ESO 1.5 m + B&C + CCD, 3200–9100 Å, 2.5 Å/pix spectra

validated symbiotic stars:

Name	α_{J2000} h m s	δ_{J2000} ° ′ ″	l (°)	b (°)	obs. date	expt (sec)	obs. date	expt (sec)	fig. N.
SMC 1	00 29 10.800	–74 57 39.91	304.87	–42.08	15.16/10/94	180 1800			4
SMC 2	00 42 47.975	–74 41 59.88	303.70	–42.42	16.16/10/94	180 1800			5
SMC 3	00 48 20.05	–73 31 52.2	303.24	–43.59	17.02/10/94	180 1800			6
LHA 115-N 60	00 57 05.867	–74 13 16.27	302.40	–42.91	16.30/10/94	180 1800			7
Lin 358	00 59 12.259	–75 05 17.50	302.24	–42.03	17.09/10/94	180 1800			8
LHA 115-N 73	01 04 39.289	–75 48 24.78	301.85	–41.30	18.11/10/94	180 1800			9
StHA 32	04 37 45.618	–01 19 11.77	197.48	–30.04	18.29/10/94	180 1200			10
LMC 1	05 25 01.080	–62 28 48.67	271.82	–33.77	15.36/10/94	180 1200			11
LHA 120-N 67	05 36 07.653	–64 43 22.46	274.36	–32.35	20.00/04/95	600 1200	31.96/05/96	60 1500	12, 13
Sanduleak's	05 45 19.741	–71 16 07.08	281.91	–30.87	17.21/10/94	180 1800			14
LHA 120-S 63	05 48 43.502	–67 36 10.60	277.63	–30.88	17.25/10/94	180 1800			15
WRAY 15-157	08 06 34.860	–28 32 00.00	246.60	+1.95	29.97/05/96	60 900			16
RX Pup	08 14 12.313	–41 42 29.16	258.50	–3.93	31.99/05/96	10 100			17
AS 201	08 31 42.890	–27 45 31.60	249.08	+6.97	29.95/05/96	60 600			18
KM Vel	09 41 13.671	–49 23 27.92	274.19	+2.58	01.00/06/96	60 900			19
V366 Car	09 54 43.292	–57 18 52.97	280.81	–2.24	01.20/06/96	10 30 240			20
SS 29	11 08 27.48	–65 47 21.1	292.63	–5.00	28.96/05/96	1200			21
BI Cru	12 23 25.991	–62 38 16.12	299.72	+0.06	30.96/05/96	60 420			22
SS 38	12 51 26.21	–64 59 58.3	302.93	–2.13	30.98/05/96	60 900			23
Hen 3-863	13 07 43.897	–48 00 19.50	305.75	+14.78	20.19/04/95	300	29.99/05/96	300 900	24, 25
V840 Cen	13 20 49.65	–55 50 18.0	307.07	+6.79	20.22/04/95	1800	30.04/05/96	2700	26, 27
Hen 3-905	13 30 37.182	–57 58 20.47	308.12	+4.50	20.24/04/95	300	31.01/05/96	60 900	28, 29
V852 Cen	14 11 52.093	–51 26 24.37	315.48	+9.46	22.08/04/95	30 300			30
V835 Cen	14 14 09.415	–63 25 46.86	312.03	–2.03	22.06/04/95	30 180 180			31
IV Vir	14 16 34.308	–21 45 50.10	327.88	+36.95	21.09/04/95	30 360	30.07/05/96	60 600	32, 33
Hen 2-127	15 24 49.817	–51 49 52.44	325.53	+4.19	22.09/04/95	30 480	30.10/05/96	60 600 1800	34, 35
