

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

Number 2334

Konkoly Observatory
Budapest
13 May 1983
HU ISSN 0374-0676

NEW ECLIPSING SUPERGIANT 22 Vul

An eclipse of 22 Vul (HD 192713, $V = 5.15$), spectral type G3 Ib-II, was observed on 17 April 1983 during IUE observations from 18^h to 21^h UT. The companion B9 spectrum discovered previously by us with IUE was absent, and the FES magnitude (effective wavelength ~ 5200 Å) was 0.12 ± 0.02 mag fainter than on several dates in 1982. The star is a single-lined spectroscopic binary with period 249.1 days (revised by Parsons 1983, Ap. J. Suppl., in press), eccentricity 0.02, and $a_1 \sin i = 93 \times 10^6$ km. From the radial velocity curve, times of mid-eclipse of the B secondary by the G primary may be expected at approximately

$$2,445,442.2 + 249.099 E.$$

The duration of eclipse is unknown, but totality lasts at least 8 days since observations on 21 April again did not show the B spectrum. From the expected radius $\sim 40 R_{\odot}$ of the primary and estimated mass ratio ~ 0.7 , totality may be estimated at 10 days for $i = 90^{\circ}$. Eclipse depths will be greater at shorter wavelengths.

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