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# *METEORITE NEWSLETTER*

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Antarctic Meteorite Research Center  
National Institute of Polar Research (NIPR), Japan

# Meteorite Newsletter, Vol 27

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## Introduction

This newsletter reports the classification of 559 meteorites collected from ice fields near the Yamato Mountains by JARE-39 and 41 (Yamato 98 and 00 meteorites) and from the Balchen and Nansen Ice Fields by the Japan-Belgium joint expeditions, JARE-51 and JARE-54/BELARE 2012-2013 (Asuka 09 and 12 meteorites). The meteorites include eighteen carbonaceous chondrites (5 CM, 10 CO, 2 CR, 1 CV), two achondrites (1 ureilite, 1 winonaite), and nine iron meteorites.

## Classification

The classification was made with visual inspection of meteorites and petrographic observations of polished thin and thick sections as well as compositions of major minerals (olivine, pyroxene, and plagioclase) obtained by electron microprobes (JEOL JXA-8800 and 8200 at NIPR). Typical numbers of olivine analysis for equilibrated ordinary chondrites are ~10-20, and those of other meteorites are ~20-30. Bulk major and trace element compositions of iron meteorites were determined by instrumental neutron activation analysis (INAA) and by laser abrasion inductively coupled mass spectrometry (LA-ICPMS) (Shirai et al. 2020, in preparation). Table 1 presents the results of classifications of stony meteorites (groups, averages and ranges of olivine Fa and low-Ca pyroxene Fs, fracturing, and weathering degrees). Table 2 presents the classification and chemical compositions of iron meteorites.

## Sample requests

Requests of Yamato samples will be reviewed in a timely manner by the curator at NIPR and those of Asuka 09 and 12 meteorites by scientific members at NIPR, Royal Belgian Institute of Natural Sciences, Vrije Universiteit Brussel, and Université Libre de Bruxelles.

