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TIMES OF MINIMA OF TEN ALGOL-LIKE BINARIES

We give times of minima for 27 primary eclipses of 10 Algol-like binaries. Most observations were made with the 1.0 M Prairie Observatory reflector, with single-channel pulse-counting photometer, RCA C31034A-02 photomultiplier, and Strömberg-Crawford uvby and Kron I filters. Two minima were also obtained using the 0.4 M Mt. Laguna reflector with single-channel DC integrator photometer, RCA 1P21 photomultiplier, and uvby filters. Times of minima for each color were determined in most cases by the method of Kwee and Van Woerden (1956) and programmed by R.C. Crawford.

TABLE I
 TIMES OF PRIMARY MINIMA SHOWING NO WAVELENGTH DEPENDENCE

Binary	HJD - 2440000	Binary	HJD - 2440000
XZ And	3779.8763 ± 0.0001	ST Per	3821.6554 ± 0.0002
	3809.7364 ± 0.0001		3882.5664 ± 0.0001
	3847.7403 ± 0.0001		4120.9133 ± 0.0002
	4257.6387 ± 0.0001		4520.8075 ± 0.0007 ^c
	4542.6659 ± 0.0000		
KO Aql	3737.655 ± 0.001 ^a	U Sge	4374.8182 ^a
	4049.836 ± 0.001 ^a	RW Tau	3820.7835 ± 0.0001
	4387.7954 ± 0.0001 ^b		4180.7319 ± 0.0001
W Del	4438.7465 ± 0.0001	X Tri	3760.8573 ± 0.0000
	4462.7765 ± 0.0002		3831.7795 ± 0.0002
			4171.8186 ± 0.0001
	4546.8309 ± 0.0001		

^aGraphical determination.

^bCorrection to I.B.V.S. No. 1840.

^cy, b, v only; I, u eclipses were asymmetrical or noisy.

TABLE II
TIMES OF PRIMARY MINIMA SHOWING WAVELENGTH DEPENDENCE

Binary	HJD - 2440000				
	I	y	b	v	u
SW Cyg	4428.7625 ± .0003	.7631 ± .0001	.7634 ± .0001	.7640 ± .0001	.7647 ± .0003
	-----	4460.7738 ± .0007	.7745 ± .0008	.7754 ± .0004	.7762 ± .0004
RW Mon ^a	3883.7712 ± .0001	.7708 ± .0001	.7708 ± .0001	.7709 ± .0001	.7714 ± .0001
RV Oph	4427.7251 ± .0002	.7251 ± .0001	.7251 ± .0001	.7254 ± .0002	.7255 ± .0002
RW Tau	4191.8080 ± .0001	.8076 ± .0001	.8074 ± .0001	.8072 ± .0001	.8085 ± .0001
	4587.7519 ± .0001	.7515 ± .0002	.7513 ± .0000	.7511 ± .0000	.7523 ± .0001

^aReplaces the single time given in I.B.V.S. No. 1840.

Table I lists times and mean errors for binaries in which times were wavelength-independent. Table II tabulates those times showing wavelength dependence. Apparent time of mid-eclipse is always latest in the ultraviolet. McNamara and Feltz (1976) noted in U Sge that ultraviolet times were delayed from yellow, blue, and violet times by ~ 43 seconds, and Crawford (1979) remarked on ultraviolet delays in U Cep as large as 11 minutes. Among the systems of Table II, earliest times range from infrared in SW Cyg to violet in RW Tau. The maximum time spread is from 35±19 sec (RV Oph) to 190±37 sec (SW Cyg). All of these systems apparently are affected by circumstellar effects of mass transfer, as discussed by Crawford (1979) and Olson (1980).

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