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PHOTOELECTRIC OBSERVATIONS OF NOVA CYGNI 1978

Between Oct. 15 and Oct. 22, 1978, Nova Cygni 1978 was observed with the 1 m-telescope of the Florence and George Wise Observatory of Tel Aviv University, Israel. Photometric measurements were obtained with a two-channel photoelectric photometer equipped with UBV-filters, monitoring simultaneously in one channel the nova, and in the other a comparison star. They were reduced to the UBV-system by means of some UBV standard stars given by Landold (Astr. J. 78, 959) which were observed several times each night. Thus it was secured that possible errors in the adopted brightness of the comparison star had no effect on the measured brightness of the nova.

In Table 1 the results of the observations are compiled. For each night the mean brightness and colours from all individual measurements as well as their mean errors and the number of observations per colour are given. A single measurement lasted 30 seconds in each colour except for Oct. 15 when the integration time was 5 seconds.

The brightness measured on Oct. 20 (given in brackets) is probably influenced by clouds. The colours, however, seem to be reliable.

The position of the nova in a two-colour-diagram has been plotted and it is found to move from the vicinity of the blackbody sequence towards the supergiant sequence. The mean temperature during the observed period is near 11 000 K. But as long as nothing certain is known about the interstellar reddening of the nova, this can be regarded as a preliminary value only. There is a trend for the temperature to increase with time, which is consistent with observations of other novae after maximum.

Date (U.T.)	V	B - V	U - B	N
1978 Oct. 15.752	9.70 \pm 0.01	0.09 \pm 0.01	-0.83 \pm 0.01	17
16.703	9.81 0.02	0.09 0.01	-0.55 0.02	5
17.698	9.70 0.02	0.04 0.01	-0.75 0.01	4
18.694	9.81 0.02	0.04 0.01	-0.70 0.01	4
19.639	9.71 0.01	0.05 0.01	-0.73 0.01	4
20.699	(10.49 0.02)	0.06 0.01	-0.72 0.02	4
21.720	9.91 0.02	0.06 0.08	-0.74 0.03	4
22.936	9.80 0.03	-0.02 0.02	-0.71 0.01	4

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A. BRUCH
Astronomisches Institut
der Universität Münster
Steinfurter Str. 107
4400 Münster
F.R.G.