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NEW VARIABLE STARS DISCOVERED IN THE MISAO PROJECT
VII: MisV0351–MisV0400

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This report describes 50 new variable stars (MisV0351–MisV0400) discovered in the course of the MISAO Project.

These objects are detected automatically by the PIXY system as candidates of variable stars from unfiltered CCD images taken by Kadota between 1999 April and August, then confirmed by Yoshida and Kadota. Further details are the same as described in Yoshida and Kadota (1999).

Table 1 lists the 50 new variable stars. The position and magnitude are measured using the USNO-A1.0 catalog. The magnitude is based on a preliminary *V* magnitude calculated from *R* and *B* magnitude in the catalog based on Kato's (1998) equation:

$$V = R + 0.375(B - R).$$

The finding charts are available electronically as 4842-f[*nnn*].eps, where [*nnn*] refers to the serial number assigned to the star in the first column of Table 1.

MisV0360 is identified with a carbon star CS4603.

MisV0372 is within the positional error range of an X-ray source 1RXPJ180245-2942.3 at R.A. 18^h02^m45^s.6, Decl. –29°42'20" (2000.0).

V2084 Sgr is 3.7 arcmin from MisV0391, that was detected on Kadota's unfiltered CCD images as another variable star between 9.8 and 10.8 mag. Therefore, MisV0391 is another new variable star.

NSV 12730 is 2.8 arcmin from MisV0393, that was detected as another variable star between 11.2 and 12.0 mag. Therefore, MisV0393 is another new variable star.

The photometry of MisV0395 was obtained as NGC 6194 No. 1130, which shows it is a red star (Mermilliod et al. 1994).

References:

Kato, T., 1998,

<http://www.kusastro.kyoto-u.ac.jp/vsnet/Mail/vsnet-chat/msg00700.html>

Mermilliod, J.-C., Mermilliod, M., 1994, *Catalogue of Mean UBV Data on Stars*, Springer-Verlag

Yoshida, S., Kadota, K., 1999, *IBVS*, No. 4746

Table 1: List of New Variable Stars

Code	R.A. (J2000.0)	Decl.	Unfiltered		Type	Identified with
			CCD Mag.			
			Max	Min		
MisV0351	19 ^h 00 ^m 53 ^s .82	+00°06′24″.0	12.5	14.3	?	USNO-A2.0 0900.13750040
MisV0352	19 02 04.41	+00 15 42.7	13.0	14.6	?	
MisV0353	19 57 35.03	+37 14 50.6	12.6	[14.8	M?	USNO-A2.0 1200.13953227
MisV0354	19 58 32.16	+36 49 40.0	12.9	[14.8	SR?	
MisV0355	19 58 41.95	+29 56 07.6	12.8	14.1	?	
MisV0356	19 58 55.32	+11 07 03.3	12.0	12.9	SR?	GSC 1075.0782
MisV0357	19 59 13.95	+15 30 44.7	12.9	13.7	?	USNO-A2.0 1050.15923840
MisV0358	20 00 26.70	+33 55 11.3	13.2	14.9	?	
MisV0359	20 00 32.83	+13 13 28.0	12.9	13.8	?	USNO-A2.0 0975.17499216
MisV0360	20 00 37.57	+32 05 42.1	12.0	12.9	SR?	CS4603
MisV0361	20 01 05.88	+22 01 58.6	12.9	14.6	?	USNO-A2.0 1050.16056563
MisV0362	21 00 50.95	+40 30 41.2	13.1	14.8	?	
MisV0363	22 04 39.25	+53 35 29.7	12.7	14.0	SR?	USNO-A2.0 1425.12761422
MisV0364	22 03 05.68	+42 44 07.6	10.5	11.8	SR?	USNO-A2.0 1275.16948498 IRAS 22010+4229
MisV0365	16 57 22.34	−16 24 08.3	13.2	15.2	?	
MisV0366	20 56 10.02	+46 34 53.0	13.1	14.9	?	
MisV0367	21 58 33.33	+50 34 52.1	12.3	13.3	SR?	USNO-A2.0 1350.15460187
MisV0368	21 58 56.65	+55 13 36.5	12.6	13.4	SR	USNO-A2.0 1425.12612175
MisV0369	19 00 11.85	−02 57 24.4	10.8	13.6	SR?	IRAS 18575-0301
MisV0370	19 01 05.00	−03 10 48.7	11.0	13.2	SR?	IRAS 18584-0315
MisV0371	18 57 32.71	−18 55 17.2	13.8	15.2	SR?	
MisV0372	18 02 43.69	−29 42 14.8	11.9	[14.4	M?	
MisV0373	20 57 09.29	+35 18 44.2	11.0	12.7	?	GSC 2696.3197 USNO-A2.0 1200.16576581 IRAS 20552+3507
MisV0374	21 02 34.30	+38 12 33.2	12.9	14.1	?	USNO-A2.0 1275.14555028
MisV0375	16 59 59.33	−09 33 01.0	13.0	[15.0	SR?	

