

COMMISSION 27 OF THE I. A. U.  
 INFORMATION BULLETIN ON VARIABLE STARS  
 Number 2135

Konkoly Observatory  
 Budapest  
 1982 April 30  
 HU ISSN 0374-0676

SPECTROPHOTOMETRIC OBSERVATIONS OF THE STAR MWC 17  
 IN JANUARY 1982

The star MWC 17 was discovered by Merrill et al. (1932) who classified it as a Be type star with a magnitude  $m_{pg} = 12.2$ . As other objects of this type (emission line stars and shell stars e.g. Z And) MWC 17 probably shows light variations.

Swings (1941) identified most of the emission lines of low ionization.

Latter the designation BQ[ ] indicative of a variety of hot stars which present forbidden lines together with absorption bands, was assigned to MWC 17 by Ciatti et al. (1974) on the basis of spectroscopic observations.

Table I

Spectroscopic observations of MWC 17

Plate No	Date (1982)	J.D. 2440000+	Exp. time (min.)
D 1234	January 27	4997	85
D 1238	January 30	5000 .	70
D 1240	January 31	5001	100

Table II  
Relative emission line intensity for MWC 17

$\lambda_{\text{obs}}$ (Å)	Elements	27.1.82	30.1.82	31.1.82
3835	H $\eta$	0.30	0.32	0.15
3889	HeI (2) + H $\zeta$	0.53	0.25	0.28
<u>3933</u>	CaII ab	0.25	0.15	0.28
3970	H $\epsilon$ + HeI	0.47	0.16	0.07
4068	[SII] (1F)	0.26	0.20	0.15
4102	H $\delta$	0.61	0.15	0.23
4178	FeII (28)	0.13	0.05	0.12
<u>4227</u>	CaI ab	0.15	0.08	0.11
4233	FeII (27)	0.21	0.09	0.13
4244	[FeII] (27F)	0.24	0.19	0.19
4286	[FeII] (7F)	0.29	0.16	0.07
4341	H $\gamma$	0.87	0.67	0.68
4359	[FeII] 21F + 7F	0.68	0.79	0.69
4415	FeII (32)	0.33	0.10	0.08
4452	[FeII] (7F)	0.27	0.16	0.18
4471	HeI (6)	0.27	0.06	0.07
4491	FeII (37)	0.29	0.11	0.06
4520	FeII (37)	0.30	0.09	0.07
4549	FeII (38)	0.18	0.11	0.19
4581	FeII (37)	0.32	0.14	0.21
4629	FeII (37)	0.25	0.11	0.23
4658	[FeIII] (3F)	0.21	0.15	0.13
4814	[FeII] (20F)	0.12	0.09	0.09
4861	H $\beta$	1.00 >	1.00	1.00
4922	HeI (48) + FeII (42)	0.32	0.12	0.14
4955	[OIII] (1F)	0.08	0.10	0.03
5007	[OIII] (1F)	0.43	0.20	0.22
5017	HeI (4) + FeII (42)	0.43	0.20	0.20
5159	[FeII] 19F	0.16	0.11	0.07
5194	[AlIII] 3F	0.17	0.10	0.06
5266	[FeII] 19F + FeII 49	-	-	-
5331	[FeII] 3F	-	-	-

Three spectra of MWC 17 were obtained with the 80cm telescope at Observatoire de Haute-Provence in January 1982. The reciprocal dispersion was about  $93 \text{ \AA mm}^{-1}$  at  $H_\gamma$ . Relative intensities for emission lines were estimated from calibration curves.

Table I gives the date and exposure time.

Table II gives the identified lines, the multiplet number of the corresponding transition and the intensity of the lines relatively to  $I(H_\beta) = 1.0$ .

As for symbiotic stars emission lines of FeII and [FeII] are observed simultaneously and the intensity ratio  $\frac{[SII]}{[FeII]}$  appears close to the unity.

Emission lines of HeI and [AIII] (IP : 27.60 eV) are observed suggesting a region ionized by a hot source and a region of low ionization which emits [FeII] lines. The value 0.06 is found for the intensity ratio  $\frac{I(4471)}{I(H_\beta)}$  on January, 30 from calculations using the model of Brochlehurst (1972). This small value may be due to self absorption in the  $H_\beta$  line as shown by Leibowitz (1977).

R. GRAVINA  
Observatoire de Lyon  
69230 Saint-Genis-Laval  
France

\* In Table II [FeII] lines  $\lambda 4359 \text{ \AA}$  are blended with Hg line at  $\lambda 4358 \text{ \AA}$ .

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