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METEORITE NEWSLETTER

JAPANESE COLLECTION OF ANTARCTIC METEORITES

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INTRODUCTION

Classification and Description of Antarctic Meteorites

This newsletter reports 352 Yamato98 and Yamato00 meteorites. They include 7 CM2 chondrites, 1 EH3 chondrite, 1 E6 chondrite, 22 achondrites (13 eucrites, 3 diogenites, and 6 ureilites), 5 primitive achondrites (2 acapulcoites and 3 lodranites).

Followings are the members for the classifications of this volume:

Macroscopic descriptions of meteorites;
Kojima H. and Kiso H.
Microscopic descriptions and classifications of chondrites;
Kojima H. and Imae N.
Microscopic descriptions and classifications of achondrites;
Yamaguchi A.

Sample Request Deadline

Sample requests that are received by the curator before **June 15, 2011**, will be reviewed by the Committee on Antarctic Meteorite Research (CAMR), which will meet in July, 2011. Requests that are received after the June 15 deadline may be delayed for review until the CAMR meeting in December, 2011.

All sample requests should be made in writing to:

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NIPR Sample Allocation Policies and the Request Form are also available in the following web site.
http://yamato.nipr.ac.jp/AMRC/EN/index1.html

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y981668	Euc	20.71			48.3	46.2–50.5	A		Paired with Y980433, see separate entry
Y981670	Lod	6.98	10.3	9.4–11.7	12.4	11.6–13.1	A		See separate entry
Y981672	Euc	78.13			48.1	46.8–49.2	A		Paired with Y980433, see separate entry
Y981673	Euc	16.97			48.9	47.8–50.0	A		Paired with Y980433, see separate entry
Y981688	Ure	48.26	17.0	1.7–21.5			A		See separate entry
Y981710	Dio	108.41			29.8	23.0–31.5	A		See separate entry
Y981724	Euc	137.46			48.2	46.1–49.2	A		Paired with Y980433, see separate entry
Y981725	Lod	62.99	9.0	8.5–9.3	12.2	11.0–12.9	A		See separate entry
Y981734	Euc	7.96			48.5	46.6–50.4	A		Paired with Y980433, see separate entry
Y981735	Euc	283.16			48.5	47.2–51.2	A		Paired with Y980433, see separate entry
Y981737	Euc	6.29			47.9	46.1–49.9	A		Paired with Y980433, see separate entry
Y981738	Euc	5.90			48.8	47.9–50.9	A		Paired with Y980433, see separate entry
Y981739	Euc	19.25			48.5	47.4–49.3	A		Paired with Y980433, see separate entry
Y981740	Euc	6.92			48.8	48.1–49.9	A		Paired with Y980433, see separate entry
Y981741	Euc	3.83			48.5	46.6–49.3	A		Paired with Y980433, see separate entry
Y981742	Euc	89.56			48.5	46.8–49.8	A		Paired with Y980433, see separate entry
Y981743	Euc	48.30			48.7	46.9–50.2	A		Paired with Y980433, see separate entry
Y981750	Ure	77.52	15.0	6.8–20.2			A		See separate entry
Y981810	Ure	137.80	23.1	17.5–24.5			A		See separate entry
Y981901	H3	10.50	18.3	17.2–19.3	16.2	9.5–26.3	A	A/B	
Y981904	H6	22.53	18.3	16.1–19.7	16.6	14.9–19.0	A	A/B	
Y981905	H6	12.49	19.1	17.2–20.8	17.8	16.3–22.2	A	A	
Y981906	H6	423.45	18.3	16.1–20.5	16.0	14.1–17.3	B/C	A/B	
Y981907	H5	256.76	18.5	17.1–21.2	16.9	15.0–19.2	B/C	A/B	
Y981908	H5	81.17	18.1	17.0–18.9	16.0	14.7–18.5	B	A	See separate entry
Y981909	H6	23.82	18.1	17.2–20.1	16.0	15.1–17.7	A/B	A	See separate entry
Y981910	H6	7.28	19.3	18.2–21.8	18.2	15.6–21.0	A/B	A/B	See separate entry
Y981911	H6	5.71	19.8	18.2–23.5	17.4	16.0–19.7	A	A	See separate entry
Y981912	H6	3.86	19.8	18.6–21.2	16.7	15.9–18.0	A/B	B	Well recrystallized
Y981914	H6	5.79	19.5	17.7–24.2	17.0	15.9–20.6	A/B	A	
Y981915	H6	3.96	19.5	18.3–21.9	17.6	16.4–19.8	A/B	A/B	See separate entry
Y981916	H6	3.65	19.4	16.6–21.7	17.8	15.7–22.3	A/B	A	
Y981921	L6	5.95	25.6	23.8–29.5	22.7	21.3–24.6	A	A	See separate entry
Y981922	H5	52.87	17.6	16.6–18.4	15.3	14.1–16.2	A	A/B	
Y981923	H4	30.14	17.6	14.6–19.1	15.0	1.8–16.7	A	A	
Y981924	L6	4.44	27.0	26.0–30.1	22.3	20.4–24.6	A	A	Well recrystallized
Y981925	H5	11.01	19.6	18.4–24.7	17.6	16.6–19.2	A	A	
Y981926	H4	29.46	17.5	16.2–18.3	15.5	14.5–16.6	A	A	
Y981927	H4	4.86	19.5	18.5–21.1	17.4	15.8–22.9	A	A	
Y981928	L3	12.00	26.0	11.0–34.0	15.3	7.0–28.5	A	A	

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y981929	H6	9.80	19.3	18.0–21.6	16.8	15.5–18.7	B	A/B	Shock darkened
Y981931	H6	3.60	19.6	18.4–23.4	17.5	16.0–22.9	A	A/B	
Y981932	H6	5.16	19.6	18.2–23.3	17.5	15.8–20.7	A/B	A	
Y981934	H6	7.90	18.9	16.7–23.1	17.6	14.8–23.4	A/B	A/B	
Y981935	H6	5.44	19.4	17.8–21.8	17.8	16.2–21.6	A/B	A/B	See separate entry
Y981937	H6	29.42	17.8	17.1–18.7	15.8	13.9–18.2	A/B	A/B	
Y981938	H4	7.35	19.8	18.4–22.7	17.6	16.6–20.0	A	A	
Y981939	H6	7.67	19.0	17.6–21.1	16.8	15.4–18.0	A	A	
Y981940	H6	4.15	18.8	17.7–19.8	17.7	15.7–21.8	A	A	
Y981942	EH3	18.32	–	–	0.9	0.2–4.4	A/B	A	
Y981943	H6	4.19	19.2	17.6–20.0	17.5	15.9–22.0	A	A	
Y981944	L4	8.36	24.2	23.1–26.9	20.5	18.9–21.8	A	A	
Y981945	CM2	6.59					A	A	Paired with Y981946 *
Y981946	CM2	3.73	7.1	0.1–46.7	1.1	0.5–2.4	A	A	
Y981949	H4	9.02	18.9	17.4–21.0	16.9	15.8–19.8	A	A	See separate entry
Y981951	H4	77.32	18.2	17.2–18.9	15.9	15.4–16.6	A/B	A/B	
Y981952	H6	15.93	19.5	17.3–22.5	17.7	14.9–22.3	B	A/B	Shock darkened
Y981953	H5	10.72	19.8	18.5–22.9	17.3	16.3–18.9	A/B	A/B	See separate entry
Y981954	H5	7.40	19.4	18.4–21.5	17.5	15.5–19.5	A/B	A/B	See separate entry
Y981956	Dio	21.64			24.0	22.9–25.1	A		Paired with Y981247, see separate entry
Y981957	H4	111.45	16.4	15.3–17.4	14.6	12.5–17.0	A/B	A	
Y981958	L6	96.75	20.1	18.3–21.4	17.4	15.5–18.4	A	A	
Y981960	L6	163.03	24.0	23.2–24.7	20.3	19.4–22.2	B	A	
Y981963	H4	85.59	18.0	16.8–18.9	15.4	13.9–16.4	B	A	
Y981964	H5	7.52	19.0	18.2–21.0	17.0	14.8–20.8	A/B	A	
Y981971	LL6	10.58	31.7	30.5–32.8	25.8	25.2–26.4	A	A	Breccia
Y981973	H6	15.68	18.6	16.4–20.2	16.6	15.0–19.4	A	A	
Y981974	H6	54.79	18.5	17.3–20.8	16.3	15.4–18.0	A	A	
Y981975	CM2	3.45	6.4	0.2–40.5	1.9	0.3–6.2	A	A	
Y981976	H5	9.65	19.3	18.0–21.5	17.2	15.7–20.0	A	A	
Y981977	H5	5.98	20.2	18.2–24.1	17.7	16.1–21.1	A	A	
Y981978	L5	8.91	25.4	24.5–26.4	21.8	20.3–24.8	A	A	
Y981979	H5	17.72	19.2	17.8–22.8	17.4	15.3–19.2	A	A	
Y981980	H6	5.94	19.6	18.4–24.4	17.5	15.9–20.0	A	A	
Y981981	H5	6.65	19.0	17.7–21.0	16.8	15.0–21.8	A	A	
Y981982	H5	11.30	19.8	18.9–21.3	18.7	15.8–22.9	A/B	A	
Y981983	H4	5.80	18.3	16.9–20.2	16.5	15.0–19.1	A	A	
Y981984	H4	9.29	18.1	17.1–21.5	15.9	15.4–16.3	A	A	
Y981988	Lod	11.37	7.9	6.1–8.7	8.7	6.9–9.6	A		See separate entry
Y981989	H3	16.30	18.0	2.8–23.4	16.0	11.4–22.3	A/B	A	See separate entry