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Table 1. List of meteorites classified in this volume.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 980372	H5	1.952	19.7	18.7-21.5	17.3	16.3-19.4	B	A	
Y 980374	L6	0.477	25.5	24.1-28.0	21.8	20.5-22.9	B	A	
Y 980375	L6	1.987	25.7	24.7-28.3	22.0	20.8-25.0	B	A	
Y 980377	L6	0.567	26.0	24.7-29.2	21.6	19.8-24.2	B	A/B	
Y 980383	H5	0.377	19.1	17.1-21.8	16.9	15.1-19.9	B	A	
Y 980384	H5	2.156	18.5	17.2-19.2	16.8	15.6-17.4	B	A	
Y 980390	L3	1.256	25.6	19.0-28.8	16.0	6.9-21.7	B	A	
Y 980392	H5	1.473	18.9	18.4-20.0	16.5	13.9-17.4	B	A	
Y 980393	H6	1410.2	19.1	17.6-20.2	16.9	15.7-17.3	B	A/B	
Y 980411	LL6	1.110	28.6	26.8-30.1	23.7	22.4-25.7	A	A	
Y 980419	H6	1.390	18.8	18.3-19.2	16.8	16.0-17.8	C	A/B	
Y 980428	H5	0.566	18.9	17.9-20.2	16.7	15.6-17.9	B	A	
Y 980434	LL6	2.863	30.6	29.6-32.3	24.9	23.3-26.2	B	A	
Y 980437	H6	2.447	19.1	18.2-22.5	17.2	15.7-18.5	A	A	Shock vein
Y 980441	LL6	2.223	30.9	29.4-32.1	25.0	23.9-26.5	B	A	
Y 980442	H5	0.381	19.3	18.3-20.4	17.0	15.7-19.3	B	A	
Y 980443	H6	0.902	19.0	18.3-20.4	16.6	15.3-17.7	B	A	
Y 980447	L6	1.553	25.5	24.1-27.1	21.3	20.3-22.1	B	A	
Y 980458	H5	1.525	20.2	18.8-24.7	17.4	15.4-21.2	B	A	
Y 980467	L6	0.428	25.9	23.8-27.5	21.7	20.4-22.5	B	A	Chromite-plagioclase clast
Y 980476	L3	0.766	26.4	24.0-30.7	16.1	5.9-21.0	A	A	
Y 980482	LL6	3.214	29.0	27.8-30.8	24.0	23.4-24.9	A	A	
Y 980483	LL6	4.481	29.0	27.8-31.3	24.0	23.6-24.3	A	A	
Y 980486	L3	19.82	25.5	18.7-29.2	21.6	3.6-36.5	A	A	
Y 980487	H4	0.694	19.3	18.2-23.7	16.9	15.6-18.4	C	A	
Y 980489	H6	1.619	18.9	17.8-24.2	16.4	14.7-17.5	B	A	
Y 980491	H6	2.016	20.4	18.4-23.9	18.2	16.9-22.0	B	A	
Y 980492	LL3	4.822	15.9	0.7-44.8	11.3	2.5-31.6	B	A	
Y 980503	L4	0.551	25.2	23.5-26.9	21.2	20.6-21.9	B	A/B	
Y 980504	H5	2.365	19.4	18.7-22.5	17.0	14.8-18.4	B	A	
Y 980514	LL6	3.034	31.0	29.9-32.8	25.3	24.0-27.1	A	A/B	
Y 980516	H6	1.543	19.0	18.1-20.3	16.9	15.7-18.2	B	A	
Y 980519	H5	1.170	18.7	17.5-21.3	16.7	15.2-19.0	B	A/B	
Y 980521	L6	2.070	24.9	23.9-26.7	21.1	19.3-21.6	B	A	
Y 980522	L5	3.245	25.2	24.5-27.6	21.1	19.9-21.6	B	A	
Y 980525	H6	1.385	19.9	18.1-20.6	17.7	16.1-19.5	C	A	
Y 980534	H5	1.528	18.5	17.8-19.1	16.5	15.4-17.6	B	A	
Y 980535	CM	2.379	5.9	0.4-35.3	3.8	0.7-10.4	A	A/B	
Y 980538	LL6	2.282	30.4	28.8-35.5	25.2	24.0-28.9	A	A/B	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 980539	LL6	3.035	30.2	29.4-31.5	24.1	21.9-25.7	B	A	
Y 980547	L6	0.813	25.4	23.6-27.6	22.0	20.5-24.3	B	A	
Y 980549	H6	4.301	19.9	19.0-21.5	17.4	16.7-19.3	B	A	
Y 980551	H6	0.431	19.8	18.7-21.9	17.8	16.9-20.3	B	A	
Y 980552	L6	0.318	25.2	22.4-28.1	22.0	20.6-25.2	B	A	
Y 980553	H5	1.771	19.0	18.0-19.8	17.0	15.5-19.3	B	A	
Y 980554	L6	0.901	26.8	24.8-31.2	22.4	19.3-24.2	B	A	
Y 980556	H6	0.935	18.8	16.4-20.7	16.7	15.9-18.1	B	A	Large metal
Y 980557	H5	4.784	18.7	17.2-20.2	16.6	14.8-18.1	B	A/B	
Y 980558	L5	2.231	25.3	23.9-27.0	21.3	20.3-22.0	B	A	
Y 980566	L6	3.653	25.7	23.8-27.3	22.0	20.3-26.2	B	A	
Y 980569	H6	2.231	18.5	17.7-20.3	16.6	15.7-17.2	C	A	
Y 980570	L5	2.386	25.3	24.3-28.0	21.2	20.0-22.6	B	A/B	
Y 980574	H5	2.473	19.3	17.8-21.4	17.4	16.2-19.1	B	A	
Y 980578	H5	2.384	17.9	17.1-19.2	15.8	14.0-16.9	B	A	
Y 980590	CR	0.467	3.5	0.7-9.8	1.4	0.7-2.7	B	A	
Y 980594	L4	1.938	25.6	24.0-27.1	21.4	20.5-22.4	B	A/B	
Y 980598	H6	2.717	18.7	17.9-20.1	16.8	14.5-17.8	B	A	
Y 980599	CO	2.807	7.2	0.5-39.1	3.1	1.0-12.5	B	A	
Y 980600	CO	1.211	11.1	0.7-51.0	2.9	0.6-6.0	A	A	
Y 980601	H5	0.513	18.9	18.2-20.5	16.6	15.8-18.4	B	A	
Y 980603	H4	1.515	19.2	18.0-20.1	17.3	16.6-20.4	B	A	
Y 980608	H4	2.051	19.6	18.6-21.7	17.2	16.2-21.1	B	A	
Y 980609	H4	0.773	19.6	18.7-22.3	17.5	15.2-20.5	B	A	
Y 980610	H4	0.810	19.5	17.8-23.6	16.6	16.3-17.1	B	A	
Y 980611	L6	0.287	25.3	24.1-27.9	21.5	20.5-23.7	A	A	
Y 980613	H5	0.661	19.4	17.9-23.3	16.5	16.2-17.0	B	A	
Y 980614	H5	1.150	19.4	18.4-22.5	16.9	16.3-18.3	B	A	
Y 980615	H6	0.561	19.0	17.7-20.5	16.6	14.8-18.9	B	A	
Y 980617	H6	0.636	19.7	18.5-20.5	17.2	15.6-17.8	B	A	
Y 980620	H5	1.524	18.7	17.9-19.2	16.7	15.7-17.9	B	B	
Y 980621	H5	2.067	18.9	17.4-21.6	16.9	15.8-18.5	B	A/B	
Y 980622	H4	3.064	18.6	17.7-19.3	16.6	14.7-18.1	B	A	
Y 980624	H4	2.671	19.1	18.2-21.2	16.7	15.5-17.8	B	A	
Y 980626	H4	3.385	19.1	18.4-22.7	16.6	15.5-17.2	B	A	
Y 980628	H5	0.805	18.9	18.2-20.5	16.8	15.9-17.6	B	A	
Y 980629	H5	2.189	19.5	18.4-22.0	17.2	15.7-20.9	B	A	
Y 980632	L6	0.484	25.6	24.1-28.9	21.7	20.3-23.3	B	A	
Y 980633	L6	1.510	25.9	24.3-30.0	21.4	20.1-23.7	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 980634	L6	0.916	25.3	24.2-27.9	21.7	20.2-23.8	B	A	
Y 980637	H6	1.808	19.0	17.6-22.1	16.6	14.3-20.6	B	A	
Y 980638	H5	2.469	18.8	17.6-19.5	16.8	15.6-18.9	B	A	
Y 980641	H6	2.442	19.7	18.1-23.1	17.5	15.4-20.0	B	A	
Y 980643	H6	0.795	19.7	18.4-22.9	16.9	16.2-17.8	B	A	
Y 980644	L6	1.410	25.3	23.9-27.0	21.0	18.0-22.0	B	A	
Y 980645	L6	0.538	25.3	24.2-27.9	21.2	20.6-21.8	B	A/B	Darkened
Y 980650	H6	2.821	18.9	18.0-21.9	16.6	15.3-17.9	C	A	
Y 980651	H5	2.317	19.5	18.1-22.3	17.6	16.3-19.8	B	A/B	
Y 980652	H5	1.931	18.1	17.3-18.9	16.3	14.7-17.7	B	A	
Y 980653	H6	2.742	18.7	17.6-19.7	17.0	16.0-19.9	C	A	
Y 980659	H4	2.334	19.0	16.4-25.1	16.3	9.1-21.2	B	A	
Y 980661	H5	1.058	19.2	17.9-22.1	16.6	15.3-18.5	B	A	
Y 980666	L6	2.710	25.3	24.3-27.3	21.5	19.9-24.1	B	A	
Y 980667	L4	2.706	23.1	22.0-25.6	19.7	17.9-21.1	B	A	
Y 980670	L5	1.925	25.5	24.7-30.0	21.6	21.0-24.2	B	A	
Y 980671	H5	0.815	19.0	17.7-22.5	17.1	15.8-21.8	B	A	
Y 980676	H5	8.365	19.1	17.8-20.9	17.2	16.1-19.8	B	A	
Y 980677	H5	1.490	18.4	17.4-19.6	16.3	15.1-19.1	B	A	
Y 980678	L6	2.307	25.2	23.6-27.7	21.3	20.5-22.7	B	A	Shock vein
Y 980679	H5	1.575	19.4	17.7-21.0	17.1	16.2-19.6	B	A	
Y 980686	L6	1.844	25.0	23.5-26.3	21.4	20.4-23.8	B	A	Shock vein
Y 980691	H6	2.349	19.8	18.6-23.4	17.3	16.2-19.9	B	A	Shock vein
Y 980692	H6	1.314	19.8	18.0-20.5	17.6	16.4-19.0	B	A	
Y 980696	H6	1.013	19.4	18.8-20.3	17.3	16.4-18.3	C	A	
Y 980699	L6	2.144	25.0	23.5-27.5	21.4	19.4-24.1	B	A	Shock vein
Y 980710	H6	1.326	18.6	17.5-19.2	16.4	14.9-18.4	A	A	
Y 980714	H5	0.696	19.3	18.4-20.6	17.1	15.9-20.3	B	A	
Y 980715	H5	2.833	18.9	18.1-20.2	16.8	16.2-17.8	B	A/B	
Y 980717	H5	1.306	19.2	18.4-20.4	16.9	15.7-19.8	B	A	
Y 980718	L4	2.745	24.0	22.8-25.7	20.5	17.8-22.4	C	A/B	
Y 980719	L6	0.532	25.0	23.2-26.7	21.3	18.9-24.4	B	A	Shock vein
Y 980720	H5	1.455	19.1	17.8-21.6	16.9	16.2-17.9	B	A/B	
Y 980721	H5	0.886	19.3	18.5-21.1	16.8	16.0-18.5	B	A	
Y 980722	H5	0.695	19.3	18.1-21.3	16.4	15.1-17.2	B	A	
Y 980724	H5	1.087	18.6	17.4-20.4	16.8	15.9-19.5	C	A/B	
Y 980732	H5	1.928	19.0	18.0-20.1	16.9	15.7-19.0	B	A	
Y 980733	L5	0.488	25.4	24.5-27.3	21.2	19.7-21.8	B	A	
