

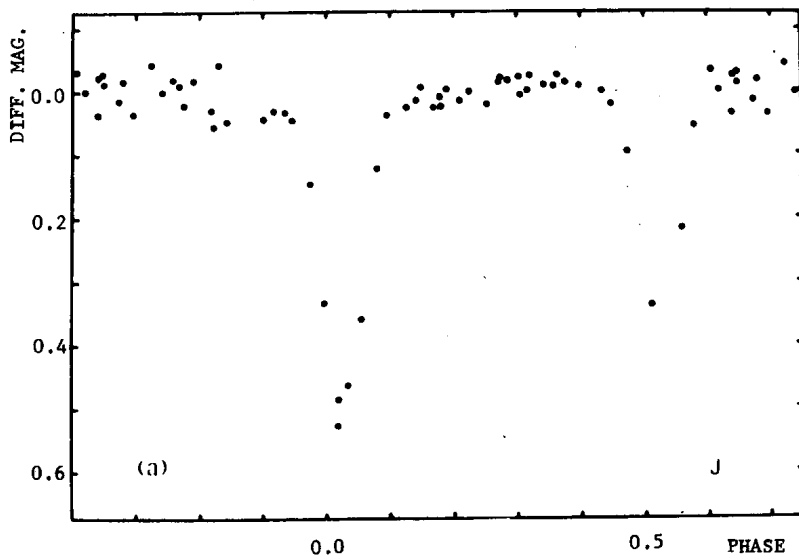
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JHK LIGHT CURVES OF CG CYGNI

Infrared photometry of CG Cygni (=BD+34^o4217), a short period (P=0.63d) active late-type eclipsing binary, was obtained during four consecutive nights 1986. Aug. 30 - Sept. 3. The comparison star was SAO 70728 (=BD+34^o4217); BS 8430 was used as the standard. The observations were made at the Observatorio del Teide, Tenerife, with the 1.5m Sanchez Magro Telescope (Infrared Flux Collector). A single channel infrared photometer was used, with a focal plane chopper and a cooled InSb detector. For each data point, the star was exposed for 10s alternately in the two beams until a signal-to-noise ratio >100 was achieved.



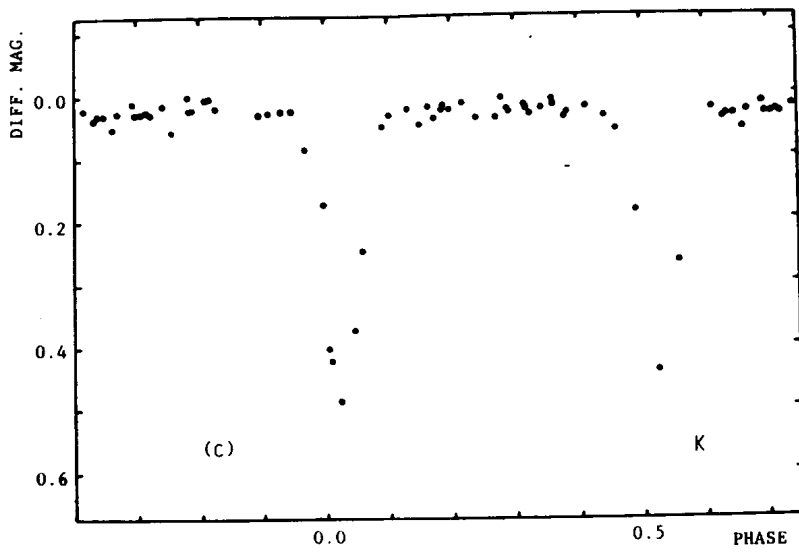
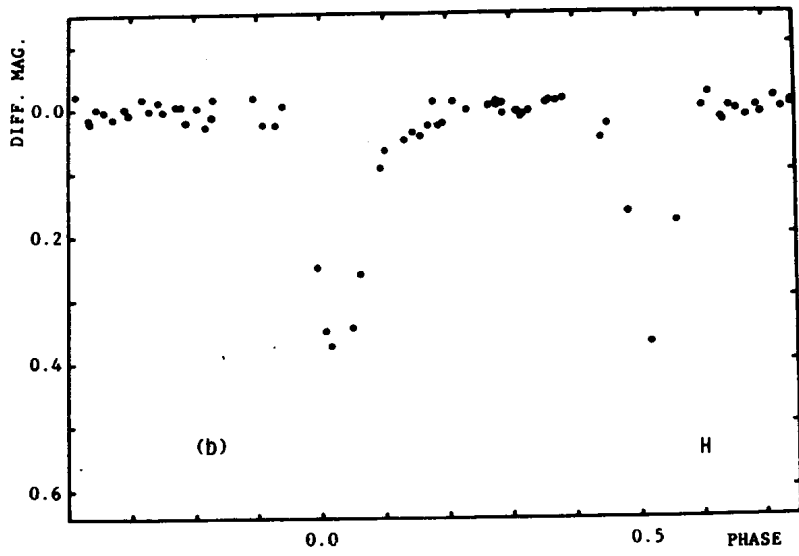


Figure 1: The J, H and K light curves of CG Cygni during 1986 Aug/Sept.

CG Cygni shows most of the characteristics of the RS CVn class of stars (Hall 1975), although it appears that neither component has yet evolved far off the main sequence. Both components are active. The spectral classification seems to have been reliably established to be G9 V + K3 V (or perhaps K3 IV-V) by Naftilan and Milano (1979) who, with co-workers, have extensively studied the system. Infrared excesses in J and K \sim 0.2 mag have been confirmed by Bedford, Fuensalida and Arevalo (1987).

The JHK light curves presented here in Figures 1a, 1b, 1c form part of our continuing programme of observations of CG Cygni. The data have been folded according to the ephemeris of Milone and Ziebarth (1974):

$$\text{HJD} = 2439425.1221 + 0.^d_6311410\text{E},$$

and the differential magnitudes have been normalised to an approximate uneclipsed reference level ($\Delta m=0$).

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