ORFEUS-II INSTRUMENT PI RESERVED TARGET LIST

This Appendix contains a listing of targets reserved for the Instrument PI teams for the ORFEUS-SPAS II mission. Because the launch date of ORFEUS-SPAS II cannot be guaranteed at this time, the PI target lists are **oversubscribed**, such that there will be sufficient targets favorably placed for observation at any launch date to complete the program. The PI teams **do not intend** to observe all targets on these lists.

ORFEUS-SPAS II PI RESERVED TARGETS FOR FUV SPECTROMETER

Name	(J2000) R.A.	Dec.	Sp Type	Exp Time (ksecs)
KPD 0005+5106	00 08 17	+51 22 54	DA	*
A 36	00 27 36	−12 47 00	Clust Gal	*
EG And	00 44 37.1	+40 40 47	M2III:e	*
NGC 246	00 47 03.3	−11 52 19	PN	*
Ton S180	00 57 20.1	−22 22 56	Seyfert 1	3.0
NGC 346-3	00 59 18	−72 10 48	Star Clust	2.0
NGC 346-4	00 59 18	−72 10 48	Star Clust	2.0
SK 80	00 59 30	−72 11 00	O9	2.0
Fairall 9	01 23 45.7	−58 48 22	Seyfert 1	2.5
HD 5890	01 01 24.0	+61 02 36	F5	*
HD 18100	02 53 40.8	−26 09 20	B5II/III	*
beta Per	03 08 10.1	+40 57 20	B8V	2.0
NGC 1360	03 33 14.6	−25 52 19	PN	*
HD 22586	03 35 37.9	−52 33 24	B1/B2III	*
V471 Tau	03 50 24.4	+17 14 48	K0+WD	*
VW Hyi	04 09 08	−71 17 36	Dwarf Nova	*
HD 29138	04 13 47.6	−84 29 09	B1Iab	*
epsilon Aur	05 01 58.8	+43 49 24	A8Iab	*
G191 B2B	05 05 30.3	+52 49 54	DAw	*
HD 33599	05 07 13.0	−61 48 18	B5psh	*
HD 36402	05 26 04	−67 29 48	WC	*
HD 269546	05 26 45.1	−68 49 55	B3Iabp	*
IC 418	05 27 28.3	−12 41 48	PN	*
HD 269698	05 31 42	−67 38 06	O5e	2.0
SK −67167	05 31 54	−67 41 00	O4	1.5
HD 269810	05 35 00	−67 32 00	O7	1.5
HD 38282	05 38 54	−69 01 00	WN	*
SS Aur	06 13 22	+47 44 30	Dwarf Nova	*
HD 49798	06 48 04.8	−44 18 59	sdO6p	*
HS 0713+3958	07 17 03	+39 53 24	Star	*
NGC 2392	07 29 10.7	+20 54 43	O6 PN	*
LS 591	07 36 30.0	−32 12 57	sd:O	*

