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PHOTOMETRIC AND POLARIMETRIC OBSERVATIONS OF VISUAL BINARY WDS 00550+2338 (ADS 755 = HD 5286)

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Name of the object:
ADS 755AB; HD 5286

Equatorial coordinates:	**Equinox:**
R.A.= $00^h55.^m0$ **DEC.**= $+23°38'$	2000.0

Observatory and telescope:
Byurakan Astrophysical Observatory, 50cm reflector AZT-14

Detector:	Photoelectric photometer (photomultiplier FEU-79)

Filter(s):	B - CC5(3mm)+CZC21(5mm); V - JC18(1.5mm)+CZC21(1.5mm)

Comparison star(s):	SAO74365 = GC1096 = BD +23°126

Transformed to a standard system:	B and V
Standard stars (field) used:	

Availability of the data:
Through IBVS Web-site

Type of variability:	Unknown

Remarks:
Photometric monitoring of the visual binary suspected in variability (NSV 343, Kukarkin et al., 1982) has been carried out between November 25 and December 3, 1997 (in Table 1 photometric data are given). Mean values of apparent brightness in B (6.66) and V (5.59) bands as well as mean colour index B−V = 1.07 coincide with or are very close to those reported earlier by Argue (1966) and Lee (1970). Variation in brightness was insignificant for all observational period except that on November, 27 (JD 2450 779.33) when a sudden increase (ΔB = 0.56, ΔV = 0.28) has been registered over the course of about 2 hours being a real evidence of its light variation. This suggest that at least one of the components is demonstrating short-term variability. No significant polarimetric signal in UBVR bands was observed on any occasion. Further study of this system would be welcome in order to clarify the nature of detected variability.

Table 1: Results of photometric measurements

Date	Time (UTC)	JD 2450+	B	V	B−V
25.11.1997	17^h00^m	777.21	6.74	5.65	+1.09
	20^h00^m	777.33	6.72	5.62	+1.10
26.11.1997	16^h40^m	778.20	6.79	5.69	+1.10
	18^h50^m	778.29	6.68	5.59	+1.09
	19^h35^m	778.31	6.69	5.59	+1.10
27.11.1997	16^h00^m	779.17	6.70	5.60	+1.10
	17^h45^m	779.24	6.69	5.61	+1.08
	20^h00^m	779.33	6.13	5.33	+0.80
28.11.1997	17^h20^m	780.22	6.74	5.65	+1.09
01.12.1997	16^h00^m	783.17	6.74	5.63	+1.11
	17^h30^m	783.23	6.70	5.63	+1.07
	19^h25^m	783.31	6.75	5.60	+1.15
	20^h40^m	783.36	6.72	5.64	+1.08
02.12.1997	17^h30^m	784.23	6.75	5.64	+1.11
	21^h00^m	784.38	6.70	5.65	+1.05
03.12.1997	18^h00^m	785.25	6.74	5.69	+1.05
	22^h15^m	785.43	6.75	5.65	+1.10

References:

Argue, A.N., 1966, MNRAS, 133, 475

Kukarkin, B.N., Kholopov, P.N., Artiukhina, N.M., Fedorovich, V.P., Frolov, M.S., Goranskij, M.P., Gorynya, N.P., Karitskaya, E.A., Kireeva, N.N., Kukarkina, N.P. et al., 1982, New Catalogue of Suspected Variable Stars, Nauka Publ. House, Moscow

Lee, T.A., 1970, ApJ, 162, 217