Y 980734	H4	1.014	18.3	15.7-20.8	16.3	14.8-20.6	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 980735	H6	0.730	19.3	18.2-20.0	16.6	15.6-17.3	B	A	
Y 980743	L6	0.330	24.9	23.5-26.4	21.0	20.4-21.5	A	A	
Y 980746	H5	1.292	19.6	17.6-24.1	16.7	15.9-17.7	B	A	
Y 980748	H5	2.371	19.2	17.4-22.2	17.0	15.6-18.4	B	A	
Y 980750	H6	0.624	19.5	18.9-20.2	16.9	15.8-17.6	A	A	
Y 980751	H5	1.192	19.1	17.2-20.6	16.8	14.7-19.3	B	A	
Y 980757	H5	1.767	19.4	17.9-22.5	16.5	16.1-16.9	B	A	
Y 980760	CO	0.461	4.4	0.4-32.8	2.9	1.1-6.4	A	A	
Y 980769	L6	0.565	25.4	24.2-26.8	21.4	20.4-23.9	B	A	
Y 980772	L5	1.322	25.0	23.5-27.8	21.2	19.6-23.7	B	A	
Y 980773	L5	0.574	25.2	24.1-26.0	21.4	20.2-23.8	B	A	
Y 980774	H5	1.335	20.0	18.7-22.0	17.4	14.9-20.0	B	A	
Y 980775	LL6	0.784	30.7	29.5-31.6	25.9	24.3-27.3	A	A	
Y 980777	H4	0.874	19.5	18.3-22.5	16.9	16.2-17.6	B	A	
Y 980778	L6	1.732	25.9	24.5-28.6	22.5	20.9-25.1	B	A	
Y 980780	H5	0.667	19.8	18.5-22.1	17.5	16.5-20.4	B	A	
Y 980781	H5	0.889	20.4	19.2-22.5	18.0	16.7-20.1	C	A	
Y 980783	L6	9.420	26.0	24.8-28.4	22.1	20.5-24.2	B	A	Shock vein
Y 980793	H5	2.402	19.8	18.7-21.8	17.5	16.1-18.8	B	A	
Y 980798	H5	1.922	19.3	18.7-20.6	17.2	15.7-21.9	B	A	
Y 980801	H5	2.315	18.9	17.8-19.7	16.8	15.9-19.8	B	A	
Y 980803	H6	1.396	19.4	18.4-21.1	16.8	15.4-18.0	B	A	
Y 980812	H6	2.131	18.8	17.5-19.7	16.6	14.8-17.8	A	A	
Y 980813	H5	2.047	19.0	18.6-19.4	16.8	15.4-19.2	B	A	
Y 980818	L6	1.967	25.1	24.2-26.5	21.2	20.4-23.4	A	A	
Y 980819	L6	88.56	25.0	23.1-26.9	21.2	20.1-22.8	A	A	Shock vein
Y 980820	L6	1.761	25.2	22.6-26.6	21.3	19.9-23.3	B	A	
Y 980822	L6	61.21	25.2	23.4-28.0	21.3	18.6-23.8	A	A	Shock vein
Y 980825	L6	50.06	24.9	23.1-26.6	21.1	19.5-23.6	A	A	
Y 980827	H5	2.352	17.2	16.1-19.2	15.3	14.7-15.9	B	A	
Y 980828	H4	1.012	17.5	15.9-18.7	15.9	14.5-17.9	B	A	
Y 980830	H5	1.157	19.1	18.0-20.5	16.6	16.0-17.5	B	A	
Y 980831	H5	2.662	19.1	18.1-21.2	17.2	16.5-18.1	B	A/B	
Y 980832	H5	1.385	19.2	17.4-21.5	16.1	15.4-16.7	B	A/B	
Y 980835	LL5	2.605	28.2	27.0-34.5	23.2	22.4-24.4	B	A/B	
Y 980838	L6	0.489	25.3	24.0-26.8	21.3	19.7-23.1	B	A/B	
Y 980842	L6	2.959	25.5	22.8-27.3	22.0	19.2-25.3	B	A	
Y 980843	L6	2.217	25.4	24.3-26.9	21.9	19.4-25.7	B	A	Shock vein
Y 980846	H6	2.968	19.7	18.6-20.9	17.1	15.2-20.4	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 980848	L5	2.151	25.1	23.6-27.1	21.3	19.5-24.5	B	A	
Y 980849	L6	0.785	25.6	24.3-27.2	21.4	21.1-21.8	A	A	
Y 980858	H5	2.005	19.1	17.5-20.1	17.5	16.6-18.7	B	A	
Y 980864	H3	0.309	16.5	2.6-20.2	16.2	6.8-20.7	B	A	
Y 980865	H5	1.154	19.2	18.1-22.8	16.9	16.0-18.8	C	A/B	
Y 980869	H5	1.234	18.8	17.5-20.1	16.6	15.6-18.3	B	A	
Y 980870	H5	1.120	19.0	17.8-21.0	16.4	15.6-17.1	B	A	
Y 980874	L6	2.083	25.5	23.9-27.7	21.4	20.0-25.1	A	A	
Y 980880	L6	2.423	25.4	23.6-27.7	21.3	19.4-24.9	B	A	Shock vein
Y 980888	L4	2.219	24.8	23.4-27.7	21.1	17.8-25.7	A/B	A	
Y 980890	H4	1.990	18.1	16.9-20.7	15.9	15.0-16.4	B	A	
Y 980892	H5	0.514	19.1	18.0-20.3	16.6	15.9-17.5	B	A	
Y 980894	H5	1.004	19.2	18.0-21.7	17	16.2-18.2	B	A	
Y 980895	H5	2.428	19.4	18.5-22.8	17	15.9-20.2	B/C	A	
Y 980896	H5	0.805	19.3	17.7-21.9	17.3	16.5-18.7	B	A	
Y 980897	H5	2.199	18.1	16.5-18.8	16.2	14.9-16.8	B	A	
Y 980906	H5	0.927	19.3	17.9-24.6	16.8	15.9-17.5	B	A	
Y 980909	L6	2.502	25.3	23.9-28.5	21.8	20.0-24.3	A	A	Shock vein
Y 980910	H5	0.963	19.5	18.2-23.5	17	16.2-17.4	B	A	
Y 980911	L6	2.559	25.4	24.5-26.8	22.1	20.7-25.5	B	A	
Y 980912	L3	1.046	16.2	3.3-35.8	13.1	2.4-38.1	C	A	
Y 980913	H5	0.714	19.3	18.4-20.9	17.2	15.4-20.2	B/C	A	
Y 980914	H6	0.431	20.3	19.6-21.6	18.1	16.9-22.1	C	A	
Y 980915	H6	0.606	18.8	17.9-19.8	16.5	15.1-18.8	C	A	
Y 980919	H5	0.478	19.2	17.8-20.9	17.1	16.0-19.7	B	A	
Y 980923	H5	0.544	19.0	17.3-22.3	16.9	16.3-17.8	C	A	
Y 980925	H5	1.240	19.5	17.9-24.0	16.6	15.7-17.3	B	A	
Y 980931	H5	2.842	19.4	18.0-22.0	16.9	16.2-18.0	B	A	
Y 980932	H6	2.427	20.1	19.2-21.8	17.4	16.2-18.6	B	A	
Y 980933	H6	2.158	20.0	18.4-21.4	17.3	15.8-20.5	B	A	Shock vein
Y 980967	H5	1.049	19.6	18.6-20.6	17.3	16.1-19.6	B	A/B	
Y 980972	H5	2.933	19.3	17.7-22.5	16.5	15.2-17.1	B	A/B	
Y 980973	H5	1.798	19.3	18.6-22.0	17.0	15.9-19.8	B	A	
Y 980974	H5	2.424	19.3	17.5-21.4	16.9	15.8-17.8	B	A	
Y 980979	H5	2.508	19.5	18.1-24.8	17.4	15.2-20.6	B	A	
Y 980983	H4	2.875	19.2	18.0-20.5	16.9	15.7-19.1	B	A	
Y 980984	H4	1.988	19.6	18.0-23.5	17.2	14.6-21.5	B	A	
Y 980985	H4	1.032	19.2	17.2-23.7	16.5	15.8-18.3	B	A	
Y 980986	H4	1.365	19.2	17.8-20.2	17.1	16.0-21.1	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 980987	H4	1.442	19.6	18.2-23.0	16.9	15.4-20.9	B	A	
Y 980990	H4	2.436	19.9	18.3-23.7	17.3	15.9-19.6	B	A	
Y 980992	H4	2.062	19.4	17.8-21.2	16.9	16.1-18.6	B	A	
Y 980993	H4	2.439	19.1	17.8-21.1	16.8	15.8-17.9	B	A	
Y 980994	H4	2.158	19.4	18.0-22.3	16.5	15.9-17.3	B	A/B	
Y 980995	H4	1.079	19.4	18.4-23.1	17.1	16.3-19.9	B	A	
Y 981001	H4	1.447	19.3	18.1-22.9	17.4	16.2-21.1	B	A	
Y 981002	H4	2.382	18.0	16.4-19.5	16.2	14.6-19.2	B	A	
Y 981003	H4	1.215	17.9	16.8-19.8	16.3	14.9-18.5	B	A/B	
Y 981004	H4	1.343	17.9	17.2-18.4	15.9	14.6-17.5	B	A	
Y 981008	L6	1.783	25.0	23.8-27.4	21.5	19.7-24.4	B	A	Shock vein
Y 981010	L6	1.751	25.1	24.1-26.5	21.3	20.2-23.4	B	A	Shock vein
Y 981011	H6	1.756	19.3	18.7-19.9	17.5	15.9-22.4	B	A	
Y 981017	L6	2.162	25.2	23.7-28.0	20.8	18.9-23.9	B	A	Melt pocket
Y 981029	H4	2.842	19.0	18.2-19.7	16.9	16.0-18.4	B	A/B	
Y 981030	H4	1.785	19.0	18.1-20.5	16.8	14.7-19.7	B	A	
Y 981043	L6	2.019	25.5	23.9-29.2	21.4	20.1-23.1	B	A	Shock vein
Y 981049	L6	1.902	25.2	23.7-27.6	21.4	20.1-23.5	B	A	Shock vein
Y 981053	H4	1.228	19.4	17.3-22.9	17.1	15.9-20.9	C	A	
Y 981054	CV	16.42	3.1	0.6-8.6	2.1	0.8-5.4	A	A	
Y 981059	H6	1.897	19.6	18.9-21.5	17.3	16.4-18.0	B	A	
Y 981060	Ure	1.711	23.9	12.2-34.0			C	A	
Y 981062	H6	2.084	19.2	18.1-20.4	16.9	15.0-17.6	C	A	
Y 981066	H4	12.17	19.1	17.8-22.1	17.0	15.1-20.0	B	A	
Y 981068	H5	13.62	18.8	17.7-20.9	17.0	14.3-18.8	B	A	
Y 981071	H6	1.988	18.8	16.6-20.7	16.5	15.7-17.2	C	A/B	
Y 981072	H6	1.438	19.7	18.5-21.5	17.4	15.4-19.6	B	A	
Y 981077	H6	2.250	19.7	18.0-21.2	17.2	15.8-18.4	C	A	
Y 981088	H4	1.747	19.6	18.5-24.3	16.8	14.9-18.4	B	A	
Y 981093	H4	1.775	19.4	18.1-22.4	17.1	16.0-19.3	B	A/B	
Y 981094	H4	1.853	19.6	18.2-22.3	16.8	15.2-18.0	B	A/B	
Y 981096	H4	2.318	19.6	17.3-22.4	16.9	16.1-17.9	C	A	
Y 981097	H4	2.930	19.1	17.6-22.5	16.7	13.8-18.6	B	A/B	
Y 981098	H4	2.425	19.2	18.1-22.0	16.5	15.3-19.3	B	A	
Y 981104	H4	1.984	19.1	17.0-22.7	17.0	16.0-21.0	B	A	
Y 981107	H4	2.802	19.2	17.4-21.9	16.6	16.1-17.2	B	A/B	
Y 981113	H4	1.835	19.3	18.1-21.9	16.7	14.5-18.1	B	A	
Y 981117	H4	6.608	19.5	18.3-24.4	17.6	16.6-20.7	B	A/B	
Y 981118	H5	2.195	19.8	18.4-22.2	17.0	14.8-20.7	B	A/B	



Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 981122	H4	45.80	18.7	17.1-20.1	16.5	15.4-18.0	B	B/C	
Y 981125	H5	1.692	19.3	18.0-22.2	16.8	14.5-19.5	B	A	
Y 981126	H5	1.841	19.7	17.7-23.8	16.6	15.8-18.3	B	A	
Y 981128	L6	1.282	26.1	23.9-29.8	21.8	20.5-25.1	B	A	
Y 981131	H6	2.957	19.9	18.5-23.8	17.6	15.5-20.2	B	A	
Y 981156	L6	2.505	25.1	23.7-26.7	20.9	19.0-22.7	B	A	
Y 981160	H4	1.418	19.6	18.5-22.4	17.2	15.8-22.2	B	A	
Y 981171	H3	1.725	8.1	0.6-36.8	3.5	1.2-7.6	B	A	
Y 981178	H4	1.613	19.9	18.3-23.9	18.2	16.5-19.9	B	A	
Y 981179	H4	1.593	19.8	18.3-22.9	17.0	16.2-19.3	B	A	
Y 981185	H4	1.045	19.2	17.7-21.2	16.9	16.2-18.2	B	A	
Y 981190	H5	2.412	19.2	18.0-23.0	16.9	14.8-20.9	B	A/B	
Y 981192	H4	1.354	19.5	17.8-21.7	17.0	16.2-19.0	B	A	
Y 981193	H4	1.467	19.3	17.9-22.9	16.6	15.0-18.1	B	A/B	
Y 981197	H4	1.822	19.2	18.1-21.0	16.9	15.8-18.6	B	A	
Y 981205	H4	1.274	19.3	18.0-23.5	17.0	16.0-19.5	B	A	
Y 981231	H6	2.122	18.4	17.4-19.1	16.3	15.8-16.9	C	A/B	
Y 981239	H4	1.153	19.3	18.2-21.3	17.1	16.0-21.7	B	A	
Y 981243	H4	1.529	19.4	18.3-22.2	16.8	15.2-18.6	B	A	
Y 981244	H4	2.217	19.5	18.2-22.0	16.9	15.7-19.0	B	A	
Y 981248	H4	2.609	19.7	17.7-25.0	16.2	9.1-18.2	B	A/B	
Y 981255	H5	567.6	18.3	16.5-19.4	16.4	15.8-17.8	B	A/B	
Y 981257	H4	2.293	18.2	17.1-22.3	15.8	14.6-16.9	B	A	
Y 981259	L5	1.707	26.2	21.9-28.2	21.3	18.4-23.0	B	A	
Y 981261	CM	1.267	3.3	0.4-28.2	1.4	0.7-4.0	B	A	
Y 981265	CM	3.968	7.7	0.3-42.2	2.7	0.8-6.8	B	A	
Y 981270	CM	1.801	6.2	0.2-30.3	2.4	0.7-6.4	B	A/B	
Y 981273	CO	2.528	17.2	0.4-52.5	2.8	0.7-11.6	B	A/B	
Y 981276	L6	1.129	25.6	24.2-28.0	21.8	20.8-24.3	B	A	
Y 981281	CO	1.622	9.1	0.3-52.3	1.5	1.5-1.5	B	A	
Y 981287	CO	12.73	2.5	0.4-25.2	2.5	1.2-8.0	B	A/B	
Y 981292	CO	1.254	5.7	0.2-44.6	2.8	1.0-8.7	B	A	
Y 981293	CO	2.860	6.5	0.3-36.1	2.3	0.9-4.9	B	A/B	
Y 981294	CO	1.117	5.0	0.4-30.7	2.4	0.8-5.8	B	A	
Y 981300	H4	2.609	18.5	17.1-19.6	16.4	15.7-17.5	C	A	
Y 981306	H4	1.251	19.3	18.2-22.0	16.8	15.6-18.7	B	A	
Y 981310	H5	1.348	19.3	18.4-24.4	17.4	15.2-20.3	B	A	
Y 981311	H4	1.118	19.1	18.5-20.7	16.6	15.1-18.4	B	A	
Y 981317	H5	1.868	18.4	17.3-23.6	16.8	14.9-19.1	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 981328	L6	2.827	25.8	23.9-29.6	21.9	20.6-25.1	B	A/B	
Y 981330	L6	2.395	25.3	24.0-29.1	21.3	20.2-22.8	B	A	
Y 981336	L6	16.66	24.7	22.0-26.1	21.7	20.5-24.9	B	B	
Y 981339	L5	1.188	25.4	24.4-29.1	21.3	19.2-23.2	B	A	
Y 981341	L5	1.210	25.6	24.9-26.5	21.4	20.7-22.0	B	A	
Y 981342	L5	1.016	25.3	24.4-25.9	21.4	20.2-23.0	B	A/B	
Y 981344	L5	1.465	25.6	25.0-26.4	21.5	20.4-23.1	B	A	
Y 981352	H5	1.063	19.5	18.3-24.4	17.0	15.9-17.8	B	A	
Y 981353	L5	2.349	22.8	21.1-24.5	19.7	18.4-21.5	B	A/B	
Y 981356	L6	5.512	25.3	23.9-28.0	22.0	20.8-24.2	B	A	
Y 981363	L6	2.102	25.4	23.3-30.5	21.6	19.5-24.6	B	A	
Y 981364	H5	1.809	19.6	18.3-25.0	16.9	15.4-17.9	C	A	
Y 981367	H4	2.091	18.1	16.7-23.0	16.4	15.5-18.6	B	A	
Y 981374	H5	2.404	19.6	18.1-22.8	17.4	15.8-21.1	B	A	
Y 981377	H5	2.122	18.2	16.6-22.0	16.7	15.3-19.8	B	A	
Y 981378	L6	1.717	24.8	22.9-27.6	20.6	18.4-22.1	B	A	
Y 981379	L6	1.663	25.1	23.7-28.1	20.9	19.7-22.3	B	A	
Y 981382	L6	1.537	25.5	24.4-26.2	21.3	19.9-22.2	B	A	
Y 981383	H5	1.362	19.2	17.9-23.9	16.9	16.3-17.7	B	A	
Y 981384	H6	2.535	18.9	18.1-19.8	16.8	15.5-19.8	B	A	
Y 981386	H5	1.523	19.2	18.1-21.9	16.5	14.9-20.1	B	A/B	
Y 981387	H6	1.227	19.2	18.1-21.9	16.9	15.9-18.1	B	A	
Y 981391	H5	1.183	19.3	18.1-22.4	16.7	15.0-20.0	B	A	
Y 981392	H5	1.891	18.9	17.8-19.6	16.7	14.8-19.1	B	A	
Y 981396	L6	1.753	25.5	24.3-28.2	21.0	20.1-21.8	B	A	
Y 981397	L6	1.697	24.7	22.7-27.4	20.7	20.0-22.1	B	A/B	
Y 981404	H5	2.517	19.4	18.4-21.6	17.2	16.1-19.8	C	A/B	
Y 981409	L6	1.365	25.5	24.4-27.7	21.6	19.0-23.9	B	A	
Y 981423	L3	1.839	24.4	22.3-27.4	17.3	4.3-42.7	B	A	
Y 981424	L6	1.019	25.5	24.0-28.0	21.6	20.1-23.8	B	A	
Y 981430	L6	1.472	25.2	22.9-29.1	21.5	20.5-24.2	B	A	
Y 981440	L4	1.600	25.2	24.1-27.2	21.1	19.6-22.0	B	A	
Y 981452	L4	1.529	25.9	24.5-30.8	22.1	20.3-27.2	B	A	
Y 981454	H5	1.432	18.5	17.0-21.5	16.2	14.8-17.3	B	A	
Y 981459	H5	1.043	19.8	18.2-22.6	17.4	16.2-19.7	B	A	
Y 981461	H6	1.973	19.8	17.9-22.6	17.5	16.2-18.3	B	A	
Y 981467	L6	17.47	25.4	23.9-28.8	21.2	20.0-23.4	B	A	
Y 981468	L6	2.248	25.3	24.1-28.7	21.7	20.2-25.1	B	A	
Y 981470	H6	2.919	18.6	17.7-19.3	16.5	15.3-17.5	C	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 981473	L4	1.030	24.7	23.8-26.2	21.2	19.6-24.4	B	A	
Y 981478	L6	1.659	25.3	24.2-27.0	21.9	20.9-24.2	A	A	
Y 981479	L6	2.300	25.6	24.4-26.6	22.0	20.4-25.7	A	A	
Y 981488	L6	2.548	25.5	24.4-27.7	21.5	20.2-24.2	B	A	
Y 981518	H4	2.370	19.2	18.2-21.4	16.9	15.9-18.8	B	A/B	
Y 981519	CR	2.423	5.5	1.0-51.1	2.7	1.2-7.2	B	A	
Y 981524	H4	1.336	19.1	17.2-20.8	17.1	16.2-19.2	B	A	
Y 981531	H6	2.113	20.0	19.0-22.0	17.4	15.2-21.8	B	A	
Y 981532	L6	1.985	25.7	23.6-29.6	22.2	20.7-27.2	B	A	
Y 981537	H6	1.101	20.3	19.1-22.6	18.3	16.8-22.3	B	A	
Y 981538	H6	2.037	20.4	19.0-22.2	18.4	17.3-22.0	C	A	
Y 981555	H6	2.819	18.9	17.8-21.5	16.6	15.4-17.6	C	A	
Y 981557	L5	3.100	25.0	23.6-27.8	21.1	19.5-23.4	B	A	
