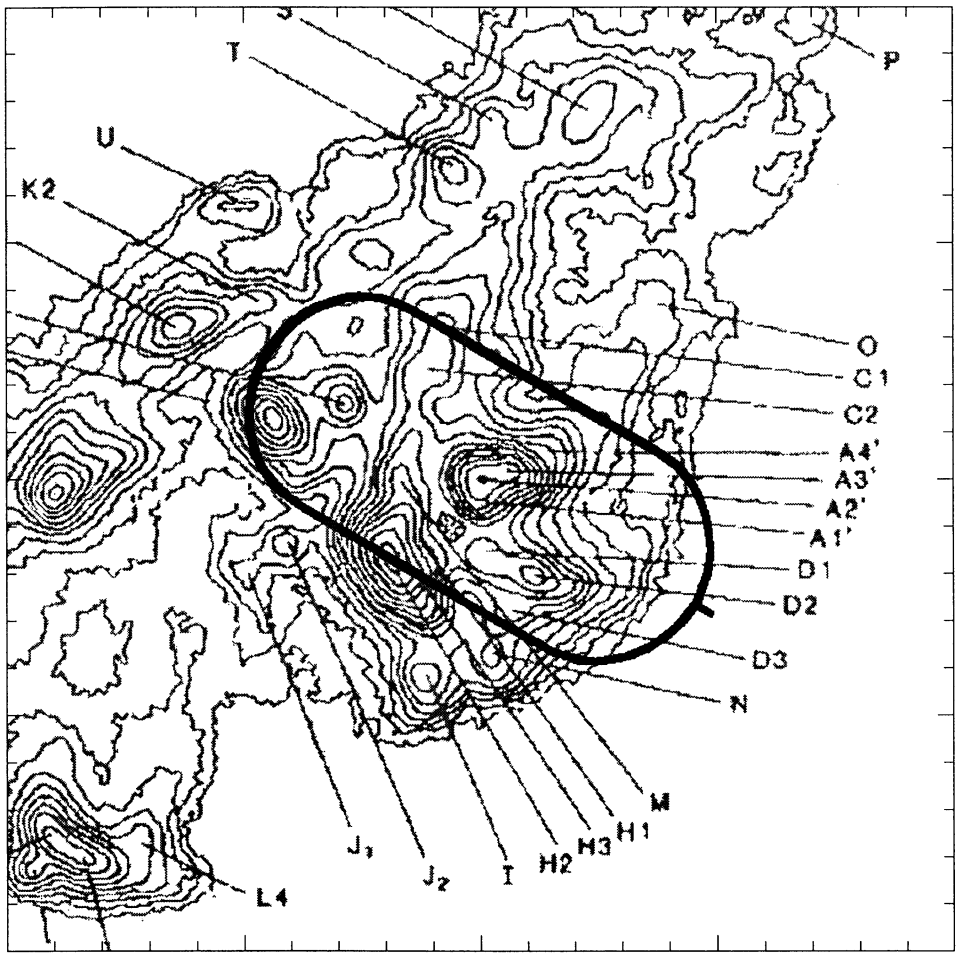
Alternative names :	Haro 12a	
Type :	HEO	[2]
Coordinates :		
α_{1950} =	$5^h\ 33^m\ 59\overset{s}{.}7$	
δ_{1950} =	$-6°\ 49'\ 04''$	
Proper motion (Knot H1) :		[15]
$\mu_\alpha \cos\delta$ =	$5\overset{''}{.}4 \pm 1\overset{''}{.}5\ \mathrm{cen}^{-1}$	
μ_δ =	$-10\overset{''}{.}5 \pm 2\overset{''}{.}8\ \mathrm{cen}^{-1}$	
Radial velocity :	-16 km s^{-1}	[39]
Suspected source :	HH 1/2 VLA1	
Region :	L1641	
Distance :	470 pc	
Characteristic size :	$40'' \times 40''$	
Asociated with molecular outflow :	No	[12]
P.A. of jet :	$\sim 329°$	

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWR	08888	L	L	25-09-80	180.0	E=138,C=105,B=53	164.62
2	LWR	08909	L	L	29-09-80	150.0	E=115,C=100,B=45	166.64
3	LWR	10450	L	L	26-04-81	380.0	E=220,C=150,B=90	5.19
4	LWR	10475	L	L	29-04-81	215.0	C=118,B=108	7.88
5	SWP	10218	L	L	25-09-80	270.0	E=100,C=80,B=60	164.62
6	SWP	10246	L	L	29-09-80	290.0	E=100,C=78,B=52	166.64
7	SWP	16671	L	L	31-03-82	430.0	E=112,C=105,B=68	348.96
8	SWP	18157	L	L	30-09-82	430.0	E=164,C=110,B=85	166.90
9	SWP	18157	L	S	30-09-82	430.0		166.90
10	SWP	19685	L	L	09-04-83	330.0	E=127,C=95,B=70	353.78
11	SWP	24919	L	L	17-01-85	860.0	E=221,C=210,B=138	303.55
12	SWP	29835	L	L	08-12-86	400.0	E=133,C=111,B=81	236.83
13	SWP	29845	L	L	10-12-86	390.0	E=116,C=111,B=80	240.78
14	SWP	40663	L	L	23-01-91	675.0	E=215,C=120,B=90	309.14
15	SWP	43891	L	L	29-01-92	636.0	C=130,B=90	313.99

HH 2

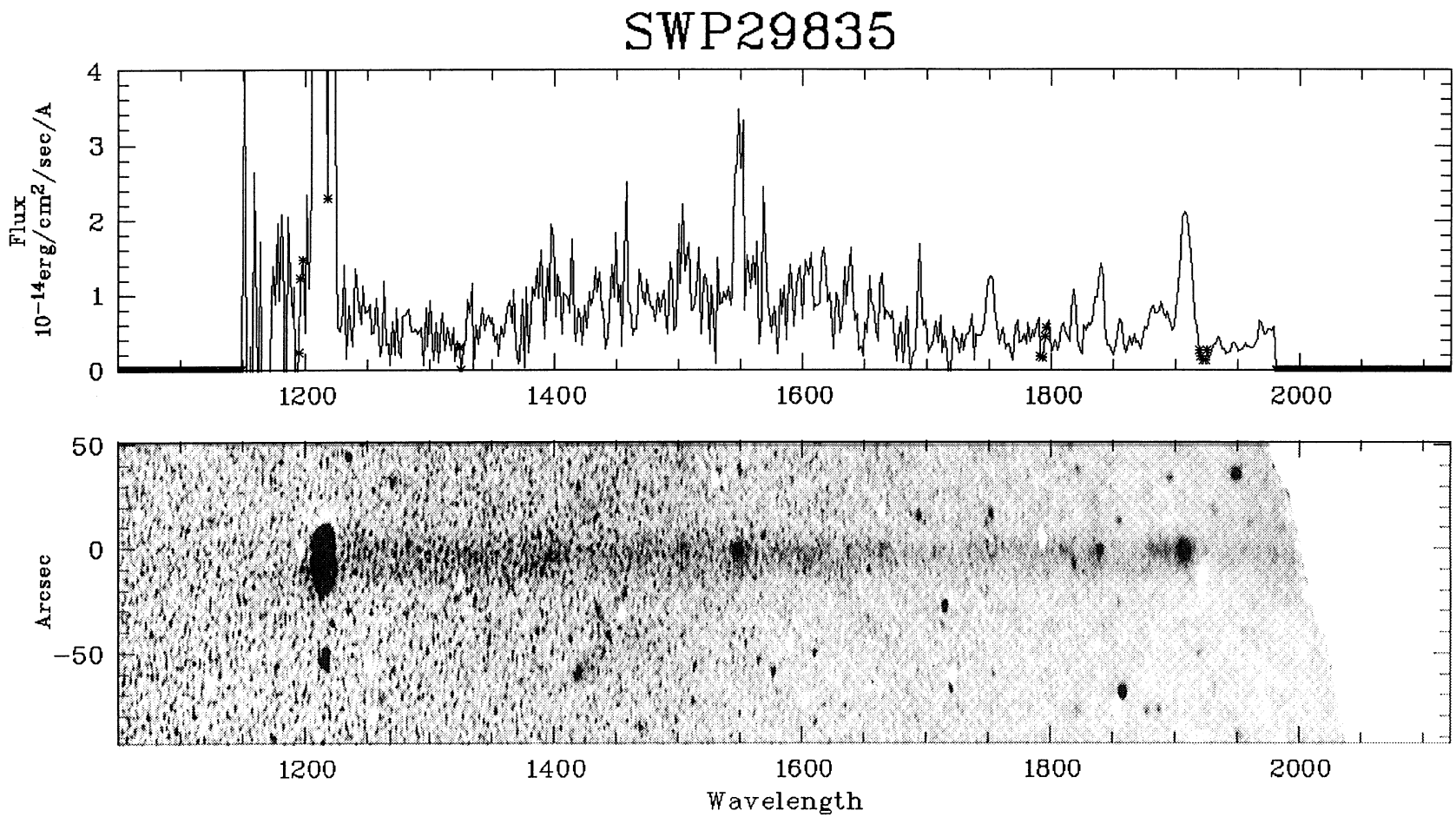
CENTER = HH2A PA = 240°
$\alpha_C = 5^h33^m59^s.44$ $\delta_C = -6°48'59''.2$

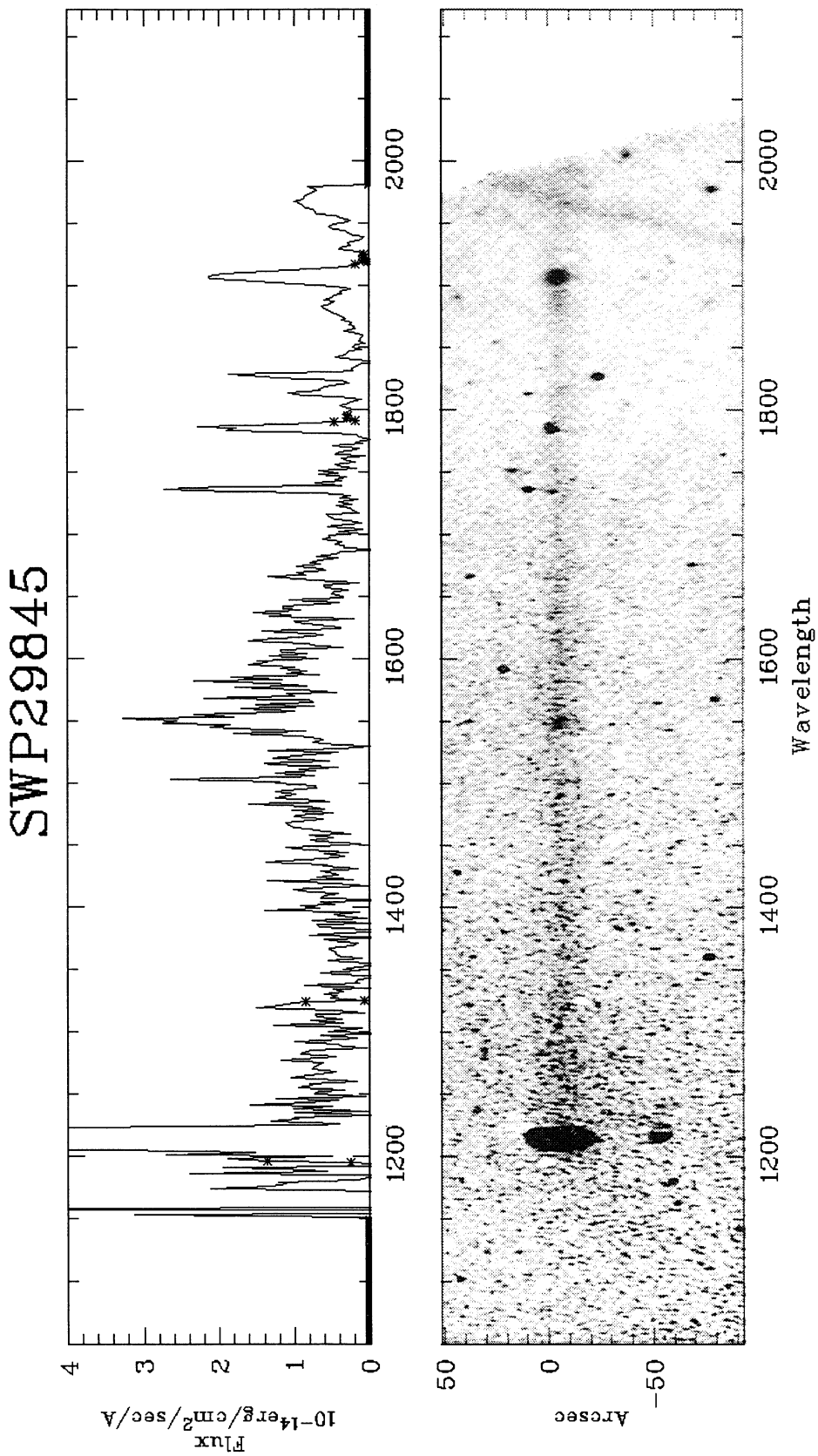


From the [S II] data in Eislöffel *et al.* (1994a)

IUE Data:

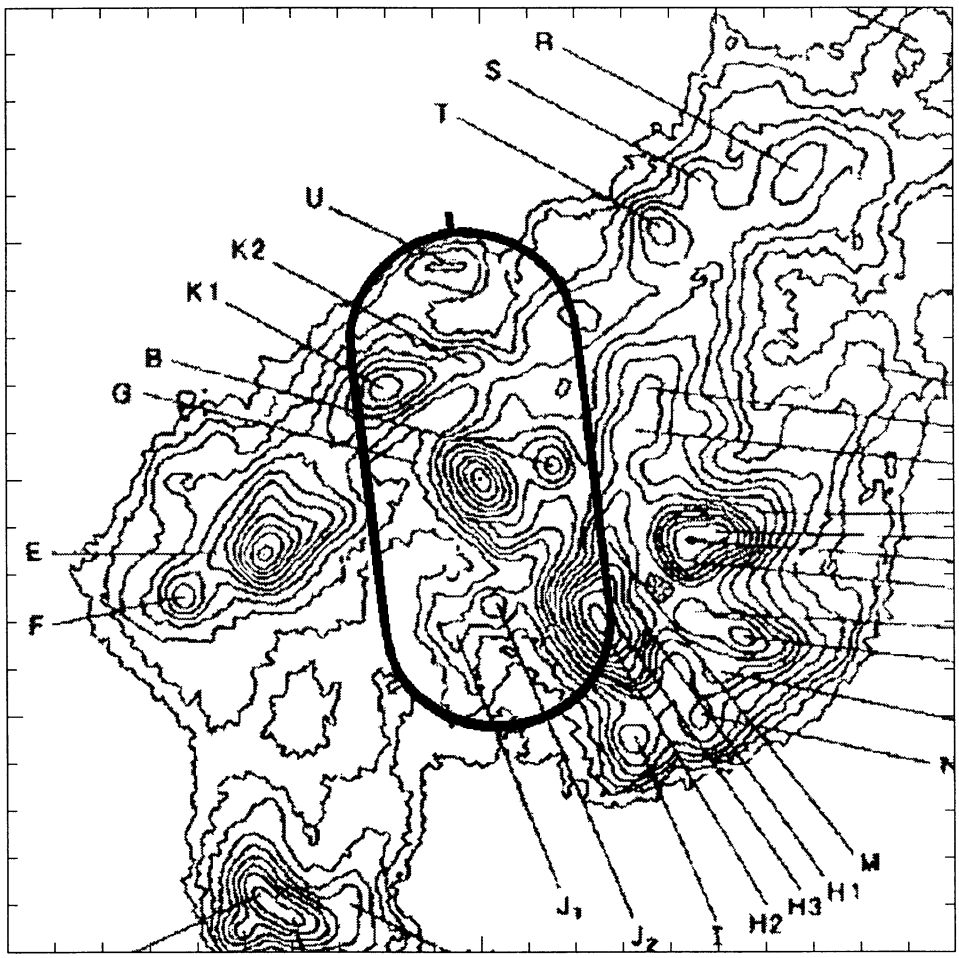
Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	29835			(1.5 ± 0.3)E-13	(1.7 ± 0.8)E-13
SWP	29845			(1.3 ± 0.2)E-13	(1.7 ± 0.7)E-13


SWP29835
Flux
10^-14 erg/cm^2/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
1200
1400
1600
1800
2000
Wavelength


SWP29845
Flux
10-14erg/cm2/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
-50
Wavelength

HH 2

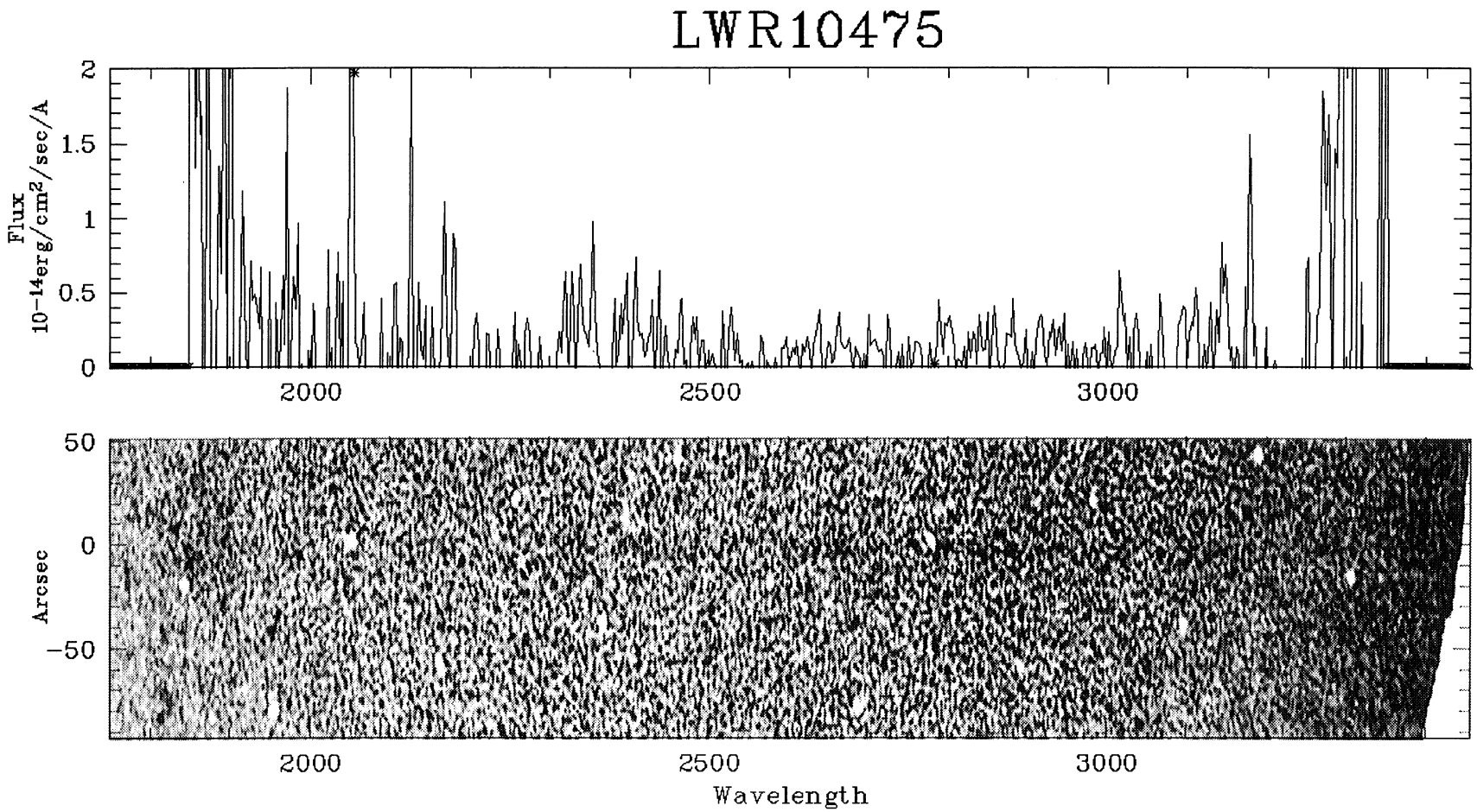
CENTER = HH2G PA = 7°
$\alpha_C = 5^h34^m00^s.11$ $\delta_C = -6°48'57''.1$



From the [S II] data in Eislöffel *et al.* (1994a)

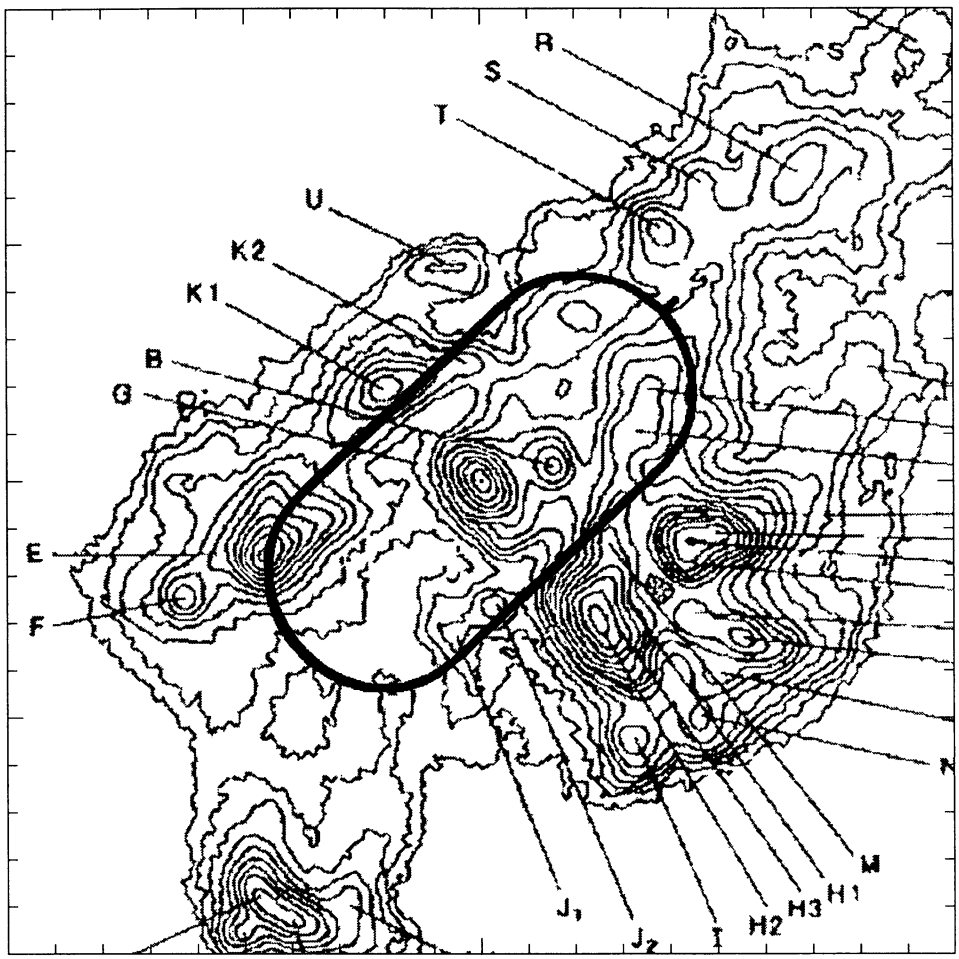
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWR	10475				


LWR10475
Flux
10⁻¹⁴erg/cm²/sec/A
2
1.5
1
0.5
0
2000
2500
3000
50
0
−50
Arcsec
2000
2500
3000
Wavelength

