

COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
Number 2879

Konkoly Observatory
Budapest
14 March 1986
HU ISSN 0374 - 0676

THE SPECTRUM OF RS OPHIUCHI 2-1/2 YEARS
PRIOR TO ITS RECENT OUTBURST

On 7 August 1982 one of us (V.V.S.) obtained a 19 Å/mm spectrum of RS Ophiuchi with the three-stage image tube spectrograph on the 1.9m telescope of the Dominion Astrophysical Observatory. The exposure is useful only for emission lines, whose wavelengths were measured by G.W. using the Arcturus machine at the DAO.

The emission spectrum is similar to that described by Wallerstein and Cassinelli (1968) for RS Oph during the three-year interval prior to the 1967 outburst. Within the interval of 4100 to 4650 Å emission lines of H I, He I, Fe II and [Fe II] are present. The hydrogen line emission is not nearly as strong observed in 1964 and 1967. Radial velocities are: H I, -51 kms^{-1} ; He I, -31 kms^{-1} ; Fe II, $-60 \pm 4 \text{ kms}^{-1}$ ($n = 15$); [Fe II], -38 kms^{-1} . The Fe II lines show significantly negative velocities as compared to the other lines, as seen in 1961-64 and to a lesser extent in 1966 and 1967 (Wallerstein and Cassinelli, 1968).

In summary, it appears that the spectrum of RS Oph prior to the 1985 outburst was not very different from its state prior to the 1967 outburst.

V. V. SMITH*
University of Texas

G. WALLERSTEIN*
University of Washington

Reference: Wallerstein, G. and Cassinelli, J. P. 1968, *Pub. Astron. Soc. of the Pac.*, **80**, 589.

* Guest Investigators, Dominion Astrophysical Observatory, Herzberg Institute for Astrophysics, National Research Council of Canada.