

I. LIST OF THE SCHMIDT PLATES

The Kiso 105 cm Schmidt telescope of the Tokyo Astronomical Observatory has been regularly operated since 1977, after a test observation period of about two years. A general description of the telescope is given by Takase et al. (1977, Reference 2).

Plate data have consecutively been compiled into a magnetic tape (9-track 800 BPI) catalogue (Noguchi et al., 1978, Reference 22). Fundamental items of the first 2000 plates are given in Table 1 which are printed out of the catalogue.

Explanation of each column of the Table is as follows:

- (1) PLATE: Plate number with a heading letter which indicates the plate size.
L=35.6 cm (14")×35.6 cm, S=24 cm×24 cm, D=16 cm×16 cm, T=10.8 cm×8.3 cm.
- (2) (B) YMDHMS: Beginning of exposure in Japan standard time which is UT+9^h.
Y=year, M=month, D=day, H=hour, M=minute, S=second.
- (3) AREA: Celestial area number (see Table 2).
- (4) RA(A) DEC(A): Right ascension α and declination δ of the actual telescope direction at the observation time. Coordinates of the plate center of a specified celestial area referred to the 1950.0 equinox is corrected for precession, refraction, and the prism offset angle to give the actual α and δ values.

For example 12:34.5=12^h34^m.5 and +034:56=+34°56'.

When the telescope is pointed to the direction lower than the north pole, the value of 180°- δ is given as DEC(A).

For the plates Nos. 1-738, the listed RA(A) and DEC(A) are the calculated values which include the correction for precession only.

- (5) PRISM: Prism data (the column being blank when no prism was used).
For example 2DA+=2 degree prism was used with its vertex direction toward positive α , and 4DD-=4 degree prism was used with its vertex direction toward negative δ .
- (6) EMUL: Emulsion type (see Table 3).
- (7) EXP: Exposure time in minutes.
- (8) FILTER: Filter name (see Table 4).
- (9) IWDS: Estimated plate quality (the columns being blank when no estimation has been made).

Item	Rank	A	B	C
I = Image shape		circular	elliptical	elongated
W = Wedge density		proper	under	over
D = Development		uniform	slightly patched	largely patched
S = Surface quality		flawless	specked	cracked

- (10) C: Condition of the plate.
N=normal, B=broken, M=missing (including the case where the plate number was skipped because of the miscontrol of the count).

As our policy the Schmidt plates are kept in a collective custody of the Kiso observatory and are prohibited to take out, although the priority to avail the plate belongs to the persons who are responsible for the observation program at least for a few years. Those who are interested in the listed plates may apply to study them at the observatory or to obtain film copies of them. Application form is sent upon request.

Table 2. Kiso Division System of the Celestial Area

Area Number* A	Area Center (Equinox 1950.0)		No. of Fields	Area Number* A	Area Center (Equinox 1950.0)		No. of Fields
	δ	α			δ	α	
0001	+90°	—	1	0599—0670	+20°	20 ^m (A- 599)	72
0002—0011	+85°	2 ^h 24 ^m (A- 2)	10	0671—0742	+15°	20 ^m (A- 671)	72
0012—0027	+80°	1 ^h 30 ^m (A- 12)	16	0743—0814	+10°	20 ^m (A- 743)	72
0028—0051	+75°	1 ^h 00 ^m (A- 28)	24	0815—0886	+ 5°	20 ^m (A- 815)	72
0052—0081	+70°	48 ^m (A- 52)	30	0887—0958	0°	20 ^m (A- 887)	72
0082—0117	+65°	40 ^m (A- 82)	36	0959—1030	- 5°	20 ^m (A- 959)	72
0118—0157	+60°	36 ^m (A-118)	40	1031—1102	-10°	20 ^m (A-1031)	72
0158—0202	+55°	32 ^m (A-158)	45	1103—1174	-15°	20 ^m (A-1103)	72
0203—0262	+50°	24 ^m (A-203)	60	1175—1246	-20°	20 ^m (A-1175)	72
0263—0322	+45°	24 ^m (A-263)	60	1247—1318	-25°	20 ^m (A-1247)	72
0323—0382	+40°	24 ^m (A-323)	60	1319—1390	-30°	20 ^m (A-1319)	72
0383—0454	+35°	20 ^m (A-383)	72	1391—1462	-35°	20 ^m (A-1391)	72
0455—0526	+30°	20 ^m (A-455)	72	1463—1522	-40°	24 ^m (A-1463)	60
0527—0598	+25°	20 ^m (A-527)	72	1523—1582	-45°	24 ^m (A-1523)	60

* Area number is added by 2000, 4000, 6000, and 8000, respectively, when the area center is shifted toward NW, NE, SE, and SW direction by $\Delta\alpha=\Delta\delta=1^\circ$ (for plates of Nos. 1-1313), and by $\Delta\alpha=\Delta\delta=5/3^\circ$ (for plates of Nos. 1314 and later).