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y981990	H4	4.11	18.6	18.0–19.6	16.4	15.6–18.0	A	A/B	
Y981991	H4	17.04	18.7	16.3–22.2	16.3	15.1–17.2	A	A	
Y981993	L6	7.98	25.7	23.8–29.6	21.3	19.8–23.6	A	A	
Y981994	H4	5.33	19.5	18.3–24.0	18.2	15.5–26.8	A	A	
Y981995	H4	6.24	18.0	17.1–19.7	15.9	15.1–17.9	A	A	
Y981997	H6	4.03	20.5	18.5–24.9	17.7	16.5–19.7	A	A	
Y981998	H5	93.94	18.6	17.6–19.3	16.3	15.6–16.8	A	A/B	
Y981999	H6	4.72	20.0	18.0–24.6	17.8	15.3–22.4	A	A	
Y982001	L3	4.98	23.6	0.4–28.8	19.8	4.2–37.2	A/B	A	
Y982002	L6	5.23	25.5	23.7–26.9	22.1	20.7–25.7	A	A	
Y982003	Aca	19.84	8.5	7.4–9.9	8.5	7.1–10.1	A/B		See separate entry
Y982004	Aca	6.17	8.6	8.0–9.4	8.4	6.8–9.9	A/B		See separate entry
Y982005	H6	5.17	19.4	18.0–22.5	17.0	16.3–17.5	A/B	A/B	
Y982006	L6	14.76	25.7	23.8–30.0	21.7	20.9–23.6	A	A	Many shock veins
Y982011	L5	19.48	24.1	22.3–25.8	21.0	19.0–23.8	A	A	
Y982012	L4	6.31	24.3	23.4–25.7	20.9	19.5–23.0	A/B	A	
Y982013	H5	46.58	18.7	17.5–19.7	16.7	16.0–18.3	B	A/B	Many shock veins
Y982014	H4	3.19	19.4	18.8–20.7	17.9	16.3–21.3	A	A	
Y982016	L3	4.52	24.3	22.7–26.1	19.5	11.7–31.6	A	A	See separate entry
Y982017	L5	70.25	24.5	23.6–26.1	20.8	19.3–22.9	A	A	
Y982018	CM2	11.87	7.3	0.2–44.3	8.9	0.5–34.8	A	A	
Y982019	H5	4.87	18.7	17.5–19.8	16.5	15.8–17.6	A	A	
Y982020	H3	5.96	18.9	17.6–20.0	17.5	15.1–22.4	A	A	
Y982021	H4	4.78	19.2	18.0–23.1	17.3	16.0–20.1	A	A	
Y982022	H6	130.08	18.1	17.4–19.0	16.1	15.0–18.1	A/B	A	
Y982023	H3	36.18	19.7	18.8–20.8	14.3	8.3–19.3	A/B	A	
Y982025	H4	20.82	18.6	17.5–20.4	16.0	14.5–17.8	A/B	A/B	
Y982026	H5	6.39	18.8	17.8–20.4	16.9	15.6–18.5	A	A/B	
Y982027	H3	4.55	18.7	17.8–19.5	13.9	5.0–21.4	A	A/B	
Y982028	H4	3.16	19.3	18.5–23.3	16.7	15.7–18.1	A	A/B	
Y982031	L6	5.60	25.3	24.2–27.6	21.0	20.0–22.5	A	A	See separate entry
Y982033	LL6	5.29	31.9	30.1–33.3	26.3	23.7–27.3	A	A	Thin shock veins
Y982034	H6	3.79	19.6	18.5–20.2	17.3	16.6–18.9	A	A	See separate entry
Y982037	H6	14.94	18.9	17.8–20.9	16.7	15.4–19.6	A	A/B	
Y982038	H3	51.12	17.5	16.7–18.4	15.1	13.7–16.5	A/B	A/B	
Y982039	H6	7.14	19.4	18.1–21.6	17.4	16.2–20.7	A	A/B	See separate entry
Y982040	H4	8.98	19.3	18.3–20.7	17.4	15.6–20.9	A/B	A	
Y982042	H3	112.86	22.6	21.4–25.7	16.6	8.2–20.5	A/B	A	
Y982044	L6	15.04	25.4	24.3–26.5	21.7	20.8–24.0	A	A	Many shock veins
Y982046	H4	3.94	19.6	18.3–23.2	17.0	15.2–22.5	A	A	

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y982053	H4	9.46	19.2	18.3–20.5	18.1	16.7–23.4	A	A	
Y982054	H4	5.66	19.5	18.1–21.7	16.6	15.4–17.4	A	A	
Y982068	L3	4.40	26.0	19.7–30.7	18.1	10.3–23.3	A	A	
Y982069	CM2	7.59	7.0	0.2–43.1	2.2	0.5–8.8	A/B	A	
Y982070	CM2	3.03	7.5	0.3–50.7	1.9	0.8–3.1	A	A	
Y982071	H4	3.74	18.9	17.1–20.5	16.9	15.9–19.8	A	A	
Y982074	H3	21.27	19.2	18.4–20.0	17.3	16.2–23.3	A	A/B	
Y982075	H4	4.96	18.9	17.9–21.0	17.0	16.2–20.0	A	A	
Y982076	H4	9.36	18.9	16.3–20.1	17.0	15.7–21.2	A/B	A	
Y982077	H4	7.88	19.4	18.6–21.0	16.9	15.8–19.0	A/B	A	
Y982078	H4	5.37	19.2	17.7–22.7	17.0	15.6–19.0	A	A	Paired with Y982077
Y982079	H4	7.14	19.5	18.2–25.0	17.0	14.7–19.5	A	A	Paired with Y982077
Y982080	H4	4.33	18.8	17.7–25.8	16.7	15.5–18.8	A/B	A	Paired with Y982077
Y982081	H4	1.94							Paired with Y982077 *
Y982082	H4	1.22							Paired with Y982077 *
Y982083	H4	1.24							Paired with Y982077 *
Y982086	CM2	224.72	6.7	0.0–39.4	5.3	0.5–44.8	A/B	A	
Y982088	H4	3.32	18.7	17.4–20.5	16.8	15.5–19.8	A	A	
Y982093	L6	4.35	25.5	24.2–28.1	21.6	20.5–25.3	A	A	
Y982097	H5	80.42	17.9	17.1–18.7	15.5	14.7–16.6	A/B	A	
Y982098	H6	3.73	19.4	18.0–21.6	17.2	16.2–18.0	A	A	
Y982101	H5	4.33	19.8	18.6–23.0	17.6	16.8–19.9	A	A	
Y982102	H6	36.61	19.4	18.0–20.1	17.6	16.2–20.6	A/B	A	Thin shock veins
Y982103	H4	0.86							Paired with Y982077 *
Y982104	H4	0.50							Paired with Y982077 *
Y982105	L4	10.22	23.3	21.9–26.8	20.1	18.4–25.1	A	A	
Y982106	L6	3.92	25.4	24.3–29.0	22.0	20.5–24.3	A	A	Many shock veins
Y982107	L6	3.81	25.8	24.1–28.2	22.1	20.9–25.9	A	A	Thin shock veins
Y982108	H4	407.82	19.5	18.8–20.1	16.6	15.4–18.2	A	A/B	
Y982109	H5	2000	19.2	17.8–22.5	16.7	16.1–18.6	A	A/B	
Y982110	H4	60.15	18.1	17.6–19.5	15.8	14.4–17.3	A	A/B	
Y982111	L5	7.92	26.0	21.9–29.0	22.2	20.4–24.3	A	A	
Y982112	H4	9.10	19.5	18.8–22.0	16.9	15.9–19.8	A	A	
Y982113	L6	10.78	25.8	25.2–26.2	21.8	20.8–23.0	A	A	A shock vein
Y982114	H4	3.86	19.3	18.4–21.0	17.4	16.2–20.7	A	A	
Y982115	L5	3.40	26.0	24.5–29.7	21.7	19.9–24.0	A	A	
Y982120	L5	11.34	25.7	24.9–27.4	21.7	20.3–23.2	A	A	Shock veins
Y982121	H3	9.78	19.4	18.6–22.2	17.0	15.7–20.1	A	A	
Y982123	L6	101.99	23.8	22.4–26.2	20.0	18.6–21.5	B	A	See separate entry
Y982125	H4	3.68	20.0	18.3–23.5	17.5	16.3–22.4	A	A	

