Table 1: Photometry and evolutionary classification of the sample

Name	HD	(U-B)	(B-V)	$(V-R)_j$	$(R-I)_j$	D	V	Mv(d,V)	Lum	Sp.type	Comments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
13 Cet A p	3196	0.080	0.570	0.470	0.290	21.3	5.200	3.558	off	{F7V/}	a,kc
13 Cet A s	3196	–	–	–	–	21.3	–	–	MS	–	
CF Tuc s	5303	0.180	–	–	–	54.0	–	4.4	MS	G0V	c,j
CF Tuc p	5303	–	0.735	0.626	0.472	54.0	–	3.748	off	K4IV	a,kc
BQ Hyi p	14643	0.380	0.850	0.696	0.483	77.0	8.190	3.758	off	G1Vp	a,kc
UX For p	17084	0.210	0.730	0.640	0.458	–	7.990	5.3	MS	G5-8V	a,kc,j
VY Ari p	17433	0.630	0.960	0.610	0.554	21.0	6.900	5.289	off	K3-4V-IV	a,kc
V471 Tau p	–	0.410	0.870	0.750	0.520	59.0	9.710	5.886	MS	K2V	a,d,i
AG Dor p	26354	0.630	0.950	0.794	0.544	–	8.670	6.15	MS	K1Vp	a,kc,j
EI Eri p	26337	0.140	0.670	0.610	0.390	75.0	6.960	2.585	off	G5IV	a
V818 Tau p	27130	0.330	0.775	–	0.254	44.7	8.313	5.158	MS	G6V	a,i
V818 Tau s	27130	–	–	–	–	44.7	–	7.73	MS	K6V	j
BD+14 690 p	27691	0.090	0.560	–	0.330	–	7.000	4.4	MS	G0V	a,j
vB 69 p	28291	0.335	0.746	–	–	–	8.590	5.9	MS	K0V	a,j
V833 Tau p	283750	0.950	1.085	0.947	0.738	16.7	8.160	7.046	MS	dK5e	a,kc
V808 Tau 1	283882	0.920	1.060	–	0.420	42.0	10.423	7.307	MS	K3V	b
V808 Tau 2	283882	0.920	1.060	–	0.420	42.0	10.423	7.307	MS	K3V	b
BD+64 487 1	30957	–	–	–	–	–	9.353	6.4	MS	K2V	j
BD+64 487 2	30957	–	–	–	–	–	9.353	6.4	MS	K2V	j
V1198 Ori p	31738	0.200	0.710	–	–	60.0	7.120	3.229	off	G5IV	a
YY Gem	–	1.040	1.350	1.340	1.06	13.7	9.823	9.139	MS	dM1e	b
HR2814 p	57853	0.050	0.590	–	–	26.0	6.600	4.525	MS	F9.5V	a
54 Cam p	65626	0.165	0.620	–	–	38.0	6.500	2.5	off	F9IV	a,d,k
54 Cam s	65626	–	–	–	–	38.0	–	2.88	off	G5IV	k
TY Pyx p	77137	0.260	0.720	0.550	–	55.0	6.835	3.9	off	G5IV	a,d,e,h
TY Pyx s	77137	–	0.760	–	–	55.0	–	3.8	off	G5IV	h
ξ UMa B p	98230	0.220	0.590	–	–	7.9	4.870	5.382	MS	G5V	a
DF UMa p	–	–	0.890	–	–	22.7	10.140	8.389	MS	dM0e	a,i
DF UMa s	–	–	–	–	–	22.7	–	12.3	MS	[dM5]	j
CD-38 7259 s	101309	–	–	–	–	62.0	–	5.1	MS	G5V	j
IL Com 1	108102	-0.010	0.510	0.400	0.300	86.0	8.833	4.161	MS	F8V	b
IL Com 2	108102	-0.010	0.510	0.400	0.300	86.0	8.833	4.161	MS	F8V	b
RS CVn s	114519	0.090	0.420	–	–	180.0	–	2.6	off	F4IV	c,h
MS Ser p	143313	0.630	0.940	–	–	30.0	–	6.215	MS	K2V	d,e,i
MS Ser s	143313	1.150	1.230	–	–	30.0	–	7.725	MS	K6V	j
σ^2 CrB s	146361	0.000	0.470	0.500	–	21.0	5.700	4.089	MS	F6V	a
σ^2 CrB p	146361	–	–	–	–	21.0	–	4.4	MS	G0V	j
WW Dra s	150708	0.040	0.600	–	–	180.0	–	2.304	off	G2IV	d,m
V792 Her s	155638	–	0.450	–	–	310.0	–	2.349	off	F2IV	m
Z Her p	163930	–	0.590	–	–	100.0	7.230	2.9	off	F4V-IV	g,h
Z Her s	163930	–	–	–	–	100.0	–	3.5	off	K0IV	h
V772 Her Aa	165590	0.130	0.590	–	–	41.7	–	4.4	MS	G0V	d,e,h
V772 Her B	165590	–	–	–	–	41.7	–	5.1	MS	G5V	h
ADS 11060C p	165590	1.130	1.360	–	–	41.7	11.373	8.272	MS	K7V	b
ADS 11060C s	165590	1.130	1.360	–	–	41.7	11.373	8.272	MS	K7V	b
V815 Her p	166181	0.130	0.720	0.540	–	31.0	7.660	5.222	MS	G5V	a,i
V815 Her s	166181	–	–	–	–	31.0	–	9.6	MS	[M1-2V]	j
BY Dra p	234677	1.000	1.221	1.100	0.780	15.6	8.070	7.4	MS	K4V	a,d,h
BY Dra s	234677	–	–	–	–	15.6	–	8.6	MS	K7.5V	h
V478 Lyr p	178450	0.210	0.740	0.650	0.430	26.0	7.680	5.605	MS	G8V	a
HR 7578 1	188088	0.940	1.050	0.830	0.480	15.0	6.913	6.753	MS	K2-3V	b
HR 7578 2	188088	0.940	1.050	0.830	0.480	15.0	6.913	6.753	MS	K2-3V	b
V1396 Cyg p	–	1.080	1.517	–	0.910	15.9	10.130	9.280	MS	M2V	a,d,i
V1396 Cyg s	–	–	–	–	–	15.9	–	11.3	MS	M4Ve	j
ER Vul p	200391	–	0.680	–	–	46.0	7.270	4.62	MS	G0V	a,d,h
ER Vul s	200391	–	–	–	–	46.0	–	4.74	MS	G5V	h
42 Cap p	206301	0.200	0.650	–	0.240	34.0	5.170	2.513	off	G2IV	a
KZ And p	218738	0.550	0.893	–	–	–	8.733	6.4	MS	dK2	b,j
KZ And s	218738	0.550	0.893	–	–	–	8.733	6.4	MS	dK2	b,j
SZ Psc s	219113	0.000	0.440	–	–	125.0	–	3.3	MS	F8IV	h
KT Peg p	222317	0.160	0.670	–	–	22.5	7.040	5.394	MS	G5V	a,l,m
KT Peg s	222317	–	–	–	–	22.5	–	7.820	MS	K6V	l,m

