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OPTICAL VARIATIONS OF Cen X-3

A recent report (Mauder, 1975) suggests that optical activity of Cen X-3 exists on a time scale of minutes or shorter. The existence of flickering would provide valuable insight into the rate of mass transfer in the system.

An observation of Cen X-3 was made on June 17, 1974 with the 100 cm telescope of the South African Astronomical Observatory at Sutherland, using the University of Cape Town high speed photometric system (Nather and Warner, 1971). Both seeing and photometric conditions were excellent, enabling a small focal plane aperture to be used thus excluding with certainty any of the close companion stars. One second integrations were made for 4100 seconds, at a time corresponding to orbital phases  $165^{\circ}$  to  $173^{\circ}$ . No filter was used.

No variations apart from those of a stochastic nature due to photon statistics were found, to a limit of 0.01 magnitude in 10 seconds. The data were also subjected to a power spectrum analysis which gave negative results, in agreement with Lasker (1974) and Peterson et al. (1975).

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