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Abstract—*The Meteoritical Bulletin* No. 96 contains a total of 1590 newly approved meteorite names with their relevant data. These include 12 from specific locations within Africa, 76 from northwest Africa, 9 from the Americas, 13 from Asia, 1 from Australia, 2 from Europe, 950 from Antarctica recovered by the Chinese Antarctic Research Expedition (CHINARE), and 527 from the American Antarctic program (ANSMET). Among these meteorites are 4 falls, Almahata Sitta (Sudan), Sulagiri (India), Ash Creek (United States), and Maribo (Denmark). Almahata Sitta is an anomalous ureilite and is debris from asteroid 2008 TC3 and Maribo is a CM2 chondrite. Other highlights include a lunar meteorite, a CM1 chondrite, and an anomalous IVA iron.

INTRODUCTION

This issue of *The Meteoritical Bulletin* reports 1590 newly approved meteorite names. Meteorites and their relevant data are reported in tables according to location (Tables 1–9). Included in the tables are 12 meteorites from Africa (Table 1), 76 from northwest Africa (Table 2), 6 from North America (Table 3), 3 from South America (Table 4), 527 from locations in Antarctica (Table 5) collected by the US Antarctic Search for Meteorites (ANSMET) program, 950 from Grove Mountains in Antarctica (Table 6) collected by Chinese Antarctic Research Expedition (CHINARE), 13 from Asia (Table 7), 1 from Australia (Table 8) and 2 from Europe (Table 9).

Featured in full written descriptions are 4 falls, Almahata Sitta (Sudan), Sulagiri (India), Ash Creek (United States), and Maribo (Denmark). Also featured is a new CM1, a lunar meteorite and a polymict eucrite. In the tables are eucrites, howardites, diogenites, ureilites, lodranites, an aubrite, as well as CMs, CKs, CVs, an R4 and ordinary chondrites.

FALLS

AFRICA

Almahata Sitta **20°43.04'N, 32°30.58'E**
("Station 6" in Arabic), Nahr an Nil, Nubian Desert,
Sudan
Fall: 7 October 2008, 05:46 h local time (UT+3)
Achondrite (ureilite, polymict, anomalous)

History: On October 6, 2008, a small asteroid called 2008 TC3 was discovered by the automated Catalina Sky Survey 1.5 m telescope at Mount Lemmon, Tucson, Arizona, and found to be on a collision course with Earth. Numerous astronomical observatories followed the object until it entered the Earth's umbra at Oct. 7.076 UTC the next day. The astrometric position of 295 observations of 2008 TC3 over the period Oct. 6.278 to Oct. 7.063 was used to calculate the approach trajectory over the impact location in northern Sudan. The object exploded at a high ~37 km altitude over the Nubian Desert, and as a result the meteorites are spread over

a large area. A search was organized by the University of Khartoum on Dec. 2–9, led by P. Jenniskens (SETI Institute) and M. H. Shaddad (*Khartoum*).

Physical characteristics: During the first expedition, 15 meteorites were found along the approach path of the asteroid, for a total weight of 563 g. A second field expedition, on Dec. 25–30, added 37 meteorites, for a total recovered weight of 3.95 kg, spread over an area of 28 × 5 km. The meteorites are dark, thinly crusted, and roundish in shape, ranging in size from 1–10 cm.

Petrography (M. Zolensky, *JSC*, and A. Steele, *CIW*): The sample is a fine-grained, fragmental breccia with subrounded mineral fragments and olivine aggregates embedded in a cataclastic matrix of ureilitic material. Mineral fragments include polycrystalline olivine, low-Ca pyroxene, pigeonite and carbon-rich aggregates up to 0.5 mm in maximum dimension, kamacite, and troilite. The examined samples have considerable porosity; the pore walls are commonly coated by anhedral to euhedral crystals of low-Ca pyroxene (Fs_2Wo_3) and olivine (Fa_{12-14}), and in some instances spherules of kamacite and botryoidal masses of troilite. Most olivine and pyroxene aggregates have interstitial silicates with Si-content that increases adjacent to metal grains. Some clasts consist of rounded pyroxene grains containing an abundant nanophase Fe-rich mineral. Aggregates of carbonaceous material are common and measure up to 0.5 mm—these contain fine-grained troilite and kamacite, the latter containing Si and P. The major carbon phase is graphite. Shock effects are not apparent.

Mineral compositions and geochemistry: Low-Ca pyroxene: $\text{Fs}_2\text{Wo}_5\text{-Fs}_{17}\text{Wo}_4$, $\text{Cr}_2\text{O}_3 = 0.33\text{--}1.02$ wt%; pigeonite: $\text{Fs}_{15}\text{Wo}_5\text{-Fs}_{18}\text{Wo}_{11}$, $\text{Cr}_2\text{O}_3 = 0.72\text{--}1.11$ wt%), olivine (Fa_{8-15} , $\text{CaO} = 0.15\text{--}0.51$ wt%, $\text{Cr}_2\text{O}_3 = 0.03\text{--}1.58$ wt%). Kamacite is $\text{Fe}_{0.92}\text{Ni}_{0.08}\text{-Fe}_{0.96}\text{Ni}_{0.04}$. Troilite contains up to 4.3 wt% Cr. Mineral grains exhibit no zoning.

Classification: Achondrite (ureilite, polymict, anomalous). Anomalous features include lack of zoning of olivine, large size of carbonaceous aggregates, and overall fine-grained texture.

Type specimens: Samples with masses ranging from a few to a few hundred grams for a total of 3.95 kg are on deposit at *Khartoum*.

ASIA

Sulagiri 12°41'N, 77°56'E

Sulagiri, Krishnagiri District, Tamil Nadu, India

Fall: 12 September 12, 2008; 08:30 h (Indian Standard Time) (UT+5.5)

Ordinary chondrite (LL6)

History: On September 12, 2008, around 08.30 h, a meteorite fell from the NW sky and was observed by several people of

villages closely located around the town of Sulagiri. A screeching noise was heard coming from the north and a bang was heard subsequently by some eye witnesses. The meteorite fragmented at least once in transit, which led to multiple falls around a cluster of villages, defining an elliptical strewn field measuring 3 km along the NW-SE direction and 1 km across. The sizes of the meteorites increase from W to E.

Physical characteristics: Seven pieces were retrieved and field data were collected (V. Krishnan and K. Nagarajan, *GSI*). Three pieces from Adda Gurikki village (12°41'00"N, 77°57'10"E), weighing a total of 50 kg (13 kg, 11 kg, and 26 kg), two pieces from Rautapalli village (12°41.53'N, 77°56.67'E), weighing 45 kg (29 kg and 16 kg) and one piece each from Gangapuram (12°41.32'N, 77°55.53'E) and Addagurikki Kottur (12°41.46'N, 77°56.88'E), 6 kg each, were recovered. The total mass of the fall is more than 110 kg, the largest reported fall in the Indian subcontinent. The meteorite samples are fresh, light gray colored on broken surfaces and covered by thin, light brownish to dark colored fusion crust on partly broken to complete faces.

Petrography (Basab Chattopadhyay, *GSI*): Sulagiri is composed dominantly of olivine and pyroxene. Ca-pyroxene is rare and mostly occurs within low-Ca pyroxene. Troilite is more abundant than Fe-Ni metal. Feldspar grains are common. Chondrules are rare, range from about 200 to 500 μm in diameter and are mostly poorly defined and integrated with the recrystallized matrix.

Mineral compositions and geochemistry (Basab Chattopadhyay, *GSI*): Average low-Ca pyroxene is $\text{Fs}_{21.9}$ ($N = 86$) and olivine is $\text{Fa}_{25.4}$ ($N = 54$). Feldspar averages $\text{Ab}_{83.5}\text{An}_{10.6}\text{Or}_{5.9}$. Percent mean deviations (PMD) of Fs in low-Ca pyroxene and Fa in olivine are 2.9 and 2.2, respectively. Shock stage is S2. Bulk chemical composition by XRF and ICP-MS (P. N. Shukla, K. Durga Prasad and S. V. S. Murty, *PRL*) gives Fe = 18.3%, Ni = 1.03% and Co = 480 ppm.

Classification: Ordinary chondrite (LL6).

Type specimens: Total mass of 110 kg and three thin sections are with *GSI*.

NORTH AMERICA

Ash Creek 31°48.3'N, 97°00.6'W

McLennan County, Texas, United States

Fall: 15 February 2009; 11:00 AM CST (UT-6)

Ordinary chondrite (L6)

History: On Sunday February 15, 2009 (11:00 A.M. CST), News 8 cameraman Eddie Garcia recorded a fireball 180 km south of downtown Austin, Texas. From SE of Austin to Ft. Worth, many people observed the bolide. Using National Weather Service Doppler reflectivity radar

measurements (NWS Ft. Worth and Granger stations) the bolide location was recorded at 11:03 A.M. D. Dawn led a team, which interviewed witnesses in the strewn field within 48 hours following the fall. In southern Hill County, straddling the northern corner of McLennan County, sonic booms were widely heard for a duration of 20–30 s in the area from Hubbard to Aquilla. The fireball was bright and the meteoroid fragmented overhead near Birome, where the sonic booms were reported loudest. In Aquilla, the rumblings were likened to “a jet taking off,” and the event was described at 30–40 degrees altitude in the eastern sky, with some horizontal movement. Strong sonic booms were widely reported from Hubbard and Penelope. J. Trussell heard a rumbling, which initially vibrated a window at about 11:00 A.M. CST. He looked north along Ash Creek and saw two segments of a smoke trail separated by a thick cloud. Shortly afterwards, a blackened stone rolled near his foot and a second impacted a shed behind him. Meteorites were found on February 17 by D. Sadilenko and D. Dawn on the banks Ash Creek, northern corner of McLennan County.

Physical Characteristics: Three large masses were found: a 1.7 kg specimen recovered by L.B. Etter on a farm in Menlow; a 1.673 kg stone purchased by meteorite dealer S. Arnold; and a 1.5 kg specimen purchased by M. Farmer from an anonymous landowner who suggested it was found in the vicinity of Aquilla. All other masses reported were less than 300 g each. According to reports, over 300 stones were found in McLennan and Hill Counties with an estimated total of over 11.7 kg. Approximately 75% of the finds were completely covered with thick black fusion crust, often with dark rust colored spots, even on specimens recovered within two days of the fall. Drizzle and heavy dew wet specimens in the strewn field for the first two nights following the fall, and heavy rain on March 13 soaked the area, oxidizing many specimens. Broken and cut surfaces reveal a dark/light gray breccia.

Petrography (A. Rubin, *UCLA*): Many plagioclase grains exceed 50 μm in size. Some metal grains contain irregular troilite inclusions. Metallic Cu is present in some metal. Metal- and sulfide-bearing shock veins are present and the meteorite exhibits silicate darkening.

Mineral Compositions (A. Rubin, *UCLA*): Olivine ($\text{Fa}_{24.2 \pm 0.2}$; $n = 12$), low-Ca pyroxene ($\text{Fs}_{20.5 \pm 0.7}$, $\text{Wo}_{1.6 \pm 0.2}$; $n = 12$). Taenite is more abundant than kamacite; average compositions: kamacite ($\text{Fe} = 93.1\%$, $\text{Ni} = 5.8\%$, $\text{Co} = 0.83\%$; $n = 4$) and taenite ($\text{Fe} = 69.6\%$, $\text{Ni} = 30.3\%$, $\text{Co} = 0.30\%$; $n = 9$).

Classification: Ordinary chondrite (L6) breccia; S3, W0.

Type Specimen: 30.91 g is at UCLA including a crusted 17.8 g piece, a 10.02 g end cut and a 3.09 g slice. M. Farmer holds 1.5 kg, D. Stimpson purchased Etter's 1.7 kg mass; and the 1.673 kg mass was sliced and sold.

EUROPE

Maribo

54°45'43"N, 11°28'3"E

Sjaelland, Denmark

Fell 17 January 2009, 20:09 local time (UT+1)

Carbonaceous chondrite (CM2)

History: A bright fireball was seen over the Baltic Sea at 20:09 (CET), January 17, 2009. The fireball was caught on a surveillance video camera in southern Sweden and on an all sky camera in the Netherlands. Three bright explosions are seen on the video and a glowing plasma trail that persisted about 3 s. Explosions were heard up to five minutes after the fireball in southern Zealand, on the eastern part of the island Lolland, and at the German Baltic Sea. 550 eyewitness reports were received by the Danish fireball network. The supersonic boom was registered by two infrasound stations and a few seismometers in Germany and Denmark. The bolide's light curve was recorded by a few radiometers of the European Fireball Network.

On March 4, the Thomas Grau (ERFM) found the first and so far only meteorite from the fall. The meteorite had penetrated a few cm into a grass surface.

Physical characteristics: One fragment was recovered. The meteorite appeared intact when found, but fell into many pieces when it was touched, probably due to the action of freezing and thawing during the six weeks that passed before it was found. The total mass was 25.8 g.

Petrography (A. Bischoff, *IJP*; H. Haack, *NHMD*): Various coarse-grained components are embedded within an opaque fine-grained matrix. These components include chondrules, fine-grained olivine aggregates, large isolated lithic and mineral fragments (often olivine), rare CAIs, and porous aggregates. The components are typically rimmed by fine-grained dust mantles. The abundance of chondrules is low. Chondrule diameters are generally less than 0.4 mm with a few up to 0.9 mm. Some chondrules are partially altered to tochilinite and cronstedtite. Metals occur (as a minor constituent) in chondrules and matrix. The porous aggregates are irregular in shape and measure a couple of hundred microns across. They contain zoned grains of olivine and pyroxene, tochilinite, cronstedtite, pyrrhotite and pentlandite. The matrix includes abundant dust rimmed fragments of tochilinite with a layered structure.

Mineral compositions and geochemistry: Most olivines in the coarse-grained components are Fo-rich, but some Fe-rich olivines have been found (Fa up to 85 mol%).

Oxygen isotopes: (I. Franchi and R. Greenwood, *OU*), (mean of two replicates: $\delta^{17}\text{O} = -1.27\%$; $\delta^{18}\text{O} = 4.96\%$; $\Delta^{17}\text{O} = -3.85\%$)

Classification: Carbonaceous chondrite (CM2), shock stage S0.

Type specimens: As required by Danish law T. Grau turned in the meteorite to *NHMD*. A total of 24 g and three thin



Fig. 1. Fragment of Maribo showing fusion crust and exposed interior. Field of view is 16 mm.

sections are now on deposit at the *NHMD*. One thin section is on deposit at *UM*.

FINDS

NORTHWEST AFRICA

Northwest Africa 5744

Mali

Find: February 2009

Achondrite (lunar, granulitic troctolitic breccia)

History: Found near Gawa, Mali, in February 2009 and purchased from a dealer by Adam Aaronson.

Physical characteristics: A single, buff-colored, rounded stone (170 g) lacking fusion crust (Fig. 2). Small white clasts are visible in a pale, finer grained matrix.

Petrography (A. Irving and S. Kuehner, *UWS*; T. Bunch, *NAU*): Recrystallized breccia composed mainly of plagioclase (up to 100 μm) with fine-grained (<50 μm) olivine, pigeonite, orthopyroxene, and accessory Ti-chromite and Ni-bearing troilite.

Geochemistry: Plagioclase ($\text{An}_{97.9}\text{Or}_{0.1}$), olivine ($\text{Fa}_{20.7}$, $\text{FeO/MnO} = 76.9\text{--}94.5$), pigeonite ($\text{Fs}_{16.6}\text{Wo}_{9.7}$, $\text{FeO/MnO} = 50$). Bulk composition (R. Korotev, *WUSL*): INAA on a 185 mg fragment gave FeO 5.7 wt%, Na_2O 0.25 wt%; Sc 8.3, Cr 1050, La 1.1, Sm 0.47, Eu 0.58, Yb 0.42, Th 0.15, all in ppm.

Classification: Achondrite (lunar, granulitic troctolitic breccia).

Specimens: A total of 13.1 g and two polished thin sections are on deposit at *UWS*; a 7.1 g of sample is at *NAU*. The main mass is held by an anonymous collector.

