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FLARE ACTIVITY OF G1 669 A

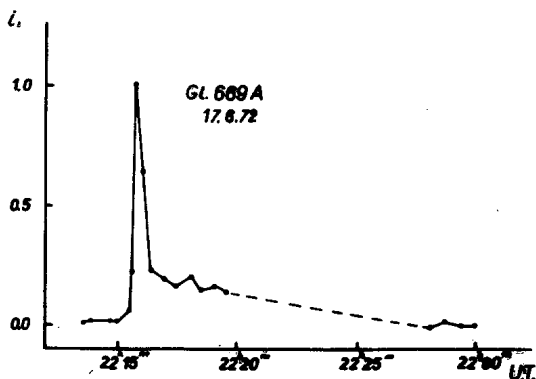
The double system G1 669 AB (= Ross 867 + Ross 868) consists of the 11.3 m_v dM4e and 12.8 m_v dM5.5e stars separated by about 16". Both stars exhibit the Ca II H and K lines and the Balmer series in emission. The flare activity of G1 669 B (Ross 867) was observed photoelectrically in U-band by Kunkel [1]. G1 669 A was observed photoelectrically in V-band for a total of 35.6 hours by Roques [2] but during that time no flares were registered.

Our photoelectric observations of G1 669 A were carried out on the 64 cm meniscus telescope at the Crimean Observatory in photometric system close to B. The star was observed for a total of 12.5 hours during the period from 3 June to 5 July 1972, and one flare was registered. The flare characteristics according to [3] are the follows:

Date	UT _{max}	$I_{O+f} - I_O / I_O$	σ / I_O	P_B (min)
17.6.1972	22 ^h 15 ^m .8	1.00	0.05	1.60

The light curve of the flare in Fig.1 has relative intensity $i_B = I_{O+f} - I_O / I_O$ as ordinate and Universal Time as abscissa.

The discovery of the flare activity of G1 669 A confirms the conclusion [4,5] that the previous hypothesis, according to which only the fainter component of a binary UV Ceti type is always the flare star, is not valid.



During 1970 - 71 four spectrograms with dispersion 155 \AA/mm in the spectral range $5700-7000 \text{ \AA}$ have been obtained with the 2.6 m reflector at Crimean Observatory. The equivalent widths of the H-alpha emission line - $W_{\text{H}\alpha} (\text{\AA})$ -range on these spectrograms from 1.4 to 2.1 \AA (the probable error of $W_{\text{H}\alpha}$ obtained from one spectrogram is equal to 25%). This value is 6-7 times less than $W_{\text{H}\alpha}$ in the quiet spectra of the most active flare stars EV Lac, AD Leo, YZ CMi, UV Cet [6]. According to the correlation between the emission intensity in quiet state spectra and the flare activity level of the flare stars [6], the activity level of the G1 669A is approximately 100 times less compared to the very active flare stars.

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