Y 981570	H5	2.627	18.1	16.5-21.9	17.0	15.4-19.9	B	A/B	
Y 981571	H4	2.533	18.1	16.7-21.7	16.2	15.2-19.3	B	A	
Y 981574	H5	2.281	18.1	16.3-19.8	16.6	15.1-18.5	B	A	
Y 981577	L4	2.063	23.5	22.2-26.1	20.0	19.1-22.9	B	A	
Y 981578	H5	1.787	19.5	17.7-22.8	17.4	15.6-19.5	B	A	
Y 981579	H6	2.361	19.8	19.0-20.7	17.5	16.3-20.9	B	A	
Y 981592	H4	1.212	19.3	18.4-20.1	17.2	15.7-21.3	C	A	
Y 981608	LL6	6.419	28.9	28.2-30.5	23.8	23.0-25.8	A	A	
Y 981610	H3	1.184	18.0	13.5-21.9	15.7	7.8-20.5	B	A	
Y 981618	L6	1.257	24.8	23.9-25.4	21.5	20.3-25.2	A	A	
Y 981623	L5	2.803	25.5	24.3-28.2	21.4	20.3-23.9	B	A	
Y 981626	H6	1.175	19.5	18.9-20.2	17.2	16.5-17.8	A	A	
Y 981628	L6	2.070	25.0	22.1-26.1	21.7	19.3-24.8	B	A	
Y 981635	H5	2.697	19.6	18.5-24.0	17.4	16.4-19.2	B/C	A	
Y 981659	H5	2.104	19.4	18.1-22.9	16.9	15.8-19.0	A/B	A	
Y 981661	LL6	1.206	31.5	30.6-33.5	25.4	24.0-27.2	B	A	
Y 981675	L6	2.625	25.6	24.5-27.7	21.5	20.3-23.6	A	A	
Y 981690	L6	1.137	25.4	24.5-26.2	21.6	20.8-23.3	B	A	
Y 981693	H6	1.071	20.8	18.1-24.8	17.9	16.7-19.8	B	A	
Y 981699	L6	2.568	25.3	22.8-28.8	21.4	20.7-23.1	B	A	
Y 981704	LL6	2.093	29.2	28.2-32.9	24.0	21.0-25.1	B	A	
Y 981708	H5	1.336	19.4	18.4-20.9	17.0	15.7-18.8	B	A	
Y 981717	H6	2.116	18.8	17.9-21.4	16.6	15.5-17.4	B	A	
Y 981733	L6	1.014	25.6	24.5-26.7	21.5	20.5-23.0	B	A	
Y 981747	H5	1.494	20.6	19.2-24.4	17.5	15.4-18.7	B	A	
Y 981748	H5	1.651	19.5	18.1-23.3	17.2	13.7-21.4	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 981751	L6	1.714	25.8	24.5-29.4	21.9	19.9-23.9	B	A	
Y 981755	L6	1.956	25.1	22.5-26.6	21.5	20.0-23.6	B	A	
Y 981757	H4	1.190	19.5	18.2-23.4	17.1	15.4-20.1	B	A	
Y 981760	CM	3.994	6.9	0.2-59.2	4.6	1.1-15.2	B	A	
Y 981761	H6	1.071	19.6	18.3-25.8	16.5	15.7-17.6	B	A	
Y 981762	H4	6.631	19.0	17.1-23.2	17.0	15.4-22.6	B	A	
Y 981763	L6	1.458	25.2	24.2-28.7	21.9	20.5-26.9	B	A	Shock vein
Y 981769	L6	2.792	25.5	24.5-29.1	21.9	20.8-23.1	B	A	
Y 981771	L6	2.285	25.8	24.1-28.5	21.5	19.4-23.4	B	A	
Y 981774	H4	1.075	19.6	18.6-23.3	17.1	16.2-20.9	B	A	
Y 981781	H4	2.088	19.4	18.4-21.3	16.7	14.5-19.3	B	A/B	
Y 981783	H3	4.579	19.2	11.9-26.8	15.7	8.0-23.2	B	A	Breccia
Y 981785	H5	2.476	19.4	18.5-21.5	16.8	15.2-19.1	B	A/B	
Y 981787	H4	1.088	19.7	18.1-22.8	17.5	16.7-20.2	B	A	
Y 981788	H5	1.030	19.4	18.1-24.5	17.0	15.2-19.3	B	A	
Y 981793	H4	1.039	19.3	18.7-20.9	16.8	15.6-18.5	B	A/B	
Y 981804	H5	1.665	19.1	17.2-20.2	17.0	16.4-18.1	B	A	
Y 981805	H5	1.711	19.3	17.9-21.4	17.3	15.8-20.5	B	A	
Y 981806	H5	1.504	19.5	18.7-21.7	16.9	15.8-19.9	B	A	
Y 981807	L6	2.678	25.1	23.3-28.1	21.7	19.7-25.1	B	A	
Y 981811	H5	1.112	19.6	17.8-23.7	17.6	16.3-21.6	B	A	
Y 981812	H5	1.103	19.5	17.3-23.4	16.6	15.7-17.4	B	A	
Y 981813	H4	1.082	19.2	17.8-21.8	16.7	14.7-17.7	B	A	
Y 981846	H4	2.093	19.5	17.8-24.0	17.1	15.4-20.4	B	A	
Y 981847	H4	3.478	19.3	18.3-23.3	16.8	16.1-18.3	B	A	
Y 981848	H4	2.853	19.5	17.4-22.5	16.9	16.2-19.0	B	A	
Y 981850	H4	2.475	19.1	18.3-20.5	16.6	15.4-17.3	B	A	
Y 981852	H4	1.959	19.1	18.4-20.4	16.9	16.1-17.4	B	A	
Y 981854	H4	1.022	19.5	18.3-23.1	16.6	15.7-17.0	B	A	
Y 981865	H4	2.603	19.2	18.4-21.4	16.9	15.8-18.0	B	A	
Y 981868	H4	1.937	19.1	18.0-21.0	16.6	15.6-17.8	B	A	
Y 981869	H4	2.764	19.2	18.4-20.8	17.0	16.3-19.2	B	A/B	
Y 981871	H5	2.295	19.2	18.1-21.7	17.2	16.4-20.0	B	A	Shock vein
Y 981872	H5	2.161	19.1	17.7-20.2	17.0	16.2-21.6	B	A	
Y 981873	H4	2.100	19.2	17.8-20.7	17.1	16.5-20.2	B	A	
Y 981874	H4	2.211	19.2	18.3-20.7	17.0	15.9-18.1	B	A	
Y 981875	H4	1.160	19.2	18.4-20.2	17.0	16.1-19.2	B	A	
Y 981876	H4	1.925	19.4	18.2-21.6	17.0	16.5-18.0	B	A	
Y 981877	H4	1.345	19.4	18.3-20.8	16.9	15.3-18.6	C	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 981879	H4	1.080	19.4	17.9-21.6	16.7	15.0-18.5	B	A	
Y 981880	H4	1.102	19.2	17.2-23.1	16.8	15.9-18.0	B	A	
Y 981882	H5	1.123	19.0	18.5-20.3	17.1	16.1-19.2	B	A	
Y 981895	H5	4.630	18.7	17.6-20.1	16.9	16.0-18.8	B	A	
Y 981899	L6	2.651	25.0	23.7-28.4	21.5	20.7-23.5	B	A	
Y 981902	H5	1.007	19.2	17.8-20.1	17.2	16.4-19.8	B	A	
Y 981903	H4	2.217	18.5	17.7-20.0	16.4	15.4-18.1	B	A	
Y 981913	H6	1.830	19.0	17.5-21.7	16.9	16.0-19.0	B	A/B	
Y 981917	H6	2.108	19.1	17.8-21.3	17.0	16.2-18.1	B	A	
Y 981918	H6	5.811	19.1	18.1-21.7	17.3	16.1-19.5	B	A	
Y 981919	H6	6.775	19.0	18.0-20.2	17.2	15.8-19.7	B	A	
Y 981920	H6	2.150	19.3	18.3-20.9	17.3	15.5-19.9	B	A	
Y 981950	LL6	1.027	30.5	29.3-31.2	24.7	23.3-25.4	A	A	
Y 981959	H4	2.115	18.6	17.6-20.1	16.6	15.1-18.4	B	A	
Y 981961	H6	1.134	19.7	18.3-20.5	17.3	16.4-18.3	A	A	Breccia
Y 981962	H5	2.054	19.8	19.0-22.3	17.5	16.2-19.8	B	A	Shock vein
Y 981965	H5	4.614	19.1	18.4-20.1	17.0	15.7-18.7	B	A/B	
Y 981966	H4	2.824	19.4	16.7-21.8	17.0	15.2-20.1	B	A/B	
Y 981967	H5	1.380	19.8	17.7-22.0	17.4	16.3-20.0	B	A/B	
Y 981970	H4	1.116	19.2	17.9-20.8	17.1	16.0-18.3	A	A	
Y 981972	L4	1.559	25.5	24.4-26.8	21.6	20.0-23.8	B	A	
Y 981987	H5	1.742	19.7	17.2-22.7	17.3	16.6-18.6	B	A	
Y 981992	L3	1.371	25.3	14.6-29.3	14.8	3.8-32.4	B	A	
Y 982007	H5	1.552	19.7	18.5-21.5	17.5	15.9-20.1	B	A	
Y 982008	L6	2.107	25.8	24.2-29.2	21.6	19.2-23.9	B	A	
Y 982009	H4	2.619	19.1	16.7-22.6	16.9	9.4-33.0	B	A	
