Table B1. *HRI* X-ray sources counterpart identifications in the ρ Oph cloud cores A & F.

ROXR			ASCA	NAME	ISO	IR	A_V	$L_\star$	$\log L_X$ (d=140 pc)			
	1	2				Class	[mag]	[$L_\odot$]	#1	#2	#3	#1+2+3
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A1	2	—	—	SR2=SAO184375	—	III*	0*	1.2*	30.4			
A2	3	—	.....	SR22	—	II*	1.5*	0.4*	29.4			
A3	..	—	.....	B162538-242238	*red*	nII	10.9	0.2	30.3			
A4	5*	—	.....	IRS3	*red*	nII	4.6	0.3	29.8			
A5	8	—	1	ROXs4=IRS10	*blue*	nIII	5.4	1.7	31.4			
A6	9	—	.....	SR4	*red*	II	1.9	1.5	29.9			
A7	10	—	2	GSS20	*blue*	III	4.7	1.1	30.5			
A8	11	—	.....	Chini8*=SKS3	...	nIII*	0.5	0.2	29.1			
A9	12*	—	.....	B162601-242945	*blue*	nIII	8.1	0.5	30.2			
A10	..	—	.....		....				?			
A11	13	—	3	DoAr21=ROXs8	*blue*	III	6.0	14.7	31.6			
A12	14	—	.....	VSSG19	*blue*	nIII	3.9	0.5	29.9			
A13	15*	—	.....	ROXC1=B162607-242742	*blue*	nIII	20.6	0.7	31.3			
A14	18	—	.....	GSS29	*red*	II	9.4	1.4	31.0			
A15	17	—	.....	DoAr24=ROXs10A	*red*	II	1.8	0.7	30.0			
A16	—	..*	—	WSB28	*blue*	nIII	4.3	0.4	30.1			
A17	22*	—	.....	GSS30-IRS2	*blue*	III	19.5	0.9	30.9			
A18	24	—	4	GSS31	*red*	II	6.1	5.9	30.4			
A19	25	—	C3	S2	*red*	II	11.8	3.7	30.4			
A20	26	—	.....	El24	*red*	II	10.0	4.5	30.5			
A21	28	—	5	S1=ROXs14	*blue*	III*	12*	1100*	30.8			
A22	..	—	.....	B162636-241554	*red*	nII	7.6	0.3	30.2			
A23	29	—	C4	GSS37	*red*	II	8.5	1.6	30.3			
A24	—	17	.....	VSS27=ROXs16	*red*	II	5.6	1.9	30.7			
A25	32	—	.....	VSSG3	*blue*	III	15.7	2.8	31.2			
A26	38	—	.....	SR21*	*red*	II	3.5	4.0	30.0			
F1	23	—	.....	DoAr25*	*red*	II	0.7	0.8	29.7	≤29.4	29.8	29.6
F2	31	—	.....	GY112	*blue*	nIII	3.6	0.4	≤30.0	30.2	30.4	30.2
F3	..	—	.....	GY122	*blue*	nIII	2.7	0.08	≤29.7	≤29.6	29.8	29.6
F4	..	—	.....		....				≤	≤	≤	?
F5	..	—	.....		....				?	?	?	?
F6	..	—	.....		....				?	?	?	?
F7	35*	—	.....	SR24S*	*red*	II	5.9	2.2	30.1	30.6	30.2	30.3
F8	..	—	.....	GY193	*blue*	nIII	7.4	0.3	≤30.3	≤30.2	30.0	30.0
F9	36*	—	.....	GY194	*blue*	nIII	9.1	0.4	30.4	30.2	30.6	30.5
F10	..	—	.....		....				≤	≤	≤	?
F11	..	—	.....		....				?	?	?	?
F12	..	—	.....	*anonymous star**	—	II-III?			≤	≤	≤	?
F13	..	—	.....		....				?	?	?	?
F14	—	22*	—	ROXs20B	—	III	2.7	0.3	30.3	30.4	30.4	30.4
F15	..	—	.....	GY238	*red*	nII	45.7	0.3	≤32.9	≤32.6	33.0	≤32.5
F16	39	—	.....	WL20	*red*	II	16.5	0.9	≤30.9	31.1	30.7	30.9
F17	41	—	9A	SR12AB=ROXs21	*blue*	III	1.2	0.8	30.7	30.6	30.6	30.6
F18	..	—	.....	B162720-243820	....	II-III?			?	?	?	?
F19	..	—	.....	WSB49	..*	II*	1.9	0.2	≤29.3	≤29.1	29.3	≤29.1
F20	..	—	.....		....				?	?	?	?
F21	43*	—	.....	YLW15=IRS43	*red*	I	30*	10*	32.6	≤31.1	≤31.4	31.9
F22	44	—	.....	VSSG25	*red*	II	9.8	0.4	≤30.8	31.7	30.4	31.3
F23	46*	—	.....	B162728-244803*	—	II-III?			≤	≤	≤	?
F24	—	..	—	U0600-11613195*	—	II-III?			?	?	?	?
F25	48*	—	.....	BBRCG50	....	II-III?			≤	≤	≤	?
F26	..	—	.....	B162730-244726	*blue*	nIII	10.3	0.6	30.6	30.5	≤30.2	30.5
F27	49	—	.....	GY292	*red*	II	10.8	1.6	≤30.6	30.7	30.8	30.7
F28	..	—	.....	GY296*	*blue*	nIII	5.1	0.08	≤	≤	≤	29.4
F29	50	—	.....	IRS49	*red*	II	10.1	1.1	31.6	30.4	30.4	30.9
F30	51	—	.....	GY314	*red*	II	6.4	0.8	30.4	30.4	30.3	30.4
F31	52	—	11	SR9=ROXs29	*red*	II	0	1.6	29.8	29.2	29.9	29.7
F32	..	—	—	GY377	*blue*	nIII	16.0	0.4	≤	≤	≤	30.6
F33	54	—	.....	ROXs31=IRS55	*blue*	III	6.0	1.8	30.7	30.7	30.7	30.7
F34	55	—	—	WSB58	—	II-III?			?	?	?	?
F35	—	..	—	B162800-245340	—	II-III?			?	?	?	?
F36	—	..	—	B162812-245043	—	II-III?			?	?	?	?
F37	—	34	—	HD148352	*blue*	III*	0		29.9	30.0	29.8	29.9

