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OPTICAL BEHAVIOUR OF THE X-RAY BINARY V1727 CYGNI
 = 4U 2129+47 IN 1986

The star was inspected on 79 blue-sensitive plates (ORWO-ZU21+GG13+BG12) from 47 nights obtained with the 50/70/172 cm Schmidt camera of Sonneberg Observatory covering the time interval between 18 March 1986 and 29 November 1986.

The individual estimates, which are listed in Table I are linked to the sequence of comparison stars given by Wenzel (1983).

Table I

J.D.hel.	m_B	Rem.	J.D.hel.	m_B	Rem.
244....			244....		
6508.639	18.1		6616.507	>17.5	iv
6533.561	>17.9	iv	6626.505	>17.9	iv
6533.578	>17.9	iv	6626.524	18.2	
6552.503	>17.9	iv	6641.410	>18.4	iv
6552.522	>17.5	iv	6641.428	>17.5	iv
6553.554	18.1		6642.447	>17.5	iv
6553.572	>17.9	iv	6644.485	>17.5	iv
6554.551	>17.5	iv	6645.478	>17.9	iv
6554.569	>17.9	iv	6645.497	18.2	
6563.492	18.3		6646.515	18.1	
6563.510	18.3		6646.537	18.1	
6577.444	>18.4	iv	6648.521	>17.5	iv
6591.508	>17.9	iv	6649.487	>17.9	iv
6591.526	>17.9	iv	6649.512	18.2	
6592.506	>17.9	iv	6650.480	18.2	
6592.528	>17.9	iv	6651.480	>17.5	iv
6596.532	>17.9	iv	6651.500	>17.5	iv
6597.528	>17.5	iv	6678.443	>17.9	iv
6608.423	>17.9	iv	6678.463	18.2	
6609.451	>17.9	iv	6679.429	18.3	
6611.470	18.4		6679.448	>17.9	iv
6611.489	18.4		6683.440	>17.9	iv
6612.489	18.2		6683.461	18.4	
6613.486	18.3		6685.424	>17.5	iv
6613.503	17.9	iv	6685.444	>17.5	iv
6614.500	18.0		6702.357	18.1	
6616.491	>17.9	iv	6702.376	18.3	

J.D.hel.	m_B	Rem.	J.D.hel.	m_B	Rem.
244 ...			244....		
6702.395	>18.4	iv	6714.384	>17.9	iv
6704.354	>17.9	iv	6714.403	18.2	
6704.372	>17.9	iv	6731.315	>17.9	iv
6705.384	18.4		6731.341	>17.9	iv
6705.404	>17.9	iv	6733.441	>17.9	iv
6706.396	18.2		6733.460	>17.9	iv
6706.415	18.3		6737.446	18.4	
6707.364	>17.9	iv	6741.419	>17.9	iv
6707.382	>17.9	iv	6762.420	>17.9	iv
6708.389	>18.4	iv	6763.260	>17.9	iv
6708.408	>17.9	iv	6763.281	>18.4	iv
6713.366	18.3		6764.267	>17.9	iv
6713.406	18.4				

iv = invisible

The object is only visible on 27 plates in the brightness range between $m_B = 18^m_0$ and $m_B = 18^m_4$. On most of the plates the star is below the limiting magnitude and invisible. As in former series (Götz 1985, 1986) the behaviour given here characterizes the low or inactive state of the star, which probably started near 7 September 1983 (Wenzel 1983).

Observations listed in Table I are shown in Figure 1.

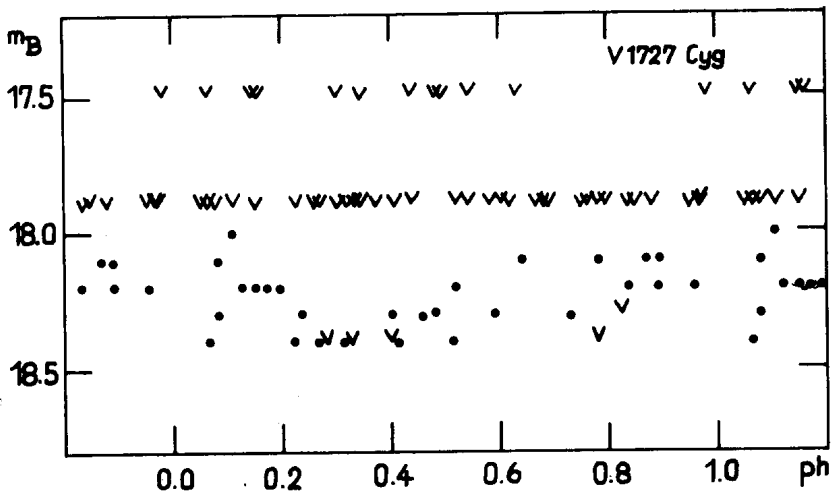


Figure 1

They are reduced to one common epoch by means of the elements

$$\text{Min (hel.)} = 244\,4403.743 + 0^d2182579 \cdot E$$

given by McClintock et al. (1982). The arrows indicate "fainter than" observations.

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References:

- Götz, W., 1985, Inf. Bull. Var. Stars No. 2732
Götz, W., 1986, Inf. Bull. Var. Stars No. 2895
McClintock, J.E., London, R.A., Bond, H.E. and Grauer, A.D., 1982,
Astrophys. J. 258, 245
Wenzel, W., 1983, Inf. Bull. Var. Stars No. 2452