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PHOTOMETRIC AND SPECTROSCOPIC INVESTIGATION OF Y CVn

The famous carbon star Y CVn became the object of our photometric and spectroscopic investigation in the past few years. The three colour BVR photometry of this star was provided at Brno Observatory and its high dispersion spectra were taken with the 2m telescope of the Ondřejov Observatory. The observational activity was directed to investigate the relationship between the light and radial velocity changes of carbon stars.

Our observations have led to the statement that the variations of the radial velocity of Y CVn based on the measurements of details of the Swan molecular bands  $C_2(1,0)$  and  $C_2(0,1)$  do not exceed the scale of  $\pm 2$  km/s. They may be connected with the light changes of the star but the observing material due to incompleteness does not allow to give more detailed information. As the spectroscopic observations are spread through the whole observing time period, the photometric ones express a serious gap just near critical epoch of the first of the three observed times of minimum light. Could perhaps anybody complete our information on the light activity of Y CVn in the time interval J.D. 244 4200 - 4400 ?

The most striking feature of our photometric observations is the continuous decrease of the B-V index of the star. Since the beginning of 1980 to the present the star has become more blue by about 0.6 magnitude. The red colour index V-R expresses no systematical change during the same time period.

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