Table 3. Emulsion Type

Symbol*	Emulsion	Symbol*	Emulsion	Symbol*	Emulsion
1A O	Kodak 103a-O	2A D	Kodak IIa-D	3A F	Kodak IIIa-F
2A O	IIa-O	1A E	103a-E	1-N	I-N
3A J	IIIa-J	1A F	103a-F	4-N	IV-N
1A D	103a-D	2A F	IIa-F	1-Z	I-Z

* Attached sign + or - indicates whether the plate is hypersensitized or not. Hypersensitization treatments are described by Aoki (1978, Reference 21).

Table 4. Filter Name

Symbol	Name	Type* (λ †)	Symbol	Name	Type* (λ †)
U1-1	Schott UG 1 (No. 1)	BP (3600 A)	14SP	Fuji SP 14	BP (4200 A)
U1-2	UG 1 (No. 2)	BP (3600)	50BP	BPB 50	BP (5000)
38-1	GG 385 (No. 1)	SC (3810)	66SC	SC 66	SC (6600)
38-2	GG 385 (No. 2)	SC (3810)	74SC	SC 74	SC (7400)
45-1	GG 455 (No. 1)	SC (4570)	82IR	IR 82	SC (8300)
45-2	GG 455 (No. 2)	SC (4580)	90IR	IR 90	SC (1910)
49-1	GG 495 (No. 1)	SC (4940)			
49-2	GG 495 (No. 2)	SC (4960)	38P1	Polaroid (0°)	} +Schott GG 385 (No. 1)
61-1	RG 610 (No. 1)	SC (5980)	38P2	Polaroid (45°)	
61-2	RG 610 (No. 2)	SC (5990)			
64-1	RG 645 (No. 1)	SC (6370)	MUL2	Multiple Exposure with two different filters	
64-2	RG 645 (No. 2)	SC (6420)			
69-1	RG 695 (No. 1)	SC (6925)	MUL3	Multiple exposure with three different filters	
69-2	RG 695 (No. 2)	SC (6940)			

* BP=Band pass filter, SC=Sharp cut filter.

† λ is the wavelength of maximum transmission for BP filters, while that of half maximum transmission for SC filters; and it is the measured value for Schott filters, while the catalogued value for Fuji filters.

II. LIST OF OBSERVATION PROGRAMS (1975~1978)

Name	Institution†	Program title	Period	Reference
K. Hamajima, K. Ishida, B. Takase, T. Aoki, & T. Soyano	T A O	Telescope analysis—Polar axis setting	75 Sept.—76 Nov.	2,16
K. Ishida	T A O	Red giants in Monoceros region	75 Nov.—77 Apr.	8
K. Ishida & S. Isobe	T A O	Absorbing dust in HII regions	75 Nov.—	
K. Hamajima	T A O	Near IR surface photometry of M31	75 Dec.—76 Feb.	4
H. Maehara	T A O	Objective prism spectra	75 Dec.—77 Sept.	2
K. Ishida & K. Hamajima	T A O	Survey of Carbon and late M stars	76 Feb.—	10
T. Noguchi & K. Hamajima	T A O	Telescope analysis—Guide telescope setting	76 May —	2
T. Noguchi, T. Soyano, T. Aoki, & M. Shimizu	T A O	Telescope analysis—Hartmann test	76 Aug.—76 Nov.	2,13 15
H. Kosai & K. Hurukawa	T A O	Survey of faint asteroids	76 Oct. —	10
B. Takase	T A O	Survey of galaxies in the zone of avoidance	77 Jan. —	10
J. Jugaku	T A O	Detection of high-redshift QSO	77 Feb. —	10
H. Maehara & Y. Yamashita	T A O	Survey of high velocity stars	77 Apr.—	10,14
M. Hamabe*, S. Okamura, & B. Takase	*Tokyo Univ. & TAO	Surface photometry of edge-on galaxies	77 May —	
T. Noguchi, M. Kondo, & H. Maehara	T A O	Survey of UV-excess objects	77 Sept.—	10
H. Maehara	T A O	Survey of emission-line objects	77 Dec. —	10
K. Hamajima	T A O	Spheroidal component of galaxies	78 Jan. —	
M. Burkhead	Indiana Univ.	Surface photometry of M51, M104 etc.	78 Feb.	
B. Takase & T. Noguchi	T A O	Survey of UV-excess galaxies	78 Mar.—	10
M. Shimizu, S. Okamura, & T. Aoki	T A O	Telescope analysis—Pointing accuracy	78 Apr.—	23
K. Tanaka, Y. Sofue, M. Fujimoto, H. Maehara*, & T. Noguchi*	Nagoya Univ. & *TAO	Young stars associated with Magellanic stream	78 Oct. —	
K. Kodaira*, S. Okamura, B. Takase, & M. Iye*	*Tokyo Univ. & TAO	Quantitative analysis of galaxies	78 Nov.—	