BD +75 325	08	10	49.3	+74	57	57	O5pvar	*
IX Vel	08	15	19.0	-49	13	17	B Star	*
Z Cam	08	25	13	+73	06	42	Dwarf Nova	*
SY CnC	09	01	02	+17	54	18	G8V	*
HD 77770	09	06	22.5	+49	36	41	B2IV	*
HD 78316	09	07	44.8	+10	40	06	B8IIImnp	*
LS 1275	09	20	09.8	-45	31	52	B Star	*
RW Sex	10	19	56.6	-08	41	58	DAe	*
Feige 34	10	39	36	+43	06	00	DA	*
HD 93521	10	48	23.4	+37	34	13	O9Vp	*
HD 93840	10	49	08.7	-46	46	42	B1/B2Iab/Ib	*
xi UMa	11	18	12.5	+31	32	14	G0V	2.0
SY Mus	11	32	05.5	-65	25	07	Mpe	2.5
PG 1159-305	12	01	46	-03	45	36	DO	*
NGC 4151	12	10	32.5	+39	24	21	Seyfert 1	2.5
3C273	12	29	06.7	+02	03	09	Quasar	5.0
HD 116852	13	30	23.2	-78	51	18	O9III	*
RW Hya	13	34	18.1	-25	22	49	MIII:pe	*
HD 121968	13	58	51.1	-02	54	53	B5	*
HD 125924	14	22	42.9	-08	14	53	B2IV	*
H 1504+65	15	02	08.3	+66	12	26	DZ	*
HD 141556	15	50	57.5	-33	37	36	B9IV	*
AG Dra	16	01	40.9	+66	48	10	K0	2.5
HD 146813	16	15	14.7	+55	47	58	B8	*
KX TrA	16	44	35.3	-62	37	14	Star	2.0
AS 210	16	51	20.4	-26	00	27	G Star	2.5
HD 156359	17	21	18.6	-62	55	04	B0Ia/Iab	*
RS Oph	17	50	13	-06	42	30	Nova	*
NGC 6543	17	58	33.3	+66	37	59	Star	*
HD 163522	17	58	35.1	-42	29	10	B1Ia	*
HD 167756	18	18	39.9	-42	17	18	B0.5Ia	*
HD 177566	19	07	07.6	-41	43	10	B6Ib	*
HD 177989	19	07	36.5	-18	43	30	B2II	*
CH Cyg	19	24	33.0	+50	14	30	M7IIIvar	2.5
HM Sge	19	41	57.0	+16	44	40	M Star	2.0
NGC 6826	19	44	48.1	+50	31	32	Star	*
V1016 Cyg	19	57	05	+39	49	48	M6.5	*
NGC 6853	19	59	36.1	+22	43	00	PN	*
RR Tel	20	04	16	-55	43	18	F5pevar	2.5
32 Cyg	20	15	28.2	+47	42	51	K3Ib	*
HD 192713	20	15	30.1	+23	30	32	G2Iab	*
CD -43 14304	21	00	06.2	-42	38	50	K3	2.5
VY Aqr	21	12	10	-08	49	21	Nova	*
GD 394	21	12	43.5	+50	06	17	DAw	*
SS Cyg	21	42	42.3	+43	35	08	A1pe	*
AG Peg	21	51	01.9	+12	37	32	WN	*
BD +28 4211	21	51	11.5	+28	51	49	Op WD	*
FF Aqr	22	00	36.2	-02	44	26	K0	*
AR Lac	22	08	41.1	+45	44	29	G2IV	2.0
RU Peg	22	14	03	+12	42	06	sd:Be	*
HD 214080	22	36	06.3	-16	23	16	B1/B2Ib	*
HD 214930	22	41	25.7	+23	50	48	B2IV	*
HD 217505	23	02	02.4	-59	27	47	B2III/IV	*
Z And	23	33	39.9	+48	49	06	M6.5	2.5
R Aqr	23	43	49.3	-15	17	03	M7IIIpevar	2.5