Comments to Table B1:
$\star$ = see notes below. ROXRA or ROXRF = X-ray source number (this article). ROXR1 = Casanova, S. et al. (1995, ApJ 439, 752) X-ray source number. ROXR2 = Casanova (1994, Ph.D. thesis, Paris VI University) X-ray source number. ASCA = Kamata et al. (1997, PASJ 49, 46) X-ray source number. Dash = out of observation field. Dots = unobserved source. *red* = *ISOCAM* source with IR excess. *blue* = *ISOCAM* source without IR excess. nII = new class II. nIII = new class III. ? = X-ray detected source for which intrinsic X-ray luminosity cannot be determined. ≤ = X-ray undetected source. II-III? = class II or class III candidate (see Appendix B).

Notes to Table B1:

ROXRA1: (7) The IR index ($\alpha_{\rm IR}$=dlog(λF_λ)/dlogλ) is estimated between 2.18–4.69 μm from Walter et al. (1994, AJ 107, 692) and Jensen et al. (1997, AJ 114, 301): we find $\alpha_{\rm IR}$=-2.5. (8–9) These values are estimated from Walter *et al.* (1994, AJ 107, 692).

ROXRA2: (7) Martín et al. (1998, MNRAS 300, 733) classify these stars as CTTS. (8–9) These values are estimated from GWAYL.

ROXRA4: (2) ROXR1-5 was identified with IRS3 and IRS5 (Casanova, S. et al. 1995, ApJ 439, 752).

ROXRA8: (5) The position of Chini8 (Chini, R., 1981, A&A 99, 346) is 33$''$ away from this optical star, the good position is given in Table 1 of Strom et al. (1995, ApJ 438, 813) by source number 3. (7) The *ISOCAM* LW2 and LW3 upper limits exclude an IR excess (see Appendix D).

ROXRA9: (2) ROXR1-12 was identified with an anonymous optical star (Casanova, S. et al. 1995, ApJ 439, 752).

ROXRA13: (2) ROXR1-15 was neither optical nor IR counterpart (Casanova, S. et al. 1995, ApJ 439, 752).

ROXRA16: (3) ROXR2-16 was $\sim 1'$ from ROXRA16 (identified with WSB28; Casanova, S. et al. 1995, ApJ 439, 752), ie only two error boxes away, but Martín et al. (1998, MNRAS 300, 733) identify ROXR2-16 with another star.

ROXRA17: (2) ROXR1-22 was identified with GSS30-IRS1, 2, 3 (Casanova, S. et al. 1995, ApJ 439, 752).