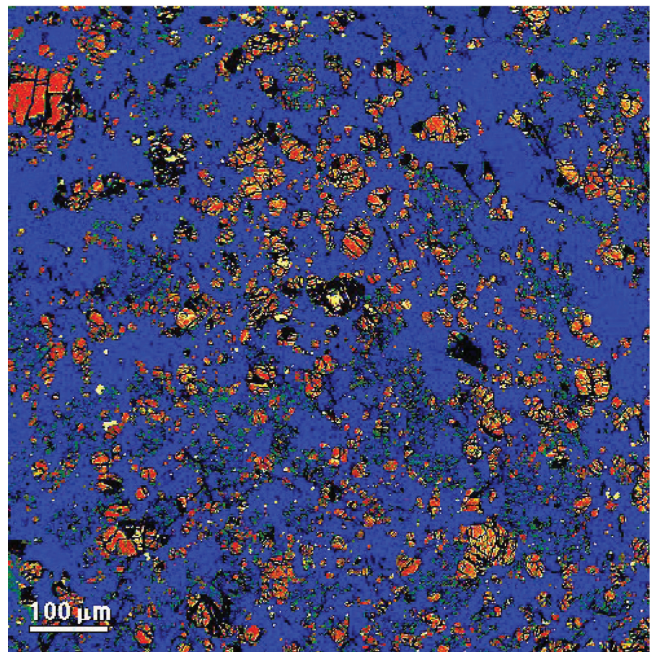


Fig. 2. (Upper) Image of NWA 5744 showing its exterior surface and (lower) a false-colored BSE image showing plagioclase (blue), olivine (red/yellow), pyroxene (green) and chromite and troilite (white specks).

NORTH AMERICA

Moapa Valley

36°33'26"N, 114°25'37"W

Clark County, Nevada, United States

Find: September 2004

Carbonaceous chondrite (CM1)

History: The specimen was found by Sonny Clary in September, 2004, in the Moapa Valley, southeast of Logandale, Nevada.

Physical characteristics: A single dark gray, flattened stone (698.8 g), exhibiting subparallel contraction cracks and partially coated with black, vesicular fusion crust.

Petrography (A. Irving and S. Kuehner, *UWS*): Rounded to ellipsoidal objects (0.05 to 0.7 mm across), exhibiting a preferred orientation of their long axes, are set in a fine-grained, dark matrix containing small clusters of sulfide grains. The larger objects are composed mainly of serpentine minerals and S-bearing phase(s) (probably tochilinite), and in thin section range in color from pale yellow-brown to reddish brown to sepia brown; some such objects have serpentine-rich rims and/or larger, subhedral, dark brown grains composed of serpentine/cronstedtite. Sulfides consist of finely intergrown pyrrhotite and pentlandite. Rare magnetite and calcite are present in the matrix, and the specimen is traversed by narrow open fractures and thin veinlets filled with chalcedony.

Geochemistry: Broad-beam EMP analysis of different components gave the following compositions (in wt%): ellipsoidal objects SiO₂ 31.7–38.4, TiO₂ 0.07–0.25, Al₂O₃ 1.8–7.2, Cr₂O₃ 0.19–0.73, FeO 15.9–26.3, MnO 0.07–0.18, MgO 22.7–28.8, CaO 0.06–0.25, Na₂O 0.04–0.29, SO₃ 0.03–0.87, sum 85.7–87.4; matrix SiO₂ 27.1–28.4, TiO₂ 0.11–0.16, Al₂O₃ 2.7, Cr₂O₃ 0.48–0.57, FeO 34.1–39.7, MnO 0.20–0.25, MgO 14.7–16.5, CaO 0.36–2.9, Na₂O 0.21–0.42, SO₃ 3.9–8.5, sum 89.9–94.1. Oxygen isotopes (D. Rumble, *CIW*): analyses of two acid-washed whole rock fragments by laser fluorination gave, respectively, $\delta^{18}\text{O} = 6.29, 6.08\text{‰}$; $\delta^{17}\text{O} = 0.93, 0.68\text{‰}$; $\Delta^{17}\text{O} = -2.382, -2.519\text{‰}$.

Classification: Carbonaceous chondrite (CM1). The degree of terrestrial weathering is low.

Specimens: A total of 21 g, one polished thin section and one polished mount are on deposit at *UWS*. Mr. S. Clary holds the main mass.

ANTARCTICA

Table 5 reports 527 meteorites recovered by the American “Antarctic Search for Meteorites” (ANSMET). Type specimens are at *JSC*. 950 meteorites collected by the China Antarctic Research Expedition (CHINARE) to Grove Mountains, Antarctica, in 2002–2006 and submitted through the Polar Research Institute of China (*PRIC*) are reported in Table 5. Type specimens and main mass are on deposit at *PRIC*.

ASIA

Oman

Dhofar 1480

Zufar, Oman

Find: 2003

Achondrite (polymict eucrite)

History: Found in the desert by anonymous collector.

Physical characteristics: Irregularly shaped stone with total weight of 57.7 g and dark green color. No fusion crust. Brecciated texture is clearly visible on the surface of the meteorite.

Petrography (C. A. Lorenz, *Vernad*): The meteorite is a polymict breccia, consisting of rock fragments and mineral clasts, embedded in a fine-grained clastic matrix. Locally, the clasts are joined together by devitrified melt. Melt pockets and melt veins occur in the breccia. Rock fragments are fine- and medium-grained, minor coarse-grained (up to 0.5 mm) pyroxene-plagioclase rocks of porphyritic, granular gabbroic, minor poikilitic and granulitic texture. Pyroxenes are usually exsolved. Pyroxenes show mosaicism; augite lamellae are disturbed by shock. Plagioclase is partially isotropic. Minor minerals are olivine, ilmenite, spinel, tridymite, quartz, a phosphate mineral, troilite, metal Fe-Ni metal.

Mineral compositions and geochemistry: (N. N. Kononkova, *Vernad*), EMP, lithic and mineral clasts: low-Ca pyroxene En_{32.6}Wo_{1.6}-En_{39.6}Wo_{4.5} (average En_{35.6}Wo_{2.7}; Fe/Mn = 32) with lamellae En_{29.7}Wo_{42.0}; feldspar An_{86.0}Ab_{13.5}-An_{91.9}Ab_{7.7}; matrix: pyroxene En_{30.4}Wo_{1.9}-En_{41.6}Wo_{4.5} with lamellae En_{30.8}Wo_{42.3}, feldspar An_{85.8}Ab_{13.6}-An_{90.6}Ab_{8.7}. Bulk composition (I. A. Roshina, *Vernad*) semi quantitative-XRF (wt%): SiO₂ = 45, TiO₂ = 0.6, Al₂O₃ = 16.4, Na₂O = 0.6, CaO = 10, MgO = 5; MnO = 0.6; FeO = 18, Cr₂O₃ = 0.3. Oxygen isotopes composition (I. Franchi, *OU*): $\delta^{17}\text{O} = 1.848\text{‰}$; $\delta^{18}\text{O} = 3.963\text{‰}$.

Classification: Achondrite (polymict eucrite). Minor weathering.

Type specimens: A total mass of 18.7 g and one thin section are on deposit at *Vernad*. An anonymous collector holds the main mass.

ERRATA

The Meteoritical Bulletin 87:

NWA 1560 olivine composition is Fa_{32.3}.

OTHER CORRECTIONS AND UPDATES

Weston

Coordinates that best express the Weston fall are 41°16'N, 73°16'E N (see new publication by Robson and Pagliaro 2009). The Weston meteor was observed for approximately ten seconds at 06:00 Eastern Standard Time (11:00 UTC) on 1807 December 14 over New York state and New England. The meteor's atmospheric trajectory was on a course of 155 degrees azimuth (NW to SE) at a slope to the horizon of 30 degrees. The meteor became visible at an altitude of approximately 84 km and its terminal point was at an altitude of approximately 16 km. A significant fragmentation of the meteoroid occurred in the vicinity of New Milford, Connecticut at an altitude of 30 km. Upper air winds distributed the seven fragments recovered into a classical elliptical pattern (centered on the above given coordinates); the major axis being 12 km and orientated north to south.

The total mass is ~20 kg. The main mass landed on a rock outcropping in a pasture in Easton, Fairfield County, Connecticut, within 100 m of 41°12'50" N and 73°15'43" W.

ABBREVIATIONS

Classifiers, Type Specimen Locations, Finders and Holders of Main Masses

A key to abbreviations for addresses used in the Meteoritical Bulletin is found at our web site, <http://tin.er.usgs.gov/meteor/MetBullAddresses.php>.

Below is a key to new abbreviations used within this edition:
ERFM—European Research Center for Fireballs and Meteorites, Berlin, Germany.
Khartoum—University of Khartoum, Khartoum, Sudan.
NHMD—Natural History Museum of Denmark, University of Copenhagen, Denmark.

ADDITIONAL ABBREVIATIONS USED WITHIN THE TEXT

EMP—electron microprobe.
 ICP-MS—Inductively coupled plasma mass spectroscopy.
 XRF—X-ray fluorescence.

REFERENCE

Robson M. and Pagliaro F. 2009. Weston: Revised position for a historically significant meteorite fall. *Meteoritics & Planetary Science* 44. This issue.

Acknowledgments—The Editor wishes to thank members the Nomenclature Committee and all the submitters and classifiers who have contributed data and descriptions to The Bulletin. The Editor is also very grateful for support from the *MAPS* office, especially from Managing Editor A. Baier.

Table 1. Meteorites from Africa.

Name	Abbreviation	Location of recovery	Date of recovery	Find /Fall	Latitude	Longitude	Total known mass (g)	Number of pieces	Class	Shock stage	Weathering grade	Fa mol%	Fs mol%	Wo mol%	Magnetic sus logX (10 ⁻⁹ m ³ /kg)	Info about the classifier(s) ¹	Type specimen location	Info about the main mass ²	Comments
Almahata Sitta		Sudan, Nahr an Nil, Nubian Desert	05-Dec-2008	Fall	20°43.04'N	30°30.58'E	3950	47	Ureilite, polymict, anomalous	S0	W0	8-15	2	4	M. Zolensky, JSC and A. Steele, <i>CJW</i>	Khartoum	Khartoum	Debris from asteroid 2008 TC ₃ . See written description	
Bir Tazit		Marzraq, Libya	8-Nov-98	Find	25°34.27'N	12°22.27'E	46	2	CK6	S2	W4	32.6			J. Schlueter, <i>Hamb</i>	Hamb	Koblitz		
Bir Zar 001		Es-Soud, Tunisia	05-Apr-2008	Find	31°28'51.6"N	9°50'26.5"N	627	1	H6	S1	W2	17.4	15.6	1.4	4.9	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 002		Makhrouga, Tunisia	06-Apr-2008	Find	31°56'18.0"N	10°17'02.5"N	331	1	L4/5	S5	W1	22.6	19.9	1.5	4.79	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 003		Es-Soud, Tunisia	10-Apr-2008	Find	31°29'59.0"N	9°52'38.0"N	39	3	H3	S2	W3	20	12.7	1.2	4.08	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 004		Makhrouga, Tunisia	11-Apr-2008	Find	31°52'17.9"N	10°11'37.0"N	19	2	H6	S2	W3	17.7	15.8	1.6	4.39	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 005		Makhrouga, Tunisia	11-Apr-2008	Find	31°53'48.8"N	10°11'44.6"N	17	1	H4	S2	W2	16.8	15.8	1.2	4.88	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 006		Makhrouga, Tunisia	11-Apr-2008	Find	31°53'53.9"N	10°11'43.0"N	21	2	H6	S1	W3	16.8	16.1	1.5	4.36	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 007		Makhrouga, Tunisia	11-Apr-2008	Find	31°55'18.5"N	10°11'15.0"N	5.2	1	L6	S4	W1	22.9	19.5	1.5	4.94	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 008		Makhrouga, Tunisia	11-Apr-2008	Find	31°55'35.2"N	10°11'22.6"N	200	Many	H6	S1	W4	17.2	15.4	1.5	4.38	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	
Bir Zar 009		Makhrouga, Tunisia	11-Apr-2008	Find	31°55'35.2"N	10°11'22.6"N	21	3	H5-6	S3	W3	16.9	15.2	1.3	4.53	L. Folco, <i>MNA-SI</i>	MNA-SI	Tunis	Breccia
Sahara 02002		Sahara	February 2002	Find	z+0°08.36'N	w+0°28.00'W	333	1	URE	S2	W2	21.2 ±0.2	17.6 ±0.4	9.2 ±0.3	4.33	M. Bourton-Dense, <i>MHN/P</i>	MNH/N	Labenne	Monomict

¹Name and institution of classifier.
²Location of holder of the main mass.
 A key to abbreviations for addresses used in the table can be found at our web site, <http://tin.er.usgs.gov/meteor/MetBullAddresses.php>.
 New abbreviations are given below:
Khartoum—University of Khartoum, Khartoum, Sudan.
Tunis—Faculte de Sciences de Tunis, Departement de Géologie

Table 2. Meteorites from Northwest Africa.