HH 2

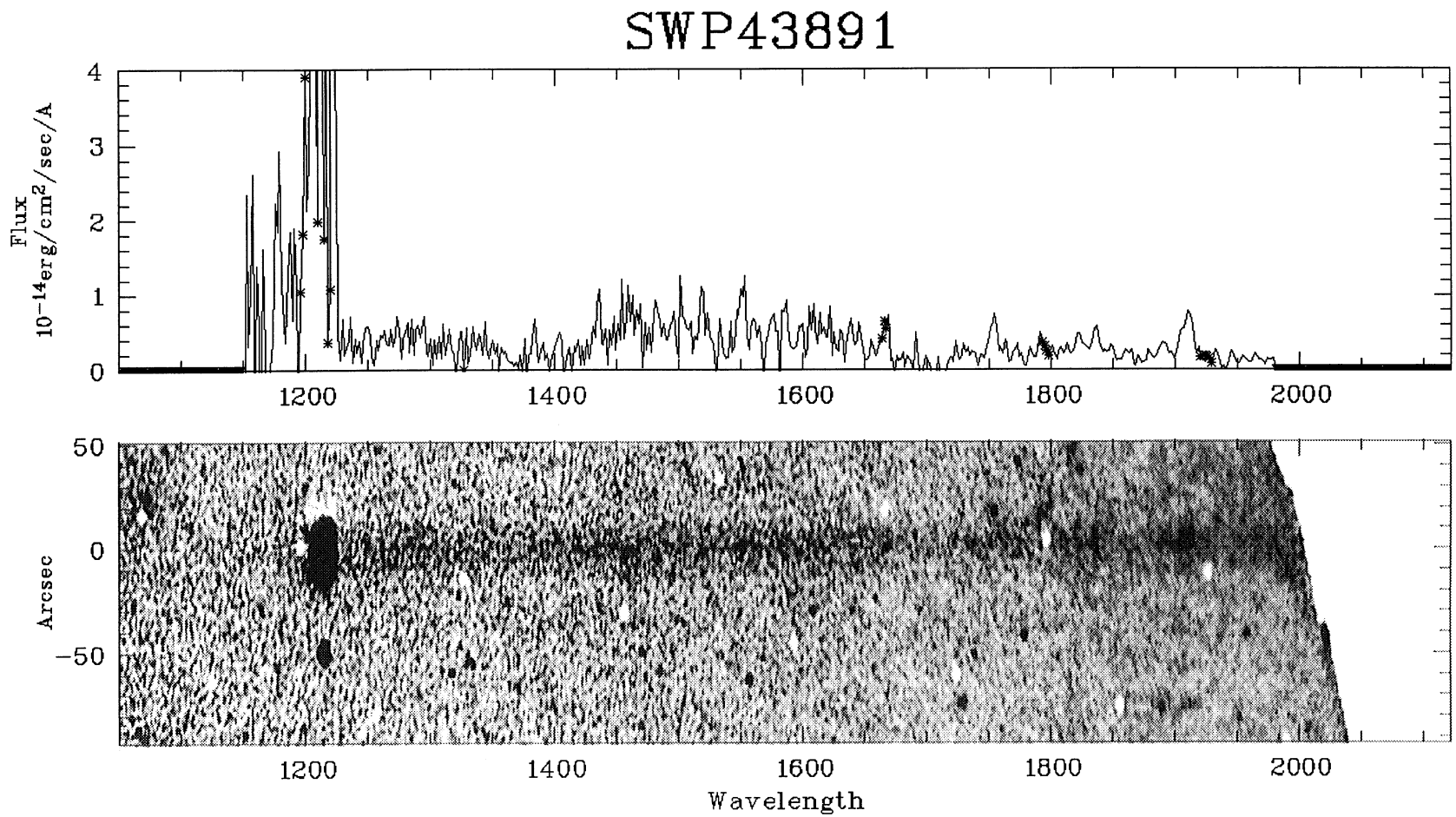
CENTER = HH2G PA = 313°
$\alpha_C = 5^h34^m00^s.11$ $\delta_C = -6°48'57''.1$



From the [S II] data in Eislöffel *et al.* (1994a)

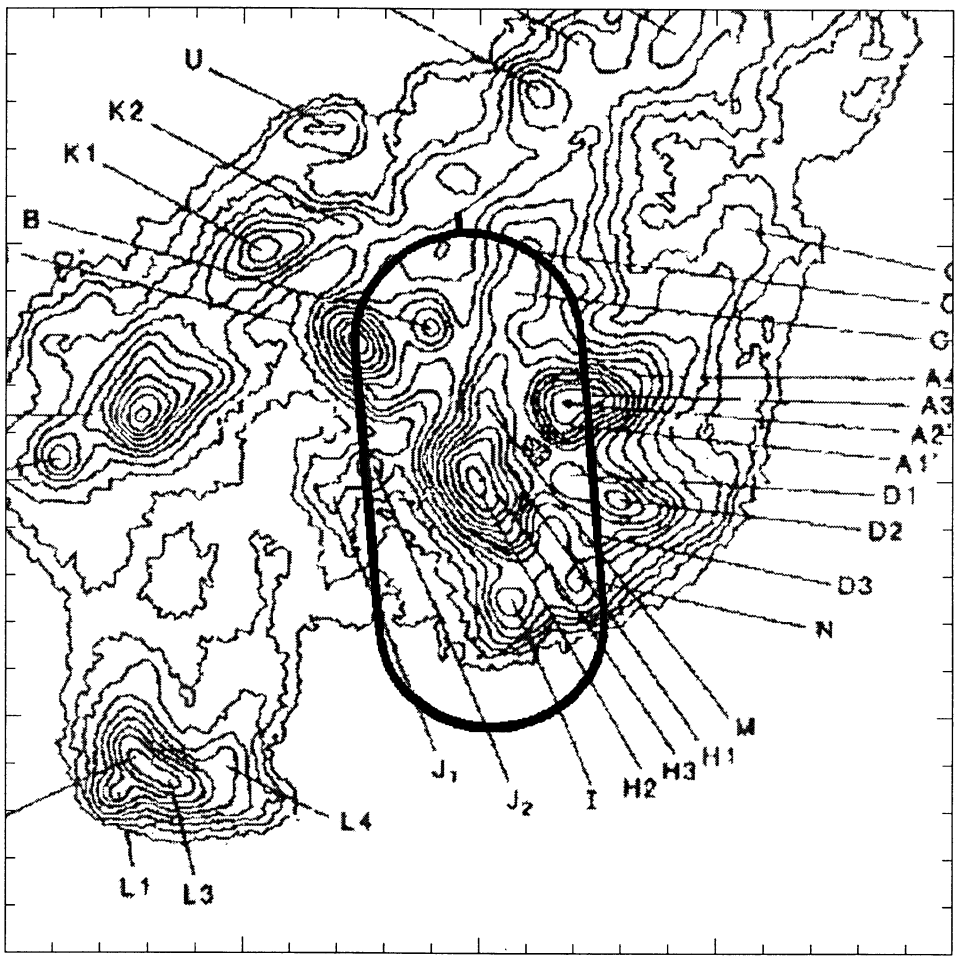
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	43891			(4.8 ± 1.3)E-14	


SWP43891
Flux
10^-14 erg/cm^2/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength

HH 2

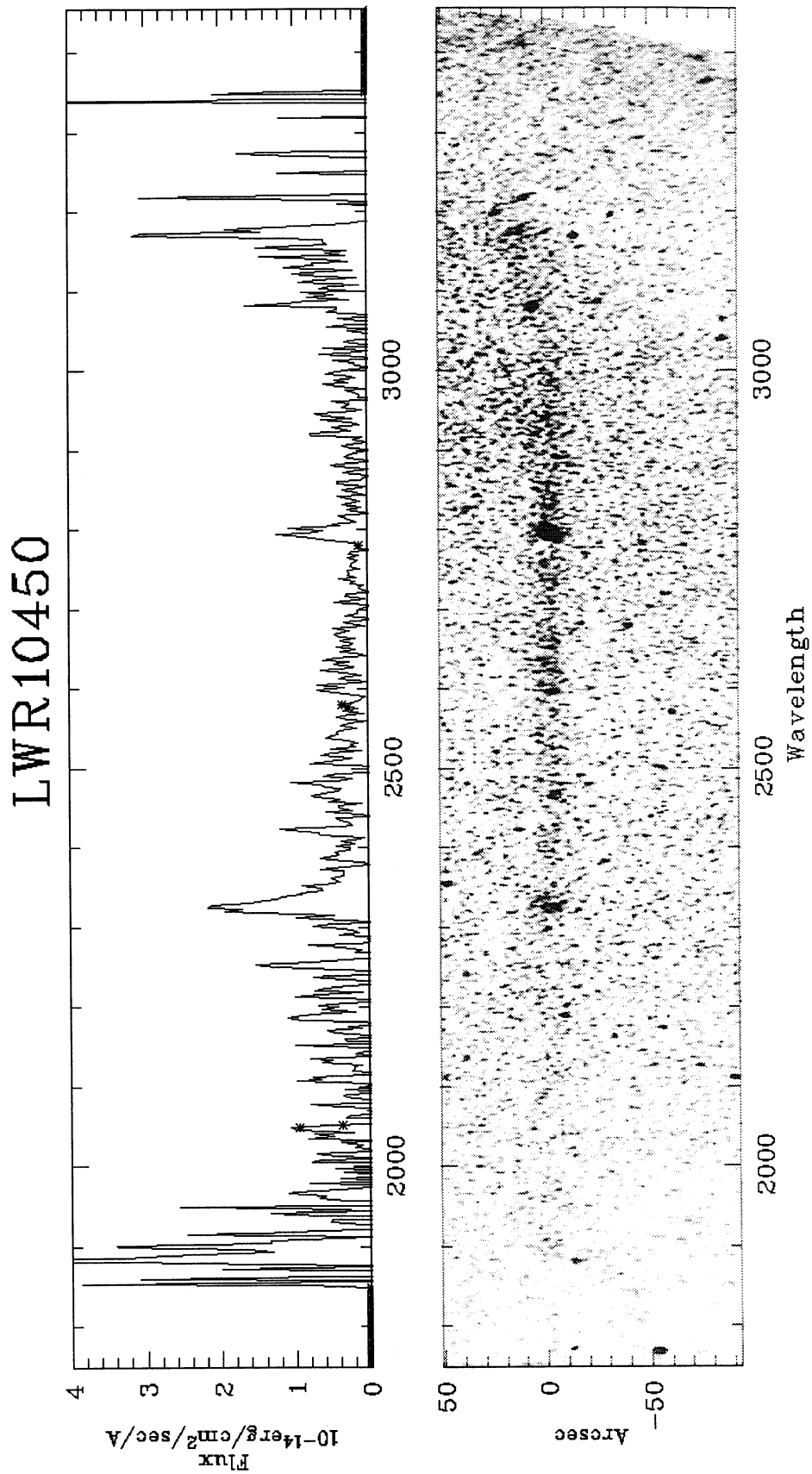
CENTER = HH2H PA = 5°
$\alpha_C = 5^h33^m59^s.69$ $\delta_C = -6°49'03''.8$



From the [S II] data in Eislöffel *et al.* (1994a)

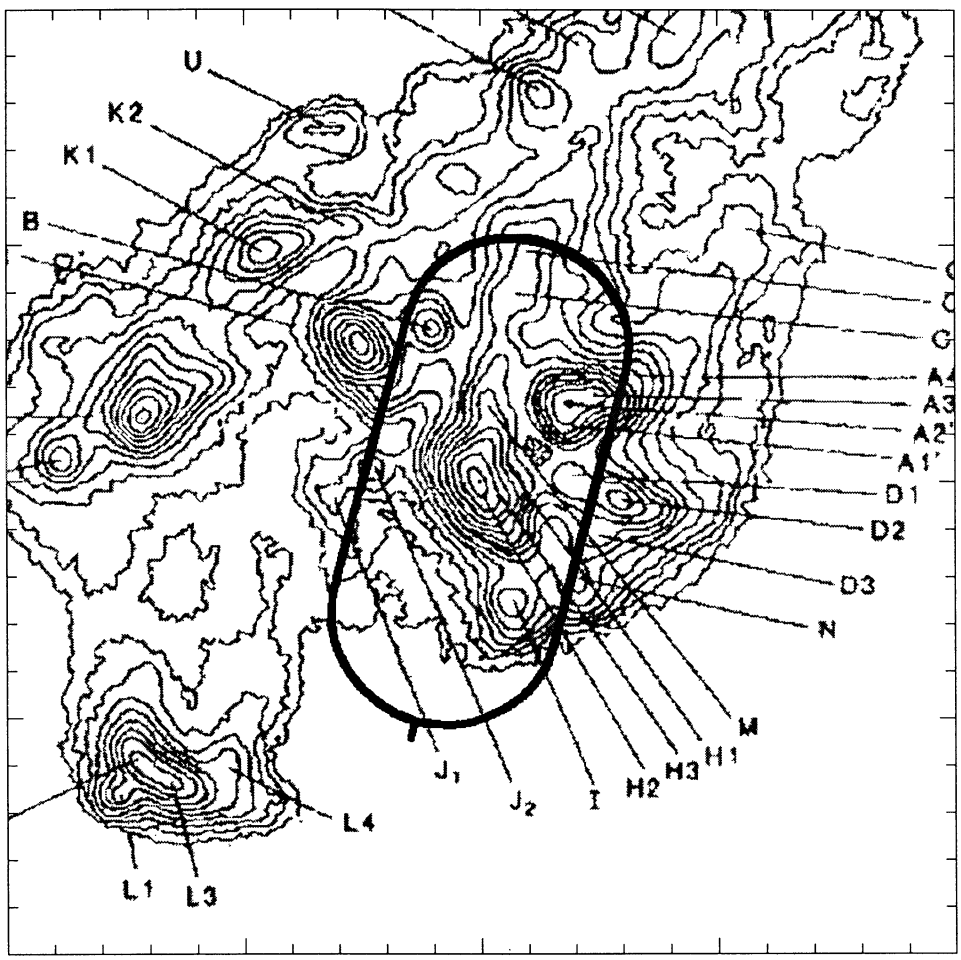
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWR	10450	(6.6 ± 1.9)E-14	(2.1 ± 0.7)E-13		


LWR10450
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
2000
2500
3000
Arcsec
50
0
−50
Wavelength

HH 2

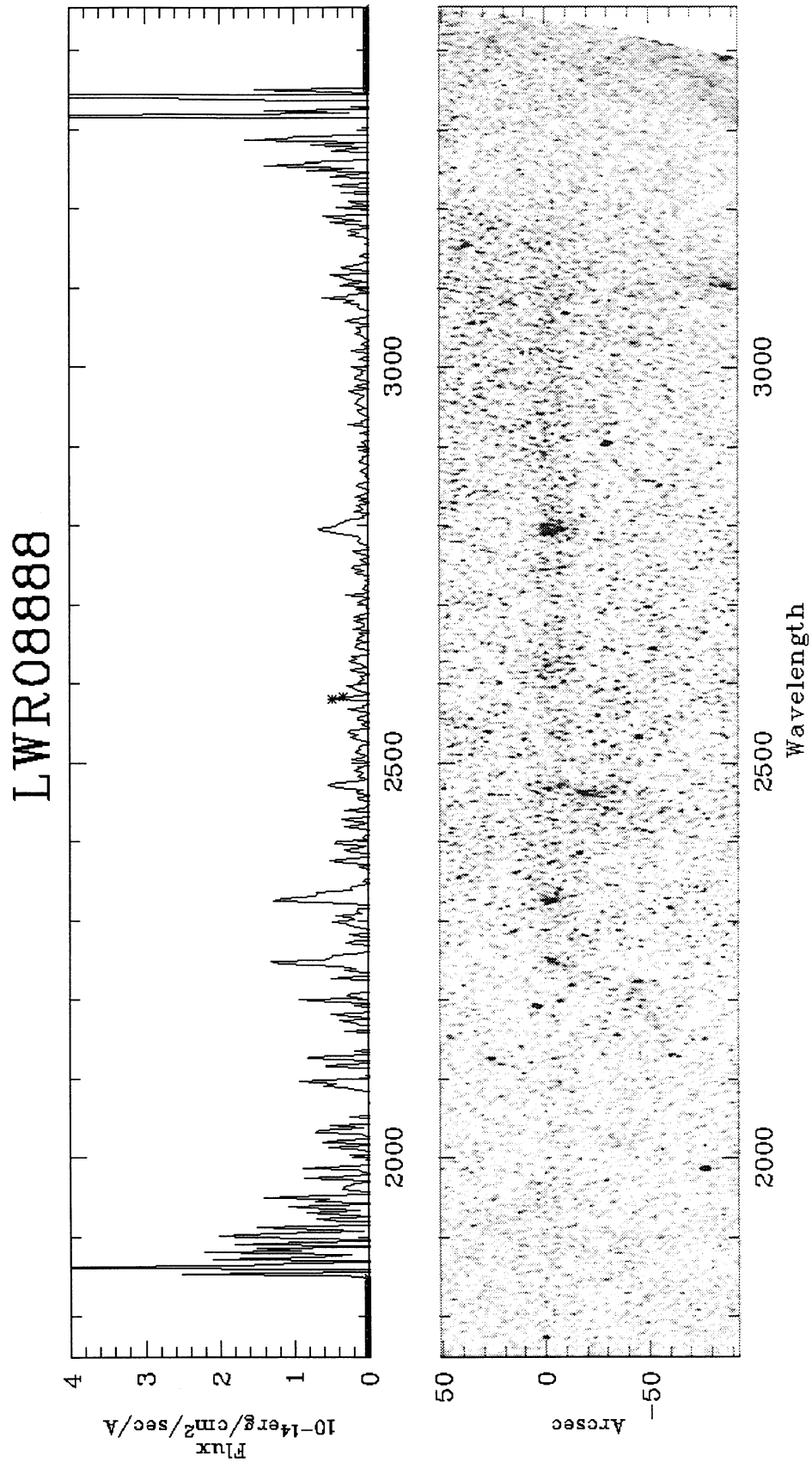
CENTER = HH2H PA = 165°
$\alpha_C = 5^h33^m59^s.69$ $\delta_C = -6°49'03''.8$

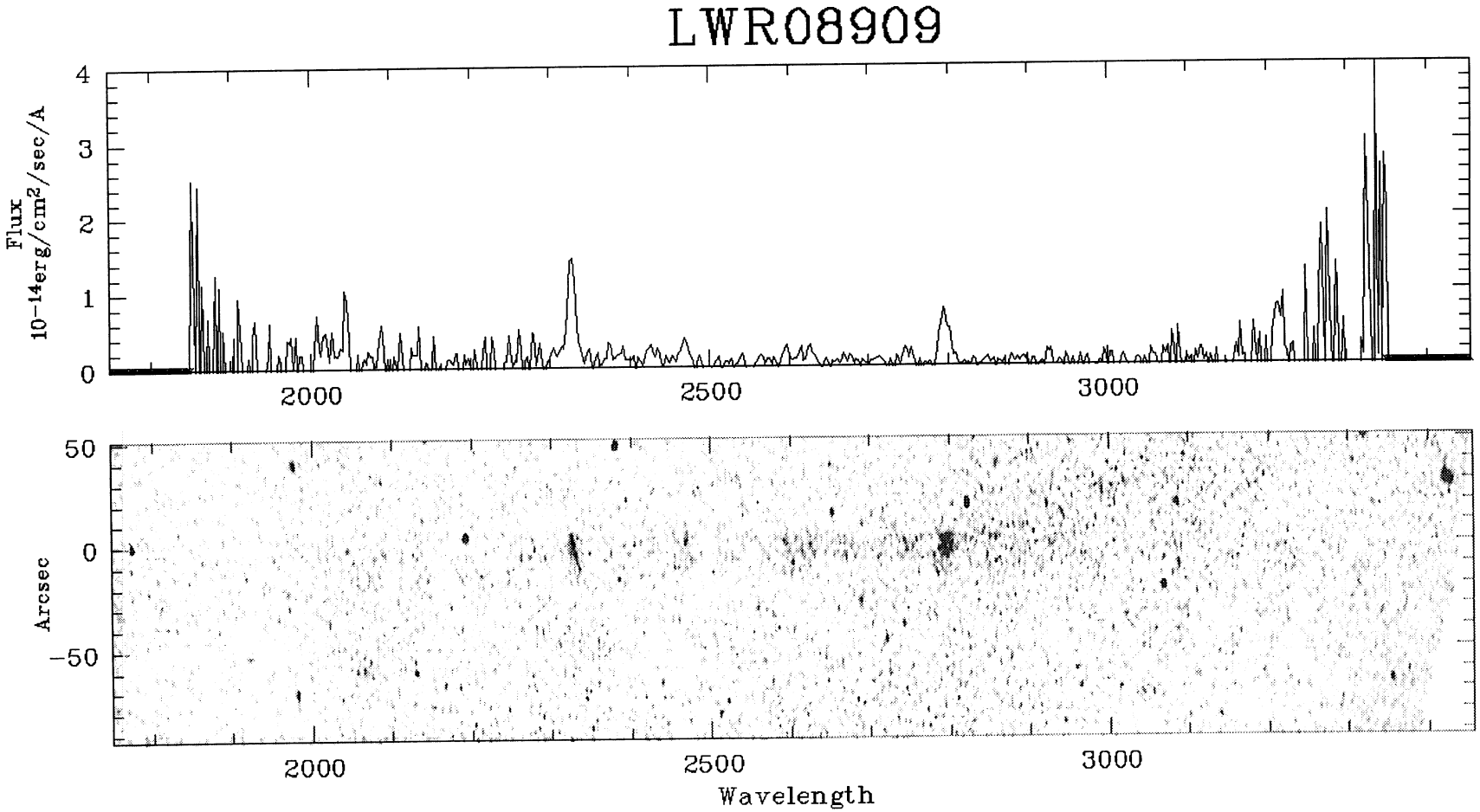


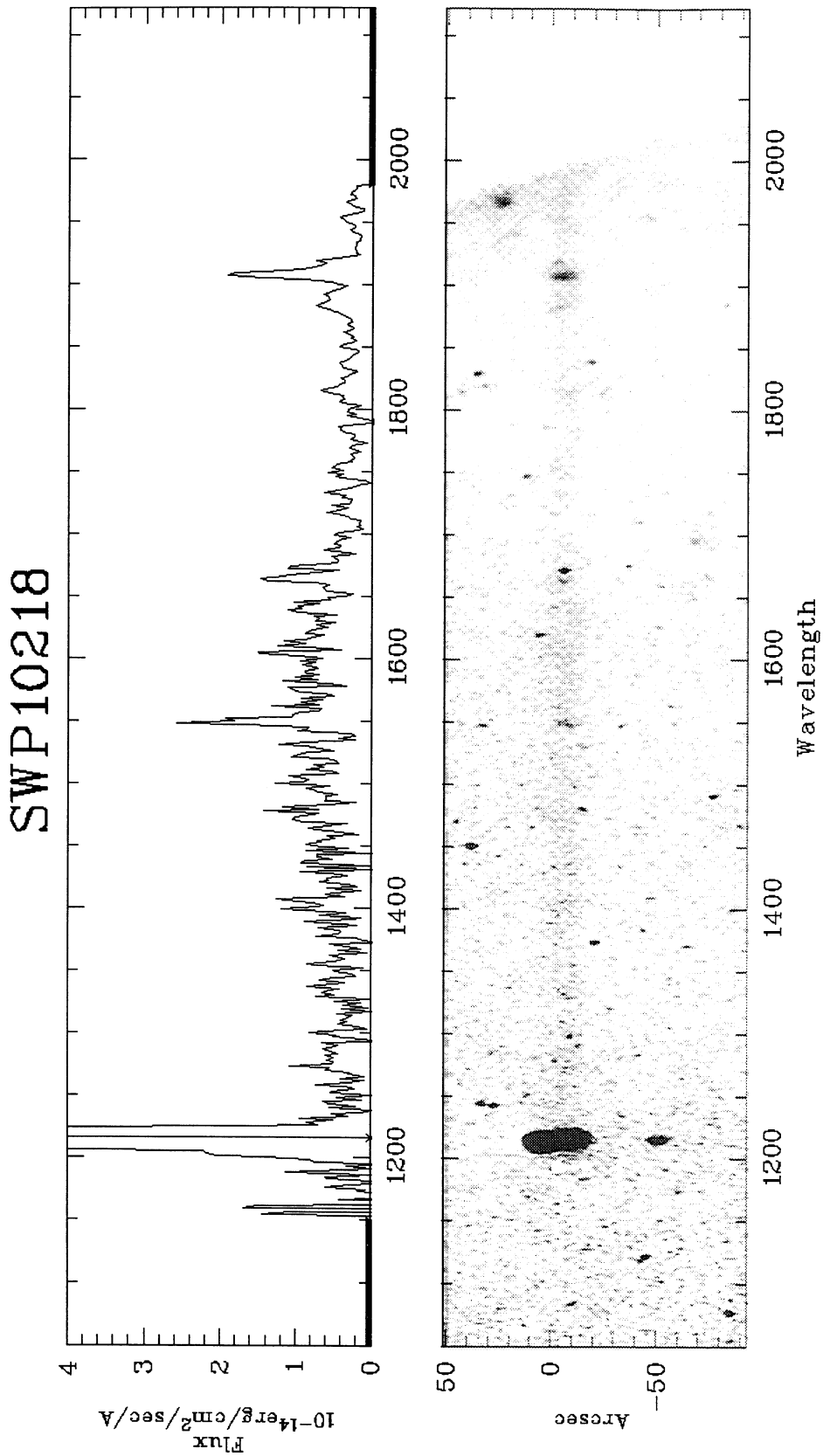
From the [S II] data in Eislöffel *et al.* (1994a)

