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FLARE ACTIVITY ON G12-30

We have observed two prominent flares on the star G12-30 ($\alpha = 12^{\text{h}}16^{\text{m}}31^{\text{s}}$ $\delta = 11^{\circ}24.0'$, 1950) during seven nights of monitoring it as part of a survey of nearby late M dwarfs. Photometric observations were made in the B-band of the UBV system using the 60-inch (1.5 m) telescope of the Hale Observatories at Mt. Wilson. Time resolution was limited to ten-second integrations. The sky background was measured at three minute intervals. After subtracting the sky background, the signal was ratioed to the quiescent state of the object. A total time of 14.6 hours was spent intergrating on the object itself during the periods February 9-11 and February 26 - March 1, 1977 (UT).

Harrington et al. (1975) list the following data for G12-30:

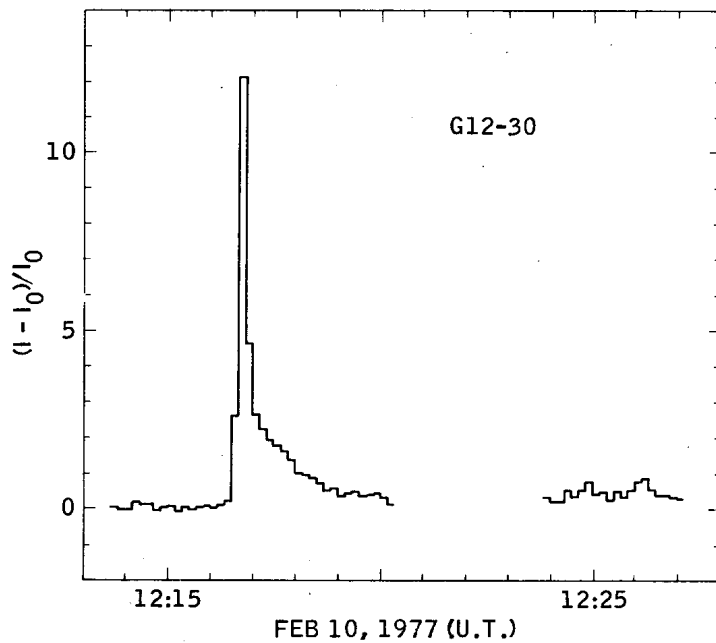
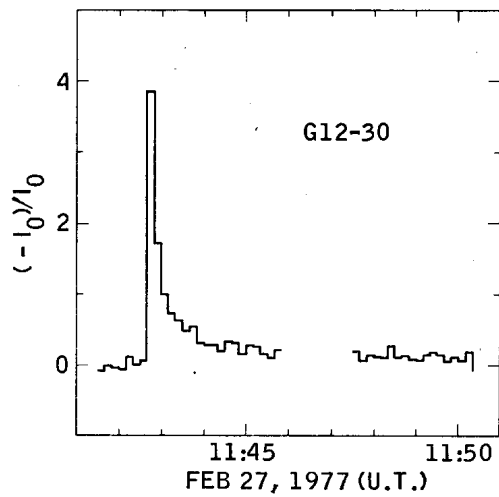
$$m_V = 13.79$$

$$B-V = 1.83$$

$$\pi = 0.151''$$

which implies that the object is a late M dwarf. Image tube spectra previously obtained by Veeder (unpublished) indicate a late M type with strong H α in emission. Thus, G12-30 is probably a UV Ceti type flare star.

This paper presents the results of one phase of research carried out at the Jet Propulsion Laboratory, California Institute of Technology, under contract NAS 7-100, sponsored by the National Aeronautics and Space Administration.



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