Hen 3-1092	15 47 10.517	–66 29 16.31	319.22	–9.35	21.13/04/95	60 600	31.03/05/96	60 900	36, 37
HD 330036	15 51 15.9311	–48 44 58.532	330.78	+4.15	21.15/04/95	30 300	31.05/05/96	30 150	38, 39
Hen 2-139	15 54 44.382	–55 29 34.22	326.91	–1.40	31.08/05/96	3600			40
T CrB	15 59 30.1611	+25 55 12.601	42.37	+48.16	30.14/05/96	30 90			41
V347 Nor	16 14 01.10	–56 59 28.0	327.92	–4.30	21.16/04/95	60 1200	30.17/05/96	1800	42, 43
UKS Ce-1	16 15 29.535	–22 12 16.16	353.02	+20.25	14.99/10/94	180 1500			44
Hen 2-171	16 34 04.231	–35 05 26.23	346.03	+8.55	22.18/04/95	30 600	31.11/05/96	60 1800	45, 46
Hen 2-176	16 41 31.190	–45 13 04.52	339.39	+0.74	01.30/06/96	30 120 480			47
AS 210	16 51 20.388	–26 00 26.81	355.51	+11.55	22.20/04/95	60 600			48
CL Sco	16 54 52.000	–30 37 18.33	352.32	+8.09	21.25/04/95	60 480	30.25/05/96	30 60 180	49, 50
Hen 3-1342	17 08 54.965	–23 23 37.50	0.08	+9.92	20.28/04/95	480	01.32/06/96	30 240	51, 52
Hen 3-1410	17 29 06.20	–29 43 17.7	357.41	+2.61	01.33/06/96	60 480			53
V2116 Oph	17 32 02.162	–24 44 44.02	1.94	+4.79	22.22/04/95	180 1800			54
Th 3-30	17 33 43.373	–28 07 21.87	359.30	+2.65	20.32/04/95	1800	01.35/06/96	60 1200	55, 56
H 1-25	17 35 22.237	–29 45 19.59	358.12	+1.46	21.27/04/95	60 1200			57
RT Ser	17 39 51.993	–11 56 38.22	13.89	+9.97	30.18/05/96	60 600			58
V2110 Oph	17 43 33.366	–22 45 35.91	5.03	+3.62	31.18/05/96	3600			59
H 1-36	17 49 48.24	–37 01 30.3	353.51	–4.92	22.26/04/95	20 120 300			60
RS Oph	17 50 13.165	–06 42 28.47	19.80	+10.37	29.21/05/96	60 480			61
WRAY 16-312	17 50 16.639	–30 57 35.01	358.79	–1.91	31.22/05/96	600 3600			62
V745 Sco	17 55 19.09	–33 15 03.9	357.36	–4.00	29.25/05/96	2400			63
AS 255	17 57 08.72	–35 15 37.8	355.79	–5.32	20.41/04/95	600	01.39/06/96	60 300	64, 65
SS 122	18 04 41.28	–27 09 13.6	3.66	–2.73	30.26/05/96	15 60 300			66
H 2-38	18 06 01.19	–28 17 05.1	2.81	–3.54	22.36/04/95	30 360			67
SS 129	18 07 05.54	–29 36 29.7	1.77	–4.39	16.00/10/94	180 1200	01.43/06/96	60 360	68, 69
Hen 3-1591	18 07 32.03	–25 53 43.5	5.07	–2.68	01.42/06/96	60 420			70

Name	α_{J2000} h m s	δ_{J2000} ° ′ ″	l (°)	b (°)	obs. date	expt (sec)	obs. date	expt (sec)	fig. N.