† TAO=Tokyo Astronomical Observatory.

III. LIST OF MEASUREMENT PROGRAMS (1975~1978)†

Name	Institution	Program title	Period	Reference
A. MICROPHOTOMETER				1
H. Maehara & Y. Yamashita	T A O	Spectrum of Mira Ceti	75 July —78 Jan.	3, 5, 6
S. Isobe	T A O	Interstellar absorption line of Orion stars	75 July —78 Jan.	
H. Maehara & Y. Yamashita	T A O	Binary model for CH Cyg	78 June —78 Aug.	
B. IRISPHOTOMETER				17
K. Ogura & K. Ishida*	Miyagi Gakuin Univ. & *TAO	Galactic cluster NGC2244	77 May, Aug., Oct.	
M. Yoshizawa	Kyoto Univ.	Galactic cluster NGC2281	77 July	
M. Simoda	Tokyo Gakugei Univ.	Globular cluster M15	77 Aug., Oct., & 78 May, Aug., Nov.	
T. Ichikawa	Kyoto Univ.	Red giants in Cassiopeia region	78 Sept.	
S. Daido & Y. Yoshii	Tohoku Univ.	Z abundance of halo dwarfs	78 Dec.	
S. Isobe	T A O	IR magnitude of stars in Orion nebula	78 Dec.	

S. Isobe & H. Maehara	T A O	Optical polarization of Comet West	76 Mar.	9, 11
S. Isobe	T A O	H β isophote of the Barnard loop	76 Mar.	7
N. Sekiguchi	T A O	Photometry of the lunar surface	77 May, July, Nov.	
K. Nakajima	T A O	Automatic stellar image detection	77 Sept.	
T. Liu	Purple Mountain obs.	Comet Kohoutek	78 Apr., Aug.	

† Those which associate with the observation program are not listed.

IV. LIST OF REFERENCES (~1978)

1. Ishida, K., Maehara, H., and Ohashi, M.: A Microphotometer for Large Photographic Plates, TAO Report*, 17, 70, 1974.
2. Takase, B., Ishida, K., Shimizu, M., Maehara, H., Hamajima, K., Noguchi, T., and Ohashi, M.: The 105 cm Schmidt Telescope at the Kiso Station of the Tokyo Astronomical observatory, Ann. Tokyo Astron. Obs., 2nd Ser., 16, 74, 1977.
3. Yamashita, Y. and Maehara, H.: The spectrum of the Companion of Mira Ceti, Publ. Astron. Soc. Japan, 29, 319, 1977.
4. Matsumoto, T., Murakami, H., and Hamajima, K.: Near Infrared Surface Photometry of the Central Region of M31, Publ. Astron. Soc. Japan, 29, 583, 1977.
5. Yamashita, Y., Maehara, H., and Norimoto, Y.: The Companion of Mira Ceti in the 1976 Light Minimum, Publ. Astron. Soc. Japan, 30, 219, 1978.
6. Yamashita, Y. and Maehara, H.: Mass Loss from Mira Ceti, Publ. Astron. Soc. Japan, 30, 409, 1978.
7. Isobe, S.: H-Beta Observation of the Barnard Loop, Publ. Astron. Soc. Japan, 30, 499, 1978.
8. Iijima, T. and Ishida, K.: Two-Mieron Objects in the Northern Monoceros Region, Publ. Astron. Soc. Japan, 30, 657, 1978.
9. Isobe, S., Saito, K., Tomita, K., and Maehara, H.: Polarization of the Head of Comet 1976 VI West, Publ. Astron. Soc. Japan, 30, 687, 1978.
10. Takase, B.: Photographic Work with the Tokyo Observatory 105 cm Schmidt Telescope, Proc. ESO Workshop on Modern Techniques in Astronomical Photography, p. 241, 1978 (West, R. M., and Heudier, J. L. ed)=TAO Reprint, No. 544, 1978.
11. Isobe, S., and Maehara, H.: Superposition of Photographic Plates in a Digital Way, *ibid*, p. 273, 1978=TAO Reprint, No. 535, 1978.
12. Maehara, H., and Ishida, K.: An Automated Isophotometer for Large Photographic Plates, TAO Report*, 18, 132, 1978.
13. Noguchi, T. and Yamashita, Y.: An Achromatic Condition of Schmidt Telescopes, TAO Reports*, 18, 148, 1978.
14. Maehara, H. and Yamashita, Y.: Measurement of Radial Velocities from Objective Prism Spectra, I. Use of the A-Band as a Reference Line, TAO Report*, 18, 153, 1978.
15. Noguchi, T., Soyano, T., and Aoki, T.: The Hartmann Test for the 105 cm Schmidt Telescope, TAO Report*, 18, 169, 1978.
16. Hamajima, K., Ishida, K., Takase, B., Aoki, T., and Soyano, T.: On the Setting of the Polar Axis of the 105 cm Schmidt Telescope, TAO Report*, 18, 226, 1978.