* Expected exposure time unavailable

ORFEUS-SPAS II PI RESERVED TARGETS FOR EUV SPECTROMETER

Name	(J2000) R.A.	Dec.	Sp Type	Exp Time (ksecs)
SX Cas	00 10 42.0	+54 53 30	G6	1.80
HD 18100	02 53 40.8	−26 09 21	B5II/III	0.90
GD 50	03 49 00.0	−00 58 00	DA	1.80
MCT 0501	05 03 55.5	−28 54 32	DO	9.00
G191 B2B	05 05 30.6	+52 49 53	DA	1.80
HD 33599	05 07 13.0	−61 48 18	B5psh	0.75
Nu Ori	05 35 31.4	−05 16 03	B3V	5.50
Beta CMa	06 22 42.0	−17 57 21	B1II/III	1.80
Epsilon CMa	06 58 37.6	−28 58 20	B2Iab	14.40
Alpha CMi	07 39 18.3	+05 13 33	F5IV-V	18.00
BD +75 325	08 10 49.4	+74 57 58	O5pvar	1.40
HD 75750	08 52 20.0	+19 21 02	B5	0.50
HD 233622	09 21 33.6	+50 05 57	B5	2.00
HD 93521	10 48 23.5	+37 34 13	O9Vp	0.21
HD 94473	10 53 58.6	−26 44 46	B5III	0.21
HD 97991	11 16 11.7	−03 28 20	B1V	0.21
HD 100340	11 32 49.9	+05 16 37	B9	2.40
HZ 25	12 25 23.4	+35 58 33	B3V	2.90
HD 108230	12 26 11.6	−32 19 17	B5II	1.15
HZ 43	13 16 21.9	+29 05 57	DAw	9.00
HD 116852	13 30 23.5	−78 51 21	O9III	0.50
HD 119608	13 44 31.3	−17 56 13	B1Ib	0.22
HD 120086	13 47 19.2	−02 26 37	B2V	0.30
HD 120958	13 53 28.2	−39 03 26	B3Vne	0.22
HD 121800	13 55 15.5	+66 07 00	G7	0.87
HD 121968	13 58 51.1	−02 54 53	B5	2.60
Alpha Cen B	14 39 36.6	−60 50 17	G+	14.40
HD 151067	16 41 06.3	+62 18 29	B8V	0.45
HD 158243	17 31 07.2	−53 28 44	B1Ib	0.38
HD 163522	17 58 35.3	−42 29 10	B1Ia	0.46
W Ser	18 09 50.6	−15 33 01	G0/G1Iap e	1.80
HD 167756	18 18 40.2	−42 17 19	B0.5Ia	0.21
HD 175863	18 53 44.7	+60 01 04	B4Ve	0.21
HD 177989	19 07 37.8	−18 43 34	B2II	1.05
HD 181653	19 16 24.2	+67 08 06	B1II-III	0.45
ESO 141-55	19 21 14.1	−58 40 13	Seyfert 1	16.00
HD 183899	19 32 45.2	−26 09 46	B2III	1.66
HD 186994	19 45 38.1	+44 57 49	B0III	0.21
HD 187311	19 51 04.7	−41 01 24	B5II	2.64
HD 192575	20 10 56.8	+68 16 20	B0.5V	0.21
HD 195455	20 32 14.8	−24 04 03	B1/B2III	1.20
HD 203664	21 23 28.8	+09 55 55	B0.5IIIn	0.55
BD +28 4211	21 51 11.1	+28 51 52	Op	1.80
HD 215733	22 47 02.5	+17 13 59	B1II	0.21
HD 218624	23 09 22.7	+18 44 09	B9V	0.21
HD 219188	23 14 00.6	+04 59 50	B0.5III	0.21
HD 220582	23 24 45.4	+25 29 47	B9	0.45
EQ Peg	23 31 52.1	+19 56 15	M4V	1.80
Lambda And	23 37 33.8	+46 27 31	G8III	1.80

ORFEUS-SPAS II PI RESERVED TARGETS FOR IMAPS SPECTROMETER

Name	(J2000) R.A.	Dec.	Sp Type	Exp Time (ksecs)
Epsilon Per	03 57 51.2	+40 00 37	B0.5V+A2V	*
Xi Per	03 58 57.8	+35 47 28	O7e	*
HD 28497	04 29 06.9	−13 02 55	B1Vne	*
Delta Ori	05 32 00.3	−00 17 57	B0III+O9V	*
Mu Col	05 45 59.9	−32 18 23	O9.5V	*
Delta Pic	06 10 17.9	−54 58 07	B3III+O9V	*
15 Mon	06 40 58.6	+09 53 44	O7Ve	*
Epsilon CMa	06 58 37.5	−28 58 20	B2II	*
HD 75821	08 50 33.4	−46 31 45	B0III	*
Kappa Vel	09 22 06.8	−55 00 38	B2IV−V	*
Rho Leo	10 32 48.6	+09 18 24	B1Ib	*
Alpha Vir	13 25 11.5	−11 09 41	B1III−IV+B2V	*
Epsilon Cen	13 39 53.2	−53 27 59	B1III	*
Eta UMa	13 47 32.3	+49 18 48	B3V	*
Beta Cen A	14 03 49.4	−60 22 22	B1III	*
Eta Cen	14 35 30.3	−42 09 28	B1.5Vne	*
Delta Sco	16 00 19.9	−22 37 18	B0.3IV	*
Zeta Oph	16 37 09.4	−10 34 02	O9.5Vn	*
RR Tel	20 04 18.5	−55 43 33	O VIe	*