Name	Location of purchase	Date of recovery or purchase	Total known mass (g)	Number of pieces	Class	Shock stage	Weathering grade	Fa mol%	Fs mol%	Wo mol%	Info about the classifier(s) ¹	Type specimen mass (g)	Type specimen location	Info about the main mass ²	Comments
NWA 1282	Zagora, Morocco	2001	21	1	Howardite	S2	W1	69 (1 grain)	15–82	1.0–4.1	P. Warren, UCLA	4.2	UCLA	GHupé	Paired w. NWA 1664 & 1769 (K-rich glassy spheroids). Thought to be paired because all of these NWA howardites contain K-rich glasses
NWA 2753	Morocco	2005	410	1	Diogenite				23.6–24.4	0.7–1.3	A. Irving, Harper, UWS	22	UWS	Morgan	
NWA 2949	Erfoud	2005	1365	5	Eucrite	Mod-ate	Light		41–50.9	2.0–4.8	T. Bunch and Wittke, NAU	29	NAU	K. Davis	
NWA 4296	Tucson	Feb-2006	735	1	H4	S1	W2	18.8	16.9	1.5	A. Irving, UWS	21.6	UWS	AHupé	
NWA 4675	Tucson, AZ	27-Jan-2007	789	1	H5	S1	W3	17.9	16.2	1.3	D. Schrader and T. Swindle, UAz	41.2	UAz	Anon	Impact melt breccia
NWA 4859	Erfoud	May-03	5200	1	LL5/6	S4	W1	28.3	23.3	1.6	N. Jamsja, A. Ruzicka, and M. Hutson, Cascadia	316	Cascadia	Thompson	
NWA 4860	Ste Marie aux Mines show, France	May-03	26000	4	L4	S6	W1	23.7	20.5	1.2	N. Jamsja, A. Ruzicka, and M. Hutson, Cascadia	307	Cascadia	Thompson	Heavily shocked chondrules/fragments surrounded by melt
NWA 4909	Mhamid	Mar-98	966	1	H5	S3	W3	19.5	17	1.5	M. Hutson and A. Ruzicka, Cascadia	87.7	Cascadia	Dickson	
NWA 4910	Morocco	Dec-99	2100	?	LL3.1	S2	W1	0.6–36.1	2.0–21.4	0.1–4.7	M. Hutson and A. Ruzicka, Cascadia	35.25	Cascadia	Dickson	Also known as Begaa
NWA 5063	Erfoud	Feb-2007	1298	1	H6	S1	W1	18	16		A. Bischoff, JPP	20	JPP	Bessey	
NWA 5064	Ensisheim	Jun-2007	546	1	LL6	S4	W2	31.5	25.5		A. Bischoff, JPP	20	JPP	Anon	Sv, Br, Calc, Veins
NWA 5065	Ensisheim	Jun-2007	782	1	H4–5	S4	W1	16.5	14.5		A. Bischoff, JPP	22	JPP	Anon	Sv, Br
NWA 5066	Ensisheim	Nov-2007	17	1	Ureilite	S1	W1	19.5 ± 3	13 ± 2.5		A. Bischoff, JPP	4	JPP	Anon	Br
NWA 5067	Hamburg	Dec-2004	728	1	L5	S3	W3–4	24.5	21		A. Bischoff, JPP	24	JPP	Anon	Br, IM-clasts
NWA 5068	Hamburg	Dec-2007	396	1	L4	S2	W2	25.5	20.5 ± 2.5		A. Bischoff, JPP	21	JPP	Anon	Br, mostly Fa39-41 Oxygen isotopes: (R. Greenwood, OLI: two analyses) $\delta^{17}\text{O} = 5.56, 5.56, \delta^{18}\text{O} = 5.70, 5.69, \Delta^{17}\text{O} = 2.60, 2.60$ (all ‰)
NWA 5069	Hamburg	Dec-2007	1234	1	R3–5	S2	W3	33 ± 14	12 ± 9		A. Bischoff, JPP	22	JPP	Anon	Sv, Br, IM-clasts
NWA 5070	Munich	Nov-2006	136	1	LL4–5	S3	W2–3	29	24		A. Bischoff, JPP	21	JPP	Anon	
NWA 5071	Munich	Nov-2007	162	1	H5	S1	W4	19	16.5		A. Bischoff, JPP	20	JPP	Anon	
NWA 5072	Munich	Nov-2007	234	1	LL(L)3	S4	W3–4	22 ± 11	15 ± 10		A. Bischoff, JPP	22	JPP	Anon	Sv
NWA 5073	Munich	Nov-2007	185	1	eucrite	S2	W3	25–58	25		A. Bischoff, JPP	20	JPP	Anon	Plag.-An: 76–95
NWA 5074	Munich	Nov-2007	522	4	LL6	S3	W1–2	29.5	23.5		A. Bischoff, JPP	22	JPP	Anon	Sv, Br
NWA 5075	Munich	Nov-2007	95	1	L(L)3	S2	W3–4	15.5 ± 9	16.5 ± 11		A. Bischoff, JPP	21	JPP	Anon	Br
NWA 5076	Osnabrück	Nov-2007	169	1	H3–5	S1	W2	14 ± 7	14 ± 3.5		A. Bischoff, JPP	20	JPP	Anon	
NWA 5077	Sainte Marie	Jun-2007	160	1	L4–6	S4	W1	24	20.5		A. Bischoff, JPP	24	JPP	Anon	Sv, Br
NWA 5078	Sainte Marie	Jun-2007	966	3	LL4–6	S2	W2–3	29	23.5		A. Bischoff, JPP	24	JPP	Anon	Sv, Br, IM-clasts, Calc. Veins
NWA 5079	Sainte Marie	Jun-2007	239	1	H5–6	S3	W1	17.5	16		A. Bischoff, JPP	20	JPP	Anon	Sv, Br
NWA 5080	Munich	2004	235	1	CV3	S2	W1	Range: 0–27	Mostly 0–3		A. Bischoff, JPP	23	JPP	Anon	Matrix: Fa 46 ± 4
NWA 5230	Northwest Africa	Oct-2007	909.0	1	Polymict eucrite			31.1		11	A. Irving, UWS	22.25	UWS	S/S	
NWA 5290	Morocco	Unknown	716	1	L6	S2	W4	25	20.5		A. Bischoff, JPP	30	JPP	Anon	
NWA 5291	Morocco	Unknown	230	1	H5	S2	W2–3	19	17.5		A. Bischoff, JPP	30	JPP	Anon	
NWA 5299	Tucson	Dec-2005	92.5	1	R6	S2	W2	38.8	9.9	46.9	A. Irving, UWS	18.5	UWS	PMani	0.33 wt% Cr ₂ O ₃ in cpx
NWA 5300	Tucson	Dec-2005	47.3	1	L4	S2	W0	23.0–27.1	22.7; 9.1	1.7–2.4; 44	A. Irving, UWS	9.9	UWS	PMani	
NWA 5301	Tagoumit	Jul-2007	61	1	L5	S2	W3	25.1	20.6	1.6	A. Irving, UWS	12.2	UWS	PMani	
NWA 5302	Tucson	Jun-2007	46.2	1	L5	S2	W2	24.2	20.1	1.4	A. Irving, UWS	11.0	UWS	PMani	
NWA 5303	Tucson	Oct-2007	19.9	1	L6	S2	W0, W2	24.6	21.0	1.4	A. Irving, UWS	6.5	UWS	PMani	Half weathered crusted stone
NWA 5304	Tucson	Oct-2007	28.7	1	H4	S2	W0	18.9–19.2	15.9	3.9	A. Irving, UWS	9.9	UWS	PMani	Oxygen isotopes: $\delta^{17}\text{O} = 1.64 \pm 0.02\text{‰}, \delta^{18}\text{O} = 3.60 \pm 0.04\text{‰}, \Delta^{17}\text{O} = -0.243 \pm 0.002\text{‰}$
NWA 5306	Trouz, Kem Ken area	Apr-2008	128.7	1	Howardite	S2	W0	43–71	43–71	4–Feb	J.A. Barrat, IUEM	22	IUEM	Thomas	
NWA 5313	Algeria	Mar-2008	5.3	1	Shergottite			41.1		7.2	A. Irving and S. Kuehner, UWS	5.3	UWS	Harper	FeO/MnO in cpx = 28.5–31.9
NWA 5314	Erfoud	Mar-2008	8.03	1	Diogenite			23.5		2.8	A. Irving, UWS	8.0	PSF	F. Künz	
NWA 5398	Morocco	Jun-05	269.9	1	L6	S2	W3	24.7	20.8	1.6	A. Irving, UWS	20.0	UWS	J. Miller	
NWA 5399	Morocco	Jun-05	62.5	1	L3.6	S2	W2	2.2–23.9	9.4–16.0	0.4–1.4	A. Irving, UWS	12.5	UWS	J. Miller	Olivine Cr ₂ O ₃ 0.02–0.08 wt%
NWA 5401	Quarazate	Jun-2008	926	1	CV3	S2	W1	0.7–6.5	1.1; 0.5	0.9; 54.8	A. Irving, UWS	20.0	UWS	GHupé	Mellite, spinel and cpx in CAI
NWA 5403	Rissani	Jun-2008	201	1	Lodranite	S2	W1	10.3	3.2	44.9	A. Irving, UWS	20.4	UWS	GHupé	Paired with NWA 4478/4933

Table 2. Continued. Meteorites from Northwest Africa.

Name	Location of recovery or purchase	Date of purchase	Total known mass (g)	Number of pieces	Class	Shock stage	Weathering grade	Fa mol%	Fs mol%	Wo mol%	Info about the classifier(s) ¹	Type specimen mass (g)	Type specimen location	Info about mass ²	Comments
NWA 5404	Zagora	Jun-2008	5.6	1	Eucrite				33.2	2.1	A. Irving, UWS	1.2	UWS	GHupé	FeO/MnO in opx = 28.5
NWA 5407	Guelmim	Jun-2008	564	1	L5-imb	S2-S5	W2	24.3–24.6	21.2	1.4	A. Irving, UWS	31.9	UWS	GHupé	Shock darkened & melted zones
NWA 5408	Algeria	Jun-08	2228	42	Eucrite, (polymict)				49.9	3.2	A. Irving and S. Kuehner, UWS	45.9	UWS	GHupé	
NWA 5415	Los Angeles, CA	2002	1566	158	Howardite	S2	W4	40–43 (5 grains)	14–36	0.9–4.3	P. Warren, UCLA	27	UCLA	STutorow	NWA 5415 is conceivably a very metal-poor mesosiderite.
NWA 5418	Tucson, USA	2006	12,800	1	L6	S3/4	W2	24.5	21.26		J. Schueter, Hamb	22	Hamb	Withenau	Sample for examination: 242 g
NWA 5419	Morocco	2007	380	1	Aubrite				0.23		J. Schueter, Hamb	23.4	Hamb	Horst	See separate entry
NWA 5485	Erfoud	Sept-2008	455	1	Howardite				29.5–45.4	2.8–8.5	A. Irving, UWS	29.9	UWS	Morgan	Plagioclase An _{90.3-93.1}
NWA 5486	Erfoud	Jun-2008	142	1	L6	S4	W2	25.6	22.0	1.6	A. Irving, UWS	20.5	NAU	G. Hupé	
NWA 5487	Erfoud	Oct-2008	150	1	Howardite				26.5; 24.4	2.8; 44.8	A. Irving, UWS	20.0	UWS	Morgan	FeO/MnO in opx = 32.2
NWA 5488	Erfoud	Oct-2008	110	1	Lod				9.9; 3.8	1.6; 45.1	A. Irving, UWS	20.0	UWS	Morgan	Paired with NWA 4478/4933
NWA 5489	Erfoud	Oct-2008	288	1	Howardite				37.8; 17.2	3.7; 41.9	A. Irving, UWS	20.0	UWS	Morgan	FeO/MnO in opx = 29.2
NWA 5515	Algeria	Nov-2007	13700	2	CK4				25–27	1	T. Mikouchi, UToK	20.0	UToK	M. Farmer	
NWA 5599	Erfoud	Dec-2002	360	3	R4	S2	W1/2	29–34	12.3	44.3	A. Irving and S. Kuehner	25.5	UWS	Gregory	Plagioclase An _{9.0} Or _{5.6}
NWA 5600	Erfoud	Mar-2003	115	1	Diogenite				28.6	1.5	A. Irving and S. Kuehner	20	UWS	Gregory	Plagioclase An _{81.2-93.8}
NWA 5601	Morocco	May-2005	6500	1	Eucrite, (polymict)				58.6	2.5	A. Irving and S. Kuehner	25.3	UWS	ROM	
NWA 5603	Tagounite	2004	459	5	diogenite (ol-rich)				24.4	1.5	A. Irving, UWS	20.2	UWS	GHupé	Paired with NWA 1877
NWA 5604	Zagora	Mar-2006	466	2	LL5	S4	W2	31.3	24.9	1.4	A. Irving, UWS	21.0	UWS	GHupé	
NWA 5605	Tagounite	Jun-2006	765	1	L5	S2	W2	24.4	20.1	2.3	A. Irving, UWS	20	UWS	GHupé	
NWA 5606	Tagounite	Jan-2005	79.4	2	R4	S2	W0	39.2	20.8	2.2	A. Irving, UWS	15.9	UWS	GHupé	Plagioclase An _{13.4} Or _{5.1} , NiFeS
NWA 5607	Zagora	Mar-2006	479	1	L5	S4	W2	23.7	20.0	2.8	A. Irving, UWS	20	UWS	GHupé	
NWA 5608	Algeria	Mar-2007	40.9	1	Iron (III)				7.9	41.4	A. Irving and S. Kuehner, UWS	8.2	UWS	GHupé	Silic. iron. Oxygen isotopes (D. Rumble, CW): δ ¹⁸ O = 3.55‰, δ ¹⁷ O = 2.658‰, Δ ¹⁷ O = 0.788‰ per mil and brecciated clasts set in a fine grained fragmental matrix.
NWA 5613	Morocco	May-2008	107	1	Diogenite				3		J. A. Barrat, IUEM	20.3	IUEM	Hmani	Oxygen isotopes + δ ¹⁷ O = 1.80 ± 0.07‰, δ ¹⁸ O = 3.88 ± 0.13‰, Δ ¹⁷ O = -0.240 ± 0.006‰.
NWA 5614	Morocco	May-2008	50	1	Howardite				3		J. A. Barrat, IUEM	9.8	IUEM	Hmani	Pyroxene contains fine exsolution lamellae of augite Wo ₄₃ Fs ₅₇ .
NWA 5615	Morocco	May-2008	69	1	Eucrite				2		J. A. Barrat, IUEM	14.9	IUEM	Hmani	Oxygen isotopes = δ ¹⁷ O = 1.661‰, δ ¹⁸ O = 3.614‰, Δ ¹⁷ O = -0.233‰.
NWA 5616	Morocco	May-2008	169	1	Eucrite (polymict)				2–14.0		J. A. Barrat, IUEM	20.9	IUEM	Hmani	Paired with NWA 5618
NWA 5617	Morocco	May-2008	280	1	Eucrite	S1	W3	61	2	1.04	J. A. Barrat, IUEM	20.6	IUEM	Hmani	Pyroxene contains exsolution lamellae of augite Wo ₄₃ Fs ₅₇ . Similar to NWA 3137 and NWA 3147, and it is likely paired.
NWA 5618	Morocco	Jun-2008	179	1	Eucrite (polymict)	S2	W3	33–42	2–14.0		J. A. Barrat, IUEM	23	IUEM	Hmani	Oxygen isotopes = δ ¹⁷ O = 1.679‰, δ ¹⁸ O = 3.678‰, Δ ¹⁷ O = -0.249‰ for NWA 5618. Paired with NWA 5616
NWA 5707	Morocco	Feb-2006	285	1	L3.8				16.6	9.7	G. Huss, UH	21.2	UH	Morgan	Polymict breccia
NWA 5708	Morocco	Feb-2006	285	7	R4				38.6		G. Huss, UH	20	UH	Morgan	
NWA 5744	Mali	Feb-2009	170		Lunar	S2	W3	20.7	16.6	9.7	A. Irving and S. Kuehner, UWS	20.1	UWS	Anon	
NWA 5764	Algeria	6/25/1905	2003	Find	LL6 (breccia)	s2-s4	w1	31.5 ± 0.6–25.5 ± 0.5	26.5 ± 0.4–22.2 ± 0.3		M. Bourne-Denise, MNHN	22.4	MNHN	R. Lonsen	Breccia, contains clasts of L4 chondrite
NWA 5793	Tucson Gem & Mineral Show	2009	3500	1	LL3.8–4	S2	W3	28.4 ± 5.0 (host)	Heterogeneous (insuff. data to compute meaningful average)		J. Grossman, USGS	20	SI	S. Arnold	Genomict breccia; LL3.8 host in olivine = 13%, n = 38
NWA 5799	Morocco	late 2008	497	1	LL.4	S3	W2	28.2	23.2		A. Love, App	22	App	G. Catterton	

¹Name and institution of classifier.

²Location or holder of the main mass.

A key to abbreviations for addresses used in the table can be found at our web site, <http://tm.cr.usgs.gov/meteor/MetBullAaddresses.php>.

New abbreviations are given below:

G. Catterton—Greg Catterton, Lenoir, NC.

Table 3. Meteorites from North America.

Name	Abbreviation	Location of recovery	Type of find site	Date of recovery	Find/Fall	Latitude	Longitude	Total known mass (g)	Number of pieces	Class	Shock stage	Weath grade	Fa mol%	Fs mol%	Wo mol%	Magnetic sus log χ (10^{-3} m ³ /kg)	Info about the classifier(s) ¹	Type spec. location	Info about the main mass ²	Comments
Ash Creek		McLennan County, TX	Highland pasture	15-Feb-2009, fell 15 Feb. 2009, 11:00 CST	Fall	31°48.3'N	97°00.6'W	9500	40+	L6	S3	W0	24.2 ±0.2	20.5 ±0.7	1.6 ±0.2	4.91	A. Rubin, <i>UCLA</i>	<i>UCLA</i>	<i>DDawn</i>	See written entry
La Luz		Near La Luz, Otero County, NM		Mar-2005	Find	33°00'13.8"N	105°1'3.0"W	4798	1	H4	S2	W3	16.1	14.9			J. Kamet, <i>UNM</i>	<i>UNM</i>	<i>R. Nowell</i>	
Moapa Valley		Nevada		Sept-2004	Find	36°33'26"N	114°25'37"W	698.8	1	CM1							A. Irving and S. Kuehner, <i>UWS</i>	<i>UWS</i>	<i>S. Clary</i>	Rounded to ellipsoidal objects (0.05 to 0.7 mm across) composed of phyllosilicate and sulfide
Ocate		Mora County, New Mexico		1986	Find	36°17.72'N	105°2.90'W	6400	1	Iron IAB							C. Herd, N. Bruemmer, <i>Uab</i>	<i>Uab</i>	<i>G. Hupé</i>	
Roosevelt County 109	RC109	Section 17, Range 36E, Township 1S, Roosevelt County, New Mexico		2005	Find	34°13'N	103°11'W	17.3	1	L6	S3	W5	25.25 ±0.52 (PMD 2.1%)	20.7 ±0.4 (PMD 1.8%)	1.67 ±0.15		L. Boeck, G. Huss, K. Keil, <i>UH</i>	<i>UH</i>	<i>SWilson</i>	
Roosevelt County 110	RC110	S1-R32E-T7S Roosevelt County, NM, USA		1987	Find	33°44.2'N	103°37.4'W	73.7	1	L4	S3	W2	24.3 (PMD 2.2%)	18.5	0.74		L. Boeck, G. Huss, K. Keil, <i>UH</i>	<i>UH</i>	<i>SWilson</i>	

¹Name and institution of classifier.²Location or holder of the main mass.A key to abbreviations for addresses used in the table can be found at our web site, <http://lin.er.usgs.gov/meteor/MetBull/Addresses.php>.