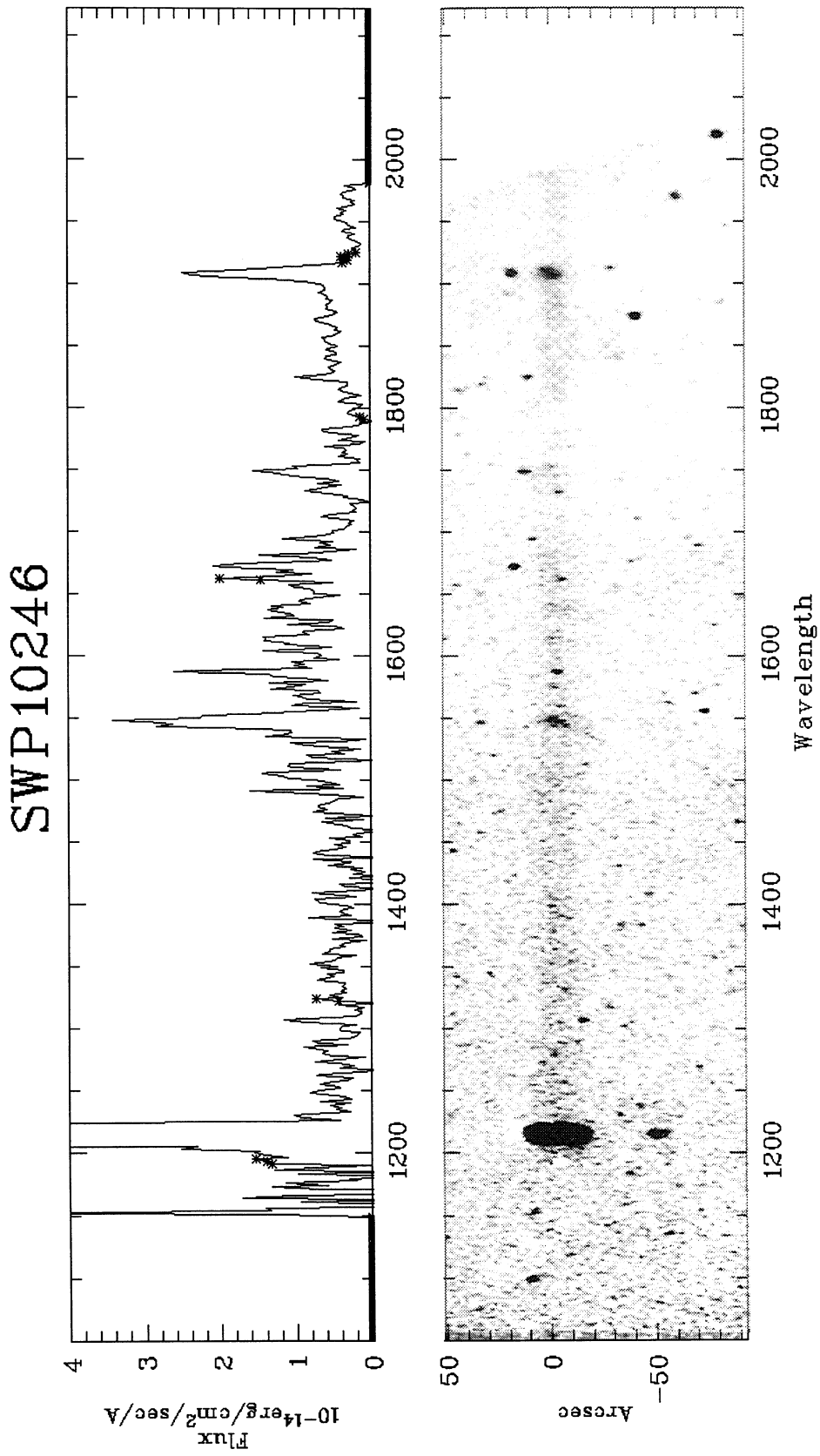
IUE Data:

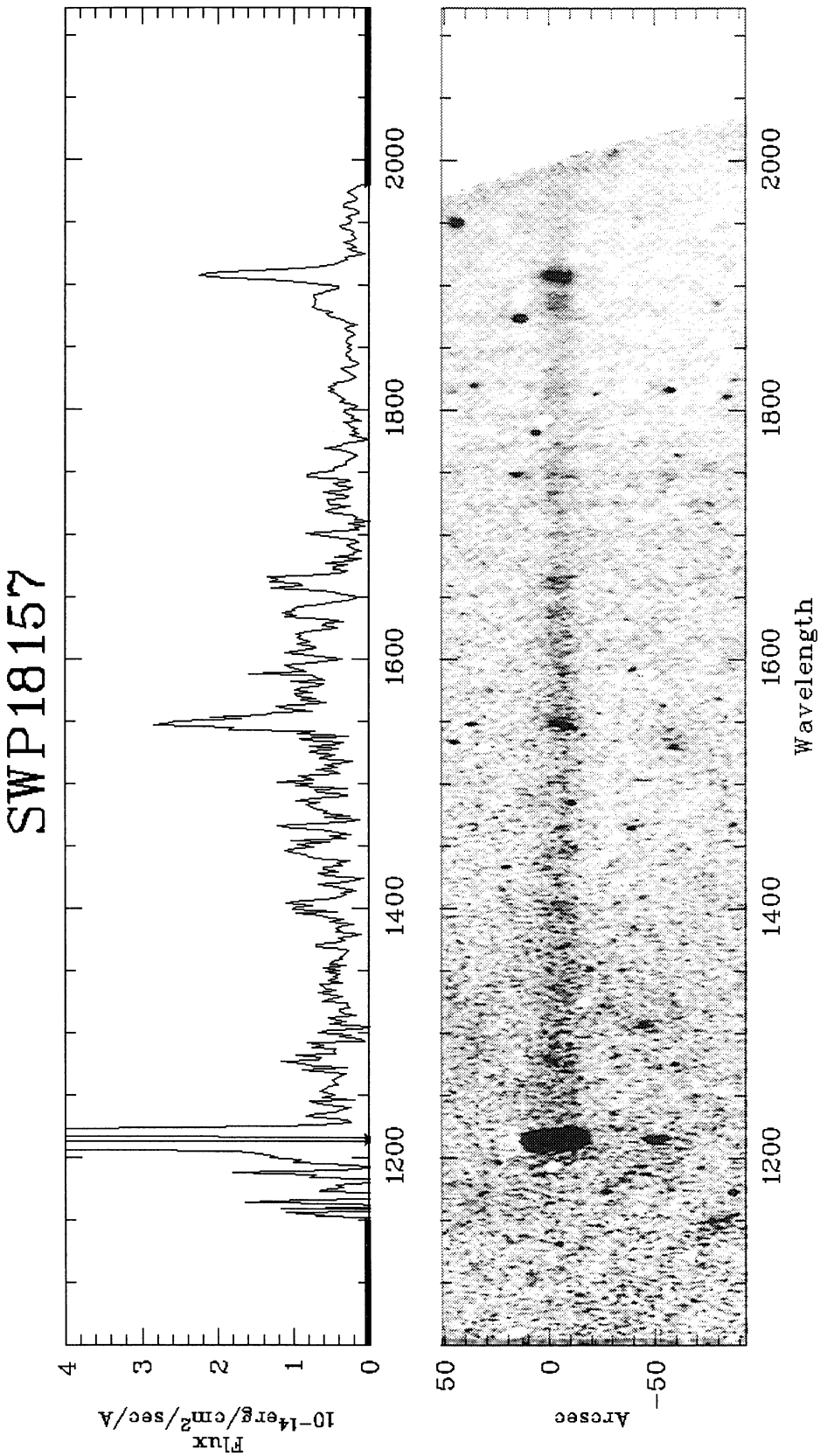
Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWR	08888	(3.8 ± 0.5)E-14	(5.6 ± 1.4)E-14		
LWR	08909	(4.2 ± 0.6)E-14	(6.5 ± 0.8)E-14		
SWP	10218			(9.3 ± 2.3)E-14	(9.9 ± 3.2)E-14
SWP	10246			(1.3 ± 0.3)E-13	(2.2 ± 0.8)E-13
SWP	18157			(1.2 ± 0.2)E-13	(1.8 ± 0.6)E-13


LWR08888
Flux
10⁻¹⁴erg/cm²/sec/A
Arcsec
Wavelength
0
1
2
3
4
50
0
−50
2000
2500
3000


LWR08909
Flux
10^-14erg/cm^2/sec/A
4
3
2
1
0
2000
2500
3000
50
0
−50
Arcsec
2000
2500
3000
Wavelength

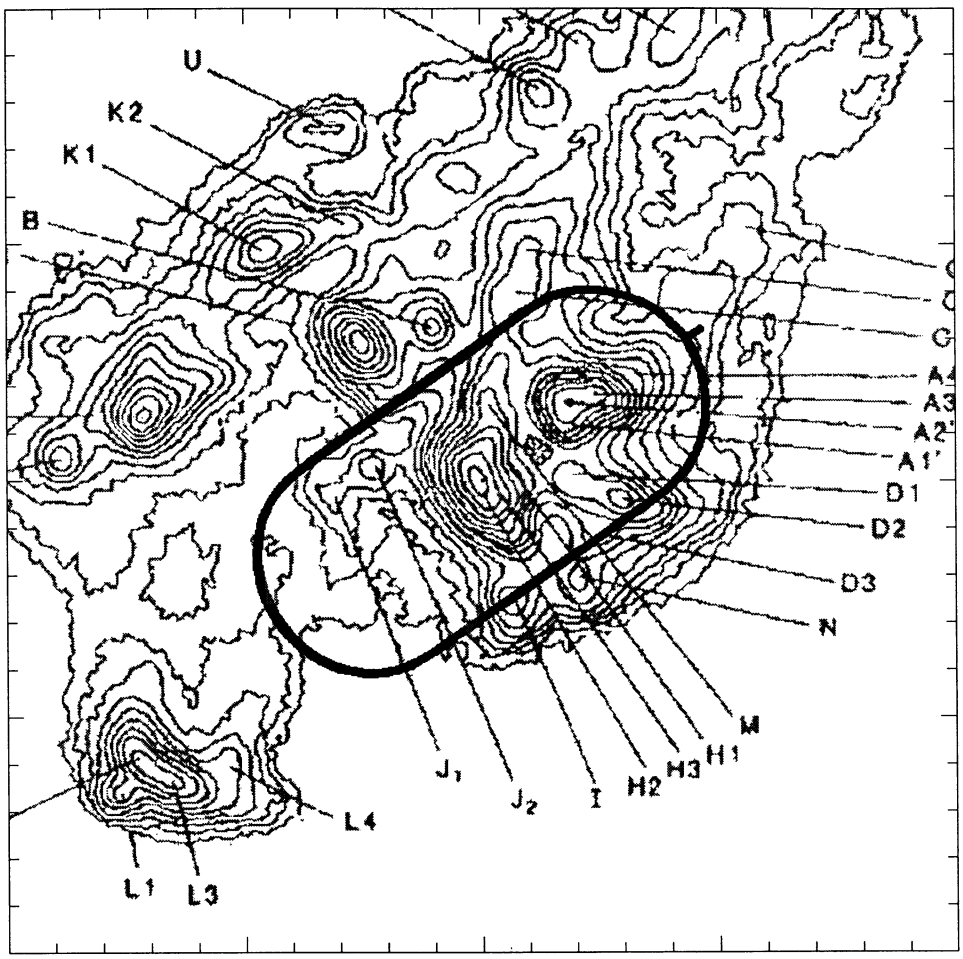

SWP10218
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP10246
Flux
10⁻¹⁴erg/cm²/sec/A
Arcsec
Wavelength
0
1
2
3
4
50
0
−50
1200
1400
1600
1800
2000


SWP18157
Flux
10⁻¹⁴erg/cm²/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
Wavelength
50
0
−50
Arcsec

HH 2

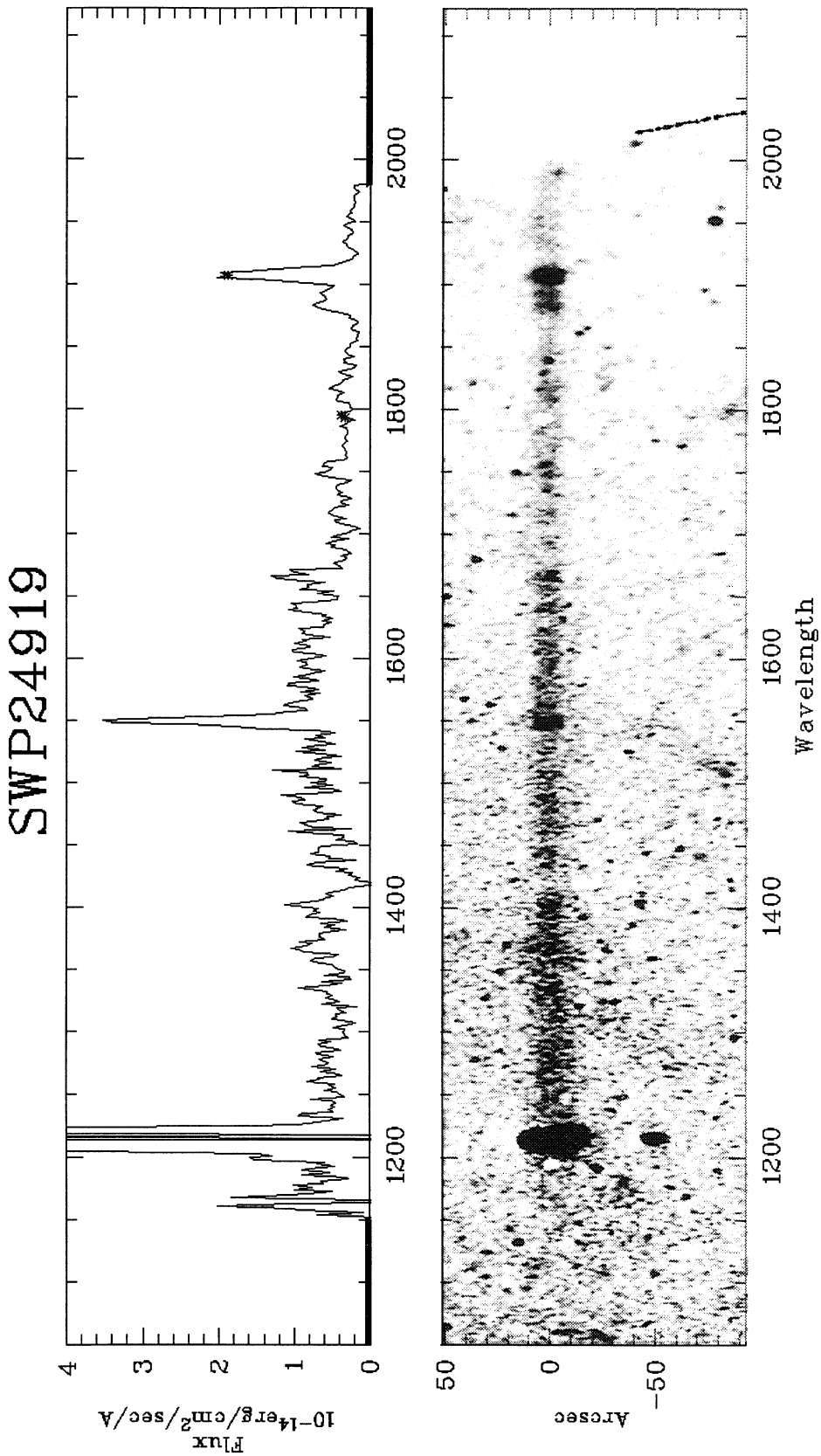
CENTER = HH2H PA = 305°
$\alpha_C = 5^h33^m59^s.69$ $\delta_C = -6°49'03''.8$

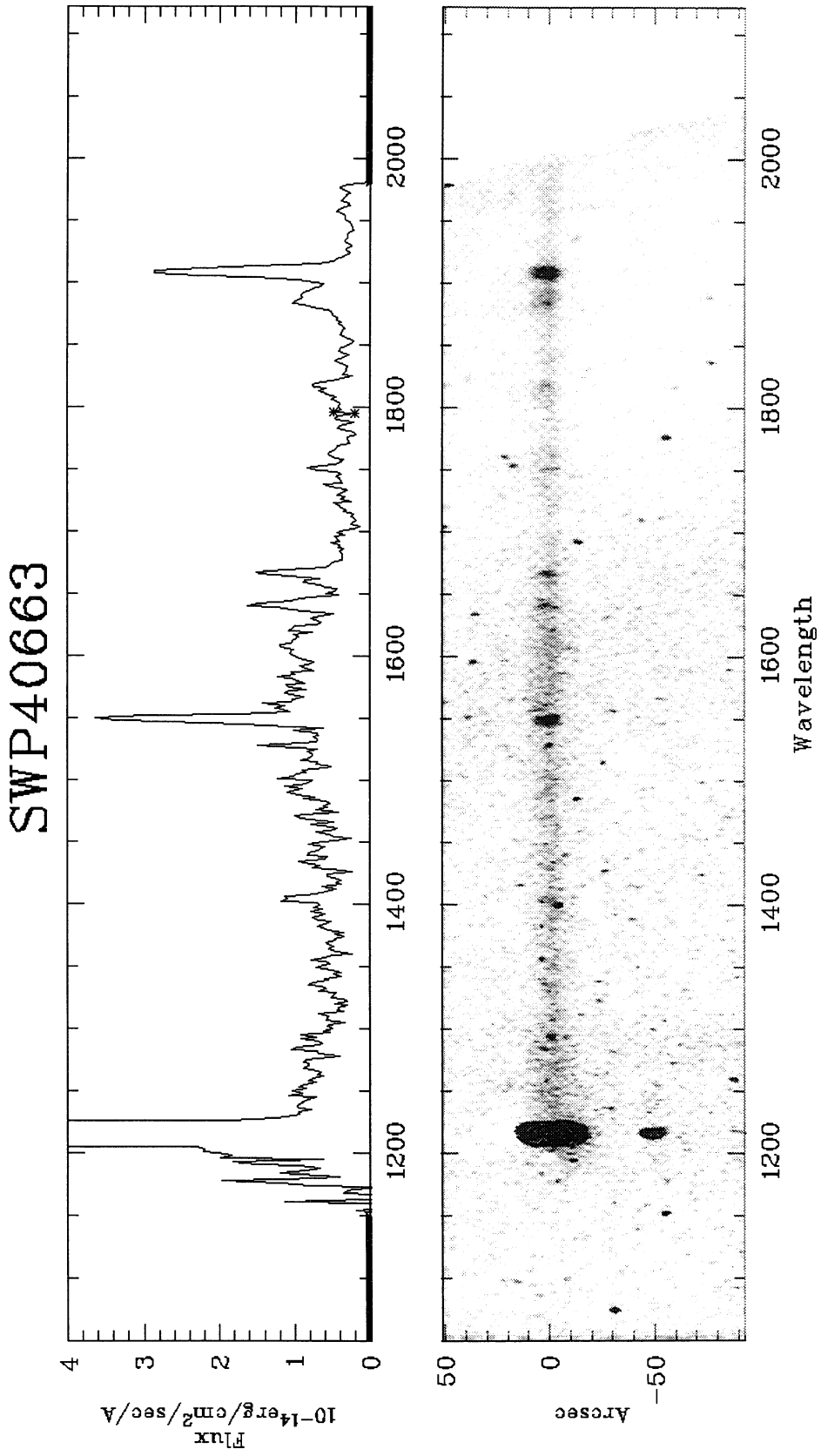


From the [S II] data in Eislöffel *et al.* (1994a)

IUE Data:

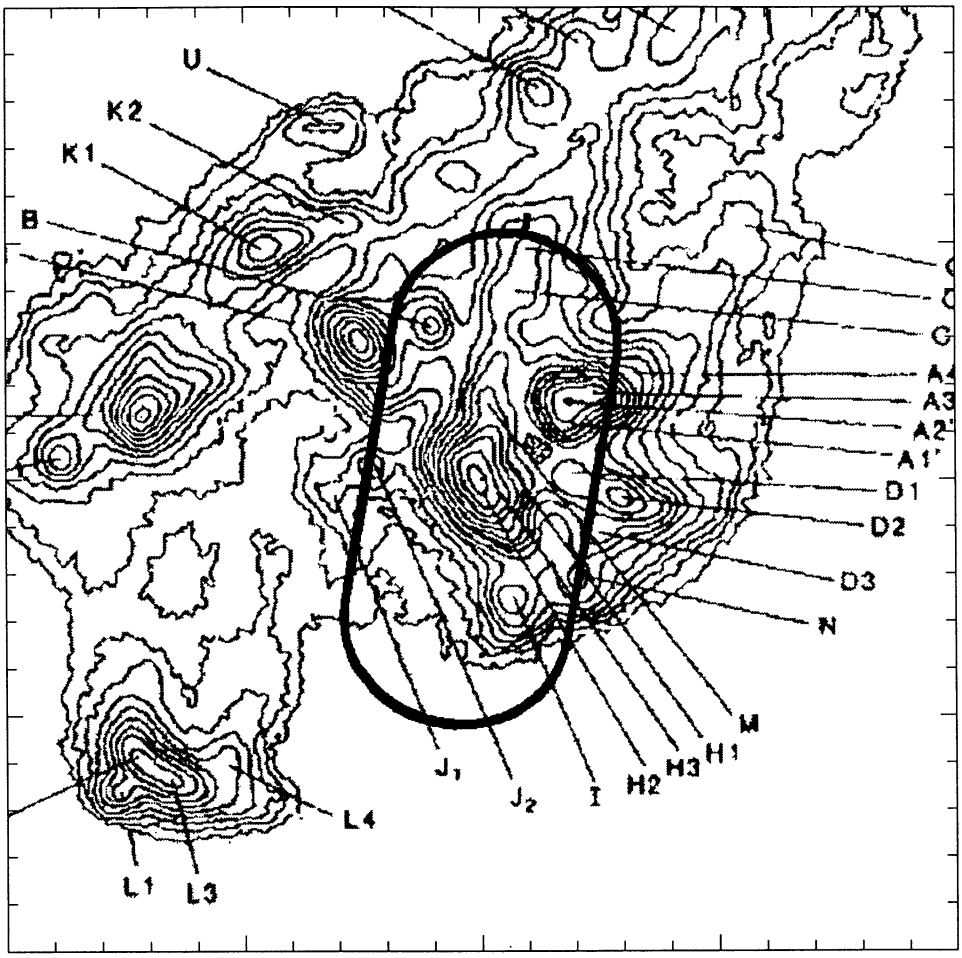
Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	24919			(1.3 ± 0.2)E-13	(1.9 ± 0.7)E-13
SWP	40663			(1.6 ± 0.3)E-13	(1.7 ± 0.6)E-13


