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14 Lac: A NEW LIGHT VARIABLE Be STAR

14 Lac is a B3 IV star which has been suspected as a variable with an amplitude of few hundredths of a magnitude by Walker (1952).

This object was adopted as one of the comparison stars in a rather long series of U, B, V observations of the shell star ϵ And, taken in 1969 at the Astrophysical Station of Serra La Nave of the Catania Observatory. The said observations, which are distributed over 32 nights from August to November, with several hours of measurements in each night, were kindly supplied to me by Prof. M. Rodono. A preliminary analysis of these observations shows that 14 Lac is variable with an amplitude of about 0.05 mag. in the three colours and with a possible periodicity (or pseudo-periodicity) of about 5 days.

In order to clarify the type of variability and since from narrow band photoelectric measurements 14 Lac was suspected by Andrews (1968) to be a star with H α emission, a few grating spectra were collected on October and November 1980 with the Cassegrain spectrograph attached to the 137 cm reflector of the Merate Observatory. In particular, two 35 Å/mm red spectra show that the H α line consists of a strong absorption core flanked by emission components, so that 14 Lac is a Be star. This conclusion is strengthened by the amplitude and timescale of light variations and by the relatively high projected rotational velocity of this object (225 km/sec, Abt and Hunter, 1962).

Full details relating to the light variability and the spectral characteristics of 14 Lac will be given elsewhere.

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