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THE MAGNITUDE, COLOR AND SPECTRUM OF RV Sgr⁽¹⁾

During our survey of giant N stars (Hidajat, 1965) in the Palomar-Groningen Variable Star Field 3 (2) (Plaut, 1969), we observed the changes of the color and spectrum of the variable star RV Sgr. The variations are summarized in the following table.

JD	V	V-I	M-type Spec.
2438 000+			
964.17	12.1	+4.50	-
992.05	12.5	+4.73	-
994.13	-	-	9
998.16	-	-	8
2439 000+			
001.15	-	-	8
002.15	-	-	6
293.27	11.9	+4.18	-
350.20	-	-	6.5
351.15	-	-	5-6
376.06	10.1	+3.25	-
384.05	9.7	+3.64	-

The photographic magnitudes and colors listed above were measured on Kodak 103a-D and I-N plates, exposed behind GG11 and RG 8 filters respectively to match the V-magnitude (of the UBV system) and the I-magnitude (of the Kron system). Pairs of V and I plates were always taken on the same night with the Bosscha Schmidt telescope. A standard photoelectric sequence in the field obtained by Wehinger (unpublished) has been used to calibrate the photometric scales. The spectral types have been determined on the unwidened spectral plates (I-N plus RG 8) with a dispersion of 1700Å/mm at the atmospheric A-band. The Case system of classification (Nassau and Velghe, 1964) was used to determine the spectral types.

The magnitude, color and spectrum variations seem to be in agreement with the finding of Miss Houk (1969), who shows that a variable with a period of 318 days would have on the average a spectral type M5 at maximum and M9 or M 10 at minimum.

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- (1) R.A. = $18^{\text{h}}24^{\text{m}}6$; Dec. = $-33^{\circ}21'3$ (1950)
- (2) R.A. = $18^{\text{h}}26^{\text{m}}$; Dec. = $-33^{\circ}0$ (1950)

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