17. Ishida, K., Maehara, H., and Ohashi, M.: A Semi-Automated Iris Photometer for Large Photographic Plates, TAO Report*, 18, 260, 1978.
18. Ishida, K., Maehara, H., and Hamajima, K.: A Semi-Automated Blink Comparator for Large Photographic Plates, TAO Report*, 18, 360, 1978.
19. Maehara, H., Noguchi, T., and Ishida, K.: The Software of the 105 cm Schmidt Telescope, TAO Report*, 18, 389, 1978.
20. Noguchi, T., Takase, B., Soyano, T., and Koyano, H.: Standardized Density Scale of Densitometers for the Photographic Photometry, TAO Report*, 18, 400, 1978.
21. Aoki, T.: Hypersensitization by Forming Gas Baking and Silver Nitrate (AgNO₃) Bathing, TAO Report*, 18, 407, 1978.
22. Noguchi, T., Maehara, H., and Soyano, T.: Catalogue of the Photographic Plates Taken by the 105 cm Schmidt Telescope, TAO Report*, 18, 417, 1978.
23. Shimizu, M. and Okamura, S.: Pointing Analysis of the 105 cm Schmidt Telescope, TAO Report*, 18, 473, 1978.

* In Japanese.

V. LIST OF REPORTS AS TO OBJECTS DETECTED ON KISO PLATES (~1978)

Name	Institution	Object	Report*
Kosai, H.	T A O	Comet Lovas=1977c	IAUC 3055, 1977 Mar.
Hamajima, K. & Ishida, K.	T A O	Nova Sagittarii 1977	IAUC 3057, 1977 Apr.
Kosai, H. & Hurukawa, K.	T A O	Comet 1977r=P/Kojima	IAUC 3151, 1977 Dec.
Kosai, H. & Hurukawa, K.	T A O	1977UB=2060 Chiron	IAUC 3156, 1977 Dec.
Hamajima, K. & Kosai, H.	T A O	Nova Serpentis 1978	IAUC 3188, 1978 Mar.
Kosai, H.	T A O	Comet 1977k=P/Arend-Rigaux	IAUC 3195, 1978 Mar.
Kosai, H.	T A O	Comet 1975o=P/Gehrels 3	IAUC 3196, 1978 Mar.
Maehara, H., Jugaku, J., & Kosai, H.	T A O	Nova Sagittarii 1978	IAUC 3209, 1978 Apr.
Kosai, H.	T A O	Nova Sagittarii 1978	IAUC 3211, 1978 Apr.
Kosai, H.	T A O	Comet 1975o=P/Gehrels 3	IAUC 3214, 1978 Apr.
Kosai, H.	T A O	Comet 1977r=P/Kojima	IAUC 3232, 1978 June
Kosai, H.	T A O	1978EA=2090 Mizuho	MPC 4398, 1978 Aug.

* IAUC=International Astronomical Union Circular, MPC=Minor Planets and Comets.