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y982126	H4	3.47	20.2	17.7–26.8	18.1	14.8–23.9	A/B	A	
Y982130	H4	4.24	19.9	18.6–23.0	16.9	15.9–18.5	A	A	
Y982132	H4	6.82	19.6	18.2–22.2	17.3	16.5–20.0	A/B	A	
Y982133	H4	3.38	19.9	17.8–22.6	17.0	16.1–19.7	A	A	
Y982134	H4	4.34	19.6	18.4–22.5	16.9	15.3–19.8	A	A	
Y982135	H4	4.01	19.6	18.0–22.6	16.9	15.9–19.7	A	A	
Y982137	H5	4.34	18.8	17.9–20.9	16.6	15.9–17.3	A	A	
Y982138	H5	3.54	18.5	17.6–21.2	16.7	14.2–19.7	A/B	A	
Y982139	H6	6.04	19.6	18.2–21.0	17.3	16.5–18.7	A	A/B	
Y982140	L6	5.50	25.9	23.9–29.7	22.0	20.3–24.4	A	A	A thin shock vein
Y982141	H4	3.96	19.4	18.8–20.8	16.9	15.1–19.8	A/B	A	
Y982143	Ure	28.50			11.3	10.0–12.9	A		See separate entry
Y982144	L3	62.74					A	A	
Y982145	L3	7.48	25.8	19.5–29.0	17.1	6.8–26.9	A	A	
Y982146	H4	14.99	19.1	17.0–21.8	17.0	15.6–21.1	A	A	
Y982148	L6	83.33	23.7	23.0–24.8	20.0	19.1–21.6	A	A	Many shock melt veins
Y982149	L6	52.68	23.9	22.9–24.8	20.1	18.6–21.7	A	A	Many shock melt veins
Y982153	L4	5.71	25.9	25.0–28.6	21.4	20.1–22.5	A	A	
Y982155	L4	31.20	20.0	13.5–24.8	16.5	5.4–21.9	A	A	
Y982156	L4	16.47	23.7	21.5–29.1	20.0	17.3–23.3	A/B	A	
Y982157	H5	4.89	19.3	17.7–22.5	17.2	16.4–18.4	A	A	
Y982159	H5	19.53	17.9	16.7–19.7	15.6	13.5–17.3	A/B	A	
Y982160	H5	36.52	18.4	16.0–19.6	16.1	14.5–17.4	A	A	
Y982163	H6	19.03	20.0	18.9–22.0	17.8	16.8–20.8	B	A	
Y982164	H6	11.87	20.2	18.4–24.3	17.9	16.8–22.6	A	A	
Y982167	H6	3.85	19.8	18.7–21.4	18.7	15.9–23.3	A	A	
Y982169	Ure	12.07	12.8	11.6–13.9	11.5	9.8–13.6	A		See separate entry
Y982170	L3	16.03	25.9	18.8–29.3	24.6	18.9–33.0	A	A	Clean glass
Y982171	L3	8.99	26.7	24.8–33.5	21.1	15.4–29.8	A	A	Clean glass
Y982172	L6	409.17	24.5	23.5–25.7	20.6	19.9–22.1	A/B	A	Well recrystallized
Y982173	L6	5.73	24.6	22.4–25.7	20.8	19.4–22.1	A/B	A	
Y982174	L6	1.77							Paired with Y982173 *
Y982175	L6	1.10							Paired with Y982173 *
Y982176	L6	3.77	25.3	24.0–27.2	21.3	20.0–22.9	B/C	A	Paired with Y982173
Y982177	L6	34.14	24.9	23.5–26.0	21.3	20.3–23.7	A	A	Shock veins
Y982178	L6	3.07	25.8	24.3–32.5	22.8	21.5–24.1	A	A	See separate entry
Y982179	L4	12.18	24.6	23.3–26.6	12.4	19.2–26.3	A	A	
Y982180	L5	116.23	24.9	23.3–26.4	20.9	18.9–25.4	B	A	
Y982182	L6	197.59	25.0	23.9–27.8	21.1	20.3–22.5	B	A	Shock darkened
Y982183	L6	33.55	24.4	22.1–27.3	20.9	20.0–23.0	A	A	

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y982184	H6	28.23	18.9	17.7-19.6	17.0	15.5-18.2	B	A/B	
Y982185	L6	129.35	24.9	22.3-26.6	21.2	20.4-23.0	A/B	A	Many shock veins
Y982187	H4	12.62	20.0	18.8-23.1	17.6	14.8-20.7	A	A	
Y982188	H5	9.51	19.8	18.4-22.7	17.2	16.3-20.0	A	A	See separate entry
Y982189	H4	7.83	19.3	18.5-22.2	17.2	16.0-19.5	A	A/B	
Y982190	H4	7.89	19.8	17.9-22.4	17.4	15.7-20.1	A	A	
Y982191	H5	6.24	19.9	18.3-21.8	16.7	15.5-19.8	A	A/B	Thin shock veins
Y982192	H4	5.75	19.7	18.4-23.7	17.3	15.9-23.5	A	A	
Y982193	H4	5.73	19.4	18.2-21.3	18.0	16.3-20.9	A/B	A	
Y982194	H4	4.44	19.8	18.2-23.4	16.9	15.3-18.7	A	A	
Y982195	H4	4.42	19.8	18.7-23.9	17.2	15.9-19.7	A	A	
Y982196	H4	5.97	19.1	18.1-24.3	16.8	16.3-17.7	A	A	
Y982197	H4	3.78	19.8	18.2-23.2	18.1	15.7-21.9	A	A	
Y982198	H4	5.47	19.5	18.4-22.9	17.3	16.0-22.3	A	A	
Y982199	H4	5.17	19.8	18.4-24.2	16.9	16.2-19.2	A	A	
Y982200	H4	5.06	19.5	18.1-21.2	17.8	16.1-21.9	A	A	
Y982201	H4	6.43	19.5	18.3-22.9	16.9	16.1-21.4	A	A	
Y982202	H4	4.63	19.6	18.4-21.4	17.3	15.8-20.9	A	A	
Y982203	H4	5.32	19.2	18.1-20.9	16.6	15.3-19.1	A	A	
Y982204	H4	4.64	20.1	18.5-23.0	17.8	15.1-20.0	A	A	
Y982205	H4	3.64	19.7	18.7-22.1	17.2	16.5-19.6	A	A	
Y982206	H4	3.94	19.6	17.9-21.3	17.5	15.2-20.9	A	A	
Y982207	H4	5.31	19.8	18.4-23.8	16.9	15.6-20.0	A	A	
Y982208	H4	5.25	19.7	18.4-22.4	16.8	16.2-18.7	A	A	
Y982210	H4	3.70	19.8	18.6-22.7	17.8	16.6-20.9	A	A	
Y982211	H4	4.70	19.7	18.5-22.1	18.2	16.2-21.4	A	A	
Y982212	H4	4.73	19.3	18.1-21.1	17.1	15.9-18.2	A	A	
Y982213	H4	4.29	19.4	18.4-21.4	17.2	15.9-19.8	A	A	
Y982214	H4	3.87	19.6	18.5-22.1	16.9	15.9-19.9	A	A	
Y982215	H4	3.70	19.6	18.2-24.2	17.2	15.5-20.9	A	A	
Y982216	H4	3.99	20.3	18.4-23.4	17.6	15.3-22.8	A	A	
Y982220	H4	19.49	20.2	18.6-23.5	18.7	15.1-23.0	A	A	
Y982221	H4	10.33	19.9	17.9-24.9	17.3	14.8-19.3	A	A	
Y982222	H4	9.00	19.1	17.7-21.6	17.5	16.1-21.8	A	A	
Y982223	H5	15.27	18.8	18.0-21.1	16.2	14.4-17.5	A	A/B	
Y982224	H5	28.93	18.1	17.0-18.9	16.2	15.4-17.2	B	A	
Y982225	H5	7.27	18.5	17.0-19.5	16.6	15.6-17.3	A/B	A	
Y982226	H5	6.31	18.7	17.4-20.3	16.9	16.3-19.4	A	A	
Y982229	H4	6.44	18.9	16.7-20.3	17.0	15.2-20.1	A	A	See separate entry
Y982230	H5	78.04	19.0	18.5-20.3	16.9	16.0-20.6	A/B	A	

