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NEW PHOTOELECTRIC OBSERVATIONS OF THE ECLIPSING BINARY FO Vir

The light variation of FO Vir star was discovered by Jackisch (1972). It was initially thought to be an RRc type variable star with a period of less than one day (Jackisch 1972, Poretti 1977 and Eggen 1983). It is also a member of visual binary J2091. Recently Schmidt and Fernie (1984), Antonello, Mantegazza and Poretti (1984) found independently its period being 0.775567 days. Mochnacki et al. (1986) disclosed that FO Vir is a precontact binary. The A7V primary component very nearly fills its Roche lobe.

The UBV photoelectric observations of FO Vir were made in March and May 1986, and in March 1987,  $H_{\beta w}$  and  $H_{\beta n}$  were observed in April 1988 using the 60 cm reflector equipped with a photoelectric photometer at Beijing Observatory. HR 5037 and HR 5059 were chosen as the comparison star and check star respectively.

The UBV light curves of FO Vir (Figure 1) show that the amplitude increases with the decreasing wavelength, about 0.88 magnitude in U band, about 0.56 magnitude in B band and 0.52 magnitude in V band.

The U-B and B-V color index curves (Figure 2) show that there is an obvious dip near the minimum, especially in U-B curves.

The light minimum time of FO Vir and the O-C values are as follows:

Minimum time	E	O-C (days)
JD(he1) 2446863.3214 (I)	1833	-0.0039
±5		
JD(he1) 2446565.1126 (II)	1448.5	-0.0072
±4		

The O-C values of light minimum are calculated according to the ephemeris which was given by Mochnacki et al. (1986). They noted the individual data imply changes in the shape of the V light curves at different epochs at the level of several hundredths of a magnitude.

In order to test the short-time-scale light fluctuation of FO Vir, we analysed all our data using autoregressive (AR) power spectral and harmonic analysis method for FO Vir. We did not find any short-time-scale light var-

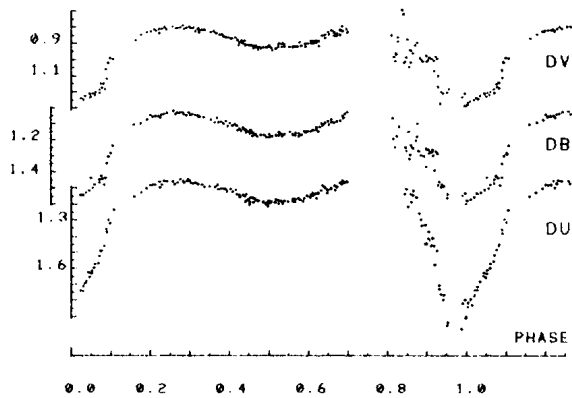


Figure 1. The UB Light Curves of FO Vir

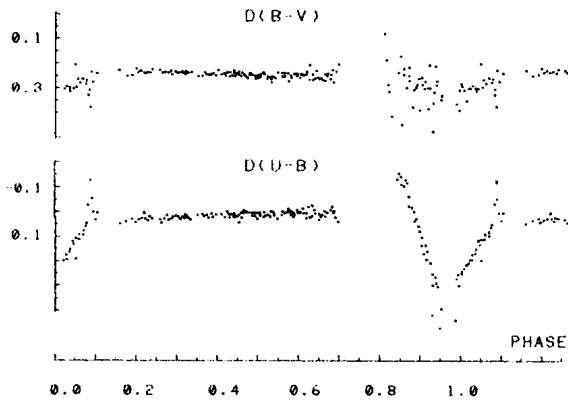


Figure 2. The Color Index  $D(B-V)$  and  $D(U-B)$  Curves of FO Vir

iation, the amplitude of which is larger than the observed error ( $\pm 0.01$  mag.).

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