New abbreviations are given below:

DDawn—Douglas Dawn, Mexico*R. Nowell*—R. Nowell, New Mexico.

Table 4. Meteorites from South America.

Name	Location of recovery	Date of recovery	Find/Fall	Latitude	Longitude	Total known mass (g)	Number of pieces	Class	Shock stage	Weathering grade	Fa mol%	Fs mol%	Wo mol%	Info about the classifier(s) ¹	Type specimen mass (g)	Info about the main mass ²	Comments
Berduc	Colonia Berduc, Argentina	07-Apr-2008	Fall	31°54.6'N	58°19.7'W	270	Several	L6	S4	W0	23.7	20.3	1.4	A. Rubín, UCLA; J. Llorca, UPC; J. M. Trigo-Rodríguez, CSIC-IEEC	154	Anon	Type Specimens: 154 g <i>MNCNA-AS</i> , 2 g <i>UCLA</i> and 5 g <i>CSIC</i>
Palmasde Monte Alto	Palmas de Monte Alto, Bahia, Brazil	1954	Find	14°22'03"S	43°01'22"W	97000	1	Iron (IIIAB)						M. E. Zucolotto, Rio	55	Rio	Co = 0.54, Ni = 9.4 (both in wt%), Ga = 22, As = 16, Ir = 0.70, Au = 1.7 (all in ppm)
Vitoria da Conquista	Vitoria da Conquista, Bahia, Brazil	Dec-2007	Find	14°50'19"S	40°50'10"W	10500	1	Iron (IVA)						M. E. Zucolotto, Rio	120	Rio	Co = 0.41, Ni = 9.4 (both in wt%), Ga = 2.4, As = 13, Ir = 0.84, Au = 2.37 (all in ppm)

¹Name and institution of classifier.²Location or holder of the main mass.A key to abbreviations for addresses used in the table can be found at our web site, <http://im.er.usgs.gov/meteor/MetBul/Addresses.php>.

New abbreviations are given below.

Bernardes—Prof. Eduardo Bernardes—Departamento de Geologia, UFBA /M. E. Zucolotto, Rio 6

Table 5. Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET) program.

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
DNG 06001	26.7	L6	B/C	B			31-2
DNG 06002	4.4	LL6	A/B	A/B			31-2
DNG 06003	12.5	L6	B	A/B			31-2
GRA 06103	1015.8	L5	C	A/B			31-2
GRA 06104	5691	L5	B/CE	B/C			31-2
GRA 06105	4155.5	L5	B/C	B/C			31-2
GRA 06106	4530	H5	B	A			32-1
GRA 06107	3657.4	LL5	C	B/C			31-2
GRA 06108	2323.4	L5	A/B	A/B			32-1
GRA 06109	1618.9	L5	A/B	B			32-1
GRA 06112	996.3	L5	B/C	B			32-1
GRA 06113	1254.7	L5	B/C	A/B			32-1
GRA 06114	906.7	L5	B/C	B			32-1
GRA 06115	456.3	L5	C	B			31-2
GRA 06118	775.6	H5	C	B/C			31-2
GRA 06119	1175.7	L6	C	B/C			31-2
GRA 06120	1171.3	L5	C	C			31-2
GRA 06121	1072.8	L5	A/B	B/C			31-2
GRA 06122	466.3	H5	C	B			31-2
GRA 06123	965	L5	C	A/B			31-2
GRA 06124	499.1	LL5	B	B			31-2
GRA 06125	487.2	L5	B	A			31-2
GRA 06127	254.1	H6	B	A/B			31-2
GRA 06132	136.5	L5	C	A/B			31-2
GRA 06133	234	LL6	B	B			31-2
GRA 06134	89.4	L6	CE	B/C			31-2
GRA 06135	207.5	H6	C	B/C			31-2
GRA 06136	170.3	L6	C	A			31-2
GRA 06137	198.7	L5	B	A/B			31-2
GRA 06138	134.6	L6	C	B			31-2
GRA 06139	148	LL5	A/B	A/B			31-2
GRA 06170	191.2	LL5	A	A			31-2
GRA 06171	233	LL5	A	A			31-2
GRA 06205	47.1	LL6	B	B			31-2
GRA 06206	34.5	L5	B/C	B			31-2
GRA 06207	50	LL5	B/C	B			31-2
GRA 06208	36.6	L6	B/C	B			31-2
GRA 06209	52.2	L5	C	B			31-2
LAR 06250	4431.9	LL6	A/B	A			31-2
LAR 06254	2301.8	H6	B/Ce	A/B			32-1
LAR 06255	1438.6	L5	B/CE	A			31-2
LAR 06256	3180	H6	B	A			32-1
LAR 06258	1828.2	H6	B/Ce	A/B			32-1
LAR 06260	1177.8	L5	B	A/B			32-1
LAR 06261	5745	H5	B	B			31-2
LAR 06262	7590	L5	B	B/C			31-2
LAR 06263	4575	L4	B/CE	A			31-2
LAR 06264	2910	L5	B/C	A			31-2
LAR 06265	3925	L5	C	A/B			31-2
LAR 06266	1893.6	H5	A/B	A/B			32-1
LAR 06267	8850	L5	C	B			31-2
LAR 06268	4265	LL5	C	A			31-2
LAR 06269	2975	L5	B/CE	A/B			31-2
LAR 06270	2541.3	H6	B/CE	A			32-1
LAR 06271	1361.5	L5	B/C	A			31-2
LAR 06272	3190	H6	A/B	B			32-1
LAR 06298	2208.5	LL	B	A/B	29	23	31-2
LAR 06299	751.9	LL impact melt	B	A/B	29	23	31-2
LAR 06302	2280	H5	B/C	A			31-2
LAR 06304	2018.4	LL6	C	A/B			31-2
LAR 06305	2885.1	H6	B/C	A/B			32-1
LAR 06340	43.5	L5	B/C	B			31-2
LAR 06342	12.9	L5	C	B			31-2
LAR 06343	18.5	LL3	B/C	B	11-31	15-23	31-2

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
LAR 06344	26.3	L4	B/C	B			31-2
LAR 06345	9.6	H6	C	B			31-2
LAR 06346	37.4	H6	C	B			31-2
LAR 06347	15.7	L5	B	B			31-2
LAR 06348	17.6	H6	C	B			31-2
LAR 06349	20.4	L4	C	B			31-2
LAR 06350	16	H5	C	A/B			31-2
LAR 06351	7.7	L6	C	A			31-2
LAR 06352	4.6	H6	C	A/B			31-2
LAR 06353	15.3	H6	C	B			31-2
LAR 06354	31.3	L6	B	B			31-2
LAR 06355	23.8	H5	C	B			31-2
LAR 06356	38.5	L6	C	A/B			31-2
LAR 06357	26.3	L5	B	A/B			31-2
LAR 06358	20.4	L6	C	B			31-2
LAR 06359	12.5	H6	C	B			31-2
LAR 06360	44.9	L5	B	A			31-2
LAR 06361	10.7	L6	C	B			31-2
LAR 06362	9.8	L5	C	B			31-2
LAR 06363	20.3	L5	CE	B			31-2
LAR 06364	35.7	H6	C	C			31-2
LAR 06365	44.9	L5	C	C			31-2
LAR 06366	17.7	H6	C	C			31-2
LAR 06367	18.5	H5	C	A			31-2
LAR 06369	59.4	H5	C	B			31-2
LAR 06370	19.9	L4	B	A			32-1
LAR 06371	11.8	H6	C	A/B			32-1
LAR 06372	7.8	H6	C	A			32-1
LAR 06373	6.9	H5	B/C	B			32-1
LAR 06374	33.2	H6	C	B			32-1
LAR 06375	40.1	H6	B/C	B			32-1
LAR 06376	65.6	L4	C	A/B			32-1
LAR 06377	4.8	H6	C	A/B			32-1
LAR 06378	7	H6	C	A/B			32-1
LAR 06379	51.9	H5	C	C			32-1
LAR 06380	32.7	H6	C	B			32-1
LAR 06381	87.5	L5	B/C	A/B			32-1
LAR 06382	9.1	H6	C	A/B			32-1
LAR 06383	20.6	L5	C	A/B			32-1
LAR 06384	33.7	H6	C	A/B			32-1
LAR 06385	11.1	H6	C	A/B			32-1
LAR 06386	11.7	L5	C	A/B			32-1
LAR 06387	13.2	H6	C	A/B			32-1
LAR 06388	6.2	H6	C	A/B			32-1
LAR 06389	8	H6	C	A/B			32-1
LAR 06390	10.7	H6	C	A/B			32-1
LAR 06391	22	H6	C	B			32-1
LAR 06392	90.9	H5	A/B	A/B			32-1
LAR 06393	86.7	H6	C	B			32-1
LAR 06394	21.5	L5	B	B			32-1
LAR 06395	36.3	H6	C	A/B			32-1
LAR 06396	27.3	H6	C	B/C			32-1
LAR 06397	19.6	H5	A	A/B			32-1
LAR 06398	30.7	H6	C	B			32-1
LAR 06410	20	L4	A/B	A/B			32-1
LAR 06411	34.8	L5	B/C	A/B			32-1
LAR 06412	8.5	L5	C	A/B			32-1
LAR 06413	8.3	H6	C	A/B			32-1
LAR 06414	7.9	H6	C	A/B			32-1
LAR 06415	5.6	H6	C	A/B			32-1
LAR 06416	33.8	H6	C	A/B			32-1
LAR 06417	9.7	H6	C	A/B			32-1
LAR 06418	10.8	H6	C	A/B			32-1
LAR 06419	14	L5	B/C	A/B			32-1
LAR 06420	67.5	L5	C	B			32-1
LAR 06421	17.7	H6	C	A/B			32-1
LAR 06422	65.4	L5	C	A/B			32-1

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
LAR 06424	3.6	L6	C	A/B			32-1
LAR 06425	20.4	L6	C	A/B			32-1
LAR 06426	7.1	H6	C	A/B			32-1
LAR 06427	19.3	L6	C	A/B			32-1
LAR 06428	10.8	H6	C	A/B			32-1
LAR 06429	6.9	H6	C	A/B			32-1
LAR 06430	51.5	H6	C	A/B			31-2
LAR 06431	10.5	H6	C	A/B			31-2
LAR 06432	24.3	H5	C	A/B			31-2
LAR 06433	11.4	H6	C	A/B			31-2
LAR 06434	13.9	L6	C	A/B			31-2
LAR 06435	34.2	L6	C	A/B			31-2
LAR 06436	23.6	H6	CE	A/B			31-2
LAR 06437	15.6	H6	C	B			31-2
LAR 06439	10.3	H6	C	B			31-2
LAR 06440	12.6	H5	CE	B			31-2
LAR 06441	6.1	H6	C	B			31-2
LAR 06442	4.1	L6	C	A/B			31-2
LAR 06443	4.9	H5	C	A/B			31-2
LAR 06444	12.6	L5	C	A/B			31-2
LAR 06445	3.2	H5	C	A/B			31-2
LAR 06446	15	LL6	B	B			31-2
LAR 06447	17	L6	C	B			31-2
LAR 06448	17.5	H6	C	B			31-2
LAR 06450	108.7	H6	C	A/B			32-1
LAR 06451	23.8	L4	B	A			32-1
LAR 06452	52.1	H6	C	A/B			32-1
LAR 06453	13	H6	C	A/B			32-1
LAR 06454	98.8	L4	C	A/B			32-1
LAR 06455	118.5	L4	B	B			32-1
LAR 06456	32	H6	C	B			32-1
LAR 06457	92.2	H6	C	B			32-1
LAR 06458	113.2	L4	C	A/B			32-1
LAR 06459	87.7	H6	C	A/B			32-1
LAR 06460	90.1	H5	C	A			31-2
LAR 06461	35.4	LL5	B	B			31-2
LAR 06462	110.8	L5	C	C			31-2
LAR 06463	188.7	L5	B	B			31-2
LAR 06464	19.2	LL5	B	B			31-2
LAR 06465	234.3	H4	C	A/B			31-2
LAR 06466	247.6	L6	C	C			31-2
LAR 06467	84.2	L6	B/C	B			31-2
LAR 06468	30.8	L5	B	B			31-2
LAR 06469	32.1	LL3	B	B	10-34	8-21	31-2
LAR 06480	11.5	H6	C	A/B			32-1
LAR 06481	14.2	H6	C	A/B			32-1
LAR 06482	14.6	H6	C	B			32-1
LAR 06483	10.8	H6	C	A/B			32-1
LAR 06484	5.1	H6	C	A/B			32-1
LAR 06485	5	L4	B/C	A/B			32-1
LAR 06486	14.2	H6	C	A/B			32-1
LAR 06487	15.2	H6	CE	A/B			32-1
LAR 06488	7.9	H6	C	A/B			32-1
LAR 06489	63.8	H6	C	B			32-1
LAR 06490	53.4	L4	B	A/B			32-1
LAR 06491	7.4	H6	C	A			32-1
LAR 06492	8.2	H6	C	A			32-1
LAR 06493	5.7	H6	C	A/B			32-1
LAR 06494	13.7	H6	CE	B			32-1
LAR 06495	1	H6	B	A			32-1
LAR 06496	15.4	H6	CE	B			32-1
LAR 06497	20.9	H6	C	A/B			32-1
LAR 06498	54.6	L5	B	A/B			32-1
LAR 06499	16.5	H6	CE	B			32-1
LAR 06510	38.5	L4	B	A			32-1
LAR 06511	12.4	H6	C	A			32-1