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y982231	H5	9.14	19.5	18.6–21.3	16.8	16.3–18.4	A	A/B	
Y982232	L3	10.25	26.2	17.6–29.4	19.8	6.5–28.1	A	A	See separate entry
Y982233	L3	65.84	25.6	23.7–28.7	17.6	9.0–31.0	A	A	See separate entry
Y982234	L3	37.11	25.4	23.8–30.8	18.1	7.8–38.5	A	A	
Y982235	L3	8.84	26.4	17.5–29.8	19.2	8.8–27.7	A	A	
Y982236	H4	19.27	19.6	18.3–23.9	16.9	15.8–19.7	A	A	
Y982237	H4	91.20	17.5	16.9–18.3	15.7	14.7–18.2	A/B	A	
Y982238	H4	8.02	18.9	17.8–21.4	17.2	15.0–22.5	A	A	
Y982239	H3	5.11	18.5	4.0–24.8	15.2	11.6–21.3	A	A	
Y982240	L3	11.58	20.5	0.9–42.0	19.5	6.3–36.8	A	A	
Y982241	L5	6.27	24.9	23.0–26.5	21.0	20.5–22.4	A	A	
Y982242	L6	4.39	25.4	24.4–28.0	21.4	19.5–22.9	A	A	
Y982243	L6	4.59	25.4	23.9–28.3	22.0	20.6–25.8	A	A	
Y982244	L6	6.80	25.4	23.4–27.5	21.8	20.2–26.0	A	A	Many shock veins
Y982245	L6	6.13	25.0	23.6–25.9	21.4	20.0–23.2	A	A	Many shock veins
Y982246	L6	5.86	25.7	24.5–28.4	21.7	20.3–24.5	A	A	Many shock veins
Y982247	L6	7.70	25.9	24.4–28.8	21.9	20.2–26.3	A	A	Many shock veins
Y982248	L6	6.89	25.5	23.3–29.9	22.0	20.1–24.7	A	A	Many shock veins
Y982249	L6	4.71	25.6	23.8–28.2	22.1	20.5–24.9	A	A	
Y982250	L6	13.00	25.6	24.7–27.1	21.4	19.9–23.1	A	A	
Y982257	H4	4.68	19.3	17.7–22.6	17.1	16.0–20.4	A/B	A	
Y982258	H4	4.09	19.1	17.9–22.3	16.8	15.2–19.9	A	A	
Y982262	H4	8.21	19.6	18.2–23.1	17.4	16.4–19.4	A	A	
Y982267	H4	7.79	18.8	17.7–21.5	16.7	15.0–19.8	B	A	
Y982268	H4	7.79	19.5	17.8–23.5	16.6	14.3–19.0	A	A	
Y982272	H4	6.23	19.6	18.5–23.1	16.8	15.7–18.9	A	A	
Y982273	H6	7.77	18.7	17.4–20.3	16.2	15.2–17.2	A	A	
Y982276	H4	3.20	18.2	17.0–21.4	16.1	15.1–17.7	A	A	
Y982279	H5	16.68	19.2	17.9–22.6	17.3	16.1–21.1	A	A/B	
Y982280	Ure	74.53	21.4	14.3–22.3			A		See separate entry
Y982281	H6	8.05	19.5	18.5–22.4	19.1	16.5–22.1	A/B	A	
Y982282	H4	4.37	16.3	15.1–18.8	15.0	12.0–19.2	A/B	A	
Y982283	H5	3.40	19.1	17.0–21.6	18.0	16.4–20.5	A/B	A	
Y982291	H6	55.24	17.7	16.4–19.0	16.0	14.7–17.7	B	A	See separate entry
Y982292	H6	6.53	19.3	17.9–22.0	18.4	16.6–22.1	A/B	A	See separate entry
Y982293	H5	5.26	20.2	18.1–23.2	18.8	16.8–22.6	A/B	A	See separate entry
Y982294	H5	4.79	19.2	17.7–23.1	17.7	16.1–20.0	A/B	A	
Y982295	H5	3.71	19.3	18.1–20.7	17.6	16.6–19.0	A	A	See separate entry
Y982299	H4	3.52	15.9	14.7–17.9	14.5	13.4–16.7	A	A	
Y982300	H6	3.59	19.9	18.6–22.6	17.8	16.5–20.8	A	A	See separate entry

