COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
Number 1053

Konkoly Observatory
Budapest
1975 October 20

# PHOTOELECTRIC MINIMA OF ECLIPSING BINARIES

The following Table gives photoelectric minima obtained during the year 1974 at the Ege University Observatory, Izmir (Turkey) and the Nürnberg Observatory (Germany). Minima of eclipsing binaries observed at both observatories 1960-1973 were published in Astr.Nachr. 288, 69 (1964); 289, 191 (1966); 291, 111 (1968); IBVS 456 (1970), 530 (1971), 647 (1972) and 937 (1974).

The Table gives besides the heliocentric minima three different O-C's, the type of filter (UBV), the abbreviations of the names of the observers and the type of the instruments used (Izmir: 48 cm Cassegrain, Nürnberg: 34 cm Cassegrain, both with phototube 1P21).

Remarks:

O-C (I) : GCVS, Moscow 1969/70 or First or Second Supplement to the Third Edition of the GCVS, Moscow 1971 and 1974.

O-C (II) : SAC 46, Krakow 1974

O-C (III): i Boo IBVS 209 (1967) Pohl
RZ Cas Scientific Reports of the Faculty of Science, Ege University No. 120, Astronomy No. 12 (1971), A.Kizilirmak

The (O-C)'s for secondary minima (Min II) were calculated on the supposition that they are symmetric between primary minima (if not special data are given).

m: only the elements I or the elements II give secondary minimum.

The sign=between O-C (I) and O-C (II) indicates, that the elements (I) and (II) are equal.

The sign : means that the time of minimum is uncertain.

E. POHL
Nürnberg Observatory
Lützowstr.10,85 Nürnberg,
F.R.G.

A. KIZILIRMAK
Ege University Observatory
Bornova/Izmir P.K.21,
Turkey

| Star | Min.hel. 2442 | O-C (I) | O-C (II) | O-C (III) | Filt. | Obs. | Instr. cm | Rem |
|---|---|---|---|---|---|---|---|---|
| RY Aqr | 303.3012 | -0.0159 | -0.0255 | | B | Gl/An/Sr | 48 | |
| | 303.3015 | -0.0156 | -0.0252 | | V | Gl/An/Sr | " | |
| KO Aql | 245.4798 | +0.0960 | -0.0037 | | B,V | Gd/Ek | " | |
| OO Aql | 247.4023 | -0.0004 | +0.0084(m) | | B,V | Gd | " | |
| | 252.4697 | -0.0009 | +0.0080(m) | | B | Gd/Ek | " | |
| | 252.4704 | -0.0002 | +0.0087(m) | | V | Gd/Ek | " | |
| 805 Aql | 324.2660 | +0.0201 = | +0.0201 | | B | Er/Hn | " | |
| | 324.2663 | +0.0204 = | +0.0204 | | V | Er/Hn | " | |
| SX Aur | 132.3431 | +0.0189 | +0.0154 | | B,V | Ib/An/Hn | 48 | |
| | 403.4045 | +0.0230 | +0.0195 | | | Ar/Be/Gr | 34 | |
| XY Boo | 183.400 : | -0.028 : | | | B,V | Od/Hn | " | |
| i Boo | 095.454 : | +0.024 : | +0.029 : | +0.021 : | V | Sc/Sh/Vo | 34 | |
| | 122.371 : | +0.025 : | +0.031 : | +0.023 : | V | Gr/Sc | " | MinII |
| | 187.440 : | +0.015 : | +0.021 : | +0.013 : | V | Eb/Gr | " | MinII |
| | 219.447 | +0.019 | +0.025 | +0.016 | B,V | Gl | 48 | |
| | 268.323 | +0.019 | +0.025 | +0.016 | B | Gl/Hn | " | MinII |
| | 268.324 | +0.020 | +0.026 | +0.017 | V | Gl/Hn | " | MinII |
| SV Cam | 366.281 : | -0.009 | -0.005 | | B,V | Gl/Tn/Sr | " | |
| RZ Cas | 289.5308 | +0.0030 | -0.0049 | +0.0031 | | Sc/We | 34 | |
| | 300.2881 | +0.0031 | -0.0049 | +0.0033 | B | Ib/Hn/Er | 48 | |
| | 300.2884 | +0.0034 | -0.0046 | +0.0036 | V | Ib/Hn/Er | " | |
| | 325.3889 | +0.0037 | -0.0044 | +0.0042 | B,V | Er/By | " | |
| TV Cas | 289.582 : | -0.013 | -0.005 | | B,V | Er/Hn/Sr | " | |
| TW Cas | 265.4822 | +0.0026 | -0.0207 | | B | Ib/Gl/Sr | " | |
| | 265.4836 | +0.0040 | -0.0193 | | V | Ib/Gl/Sr | " | |
| DO Cas | 405.3628 | +0.0024 = | +0.0024 | | | Ar/Eb/We | 34 | |
| VW Cep | 146.461 : | +0.016 : = | +0.016 : | | | Gp/Sb | " | MinII |
| | 261.3962 | +0.0078 = | +0.0078 | | V | Tn/Er/Hn | 48 | MinII |
| | 261.5351 | +0.0075 = | +0.0075 | | V | Tn/Er/Hn | " | |
| | 263.4812 | +0.0054 = | +0.0054 | | | Eb/We | 34 | |
| | 364.376 : | +0.011:= | +0.011: | | V | Ki/Sr | 48 | MinII |
| | 385.386 | +0.009 = | +0.009 | | V | Ki/Er/Ek | " | |