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
LAR 06513	16.9	H6	CE	A/B			32-1
LAR 06514	87.6	L5	BE	B			32-1
LAR 06515	13.5	H6	C	A/B			32-1
LAR 06516	45.1	H6	C	C			32-1
LAR 06517	30.7	H6	C	C			32-1
LAR 06518	49.9	H5	C	A/B			32-1
LAR 06519	86.4	H6	C	A/B			32-1
LAR 06520	19.1	H6	C	A/B			32-1
LAR 06521	23.7	H6	C	A/B			32-1
LAR 06522	9.4	H4	B/C	B			32-1
LAR 06523	22.2	H6	C	A/B			32-1
LAR 06524	15.5	H6	C	A/B			32-1
LAR 06525	39.8	H6	C	A/B			32-1
LAR 06526	33.3	L5	A/B	A			32-1
LAR 06527	24.3	H6	CE	A/B			32-1
LAR 06528	18.4	H6	C	A/B			32-1
LAR 06529	26.4	H6	C	B			32-1
LAR 06530	12	H6	C	A			32-1
LAR 06531	34.8	H6	C	A			32-1
LAR 06532	15.4	L5	CE	A/B			32-1
LAR 06533	13.2	H6	C	A/B			32-1
LAR 06534	16.5	H6	C	A			32-1
LAR 06535	16	L5	C	A			32-1
LAR 06536	3	H6	C	A			32-1
LAR 06537	19.7	L5	B/C	A/B			32-1
LAR 06538	11.6	H6	C	A			32-1
LAR 06539	15.8	H4	CE	A/B			32-1
LAR 06540	26.7	H6	C	B			31-2
LAR 06541	27.3	L6	C	B			31-2
LAR 06543	11.8	L5	C	A/B			31-2
LAR 06544	11.8	L6	C	A/B			31-2
LAR 06545	17.1	H6	C	A/B			31-2
LAR 06546	16.7	L5	C	A			31-2
LAR 06547	13.4	L5	C	A/B			31-2
LAR 06548	7	H5	C	A/B			31-2
LAR 06549	19.3	H6	C	A/B			31-2
LAR 06550	27	H6	C	B			32-1
LAR 06551	10.3	H6	C	A/B			32-1
LAR 06552	11.6	H6	C	A/B			32-1
LAR 06553	7.9	H5	C	A/B			32-1
LAR 06554	5.1	H6	C	B			32-1
LAR 06555	14.1	H6	C	B			32-1
LAR 06556	10.6	H6	C	B			32-1
LAR 06557	28.9	H6	C	B			32-1
LAR 06558	15.7	H6	C	B			32-1
LAR 06559	15.7	H6	C	B			32-1
LAR 06580	23.6	H6	C	B			32-1
LAR 06581	17.4	H6	C	A/B			32-1
LAR 06582	15	L5	CE	C			32-1
LAR 06583	7.7	H6	CE	C			32-1
LAR 06584	8	H6	B	A/B			32-1
LAR 06586	7.1	H6	C	B			32-1
LAR 06587	16.9	H6	C	A			32-1
LAR 06588	9.9	L5	CE	A/B			32-1
LAR 06589	10.1	H6	C	A/B			32-1
LAR 06590	24.2	L5	C	B			31-2
LAR 06591	15.2	H5	C	B			31-2
LAR 06592	24	L5	C	B			31-2
LAR 06593	25.7	L6	C	B			31-2
LAR 06594	12.9	H5	C	B			31-2
LAR 06595	22.2	L6	C	B			31-2
LAR 06596	24.3	H6	C	B			31-2
LAR 06597	17.4	L5	B	A/B			31-2
LAR 06598	9.8	H5	C	B			31-2
LAR 06599	11	H5	C	B			31-2
LAR 06610	71.8	H5	C	C			31-2

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
LAR 06611	193.2	L6	B/C	A			31-2
LAR 06612	60.2	L5	C	B			31-2
LAR 06613	132.3	L5	B	A			31-2
LAR 06614	61.5	L4	C	B			31-2
LAR 06615	128	L6	B	A			31-2
LAR 06616	193.8	H5	C	A/B			31-2
LAR 06617	73.9	L5	C	A/B			31-2
LAR 06619	30.1	L5	C	A/B			31-2
LAR 06620	24	H5	CE	A/B			31-2
LAR 06622	23.6	H4	B/C	A			31-2
LAR 06623	8.1	L6	C	B			31-2
LAR 06624	8.1	H6	C	B			31-2
LAR 06625	29.6	L5	B	B			31-2
LAR 06627	21.1	H5	C	B			31-2
LAR 06628	27	CV3	B/CE	A/B	0-3	0-1	31-2
LAR 06629	8.2	L6	C	B			31-2
LAR 06630	15.4	H6	C	B			31-2
LAR 06631	42.7	H5	C	A/B			31-2
LAR 06632	19.9	H6	C	A/B			31-2
LAR 06634	31.8	L5	CE	B			31-2
LAR 06635	15.8	H5	C	A			31-2
LAR 06637	19	H5	C	A/B			31-2
LAR 06639	18.2	LL6	B	A/B			31-2
LAR 06640	17.3	H5	C	A/B			31-2
LAR 06641	12.2	H5	C	B			31-2
LAR 06642	20.7	H5	C	A/B			31-2
LAR 06643	18.9	L6	C	A/B			31-2
LAR 06644	5.1	H6	CE	A/B			31-2
LAR 06645	13.4	H6	C	A/B			31-2
LAR 06646	17.4	H6	C	A/B			31-2
LAR 06647	15	H6	C	A/B			31-2
LAR 06649	6.7	H6	CE	A/B			31-2
LAR 06650	38.1	H6	C	B			31-2
LAR 06651	20.6	L6	C	A/B			31-2
LAR 06652	19.9	H6	C	A/B			31-2
LAR 06653	20.9	H6	C	A/B			31-2
LAR 06655	12.9	H6	C	A/B			31-2
LAR 06656	10.9	L6	B/C	B			31-2
LAR 06657	17.1	H6	C	B			31-2
LAR 06658	15.8	L6	C	A/B			31-2
LAR 06660	111.4	H6	C	A/B			31-2
LAR 06661	99.6	L5	B/C	B/C			31-2
LAR 06662	50.6	L6	C	A/B			31-2
LAR 06663	103.6	H6	C	A/B			31-2
LAR 06664	94.8	LL6	B/C	B			31-2
LAR 06665	96.3	H6	C	B			31-2
LAR 06666	98	H6	C	B			31-2
LAR 06667	52.6	L5	C	C			31-2
LAR 06668	69.9	H5	C	B			31-2
LAR 06669	78	H5	C	B			31-2
LAR 06670	63.2	L5	C	A			32-1
LAR 06671	30.7	H6	C	A/B			32-1
LAR 06672	56	H6	C	A/B			32-1
LAR 06675	33.8	L5	B	A/B			32-1
LAR 06676	50.9	L5	C	A			32-1
LAR 06677	24.6	H6	C	CE			32-1
LAR 06678	19.7	H6	C	A			32-1
LAR 06679	24.6	H6	B	A/B			32-1
LAR 06680	14.8	H6	C	A/B			32-1
LAR 06681	4.1	H6	C	B			32-1
LAR 06682	20.7	H6	C	A/B			32-1
LAR 06683	7.6	H6	C	A/B			32-1
LAR 06684	22.4	H6	B	A/B			32-1
LAR 06687	18.5	L5	B/C	A/B			32-1
LAR 06688	18.2	L6	C	A/B			32-1
LAR 06689	12.4	H6	C	A/B			32-1
LAR 06690	18.4	H5	C	A/B			31-2

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
LAR 06692	10.9	H6	C	A/B			31-2
LAR 06693	7	H5	C	A			31-2
LAR 06694	11.3	H6	C	A/B			31-2
LAR 06695	1.6	H5	C	A/B			31-2
LAR 06696	10.4	H6	CE	A/B			31-2
LAR 06697	4.1	H6	C	A/B			31-2
LAR 06698	13.4	H6	C	A/B			31-2
LAR 06699	24.9	H5	CE	A/B			31-2
LAR 06700	13.8	L5	C	A/B			31-2
LAR 06701	23.4	H6	C	B			31-2
LAR 06702	18.3	H6	C	B			31-2
LAR 06703	9.2	H5	C	B			31-2
LAR 06704	6.1	H5	C	B			31-2
LAR 06705	6.9	L6	C	A/B			31-2
LAR 06706	23.9	L6	C	A/B			31-2
LAR 06708	11.8	LL6	C	A/B			31-2
LAR 06709	21.6	L5	B/C	B			31-2
LAR 06710	19	H6	C	B			31-2
LAR 06711	34.9	H6	C	B/C			31-2
LAR 06712	19.6	H6	C	B/C			31-2
LAR 06713	23.1	LL6	B	A/B			31-2
LAR 06714	11.8	L4	B	A/B			31-2
LAR 06715	7.7	L6	C	A			31-2
LAR 06716	7.2	H5	C	A			31-2
LAR 06717	29.2	H6	C	A/B			31-2
LAR 06718	43.9	H6	C	C			31-2
LAR 06719	15.3	Ureilite	B/CE	B/C	16-20	1-15	31-2
LAR 06720	11.9	H6	C	B			32-1
LAR 06721	33.9	H6	C	C			32-1
LAR 06722	24	L5	B	B			32-1
LAR 06723	34.8	H6	C	A/B			32-1
LAR 06724	64.2	L5	CE	A/B			32-1
LAR 06725	43	H6	C	B/C			32-1
LAR 06726	47.2	L5	B/C	A/B			32-1
LAR 06727	38.6	H6	C	A			32-1
LAR 06728	21.2	L5	B	B			32-1
LAR 06729	18.3	H6	C	B			32-1
LAR 06730	14.7	L5	C	B			31-2
LAR 06731	6.2	H6	C	A/B			31-2
LAR 06732	24.6	L5	B/C	B			31-2
LAR 06733	18.9	L5	C	A/B			31-2
LAR 06735	14.1	H6	C	B			31-2
LAR 06736	12	L6	C	A/B			31-2
LAR 06737	7.3	L5	C	A/B			31-2
LAR 06738	13.6	H6	C	B			31-2
LAR 06739	11.9	H6	C	B			31-2
LAR 06740	25.6	L5	C	A/B			31-2
LAR 06741	10.4	L5	C	A/B			31-2
LAR 06742	9.3	H6	C	A			31-2
LAR 06743	5.7	L6	C	A			31-2
LAR 06744	13.8	LL5	B	A/B			31-2
LAR 06745	12.6	H6	C	A/B			31-2
LAR 06746	7.8	L5	C	B			31-2
LAR 06747	5.6	H6	C	A/B			31-2
LAR 06748	13	H6	C	A/B			31-2
LAR 06749	7.3	H6	C	B			31-2
LAR 06750	66.8	L5	C	B			32-1
LAR 06751	66.9	LL6	B	B			32-1
LAR 06752	165.1	H6	C	B			32-1
LAR 06753	176.7	L6	B	A/B			32-1
LAR 06754	61.5	H6	C	B			32-1
LAR 06755	76.1	L5	C	A/B			32-1
LAR 06756	58.2	H6	C	A/B			32-1
LAR 06757	17.6	H6	C	A/B			32-1
LAR 06758	33.5	H6	C	A/B			32-1
LAR 06759	58.4	L5	C	A/B			32-1
LAR 06760	21.9	L5	C	A			31-2

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
LAR 06761	34	L5	C	A			31-2
LAR 06762	32.3	L5	C	A/B			31-2
LAR 06763	28.6	H6	C	A/B			31-2
LAR 06764	22.6	H6	C	A/B			31-2
LAR 06765	31.1	H6	C	A			31-2
LAR 06766	12.3	L6	C	A/B			31-2
LAR 06767	20.1	L5	B	B			31-2
LAR 06768	31.3	H6	C	A/B			31-2
LAR 06769	21.2	L6	C	A/B			31-2
LAR 06770	32.4	LL6	B	B			31-2
LAR 06771	23.4	L6	C	B			31-2
LAR 06772	21.1	LL3	B	A/B	19-30	13-24	31-2
LAR 06773	16.2	H6	C	B			31-2
LAR 06774	23.6	LL3	B	A/B	8-40	14-24	31-2
LAR 06775	27.7	L5	B/C	B			31-2
LAR 06776	25.8	L5	C	B			31-2
LAR 06777	17.3	H6	C	A/B			31-2
LAR 06778	28.5	H6	C	B			31-2
LAR 06779	12.9	LL5	C	B	28	23	31-2
LAR 06780	2.1	H6	C	B			31-2
LAR 06781	8.2	L6	C	B			31-2
LAR 06782	2.3	H6	C	A/B			31-2
LAR 06783	5.2	H5	C	A/B			31-2
LAR 06784	10.8	H6	C	A/B			31-2
LAR 06785	6.3	H6	C	B			31-2
LAR 06786	8.6	L6	C	B			31-2
LAR 06787	8.4	H5	C	B			31-2
LAR 06788	13.6	LL6	B/C	A/B			31-2
LAR 06789	9.4	H6	C	A/B			31-2
LAR 06790	18.7	L5	A/B	A			31-2
LAR 06791	22.4	H6	C	A/B			31-2
LAR 06792	12.6	L5	C	A/B			31-2
LAR 06793	21.8	H6	C	A/B			31-2
LAR 06794	13.4	H6	C	A/B			31-2
LAR 06795	8.9	H6	C	B			31-2
LAR 06796	8.2	H6	C	B			31-2
LAR 06797	20.3	L5	C	A/B			31-2
LAR 06798	15.1	H5	C	A/B			31-2
LAR 06799	11.8	H6	C	A/B			31-2
LAR 06830	12.3	H6	C	A/B			31-2
LAR 06832	14.2	H6	C	A/B			31-2
LAR 06833	19.1	H6	C	A/B			31-2
LAR 06834	32.5	L5	B	A/B			31-2
LAR 06835	2.3	L5	B/C	A/B			31-2
LAR 06836	7.8	H6	CE	A/B			31-2
LAR 06837	24	H6	CE	A/B			31-2
LAR 06838	5	H6	C	A/B			31-2
LAR 06839	14.2	L6	C	A/B			31-2
LAR 06840	15	H6	C	A/B			32-1
LAR 06841	32.4	H6	C	A/B			32-1
LAR 06842	13.7	L5	B/C	B			32-1
LAR 06843	7.2	H6	C	A/B			32-1
LAR 06844	22.8	H6	C	A/B			32-1
LAR 06845	12.4	H6	C	A/B			32-1
LAR 06846	8.9	H6	C	A/B			32-1
LAR 06847	34.1	L5	B/C	B			32-1
LAR 06848	17.5	H6	C	A/B			32-1
LAR 06849	32.5	H6	C	C			32-1
LAR 06850	12.8	H6	C	A/B			32-1
LAR 06851	15.7	H6	C	A/B			32-1
LAR 06852	5.3	H6	C	B			32-1
LAR 06853	6.5	H6	C	A/B			32-1
LAR 06854	6.1	H6	C	B			32-1
LAR 06855	34.1	H6	C	B			32-1
LAR 06856	13	H6	C	B			32-1
LAR 06857	35.1	H6	C	C			32-1

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
LAR 06858	10.3	H6	CE	B			32-1
LAR 06859	20.3	H6	C	A/B			32-1
LAR 06860	4.6	H5	C	B			31-2
LAR 06861	8	H6	C	B			31-2
LAR 06862	11.5	L5	B/C	B			31-2
LAR 06863	7.8	H6	C	B			31-2
LAR 06864	19.6	H6	C	B			31-2
LAR 06865	20.2	L5	C	B			31-2
LAR 06866	13.9	H6	C	B			31-2
LAR 06881	2345	L6	B/C	A			31-2
MIL 07001	924.2	Diogenite olivine	A/B	A/B	28	23	31-2
MIL 07002	758.4	CV3	A/BE	B/C	0-7	1	31-2
MIL 07003	291.9	Diogenite	B	A/B		27-34	31-2
MIL 07004	703.2	Eucrite brecciated	B	B		27-62	31-2
MIL 07005	75	LL6	A/BE	A/B	30	25	31-2
MIL 07006	1.4	Lunarbasaltic-breccia	B	A/B	41-52	28-53	31-2
MIL 07007	29.4	Howardite	A/B	A/B	10-12	21-61	31-2
MIL 07008	31.9	Aubrite	B	A/B		0	31-2
MIL 07009	12.3	Howardite	A/B	A/B		25-60	31-2
MIL 07010	1528.8	L impact melt	B/C	B/C	24	20	31-2
MIL 07016	302.4	Eucrite brecciated	A/B	A/B		49-64	32-1
MIL 07108	114.7	H6	B/C	A			31-2
MIL 07114	139.4	LL5	A/B	A/B			31-2
MIL 07119	232.9	Iron IVA	A/B	A/B			31-2
MIL 07147	97.332	LL5	A/B	A/B			31-2
MIL 07613	4.6	Diogenite	B	A/B		14-36	32-1
MIL 07634	12.3	L6	C	C			32-1
MIL 07658	3.3	Eucrite	A	A		27-63	32-1
MIL 07659	7	LL6	A/B	A	31	26	32-1
MIL 07660	2.4	Eucrite brecciated	A	A		26-61	32-1
MIL 07661	26.7	Howardite	A	A	37-38	27-43	32-1
MIL 07662	51.4	Eucrite brecciated	B/C	B		45-54	31-2
MIL 07663	9.9	Howardite	A	A	1-36	22-53	32-1
MIL 07664	30.6	Howardite	A	A		20-64	32-1
MIL 07665	71.1	Howardite	A/B	A/B		20-60	32-1
MIL 07666	96.3	Iron IIAB	A/B	A			31-2
MIL 07667	60.8	Iron ungrouped	A/B	A/B			31-2
MIL 07670	7.7	CM2	B	A/B	1-48	5	32-1
MIL 07671	19.4	CV3	BE	B	0-9	1	32-1
MIL 07673	27.2	CO3	BE	A	1-62	1-8	31-2
MIL 07676	32.2	CM2	AE	A	0-36	4	31-2
MIL 07679	17.3	CM2	AE	A	0-18	1	31-2
MIL 07686	13.4	CV3	CE	B/C	0-6	1	32-1
MIL 07687	5.5	CO3	CE	A/B	1-50	3-41	32-1
MIL 07697	15.5	CV3	CE	C	1-6	1-2	32-1
MIL 07698	25.1	CV3	CE	C	0-9		32-1
MIL 07700	67.6	CM2	A	A/B	1-30		31-2
MIL 07704	24.9	L6	B	A			31-2
MIL 07705	134.8	LL6	A/B	A/B	30	24	31-2
MIL 07706	373.8	LL6	A/B	A			31-2

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
MIL 07707	237.1	L5	B/C	A			31-2
MIL 07708	26.3	CM2	A/BE	B	0-46		31-2
MIL 07709	77.2	CO3	B	A	1-29	1-3	31-2
SCO 06010	1383.6	LL5	B	A			31-2
SCO 06011	2072	L5	B/C	A			31-2
SCO 06031	5.9	L5	B/C	A			31-2
SCO 06032	16.1	L5	B/C	A			31-2
SCO 06033	2.5	LL5	A/B	B			31-2
SCO 06034	4.3	LL5	A/B	B			31-2
SCO 06035	1.4	L5	C	BE			31-2
SCO 06036	1.2	LL5	B	B			31-2

Table 5. *Continued.* Meteorites collected in Antarctica by the American Antarctic Search for Meteorites (ANSMET)

Sample number	Weight (g)	Class.	Weath.	Fract.	%Fa	%Fs	AMN *
SCO 06037	1.2	L5	B/C	B			31-2
SCO 06038	0.4	LL5	B	B			31-2
SCO 06039	40.5	LL5	A/B	B			31-2

*Antarctic Meteorite Newsletter in which the meteorite is listed.