SWP24919
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP40663
Flux
10⁻¹⁴erg/cm²/sec/A
Arcsec
Wavelength
0
1
2
3
4
50
0
−50
1200
1400
1600
1800
2000

HH 2

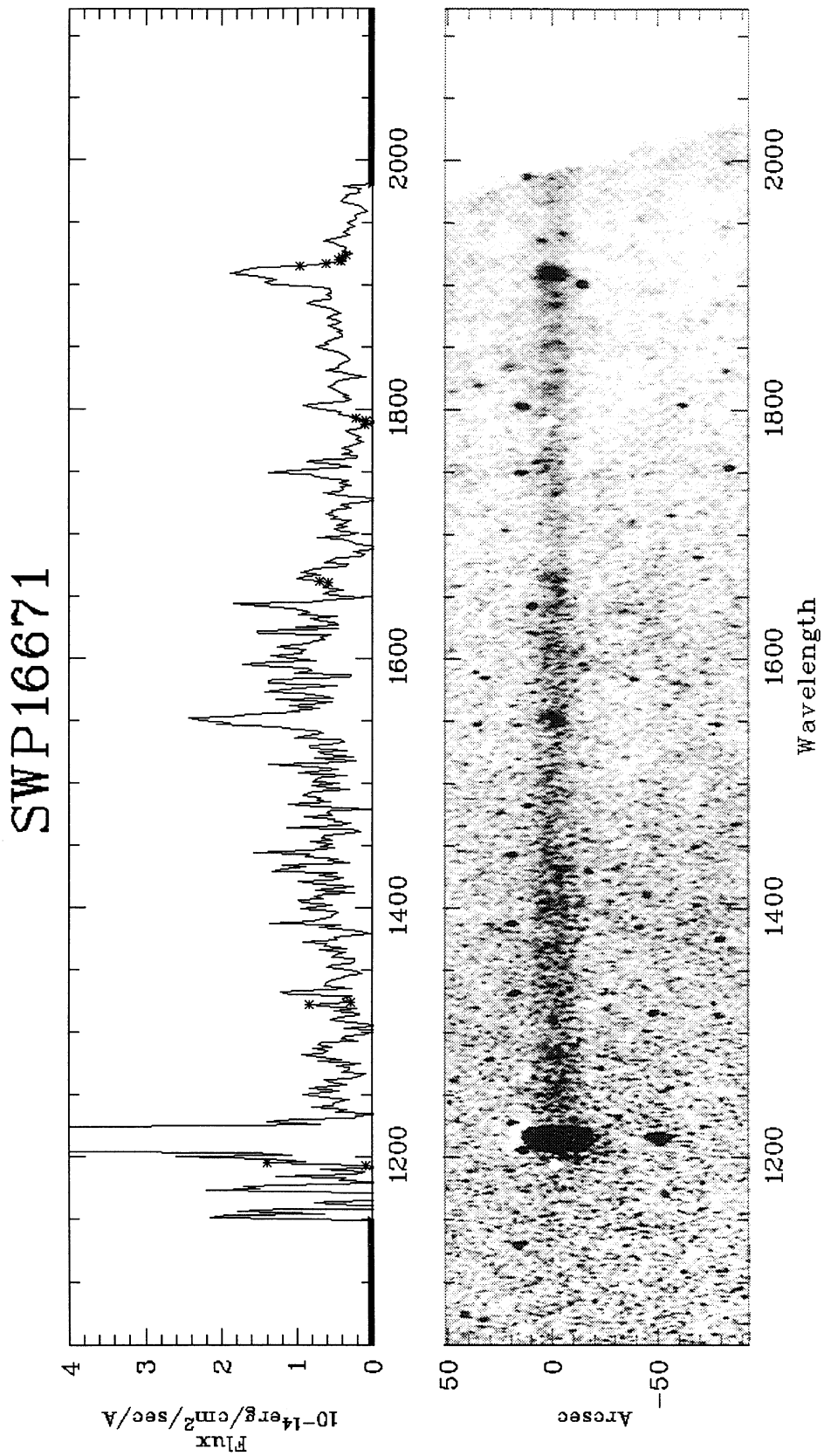
CENTER = HH2H PA = 350°
$\alpha_C = 5^h33^m59^s.69$ $\delta_C = -6°49'03''.8$

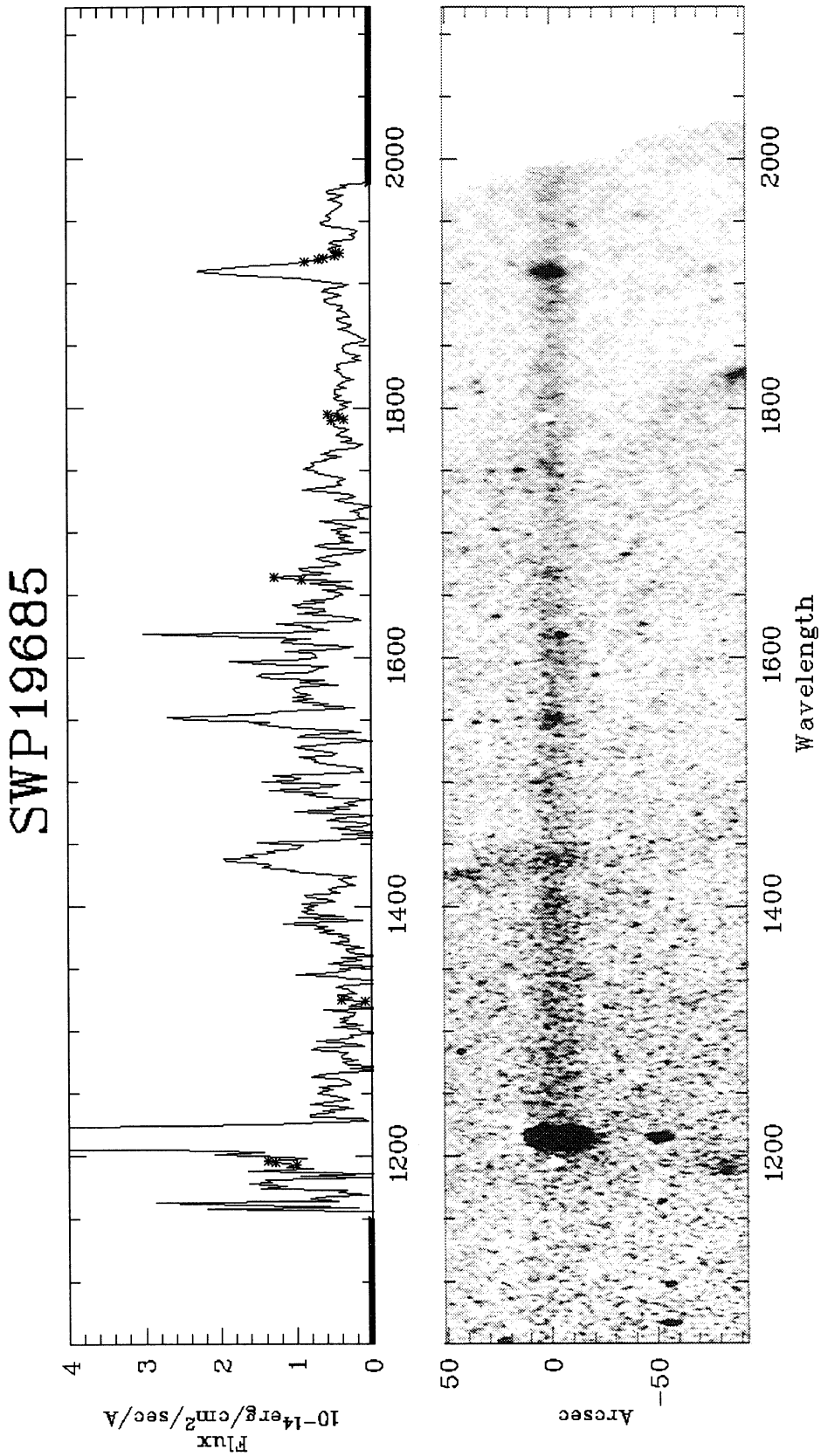


From the [S II] data in Eislöffel *et al.* (1994a)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	16671			(1.6 ± 0.5)E-13	(1.4 ± 0.7)E-13
SWP	19685			(1.4 ± 0.3)E-13	(1.5 ± 0.7)E-13


SWP16671
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP19685
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength

HH 43

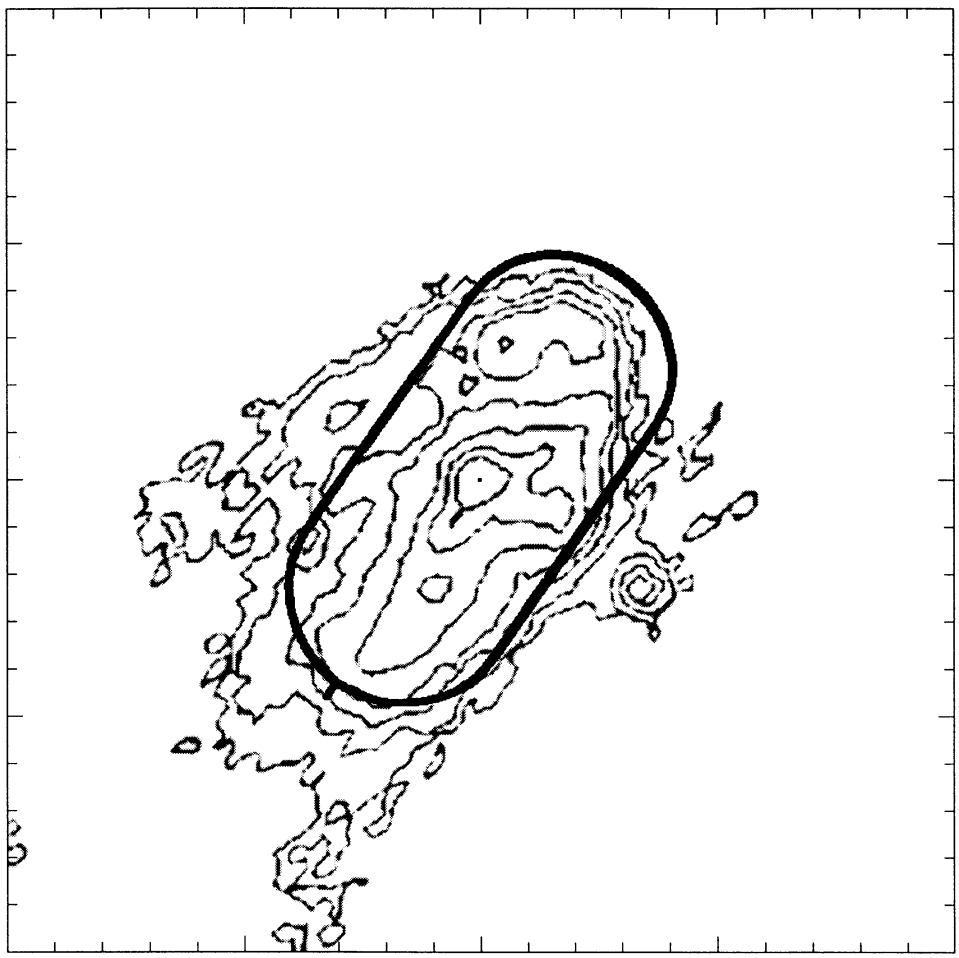
Alternative names :	Haro 14a	
Type :	LEO	[3]
Coordinates :		
α_{1950} =	$5^h\ 35^m\ 45\overset{s}{.}4$	
δ_{1950} =	$-7°\ 11'\ 04''$	
Proper motion :		
$\mu_\alpha \cos\delta$ =		
μ_δ =		
Radial velocity :	-26 km s^{-1}	[40]
Suspected source :	HH 43 IRS 1	
Region :	L1641	
Distance :	470 pc	
Characteristic size :	$15'' \times 30''$	
Asociated with molecular outflow :	No	[12]
P.A. of jet :	$\sim 135°$	

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	04041	L	L	20-08-84	420.0	E=154,C=138,B=105	146.15
2	SWP	17522	L	L	30-07-82	390.0	C=150,B=112	131.86
3	SWP	23749	L	L	22-08-84	425.0	C=140,B=95	147.27
4	SWP	23881	L	L	05-09-84	597.0	C=210,B=145	205.09
5	SWP	24924	L	L	18-01-85	580.0	C=170,B=130	304.30
6	SWP	27472	L	L	08-01-86	500.0	C=173,B=153	292.23
7	SWP	31828	L	L	11-09-87	781.0	C=190,B=138	157.71

HH 43

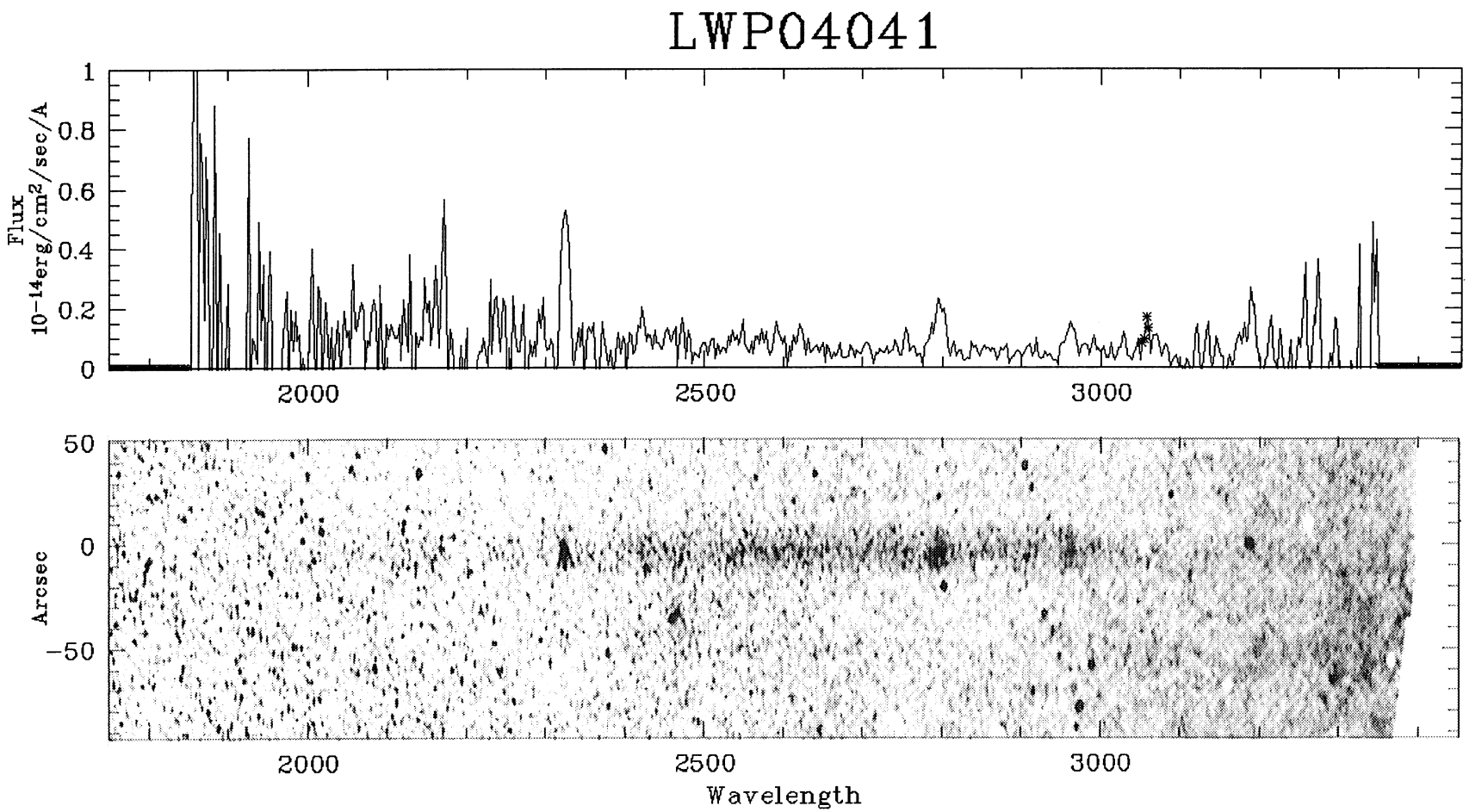
CENTER = HH43B PA = 145°
$\alpha_C = 5^h35^m45\overset{s}{.}4 \quad \delta_C = -7°11'03\overset{''}{.}4$

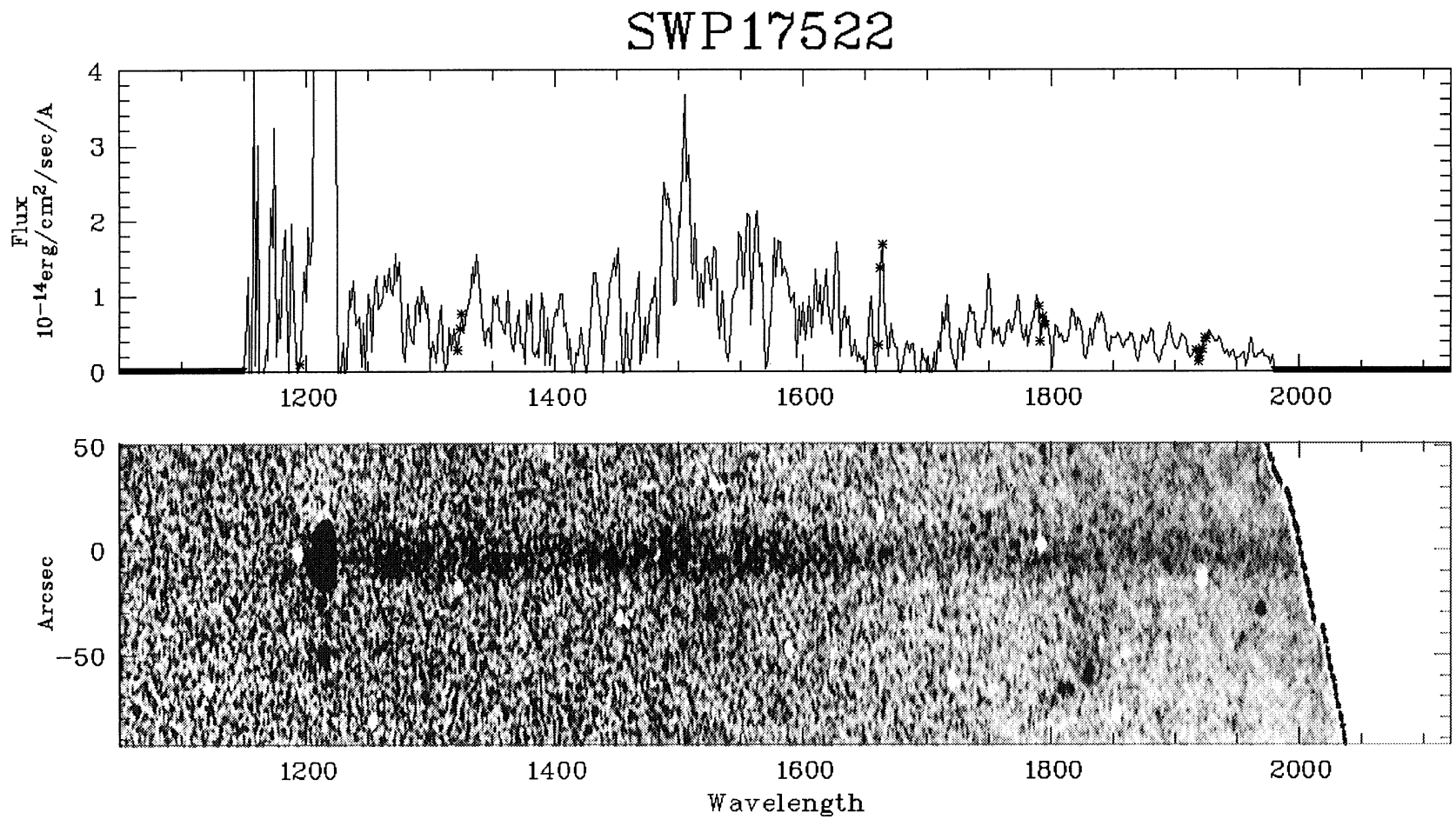


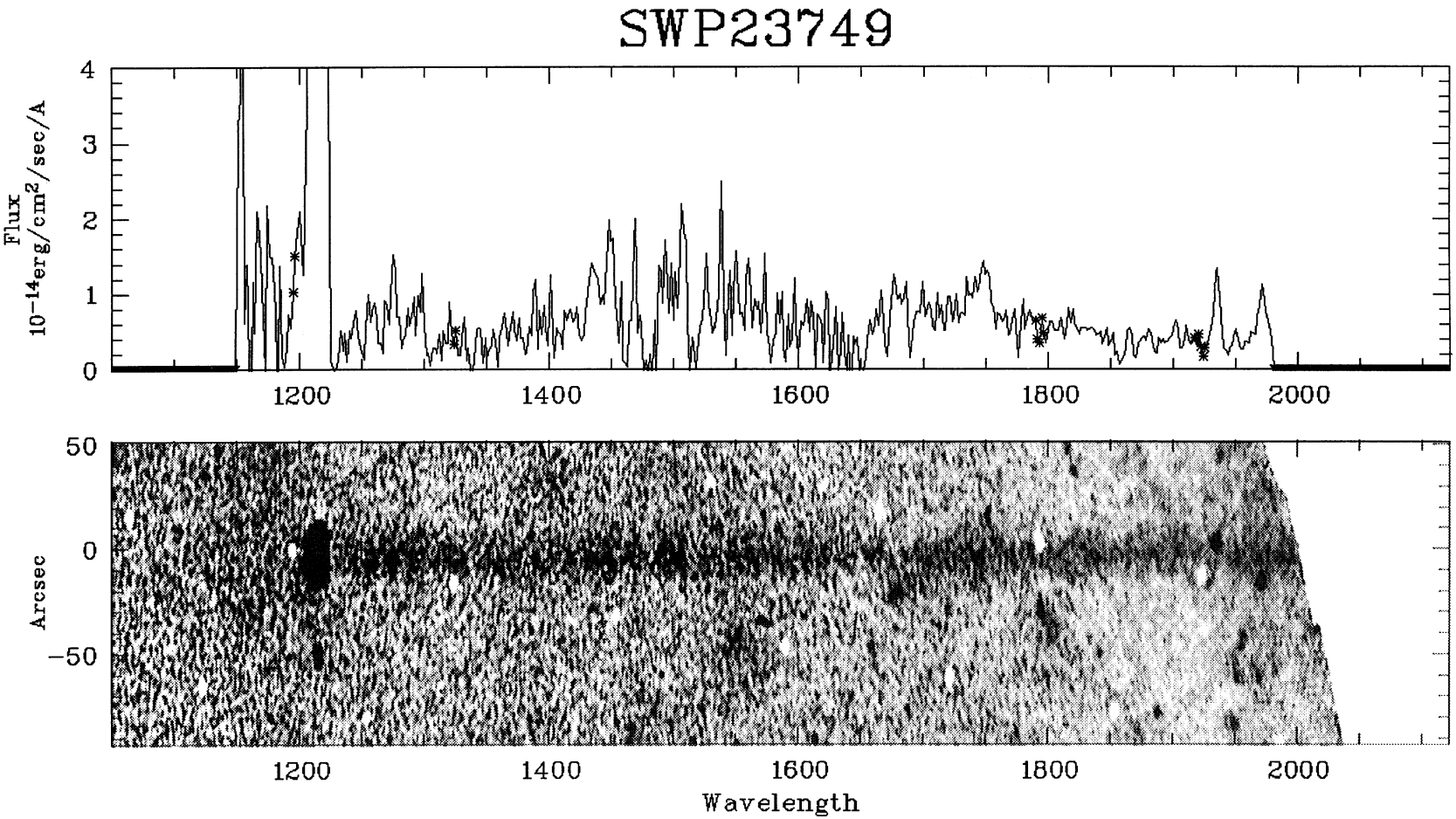
From the [S II] data in Schwartz *et al.* (1988)

