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NEW DATA ON THE MOST RECENT MINIMUM OF THE X-RAY SOURCE KR Aur

At the end of December 1981 the occurrence of a new minimum of the X-ray source KR Aur was observed (Popov, 1982) in view of which a search was carried out in the observatories' plate collections for new data after those presented by Liller (1980), also to include the object's becoming fainter. A total of 23 plates in the region of KR Aur were found in the plate collection of Harvard College Observatory (H) and that of Sonneberg Observatory (S) for the time interval Jan. 1980 - March 1982.

The magnitudes of the variable were estimated on the basis of Popova's (1965) sequence. Table I contains the magnitudes and brighter limits from all plates as a function of Julian Date.

Table I

J.D. 244...	m_B	Obs.	J.D. 244...	m_B	Obs.
4254.406	13.0	S	4693.327	13.0	S
4254.475	13.1	S	4854.568	13.6	S
4283.646	13.7	H	4908.861	13.5	H
4287.583	13.0	H	4933.793	14.8	H
4288.312	13.0	S	4958.740	(14.4)	H
4290.401	13.1	S	5021.361	15.7	S
4308.552	13.5	H	5021.383	15.6	S
4545.495	13.0	S	5044.541	(14.4)	H
4577.730	13.5	H	5052.343	15.8	S
4607.649	13.5	H	5052.412	15.6	S
4665.555	13.4	H	5052.582	(14.4)	H
4690.535	13.3	H			

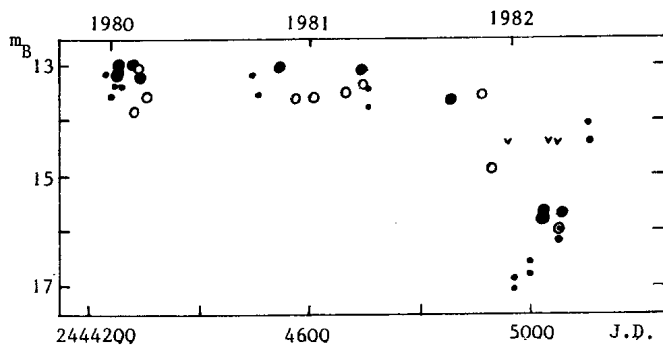


Figure 1

All the data from this study are plotted in Figure 1. The magnitudes estimated by Liller from the Harvard plates are shown as open circles, the data obtained by Popova from the Sonneberg plates as full circles. In addition, as dots, are plotted the observations by the Bulgarian National Astronomical Observatory by Popova, Antov and Popov (1982) for the same time interval. The observations complement each other very well. A steeper decrease of the brightness was more apparent than its increase.

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References:

- Liller, M.H. 1980, *Astron. J.*, 85, 1092.
Popova, M.D. 1965, *Perem. Zvezdy*, 15, 534.
Popova, M.D., Antov, A.P. and Popov, V.N. 1982, In: "Magnetic and Variable Stars", eds. M. Marik and L. Szabados, *Commun. Konkoly Obs. Hung. Acad. Sci.*, No. 83, Budapest, p. 220.
Popov, V.N. 1982, *Inf. Bull. Var. Stars*, No. 2095.