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y982302	H4	8.89	16.8	14.5-24.7	15.2	14.4-17.7	A	A/B	
Y982303	H4	18.36	19.3	18.3-22.1	17.4	16.3-20.5	A	A	
Y982304	H6	60.74	23.9	23.3-24.5	20.1	19.2-20.8	A/B	A	
Y982305	H6	1.31							Paired with Y982304 *
Y982306	H6	0.96							Paired with Y982304 *
Y982307	H6	0.54							Paired with Y982304 *
Y982308	H6	0.32							Paired with Y982304 *
Y982309	H6	0.30							Paired with Y982304 *
Y982310	H4	4.85	18.5	16.0-23.8	16.6	14.7-19.1	A	A	
Y982312	H4	3.23	17.2	16.4-18.3	15.4	14.0-18.2	A	A	
Y982315	H4	108.11	18.6	17.2-19.6	16.8	15.7-18.6	A/B	A	
Y982317	H5	5.36	17.4	15.1-18.5	15.4	14.1-17.2	A	A	
Y982318	H5	29.76	16.8	15.5-19.0	15.1	13.0-19.0	B	A	
Y982319	H5	8.78	17.3	16.5-18.2	15.2	14.4-17.0	A/B	A	
Y982320	H5	5.98	17.5	16.6-19.6	15.4	13.8-16.4	A	A	
Y982321	H5	4.52	17.1	16.4-17.8	15.6	14.2-19.8	A/B	A	
Y982323	H5	82.45	17.1	16.1-17.8	14.9	14.1-16.3	A/B	A/B	
Y982324	H5	19.25	17.5	16.0-19.3	15.6	14.3-20.6	A/B	A	
Y982325	H5	18.00	17.6	16.3-21.6	15.3	14.2-16.5	B	A/B	
Y982329	H5	3.31	19.6	18.7-23.1	16.7	15.6-17.8	A	A	
Y982334	H4	4.11	19.3	18.5-20.7	17.2	16.0-20.7	A	A	
Y982335	H5	9.41	17.2	15.8-18.2	15.4	14.0-16.4	A/B	A	
Y982336	H4	11.08	25.1	23.8-26.4	20.9	19.9-21.8	A/B	A	
Y982337	H5	303.38	16.9	15.6-17.7	15.0	13.5-18.0	B	A	
Y982338	H5	3.55	17.4	16.3-18.6	15.4	13.5-16.9	A/B	A	
Y982344	H6	5.42	19.1	18.0-21.0	17.1	15.9-21.6	A	A	
Y982348	H5	4.27	20.1	17.2-23.2	17.4	16.2-20.7	A	A	
Y982349	H5	6.76	17.4	16.6-18.1	15.4	14.2-17.4	A	A	
Y982350	L3	4.56	26.4	24.3-29.2	16.2	28.3-33.7	A	A	
Y982351	H6	21.64	18.9	17.8-20.0	16.8	16.0-18.0	A	A/B	
Y982352	H4	9.50	19.7	18.3-22.6	16.9	15.7-18.3	A	A	
Y982353	H4	13.73	19.9	18.3-22.6	17.2	16.2-20.8	B	A	
Y982354	H5	35.61	18.0	17.1-18.8	16.1	15.1-18.5	A	A	
Y982356	L6	421.06	24.7	23.4-26.4	20.9	19.5-22.1	A	A	
Y982357	H6	3.77	19.7	18.1-21.4	16.9	16.1-17.5	A	A	
Y982358	H6	11.66	20.0	18.8-21.8	18.0	16.2-21.9	A	A	
Y982359	H4	3.14	18.4	17.6-19.3	16.2	8.3-24.6	A	A/B	
Y982360	H5	3.19	19.5	18.2-21.8	17.2	15.6-19.7	A	A/B	
Y982361	L6	9.12	25.8	23.6-28.2	21.8	21.1-25.2	A	A	
Y982363	L6	5.45	25.4	24.1-27.9	21.8	20.7-23.0	A	A	Many shock veins

Meteorite	C.	Wt.(g)	%Fa	Range	%Fs	Range	F.	W.	Comments
Y982364	H4	5.77	16.1	15.5–16.7	14.7	14.2–15.3	A	A/B	
Y982365	H6	8.40	19.5	18.1–20.3	17.3	16.4–18.7	A	A	
Y982366	H4	5.77	20.3	18.7–23.6	17.4	15.7–20.5	A	A	
Y982367	L5	21.22	24.7	23.5–25.7	20.8	18.9–22.1	A/B	A	
Y982368	L6	25.51	24.7	23.5–26.8	21.1	20.2–22.9	A	A	
Y982369	H4	7.53	19.8	18.7–23.0	16.9	15.1–19.0	A	A	
Y982371	H6	7.68	19.8	18.4–21.9	17.7	16.4–20.8	A/B	A	
Y982372	H4	7.20	19.4	18.5–20.5	16.8	16.2–17.3	A/B	A/B	
Y982373	L4	1.82							Paired with Y982377 *
Y982374	L4	6.63	23.6	21.8–26.8	20.2	16.3–23.4	A/B	A	Paired with Y982377
Y982375	L4	11.31	24.2	22.6–28.1	20.4	19.0–22.6	A	A	Paired with Y982377
Y982376	L4	35.08	22.9	21.2–24.8	20.1	18.2–23.7	A	A	Paired with Y982377
Y982377	L4	252.41	22.9	22.0–24.1	19.4	18.5–21.2	A/B	A	
Y982378	H4	7.13	19.6	17.7–20.9	18.5	16.7–23.9	A/B	A/B	
Y982379	L6	25.06	25.0	23.9–27.1	21.2	19.9–22.3	A/B	A	
Y982381	L5	643.12	24.9	23.3–26.5	23.1	20.1–23.2	A	A	
Y982382	H4	19.31	19.5	17.8–24.5	17.5	14.5–20.7	A/B	A	
Y982383	H5	167.08	19.0	17.8–22.7	16.4	15.8–18.8	A	A	
Y982384	H4	224.48	18.6	17.5–20.6	16.4	14.1–20.1	A	A	
Y982385	H4	11.42	19.2	18.2–20.4	16.7	15.5–19.0	A/B	A	Paired with Y982384
Y982386	H4	0.42							Paired with Y982384 *
Y982387	H4	0.34							Paired with Y982384 *
Y982388	H	66.67	18.8	17.9–20.9	16.5	15.7–17.9	A	A	See separate entry
Y982389	L6	6.38	25.7	24.3–28.7	22.7	21.2–25.8	A	A	
Y982390	L6	4.21	25.4	24.1–29.3	21.9	19.4–27.4	A	A	
Y982392	E6	94.67			0.4	0.0–1.4	B		
Y982393	H3	4.35	19.1	17.8–22.9	16.5	11.4–21.1	A	A	
Y982394	H6	49.50	19.1	18.2–20.1	16.7	16.0–17.5	A	A	
Y982397	L5	5.04	25.1	24.1–27.2	21.1	20.2–25.3	A	A	
Y982399	L3	36.30	24.9	18.7–27.9	17.8	10.5–25.4	A	A	
Y982400	L3	4.96	25.2	6.7–28.4	16.8	3.8–24.2	A	A	
Y002875	Dio	10667			24.1	22.9–25.1			Paired with Y981247, see separate entry

＊: based on the field occurrence

Erratum

Vol.19 (2010)
The classification of LL3 for Y981208 was incorrect.
The correct classification is CV3.

Notes

C: classification　F: fracturing　W: weathering

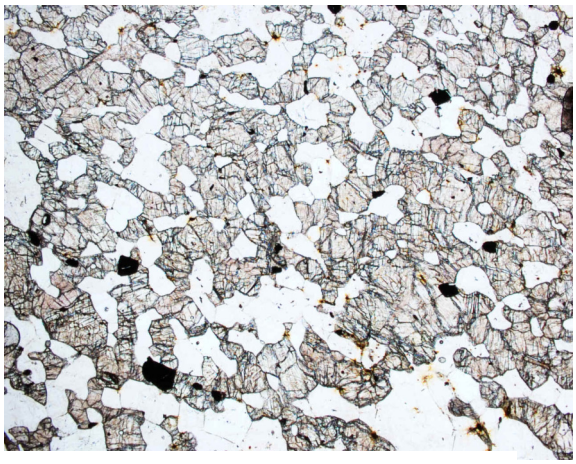
Fracturing index:
A: No or a few narrow cracks are visible.
B: Several cracks extend across exterior surface.
C: Severe cracks.

Weathering index:
A: Limonite haloes on metal particles and limonite veins are minor.
B: 7.5 to 35% of metal particles are weathered to limonite. Several limonite veins are visible.
C: Most metal particles are weathered to limonite.

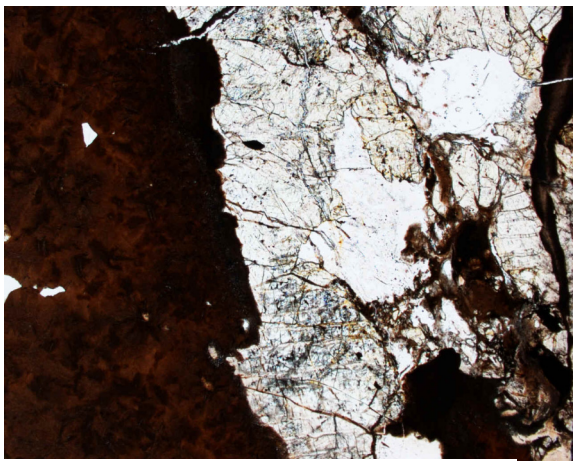
Y981668
Eucrite
Paring: Y981672, 981673, 981724, 981734, 981735, 981737, 981738, 981739, 981740, 981741, 981742, 981743

The coarse-grained areas of these sections are texturally similar to Y980433. The sections of Y981737 (,41-1) and 981741(,31-1) have areas of dark impact melt matrix. Crystalline area of these meteorites shows a coarse-grained and fine-grained portion with broad boundaries. Pyroxene is inverted pigeonite in which orthopyroxene has thick lamellae and blebs of augite. Minor oxide minerals occur sparsely. These meteorites are moderately shocked. Compositions of Low-Ca pyroxene are $Wo_{1.6\text{-}2.0}Fs_{47\text{-}48}$ and $Wo_{42.3\text{-}44.6}Fs_{19.2\text{-}20.8}$ (wt. FeO/MnO = ~33), and those of plagioclase are $An_{87\text{-}88}$.

