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SHORT TIME SCALE LIGHT VARIATIONS OF 21 COMAE

Differential photometric measurements of 21 Com were made in the B band with the 60 cm Cassegrain telescope of the Astronomical Institute of Wrocław University in Białków. On six nights more than 450 individual measurements were obtained. The observations cover about 30 hours, which is comparable to the whole observational time of the so far published photometric measurements of 21 Com with time resolution of minutes. As comparison stars 17 Com B and 18 Com were used.

The period of 32 minutes reported by Bahner and Mavridis (1957), Percy (1973), (1975) and by Weiss et al. (1980) has not been confirmed. This is in accord with a recent result of Jarzębowski (1982).

We performed frequency analysis of our data in the range from 6 to 420 c/d. Two highest peaks in the Fourier transform occurred at ν_1=244.24 c/d-P_1≅5.9 min and ν_2=267.11 c/d-P_2≅5.4 min. After prewhitening the data with one of the above mentioned frequencies the amplitude of the other did not change. Both these frequencies are similar to those found recently by Kurtz (1982) in five other cool Ap stars. The amplitudes of light variations corresponding to the frequencies we found are practically the same and equal to 0.00147 ± 0.00034 mag. Because of the low signal to noise ratio the reality of these frequencies requires independent confirmation.

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