DNG: D'Angelo Bluff.
 GRA: Graves Nunataks.
 LAR: Larkman Nunatak.
 MIL: Miller Range.
 SCO: Scott Glacier.

Table 6. Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 020202	01/08/2003	72°59'33"	75°12'23"	0.80	1	H5	S3	W1	19.0	16.6	1.2	BeiAP	
GRV 020210	01/08/2003	72°59'33"	75°12'23"	31.2	1	H4	S2	W1	18.4	16.8	1.2	IGCCAS	
GRV 020211	01/08/2003	72°59'33"	75°12'23"	1.05	1	H5	S1	W1	18.6	16.5	1.3	BeiAP	
GRV 020212	01/08/2003	72°59'33"	75°12'23"	1.19	1	H4	S2	W2	18.6	17.0	1.3	IGCCAS	
GRV 020214	01/08/2003	72°59'33"	75°12'23"	1.28	1	H5	S2	W3	19.3	17.0	1.1	PMO	
GRV 020216	01/08/2003	72°59'33"	75°12'23"	1.72	1	H4	S1	W1	18.1	16.1	1.4	IGCCAS	
GRV 020219	01/08/2003	72°59'33"	75°12'23"	6.34	1	H4	S2	W1	18.0	15.6	1.3	GUT	
GRV 020220	01/08/2003	72°59'33"	75°12'23"	26.00	1	H4	S2	W2	17.4	16.2	1.2	GUT	
GRV 020221	01/08/2003	72°59'33"	75°12'23"	28.80	1	H4	S2	W1	18.0	16.3	1.2	NU	
GRV 020224	01/08/2003	72°59'14"	75°12'35"	6.4	1	L5	S2	W1	24.6	20.3	1.3	IGCCAS	
GRV 020225	01/09/2003	72°59'30"	75°13'20"	44.60	1	H6	S1	W1	18.1	16.2	1.8	BeiAP	
GRV 020228	01/09/2003	72°59'37"	75°13'05"	4.31	1	H4	S2	W2	17.6	15.6	1.2	GUT	
GRV 020230	01/09/2003	72°59'00"	75°12'51"	17.30	1	H5	S2	W2	17.0	15.3	1.0	PMO	
GRV 020231	01/09/2003	72°59'17"	75°13'00"	14.90	1	H5	S2	W2	19.7	17.4	1.4	PMO	
GRV 020234	01/09/2003	72°58'59"	75°13'45"	0.44	1	H5	S3	W1	18.9	17.0	1.2	PMO	
GRV 020239	01/09/2003	72°58'59"	75°13'45"	14.00	1	H5	S4	W1	18.3	16.2	1.3	NAOC	
GRV 020240	01/09/2003	72°58'59"	75°13'45"	14.40	1	H5	S3	W1	17.7	16.5	1.1	GIGCCAS	
GRV 020241	01/09/2003	72°58'59"	75°13'45"	9.96	1	H5	S1	W1	18.7	17.1	1.3	IGCCAS	
GRV 020243	01/09/2003	72°58'59"	75°13'45"	4.38	1	H6	S4	W1	17.0	15.7	1.3	NU	
GRV 020252	01/09/2003	72°58'59"	75°13'45"	1.14	1	H4	S2	W1	18.6	16.4	1.2	IGCCAS	
GRV 020254	01/09/2003	72°58'59"	75°13'45"	1.20	1	H6	S3	W1	18.2	16.1	1.3	BeiAP	
GRV 020256	01/09/2003	72°58'59"	75°13'45"	1.2	1	H5	S4	W1	18.5	16.8	1.8	IGCCAS	
GRV 020262	01/09/2003	72°58'59"	75°13'45"	0.80	1	H6	S6	W2	18.5	16.4	1.4	BeiAP	
GRV 020266	01/09/2003	72°58'59"	75°13'45"	0.48	1	H4	S4	W2	18.0	16.1	1.1	GUT	
GRV 020273	01/09/2003	72°59'10"	75°12'50"	8.25	1	H4	S1	W2	17.2	16.0	1.2	IGCCAS	
GRV 020277	01/10/2003	72°59'23"	75°13'06"	26.30	1	H4	S1	W2	15.0	14.5	1.3	GUT	
GRV 020285	01/10/2003	72°59'02"	75°14'47"	0.55	1	L5	S2	W2	24.6	20.7	1.4	PMO	
GRV 020288	01/10/2003	72°59'02"	75°14'47"	0.82	1	L5	S3	W1	24.5	20.5	1.6	PMO	
GRV 020290	01/10/2003	72°59'02"	75°14'47"	1.27	1	L5	S3	W1	24.0	20.7	1.4	NAOC	
GRV 020292	01/10/2003	72°59'02"	75°14'47"	1.71	1	L5	S4	W2	23.1	19.5	1.3	GUT	
GRV 020300	01/10/2003	72°59'02"	75°14'47"	3.2	1	L6	S4	W1	23.8	20.5	1.5	IGCCAS	
GRV 020302	01/10/2003	72°59'02"	75°14'47"	1.74	1	L5	S3	W1	24.1	20.2	1.6	NAOC	
GRV 020305	01/10/2003	72°59'02"	75°14'47"	3.36	1	L5	S2	W1	24.2	20.6	1.7	BeiAP	
GRV 020307	01/10/2003	72°59'02"	75°14'47"	4.26	1	L4	S2	W1	24.3	20.9	1.6	IGCCAS	
GRV 020310	01/10/2003	72°59'02"	75°14'47"	1.31	1	L5	S2	W1	23.2	20.1	1.3	IGCCAS	
GRV 020312	01/10/2003	72°59'02"	75°14'47"	2.06	1	L5	S3	W1	23.5	21.3	1.4	GIGCCAS	
GRV 020317	01/10/2003	72°59'02"	75°14'47"	1.27	1	L5	S2	W1	24.1	20.4	1.6	NAOC	
GRV 020319	01/10/2003	72°59'02"	75°14'47"	1.15	1	L5	S3	W1	23.4	20.9	1.6	GIGCCAS	
GRV 020328	01/10/2003	72°59'02"	75°14'47"	0.9	1	L5	S3	W2	22.9	19.3	1.2	IGCCAS	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 020329	01/10/2003	72°59'02"	75°14'47"	1.32	1	L5	S3	W1	24.1	20.5	1.6	BeiAP	
GRV 020333	01/10/2003	72°59'02"	75°14'47"	0.91	1	L6	S4	W1	23.3	20.9	1.6	GIGCAS	
GRV 020335	01/10/2003	72°59'02"	75°14'47"	0.87	1	L5	S3	W3	24.6	20.6	1.5	PMO	
GRV 020337	01/10/2003	72°59'02"	75°14'47"	0.87	1	L6	S4	W1	24.5	21.5	1.7	GIGCAS	
GRV 020346	01/10/2003	72°59'02"	75°14'47"	0.60	1	L5	S2	W2	24.8	20.7	1.4	PMO	
GRV 020347	01/10/2003	72°59'02"	75°14'47"	0.60	1	L5	S3	W2	22.3	19.1	1.2	GUT	
GRV 020349	01/10/2003	72°59'02"	75°14'47"	0.65	1	L5	S3	W1	25.0	21.4	1.3	PMO	
GRV 020353	01/10/2003	72°59'02"	75°14'47"	0.67	1	L6	S6	W2	24.1	20.2	1.4	BeiAP	
GRV 020354	01/10/2003	72°59'02"	75°14'47"	0.67	1	L5	S1	W1	23.4	19.3	1.5	JGCAS	
GRV 020355	01/10/2003	72°59'02"	75°14'47"	0.67	1	L6	S4	W1	23.3	19.6	1.3	JGCAS	
GRV 020356	01/10/2003	72°59'02"	75°14'47"	0.67	1	L4	S2	W1	23.1	19.7	1.3	NU	
GRV 020359	01/10/2003	72°59'02"	75°14'47"	0.46	1	L5	S4	W1	22.4	19.1	1.3	GUT	
GRV 020361	01/10/2003	72°59'02"	75°14'47"	0.54	1	L5	S2	W3	26.1	22.2	1.5	PMO	
GRV 020365	01/10/2003	72°59'02"	75°14'47"	0.47	1	L6	S3	W1	24.4	20.9	1.3	PMO	
GRV 020369	01/10/2003	72°59'02"	75°14'47"	0.44	1	L5	S2	W1	25.4	21.4	1.5	PMO	
GRV 020380	01/10/2003	72°59'02"	75°14'47"	0.48	1	L5	S4	W1	22.6	19.5	1.4	GUT	
GRV 020384	01/10/2003	72°59'02"	75°14'47"	0.46	1	L6	S4	W1	24.1	20.8	1.6	JGGCAS	
GRV 020385	01/10/2003	72°59'02"	75°14'47"	0.46	1	L6	S5	W1	23.7	20.3	1.5	JGGCAS	
GRV 020386	01/10/2003	72°59'02"	75°14'47"	0.46	1	L6	S3	W3	24.0	20.3	1.5	PMO	
GRV 020392	01/10/2003	72°59'02"	75°14'47"	0.48	1	L6	S3	W1	24.0	20.5	1.5	JGGCAS	
GRV 020395	01/10/2003	72°59'02"	75°14'47"	0.44	1	L5	S4	W2	22.6	20.2	1.5	GUT	
GRV 020397	01/10/2003	72°59'02"	75°14'47"	0.45	1	L5	S3	W1	24.9	21.2	1.4	PMO	
GRV 020413	01/10/2003	72°59'02"	75°14'47"	0.5	1	L5	S2	W2	22.4	18.8	1.4	GUT	
GRV 020569	01/11/2003	72°59'03"	75°14'43"	1.27	1	H6	S3	W2	20.4	17.4	1.5	BeiAP	
GRV 020570	01/11/2003	72°59'01"	75°15'04"	14.24	1	H4	S1	W2	19.5	17.2	1.5	NAOC	
GRV 020571	01/11/2003	72°59'03"	75°14'49"	50.07	1	L5	S2	W1	23.8	20.2	1.6	NAOC	
GRV 020574	01/11/2003	72°59'03"	75°14'49"	13.11	1	L6	S2	W1	24.0	20.5	1.7	BeiAP	
GRV 020576	01/11/2003	72°59'01"	75°14'50"	5.47	1	L5	S2	W1	23.6	19.6	1.4	JGCAS	
GRV 020584	01/11/2003	72°59'01"	75°14'50"	1.56	1	L6	S4	W3	24.5	21.3	1.5	GIGCAS	
GRV 020585	01/11/2003	72°59'01"	75°14'50"	1.56	1	H6	S4	W1	18.7	17.3	1.4	GIGCAS	
GRV 020587	01/11/2003	72°59'02"	75°14'47"	1.00	1	L5	S3	W1	24.4	21.0	1.5	JGGCAS	
GRV 020589	01/11/2003	72°59'02"	75°14'47"	0.9	1	L6	S3	W1	22.7	20	1.3	JGCAS	
GRV 020594	01/11/2003	72°59'02"	75°14'47"	0.63	1	L5	S3	W1	25.1	21.3	1.4	PMO	
GRV 020599	01/11/2003	72°59'02"	75°14'47"	0.68	1	L5	S2	W1	23.7	20.0	1.6	NAOC	
GRV 020600	01/11/2003	72°59'02"	75°14'47"	0.63	1	L5	S3	W1	24.3	20.7	1.4	PMO	
GRV 020615	01/11/2003	72°59'02"	75°14'47"	0.44	1	L5	S3	W2	22.9	19.8	1.2	GUT	
GRV 020619	01/11/2003	72°59'02"	75°14'47"	0.47	1	L5	S4	W1	22.3	19.3	1.4	GUT	
GRV 020773	01/11/2003	72°59'02"	75°15'00"	0.47	1	L6	S4	W1	23.8	20.5	1.7	JGGCAS	
GRV 020775	01/11/2003	72°59'02"	75°15'00"	0.47	1	L5	S4	W1	24.2	20.7	1.8	JGGCAS	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 020797	01/11/2003	72°59'02"	75°15'00"	3.96	1	L6	S2	W1	22.8	19.3	1.7	NU	
GRV 020801	01/11/2003	72°59'02"	75°15'00"	0.87	1	L6	S4	W1	23.8	21.4	1.4	GIGCAS	
GRV 020810	01/11/2003	72°59'00"	75°14'58"	1.28	1	L6	S2	W1	24.8	20.8	1.4	PMO	
GRV 020817	01/11/2003	72°59'00"	75°14'58"	0.65	1	L5	S4	W1	23.6	21.2	1.6	GIGCAS	
GRV 020820	01/11/2003	72°59'00"	75°14'47"	0.90	1	L6	S4	W1	23.0	19.6	1.3	NU	
GRV 020821	01/11/2003	72°59'00"	75°14'58"	0.54	1	L5	S4	W2	23.1	19.4	1.3	GUT	
GRV 020824	01/11/2003	72°59'00"	75°14'58"	0.46	1	L5	S3	W1	25.2	21.2	1.5	PMO	
GRV 020826	01/11/2003	72°59'00"	75°14'58"	0.47	1	L5	S3	W1	24.9	20.9	1.5	PMO	
GRV 020917	01/11/2003	72°59'02"	75°14'47"	2.08	1	L5	S2	W1	25.5	21.7	1.5	PMO	
GRV 020918	01/11/2003	72°59'02"	75°14'47"	2.07	1	L5	S3	W1	26.5	22.5	1.4	PMO	
GRV 020924	01/11/2003	72°59'02"	75°14'47"	1.00	1	L5	S2	W2	25.1	21.1	1.5	PMO	
GRV 020932	01/11/2003	72°59'02"	75°14'47"	0.47	1	L5	S3	W3	24.2	20.6	1.5	PMO	
GRV 020936	01/11/2003	72°59'02"	75°14'47"	0.47	1	L5	S3	W1	22.1	19.4	1.3	GUT	
GRV 020940	01/11/2003	72°59'02"	75°14'47"	0.46	1	L5	S3	W2	22.2	19.0	1.3	GUT	
GRV 020941	01/11/2003	72°59'02"	75°14'47"	0.48	1	L5	S4	W1	23.9	20.5	1.6	IGGCAS	
GRV 020942	01/11/2003	72°59'02"	75°14'47"	0.44	1	L6	S6	W1	24.1	20.7	1.6	IGGCAS	
GRV 020943	01/11/2003	72°59'02"	75°14'47"	0.54	1	L5	S4	W2	21.7	18.1	1.3	GUT	
GRV 021190	01/11/2003	72°59'01"	75°14'45"	0.65	1	L5	S3	W1	24.7	21.3	1.8	GIGCAS	
GRV 021203	01/11/2003	72°59'01"	75°14'45"	0.60	1	H5	S4	W3	17.8	16.4	1.1	GUT	
GRV 021204	01/11/2003	72°59'01"	75°14'45"	0.46	1	L4	S3	W1	23.2	19.4	1.3	GUT	
GRV 021205	01/11/2003	72°59'01"	75°14'45"	0.45	1	H5	S4	W2	20.3	17.3	1.3	GUT	
GRV 021220	01/11/2003	72°59'01"	75°14'45"	0.65	1	L5	S5	W1	23.7	20.1	1.6	NAOC	
GRV 021224	01/11/2003	72°59'01"	75°14'45"	0.45	1	L5	S2	W1	22.2	18.9	1.3	GUT	