ROXRA21: (7) S1 is an embedded B-type star (Wilking et al. 1989, ApJ 340, 823; André et al. 1988, ApJ 335, 940). (8) The visual extinction comes from the data of Lada & Wilking (1984, ApJ 287, 610), see André et al. (1988, ApJ 335, 940). (9) This B3–B5 stellar luminosity is taken from André et al. (1988, ApJ 335, 940).

ROXRA26: (5) In the BKLT survey this well known emission line star appears to be a 6.5$''$ separation binary (this can also be suspected from the finding chart): the main component is B162710-241914 (J=8.56), the second one is B162710-241921 (J=11.27).

ROXRF1: (5) The IR star B162623-244308 is also in the 90% confidence error box but its J-band luminosity (15.65) is lower than that of the well known emission line star DoAr25=B162623-244311 (9.29).

ROXRF7: (2) ROXR1-22 was identified with SR24N and SR24S (Casanova, S. et al. 1995, ApJ 439, 752). (5) In our observation #2 and #3 the counterpart of ROXRF7 is clearly associated with SR24S. In our observation #1 due to the weakness of the X-ray source the situation is less clear. We associate this source with SR24S.

ROXRF9: (2) ROXR1-36 was ambiguously identified with GY193 and GY194 (Casanova, S. et al. 1995, ApJ 439, 752).

ROXRF12: (5) A weak star is visible in the 90% confidence error box on the DSS2 image, but this star is neither detected by the BKLT survey, nor by the PMM USNO-A1.0 catalogue.

ROXRF14: (3) ROXR2-22 was identified with ROXs20A and ROXs20B (Casanova, S. et al. 1995, ApJ 439, 752).

ROXRF19: (6) This source is just at the border of the *ISOCAM* survey. As a part of its flux is lost, Bontemps et al. (2000, A&A, submitted) do not characterize this source. (7) Martín et al. (1998, MNRAS 300, 733) classify these stars as CTTS. We thus consider this source as class II.

ROXRF21: (2) ROXR1-43 was identified with GY263 and IRS43 (Casanova, S. et al. 1995, ApJ 439, 752). (8) Best value from Grosso et al. (1997, Nat 387, 56). (9) This is the bolometric luminosity (see Grosso et al. 1997, Nat 387, 56).

ROXRF23: (2) ROXR1-46 was identified with an unnamed optical star (Casanova, S. et al. 1995, ApJ 439, 752), probably the star B162730-244726. (5) We identified this X-ray with the IR star B162728-244803 just at the border of the X-ray error box.

ROXRF24: (5) This source is red in the PMM USNO-A1.0 Catalogue (Monet 1996, USNO-SA1.0 catalogue, U.S. Naval Observatory, Washington DC) with $B = 20.1$ and $R = 16.3$.

ROXRF25: (2) ROXR1-48 was identified with GY280, GY290, and GY291 (Casanova, S. et al. 1995, ApJ 439, 752).

ROXRF28: (5) The IR star B162735-244532:B is also in the 90% confidence error box but its J-band luminosity (> 17) is lower than GY296=B162735-244532:A (12.62).

ROXRF37: (7) The *Hipparcos* distance is 75 pc: this star is a foreground F2V star.

References to Table B1:

B = Barsony et al. (1997, ApJS 112, 109).
BBRCG = Barsony et al. (1989, ApJ 346, L93).
DoAr = Dolidze and Arakelyan (1979, SvA 3, 434).
El = Elias (1978, ApJ 224, 453).
GSS = Grasdalen et al. (1973, ApJ 184, L53).
GY = Greene and Young (1992, ApJ 395, 516).
HD = The Henry Draper catalogue (Draper, H., 1918, Ann. Astron. Obs. Harvard Coll., 91).
IRS = Wilking et al. (1989, ApJ 340, 823).
ROXC = Montmerle et al. (1983, ApJ 269, 182).
ROXs = Bouvier and Appenzeller (1992, A&AS 92, 481).
S = abbreviation for "Source" in Grasdalen et al. (1973, ApJ 184, L53).
SKS = Table 1 of Strom et al. (1995, ApJ 438, 813).
SR = Struve and Rudkjöbing (1949, ApJ 109, 92).
U = The PMM USNO-A1.0 Catalogue (Monet, D., et al., 1996, USNO-SA1.0 catalogue, U.S. Naval Observatory, Washington DC).
VSS = Vrba et al. (1976, AJ 81, 958).
VSSG = Vrba et al. (1975, ApJ 197, 77).
WL = Wilking and Lada (1983, ApJ 274, 698).
WSB = Wilking et al. (1987, AJ 94, 106).
YLW = Young et al. (1986, ApJ 340, 823).