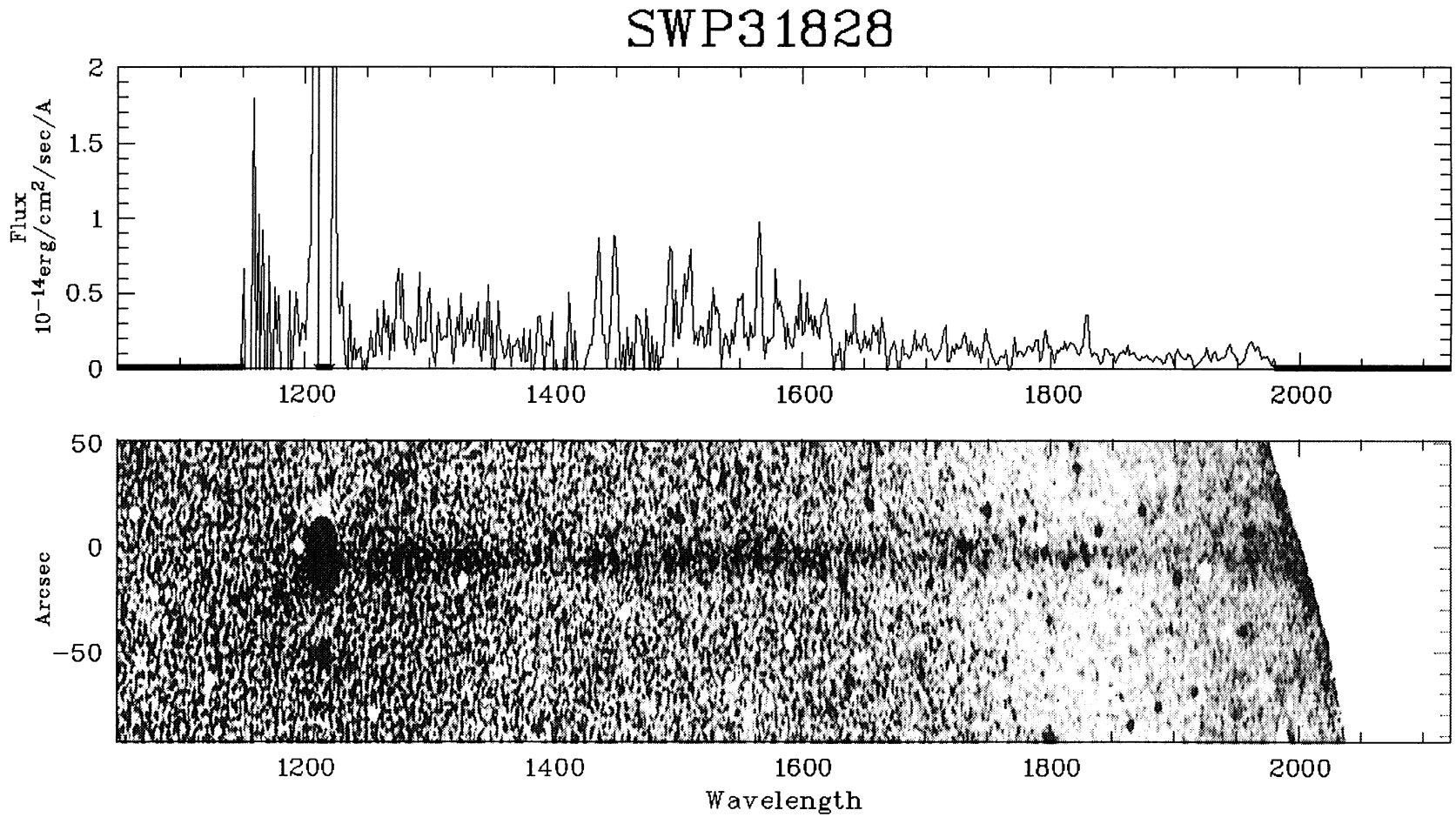
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWP	04041				
SWP	17522				
SWP	23749				
SWP	31828				


LWP04041
Flux
10^-14 erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
50
0
−50
Arcsec
2000
2500
3000
Wavelength

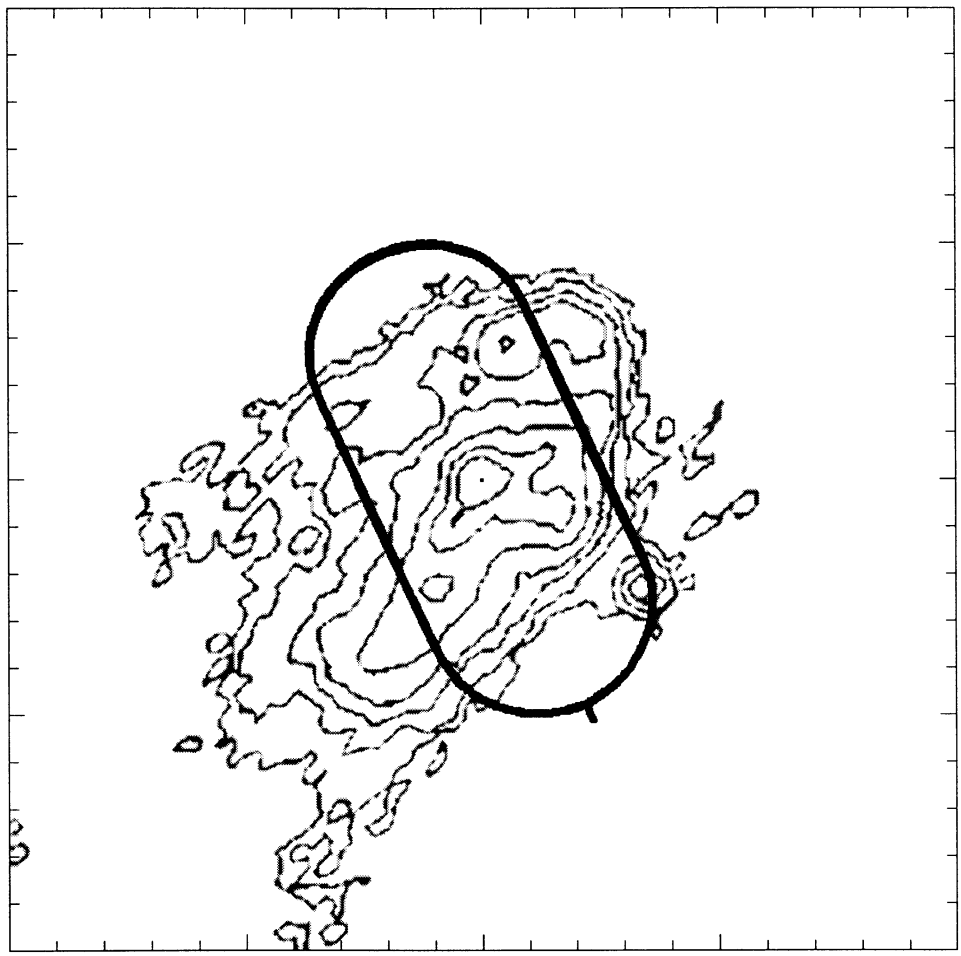

SWP17522
Flux
10^-14erg/cm^2/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength


SWP23749
Flux
10^-14erg/cm^2/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength


SWP31828
Flux
10^-14 erg/cm^2/sec/A
2
1.5
1
0.5
0
1200
1400
1600
1800
2000
Arcsec
50
0
-50
1200
1400
1600
1800
2000
Wavelength

HH 43

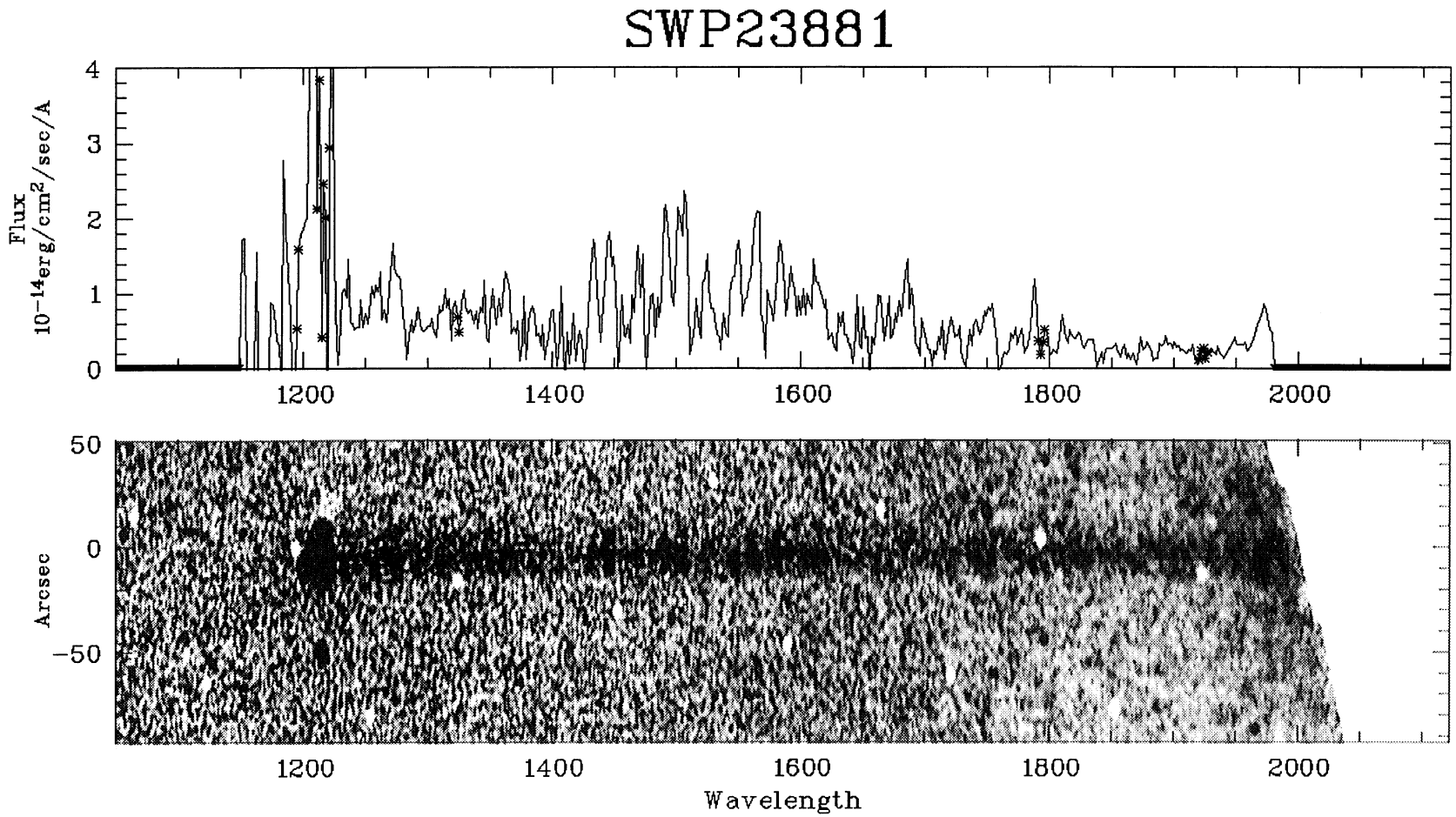
CENTER = HH43B PA = 205°
$\alpha_C = 5^h35^m45\overset{s}{.}4$ $\delta_C = -7°11'03\overset{''}{.}4$



From the [S II] data in Schwartz *et al.* (1988)

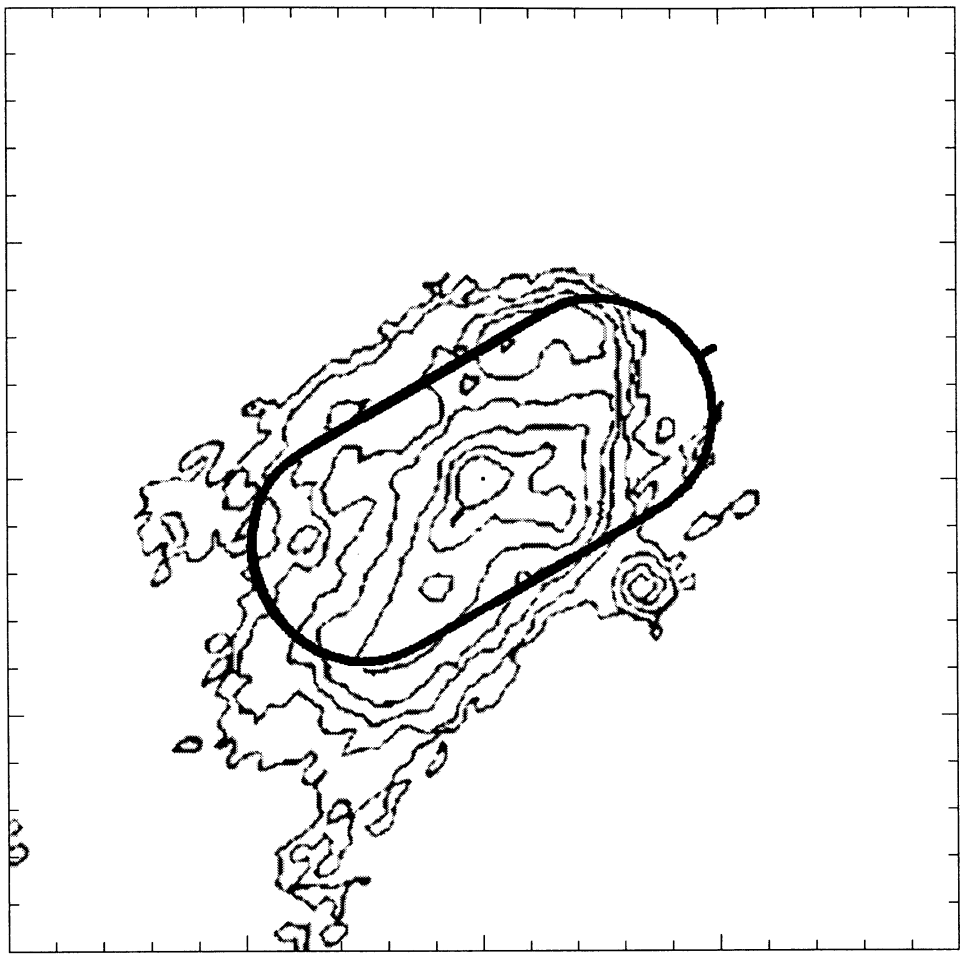
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	23881				


SWP23881
Flux
10^-14 erg/cm^2/sec/A
4
3
2
1
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength

HH 43

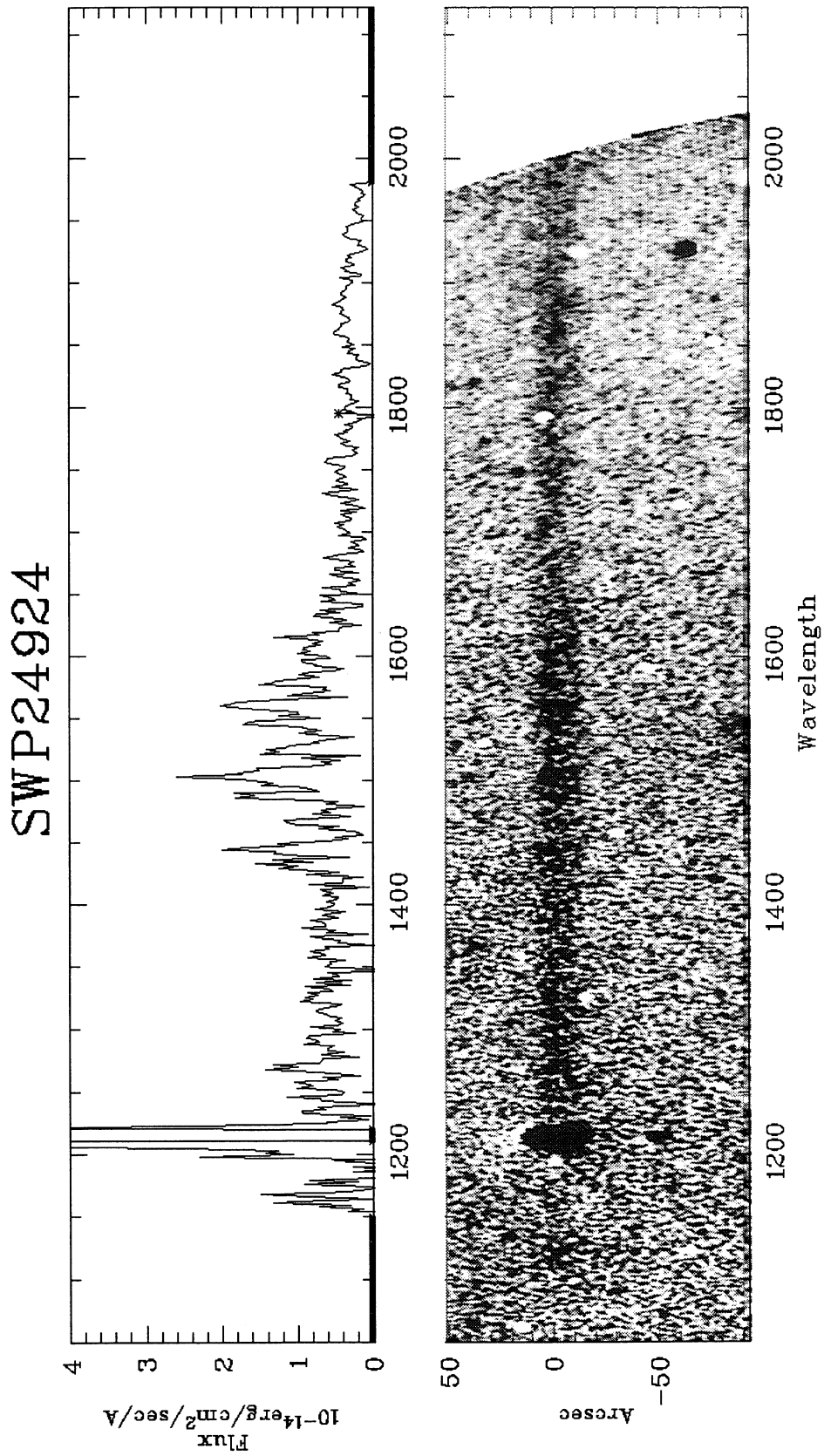
CENTER = HH43B PA = 300°
$\alpha_C = 5^h35^m45^s.4$ $\delta_C = -7°11'03''.4$

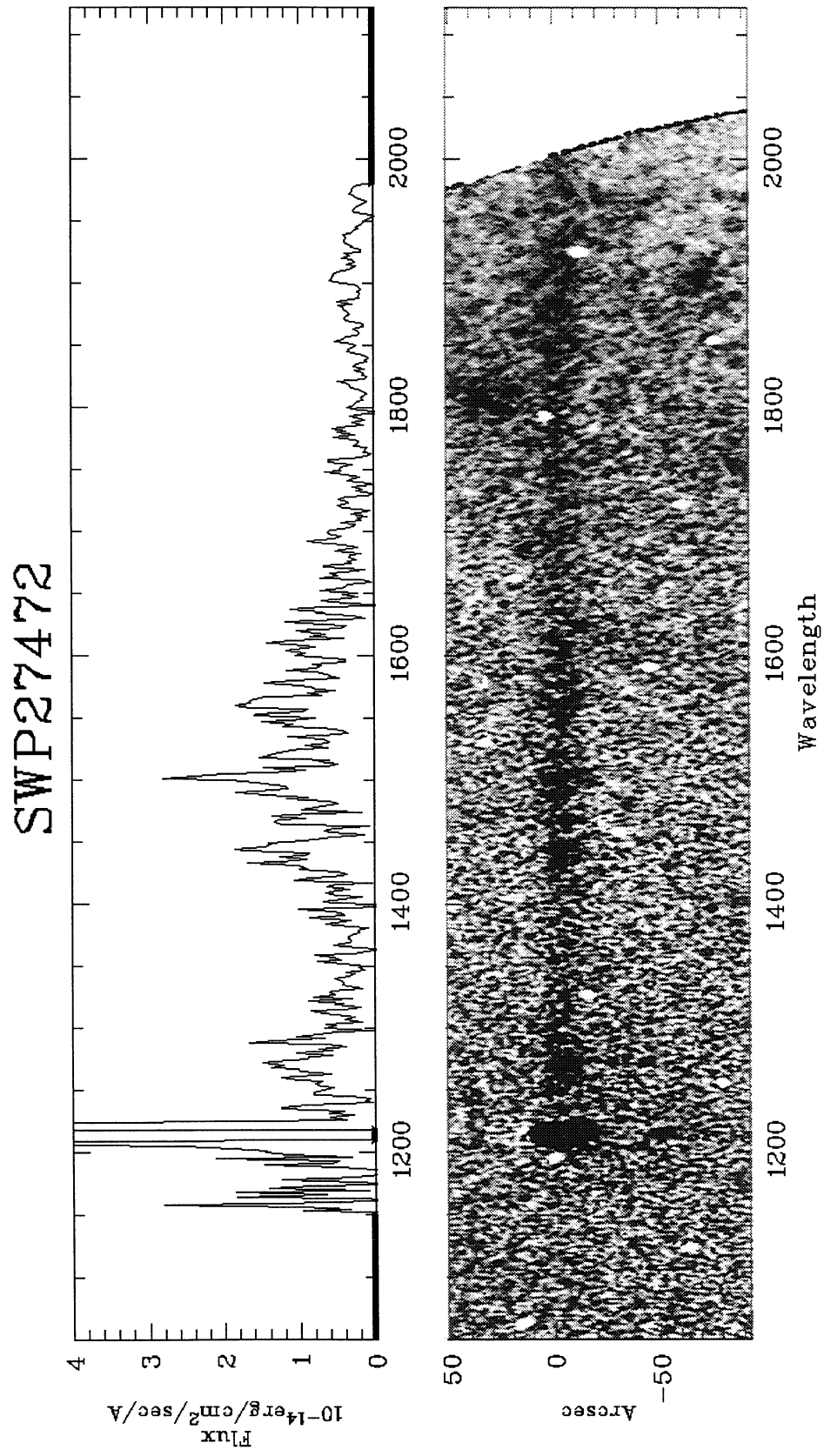


From the [S II] data in Schwartz *et al.* (1988)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP SWP	24924 27472				


