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THE SPECTRUM OF THE SUSPECTED VARIABLE HD 33331

Recently, Manfroid and Renson (1981) announced the variability of HD 33331 with a period of 1^d.14 and suggested that the star might be an Ap star. No details of the amplitude or form of light variation were given.

The star has been observed by Olsen (1975) in the uvby β system and spectroscopically by us (ESO 1.5m coudé, La Silla, Chile, at 20Å/mm) in a radial velocity programme. The three plates, taken in September and November 1974, show a range of 5 km/s in radial velocity, consistent with the scatter expected for a constant velocity. The spectrum is rather sharp-lined, with $v \sin i$ around 50 km/s, and the spectral type is close to B8. No significant spectral variations or peculiar spectral features are seen, and the spectrum is entirely consistent with that expected from the uvby indices. We cannot estimate the luminosity class with certainty from these plates, but the β value by Olsen (1975) places the star in the lower half of the main sequence band. We note that Houk (1978) classified the star B5III, which is certainly earlier than indicated by our plates.

We cannot exclude the possibility that HD 33331 might be a mild He-weak or similar type of peculiar star, but there are no visible spectral peculiarities at our dispersion. The possibility of the star being an ellipsoidal variable seems ruled out by the slow rotation and apparently constant radial velocity. If the light variations of the star are confirmed, spec-

troscopic observations at higher resolution will be needed to clarify their origin.

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