Y981735,71-1, Width = 4.7 mm.



Y981668,51-2, Width = 4.7 mm.

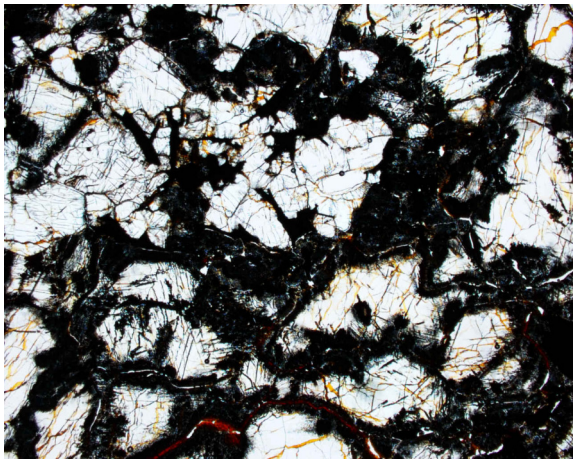


Y981668,51-2, Width = 4.7 mm.

Y981688

Ureilite

The section is an aggregate of olivine and pyroxene (up to ~3 mm) with dark interstitial materials. Olivine grains have dark rims (200-500 μm thick) due to the presence of minute opaque minerals (Fe metal and troilite). Elongated graphites (hundreds μm long and several tens μm thick) occur sparsely. Compositions of olivine are $Fa_{1.7\text{-}21.5}$.

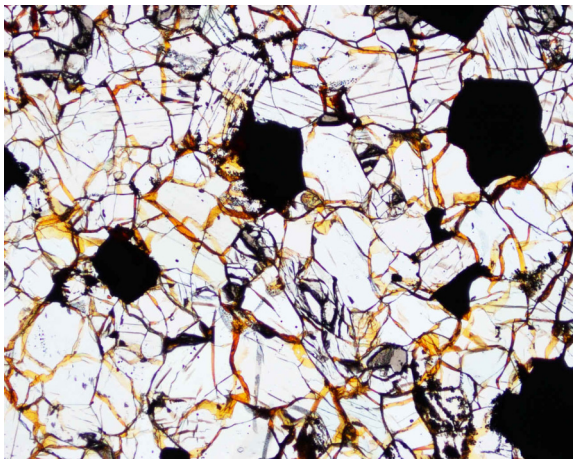


PTS,51-2, Width = 4.7 mm.

Y981670

Lodranite

The section shows an equigranular texture with lots of 120° triple junctures. Constituent minerals include olivine, low-Ca pyroxene, plagioclase, Fe-metal, and troilite. Mafic minerals are generally clean, but some grains have small inclusions of opaques. Rims of Fe-metal are in many cases replaced by weathering products. Mineral compositions are olivine: $Fa_{9.4\text{-}11.7}$; pyroxene: $Fs_{11.6\text{-}13.1}$; and plagioclase $An_{18.6\text{-}22.8}$.

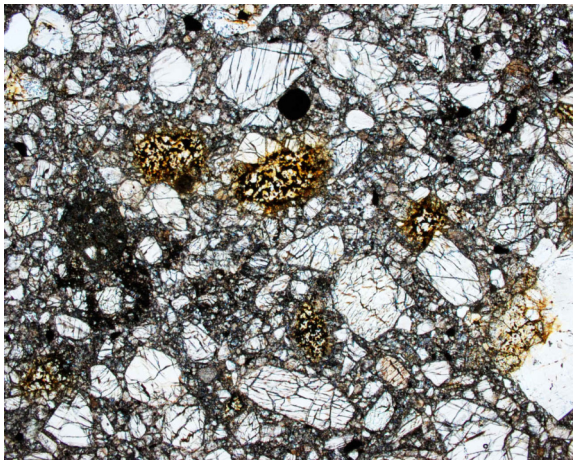


PTS,41-1, Width = 2.3 mm

Y981710

Diogenite (Brecciated)

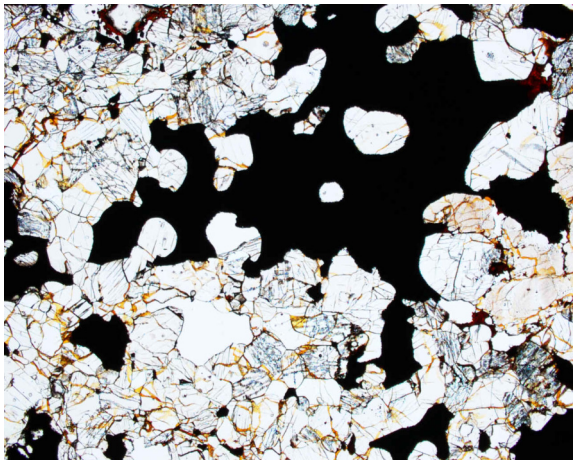
The section is a breccia composed of fragments of orthopyroxene (up to 3.5 mm) and minor plagioclase, oxide minerals, troilite, Fe-metal. There are several lithic clasts composed of fine-grained troilite and silicate minerals. Compositions of low-Ca pyroxene are $Fs_{23.0\text{-}31.5}$, and wt. FeO/MnO = ~30. Plagioclase compositions are $An_{82.9\text{-}92.8}$.



PTS,61-2, Width = 4.7 mm.

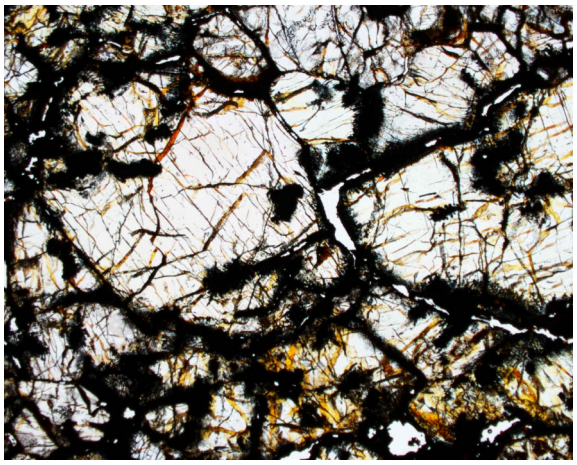
Y981725
Lodranite
The section is composed of granular olivine, pyroxene, and minor plagioclase. Large aggregate of Fe-metal and troilite occur. Grain sizes are typically 0.3-0.5 mm with a few large grains up to ~3 mm. Many olivine grains show dusty appearance. Mineral compositions are olivine: $Fa_{8.5-9.3}$; and pyroxene: $Fs_{11.0-12.9}$.

PTS,51-1, Width = 4.7 mm.



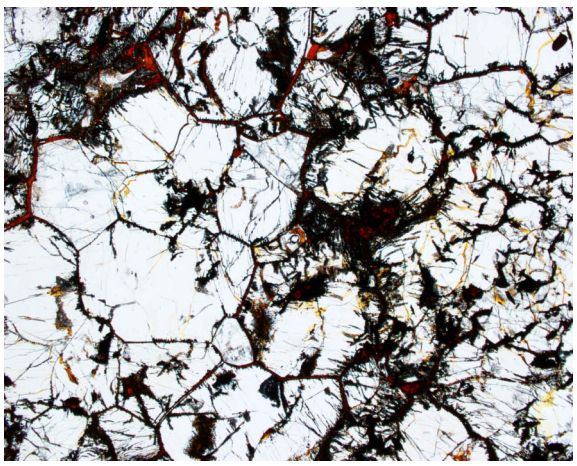
Y981750
Ureilite
The section shows a coarse-grained (up to 5 mm) granular texture composed of olivine and minor pyroxene. Olivine grains have dark rims (100-200 μm thick) due to the presence of minute grains of Fe metals and troilite. Dark materials occur along grain boundaries. Olivine compositions are $Fa_{6.8-20.2}$.

