

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

Number 5439

Konkoly Observatory
Budapest
9 July 2003

HU ISSN 0374 – 0676

PHOTOELECTRIC MINIMUM TIMES OF SOME
ECLIPSING BINARY STARS

DERMAN, E.; KALCI, R.

Ankara University Observatory, Faculty of Science, 06100, Tandoğan, Ankara, Turkey;
e-mails: ethem.derman@ankara.edu.tr; kalci@science.ankara.edu.tr

Observatory and telescope:

30-cm Maksutov telescope of the Ankara University Observatory and 40-cm Cassegrain telescope of the TÜBİTAK National Observatory.

Detector:

OPTEC SSP-5A photometer containing a side-on R1414 Hamamatsu photomultiplier and AP7p CCD camera.

Method of data reduction:

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

Method of minimum determination:

Kwee and van Woerden (1956).

Observed star(s):

Star name	GCVS type	Coordinates (J2000)		Comp. star	Ephemeris		Source
		RA	Dec		E 2400000+	P [day]	
AB And	EW	23 ^h 11 ^m 32 ^s	+36°53'35''	BD+35 4972	45502.1040	0.33188902	1
CG Cyg	EA/SP/RS	20 ^h 58 ^m 14 ^s	+35°10'30''	BD+34 4216	39425.1176	0.631143114	1
V1073 Cyg	EW/KE	21 ^h 25 ^m 00 ^s	+33°41'15''	BD+33 4248	38672.5749	0.78585749	1
VW LMi	EW	11 ^h 02 ^m 52 ^s	+30°24'55''	BD+31 2223	48500.1960	0.4775470	3
CC Lyn	EW	07 ^h 35 ^m 56 ^s	+43°01'51''	BD+42 1734	48500.3370	0.354622	3
AQ Psc	EW	01 ^h 21 ^m 4 ^s	+07°36'22''	BD+05 0177	44562.4691	0.47564	2
V1123 Tau	EB	03 ^h 34 ^m 58 ^s	+17°42'38''	BD+17 0568	48500.3570	0.399957	3

Source(s) of the ephemeris:

1. Kreiner et al., 2001; 2. Sarma and Radhakrishnan, (1982);
3. ESA, (1997)

†TÜBİTAK : The Scientific and Technical Research Council of Turkey

Times of minima:						
Star name	Time of min. HJD 2400000+	Error	Type	Filter	$O - C$ [day]	Rem.
AB And	52536.3995	± 0.0004	II	<i>BV</i>	0.0736	EA
	52550.3371	± 0.0003	II	<i>UBV</i>	0.0720	RK
	52564.4445	± 0.0002	I	<i>UBV</i>	0.0740	RK
	52578.3846	± 0.0002	I	<i>UBV</i>	0.0748	RK
	52578.2177	± 0.0003	II	<i>UBV</i>	0.0739	EA
CG Cyg	52599.2939	± 0.0003	I	<i>UBV</i>	0.0751	RK
	52459.4916	± 0.0001	I	<i>UBV</i>	0.0064	RK
	52473.3772	± 0.0002	I	<i>UBV</i>	0.0068	RK
	52495.4671	± 0.0001	I	<i>BVR*</i>	0.0067	RK
	52496.4114	± 0.0002	II	<i>BVR*</i>	0.0043	LG
V1073 Cyg	52501.4657	± 0.0004	II	<i>BV</i>	0.0095	RK
	52515.3479	± 0.0004	II	<i>BV</i>	0.0066	RK
	52130.3446	± 0.0008	I	<i>UBV</i>	-0.0398	SÇ
	52144.4867	± 0.0005	I	<i>UBV</i>	-0.0431	RK
	52172.3871	± 0.0003	II	<i>UBV</i>	-0.0407	RK
VW LMi	52725.3159	± 0.0003	II	<i>UBV</i>	0.0219	RK
CC Lyn	52298.3900	± 0.0014	I	<i>BV</i>	0.0514	SA
	52312.4016	± 0.0009	II	<i>BV</i>	0.0554	RK
	52319.3128	± 0.0010	I	<i>BV</i>	0.0515	RK
	52319.4866	± 0.0011	II	<i>BV</i>	0.0479	RK
	52340.3922	± 0.0010	II	<i>BV</i>	0.0309	RK
AQ Psc	52193.3573	± 0.0004	II	<i>UBV</i>	-0.0421	RK
V1123 Tau	52606.4543	± 0.0004	I	<i>UBV</i>	-0.0612	RK
	52634.4492	± 0.0004	II	<i>UBV</i>	-0.0633	RK

Explanation of the remarks in the table:

*:AP7p CCD camera

Observers: RK: Rağsan KALCI, EA: Evren AYDIN, SÇ: Serhat ÇAKMAK, SA: Senay ANIL, LG: Levent GÜRDEMİR

Acknowledgements:

The authors would like to thank the *TÜBİTAK National Observatory (TUG)* for the observing time.

References:

- ESA, 1997, *The Hipparcos and Tycho Catalogues*, SP-1200
- Hardie, R., 1962, *Astr. Tech.: Stars and Stellar Systems*, Vol. II, Univ. of Chicago Press, Chicago
- Kreiner, M. J., Kim, C.-H. and Nha, I.-S., 2001, *An Atlas of O - C Diagrams of Eclipsing Binaries*, Kraków.
- Kwee, K. K. and van Woerden, H., 1956, *Bull. Astron. Inst. Neth.*, **12**, 327
- Sarma, M.B.K. and Radhakrishnan, K.R., 1982, *IBVS*, No. 2073