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A BRIGHTENING OF THE Be STAR HD 46380

HD 46 380 (=BD-7° 1462) has been observed to be brightening in V magnitude over the period November, 1984 to the present. Originally observed as one of the comparison stars for HD 46 282 (an eclipsing binary, data on which will be published later), it soon became obvious that it was too unstable to serve as such.

HD 46 380 was observed in B and V magnitudes on 43 nights from November, 1984 to January, 1986 with the 0.6-m telescope of the Corralitos Observatory and its automated single channel photon-counting photometer and uncooled EMI 9924A photomultiplier tube. Comparison stars were HD 46 283 (V= 7.27 ; B-V = +0.25) and HD 46 282 outside of eclipse (V= 8.21 ; B-V= 0.00), both of which

Table I

| JD<br>(2440000+) | V    | (B-V) | JD<br>(2440000+) | V    | (B-V) |
|------------------|------|-------|------------------|------|-------|
| 6025.9125        | 7.99 | +.44  | 6331.9673        | 7.94 | +.44  |
| 6031.8674        | 8.03 | .42   | 6335.9479        | 7.94 | .44   |
| 6033.8302        | 8.00 | .38   | 6350.9826        | 7.97 | .45   |
| 6034.8326        | 7.97 | .47   | 6351.9534        | 7.93 | .45   |
| 6050.8139        | 7.99 | .40   | 6353.9600        | 7.95 | .45   |
| 6081.7236        | 8.00 | .45   | 6357.9722        | 7.96 | .45   |
| 6082.8222        | 7.99 | .42   | 6376.9000        | 7.96 | .45   |
| 6083.7990        | 8.02 | .43   | 6377.9000        | 7.94 | .45   |
| 6084.7337        | 8.01 | .42   | 6391.9381        | 7.95 | .44   |
| 6085.7649        | 7.98 | .46   | 6392.8437        | 7.92 | .44   |
| 6098.8330        | 7.99 | .41   | 6409.9300        | 7.93 | .44   |
| 6102.7833        | 8.00 | .40   | 6410.8125        | 7.94 | .45   |
| 6113.7569        | 7.98 | .44   | 6427.8277        | 7.91 | .47   |
| 6121.7007        | 7.98 | .42   | 6428.7465        | 7.95 | .42   |
| 6122.6847        | 7.95 | .44   | 6429.8017        | 7.90 | .44   |
| 6125.7056        | 7.98 | .43   | 6432.7375        | 7.94 | .45   |
| 6128.6667        | 7.99 | .41   | 6449.8180        | 7.93 | .47   |
| 6129.6625        | 7.98 | .41   | 6450.7986        | 7.95 | .45   |
| 6143.6712        | 7.98 | .43   | 6455.7631        | 7.94 | .41   |
| 6147.6208        | 7.96 | .43   | 6456.7534        | 7.93 | .43   |
| 6148.6330        | 7.98 | .43   | 6457.7194        | 7.95 | .49   |
| 6171.6104        | 7.95 | .43   |                  |      |       |

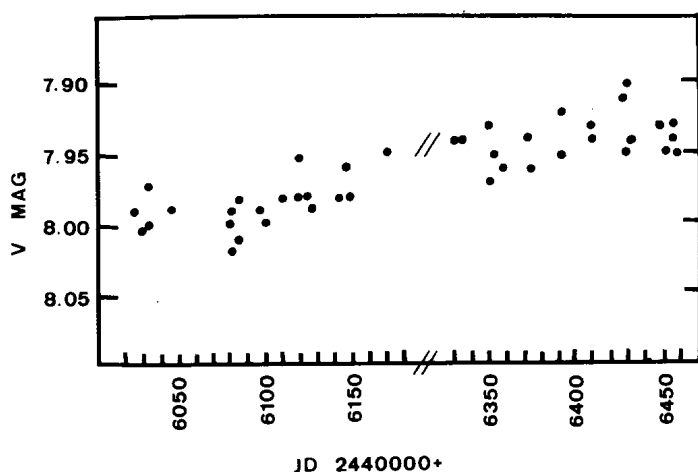


Figure 1. Variations in V magnitude for HD 46 380

were found to be stable to within  $\pm 0.01$  magnitudes. Transformation to BV magnitudes was accomplished by observations of standard stars.

Table I gives the observations and Figure 1 the variations. Clearly there exists microvariability as well as long-term brightening, though no color changes seem to be occurring. Page (1982) compiles spectral types of B2, B2e and B2Vne. Previous mean magnitude measurements of  $V = 8.00$  and  $B-V = +0.43$  have been published by Nicolet (1978), in good agreement with the values observed at the beginning of the data collection. It seems likely that an emission episode may be occurring and therefore, it is suggested that spectroscopic observations of HD 46 380 be carried out by those with access to such facilities.

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#### References:

- Nicolet, B., 1978, *Astron. Astrophys. Suppl.*, **34**, 1.  
Page, A.A., 1982, *Catalogue, Spectrum and Magnitude Data Bank of B(e), B(p) and B(pe) Stars*; Cent. de Données Stellaires, Obs. de Strasbourg.