YY Her	18 14 34.207	+20 59 21.02	48.14	+17.24	01.28/06/96	30 150 420			71
FG Ser	18 15 07.096	–00 18 52.21	28.48	+7.93	29.34/05/96	15 180			72
Hen 3-1674	18 20 19.15	–26 22 47.0	6.01	–5.43	31.42/05/96	600	01.38/06/96	900	73, 74
V3929 Sgr	18 20 58.851	–26 48 25.09	5.70	–5.76	22.39/04/95	600 1080	31.28/05/96	1200	75, 76
V3811 Sgr	18 23 28.955	–21 53 09.62	10.34	–3.98	31.37/05/96	600 1800			77
V4018 Sgr	18 25 26.845	–28 35 57.49	4.55	–7.46	22.30/04/95	30 360			78
K 3-9	18 40 24.117	–08 43 57.80	23.91	–1.54	22.41/04/95	300 600			79
StHA 154	18 43 27.928	+19 30 05.43	49.60	+10.45	19.96/04/95	30 600			80
V4368 Sgr	18 54 40.32	–19 41 59.8	15.59	–9.53	18.42/04/95	150 600	01.32/06/96	30 90	81, 82
V1413 Aql	19 03 51.685	+16 28 31.74	49.02	+4.77	29.29/05/96	60 600			83
Ap 3-1	19 10 36.126	+02 49 28.69	37.64	–2.97	21.41/04/95	120 1080			84
HM Sge	19 41 57.083	+16 44 39.92	53.57	–3.15	22.35/04/95	10 120			85
V1016 Cyg	19 57 05.027	+39 49 36.13	75.17	+5.68	22.40/04/95	5 15 60			86
RR Tel	20 04 18.459	–55 43 32.27	342.16	–32.24	22.33/04/95	5 30			87
PU Vul	20 21 13.330	+21 34 19.31	62.58	–8.52	21.38/04/95	5 20 60 240	30.34/05/96	10 30 150	88, 89
StHA 176	20 22 42.25	–21 07 54.9	22.65	–29.10	18.05/10/94	180 1200			90
LT Del	20 35 57.244	+20 11 27.60	63.40	–12.15	21.39/04/95	30 420			91
ER Del	20 42 46.504	+08 41 12.09	54.46	–20.00	30.35/05/96	80			92
V1329 Cyg	20 51 01.27	+35 34 54.1	77.80	–5.56	29.37/05/96	30 420			93
CD –43.14304	21 00 06.38	–42 38 44.9	358.65	–41.10	19.43/04/95	30 180	30.36/05/96	5 120	94, 95
StHA 190	21 41 44.891	+02 43 54.41	58.42	–35.43	16.12/10/94	30 180 600			96
AG Peg	21 51 01.9749	+12 37 32.113	69.28	–30.89	29.39/05/96	3 10			97
R Aqr	23 43 49.4616	–15 17 04.202	66.52	–70.33	30.43/05/96	1			98
				possible symbiotic stars or closely related objects					
Ma 51	00 43 34.160	–73 13 24.67	303.72	–43.89	15.19/10/94	180 1800			99
Ma 250	00 48 43.194	–73 03 11.57	303.21	–44.07	17.06/10/94	180 1800			100
Ma 285	00 49 13.624	–72 54 28.96	303.16	–44.22	18.08/10/94	180			101
Ma 642	00 53 04.092	–72 16 16.56	302.76	–44.86	16.20/10/94	180 1800			102
Ma 832	00 55 17.486	–72 03 10.92	302.52	–45.08	16.23/10/94	180 1200			103
Ma 966	00 56 52.98	–72 21 11.3	302.35	–44.77	16.25/10/94	180 1800			104
Ma 1591	01 06 32.257	–72 17 18.50	301.31	–44.80	18.14/10/94	180 1800			105
Ma 1858	01 18 35.682	–72 42 21.78	300.12	–44.27	17.12/10/94	180 1800			106
StHA 55	05 46 42.079	+06 43 47.41	199.34	–11.12	19.24/10/94	180			107
V704 Cen	13 54 55.738	–58 27 16.53	311.17	+3.40	21.07/04/95	1200	29.00/05/96	600 1200	108, 109
V417 Cen	14 15 59.744	–61 53 49.53	312.71	–0.64	20.25/04/95	30	30.06/05/96	60 600	110, 111
V748 Cen	14 59 36.679	–33 25 03.97	331.51	+22.24	30.09/05/96	60 600			112
