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CCD Observations of Four Stars Suspected in Variability from Digitized Moscow Plates

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#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		MDV313, USNO-A2.0 0900-10779485	17 52 28.67, +07 01 01.4	EA	15.00	15.40	V	0.6813197	2454674.32	min		Comm. 1	mdv313lc.jpg	mdv313ch.jpg	mdv313ccd.dat
2		MDV314, USNO-A2.0 0900-10886924	17 54 37.74, +07 10 45.6	HADS:	15.95	16.45	V	0.1833817	2454671.315	max		Comm. 2	mdv314lc.jpg	mdv314ch.jpg	mdv314ccd.dat
3		MDV315, USNO-A2.0 0975-10125328	17 58 54.93, +09 27 45.6	EB:	15.52	15.81:	V	0.702891	2442874.57	min		Comm. 3	mdv315lc.jpg	mdv315ch.jpg	mdv315ccd.dat
4		MDV316, USNO-A2.0 0900-11423877	18 03 58.96, +06 21 30.6	EW	15.70	16.35	V	0.3555338	2454666.32	min		Comm. 4	mdv316lc.jpg	mdv316ch.jpg	mdv316ccd.dat

Comments:

1. The star No. 8 on Fig. 1 in Kolesnikova et al. (2008). The comparison star is GSC 00429-02187 (17:52:32.65, +07:03:52.5, J2000), V = 12.991. Bpg = 15.2-15.9 on the digitized plates.

2. The comparison star is GSC 00429-00217 (17:54:39.65, +07:11:56.4, J2000), V = 12.613. Bpg = 16.0-16.55 on the digitized plates.

3. Our CCD observations do not cover all phases. The variability type is uncertain. The comparison star is USNO-A2.0 0975-10127960 (17:58:58.75, +09:28:25.3, J2000), V = 14.151. Bpg = 15.65-16.25 on the digitized plates.

4. MinII = 16.35V. The comparison star is GSC 00442-00675 (18:04:01.13, +06:21:42.4, J2000), V = 13.551. Bpg = 15.9-16.8 on the digitized plates.

Remarks:

Kolesnikova et al. (2008) used digitized plates of the Moscow stacks to discover 274 new variable stars in a 5x10 degrees field in Ophiuchus. Besides, they suspected 30 stars to be variable. To confirm or disprove their variability, we undertook additional CCD observations using a Pictor 416XTE camera and the 50-cm reflector of the Crimean Laboratory, Sternberg Astronomical Institute, in July-August, 2008. Here we present an investigation of four stars from the list of suspects that we were able to confirm. The comparison and check stars are marked on the finding charts. V magnitudes of the comparison stars were taken from the ASAS-3 online photometry (Pojmanski 2002, http://www.astrouw.edu.pl/asas/?page=aasc). We have averaged the third of five columns of ASAS-3 data and rejected the observations that differed from the mean magnitude by more than 3σ.

References:

Kolesnikova, D.M., Sat, L.A., Sokolovsky, K.V., et al., 2008, Acta Astronomica, 58, 279
Pojmanski G., 2002, Acta Astronomica, 52, 397