* Exposure times will be determined on−orbit to ensure high signal−to−noise data

TARGETS OBSERVED BY EUV SPECTROMETER ON ORFEUS-SPAS I

Name	(J2000) R.A.	Dec.	Sp Type	Exp Time (ksecs)
HD 3827	00 41 12.1	+39 36 14	B0.7Vn	1.63
NGC 246	00 47 03.3	-11 52 19	PN	0.38
NGC 346	00 59 18	-72 10 48	Star Clust	4.61
HD 5890	01 01 24.0	+61 02 36	F5V	2.00
HD 14633	02 22 54.2	+41 28 49	O8.5V	0.15
Kappa Cet	03 19 20.7	+03 22 08	G5Vvar	0.31
Epsilon Eri	03 32 59.1	-09 27 31	K2V	1.82
V471 Tau	03 50 24.4	+17 14 48	K0+WD	0.95
VW Hyi	04 09 08	-71 17 42	Dwarf Nova	1.99
HD 29138	04 13 47.6	-84 29 09	B1Iab	0.92
NGC 1535	04 14 15.8	-12 44 22	PN	1.56
MCT 0455-2812	04 57 09.0	-28 07 35	DA	8.70
MCT 0501	05 03 55.5	-28 54 32	DO	0.48
G191 B2B	05 05 30.6	+52 49 53	DA	8.23
Alpha Aur	05 16 41.0	+46 00 14	G5IIIe+...	1.71
HD 36402	05 26 04	-67 29 48	WC:	1.31
HD 269546	05 26 45.1	-68 49 55	B3Iabp	1.95
AB Dor	05 28 44.5	-65 27 02	K1IIIp	1.73
TV Col	05 29 25.5	-32 49 05	K1	1.91
SS Lep	06 04 59.1	-16 29 04	Apsh	4.58
HD 41161	06 05 52.5	+48 14 58	O8V	0.81
HD 45595	06 30 28.3	+43 56 18	F5	0.96
HD 50896	06 54 13.0	-23 55 42	WN	1.41
Epsilon CMa	06 58 37.5	-28 58 20	B2Iab	3.83
HD 54911	07 10 08.8	-15 41 05	B1III	2.46
HD 60848	07 37 05.7	+16 54 15	O8V:pevar	0.25
Alpha CMi	07 39 20.4	+05 14 21	F5IV-V	1.53
NGC 2440	07 41 55.4	-18 12 31	PN	1.27
IX Vel	08 15 19.0	-49 13 17	Star	1.11
Z Cam	08 25 13	+73 06 42	Dwarf Nova	1.48
HD 233622	09 21 33.5	+50 05 57	B5	2.07
HD 88115	10 07 31.8	-62 39 12	B1Ib/II	1.43
HD 93129A	10 43 57.4	-59 32 51	O3Iab	3.05
HD 93250	10 44 45.1	-59 33 54	O6/O7	1.43
HD 303308	10 45 06.0	-59 40 05	O+...	1.77
HD 94493	10 53 15.2	-60 48 52	B0.5Iab/Ib	1.53
HD 99857	11 28 27.0	-66 29 21	B1Ib	1.38
HD 99890	11 29 05.8	-56 38 39	B0.5V:	2.53
PG 1159-305	12 01 46.0	-03 45 36	DO	1.49
HD 104705	12 03 23.9	-62 41 45	B0III/IV	1.79
HD 107446	12 21 22.7	-60 24 08	K3.5III	1.89
HD 109399	12 35 16.5	-72 42 59	B0.5III	1.53
HD 116852	13 30 23.2	-78 51 18	O9III	0.78
HD 121800	13 55 15.4	+66 07 00	G7	1.68
Alpha Cen A	14 40 00.8	-60 50 40	G2V	5.55
Alpha Cen B	14 39 36.6	-60 50 17	K1V	2.19
BD +33 2642	15 51 59.0	+32 57 01	B2	2.91
AG Dra	16 01 40.9	+66 48 10	K0	1.90
Sigma CrB	16 14 42.0	+33 51 34	G0	1.93
HD 149881	16 36 58.1	+14 28 31	B0.5III	1.56
HD 149499B	16 38 30	-57 28 12	White Dwarf	1.68
HD 156110	17 13 27.6	+45 22 20	B3Vn	0.88
NGC 6543	17 58 33.3	+66 37 59	Star	1.38