SWP24924
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
-50
Wavelength


SWP27472
Flux
10⁻¹⁴erg/cm²/sec/A
Arcsec
Wavelength
0
1
2
3
4
50
0
−50
1200
1400
1600
1800
2000

HH 24

Alternative names :

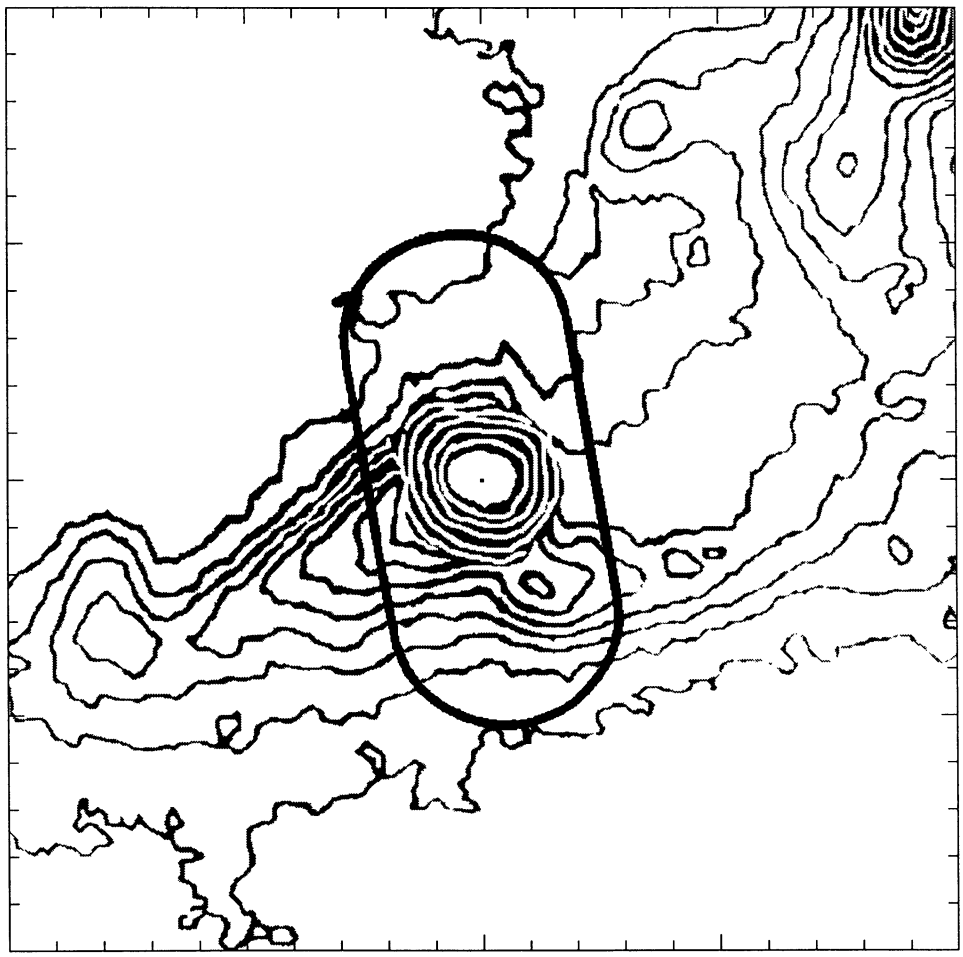
Type :	Undetermined			[3]
Coordinates :				
α_{1950} =	5^h	43^m	$36\overset{s}{.}1$	
δ_{1950} =	$-0°$	$11'$	$02''$	
Proper motion (Knot A) :				[24]
$\mu_\alpha \cos\delta$ =	$-1''.4 \pm 0''.5$ cen^{-1}			
μ_δ =	$-0''.8 \pm 1''.0$ cen^{-1}			
Radial velocity (Knot A):	+47 km s^{-1}			[38]
Suspected source :	SSV 63			
Region :	NGC 2068			
Distance :	470 pc			
Characteristic size :	$40'' \times 20''$			
Asociated with molecular outflow :	Yes			[12]
P.A. of jet (CE jet):	338°			[24]

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	03140	L	L	10-04-84	120.0	B=168	351.65
2	SWP	21518	L	L	11-11-83	560.0	C=130,B=100	189.10
3	SWP	21774	L	L	15-12-83	120.0	B=90	242.43
4	SWP	22708	L	L	10-04-84	485.0	C=140,B=122	351.65
5	SWP	38033	L	L	16-01-90	680.0	C=121,B=92	306.67
6	SWP	38102	L	L	31-01-90	585.0	C=105,B=81	319.69

HH 24

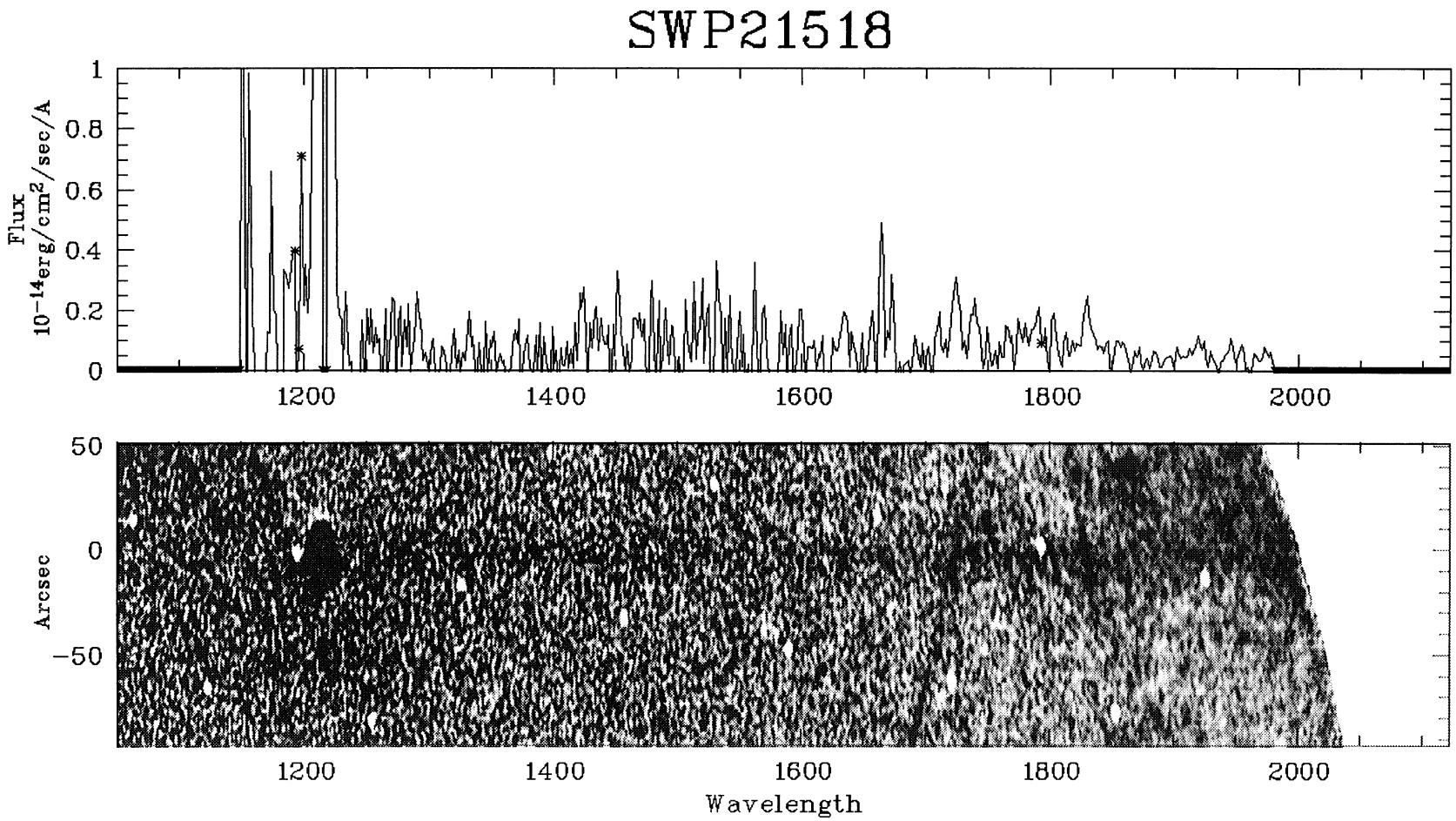
CENTER = HH24A PA = 190°
$\alpha_C = 5^h43^m35^s.66$ $\delta_C = -0°11'31''.4$



From the 6200 – 7000 Å band data in Solf (1987)

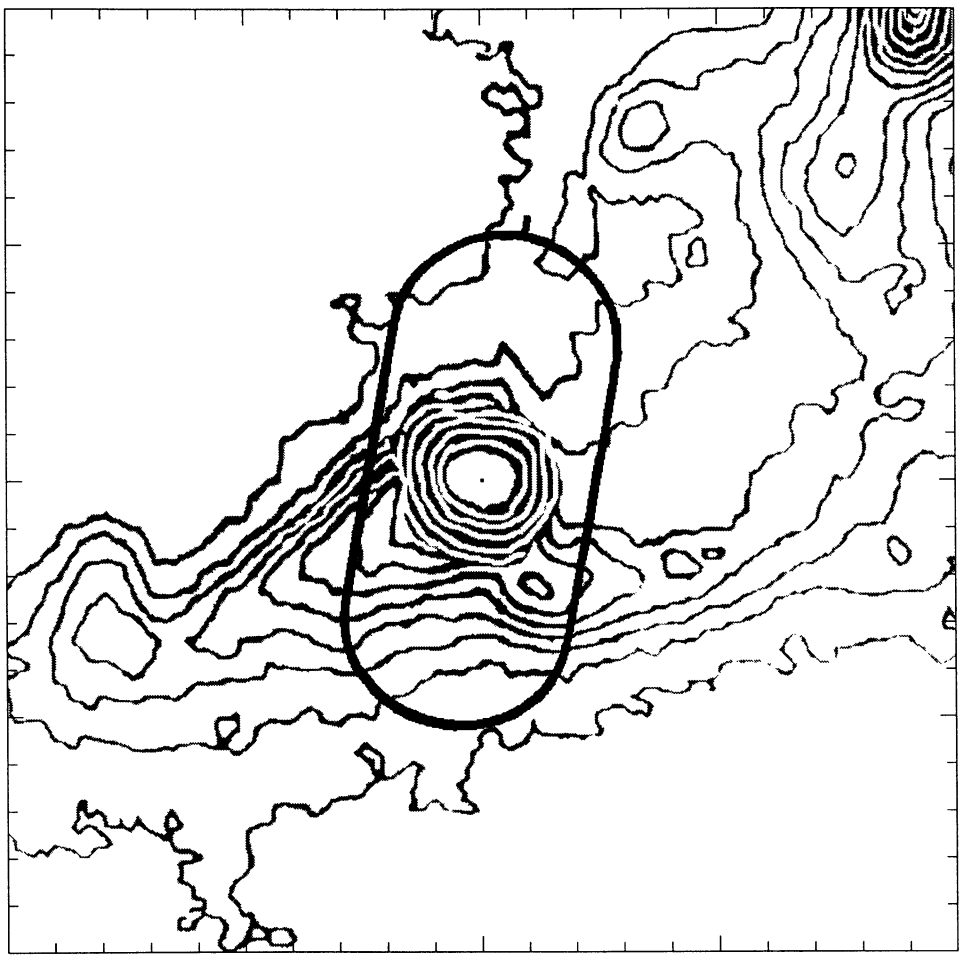
IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	21518				


SWP21518
Flux
10^-14 erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
1200
1400
1600
1800
2000
50
0
−50
Arcsec
1200
1400
1600
1800
2000
Wavelength

HH 24

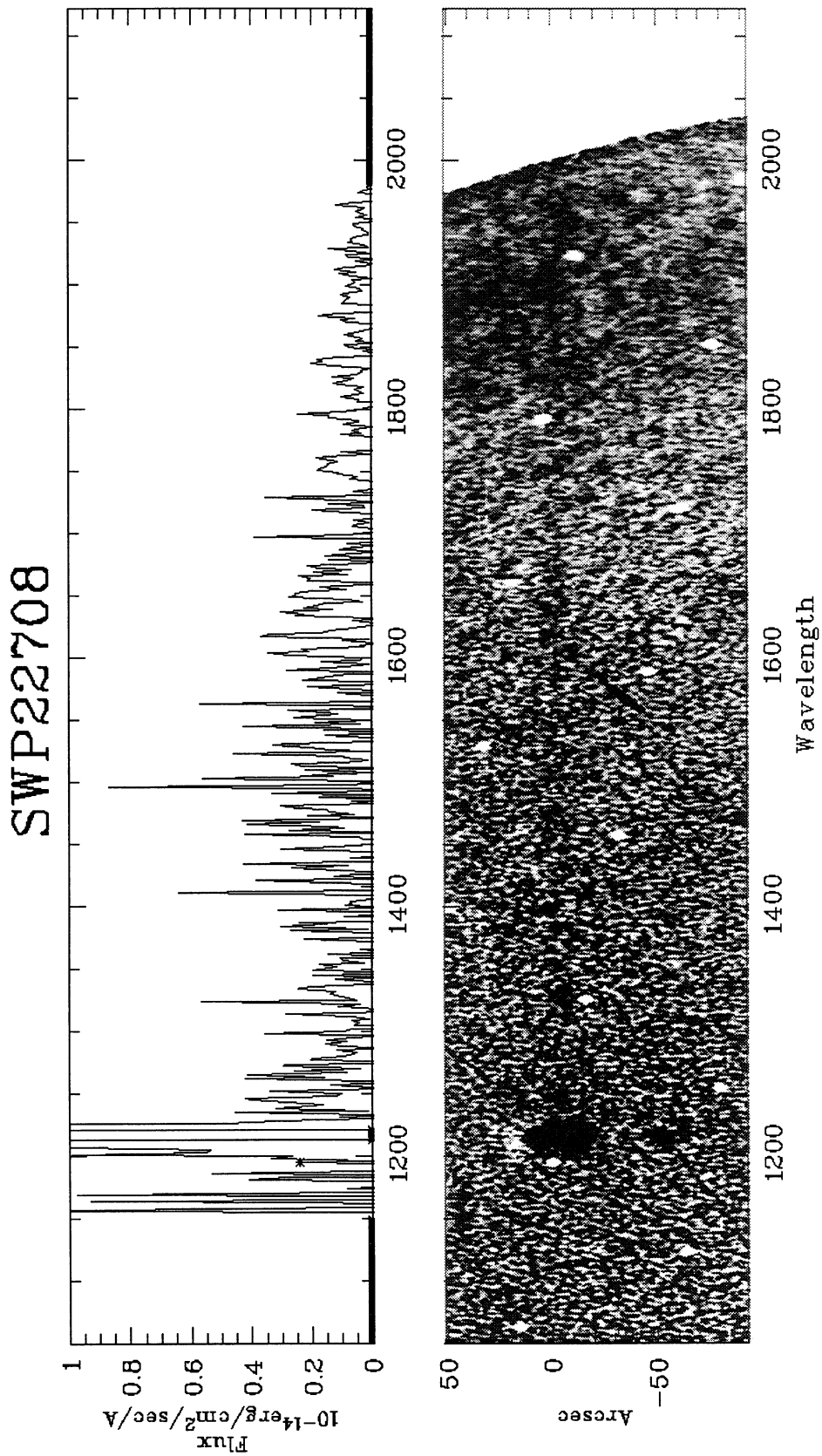
CENTER = HH24A PA = 350°
$\alpha_C = 5^h43^m35^s.66$ $\delta_C = -0°11'31''.4$



From the 6200 – 7000 Å band data in Solf (1987)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP	22708				


SWP22708
Flux
10^{-14}erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength

HH 46

Alternative names :

Type : LEO [29]

Coordinates :

$\alpha_{1950} =$ $8^h\ 24^m\ 17\overset{s}{.}1$
$\delta_{1950} =$ $-50°\ 50'\ 34''$

Proper motion (Knot 1): [15]

$\mu_\alpha \cos\delta =$ $1''.9 \pm 0''.7$ cen^{-1}
$\mu_\delta =$ $5''.5 \pm 2''.0$ cen^{-1}

Radial velocity : -206 km s^{-1} [17]
Suspected source : HH 46/47 IRS
Region : Gum Nebula
Distance : 450 pc
Characteristic size : $10'' \times 10''$
Asociated with molecular outflow : Yes [31]
P.A. of jet : $\sim 43°$

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	SWP	11286	L	L	11-02-81	170.0	B=48	272.17
2	SWP	11291	L	L	12-02-81	189.0	B=54	273.26
3	SWP	15472	L	L	10-11-81	377.0		180.79

HH 47

Alternative names :

Type : LEO [3]

Coordinates :

$\alpha_{1950} =$ $8^h\ 24^m\ 22\overset{s}{.}8$
$\delta_{1950} =$ $-50°\ 50'\ 00''$

Proper motion (Knot A0) : [14]

$\mu_\alpha \cos\delta =$ $7\overset{''}{.}7 \pm 0\overset{''}{.}8\ \mathrm{cen}^{-1}$
$\mu_\delta =$ $7\overset{''}{.}7 \pm 0\overset{''}{.}8\ \mathrm{cen}^{-1}$

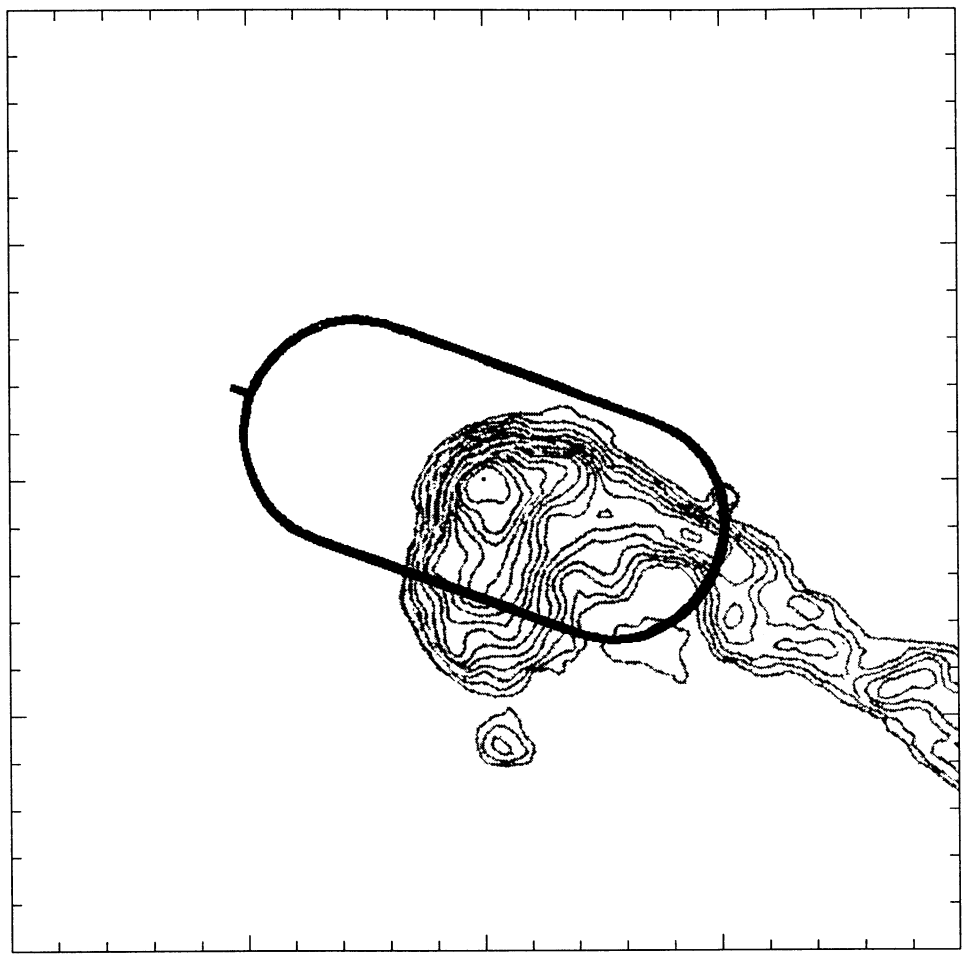
Radial velocity : -140 km s^{-1} [17]
Suspected source : HH 46/47 IRS
Region : Gum Nebula
Distance : 450 pc
Characteristic size (Knots A0–10) : $15'' \times 15''$
Asociated with molecular outflow : Yes [31]
P.A. of jet : $\sim 43°$ [14]

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	02158	L	L	27-10-83	400.0	E=3-5X,C=220,B=180	167.39
2	SWP	17549	L	L	01-08-82	400.0	C=145,B=110	77.54
3	SWP	21389	L	L	28-10-83	440.0	C=100,B=70	168.34
4	SWP	32154	L	L	24-10-87	411.0		164.13
5	SWP	33960	L	L	22-07-88	870.0	E=161,C=190,B=148	68.78

HH 47

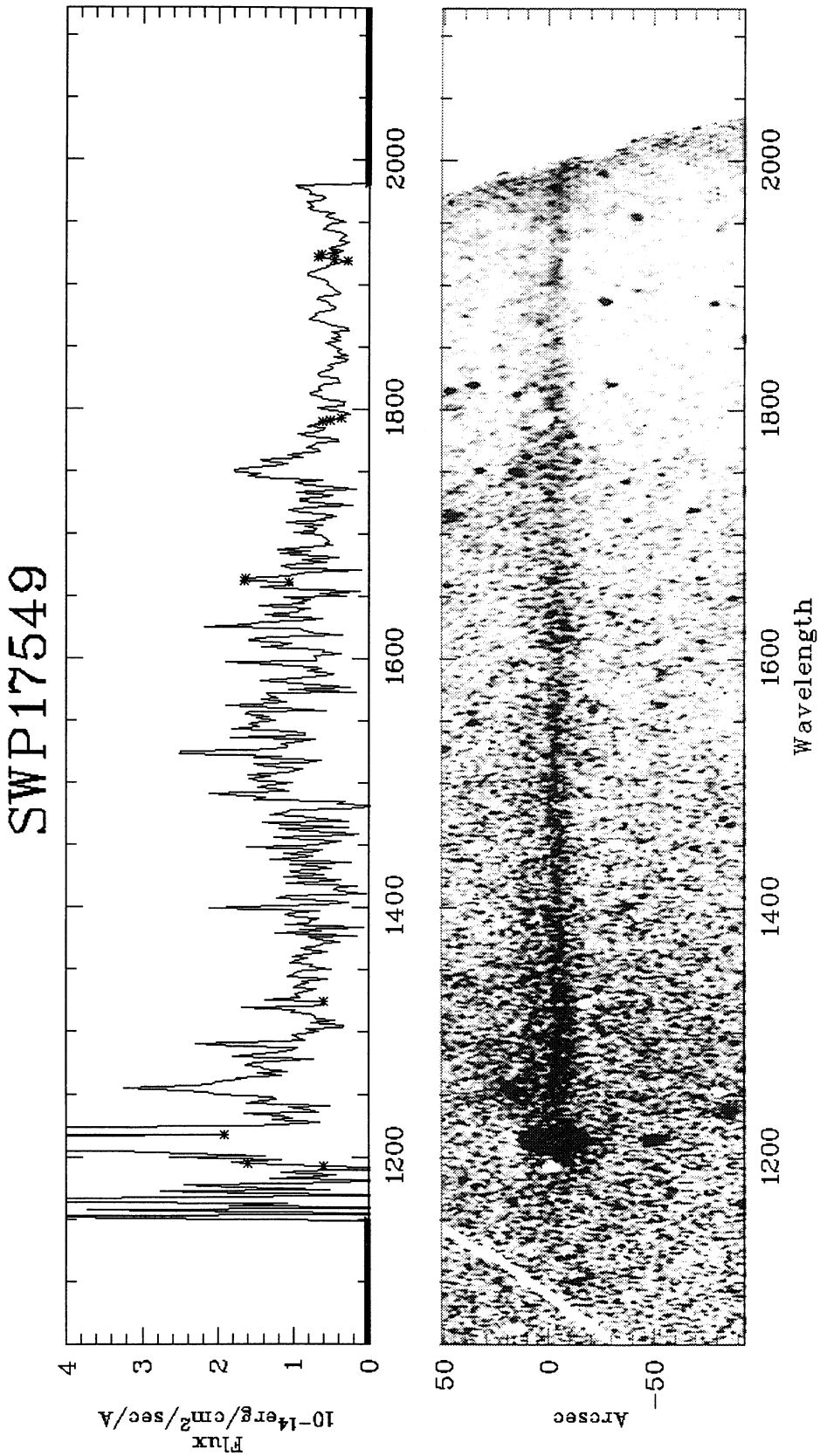
CENTER = HH47A PA = 70°
$\alpha_C = 8^h24^m22^s.79$ $\delta_C = -50°49'57''.8$