GRV 021231	01/11/2003	72°59'01"	75°14'45"	0.65	1	L5	S2	W1	24.1	20.5	1.5	NAOC	
GRV 021233	01/11/2003	72°59'01"	75°14'45"	0.46	1	L6	S4	W1	23.6	20.3	1.7	IGGCAS	
GRV 021476	01/12/2003	72°56'28"	75°17'25"	3.38	1	L6	S1	W1	23.9	21.1	1.7	GIGCAS	
GRV 021498	01/13/2003	72°56'29"	75°18'02"	0.63	1	L3	S1	W1	22.1 (16.8–24.7)	17.6 14.2–20.3	1.1	GUT	
GRV 021523	01/14/2003	72°57'34"	75°12'58"	1.32	1	L6	S1	W1	24.6	21	1.1	IGCAS	
GRV 021529	01/14/2003	72°57'51"	75°14'21"	3.08	1	L5	S5	W1	25.2	21.3	1.5	PMO	
GRV 021533	01/14/2003	72°57'47"	75°12'53"	4.34	1	L6	S2	W1	23.7	19.9	1.3	NU	
GRV 021537	01/14/2003	72°57'56"	75°14'35"	0.55	1	L5	S2	W1	25.3	21.3	1.7	PMO	
GRV 021540	01/14/2003	72°57'37"	75°13'13"	3.12	1	L5	S3	W1	24.7	21.4	1.7	IGGCAS	
GRV 021552	01/14/2003	72°56'06"	75°18'50"	0.83	1	H6	S2	W3	17.8	15.7	1.2	NU	
GRV 021553	01/14/2003	72°56'05"	75°19'19"	0.60	1	Mesos- siderite						IGGCAS	
GRV 021554	01/14/2003	72°56'06"	75°19'07"	1.51	1	H4	S1	W2	17.3	15.6	1.5	GUT	
GRV 021559	01/14/2003	72°56'07"	75°19'20"	10.45	1	H4	S1	W1	18.9	16.8	1.5	IGCAS	
GRV 021561	01/14/2003	72°56'10"	75°18'20"	3.2	1	H4	S2	W1	18.7	17.1	1.2	IGCAS	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces		Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
					pieces	Number of pieces								
GRV 021575	01/14/2003	72°57'37"	75°13'20"	2.50	1	1	L5	S2	W2	23.7	19.7	1.5	NU	
GRV 021580	01/14/2003	72°57'48"	75°13'04"	0.48	1	1	CM2			13.5 (0.5-44.5)	2.4 (0.6-7.0)	1.3 (0.7-5.3)	PMO	
GRV 021583	01/14/2003	72°57'45"	75°14'03"	8.81	1	1	L4	S2	W1	23.2	19.8	0.9	NAOC	
GRV 021592	01/16/2003	72°51'08"	75°13'10"	3.88	1	1	H4	S3	W1	17.3	15.2	1.1	GUT	
GRV 021607	01/18/2003	72°59'46"	75°12'12"	0.60	1	1	H6	S3	W1	19.0	17.4	1.3	IGGCAS	
GRV 021608	01/18/2003	72°59'45"	75°12'14"	1.56	1	1	H4	S2	W1	19.1	16.7	1.3	NAOC	
GRV 021612	01/20/2003	72°46'27"	75°19'54"	2.17	1	1	H5	S2	W1	19.7	17.4	1.2	BeiAP	
GRV 021617	01/20/2003	72°46'28"	75°19'23"	4.25	1	1	L6	S3	W1	25.9	21.9	1.4	PMO	
GRV 021623	01/20/2003	72°47'08"	75°17'45"	0.46	1	1	H5	S2	W1	17.9	16.1	1.3	IGGCAS	
GRV 021626	01/20/2003	72°47'21"	75°17'09"	0.44	1	1	H5	S6	W1	18.0	16.3	1.3	IGGCAS	
GRV 021628	01/20/2003	72°47'30"	75°17'27"	3.38	1	1	H4	S2	W1	17.7	13.5	0.8	NAOC	
GRV 021629	01/20/2003	72°47'33"	75°17'31"	1.31	1	1	H4	S2	W1	16.6	15.9	0.3	NU	
GRV 021630	01/20/2003	72°47'29"	75°17'59"	1.00	1	1	H5	S2	W2	20.1	17.8	1.4	PMO	
GRV 021632	01/20/2003	72°47'28"	75°17'18"	2.07	1	1	L5	S4	W1	23.6	21.2	1.6	IGGCAS	
GRV 021637	01/20/2003	72°46'57"	75°19'20"	2.18	1	1	L6	S3	W1	24.7	20.8	1.9	BeiAP	
GRV 021638	01/20/2003	72°46'57"	75°19'35"	1.53	1	1	H5	S1	W1	17	15.3	0.9	IGGCAS	
GRV 021639	01/20/2003	72°46'57"	75°19'18"	1.08	1	1	L6	S4	W1	22.9	20.3	1.4	NU	
GRV 021640	01/20/2003	72°47'24"	75°17'59"	0.81	1	1	H5	S3	W1	18.3	16.5	1.0	IGGCAS	
GRV 021653	01/20/2003	72°46'23"	75°18'54"	1.00	1	1	H4	S2	W1	18.5	17.3	1.3	IGGCAS	
GRV 021658	01/20/2003	72°46'22"	75°21'00"	1.72	1	1	L6	S2	W1	23.1	20.8	1.8	IGGCAS	
GRV 021659	01/20/2003	72°46'23"	75°20'45"	8.03	1	1	H5	S2	W1	18.5	16.5	1.4	NAOC	
GRV 021661	01/20/2003	72°46'27"	75°19'52"	6.46	1	1	H5	S2	W1	18.7	16.5	1.3	BeiAP	
GRV 021662	01/20/2003	72°46'26"	75°20'01"	2.58	1	1	H5	S1	W4	18.8	17.4	3.1	IGGCAS	Impact melt
GRV 021691	01/20/2003	72°46'26"	75°20'27"	0.98	1	1	L5	S3	W1	23.2	19.9	1.6	IGGCAS	
GRV 021694	01/20/2003	72°46'25"	75°20'40"	1.00	1	1	H4	S1	W1	17.5	16.7	1.3	IGGCAS	
GRV 021696	01/20/2003	72°46'25"	75°20'51"	3.41	1	1	L6	S4	W1	23.3	21.3	1.6	IGGCAS	
GRV 021703	01/20/2003	72°46'24"	75°20'19"	0.45	1	1	L5	S3	W1	24.3	20.5	1.6	IGGCAS	
GRV 021717	01/20/2003	72°47'25"	75°17'51"	1.15	1	1	H5	S3	W1	18.0	17.0	1.1	IGGCAS	
GRV 021719	01/20/2003	72°47'26"	75°16'53"	1.00	1	1	H5	S2	W2	17.9	15.8	1.2	NAOC	
GRV 021720	01/20/2003	72°47'26"	75°16'46"	1.08	1	1	H4	S2	W1	17.3	15.5	0.8	GUT	
GRV 021732	01/20/2003	72°47'20"	75°17'41"	3.99	1	1	L6	S3	W1	25.2	21.3	1.8	BeiAP	
GRV 021735	01/20/2003	72°47'20"	75°17'51"	2.58	1	1	H4	S2	W1	18.1	17.1	1.3	IGGCAS	
GRV 021742	01/20/2003	72°47'17"	75°18'18"	1.33	1	1	H4	S3	W2	17.6	15.6	1.1	NAOC	
GRV 021743	01/20/2003	72°47'17"	75°18'39"	1.51	1	1	H4	S3	W2	17.3	19.4	1.2	IGGCAS	
GRV 021744	01/20/2003	72°47'16"	75°17'20"	1.08	1	1	H4	S2	W2	18.5	15.5	1.2	GUT	
GRV 021745	01/20/2003	72°47'13"	75°18'16"	1.14	1	1	H4	S3	W1	17.3	15.9	1.2	IGGCAS	
GRV 021746	01/20/2003	72°47'13"	75°18'17"	0.8	1	1	L5	S3	W1	23.3	19.7	1.6	IGGCAS	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 021748	01/20/2003	72°47'13"	75°18'11"	2.41	1	L5	S5	W1	23.9	20.3	1.8	NAOC	
GRV 021756	01/20/2003	72°47'05"	75°17'21"	0.23	1	L4			24.7 (24.3–25.2)	20.8 (19.2–21.8)	1.3 (0.5–2.0)	PMO	Breccia
GRV 021759	01/20/2003	72°47'05"	75°17'15"	0.84	1	L6	S4	W1	24	20.2	1.5	IGCAS	
GRV 021760	01/20/2003	72°47'04"	75°17'25"	2.53	1	L6	S2	W1	24.7	21.1	1.4	IGCAS	
GRV 021763	01/20/2003	72°47'02"	75°18'29"	0.59	1	L6	S3	W1	25.5	21.4	1.7	IGGCAS	
GRV 021767	01/20/2003	72°47'05"	75°17'40"	0.86	1	CR	S1	W1	1.8	3.4	1.4	BeiAP	
GRV 021769	01/20/2003	72°47'04"	75°18'34"	0.66	1	CR2			2.1 (0.9–4.3)	3.6 (1.6–5.0)	1.0 (0–5.1)	PMO	
GRV 021770	01/20/2003	72°46'30"	75°18'56"	2.42	1	L6	S4	W1	23.3	21.1	1.8	GIGCAS	
GRV 021771	01/20/2003	72°46'30"	75°19'03"	0.45	1	L6	S3	W1	23.9	20.6	1.6	IGGCAS	
GRV 021774	01/20/2003	72°46'28"	75°19'53"	2.56	1	L6	S3	W1	24.2	20.8	1.7	BeiAP	
GRV 021798	01/20/2003	72°46'26"	75°19'29"	8.54	1	H4	S1	W1	19.6	17.1	1.1	IGCAS	
GRV 021807	01/20/2003	72°46'29"	75°19'51"	4.05	1	H5	S3	W1	18.5	16.2	1.6	NAOC	
GRV 021812	01/20/2003	72°46'30"	75°20'28"	2.43	1	L6	S3	W2	24.5	21.8	1.7	IGGCAS	
GRV 021814	01/20/2003	72°46'30"	75°20'28"	1.52	1	H6	S2	W2	23.4	19.7	1.6	NU	
GRV 021815	01/20/2003	72°46'30"	75°20'28"	1.31	1	L6	S5	W1	23.8	20.6	1.4	NU	
GRV 021818	01/20/2003	72°46'38"	75°20'17"	1.83	1	L5	S2	W3	23.6	19.9	1.4	NU	
GRV 021819	01/20/2003	72°46'38"	75°20'17"	1.34	1	L6	S3	W1	23.6	21.4	1.7	GIGCAS	
GRV 021824	01/20/2003	72°46'38"	75°20'18"	0.56	1	H4	S3	W2	17.9	16.7	1.0	GUT	
GRV 021827	01/20/2003	72°46'38"	75°20'21"	0.63	1	H5	S2	W2	18.4	16.3	1.1	GUT	
GRV 021831	01/20/2003	72°46'43"	75°19'51"	0.47	1	H5	S2	W3	17.1	15.9	1.1	GUT	
GRV 021843	01/20/2003	72°46'42"	75°19'34"	0.52	1	H5	S1	W2	19.2	17.1	1.4	IGGCAS	
GRV 021846	01/20/2003	72°46'42"	75°19'37"	0.46	1	L5	S2	W1	25.0	21.4	1.5	PMO	
GRV 021861	01/20/2003	72°46'31"	75°20'11"	0.52	1	L5	S5	W2	26.3	22.5	1.7	PMO	
GRV 021869	01/20/2003	72°46'31"	75°20'17"	2.43	1	H5	S2	W2	18.2	16.0	1.2	PMO	
GRV 021870	01/20/2003	72°46'31"	75°20'17"	1.72	1	H6	S2	W1	18.8	16.6	1.2	NU	
GRV 021871	01/20/2003	72°46'31"	75°20'17"	1.50	1	H5	S2	W2	19.6	17.4	1.0	PMO	
GRV 021877	01/20/2003	72°46'40"	75°19'41"	0.83	1	H5	S3	W2	17.3	15.2	1.2	GUT	
GRV 021882	01/20/2003	72°46'40"	75°19'46"	1.08	1	H4	S3	W1	18.5	17.0	1.2	IGGCAS	
GRV 021890	01/20/2003	72°46'41"	75°19'33"	1.2	1	H4	S1	W1	18.2	16.3	1.1	IGCAS	
GRV 021891	01/20/2003	72°46'41"	75°19'34"	0.45	1	H5	S2	W1	18.6	16.3	1.2	PMO	
GRV 021892	01/20/2003	72°46'41"	75°19'35"	0.44	1	H5	S2	W2	19.0	16.8	1.1	PMO	
GRV 021895	01/20/2003	72°46'41"	75°19'38"	0.83	1	H4	S2	W2	17.0	15.4	1.2	GUT	
GRV 021901	01/20/2003	72°46'37"	75°19'25"	0.67	1	H5	S2	W2	17.9	15.0	2.0	NU	
GRV 021902	01/20/2003	72°46'37"	75°19'26"	0.67	1	H4	S4	W2	17.2	16.0	1.1	GUT	
GRV 021911	01/20/2003	72°46'37"	75°19'35"	0.45	1	H5	S2	W2	19.3	17.1	1.1	PMO	
GRV 021913	01/20/2003	72°46'37"	75°19'37"	0.67	1	H4	S2	W2	17.1	15.7	1.0	GUT	
GRV 021917	01/20/2003	72°46'39"	75°20'01"	0.46	1	H5	S2	W1	18.3	15.9	1.0	PMO	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 021920	01/20/2003	72°46'39"	75°20'04"	0.48	1	H5	S3	W2	19.0	16.8	1.3	PMO	
GRV 021923	01/20/2003	72°46'39"	75°20'07"	0.47	1	H5	S1	W1	18.0	16.6	1.3	IGGCAS	
GRV 021924	01/20/2003	72°46'39"	75°20'08"	0.47	1	H5	S2	W1	18.3	16.6	1.4	IGGCAS	
GRV 021934	01/20/2003	72°46'35"	75°19'10"	3.38	1	H4	S1	W1	20.2	15.3	1.4	NAOC	
GRV 021935	01/20/2003	72°46'35"	75°19'11"	3.07	1	H5	S3	W2	18.9	16.5	1.0	PMO	
GRV 021938	01/20/2003	72°46'35"	75°19'14"	1.55	1	H5	S1	W1	18.5	16.3	1.1	IGGCAS	
GRV 021945	01/20/2003	72°46'35"	75°19'21"	8.57	1	L6	S2	W1	24.3	20.5	1.5	IGGCAS	
GRV 021946	01/20/2003	72°46'23"	75°20'24"	8.21	1	L5	S5	W2	24.8	21.1	1.6	PMO	
GRV 021951	01/20/2003	72°46'23"	75°20'29"	5.56	1	H4	S1	W2	18.4	16.3	1.3	NAOC	
GRV 021955	01/20/2003	72°46'23"	75°20'33"	3.97	1	L6	S4	W1	24	20.2	1.5	IGGCAS	
GRV 021959	01/20/2003	72°46'23"	75°20'37"	3.42	1	L5	S5	W1	25.0	21.2	1.8	PMO	
GRV 021962	01/20/2003	72°46'23"	75°20'40"	2.42	1	L6	S3	W1	23.5	21.4	1.6	GIGCAS	