70 Oph A	18	05	26.0	+02	30 53	K0V	1.58
AM Her	18	16	13.3	+49	52 03	M4.5	2.83
HD 167794	18	17	35.6	−20	35 36	B8Ib/II	0.27
HD 167756	18	18	39.9	−42	17 18	B0.5Ia	1.37
BY Dra	18	33	54.7	+51	43 26	K6Ve	1.49
Nova Sgr	18	50	35	−21	24 00	Nova	0.91
NGC 6826	19	44	48.1	+50	31 32	Star	0.39
V3885 Sgr	19	47	39.4	−41	59 48	DB:p	2.17
NGC 6853	19	59	36.1	+22	43 00	PN	0.29
RR Tel	20	04	16	−55	43 18	F5pevar	1.58
V444 Cyg	20	19	32.3	+38	43 54	WN+...	1.95
Nova Cyg	20	30	32	+52	37 63	Nova	2.04
HD 195455	20	32	14.6	−24	04 03	B1/B2III	1.16
AU Mic	20	45	08.3	−31	20 09	M0Ve	0.85
NGC 7009	21	04	10.8	−11	21 48	Star	0.30
AG Peg	21	51	01.9	+12	37 32	WN	1.23
BD +28 4211	21	51	11.1	+28	51 52	Op	0.71
BD +28 4211	21	51	11.1	+28	51 52	Op	1.29
PKS 2155-304	21	58	52.0	−30	13 55	BL Lac	5.62
HD 214080	22	36	06.3	−16	23 16	B1/B2Ib	1.75
HD 217505	23	02	02.4	−59	27 47	B2III/IV	1.02
HD 220172	23	21	50.8	−09	45 41	B3Vn	1.74
Z And	23	33	39.9	+48	49 06	M6.5	0.98

TARGETS OBSERVED BY IMAPS SPECTROMETER ON ORFEUS-SPAS I

Name	(J2000) R.A.	Dec.	Sp Type	Exp Time (ksecs)
Gamma Cas	00 56 42.4	+60 43 00	B0IVe	1.9
Alpha Eri	01 37 42.9	−57 14 12	B3Vpe	2.1
Epsilon Ori	05 36 12.7	−01 12 07	B0Iae	1.8
Zeta Ori	05 40 45.5	−01 56 34	O9.5Ibe	2.4
Kappa Ori	05 47 45.3	−09 40 11	B0.5Iav	3.5
Zeta Pup	08 03 35.0	−40 00 11	O5Iaf	1.5
Gamma2 Vel	08 09 31.9	−47 20 12	WC8+O7.5e	1.5
Beta Cru	12 47 43.3	−59 41 19	B0.5III	0.9
Eta UMa	13 47 32.3	+49 18 48	B3V	3.4*
Beta Cen A	14 03 49.4	−60 22 22	B1III	0.3

* Echelle position 3 only