Y 982010	L4	2.043	24.7	22.8-27.7	21.3	20.3-23.0	B	A	
Y 982015	H4	1.491	19.4	18.4-21.5	17.3	15.5-20.2	B	A	
Y 982024	H4	2.339	19.6	18.8-20.8	17.3	16.1-19.5	B	A	
Y 982029	H4	1.186	19.5	18.2-22.2	17.5	16.3-20.7	B	A	
Y 982030	H4	1.029	19.5	18.0-21.5	17.4	16.3-19.0	B	A	
Y 982032	H4	2.360	19.6	18.8-21.3	17.4	15.6-19.1	B	A	
Y 982035	H5	2.824	19.8	17.4-23.0	17.7	16.1-19.5	B	A/B	
Y 982036	H6	1.460	19.8	18.7-21.8	17.6	16.6-20.3	B	A/B	
Y 982041	H3	1.846	16.9	15.8-18.0	14.8	11.1-21.4	C	A	
Y 982047	H4	2.932	19.8	18.2-22.4	17.3	15.4-19.6	B	A/B	
Y 982048	H4	1.500	19.5	18.2-21.2	17.1	16.2-18.2	B	A	
Y 982049	H4	2.676	19.7	18.4-21.9	17.5	16.6-20.4	B	A	
Y 982050	H5	2.438	19.7	18.5-23.1	17.2	16.4-18.1	B	B	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 982055	H5	2.354	19.9	19.0-22.4	17.4	16.2-18.5	B	A	
Y 982056	H4	1.763	19.7	18.4-21.5	17.6	15.6-21.6	B	A	
Y 982057	H4	2.384	19.8	19.1-21.0	17.3	15.9-20.1	B	A	
Y 982058	H5	1.641	19.8	18.9-21.6	17.4	16.2-19.9	B	A	
Y 982059	H5	1.492	19.5	18.7-22.6	17.0	16.4-18.8	B	A	
Y 982060	H5	1.423	19.7	18.4-21.7	17.2	16.0-18.1	B	A	
Y 982061	H5	1.580	19.9	18.5-22.8	17.4	16.2-20.5	B	A	
Y 982064	H4	1.007	19.5	18.6-23.2	17.2	15.7-20.2	B	A	
Y 982065	H4	1.035	19.6	18.2-21.2	17.4	16.6-19.3	B	A/B	
Y 982066	H4	1.090	19.9	19.3-20.7	17.4	15.9-20.9	B	A	
Y 982072	H5	1.790	19.5	18.4-20.4	17.2	16.0-20.1	B	A	
Y 982073	H5	1.322	19.5	18.4-22.3	17.0	15.7-18.2	B	A	
Y 982087	H3	2.366	18.0	8.1-21.9	16.2	2.8-28.0	B	A	
Y 982089	H5	1.189	19.4	17.9-22.0	17.3	16.7-18.3	B	A/B	
Y 982090	H5	1.576	19.9	18.9-22.4	17.3	16.4-19.8	B	A	
Y 982092	H4	1.243	19.7	18.5-22.6	17.1	15.8-18.4	B	A/B	
Y 982094	H4	2.441	19.5	18.7-21.4	17.3	16.3-20.2	B	A/B	
Y 982095	L5	2.329	25.9	24.0-30.8	21.8	20.6-25.3	B	A	
Y 982096	H5	1.307	19.5	17.1-22.2	17.5	16.1-22.3	B	A	
Y 982100	H4	2.633	19.5	18.5-22.5	17.6	16.3-20.7	B	A	
Y 982116	H5	2.835	19.9	18.5-22.8	17.3	15.1-19.4	B	A	
Y 982118	L6	1.446	25.7	24.4-26.9	21.7	20.0-23.7	A	A	
Y 982124	H4	2.088	19.5	18.4-23.1	17.0	15.1-18.1	B	A	
Y 982127	H4	2.276	19.5	17.6-22.6	17.3	16.1-18.5	B	A	
Y 982128	H4	2.172	19.3	18.4-20.3	17.1	15.6-20.5	B	A	
Y 982129	H4	2.825	19.4	18.0-20.7	17.1	15.8-21.4	B	A	
Y 982131	H5	1.393	19.8	18.5-21.3	17.4	16.0-20.3	B	A	
Y 982142	Win	2.119	3.2	2.8-3.6	3.8	3.3-7.0	B	A	
Y 982151	L6	2.048	25.6	24.8-26.3	22.0	20.2-24.1	B	A	
Y 982152	H6	1.325	20.0	18.5-23.4	17.5	16.4-19.3	B	A	
Y 982154	H4	2.912	17.8	16.8-18.5	16.0	15.1-16.7	C	A	
Y 982158	H5	2.770	18.9	17.7-20.5	16.9	15.4-18.2	B	A	
Y 982161	H4	2.880	19.3	16.2-23.6	16.9	14.0-19.0	B	A	
Y 982162	H6	1.606	20.3	19.4-21.5	17.7	16.5-18.7	B	A/B	
Y 982165	H6	1.530	20.5	19.7-23.5	17.8	17.0-18.7	B	A	
Y 982181	L6	2.329	25.5	23.5-30.3	21.7	19.8-22.5	B	A	
Y 982186	H4	2.334	18.5	17.3-19.6	16.1	15.2-17.5	C	A	
Y 982217	H5	2.554	19.5	18.8-21.7	17.0	16.3-17.7	B	A	
Y 982218	H5	2.059	19.4	18.7-20.0	17.2	16.3-18.5	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 982219	H5	2.376	19.3	18.9-20.6	17.3	16.1-18.7	B	A	
Y 982227	L6	2.235	25.2	24.3-26.1	21.1	19.9-22.4	B	A/B	
Y 982228	H6	2.055	18.8	17.8-20.4	16.7	16.2-18.1	B	A	
Y 982255	H3	2.289	19.2	18.4-20.1	15.2	9.1-20.1	B	A	
Y 982256	H6	2.181	19.5	18.3-20.0	17.5	16.4-20.6	B	A	
Y 982259	H5	2.480	19.5	18.6-21.9	17.0	15.7-18.5	B	A	
Y 982260	H4	2.908	19.6	18.4-23.9	17.1	15.0-19.0	B	A	
Y 982261	H4	2.412	19.4	17.3-22.1	17.2	16.0-19.5	B	A	
Y 982264	H4	2.393	19.0	17.7-21.5	16.9	15.5-18.4	B	A	
Y 982265	H4	2.154	19.6	18.5-21.4	17.1	16.3-20.0	B	A/B	
Y 982266	H4	2.572	19.2	17.8-19.9	17.3	16.1-19.5	B	A	
Y 982269	H4	2.825	19.4	18.4-21.7	17.1	16.2-18.3	B	A	
Y 982270	H4	1.803	19.2	18.1-21.0	17.2	16.2-19.1	B	A	
Y 982274	H3	1.753	16.8	14.7-17.5	15.9	10.5-20.4	B	A	
Y 982275	H6	2.347	19.5	18.8-20.9	17.3	16.2-18.4	B	A	
Y 982277	H5	2.221	19.3	17.7-20.4	16.9	15.9-17.9	B	A	
Y 982284	H6	2.731	19.3	17.6-21.4	18.1	16.1-21.2	B	A	Breccia
Y 982297	L6	1.573	25.5	23.5-27.3	22.2	20.8-24.8	B	A	
Y 982298	L6	1.120	25.8	24.5-27.3	21.5	20.6-22.6	B	A	
Y 982301	H5	3.595	16.2	15.2-18.8	14.7	12.8-16.6	B	A/B	
Y 982313	H6	2.295	18.8	17.7-20.6	17.2	15.8-20.2	B	A	
Y 982314	H4	1.990	18.6	17.2-20.6	16.6	16.0-17.1	B	A/B	
Y 982316	H5	1.255	19.5	17.9-21.5	17.2	15.8-19.9	B	A	
Y 982322	H5	1.493	17.5	16.5-18.6	15.3	13.2-16.7	B	A	
Y 982326	H5	1.786	17.5	16.4-18.7	15.2	14.0-16.9	B	A	
Y 982327	H5	2.338	17.5	16.2-19.1	15.3	14.0-17.3	B	A	
Y 982328	H5	1.997	17.2	15.8-18.5	15.2	14.5-16.2	B	A/B	
Y 982330	H5	1.724	17.6	16.2-18.3	15.5	13.9-17.1	B	A	
Y 982331	H4	1.522	17.5	15.9-18.6	15.6	13.5-18.3	B	A	
Y 982332	H5	1.070	19.6	17.3-21.6	17.4	15.5-19.8	B	A	
Y 982339	H5	1.243	17.5	16.0-18.5	15.3	14.5-16.2	B	A/B	
Y 982340	H4	2.202	17.4	16.2-18.5	15.5	13.6-17.6	B	A	
Y 982341	H4	2.781	17.7	16.7-18.3	15.8	14.0-16.4	B	A/B	
Y 982346	H6	1.090	19.2	18.0-20.8	17.2	15.2-19.9	B	A	Shock vein
Y 982347	H6	1.342	19.3	17.9-22.6	17.4	15.9-20.1	B	A/B	
Y 982362	L6	2.870	25.3	24.1-26.8	21.7	20.8-23.6	B	A/B	Shock vein
Y 982370	H6	2.820	20.5	19.1-21.9	17.8	16.3-18.9	B	A/B	
Y 982391	H6	15.02	19.4	18.4-20.1	16.9	15.3-18.1	B	A/B	
Y 982404	H6	2.005	19.0	18.2-20.7	17.2	16.0-20.0	B	A	

Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 982412	H5	4.656	19.1	17.7-21.0	17.1	15.9-18.9	B	A	
Y 982420	H6	2.013	19.4	18.6-20.3	17.2	16.6-18.5	B	A	
Y 982431	H6	1.783	19.8	18.5-23.1	17.3	16.2-19.2	B	A	
Y 982440	H6	2.263	18.7	18.0-20.5	16.3	13.5-18.5	B	A	
Y 982476	L6	1.319	25.1	24.1-26.7	21.0	18.8-22.8	B	A	
Y 982481	H5	1.071	19.5	18.5-21.9	17.5	16.6-21.3	B	A	
Y 982517	L5	1.361	25.6	24.9-27.7	21.2	20.4-22.2	B	A	
Y 982521	L6	1.122	25.6	24.7-26.4	21.7	19.1-24.2	A	A	
Y 982525	L6	6.234	26.5	24.8-31.3	22.2	21.3-23.4	B	A	
Y 982528	L6	1.242	25.8	25.1-26.9	21.9	19.4-24.5	B	A	
Y 982529	LL6	3.465	28.5	27.2-33.0	23.5	22.5-24.7	B	A/B	
Y 982531	H4	1.145	18.3	10.3-19.4	16.4	15.2-19.1	B	A	
Y 982532	L5	3.219	25.9	23.9-30.1	21.5	20.0-23.6	B	A	
Y 982534	LL6	1.513	28.2	27.3-30.8	23.9	22.1-26.8	B	A	
Y 982535	H5	1.010	19.3	18.0-21.0	17.3	16.5-19.9	B	A	
Y 982558	LL6	1.623	28.3	26.9-30.1	23.6	22.6-24.5	B	A	
Y 982566	H6	2.503	20.0	19.0-22.6	17.4	16.6-19.3	B	A	
Y 982569	LL6	1.204	28.6	27.4-30.7	23.7	22.3-25.7	B	A	
Y 982570	LL6	1.128	28.5	27.2-30.1	23.7	22.2-27.2	B	A	
Y 982579	L6	1.083	25.7	24.1-27.2	22.2	21.1-25.2	A	A	
Y 982580	L5	1.358	25.7	24.9-28.2	21.7	20.3-24.6	B	A/B	
Y 982581	L5	1.190	25.6	24.7-27.4	21.8	20.2-25.2	B	A	
Y 982583	L5	1.567	25.6	23.9-30.4	21.7	20.4-22.9	B	A/B	
Y 982605	L6	1.572	25.6	24.0-28.1	21.5	20.4-22.8	B	A	
Y 982606	H6	1.956	20.1	18.9-21.1	18.0	16.9-20.7	B	A	
Y 982610	H6	3.455	19.6	18.3-20.8	17.9	16.9-20.6	C	A/B	
Y 982616	H6	1.538	17.7	16.9-18.3	16.0	15.3-17.3	C	A	
Y 982631	LL6	8.053	28.2	27.0-30.4	23.3	22.0-25.8	B	A	
Y 982632	LL6	5.179	28.1	25.6-29.9	23.2	21.7-24.6	B	A/B	
Y 982633	LL6	6.154	28.8	26.4-31.1	23.6	22.7-24.5	B	A	
Y 982734	H6	3205.0	19.4	18.5-20.2	17.2	16.1-18.2	C	A	
Y 982736	H6	3639.0	19.5	18.5-20.3	16.9	15.2-18.5	B	A	
Y 983100	L6	2150.0	26.0	24.8-26.7	22.0	21.2-23.1	A	A	
Y 983134	H6	270.5	19.7	18.9-20.3	17.3	16.6-18.1	C	B	
Y 983135	H6	244.3	19.9	18.9-21.2	17.2	15.4-18.4	C	B	
Y 983136	H6	113.5	19.5	18.5-20.9	17.1	15.7-17.8	C	A/B	
Y 983260	CO	10.63	11.8	0.4-40.2	9.6	0.9-41.4	A	A/B	
Y 983264	H6	904.7	19.6	18.5-22.3	17.2	14.0-21.6	B	A/B	
Y 983424	L6	17.60	25.6	23.8-27.1	22.2	20.8-24.2	A	A	