Spectral type between brackets are asumed from the photometry. a.- The color indices include the contribution of the secondary, except when the color for the secondary is given. b.- Two equal stars: $(U-B)_p=(U-B)_s=(U-B)_{obs}$, $V_p=V_s=V_{obs}+0.753$. c.- The hot component dominates (U-B). d.- There is also available M_V^p, M_V^s. e.- It is posible to deconvolve the photometry in V. f.- Combined M_V. g.- The hot component dominates (B-V). h.- M_V(hot/cool) were calculated independently during the eclipses. i.- M_V(primary) were calculated by a deconvolution with the M_V(total) and M_V(secondary): $V_p = V_s - 2.5 \text{ Log } [10^{-(V_{total}-V_s)/2.5} - 1]$. j.- M_V assumed from the spectral type. k.- From the Strassmeier et al. catalogue. l.- Distance from M_V, V. m.- M_V from R, T_{eff}, CB.

Table 2: Equivalent widths and corrections for the observed stars (in mÅ).

Name	HD	Teff (K)	Radius ($R_\odot$)	EW(Li+Fe) (mÅ)	EW(Fe) (mÅ)	EW(Li) (mÅ)	CCF(c/h)	Comments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13 Cet A	3196	6023	–	89	4^{calc}	85^{calc}	–	
VY Ari	17433	4831	–	62	23^{calc}	39^{calc}	–	
EI Eri	26337	5555	–	67	11	55	–	
BD+64 487	30957	4900	–	54	16	38	2.000	3
BD+64 487	30957	4900	–	13.5	3	13	2.000	3
V1198 Ori	31738	5517	–	13	3	11	–	
V1198 Ori	31738	–	–	–	–	–	–	
YY Gem	–	3185	–	43	7^{calc}	36^{calc}	2.000	3
YY Gem	–	3185	–	–	–	–	2.000	3
ξ UMa B	98230	5948	–	44	1	33	–	
DF UMa	–	5117	–	68	14^{calc}	52^{calc}	1.027	3
DF UMa	–	3240	–	–	–	–	37.678	3
MS Ser	143313	4989	–	46	40^{calc}	7^{calc}	1.249	3
MS Ser	143313	4275	–	–	–	–	5.018	3
σ^2 CrB	146361	6444	1.22	30*	4^{calc}	18^{calc}	1.777	1
σ^2 CrB	146361	6030	1.21	60*	7^{calc}	30^{calc}	2.287	1
WW Dra	150708	5910	2.12	87*	4	34	2.158	1
WW Dra	150708	4580	3.9	21	13	7	1.863	1,4
V772 Her	165590	5948	1.0	–	–	105^{calc}	1.536	1
V772 Her	165590	5770	0.6	–	–	83^{calc}	2.926	1
ADS 11060C	165590	3979	–	43	33^{calc}	10^{calc}	2.000	3
ADS 11060C	165590	3979	–	–	–	–	2.000	3
V815 Her	166181	5496	0.97	202	10^{calc}	192^{calc}	1.040	1
V815 Her	166181	3648	0.525	–	–	–	26.113	1
V1396 Cyg	–	3752	0.4	52	40	12	1.383	1
V1396 Cyg	–	3370	0.3426	–	–	–	3.611	1
KZ And	218738	5117	–	29	7^{calc}	27^{calc}	2.000	3
KZ And	218738	5117	–	34	7^{calc}	36^{calc}	2.000	3
KT Peg	222317	5528	0.93	17	12	4	1.168	1
KT Peg	222317	4178	0.72	–	–	–	6.937	1

$*$ Line blended with others. [1] CCF from Equation 2 and 3. [2] CCF from Equation 2 and 4. [3] We deconvolved the magnitude of the primary from the total magnitude and an estimation of the magnitude of the secondary by using the spectral type. [4] Evolved components.

Table 3: Final abundances, where Log N(Li)=12+Log{N(Li)/N(H)}, and other parameters for CABS