HD 149427	16 37 42.613	–55 42 26.21	331.13	–5.77	01.27/06/96	10 30 210			113
V1017 Sgr	18 32 04.167	–29 23 12.64	4.48	–9.11	28.43/05/96	600			114
AS 325	18 50 03.570	–26 24 15.38	8.96	–11.42	19.01/10/94	30 180			115
				Asiago 1.82 m + B&C + CCD, 3400–7700 Å, 7.5 Å/pix spectra					
				validated symbiotic stars:					
EG And	00 44 37.1869	+40 40 45.707	121.54	–22.17	15.02/10/95	4 11 20	07.77/02/96	10 30 90	116, 117
AX Per	01 36 22.693	+54 15 02.29	129.53	–8.04	15.03/10/95	20 40	07.78/02/96	90 300	118, 119
V471 Per	01 58 49.661	+52 53 48.59	133.12	–8.64	15.04/10/95	20 180 350	07.80/02/96	90 900	120, 121
BD Cam	03 42 09.3250	+63 13 00.501	140.84	+6.44	15.91/10/95	1 3	07.82/02/96	1 3 4	122, 123
UV Aur	05 21 48.881	+32 30 43.15	174.22	–2.35	15.91/10/95	10 90	07.81/02/96	15 45 90	124, 125
BX Mon	07 25 22.777	–03 35 50.76	220.04	+5.88	10.81/03/95	60 250	07.85/02/96	60 240	126, 127
V694 Mon	07 25 51.289	–07 44 08.09	223.76	+4.05	07.86/02/96	60 240			128
NQ Gem	07 31 54.5207	+24 30 12.567	194.63	+19.35	10.80/03/95	10 30 150	07.84/02/96	30 90	129, 130
RW Hya	13 34 18.133	–25 22 48.89	314.99	+36.49	11.08/03/95	20 60 200			131
IV Vir	14 16 34.310	–21 45 50.21	327.88	+36.95	11.09/03/95	20 300			132

Name	α_{J2000} h m s	δ_{J2000} ° ′ ″	l (°)	b (°)	obs. date	expt (sec)	obs. date	expt (sec)	fig. N.
T CrB	15 59 30.1611	+25 55 12.601	42.37	+48.16	27.82/07/93	25 180 480	10.99/03/95	120 180	133, 134
					15.76/10/95	30 120	08.08/02/96	90 190 320	135, 136
AG Dra	16 01 41.0135	+66 48 10.139	100.29	+40.97	11.13/03/95	20 300	15.77/10/95	3 40	137, 138
					08.06/02/96	10 30 45			139
Hen 3-1341	17 08 36.556	–17 26 30.19	5.02	+13.39	27.84/07/93	40 900			140
Draco C-1	17 19 57.655	+57 50 05.68	86.27	+34.76	12.90/08/90	7200	10.86/07/96	855 3600	141, 142
M 1-21	17 34 17.220	–19 09 22.87	6.96	+7.36	27.87/07/93	600			143
RT Ser	17 39 51.993	–11 56 38.22	13.89	+9.97	27.88/07/93	360			144
Pt 1	17 38 49.552	–23 54 05.43	3.48	+3.94	27.85/07/93	900			145
RS Oph	17 50 13.165	–06 42 28.47	19.80	+10.37	27.88/07/93	30 600	15.72/10/95	20 120	146, 147
V343 Ser	18 12 22.153	–11 40 07.17	18.08	+3.20	27.89/07/93	600	15.73/10/95	60 420	148, 149
FG Ser	18 15 07.096	–00 18 52.21	28.48	+7.93	11.20/03/95	300	14.74/10/95	60 600	150, 151
					10.94/07/96	600			152
YY Her	18 14 34.207	+20 59 21.02	48.14	+17.24	11.09/03/95	60 420	14.75/10/95	60 600	153, 154
V443 Her	18 22 07.849	+23 27 19.96	51.23	+16.59	11.10/03/95	20 300	14.85/10/95	60 120	155, 156
					15.78/10/95	20 120			157
MWC 960	18 47 55.858	–20 05 51.13	14.53	–8.27	27.90/07/93	30 900			158
AS 327	18 53 16.673	–24 22 59.29	11.14	–11.23	27.93/07/93	30 600			159
FN Sgr	18 53 54.776	–18 59 39.86	16.15	–9.06	27.94/07/93	30 900			160
Pe 2-16	18 54 10.11	–04 38 53.9	29.10	–2.72	27.96/07/93	900	15.74/10/95	60 720	161, 162
