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IMPROVED PERIOD OF BH CMi

BH CMi (BD +2°1855) was discovered to be variable by Hoffmeister (1934). Recent photoelectric observations were made by Zakrzewski and Zola in 1989. The incomplete light curve obtained by them shows that the components of the binary system must be very distorted, the configuration probably to be contact. Thus Zakrzewski and Zola (1989) confirmed the classification, made by Soloviev (1955), of BH CMi being a variable of W-UMa type.

We decided to observe the star in 1991 in order to obtain a complete coverage of the light curve and to improve the photometric elements since the ones given by Zakrzewski and Zola were derived on the basis of only a few minima, determined during few months. New photoelectric observations were made at Mt. Suhora observatory of the Pedagogical University. The double beam photometer with Johnson-Morgan filters was used. In the period between Jan. 16 to Jan. 19 a complete light curve of BH CMi in B and V bands was obtained. BD +2°1856 served as the comparison star while BD +2°1857 was used as the check star. The light curves are presented graphically in Figure 1, where magnitude denotes the difference between the variable and comparison stars. From the new data we determined 4 times of minima, 2 moments of the primary minimum and 2 of the secondary one. These times of minima are listed in Table 1.

Table 1. New times of minima of BH CMi.

JD Hel	2448274.4066±0.0002	primary
JD Hel	2448275.5247±0.0002	primary
JD Hel	2448273.5662±0.0003	secondary
JD Hel	2448276.3628±0.0004	secondary

The new moments of minima combined with those known previously allowed to improve the period of BH CMi:

$$P=0^d5594839\pm0^s0000025 \quad (\text{from the primary minima})$$
$$P=0^d5594869\pm0^s0000023 \quad (\text{from the secondary minima})$$
$$P=0^d5594848\pm0^s0000022 \quad (\text{both primary and secondary})$$

Since there are complete B and V light curves available, it is possible to obtain physical parameters of the system by means of light curve modeling. In order to do this reliably, spectroscopic observations are also needed.

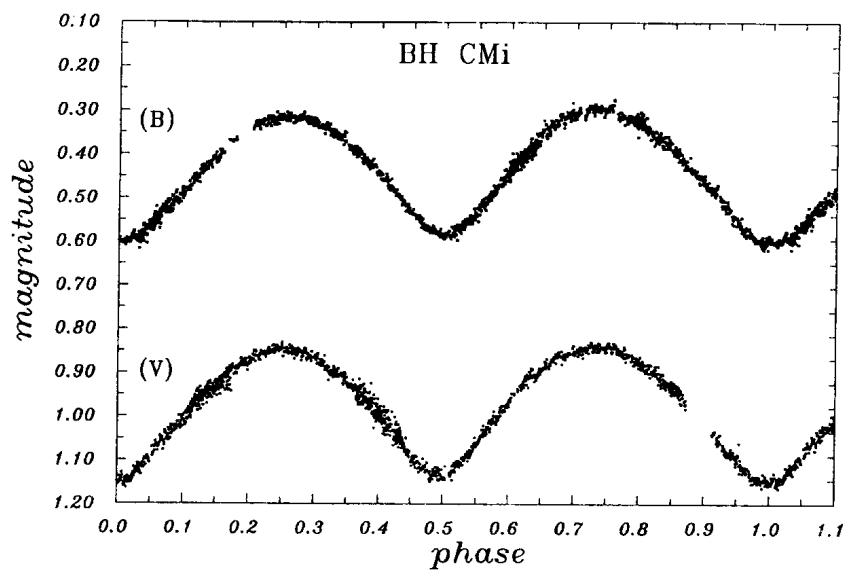


Figure 1

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