Table 1: cont.

Code	R.A. (J2000.0) Decl.		Unfiltered		Type	Identified with
			CCD Mag.			
			Max	Min		
MisV0376	17 57 31.45	-15 38 16.3	13.3	[14.4	?	USNO-A2.0 0675.23576359 IRAS 17546-1537
MisV0377	17 58 11.26	-17 25 42.9	13.0	[14.3	?	IRAS 17553-1725
MisV0378	17 58 12.45	-13 40 42.1	13.1	[14.5	?	IRAS 17553-1340
MisV0379	17 58 54.36	-14 51 52.8	12.2	[14.6	M?	USNO-A2.0 0750.12439396
MisV0380	17 59 05.61	-16 55 33.0	12.8	[14.4	?	
MisV0381	17 ^h 59 ^m 15 ^s .91	-12°07'17"/7	13.2	14.4	SR?	USNO-A2.0 0750.12451923
MisV0382	17 59 36.49	-16 19 33.8	12.1	[14.5	?	
MisV0383	17 59 38.83	-15 57 57.9	12.9	14.4	SR?	
MisV0384	18 00 49.76	-16 12 54.4	13.0	[14.5	?	USNO-A2.0 0675.23803931
MisV0385	18 00 55.03	-14 38 28.6	12.3	14.2	SR?	
MisV0386	18 01 25.89	-14 56 30.8	13.2	[14.6	SR?	USNO-A2.0 0750.12524613
MisV0387	18 02 06.82	-16 24 44.9	12.5	[14.4	?	USNO-A2.0 0675.23888438 IRAS 17592-1625
MisV0388	18 02 11.87	-11 40 01.7	11.4	13.6	?	IRAS 17593-1140
MisV0389	18 30 44.94	+03 45 22.2	11.1	12.1	?	USNO-A2.0 0900.13032893 IRAS 18282+0343
MisV0390	18 58 59.01	-15 48 10.5	13.1	15.3	?	USNO-A2.0 0675.30915787
MisV0391	18 59 27.21	-13 51 22.9	13.2	14.5	SR?	IRAS 18565-1355
MisV0392	19 58 06.32	+36 59 09.9	12.6	[15.0	M?	
MisV0393	20 02 20.39	+37 18 01.1	13.1	14.6	SR?	USNO-A2.0 1200.14247813
MisV0394	17 00 52.60	-02 28 35.2	12.6	13.9	?	USNO-A2.0 0825.09947996 IRAS 16582-0224
MisV0395	17 56 57.17	-18 52 12.6	13.2	[14.2	?	IRAS 17540-1851
MisV0396	17 57 01.97	-14 23 09.7	11.6	12.8	SR?	USNO-A2.0 0750.12377050 IRAS 17541-1422
MisV0397	17 57 42.00	-20 13 38.5	13.1	14.2	?	IRAS 17547-2013
MisV0398	17 57 48.50	-17 30 34.7	12.5	16.3	?	IRAS 17548-1730
MisV0399	17 57 46.44	-10 53 53.6	12.3	[14.7	M?	IRAS 17550-1053
MisV0400	17 57 49.35	-13 34 05.3	12.9	14.0	?	IRAS 17550-1333