Name	HD	$T_{\rm eff}$ (K)	$EW(Li)_{cor}$ (mÅ)	N(Li)	Mass ($M_\odot$)	P_{orb} (d)	P_{phot} (d)	Log Age (yr)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13 Cet A p	3196	6023	85	2.84	$\sim 1.60^{CM}$	2.08200	$\sim 2.08^{Porb}$	9.221^{M}
13 Cet A s	3196	5700	$\leq$1	$\leq$0.0	–	2.08200	$\sim 2.08^{Porb}$	$\sim 9.22^{P}$
CF Tuc s	5303	6030	61.29	2.59	1.057	2.79786	2.798	9.892
CF Tuc p	5303	5097	73.49	1.87	1.205	2.79786	2.798	9.812
BQ Hyi p	14643	5140	26.64	1.27	$\sim 1.32^{CM}$	18.379	18.24	$\sim 9.454^{M}$
UX For p	17084	5357	24.49	1.45	–	0.95479	0.957	–
VY Ari p	17433	4831	39	1.10	$\sim 0.80^{CM}$	13.198	16.42	$\sim 10.059^{M}$
V471 Tau p	–	4752	218.7	2.72	0.8	0.52119299	0.5197	Hyades
AG Dor p	26354	4964	16.46	0.82	$\leq$0.80	2.562	2.533	–
EI Eri p	26337	5555	25.65	1.67	–	1.947227	1.945	–
vB22 p	27130	5542	67.3	2.28	1.086	5.609198	$\sim 5.61^{Porb}$	Hyades
vB22 s	27130	4366	–	–	0.776	5.609198	$\sim 5.61^{Porb}$	Hyades
vB40A p	27691	6225	122.3	3.46	–	4.00000	$\sim 4.00^{Porb}$	Hyades
vB 69 p	28291	5539	11.8	1.28	$\sim 0.96^{CM}$	41.66	–	Hyades
V833 Tau p	283750	4540	16.2	0.23	0.8	1.787797	1.797	Hyades
vB117 p	283882	4650	$\leq$4.2	$\leq$-0.25	$\sim 0.79^{M\sin^3 i}$	11.9293	6.82	Hyades
vB117 s	283882	4520	$\leq$2.6	$\leq$-0.65	$\sim 0.77^{M\sin^3 i}$	11.9293	6.82	Hyades
BD+64 487 1	30957	4900	76	1.64	$\leq$0.80	44.38	–	–
BD+64 487 2	30957	4900	27	0.98	$\leq$0.80	44.38	–	–
V1198 Ori p	31738	5517	11	1.23	$\sim 1.84^{CM}$	–	4.55	$\sim 9.059^{M}$
HR 2814 p	57853	5948	101.54	2.93	–	122.169	–	–
YY Gem	–	3185	65	0.11	0.62	0.8142822	0.8143	–
54 Cam p	65626	5829	65.70	2.47	1.64	11.06803	10.163	$\sim 9.194^{M}$
54 Cam s	65626	5460	116.57	2.71	1.61	11.06803	10.163	$\sim 9.217^{M}$
TY Pyx p	77137	5438	4.53	0.75	1.22	3.198548	3.32	9.730
TY Pyx s	77137	5390	7.05	0.89	1.20	3.198548	3.32	9.796
ξ UMa B p	98230	5948	33	2.14	–	3.9805	$\sim 3.98^{Porb}$	–
DF UMa p	–	5117	53	1.60	0.56	1.033824	$\sim 1.03^{Porb}$	–
DF UMa s	-	3240	–	–	0.3	1.033824	$\sim 1.00^{Porb}$	–
CD-38 7259 s	101309	5770	41.54	2.13	–	11.710	11.66	–
IL Com p	108102	6266	22	2.25	0.85	0.9616	0.82	10.054
IL Com s	108102	6266	28	2.37	0.82	0.9616	0.82	10.121