CM Aql	19 03 35.124	–03 03 14.28	31.59	–4.09	27.98/07/93	30 900	11.20/03/95	180	163, 164
					15.75/10/95	45 900			165
V919 Sgr	19 03 45.130	–16 59 55.19	19.01	–10.32	27.95/07/93	30 900			166
V1413 Aql	19 03 51.685	+16 28 31.74	49.02	+4.77	11.18/03/95	30 240	14.86/10/95	30 240	167, 168
					15.79/10/95	30 300			169
Ap 3-1	19 10 36.126	+02 49 28.69	37.64	–2.97	14.82/10/95	180 3600			170
BF Cyg	19 23 53.506	+29 40 29.22	62.93	+6.70	11.14/03/95	60 420	14.87/10/95	60 300	171, 172
CH Cyg	19 24 33.0681	+50 14 29.128	81.86	+15.58	11.13/03/95	6 15 75	14.96/10/95	5 13	173, 174
					11.05/07/96	10 30			175
HM Sge	19 41 57.083	+16 44 39.92	53.57	–3.15	14.88/10/95	20 150			176
QW Sge	19 45 49.54	+18 36 47.6	55.65	–3.02	11.17/03/95	30 600	14.88/10/95	60 600	177, 178
					11.04/07/96	60 180 300			179
CI Cyg	19 50 11.8339	+35 41 03.003	70.90	+4.74	11.16/03/95	30 150	14.92/10/95	20 120	180, 181
V1016 Cyg	19 57 05.027	+39 49 36.13	75.17	+5.68	11.16/03/95	6 30 150	14.93/10/95	10 75	182, 183
PU Vul	20 21 13.330	+21 34 19.31	62.58	–8.52	11.18/03/95	15 240	14.89/10/95	15 240	184, 185
					10.95/07/96	10 20 90			186
LT Del	20 35 57.244	+20 11 27.60	63.40	–12.15	11.19/03/95	300	14.91/10/95	60 600	187, 188
					10.95/07/96	600			189
Hen 2-468	20 41 18.991	+34 44 52.33	75.94	–4.44	14.93/10/95	90 1200	10.96/07/96	900	190, 191
V1329 Cyg	20 51 01.27	+35 34 54.1	77.80	–5.56	14.97/10/95	30 163	11.01/07/96	60 120	192, 193
V407 Cyg	21 02 09.84	+45 46 32.6	86.99	–0.49	11.21/03/95	30 240	14.98/10/95	30 250 500	194, 195
AG Peg	21 51 01.9749	+12 37 32.113	69.28	–30.89	14.91/10/95	5 36	11.00/07/96	20	196, 197
Z And	23 33 39.9505	+48 49 05.947	109.98	–12.09	15.01/10/95	10 22	07.73/02/96	60 600	198, 199
R Aqr	23 43 49.4616	–15 17 04.202	66.52	–70.33	14.90/10/95	20 90 180			200
					possible symbiotic stars or closely related objects				
V641 Cas	00 09 26.339	+63 57 14.13	118.34	+1.46	15.88/10/95	5 30	07.76/02/96	30 180	201, 202
GH Gem	07 04 12.801	+12 03 34.26	203.57	+8.23	10.96/03/95	600 1200			203
ZZ CMi	07 24 13.9987	+08 53 51.777	208.64	+11.30	10.79/03/95	30 120 700	07.84/02/96	30 90	204, 205
TX CVn	12 44 42.065	+36 45 50.68	130.93	+80.26	10.98/03/95	180 200	08.03/02/96	90 360 600	206, 207
V503 Her	17 36 40.461	+23 18 12.01	47.00	+26.23	15.77/10/95	60 300			208
XX Oph	17 43 56.4972	–06 16 08.750	19.41	+11.95	15.72/10/95	10 70			209
V335 Vul	19 23 14.108	+24 27 39.97	58.22	+4.40	24.72/11/93	60 360	21.72/11/97	30 300	210, 211
Hen 2-442	19 39 43.36	+26 29 33.0	61.80	+2.13	15.81/10/95	90 1200			212
OY Cyg	19 54 43.859	+39 17 57.85	74.48	+5.80	15.83/10/95	60 420			213
V627 Cas	22 57 40.967	+58 49 12.49	108.66	–0.86	14.73/10/95	30 300	07.74/02/96	600	214, 215
V630 Cas	23 48 51.956	+51 27 39.32	113.10	–10.21	15.86/10/95	60 420			216