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**PHOTOELECTRIC MINIMA OF SOME ECLIPSING BINARY STARS**

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**Observatory and telescope:**

30-cm Maksutov telescope of the Ankara University Observatory

<b>Detector:</b>	OPTEC SSP-5A photoelectric photometer (uncooled) containing a side-on R1414 Hamamatsu photomultiplier.
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**Method of data reduction:**

Reduction of the observations were made in the usual way (Hardie, 1962).

**Method of minimum determination:**

Times of minima were determined by the method of Kwee and van Woerden (1956).

Observed star(s):						
Star name	GCVS type	Coordinates (J2000)		Comp. star	Ephemeris	Source
		RA	Dec		E 2400000+ [day]	
V363 And	EB	01 31 46	+36 05 38	BD+34° 0273	48500.3980	1.27799 1
OO Aql	EW/DW:	19 18 32	+09 18 32	BD+08° 4220	49193.4418	0.5067888 2
BI CVn	EW/KW	13 03 16	+36 37 01	BD+03° 2352	45769.538	0.3842059 3
BO CVn	EW	13 59 08	+40 49 09	BD+41° 2450	46895.4483	0.51746168 4
YY CrB	EW	15 50 32	+37 50 08	BD+38° 2701	50000.1496	0.37656416 5
AK Her	EW/KW	17 13 58	+16 21 01	BD+16° 3123	38176.5092	0.42152368 6
SW Lac	EW/KW	22 53 42	+37 56 19	BD+37° 4715	52505.5960	0.32071417 7
AM Leo	EW/KW	11 02 11	+09 53 43	BD+10° 2235	39936.8303	0.3657972 8
U Peg	EW/KW	23 57 58	+15 57 10	BD+15° 4916	36511.6663	0.3747809 9
V351 Peg	EW/KW	23 25 25	+15 41 19	BD+15° 4830	48500.493	0.593297 10
V781 Tau	EW/KW	05 50 13	+26 57 43	BD+27° 0886	52554.9210	0.344908 11
GR Vir	EW/KW	14 45 20	-06 44 04	BD-06° 4066	45665.6415	0.3469788 12

**Source(s) of the ephemeris:**

1.: ESA (1997); 2.: Demircan & Gürol (1996); 3.: Vandenbroere (1998); 4.: Albayrak et al. (2001); 5.: Pribulla & Vanko (2002); 6.: Bookmyer & Kaitchuck (1979); 7.: Pribulla et al. (2002); 8.: Demircan & Derman (1992); 9.: Maupome et al. (1991); 10.: Gomez-Forrellad et al. (1999); 11.: Nelson (2003); 12.: Cereda et al. (1988)

<b>Times of minima:</b>						
Star name	Time of min. HJD 2400000+	Error	Type	Filter	$O - C$ [day]	Rem.
V363 And	52855.2955	0.0002	II	BV	+0.1466	Tn-Ak
OO Aql	52497.4739	0.0002	II	UBV	+0.0225	El-Çn
	52574.2521	0.0006	I	UBV	+0.0222	Şn-Kr
	52575.2659	0.0002	I	UBV	+0.0224	El-Ak
	52498.4877	0.0001	II	UBV	+0.0227	Tn-Çn
BI CVn	52762.4909	0.0003	I	BV	+0.0213	Tn-Kr
BO CVn	52757.5142	0.0002	II	BV	+0.0013	Kt-Çn
	52813.3986	0.0052	II	BV	-0.0002	Kt-Kr
YY CrB	52814.4004	0.0001	II	UBV	-0.0015	Tn-Ak
AK Her	52806.5086	0.0004	II	BV	+0.0346	Şn-Krk
SW Lac	52863.5142	0.0004	I	UBV	+0.0012	Şn-Çv
	52909.5377	0.0002	II	BV	+0.0022	Şn-Çv
	52912.2629	0.0002	I	BV	+0.0013	Tn-Dm
	52912.4243	0.0004	II	BV	+0.0024	Tn-Dm
AM Leo	52727.4902	0.0003	II	BV	+0.0121	El-Şh
	52728.4046	0.0006	I	BV	+0.0120	Tn-Yl
	52729.3188	0.0004	II	BV	+0.0117	El-Şh
	52729.5008	0.0002	I	BV	+0.0108	El-Dm
U Peg	52917.4434	0.0003	II	UBV	-0.0694	Tn-Krk
V351 Peg	52924.4121	0.0002	II	UBV	+0.0000	Şn-Gz
V781 Tau	52924.4952	0.0001	II	UBV	+0.0053	Şn-Krk
GR Vir	52769.3237	0.0004	I	BV	-0.0148	El-Gz
	52769.4964	0.0004	II	BV	-0.0156	El-Gz
	52797.4277	0.0005	I	UBV	-0.0161	Şn-Yl
	52805.4052	0.0008	I	UBV	-0.0191	Şn-Yl

**Explanation of the remarks in the table:**

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**References:**

- Albayrak, B., Müyesseroğlu, Z., Özdemir, S., 2001, *AN*, **322**, 125  
 Bookmyer, B. B., Kaitchuck, R. H., 1979, *PASP*, **91**, 234  
 Cereda, L., Misto, A., Niarchos, P. G., Poretti, E., 1988, *A&AS*, **76**, 255  
 Demircan, O., Derman, E., 1992, *AJ*, **103**, 593  
 Demircan, O., Gürol, B., 1996, *A&AS*, **115**, 333  
 ESA, 1997, *The Hipparcos & Tycho Catalogues*, SP-1200  
 Gomez-Forrellad, J. M., Garcia-Melendo, E., Guarro-Flo, J., Nomen-Torres, J., Vidal-Sainz, J., 1999, *IBVS*, No.4702  
 Hardie, R., 1962, *Astr. Tech.: Stars and Stellar Systems*, Vol. II, Univ. of Chicago Press, Chicago  
 Kwee, K. K., & van Woerden, H., 1956, *Bull. Astron. Inst. Neth.*, **12**, 327  
 Maupome, L., Rodriguez, E., Hobart, M. A., Pena, J. H., Peniche, R., 1991, *RMxAA*, **22**, 235  
 Nelson, R. H., 2003, *IBVS*, No. 5371  
 Pribulla, T., Vanko, M., 2002, *CoSka*, **32**, 79  
 Pribulla, T., Vanko, M., Parimucha, S., Chochol, D., 2002, *IBVS*, No.5341  
 Vandebroere, J., 1998, *IBVS*, No. 4554