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THE SPECTRUM OF CH CYGNI IN JULY

A spectrogram of CH Cygni has been taken July 15, 1967 at the grating spectrograph of the 77 inch coudé of the Haute Provence Observatory. The dispersion is 9.7 Å/mm and the spectral range 3600-5050 Å. CH Cygni shows a violet continuum ($\lambda < 4000 \text{ Å}$) stronger than that of the comparison star 30 Her (M6). About 50 emission lines have been measured; the Balmer series from H Beta to H 14 and the H and K of CaII show P Cygni contours. The He series corresponding to the transition from terms n^3D to 2^3P^0 state is present except $\lambda 4026$; also the HeI metastable lines 5015 and 3888 are present. All these lines show broad emissions. FeII and [FeII] are present with sharp emission lines as pointed out by A. J. Deutsch (Mt. Wilson and Palomar Annual Report page 11, 1963). Emission of MgI 4571, TiII 4468 and 4501, and the nebular line 4068 identified by A. D. Thackeray (M.N. 113, 211; 1953) and by L. H. Aller, T. Dunham Jr. (Ap. J. 146, 126, 1966) in Eta Car as [SII] are present.

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BRIGHTNESS VARIATIONS OF CH CYGNI

Photoelectric observations in U, B, V still in progress confirm the communication by Fehrenbach and Marsden about the variations in U brightness. Moreover, some irregular variations are shown in B-light, reaching sometimes about one tenth of magnitude in one or two minutes. Provisional data not yet fully reduced show for the period 30 June-2 August a little decrement of about 0.2 mag. both in V and in B-V.

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