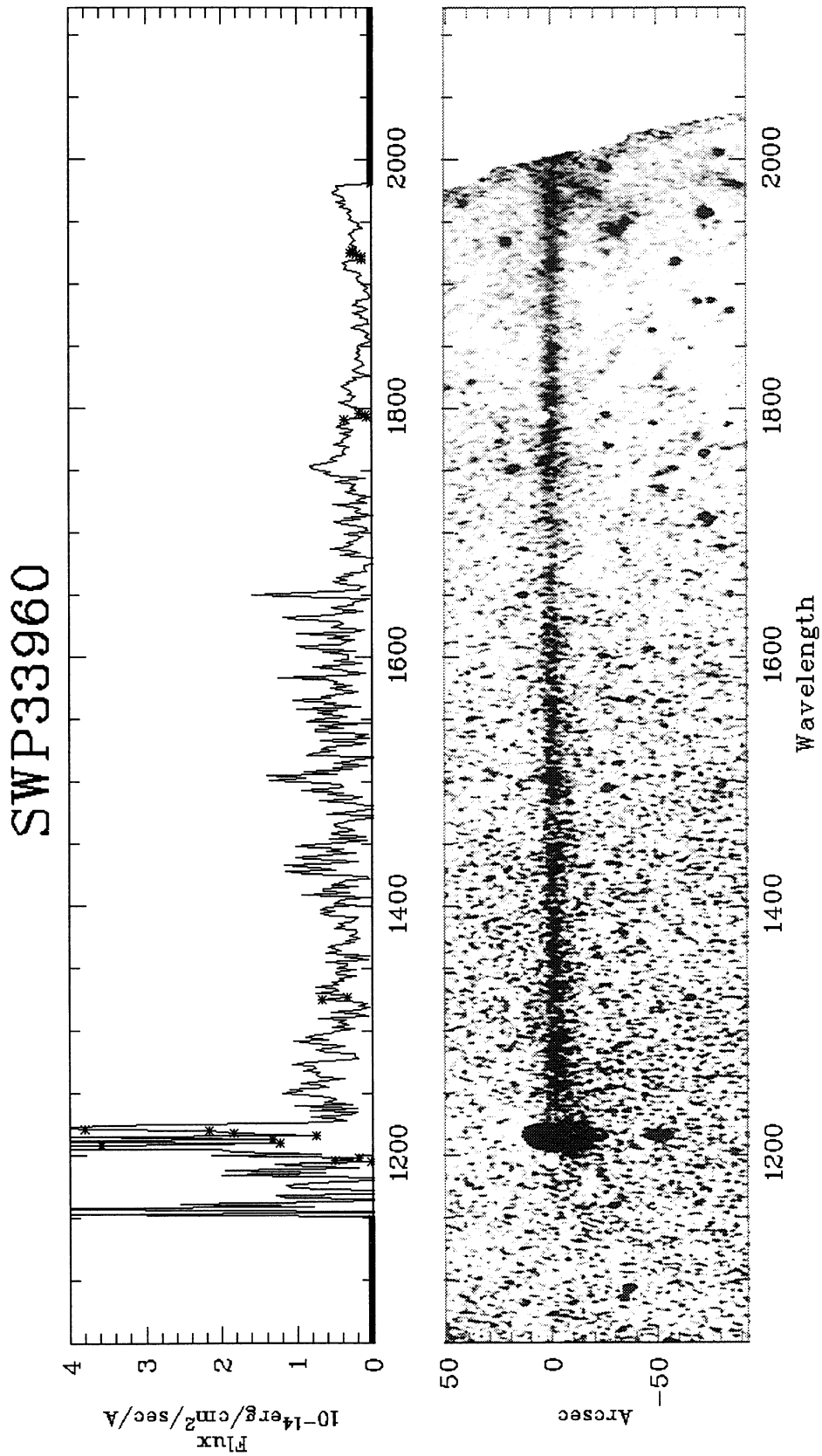


From the [S II] data in Eislöffel *et al.* (1994b)

IUE Data:

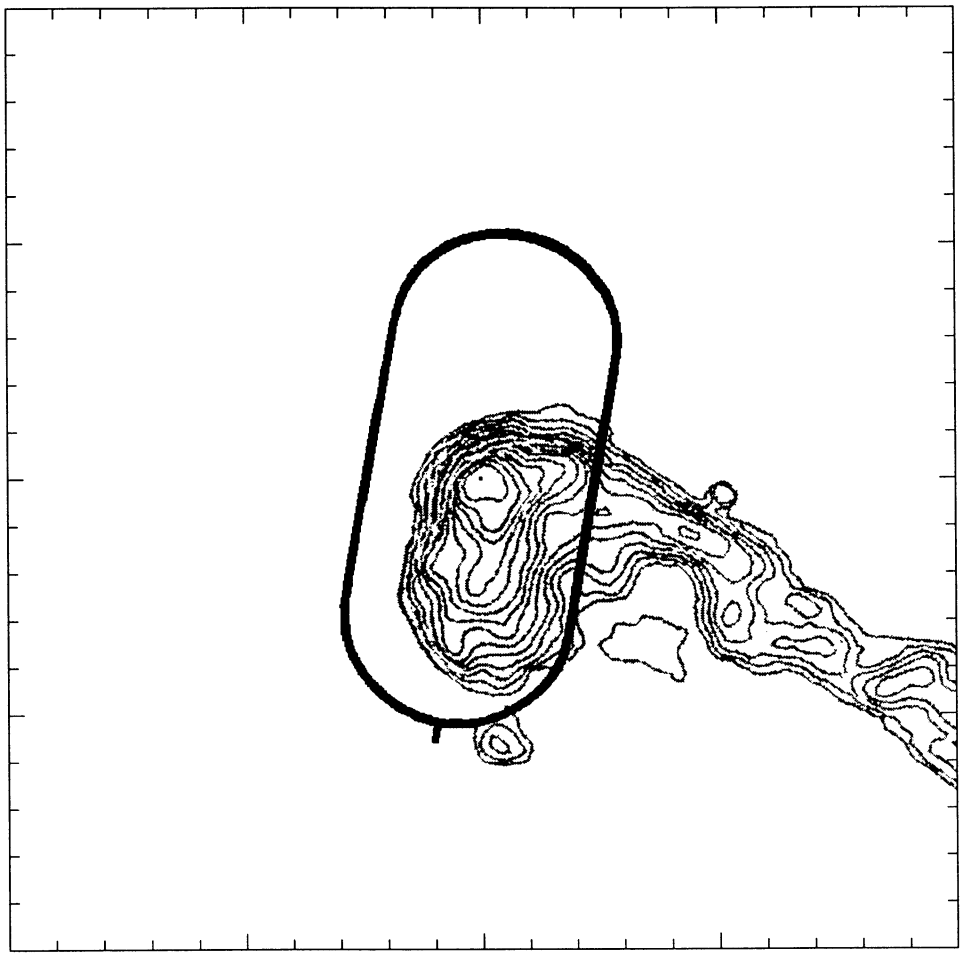
Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
SWP SWP	17549 33960				


SWP17549
Flux
10^{-14}erg/cm^2/sec/A
Arcsec
Wavelength
0
1
2
3
4
50
0
−50
1200
1400
1600
1800
2000


SWP33960
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Wavelength
Arcsec
50
0
−50

HH 47

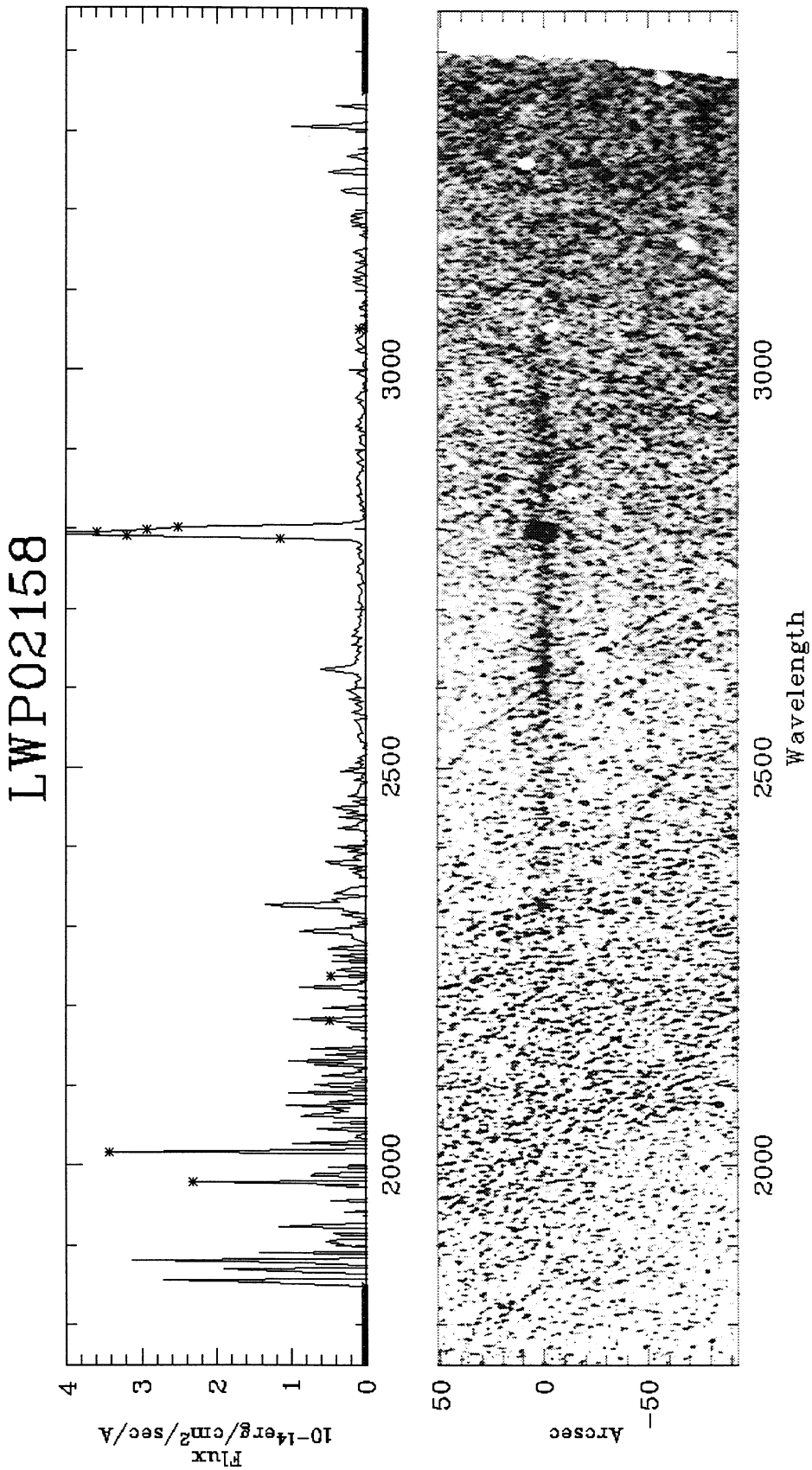
CENTER = HH47A PA = 170°
$\alpha_C = 8^h24^m22^s.79$ $\delta_C = -50°49'57''.8$

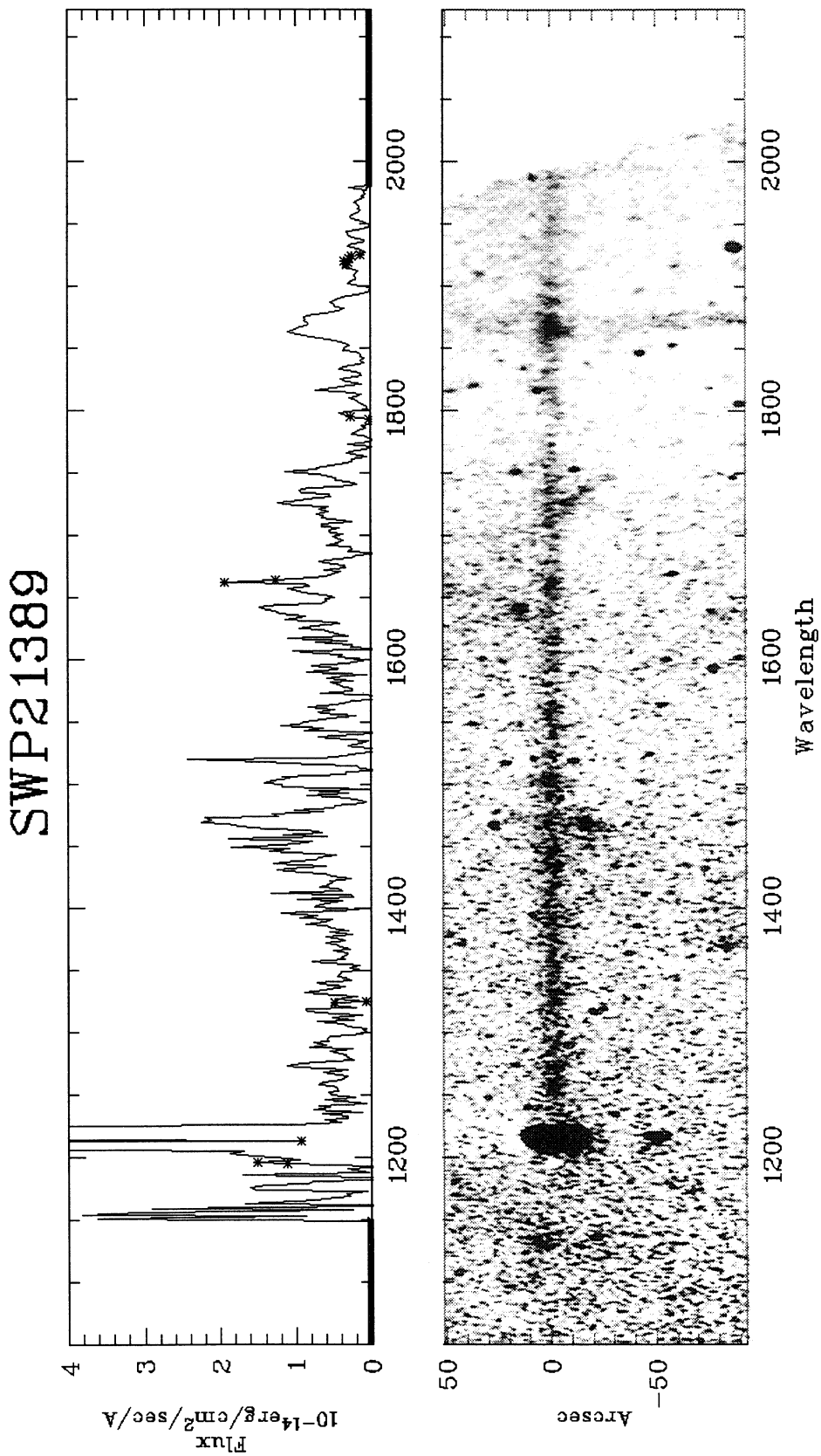


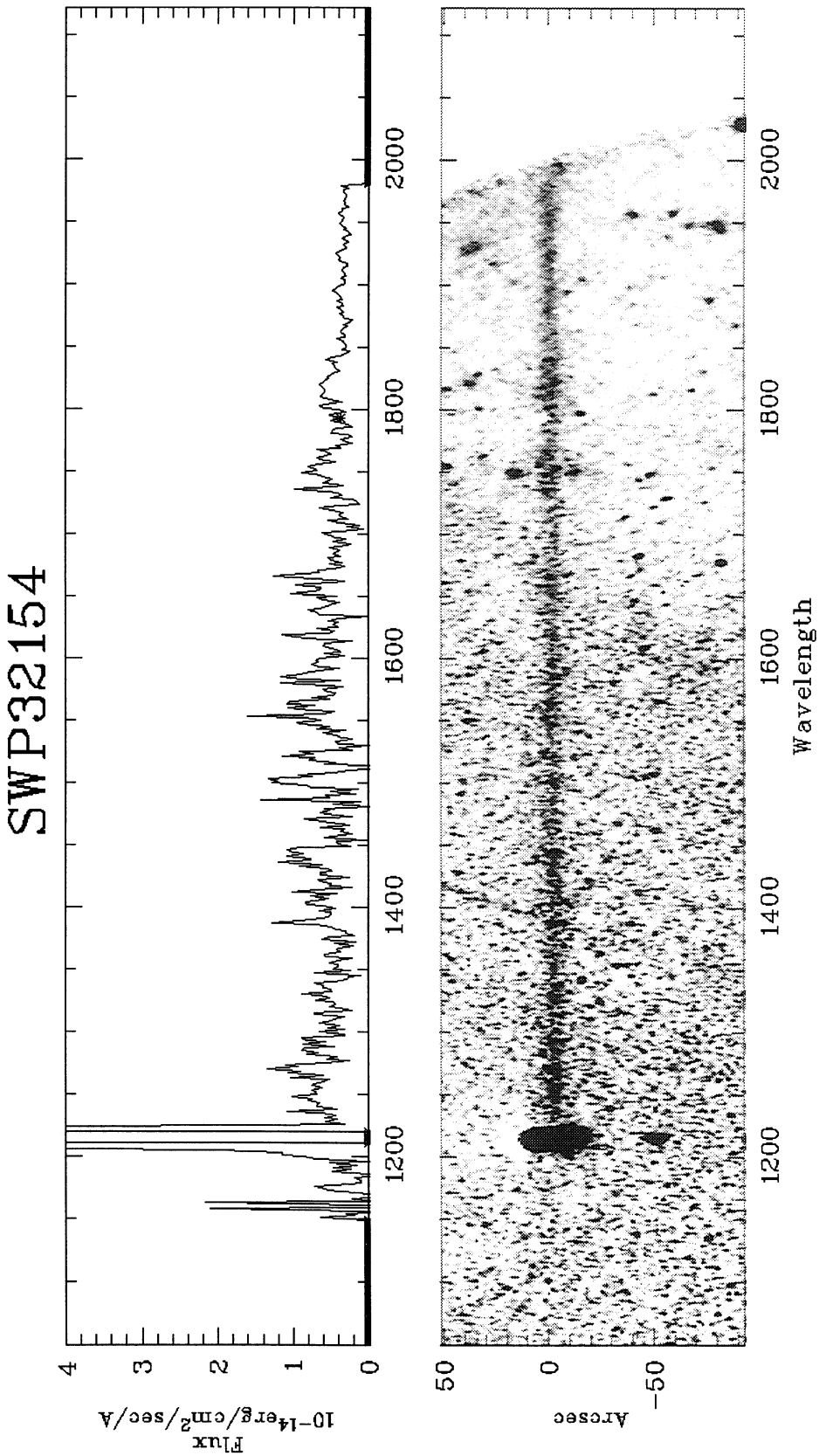
From the [S II] data in Eislöffel *et al.* (1994b)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWP SWP SWP	02158 21389 32154	(2.0 ± 0.1)E-13			


LWP02158
Flux
10-14erg/cm2/sec/A
4
3
2
1
0
2000
2500
3000
Arcsec
50
0
-50
Wavelength


SWP21389
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength


SWP32154
Flux
10^{-14}erg/cm^2/sec/A
Arcsec
Wavelength
0
1
2
3
4
50
0
−50
1200
1400
1600
1800
2000

HH 57

Alternative names :		
Type :	LEO	[18]
Coordinates :		
α_{1950} =	$16^h\ 28^m\ 56\overset{s}{.}8$	
δ_{1950} =	$-44°\ 49'\ 17''$	
Proper motion :		[35]
$\mu_\alpha \cos\delta$ =	$-1\overset{''}{.}5 \pm 1\overset{''}{.}1$ cen^{-1}	
μ_δ =	$1\overset{''}{.}1 \pm 0\overset{''}{.}8$ cen^{-1}	
Radial velocity :	-55 km s^{-1}	[18]
Suspected source :	V346 Nor	
Region :	Norma 1	
Distance :	700 pc	
Characteristic size :	$5''\times5''$	
Asociated with molecular outflow :	Yes	[33]
P.A. of jet :	$\sim 195°$	

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWR	16009	L	L	24-05-83	80.0	B=130	236.96
2	SWP	20062	L	L	24-05-83	290.0	B=70	236.96

HH 216

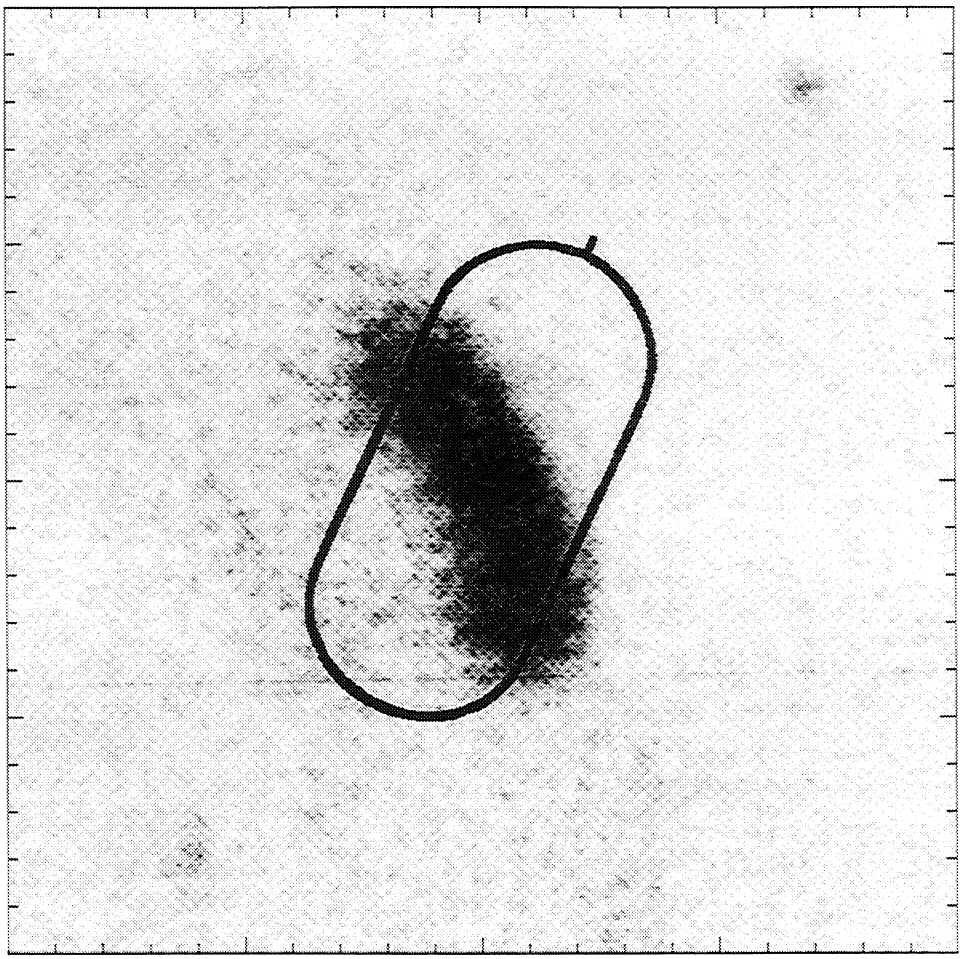
Alternative names :	M16–HH1	
Type :	HEO	[25]
Coordinates :		
α_{1950} =	$18^h\ 16^m\ 05\overset{s}{.}1$	
δ_{1950} =	$-13°\ 53'\ 03''$	
Proper motion :		
$\mu_\alpha \cos\delta$ =		
μ_δ =		
Radial velocity :	$\sim +100$ km s^{-1}	[28]
Suspected source :		
Region :	NGC 661	
Distance :	2300 pc	
Characteristic size :	$14'' \times 4''$	
Asociated with molecular outflow :		
P.A. of jet :		

