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HR 8062 A NEW VARIABLE IN CYGNUS

Photoelectric photometry of HR 8062 = HD 200527 = SAO 50381 = GC 29388 obtained between November 3, 1989 and January 24, 1990 indicates a range of 6^m18-6^m36 V and a period of 36 days between maximum. Only two cycles of minima light were obtained, (Figure 1) and it can be seen the amplitude of the variation of luminosity appears to be fluctuating, increasing by 0^m04 . Due to this phenomena over a characteristic time interval we might conclude HR 8062 is a semiregular giant variable with probable multiple periods.

HR 8062 is listed as 6^m38 V, spectral type Mb, Buscombe spectral type = M4 III, (RA = $21^h00^m37^s$, D = $+44^\circ 35.6'$ (1950) in the Yale Bright Star Catalogue (Hoffleit and Jaschek 1982). Sky Catalogue 2000.0 list HR 8062 at magnitude 6^m19 V, B-V = 1.69, spectral type M3 Ib-II, (RA = $21^h02^m 23.9^s$, D = $+44^\circ 47' 28''$ (2000). (Hirshfeld and Sinnott 1982). The two listed magnitudes correspond to the brightest and minimum magnitudes obtained during the sequence. When it was anticipated the period might be around 36 days one measurement or normal point per night was necessary.

A search of the General Catalogue of Variable Stars (Kholopov et al. 1985), the New Catalogue of Suspected Variable Stars (Kholopov et al. 1982) and the 67th, 68th and 69th Name-List of Variable Stars (Kholopov et al., 1985, 1987, 1989) indicates that it is not known as a variable. HR 8062 was selected as a potential variable star because the spectra is similar to those of other known variable stars of mainly small amplitude (Hoffleit 1979).

The observations were made using a Optec 3 photometer attached to the 0.56m (22 Inch) telescope at the MacLean Observatory and the 0.25m (10 Inch) telescope at the Tahoe Observatory. Altogether 38 and 29 differential magnitudes of HR 8062 in V and B bandpass, respectively, were obtained. The delta magnitudes have been corrected for extinction and transformed to the standard BV system. Each delta magnitude was calculated from three delta magnitudes in the sense V - C (Table 1). The comparison star was HD 200407 = SAO 50368, A2, 6^m72 V, B-V = 0.30, and the check star was HD 200560 = SAO 50388, K2, 7^m68 V, B-V = 0.97 (Figure 2).

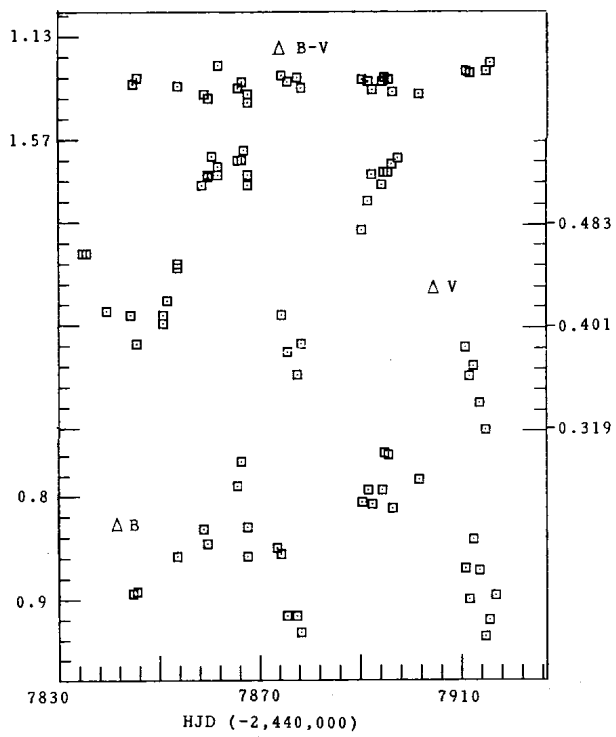


Figure 1.
Differential V, B and B-V colour curves of
HR 8062

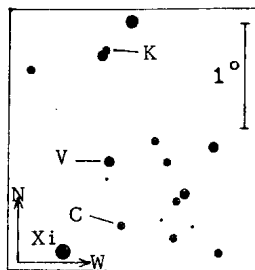


Figure 2.
Finding chart.
V= HR 8062
C= Comparison
K= Check

TABLE 1 HR 8062

HJD -2447...	DELTA V	sd	HJD -2447...	DELTA B	sd
834.6251	-0.459	.021	844.6009	0.894	.005
835.6124	-0.458	.008	845.5914	0.893	.077
839.6087	-0.412	.004	853.5939	0.859	.022
844.5881	-0.409	.017	858.6085	0.832	.030
845.5799	-0.386	.003	859.6508	0.845	.040
850.6518	-0.409	.003	865.5893	0.790	.051
850.7193	-0.403	.003	866.5766	0.765	.000
851.5854	-0.421	.007	867.5880	0.857	.021
853.5819	-0.451	.012	867.7197	0.830	.007
853.6094	-0.447	.006	873.5839	0.849	.041
858.5928	-0.512	.007	874.5841	0.856	.005
859.5882	-0.521	.001	875.5835	0.917	.021
859.6762	-0.519	.003	877.5794	0.916	.097
860.5787	-0.536	.015	878.5834	0.932	.041
861.5783	-0.521	.016	890.5969	0.806	.014
861.6176	-0.527	.015	891.5905	0.795	.019
865.5880	-0.532	.006	892.5912	0.809	.032
866.5753	-0.532	.014	894.5921	0.795	.020
866.6130	-0.540	.014	894.6261	0.758	.054
867.5867	-0.521	.004	895.5922	0.759	.028
867.7181	-0.512	.003	896.5950	0.812	.040
874.5829	-0.410	.009	901.5909	0.785	.009
875.5824	-0.380	.014	910.6049	0.869	.008
877.5783	-0.362	.016	911.5992	0.899	.053
878.5823	-0.386	.007	912.5991	0.842	.022
890.5958	-0.476	.012	913.6003	0.871	.015
891.5892	-0.499	.019	914.6043	0.935	.035
892.5902	-0.520	.014	915.6030	0.919	.070
894.5906	-0.513	.008	916.6044	0.897	.031
894.6251	-0.522	.023			
895.5912	-0.523	.011			
896.5941	-0.529	.008			
897.6057	-0.534	.005			
910.6040	-0.383	.017			
911.5980	-0.360	.009			
912.5980	-0.368	.012			
913.5990	-0.338	.013			
914.6032	-0.317	.011			

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