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NEW UBV PHOTOELECTRIC OBSERVATIONS OF GZ And

The variability of eclipsing binary GZ And was detected by Walker(1973) who suggested that GZ And was a W UMa type eclipsing binary.

New UBV photoelectric observations of GZ And were made using P34B photometer attached to the 0.91m reflector between Sep. and Nov. 1984 at McDonald Observatory.

The observed times of light minima , which are the same for each band and (O-C) values are listed in Table I.

Table I. The times of minima

Primary		Secondary	
JD(he1) 2440000+	(O-C)	JD(he1) 2440000+	(O-C)
5950.93175	-0.04313	5984.93999	-0.04350
5951.84676	-0.04314	5985.85502	-0.04351
5985.70251	-0.04350	5986.77004	-0.04352
5986.66105	-0.04352		
6007.66299	-0.04375	6009.64554	-0.04377
6008.57802	-0.04376	6013.61063	-0.04381
6012.54310	-0.04380		
6015.59317	-0.04383		

The (O-C) values were calculated using the formula

$$\text{Min(I)} = \text{JD(he1)} 2441976.69458 + 0.^{\text{d}}.30501 \text{ E}$$

given by Walker.

We obtained the new ephemeris of GZ And:

$$\text{Min(I)} = \text{JD(he1)} 2445985.70251 + 0.^{\text{d}}.3050067 \text{ E}$$

+35
+4

The UBV light curves of GZ And are plotted in Figure 1.

The average colour indices are (B-V)=0.^m78+0.02 and (U-B)=0.^m27+0.^m02 as seen in Figure 2.

The depth of both minima is given in Table II. The depth of the primary minimum and secondary minimum is almost equal.

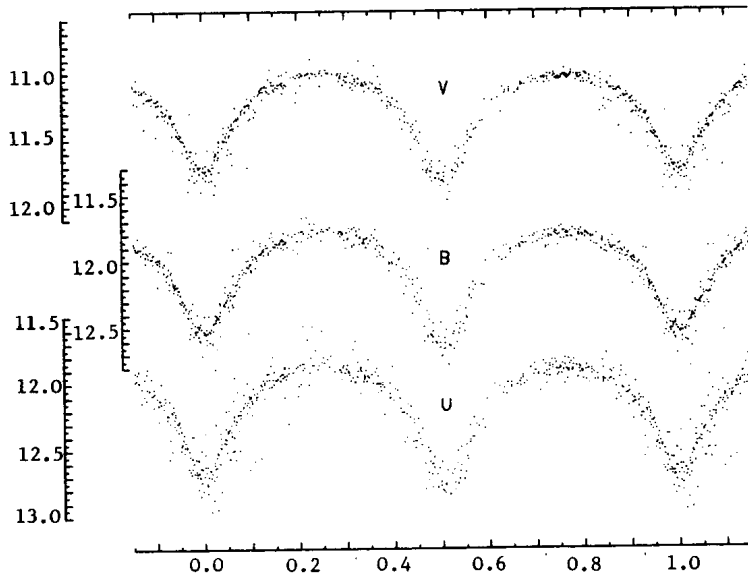


Figure 1. The VBU light curves of GZ And

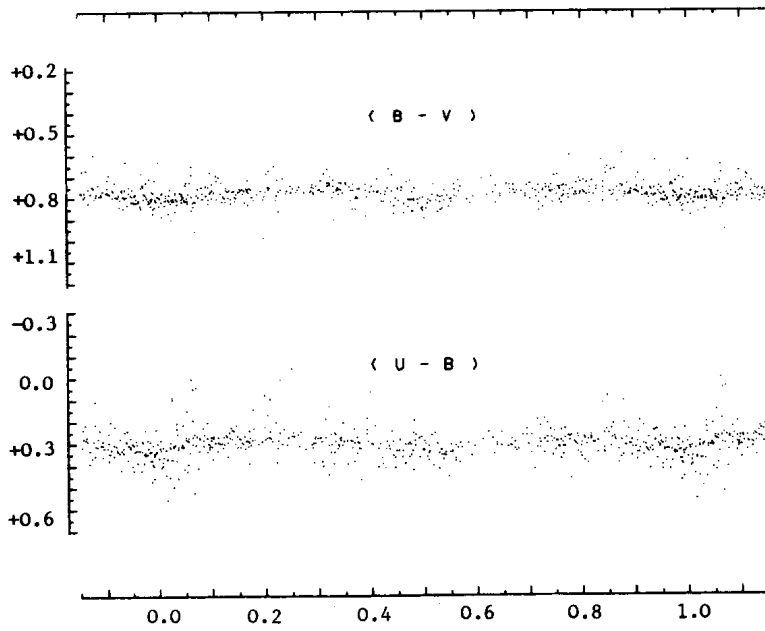


Figure 2. The colour index (B-V) and (U-B) curves of GZ And

Table II. The depth of minima of GZ And

Colour	Depth of minima
V	$0.^m88 \pm 0.^m02$
B	$0.^m92 \pm 0.^m02$
U	$1.^m01 \pm 0.^m03$

The photometric solution of GZ And will be published elsewhere.

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Reference:

Walker, R.L., 1973, Inf. Bull. Var. Stars, No. 855.