

COMMISSION 27 OF THE I. A. U.
 INFORMATION BULLETIN ON VARIABLE STARS
 Number 1499

Konkoly Observatory
 Budapest
 1978 November 3

FAR-ULTRAVIOLET PHOTOMETRY OF RY SAGITTARI

During the flight of the Netherlands Astronomical Satellite ANS far-ultraviolet photometry of the R Coronae Borealis-type star RY Sagittarii was carried out. The observations were done on 5 April 1976 beginning at 20^h13^m20^s. Alternately an integration of 64 seconds on the star and of 32 seconds on a field 5' away from the star was performed. The following filters were used: 1549 Å (149 Å), 1799 Å (149 Å), 2200 Å (200 Å), 2493 Å (150 Å), 3294 Å (101 Å). Between brackets the width of each band is indicated; the bands are to a good approximation rectangular. The total number of useful integrations at each band is 8. To convert the results to absolute flux, ANS observations of B3 V stars were used together with a blanketed model atmosphere of Kurucz (see Wesselius and Koester, 1978). The flux values for RY Sgr are given in the Table:

λ , Å	2200	2500	3300
F_{λ} ; in units $10^{-14} \text{ erg s}^{-1} \text{ cm}^{-2} \text{ \AA}^{-1}$	9.45	17.47	283.8
	± 0.31	± 0.91	± 5.7

At 1550 Å and 1800 Å no signal has been detected (within the accuracy of measurements).

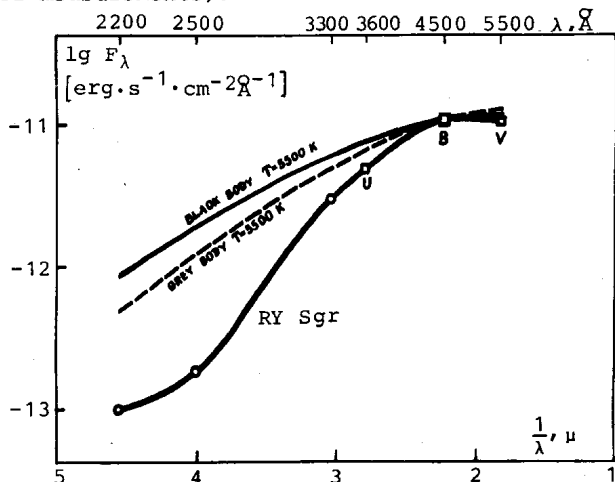


Figure 1 shows the resulting fluxes for RY Sgr as well as the magnitudes U,B,V for maximum brightness of this star taken from Alexander et al. (1972) and converted to absolute fluxes. For comparison we give also the calculated energy distribution for a black body and for a grey body with a temperature of $T=5500$ K (normalized to $\lambda 4500 \text{ \AA}$).

We have estimated the possible intensity of a graphite band at $\lambda 2200 \text{ \AA}$ and arrive at the conclusion that this band is absent in the spectrum of RY Sgr. It would be very interesting to perform observations of this star at active phase (light minimum) when the graphite band may appear due to strengthening of the circumstellar envelope.

B.E. ZHILYAEV, M.Ya. ORLOV,
P.R. WESSELIUS

Main Astronomical Observatory
Ukrainian Academy of Sciences
252127, Kiev, Goloseevo, U.S.S.R.

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