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THE LIGHT CURVE OF KR AURIGAE IN THE SEASON 1985/86

In completing the long-time light curve of KR Aurigae the star was measured on 27 blue-sensitive plates (ORWO-ZU21+GG13+BG12) from 19 nights obtained with the Schmidt camera 50/70/172 cm of Sonneberg Observatory, covering the time interval between 12 September 1985 and 1 March 1986, using the comparison star sequence given by Popova (1965). The observations are given in Table I.

Table I

J.D.	m_B	J.D.	m_B
244....		244....	
6321.631	13 ^m .15	6387.573	15 ^m .10
6322.605	13.4 :	6405.390	14.40
6327.607	13.1 :	6440.435	14.70
6327.622	13.25	6463.340	13.30
6358.590	14.90	6466.324	13.30
6358.606	14.70	6466.344	13.40
6359.540	15.0 :	6469.315	13.57
6359.565	15.10	6469.335	13.66
6360.602	14.70	6474.312	13.65
6360.626	14.80	6474.338	13.70
6361.619	15.20	6488.285	14.10
6364.669	14.80	6489.296	14.15
6385.528	15.35	6491.305	14.30
6385.548	15.35		

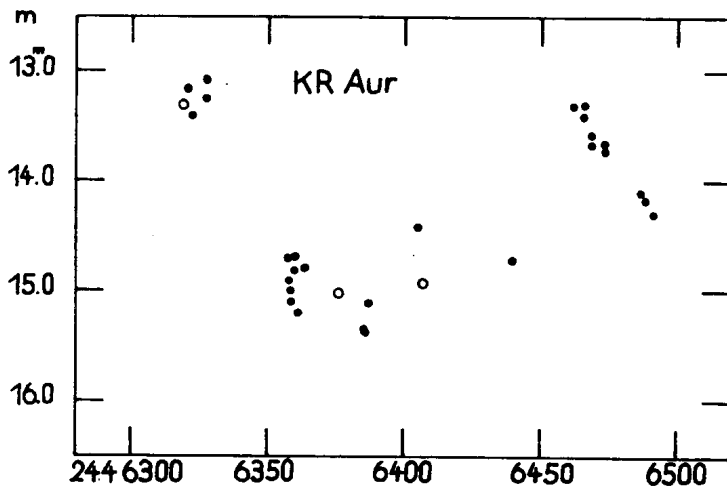


Figure 1

It can be seen from Figure 1 that KR Aurigae was in a minimum phase in the time interval between J.D. 244 6358 and J.D. 244 6440.

The decrease from the maximum brightness ($m_B \approx 13^m.2$) to the faint light ($m_B \approx 15^m.0$) as well as the increase from that state to the maximum brightness ($m_B \approx 13^m.3$) could not be observed, unfortunately. But there is no doubt that the decrease to the faint light took place within less than 31^d .

Slow temporal light fluctuations are superimposed on the mean light curve. At the end of the series a continuous decrease in the brightness from $m_B = 13^m.3$ to $m_B = 14^m.3$ is indicated.

Concerning the minimum phase our own observations in B are in agreement with visual estimations given by Ducoty (1985), which are marked by circles in Figure 1.

W. GÖTZ

Akademie der Wissenschaften
de DDR, Zentralinstitut für
Astrophysik, Sternwarte Sonneberg
DDR

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