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VZ CEPHEI IS AN ECLIPSING BINARY

The variable star VZ Cephei is classified in the GCVS 3 as "Is?". M. Beyer (1) observed it visually in the period from 1929 to 1937 and noticed irregular minima like BO Cephei. Also G. Romano (2) found the light variation to be irregular. The object was therefore taken into our photoelectric observation program for young stars and frequently observed in UBV during the period from 1975 April 28 to 1978 August 2 with the Sonneberg 60 cm telescope II. The absence of emission features in the spectrum (obtained with the Tautenburg 2 m telescope by P. Notni) gave a first indication that the object was probably not a young star in the pre-main-sequence stage. Photoelectric observation clearly showed that it is an eclipsing binary. The comparison star was BD+70°1200, which was compared with the star BD+70°1195 as a check. Star BD+70°1200 was linked to star No.8 in NGC 7160 (3) with the UBV values $V = 10^m.50$, $B-V = +0^m.44$, $U-B = +0^m.02$. The following elements for the light variation and photometric data could be determined.

VZ Cephei $M_O = 244 \ 3720.420$

$P = 1^d.18336$

$V_{\max} = 9^m.74$, $(B-V)_{\max} = +0^m.48$, $(U-B)_{\max} = +0^m.06$

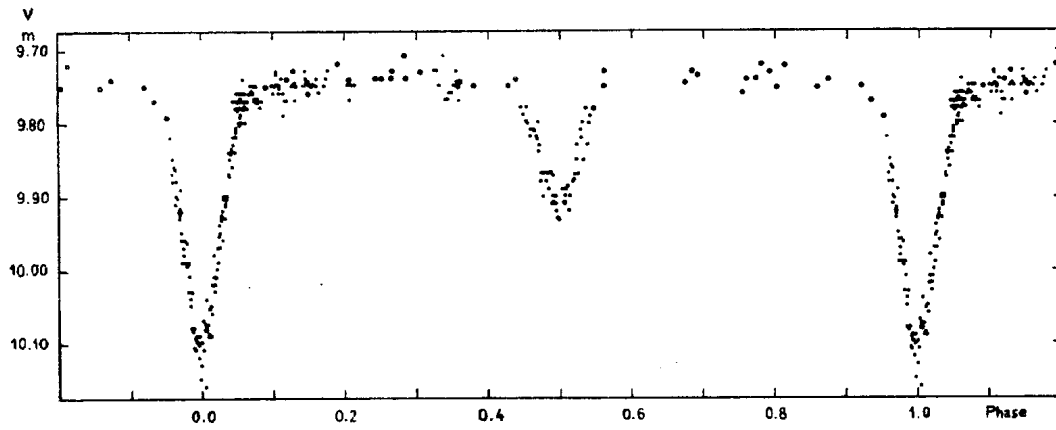
BD+70°1200 $V = 9^m.82$, $B-V = +0^m.53$, $U-B = +0^m.03$

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References:

- Beyer, M., 1950, Astron. Abh. (Erg. Astron. Nachr.) 12, Nr. 2
Romano, G., 1962, Oss. astr. Padova Pubbl. N. 125
Hoag, A.A., et al., 1961, Publ. U.S. nav. Obs., 2nd ser., Vol. 17,
part 7



Mean light curve of VZ Cephei
dots: single measurements,
larger dots: mean of three single measurements