

COMMISSION 27 OF THE I. A. U.  
 INFORMATION BULLETIN ON VARIABLE STARS

Number 1420

Konkoly Observatory  
 Budapest  
 1978 May 5

IS 20 Cep A VARIABLE STAR ?

20 Cep (K4 III) has been used as the primary comparison star for photometry of VV Cep, which is a well-known eclipsing binary star and the egress is predicted to occur from April to August of 1978. From a narrow-band photometry at Dodaira Station of the Tokyo Astronomical Observatory, we find that 20 Cep became brighter in the period of 1977 December to 1978 January than in the period of 1976 November to 1977 February; the magnitude differences are  $0^m.13$  in  $3500 \text{ \AA}$ ,  $0^m.08$  in  $4170 \text{ \AA}$ , and  $0^m.05$  in  $5080 \text{ \AA}$ .

Table 1 shows the standard stars used and the magnitude differences.

Table 1

Magnitude differences of 20 Cep between 1976 November to 1977 February and 1977 December to 1978 January.

Standard stars	Spectral type	Magnitude differences			Weight
		3500 $\text{\AA}$	4170 $\text{\AA}$	5080 $\text{\AA}$	
$\delta$ And	K3 III	0.067	0.000	-0.006	1
107 Psc	K1 V	0.355	0.288	0.138	1
51 And	K3 III	0.224	0.149	0.068	1
$\alpha$ Ari	K2 III	0.173	0.135	0.088	2
$\zeta$ Per	G0 V	0.142	0.068	0.041	2
$\omega$ Per	K0 III	0.160	0.103	0.017	1
$\lambda$ Aur	G0 V	0.150	0.055	0.047	3
10 Lac	09 V	0.114	0.066	0.050	3
HR 8832	K3 V	0.057	0.052	0.024	5
weighted mean		0.132	0.083	0.047	

MAMORU SAITO  
 Tokyo Astronomical  
 Observatory, Japan