Table 1. Continued.

Meteorite	Classification	Wt. (g)	Fa	Range	Fs	Range	W	F	Comments
Y 983477	L6	19.67	25.2	22.6-30.3	21.1	20.2-22.1	B	A/B	
Y 983496	L6	10.49	25.0	23.5-27.1	21.5	20.7-23.0	A	A/B	
Y 983547	H6	9.830	19.6	18.4-22.9	17.1	16.1-19.3	B	A	
Y 983978	H5	250.2	19.5	18.1-22.2	17.3	16.6-19.2	B	A	

## Notes for Table 1

### F: fracturing index

A: No or a few narrow cracks are visible.

B: Several cracks extend across exterior surface.

C: Severe cracks

### W: 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.

C: Most metal particles are weathered to limonite.

Table 2. Classification and chemical compositions of iron meteorites.

Meteorite	Wt.	Classification		Analytical	Fe	Co	Ni	Ga	Ge	Ir	Au
	g	Chem.	Str.	technique	wt.%	wt.%	wt.%	ppm	ppm	ppm	ppm
Y 000311	842.6	IIIAB	Og	INAA	92.9	0.48	8.02	19.3	43.0	7.44	0.560
				LA-ICPMS	92.0	0.49	7.49	18.0	35.3	7.73	0.675
Y 000479	517.4	IAB-ung	Opl	INAA	86.1	0.57	14.5	31.8	177	0.280	1.88
				LA-ICPMS	85.5	0.60	13.9	29.3	209	0.327	2.20
Y 000537	24.16	IAB-ung	Opl	INAA	87.5	0.59	13.8	31.4	108	0.110	1.86
				LA-ICPMS	86.3	0.59	13.1	29.5	137	0.112	2.13
Y 000547	106.8	IAB-ung	Opl	INAA	84.0	0.55	13.7	30.5	167	0.400	1.87
				LA-ICPMS	85.9	0.61	13.5	29.2	186	0.393	1.88
Y 000587	313.8	IAB-ung	Opl	LA-ICPMS	85.9	0.59	13.5	29.3	259	0.320	2.31
Y 000703	224.3	IIIAB	Og	INAA	92.0	0.48	7.75	19.5	23.0	7.60	0.580
				LA-ICPMS	92.2	0.47	7.30	16.6	33.4	7.16	0.562
Y 000846	4202	IAB-ung	Opl	INAA	85.1	0.56	13.7	31.0	144	0.300	1.92
				LA-ICPMS	85.5	0.60	13.8	32.0	232	0.347	2.08
A 09179	95.8	IID	Of	LA-ICPMS	90.0	0.65	9.37	80.1	88.6	19.3	0.640
A 12016	276.1	IIIAB	Of	LA-ICPMS	92.2	0.49	7.35	19.3	38.9	2.27	0.675