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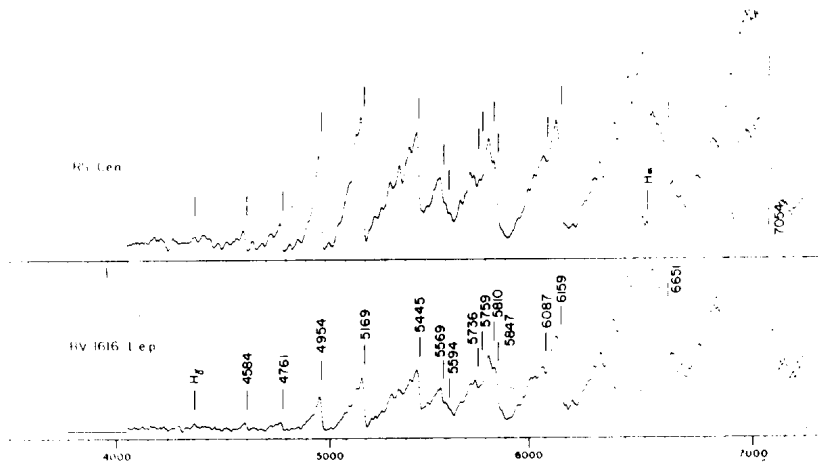
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BV 1616 Lep - A PROBABLE MIRA VARIABLE

The variability of BV 1616 Lep = CSV 717 = Ross 354 has been discussed by Markworth (1), Locher (2) and summarised by Bateson (3). The star varies by about 4 mag on a timescale of a few hundred days and was suspected of being a long period eclipsing or eruptive variable.

A spectrum of BV 1616 Lep was obtained on May 19.38 (UT) (JD 2442917.88) at the Anglo-Australian 3.9m Telescope using the Wampler Robinson Image-Dissector Scanner. The spectrum is shown together with that of RS Cen, a Mira variable, obtained on the same night. The wavelength scale is somewhat non-linear and the intensity scale has not been absolutely calibrated and includes detector response. Several features due to TiO and VO absorption and H γ and H α emission are identified. The spectral type of BV 1616 Lep based on the calibration of Keenan (4) is M5e, with an uncertainty of two subclasses. The luminosity class could not be determined. The spectrum is clearly not that of a dwarf nova, or eruptive variable.



The effective integrated magnitude of BV 1616 Lep at the epoch of observation was 15.2 ± 0.6 mag and it was 2.0 ± 0.3 mag fainter than RS Cen.

A spectrum of the star 18 arcsec west of BV 1616 Lep was also obtained since it too was a suspected variable (2). It is of solar spectral type or later with no special peculiarities, and about 0.5 ± 0.2 mag fainter than BV 1616 Lep but not nearly as red.

Considering its probable long period variability, its spectral similarity to RS Cen and its H α emission, it is very probable that BV 1616 Lep is a Mira variable. Whether it eclipses or not is another matter. A determination of the period and amplitude of the light curve would be useful.

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