RS CVn s	114519	6700	–	~3	1.41	4.797851	4.7912	9.410
MS Ser p	143313	4989	9	0.57	–	9.01490	9.60	–
MS Ser s	143313	4275	–	–	–	9.01490	9.60	–
σ^2 CrB s	146361	6444	30	2.61	1.12	1.139791	1.1687	9.611
σ^2 CrB p	146361	6030	69	2.67	1.14	1.139791	1.1687	9.648
WW Dra s	150708	5910	73	2.61	1.36	4.629617	4.63	9.575
V792 Her s	155638	6539	81	2.4	1.41	27.5368	27.07	9.422
Z Her p	163930	5948	–	–	1.61	3.992801	3.962	9.012
Z Her s	163930	5000	–	–	1.31	3.992801	3.962	9.675
V772 Her Aa	165590	5948	158	3.19	1.04	0.879504	0.878	9.465
V772 Her B	165590	5770	243	3.60	0.88	7391.25	–	9.465
ADS 11060C p	165590	3979	16	-0.43	$\sim 0.70^{M\sin^3 i}$	25.762	–	V772 Her
ADS 11060C s	165590	3979	–	–	$\sim 0.67^{M\sin^3 i}$	25.762	–	V772 Her
V815 Her p	166181	5496	201	3.63	$\sim 0.86^{RT}$	1.809837	1.819	$\sim 9.972^{M}$
V815 Her s	166181	3648	–	–	–	1.809837	1.819	$\sim 9.972^{P}$
BY Dra p	234677	4300	7	-0.42	~0.55	5.975112	3.827	–
BY Dra s	234677	4021	8	-0.65	0.44	5.975112	3.827	–
V478 Lyr p	178450	5395	59	1.97	$\sim 0.83^{RT}$	2.130514	2.13	$\sim 10.014^{M}$
HR 7578 1	188088	4839	4.91	0.1	$\geq$0.80	46.815	16.5	$\leq$9.966
HR 7578 2	188088	4839	4.91	0.1	$\geq$0.80	46.815	16.5	$\leq$9.966
V1396 Cyg p	–	3752	17	-0.60	0.42	3.276188	$\sim 3.28^{Porb}$	–
V1396 Cyg s	–	3370	–	–	0.27	3.276188	$\sim 3.28^{Porb}$	–
ER Vul p	200391	5602	$\leq$8	$\leq$1.15	1.10	0.6980951	0.6942	9.569
ER Vul s	200391	5770	$\leq$9	$\leq$1.35	1.05	0.6980951	0.6942	9.748
42 Cap p	206301	5710	42.07	2.09	$\sim 2.58^{CM}$	13.1740	$\sim 13.17^{Porb}$	$\sim 8.649^{M}$
KZ And p	218738	5117	58	1.65	$\sim 0.66^{M\sin^3 i}$	13.1740	3.03	–
KZ And s	218738	5117	62	1.68	0.63	3.032867	3.03	–
SZ Psc s	219113	6500	75.50	3.31	1.28	3.032867	3.955	9.496
KT Peg p	222317	5528	4	0.87	0.93	6.201986	6.092	9.926
KT Peg s	222317	5528	–	–	0.62	6.201986	6.092	$\sim 9.926^{P}$

CM.- Mass estimated from the color–magnitud diagram. Porb.- Photometric period similar to the orbital value. M.- Age estimated from the mass–age realtionship. P.- Age of the secondary equal to the computed age for the primary. $M\sin^3 i$.- Mass computed from $M\times\sin^3 i$. RT.- Mass estimated from Radii–$T_{\rm eff}$ plane.