PTS,51-1, Width = 4.7 mm.



Y981810
Ureilite
The section displays a coarse-grained (up to 2 mm in the longest dimension) granular texture composed of olivine with minor pyroxene. Some olivine granules are poikilitically enclosed by large pyroxene grains. Many grains have dusty rims (<100 μm thick). Graphite laths (~100-200 x ~10-20 μm) occur along boundaries and in some mafic minerals. Olivine shows a weak mottled extinction. Olivine compositions are $Fa_{17.5-24.5}$.

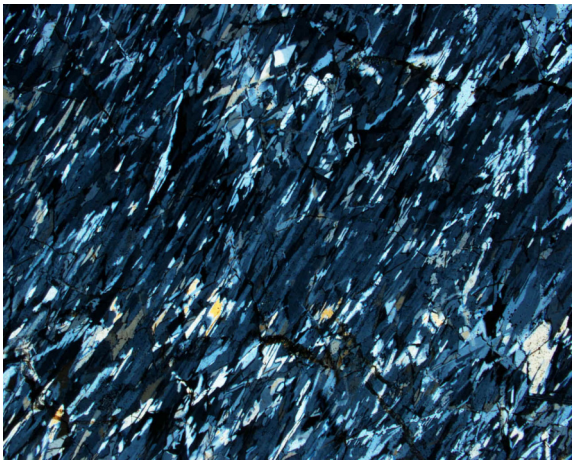
PTS,61-2, Width = 4.7 mm.



Y981956 and Y002875

Diogenite

These sections are similar to Y981247 and Y981582 in mineral chemistry and texture. Thus, these meteorites are paired. The sections show an aggregate of very fine-grained needles and wedges of orthopyroxene which are broadly aligned. Miner minerals include Fe-metal and troilite. Pyroxene compositions are $Wo_{1.9-2.2}Fs_{22.9-25.1}$, and wt Fe/MnO = ~31. These meteorites are unbrecciated diogenites.

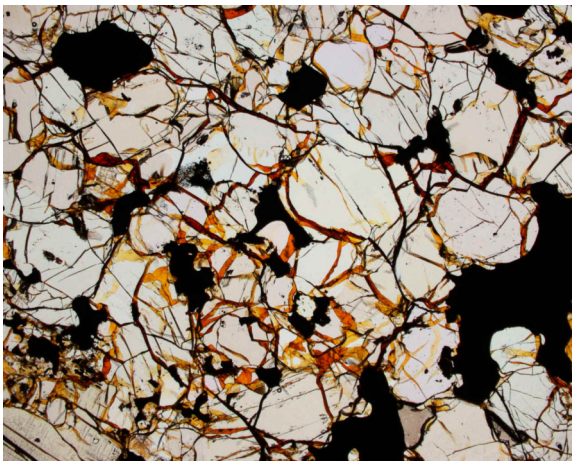


PTS,51-2, Width =4.7 mm, Crossed-polarized light

Y981988

Lodranite

The section shows a granular texture composed of olivine, pyroxene, Fe-metal and troilite. Grain sizes are typically 0.6-0.8 mm, but several large grains occur (up to 6 mm). Some pyroxene grains have very thin closely-spaced lamellae. Mineral compositions are olivine: $Fa_{6.1-8.7}$, pyroxene: $Wo_{2.1-4.0}Fs_{6.9-9.6}$; plagioclase $An_{12.8-16.3}$.

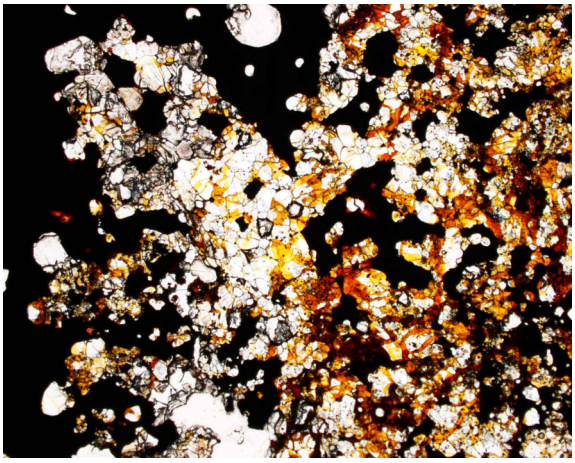


PTS,51-1, Width = 4.7 mm.

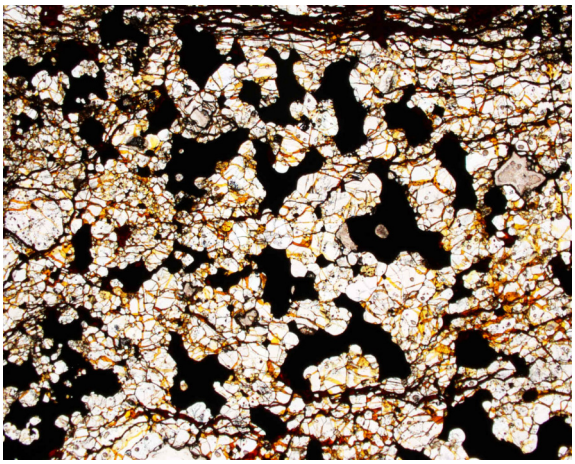
Y982003 and Y982004

Acapulcoite

One third of the section is Fe-metal, and the other is silicate. Silicate portion of these sections shows a granular texture (~100-300 μm) composed of olivine, pyroxene, and minor plagioclase. Silicate minerals in many cases contain fine droplets of troilite. Mineral compositions are olivine: $Fa_{7.4\text{-}9.9}$; pyroxene $Fs_{7.1\text{-}10.1}$; plagioclase ($An_{14.6\text{-}16.2}$).



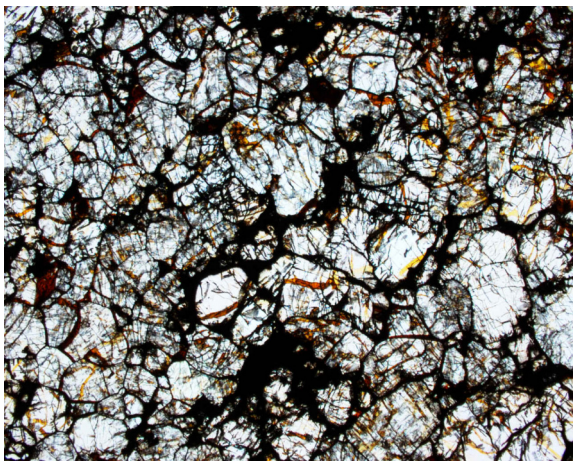
Y982003,51-1, Width = 4.7 mm.



Y982004, 41-1, Width = 4.7 mm.

Y982143
Ureilite
The section shows an aggregate of pyroxene and olivine (~1 mm) with dark interstitial materials. Pyroxene typically has fine polysynthetic twinning (~several μm apart). Very fine opaque droplets occur along healed cracks in mafic minerals. Compositions of pyroxenes are $Wo_{4.5\text{-}4.7}Fs_{10\text{-}12.9}$ and $Wo_{36.7\text{-}37.3}Fs_{5.8\text{-}7.4}$, those of olivine are $Fa_{10.6\text{-}13.3}$.

PTS,51-1, Width = 4.7 mm.



Y982169
Ureilite
The section shows an aggregate of pyroxenes (low-Ca pyroxene and minor augite) and olivine. Most part of the thin section is ~0.3-0.8 mm, but in some places there are coarse grains up to 3 mm. Thin dark materials occur interstitially. Elongated to irregular graphite occur sparsely. Compositions of pyroxenes are $Wo_{4.5\text{-}4.9}Fs_{9.8\text{-}13.6}$ and $Wo_{37.1\text{-}38.4}Fs_{6.5\text{-}7.0}$, and those of olivine are $Fa_{11.6\text{-}13.9}$.

PTS,51-1, Width = 4.7 mm.