| Star | Min.hel. 2442 | O-C (I) | O-C (II) | O-C (III) | Filt. | Obs. | Instr. cm | Rem |
|---|---|---|---|---|---|---|---|---|
| KR Cyg | 221.4741 | -0.0127 | +0.0073 | | | Eb | 34 | |
| MY Cyg | 276.5320 | +0.0107 = | +0.0107 | | | Eb/We | " | |
| 548 Cyg | 279.3841 | +0.0065 | -0.0126 | | B,V | Ib/Er/Hn | 48 | |
| 1034 Cyg | 223.350 : | +0.030 : | -0.002 : | | B | Ib/Hn | " | |
| | 223.348 : | +0.028 : | -0.004 : | | V | Ib/Hn | " | |
| TW Dra | 258.5032 : | -0.0351 : | +0.0009 : | | | Eb/Sb/We | 34 | |
| AI Dra | 283.4262 | +0.0002 | +0.0076 | | B | Er/Hn | 48 | |
| | 283.4267 | +0.0007 | +0.0081 | | | Eb/We | 34 | |
| | 283.4269 | +0.0009 | +0.0083 | | V | Er/Hn | 48 | |
| BS Dra | 302.4277 | -0.0567 | -0.0567 | | B | Er/Ek | " | |
| | 302.4280 | -0.0570 | -0.0570 | | V | Er/Ek | " | |
| | 371.3907 | -0.0567(m) | -0.0567 | | | Eb/Sc | 34 | |
| TT Her | 190.364 : | -0.014 := | -0.014 : | | B | Od/Hn | 48 | |
| | 190.362 : | -0.016 := | -0.016 : | | V | Od/Hn | " | |
| TX Her | 279.303 : | -0.006 : | +0.003 : | | B,V | Ib/Er/Hn | " | MinII |
| | 280.3332 | -0.0060 | +0.0036 | | B,V | Gd | " | |
| AK Her | 186.4592 | +0.0007 | -0.0216 | | | Eb/Gp | 34 | |
| | 240.4135 | 0.0000 | -0.0225 | | B | Gd | 48 | |
| | 240.4142 | +0.0007 | -0.0218 | | V | Gd | " | |
| UV Leo | 147.4502: | -0.0054: | +0.0072: | | | Eb/Hu | 34 | |
| FL Lyr | 194.5042 | -0.0019 | +0.0047 | | | Eb/Gr | " | |
| U Oph | 217.3754 | -0.0048 | -0.0021 | | B,V | Ki/Gd | 48 | |
| 451 Oph | 286.3136 | -0.0022 | -0.0019 | | B,V | Ib/An | " | |
| 456 Oph | 239.410 | +0.167 | | | B,V | Od/By/Ek | " | MinII |
| 566 Oph | 193.4828 | +0.0176 = | +0.0176 | | | Bo/Mi | 34 | |
| | 251.4448: | +0.0154:= | 0.0154 : | | | Be/Sb | " | MinII |
| | 268.4480 | +0.0185 = | +0.0185 | | B | Gl | 48 | |
| | 268.4474 | +0.0179 = | +0.0179 | | V | Gl | " | |

| Star | Min.hel. 2442 | O-C (I) | O-C (II) | O-C (III) | Filt. | Obs. | Instr. cm | Rem |
|---|---|---|---|---|---|---|---|---|
| FT Ori | 095.334 : | +0.016 : | +0.027 : | | | Pf/Sc | 34 | |
| DI Peg | 289.429 | -0.002 | -0.010 | | B | Od/Er/Sr | 48 | |
| | 289.428 | -0.003 | -0.011 | | V | Od/Er/Sr | " | |
| AG Per | 096.386 | -0.012 | +0.007 | | | Eb/We | 34 | MinII |
| IZ Per | 324.4202 | +0.0163 = | +0.0163 | | B,V | Er/Hn | 48 | |
| U Sge | 275.4572 | -0.0045 | -0.0045 | | | Be/Sc/We | 34 | |
| CC Ser | 251.400 : | +0.001 := | +0.001 : | | B | Od/Hn | 48 | |
| | 251.401 : | +0.002 := | +0.002 : | | V | Od/Hn | " | |
| 471 Tau | 006.3140 | -0.0007 | | | B | Ib | " | |
| | 387.301 : | +0.001 : | | | B | Ib | " | |
| W UMa | 089.3858 | -0.0889 | -0.0058 | | | Pf/We | 34 | |
| TX UMa | 201.4143: | -0.0003: | -0.0001: | | | Ar/Gr/Sc | " | |
| Z Vul | 267.4608 | +0.0106 = | +0.0106 | | | Eb/We | " | |
| DR Vul | 281.380 | +0.010 | | | | Eb/We | " | |

Abbreviations of the observers' names:

An = H. Alkan
Ar = G. Arneth
Be = G. Besold
Bo = G. Bode
By = C. Baygün
Eb = J. Ebersberger
Ek = S. Ertükel
Er = A.Y.Ertan
Gd = N. Güdür
Gl = Ö. Gülmen
Gp = G. Grampp
Gr = R. Gröbel
Hn = H. Halicinarli
Hu = R. Hufnagel
Ib = C. Ibanoglu
Ki = A. Kizilirmak
Mi = P. Mittermeier
Od = O. Demircan
Pf = T. Pfeiffer
Sb = R. Sendelbeck
Sc = H. Schellemann
Sh = T. Scharold
Sr = C. Sezer
Tn = Z. Tunca
Vo = H. Vogel
We = Th. Weber