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWR	11870	L	L	31-10-81	240.0		335.05
2	SWP	15352	L	L	31-10-81	157.0		335.01

HH 216

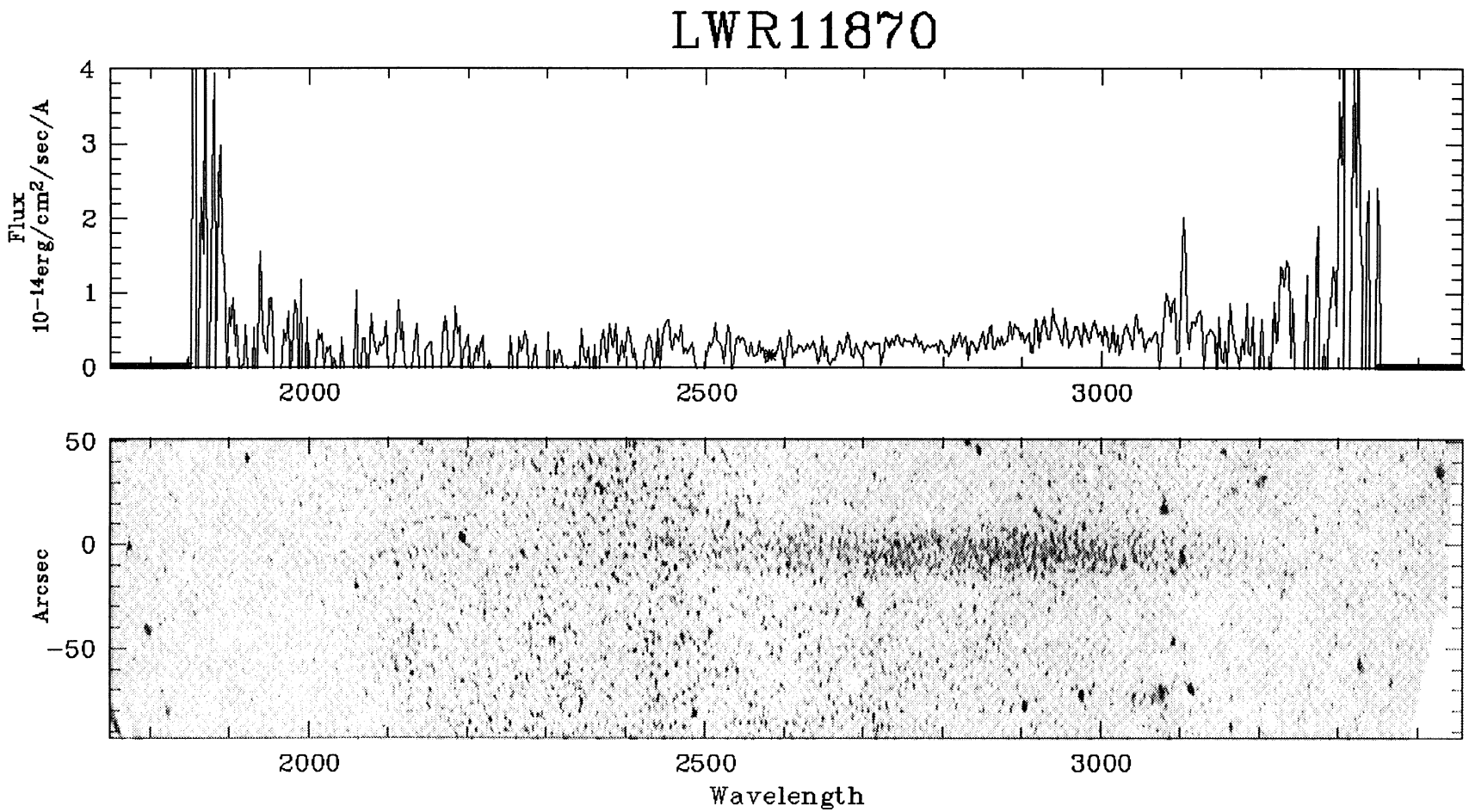
CENTER = HH216 PA = 335°
$\alpha_C = 18^h16^m5\overset{s}{.}1 \quad \delta_C = -13°53'03''$

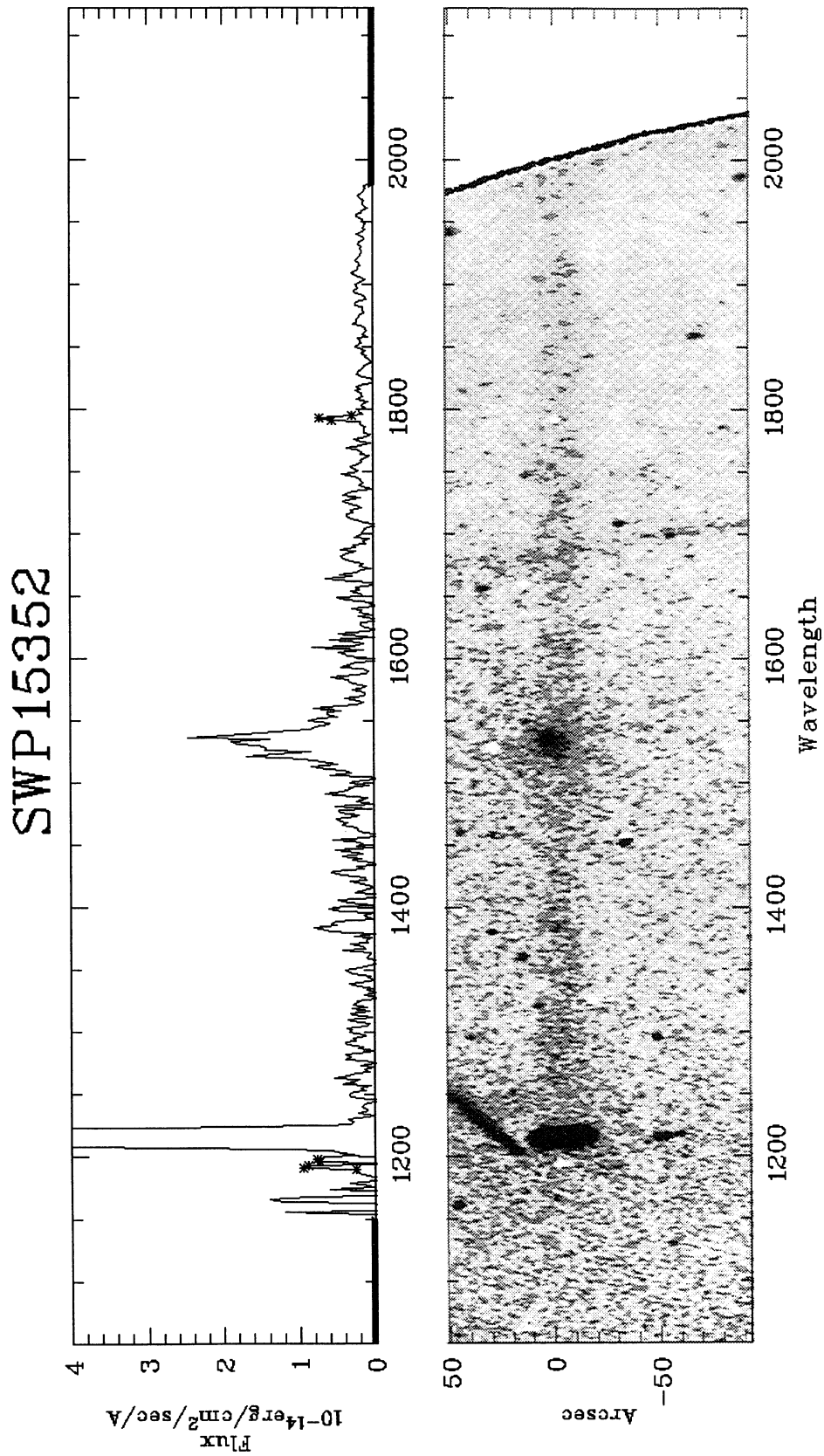


From the [S II] data in Meaburn *et al.* (1990)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWR SWP	11870 15352				


LWR11870
Flux
10−14erg/cm2/sec/A
4
3
2
1
0
2000
2500
3000
50
0
−50
Arcsec
2000
2500
3000
Wavelength


SWP15352
Flux
10⁻¹⁴erg/cm²/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Wavelength
Arcsec
50
0
−50

HH 81

Alternative names :

Type :

Coordinates :

α_{1950} = $18^h\ 16^m\ 07\overset{s}{.}5$
δ_{1950} = $-20°\ 52'\ 53''$

Proper motion :

$\mu_\alpha \cos\delta$ =
μ_δ =

Radial velocity :
Suspected source : IRAS18162–2048
Region : L291
Distance : 1700 pc
Characteristic size : $12'' \times 12''$
Asociated with molecular outflow : Yes [42]
P.A. of jet : $\sim 20°$

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWP	13999	L	L	04-09-88	830.0	B=210,B=174	342.41
2	SWP	34191	L	L	05-09-88	695.0	B=112	342.36

HH 32

Alternative names :

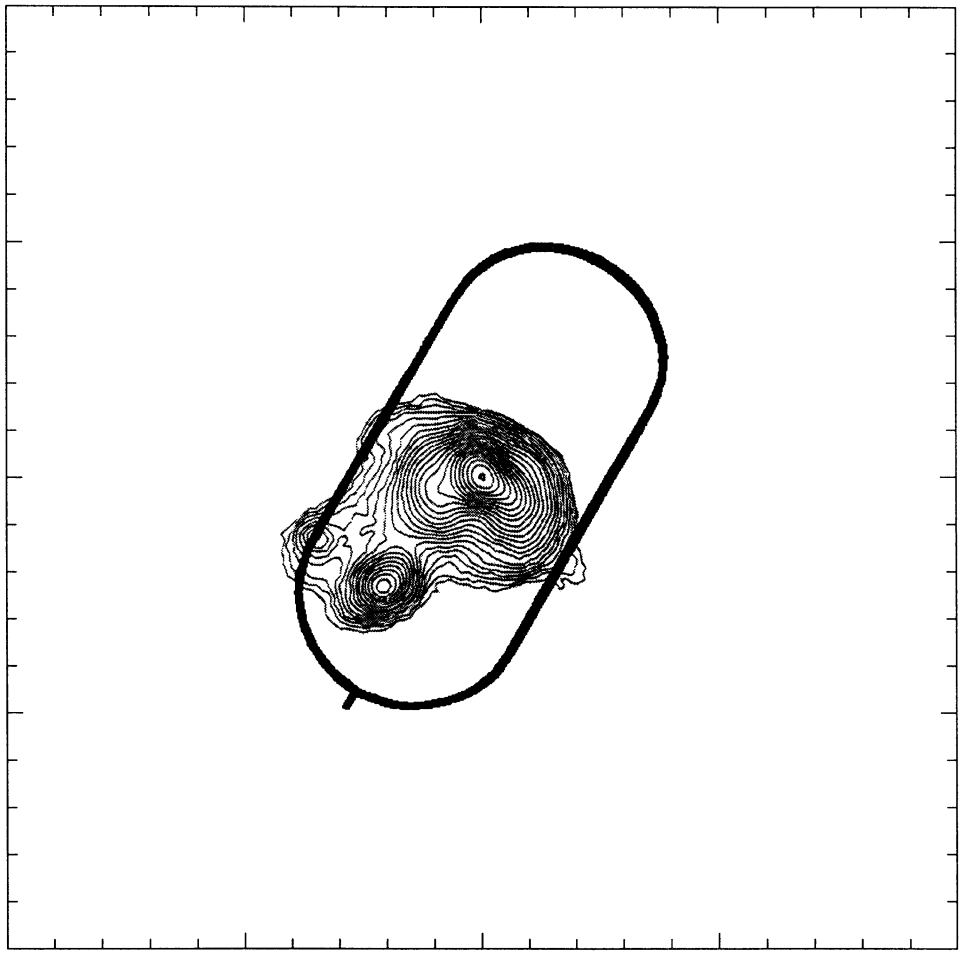
Type :	HEO	[3]
Coordinates :		
α_{1950} =	$19^h\ 18^m\ 07\overset{s}{.}9$	
δ_{1950} =	$10°\ 56'\ 21''$	
Proper motion (Knot A) :		[21]
$\mu_\alpha \cos\delta$ =	$-3''.8 \pm 2''.1$ cen^{-1}	
μ_δ =	$0''.6 \pm 1''.5$ cen^{-1}	
Radial velocity (Knot A, HVC) :	+250 km s^{-1}	[19]
Suspected source :	AS353A	
Region :	Aquila	
Distance :	300 pc	
Characteristic size :	$10'' \times 10''$	
Asociated with molecular outflow :	Yes	[10]
P.A. of jet :	$\sim 287°$	[19]

IUE spectra:

n^o	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	LWR	13004	L	L	11-04-82	414.0	E=140,C=65,B=65	155.10
2	SWP	13804	L	L	25-04-81	310.0	B=75	147.46
3	SWP	26994	L	L	27-10-85	840.0	E=2X,B=142	328.08

HH 32

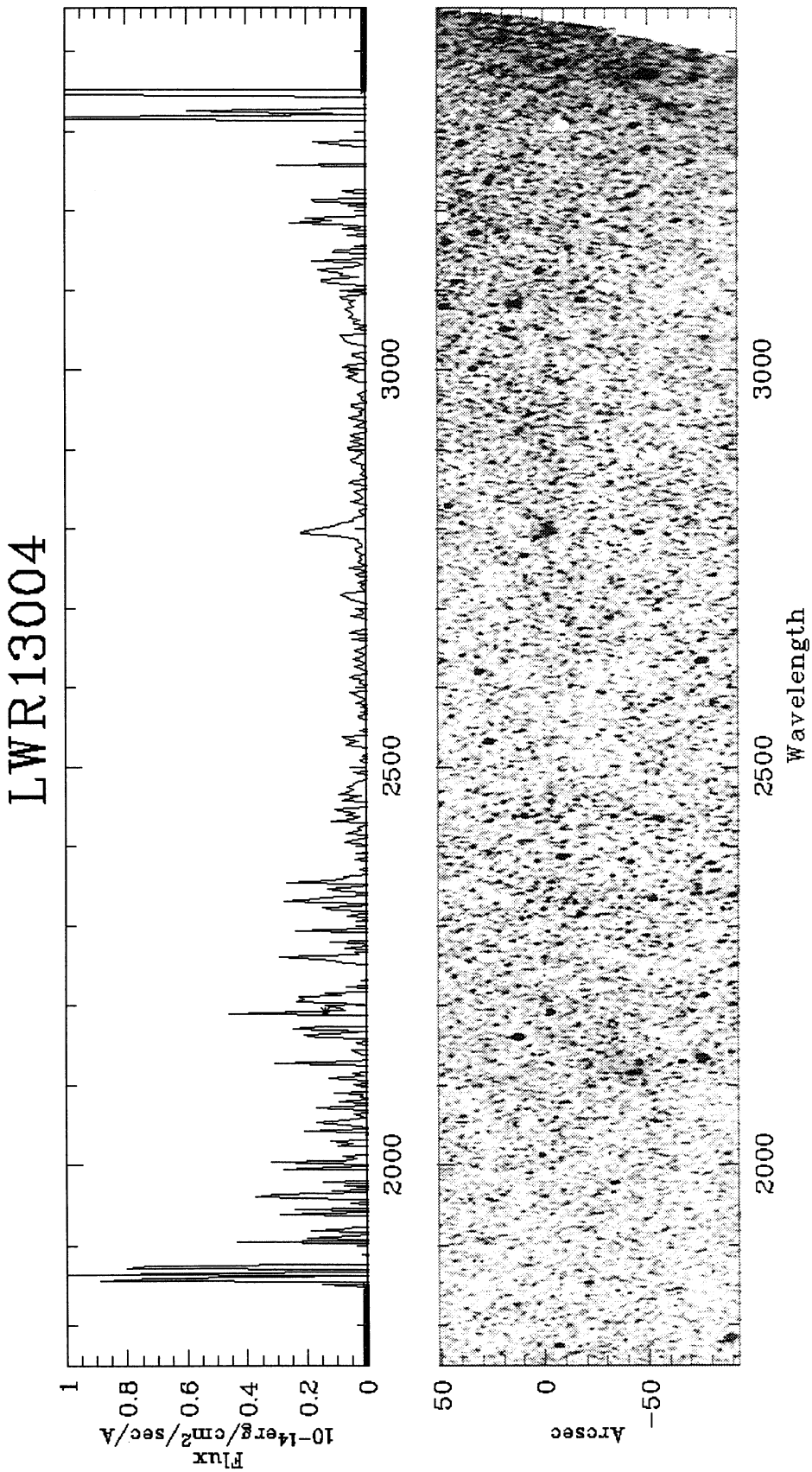
CENTER = HH32A PA = 150°
$\alpha_C = 19^h18^m07^s.94$ $\delta_C = 10°56'21''.6$

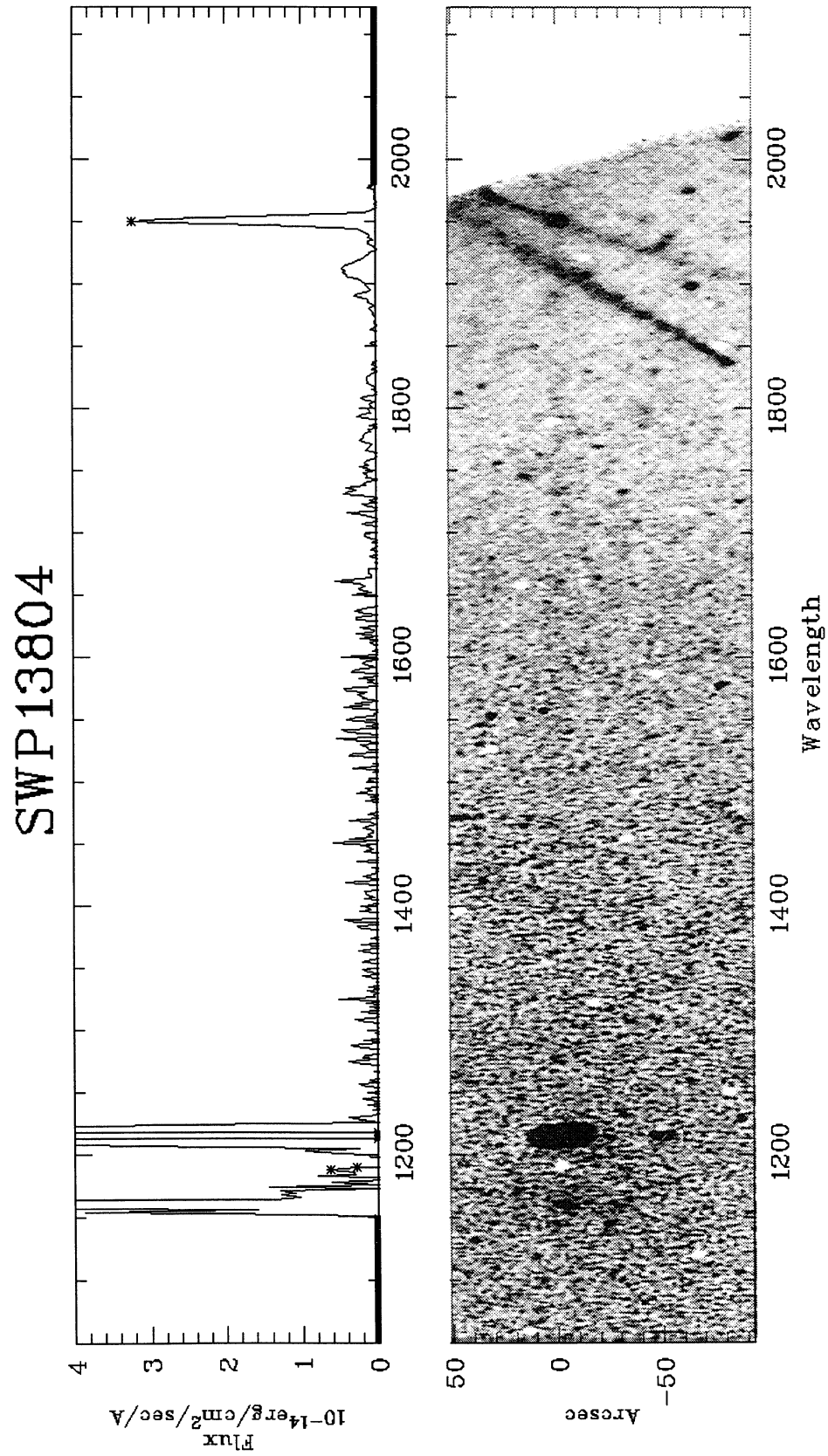


From the [S II] data in Davis *et al.* (1996)

IUE Data:

Cam.	Image	Mg II ($\frac{erg}{cm^2 s}$)	C II] ($\frac{erg}{cm^2 s}$)	C III] ($\frac{erg}{cm^2 s}$)	C IV ($\frac{erg}{cm^2 s}$)
LWR SWP	13004 13804	(9.3 ± 1.0)E-15			


LWR13004
Flux
10^{-14}erg/cm^2/sec/A
1
0.8
0.6
0.4
0.2
0
2000
2500
3000
Arcsec
50
0
−50
Wavelength


SWP13804
Flux
10^{-14}erg/cm^2/sec/A
0
1
2
3
4
1200
1400
1600
1800
2000
Arcsec
50
0
−50
Wavelength

HH 168

Alternative names :	GGD 37	
Type :	HEO	[20]
Coordinates :		
α_{1950} =	$22^h\ 54^m\ 04\overset{s}{.}8$	
δ_{1950} =	$61°\ 45'\ 59''$	
Proper motion :		[26]
$\mu_\alpha \cos\delta$ =	$2\overset{''}{.}9 \pm 0\overset{''}{.}4$ cen^{-1}	
μ_δ =	$5\overset{''}{.}0 \pm 0\overset{''}{.}7$ cen^{-1}	
Radial velocity (Knot C) :	~ -180 km s^{-1}	[20]
Suspected source :	HW 2	
Region :	Ceph A	
Distance :	700 pc	
Characteristic size :	$50'' \times 40''$	
Asociated with molecular outflow :	Yes	[22]
P.A. of jet :	$\sim 300°$	

IUE spectra:

$n^{\underline{o}}$	Cam.	Image	Disp.	Ap.	Date	T. exp. [min.]	Comments	P.A.
1	SWP	38212	L	L	18-02-90	601.8	B=127	265.58

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