Y982280
Ureilite
The section shows a coarse aggregate (up to ~5 mm) of olivine and pyroxene with dark materials occurring interstitially. Olivine grains are surrounded by dark rim (~30-50 μm thick). Elongated black phases (graphite?) (100-300 μm long) occur along grain boundaries and in some mafic grains. Olivine compositions are $Fa_{14.3\text{-}22.3}$.

PTS,51-1, Width = 4.7 mm.

Y981908	H5	A thick (~0.5 mm) opaque vein of metal-sulfide
Y981909	H6	Thin shock melt veins
Y981910	H6	A large elongated metal nugget (~4 mm)
Y981911	H6	A large elongated (~5 mm) FeNi metal
Y981915	H6	A thick (~0.5 mm) opaque vein
Y981921	L6	Many shock melt veins
Y981935	H6	A large elongated (~5 mm) FeNi metal
Y981949	H4	A thick (~1 mm) opaque vein
Y981953	H5	Thick (~0.4 mm) shock veins
Y981954	H5	Large metals (~1 mm) in a shock melt lithology of ~5 mm in size
Y981989	H3	Recrystallized matrix and a shock-melted fragment (~1-2 mm)
Y982016	L3	Several chondrules embedded in opaque phase
Y982031	L6	Many shock melt veins and shock darkened
Y982034	H6	Thoroughly recrystallized
Y982039	H6	A shock melt vein
Y982123	L6	Shock veins and shock darkened
Y982178	L6	Shock darkened
Y982188	H5	Two large (~2 mm in diameter) chondrules
Y982229	H4	A large (1.5 mm in diameter) FeNi metal
Y982232	L3	Clean glass in chondrules
Y982233	L3	Clean glass in chondrules
Y982291	H6	Including shock melt lithology
Y982292	H6	Including shock melt lithology
Y982293	H5	Breccia of types 5 and 6
Y982295	H5	Including shock melt lithology
Y982300	H6	Including shock melt lithology
Y982388	H	A fragment of H4 and another of H6

REQUIREMENTS AND PROCEDURES FOR RESEARCH USING THE JAPANESE NIPR ANTARCTIC METEORITE COLLECTION

Requests for research samples are welcome from all qualified scientists. In general, requests are reviewed and considered by the Committee on Antarctic Meteorite Research (CAMR) of the National Institute of Polar Research (NIPR), which meets one to two times each year. Consortium-type sample requests may also be submitted. After a request is approved, samples are sent to the researcher from the Curator of Antarctic Meteorites, NIPR.

NIPR SAMPLE ALLOCATION POLICIES

I. Basic guidelines for allocation of meteorites at NIPR

1. All samples are provided on a loan basis, and remain the property of NIPR.
2. The pristine mass of the meteorite other than small rare meteorites after allocation must be at least 2/3 of the original mass. Pristine mass is defined as that portion of a specimen which has never been allocated, after initial polished thin section (PTS) preparation.
3. The pristine mass of small rare meteorites (less than 50 grams) after allocation must be at least 80% of the original mass. Rare meteorites are defined as meteorites other than type 4-6 ordinary chondrites, including rare type portions of large meteorites.
4. Allocations of any rare meteorite should generally be limited to samples less than 1 gram.
5. The term of the PTS loan will be for no more than 12 months. PTS should be returned promptly upon completion of the proposed research period.
6. PTS of any small meteorite (less than 5 grams) will not be, in general, loaned out but will be available for on-site use by scientists visiting NIPR.
7. Allocations will not be allowed until the meteorite has been announced and typed (classified) in a published issue of Meteorite News or an NIPR catalog.
8. Allocation from any meteorite that is under consortium study will generally not be permitted.
9. Investigators are strongly encouraged to limit requests to not more than 10 samples per request/review cycle. Higher numbers of samples may be approved, but in general, only 10 samples will be eligible for expeditious allocation processing. Investigators who request more than 10 samples should designate a subset for high-priority processing. A request for a chip for analysis plus a corresponding thin section for petrologic study of the same meteorite or clast will generally be counted as a single request, in relation to the 10 -sample limit.
10. Investigators are encouraged to use NIPR sample request forms. However, all sample requests that fully comply with the following guidelines will receive careful consideration.

    Requests should consist of three parts:

    a. Background information: title of the research project; for the requesting scientist, his or her name, affiliation and position (e.g., University of Paris, Professor), and office address, including phone and preferably FAX and email; and for any coinvestigators, their name, affiliation, and position.

    b. A text section, explaining the general nature and purpose of the proposed research, and including details on the justification for each individual sample request.

    c. A summary table, with columns for each of the following information categories:

    (1) Specimen name (e.g., Yamato-86032, or Y-86032).

    (2) Preferred weight (the weight of sample you believe is justified for the proposed research).

(3) Minimum weight (estimated weight below which the proposed research would not be worth pursuing; in general, approved allocations will be at or very near the *preferred* weight).
(4) An instruction regarding preferred sampling site (e.g., fusion crust, inner part, outer part, central, etc.).
(5) Sample form (e.g., single chip, cube, plate, fragments, many grains, powder, PTS, etc.).

II. Guidelines for expedited allocation by the Curator of the NIPR

The following guidelines set forth the conditions under which the Curator of Antarctic Meteorites at NIPR can allocate samples without review and approval by the CAMR. If the Curator has any doubt about the allocation of any sample, the request should be referred to CAMR.

1. Allocation of polished thin sections except for destructive analysis
   The original mass of the meteorite must be larger than 5 grams for type 4-6 ordinary chondrites or over 10 grams for all other meteorites.
2. Allocation of samples in a form other than PTS
   a. The total available pristine mass of the meteorite at NIPR must be larger than 20 grams for type 4-6 ordinary chondrites or over 50 grams for all other meteorites.
   b. Allocations of up to 5 grams or 1 weight % of the original mass of type 4-6 ordinary chondrites or up to 1 gram or 1 weight % of all other meteorites (whichever is less) can be made by the Curator.

SAMPLE DISTRIBUTION

1. Sublease (transfer) of sample is not permitted, except to persons listed as coinvestigators on the written request for samples. If sublease to a person not originally listed as coinvestigator becomes necessary, a new written request must be submitted to the Curator of Antarctic Meteorites.
2. Promptly upon completion of the proposed research, unused or remaining meteorite samples must be returned to the Curator of Antarctic Meteorites, NIPR.

REPORTING RESULTS

1. Research results should be reported promptly, preferably by presentation at the annual NIPR Symposium on Antarctic Meteorites, and/or full-length publication in the Polar Science. http://ees.elsevier.com/polar/
   The Symposium is held once each year, customarily in mid November.
2. For the reference of the Curator of Antarctic Meteorites, investigators are requested to send three copies of each full-length paper published on allocated samples, and one copy of each abstract about them, to the Curator. Reference copies of articles and abstracts published through NIPR are not necessary.

Mail requests to: Dr. Hideyasu Kojima
Curator, Antarctic Meteorite Research Center
National Institute of Polar Research (NIPR)
10-3 Midori-cho, Tachikawa, Tokyo 190-8518, Japan
Phone: (81) 42-512-0715, FAX: (81) 42-528-3479
E-mail: curator@nipr.ac.jp

Send requests to: Antarctic Meteorite Research Center, National Institute of Polar Research, 10-3, Midori-cho, Tachikawa, Tokyo 190-8518, Japan, Phone (81) 42-512-0715, FAX (81) 42-528-3479, E-mail curator@nipr.ac.jp

No. [ ]

NIPR Research Program for Antarctic Meteorites

Research project: _____

Date: Period of the project (months):

Principal investigator

Name: Signature _____

Affiliation & position:

Office address:

Phone: ext. FAX:

E-mail:

Coinvestigator(s)

Name(s):

Affiliation(s) & position(s):

Description of research plan and justification for sample request:

(continue)

	specimen name	preferred weight	minimum weight	sampling instructions	sample form
	(e.g., Y-86032)	(e,g,, 0.25g)	(e.g., 0.1g)	(e.g., interior)	(e.g., chip(s))
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

received

Send requests to: Antarctic Meteorite Research Center, National Institute of Polar Research, 10-3, Midori-cho, Tachikawa, Tokyo 190-8518, Japan, Phone (81) 42-512-0715, FAX (81) 42-528-3479, E-mail curator@nipr.ac.jp

No.

received