

COMMISSIONS 27 AND 42 OF THE IAU  
INFORMATION BULLETIN ON VARIABLE STARS

Number 5462

Konkoly Observatory

Budapest

13 October 2003

*HU ISSN 0374 – 0676*

**PHOTOELECTRIC MINIMUM TIMES OF SOME ECLIPSING  
BINARY STARS**

AK, H.; FİLİZ, N.

Ankara University Observatory, Faculty of Science, 06100, Tandoğan, Ankara, Turkey  
e-mails: ak@astro1.science.ankara.edu.tr, nur.filiz@mynet.com

**Observatory and telescope:**

40-cm Cassegrain telescope of the TÜBİTAK<sup>†</sup> National Observatory and 30-cm Maksutov telescope of the Ankara University Observatory.

<b>Detector:</b>	OPTEC SSP-5A photometer containing a side-on R1414 Hamamatsu photomultiplier.
------------------	---

**Method of data reduction:**

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

**Method of minimum determination:**

Kwee & van Woerden (1956).

<b>Observed star(s):</b>						
Star name	GCVS type	Coordinates (J2000)		Comp. star	Ephemeris	Source
		RA	Dec		E 2400000+ P [day]	
V436 Per	EA/D	01 51 59	+55 08 50	HD 12303	43562.859	25.935872 2
TT Aur	EB/DM	05 09 42	+39 35 11	HD 32989	48599.2964	1.332735 3
V459 Aur	EB	06 35 38	+32 34 36	HIP 31104	48500.827	1.062637 1
CI CVn	EB	13 13 33	+47 47 53	SAO 44619	48500.518	0.815877 1
YY CrB	EW	15 50 32	+37 50 08	HIP 77624	51674.3541	0.37656417 4
V994 Her	EA	18 27 46	+24 41 51	HIP 91568	48501.1239	2.08309 1
V478 Cyg	EA/DM	20 19 39	+38 20 09	HD 228807	44777.4779	2.880795 5
V401 Lac	EA	22 08 21	+49 13 16	HIP 109818	48501.790	1.9501 1
CO Lac	EA	22 46 30	+56 49 31	GSC 03992 02252	27534.0728	1.5422075 6
V821 Cas	EA	23 58 49	+53 40 20	HD 224814	48500.4459	1.76975 1

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

1.: Perryman et al. (1997); 2.: Harmanec et al. (1997); 3.: Simon (1999);  
4.: Demircan et al. (2003); 5.: Sezer et al. (1983); 6.: Semeniuk (1967).

<sup>†</sup>TÜBİTAK : The Scientific and Technical Research Council of Turkey

<b>Times of minima:</b>						
Star name	Time of min. HJD 2400000+	Error	Type	Filter	$O - C$ [day]	Rem.
V436 Per	51058.3491	0.0001	I	<i>UBV</i>	0.0231	HA
TT Aur	52212.3446	0.0001	I	<i>UBV</i>	0.0036	NF, HA
	52541.5319	0.0001	I	<i>UBV</i>	0.0054	HA, EA
	52569.5185	0.0001	I	<i>UBV</i>	0.0046	AB, GS
V459 Aur	52583.4813	0.0003	I	<i>UBV</i>	0.0029	NF, AB
CI CVn	52373.4751	0.0001	I	<i>UBV</i>	-0.0111	HA, NF
	52737.3553	0.0002	I	<i>UBV</i>	-0.0120	HA, NF
	52765.5042	0.0002	II	<i>UBV</i>	-0.0108	NF, AB
YY CrB	52786.3493	0.0002	I	<i>UBV</i>	0.0017	HA, SS
	52793.5031	0.0002	I	<i>UBV</i>	0.0008	NF, SS
	52814.3996	0.0003	II	<i>UBV</i>	-0.0020	NF, EA
V994 Her	52451.4363	0.0004	I	<i>UBV</i>	-0.0572	NF, HA
V478 Cyg	52145.4006	0.0008	II	<i>UBV</i>	0.2895	HA, NF
	52155.4588	0.0008	I	<i>UBV</i>	0.2649	HA, NF
V401 Lac	52891.5075	0.0003	I	<i>UBV</i>	0.0424	EA, NF
	52898.4022	0.0007	II	<i>UBV</i>	0.1117	EA, HA
CO Lac	51107.4978	0.0005	II	<i>UBV</i>	0.0123	HA
	51108.2418	0.0004	I	<i>UBV</i>	-0.0149	HA
V821 Cas	52597.4220	0.0001	I	<i>UBV</i>	0.0048	NF, HA

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

Observers: HA: Hasan AK, NF: Nurten FILİZ, EA: Erkan ATAMAN,  
AB: Akın BALKIŞ, GS: Gonca SALMAN, SS: Semih SEZGİN

**Acknowledgements:**

The authors would like to thank the *TÜBİTAK National Observatory (TUG)* for the observing time. And also special thanks to observers for their help.

**References:**

- Demircan, O., Erdem, A., Özdemir, S., Çiçek, C., Bulut, İ., Soydugan, F., Soydugan, E., Bakış, V., Kabaş, A., Bulut, A., Tüysüz, M., Zejda, M., Budding, E., 2003, *IBVS*, No. 5364
- Hardie, R., 1962, *Astr. Tech.: Stars and Stellar Systems*, Vol. II, Univ. of Chicago Press, Chicago
- Harmanec, P., Hadrava, P., Yang, S., Holmgren, D., North, P., Kubsky, P., Kubat, J., Paretti, E., 1997, *A&A*, **319**, 867
- Kwee, K. K. and van Woerden, H., 1956, *Bull. Astr. Neth.*, **12**, 327
- Perryman, M. A. C, Høg, E., Kovalevsky J., Lindegren L., Turon C. 1997, ESA SP-1200, The Hipparcos and Tycho Catalogues
- Semeniuk, I., 1967, *Acta Astron.*, **17**, 223
- Sezer, C., Güdür, N., Gülmen, Ö., Şengonca, H., 1983, *A&AS*, **53**, 363
- Simon, V., 1999, *A&AS*, **134**, 1