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OUTBURSTS OF THE STAR CASE 1

The object Case 1 ($\alpha = 12^{\text{h}}13^{\text{m}}16^{\text{s}}$; $\delta = +52^{\circ}47'5$; 1950.0) is a close pair consisting of a DA white dwarf and a dM4e red dwarf (Lanning and Pesch, 1981). Lanning (1982) found that the radial velocity of the H_{α} line varies with the period 0.66765 and the semiamplitude is $K = 116$ km/s. The period he found is apparently the orbital period in the close binary system. However, the author was not able to find any considerable variability.

The star was investigated using 430 plates of the Sternberg Institute plate collection taken in the interval J.D. 2 437 462 - 2 445 854 and three more plates (J.D. 2 418 771 - 2 419 126). The identification chart for the object is shown in Fig. 1. Table I gives photoelectric UBV-measures of neighbour stars. Our plate material shows minor brightness changes in the range 13.6-13.9B, which is comparable with the errors of photographic photometry. It was, however, possible to find two reliable outbursts to 13^mB. The moments of the outbursts and adjacent observations are given in Table II.

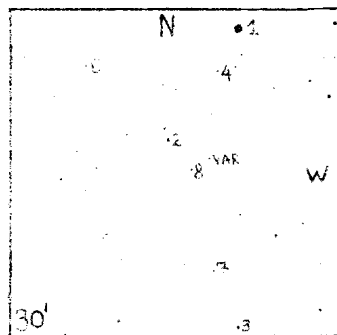


Figure 1

Table I

stars	V	B-V	U-B
1	7.54	+1.06	+0.87 *
2	11.62	+0.66	+0.20 **
3	12.27	+0.55	+0.03
4	12.54	+1.55	+1.0
5	12.80	+0.58	-0.04
6	13.00	+0.59	+0.03
7	13.24	+0.75	+0.15
8	13.83	+0.71	+0.11

* BD+ 53^o 1535

** the standard star for photoelectric observations

The occurrence of outbursts could be explained by an increase of the rate of accretion on the white dwarf, probably from the thin disk surrounding it. Thus the system is semidetached or almost semidetached, since there

Table II

J.D.	B	J.D.	B
2438139.370	13.69	2439919.316	13.62
142.360	13.02	936.320	13.18
142.391	13.12	937.304	13.84
145.342	13.67		

Table III

J.D.	V	B-V	U-B
2445852.319	13.25	+0.54	-0.49
854.328	13.21	+0.53	-0.49
858.302	13.25	+0.56	-0.46
858.308	13.23	+0.54	-0.44
858.322	13.24	+0.54	-0.45
858.337	13.24	+0.53	-0.44
858.345	13.20	+0.54	-0.42
858.356	13.20	+0.58	-0.45

appears a possibility of accretion of matter from the cooler star onto the hot one.

Our photoelectric observations are given in Table III where no noticeable variability is apparent. Eggen and Greenstein (1965) give the following values for the variable: $V = 13.^m34$; $B-V = +0.^m53$; $U-B = -0.^m48$.

It is worth noting that the star No.4 on our chart is possibly a slow variable with an amplitude not exceeding 1^m .

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