GRV 021963	01/20/2003	72°46'23"	75°20'41"	2.44	1	L5	S2	W2	22.5	19.0	1.5	GUT	
GRV 021964	01/20/2003	72°46'23"	75°20'42"	2.13	1	H5	S2	W1	18.1	16.1	1.3	GUT	
GRV 021971	01/20/2003	72°46'26"	75°20'28"	2.16	1	L6	S3	W1	23.2	20.2	1.5	IGGCAS	
GRV 021973	01/20/2003	72°46'26"	75°20'30"	1.80	1	H5	S2	W3	20.2	18.2	1.3	PMO	
GRV 021977	01/20/2003	72°46'26"	75°20'34"	5.66	1	H5	S2	W1	19.0	16.8	1.4	NAOC	
GRV 021980	01/20/2003	72°46'26"	75°20'36"	2.57	1	H4	S2	W1	17.6	15.9	1.0	NAOC	
GRV 021984	01/20/2003	72°46'26"	75°20'36"	2.13	1	H6	S1	W2	18.3	16.7	1.2	GUT	
GRV 021987	01/20/2003	72°46'31"	75°20'43"	2.06	1	H5	S3	W1	18.2	16.3	1.3	NAOC	
GRV 021998	01/20/2003	72°46'30"	75°18'55"	2.12	1	H4	S2	W2	18.5	17.0	1.2	IGGCAS	
GRV 022006	01/20/2003	72°46'35"	75°20'56"	1.82	1	L6	S3	W2	23.0	19.6	1.5	GUT	
GRV 022013	01/20/2003	72°46'52"	75°19'04"	3.90	1	L5	S3	W2	22.3	19.6	1.3	GUT	
GRV 022020	01/20/2003	72°46'30"	75°20'20"	0.69	1	L4	S4	W1	21.8	18.4	1.5	GUT	
GRV 022046	01/20/2003	72°46'43"	75°18'55"	4.04	1	L6	S2	W1	24.0	20.3	1.8	NAOC	
GRV 022047	01/20/2003	72°46'43"	75°18'55"	5.48	1	L6	S2	W1	23.9	20.5	1.8	BeiAP	
GRV 022054	01/20/2003	72°46'43"	75°18'55"	2.13	1	L5	S3	W1	24.4	21.2	2.0	IGGCAS	
GRV 022055	01/20/2003	72°46'43"	75°18'55"	1.81	1	L5	S3	W1	24.5	20.7	1.9	IGGCAS	
GRV 022056	01/20/2003	72°46'43"	75°18'55"	2.16	1	L6	S2	W1	23.5	20	1.5	IGGCAS	
GRV 022061	01/20/2003	72°46'43"	75°18'55"	0.56	1	L5	S3	W1	24.6	20.5	1.7	IGGCAS	
GRV 022064	01/20/2003	72°46'43"	75°18'55"	1.29	1	L6	S2	W1	22.4	19.4	1.5	GUT	
GRV 022065	01/20/2003	72°46'43"	75°18'55"	1.15	1	L6	S2	W1	24.1	20.8	1.8	NAOC	
GRV 022066	01/20/2003	72°46'43"	75°18'55"	1.29	1	L6	S2	W1	24.3	20.1	2.0	IGGCAS	
GRV 022069	01/20/2003	72°46'45"	75°18'38"	0.98	1	L5	S5	W1	23.2	19.6	1.8	NU	
GRV 022077	01/20/2003	72°46'45"	75°18'38"	0.44	1	L6	S5	W1	24.3	20.7	1.5	PMO	
GRV 022081	01/20/2003	72°46'45"	75°18'38"	0.44	1	L5	S2	W1	21.2	18.5	1.4	GUT	
GRV 022088	01/20/2003	72°46'45"	75°18'38"	0.48	1	L6	S5	W2	24.5	20.8	1.5	PMO	
GRV 022099	01/20/2003	72°46'45"	75°18'38"	2.55	1	L6	S5	W1	24.9	21.0	1.7	BeiAP	
GRV 022100	01/20/2003	72°46'45"	75°18'38"	1.56	1	L5	S5	W1	23.8	20.1	1.8	NAOC	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 022107	01/20/2003	72°46'45"	75°18'38"	1.05	1	H4	S1	W1	17.8	15.9	1.2	IGGCAS	
GRV 022109	01/20/2003	72°46'45"	75°18'38"	0.54	1	H5	S4	W1	18.6	16.7	2.2	IGGCAS	
GRV 022144	01/20/2003	72°46'44"	75°18'49"	8.60	1	L6	S4	W1	24.3	20.8	2.0	BeiAP	
GRV 022166	01/20/2003	72°46'54"	75°18'14"	8.93	1	L6	S3	W1	23.1	21.0	1.7	GIGCAS	
GRV 022167	01/20/2003	72°46'54"	75°18'14"	6.33	1	L6	S3	W1	24.1	21.1	1.6	IGGCAS	
GRV 022183	01/20/2003	72°46'52"	75°17'32"	5.82	1	L6	S6	W1	25.5	21.8	1.6	PMO	
GRV 022184	01/20/2003	72°46'52"	75°17'32"	3.44	1	L6	S4	W1	24.7	21.0	1.7	IGGCAS	
GRV 022195	01/20/2003	72°46'53"	75°18'20"	6.33	1	L5	S2	W1	24.3	20.6	1.4	IGGCAS	
GRV 022196	01/20/2003	72°46'53"	75°18'20"	4.33	1	L5	S3	W1	22.4	19.7	1.4	GUT	
GRV 022209	01/20/2003	72°46'42"	75°19'15"	9.86	1	L6	S1	W1	23.9	20.3	1.1	IGGCAS	
GRV 022213	01/20/2003	72°46'42"	75°19'15"	8.75	1	L6	S6	W1	24.0	20.5	1.7	BeiAP	
GRV 022218	01/20/2003	72°46'42"	75°19'15"	3.16	1	L5	S4	W1	22.8	20.1	1.5	GUT	
GRV 022225	01/20/2003	72°46'42"	75°19'15"	6.46	1	L6	S2	W1	24.6	20.5	1.7	BeiAP	
GRV 022233	01/20/2003	72°46'43"	75°18'55"	8.54	1	L6	S2	W1	22.8	19.4	1.5	NU	
GRV 022240	01/20/2003	72°46'44"	75°18'40"	6.35	1	L5	S4	W1	22.8	20.1	1.4	GUT	
GRV 022243	01/20/2003	72°46'44"	75°18'40"	2.06	1	L5	S1	W1	24.2	20.3	1.9	NAOC	
GRV 022248	01/20/2003	72°46'44"	75°18'40"	4.22	1	L6	S3	W1	24.2	21.5	1.7	GIGCAS	
GRV 022253	01/20/2003	72°46'44"	75°18'40"	3.19	1	L5	S5	W1	23.2	20.1	1.6	NU	
GRV 022257	01/20/2003	72°46'44"	75°18'40"	1.08	1	H5	S3	W2	18.6	16.8	1.2	IGGCAS	
GRV 022258	01/20/2003	72°46'44"	75°18'40"	5.45	1	L5	S3	W1	23.8	21.1	1.5	IGGCAS	
GRV 022260	01/20/2003	72°46'44"	75°18'40"	2.53	1	L5	S2	W1	23.7	20.7	1.5	IGGCAS	
GRV 022261	01/20/2003	72°46'44"	75°18'40"	2.44	1	L6	S3	W2	23.1	20.2	1.3	GUT	
GRV 022269	01/20/2003	72°46'42"	75°18'43"	8.84	1	L6	S4	W1	23.7	21.0	1.7	GIGCAS	
GRV 022273	01/20/2003	72°46'42"	75°18'50"	3.42	1	L6	S5	W1	25.4	21.4	1.6	PMO	
GRV 022280	01/20/2003	72°46'42"	75°18'50"	6.38	1	L6	S2	W2	23.2	20.1	1.5	NU	
GRV 022294	01/20/2003	72°46'46"	75°17'43"	1.19	1	L4	S3	W1	24.0	20.9	1.3	IGGCAS	
GRV 022297	01/20/2003	72°46'45"	75°17'59"	1.52	1	L6	S4	W3	23.7	20.1	1.7	NU	
GRV 022305	01/20/2003	72°46'44"	75°18'05"	0.59	1	L6	S5	W1	24.8	21.1	1.6	PMO	
GRV 022306	01/20/2003	72°46'44"	75°18'05"	0.81	1	L6	S4	W1	23.3	20.9	1.6	GIGCAS	
GRV 022307	01/20/2003	72°46'44"	75°18'05"	0.44	1	L5	S3	W2	21.8	18.7	1.5	GUT	
GRV 022310	01/20/2003	72°46'44"	75°18'05"	0.47	1	L5	S5	W1	25.1	21.2	1.7	PMO	
GRV 022311	01/20/2003	72°46'44"	75°18'05"	0.45	1	L5	S3	W3	22.8	19.9	1.5	GUT	
GRV 022317	01/21/2003	72°46'20"	75°20'24"	13.41	1	L6	S2	W1	24.1	20.4	1.9	BeiAP	
GRV 022318	01/21/2003	72°46'24"	75°20'21"	5.79	1	L6	S4	W1	22.9	21.3	1.7	GIGCAS	
GRV 022321	01/21/2003	72°46'30"	75°19'45"	2.16	1	L6	S5	W2	24.6	19.7	2.1	NU	
GRV 022326	01/21/2003	72°46'31"	75°20'11"	1.00	1	L6	S3	W2	24.0	20.3	1.8	NAOC	
GRV 022329	01/21/2003	72°46'25"	75°19'13"	0.48	1	H5	S4	W3	17.5	16.4	1.2	GUT	
GRV 022337	01/21/2003	72°46'45"	75°17'48"	1.20	1	L6	S5	W1	23.8	19.6	1.8	NU	
GRV 022344	01/21/2003	72°46'20"	75°20'20"	0.47	1	L6	S3	W1	25.5	21.5	1.7	PMO	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 022346	01/21/2003	72°46'22"	75°20'00"	0.44	1	L6	S3	W1	24.2	21.1	1.6		IGGCAS
GRV 022347	01/21/2003	72°46'24"	75°19'51"	0.48	1	L5	S3	W1	22.0	18.5	1.3		GUT
GRV 022348	01/21/2003	72°46'28"	75°19'43"	0.47	1	L5	S3	W3	23.6	20.6	1.3		GUT
GRV 022356	01/21/2003	72°46'42"	75°18'09"	1.31	1	L5	S4	W2	22.8	19.8	1.5		GUT
GRV 022359	01/21/2003	72°46'42"	75°18'40"	1.20	1	L6	S2	W2	24.1	20.3	1.6		NU
GRV 022365	01/21/2003	72°46'52"	75°18'18"	0.56	1	L5	S3	W1	23.7	20.8	1.7		IGGCAS
GRV 022381	01/21/2003	72°46'49"	75°16'54"	0.8	1	H5	S5	W1	18.6	16.6	0.9		IGGCAS
GRV 022388	01/21/2003	72°46'25"	75°20'25"	18.15	1	L5	S2	W1	24.1	20.0	2.4		IGGCAS
GRV 022392	01/21/2003	72°46'29"	75°19'25"	2.58	1	L6	S5	W1	23.7	19.8	1.9		NAOC
GRV 022395	01/21/2003	72°46'28"	75°19'28"	2.06	1	L6	S2	W1	24.0	20.4	1.8		BeiAP
GRV 022397	01/21/2003	72°46'24"	75°20'36"	1.51	1	H4	S2	W1	18.6	16.6	1.3		IGGCAS
GRV 022398	01/21/2003	72°46'29"	75°19'27"	0.98	1	L6	S5	W1	23.3	20.4	1.6		NU
GRV 022405	01/21/2003	72°46'22"	75°19'53"	6.38	1	L5	S2	W2	23.0	19.2	1.5		NU
GRV 022406	01/21/2003	72°46'27"	75°19'21"	2.53	1	L6	S2	W2	24.0	20.3	1.6		NU
GRV 022408	01/21/2003	72°46'28"	75°19'40"	29.05	1	L5	S3	W1	22.2	19.3	1.9		NU
GRV 022410	01/21/2003	72°46'33"	75°19'49"	4.25	1	H3	S2	W2	20.0 (19.1–20.9)	15.3 (7.4–21.8)	1.2 (0.3–4.0)		PMO
GRV 022411	01/21/2003	72°46'33"	75°19'29"	8.28	1	L6	S3	W2	23.3	20.0	1.4		GUT
GRV 022413	01/21/2003	72°46'34"	75°19'12"	4.31	1	L5	S3	W2	24.1	20.9	1.8		IGGCAS
GRV 022414	01/21/2003	72°46'31"	75°19'33"	5.53	1	L5	S2	W1	24.4	20.8	1.6		BeiAP
GRV 022415	01/21/2003	72°46'36"	75°20'11"	4.00	1	H4	S1	W1	18.7	16.7	1.2		BeiAP
GRV 022423	01/21/2003	72°46'35"	75°19'36"	1.05	1	H4	S2	W1	19.2	16.6	1.1		IGGCAS
GRV 022426	01/21/2003	72°46'23"	75°21'19"	0.97	1	L5	S3	W2	25.0	21.2	1.4		PMO
GRV 022428	01/21/2003	72°46'26"	75°20'52"	0.84	1	H6	S2	W1	19	16.4	1.1		IGGCAS
GRV 022429	01/21/2003	72°46'27"	75°20'03"	3.14	1	H4	S2	W3	18.2	16.1	1.2		GUT
GRV 022442	01/21/2003	72°46'40"	75°18'20"	0.65	1	L6	S5	W2	24.3	21.0	1.7		BeiAP
GRV 022456	01/21/2003	72°46'24"	75°19'43"	10.05	1	L5	S4	W2	22.2	19.3	1.5		GUT
GRV 022457	01/21/2003	72°46'26"	75°19'37"	10.38	1	H5	S3	W1	18.2	16.2	1.3		NU
GRV 022463	01/21/2003	72°46'26"	75°19'37"	6.46	1	L5	S2	W1	23.8	20.9	1.2		IGGCAS
GRV 022464	01/21/2003	72°46'26"	75°19'37"	1.74	1	H5	S2	W1	19.2	16.6	1.2		NAOC
GRV 022466	01/21/2003	72°46'26"	75°19'39"	1.81	1	L5	S3	W1	24.3	21.2	1.8		IGGCAS
GRV 022467	01/21/2003	72°46'26"	75°19'40"	0.48	1	H5	S3	W2	19.4	17.5	1.4		IGGCAS
GRV 022468	01/21/2003	72°46'27"	75°20'43"	0.69	1	H4	S1	W2	17.1	15.6	1.0		GUT
GRV 022469	01/21/2003	72°46'27"	75°20'43"	1.71	1	H4	S3	W2	17.1	15.6	1.1		GUT
GRV 022472	01/21/2003	72°46'27"	75°20'45"	0.69	1	H4	S2	W1	18.2	16.6	1.3		IGGCAS
GRV 022476	01/21/2003	72°46'28"	75°19'18"	1.80	1	H5	S1	W1	17.9	16.9	1.2		GIGCAS
GRV 022478	01/21/2003	72°46'28"	75°19'20"	0.48	1	H5	S4	W1	18.3	16.9	1.2		IGGCAS
GRV 022479	01/21/2003	72°46'28"	75°19'21"	0.44	1	H5	S2	W1	18.5	16.7	1.7		IGGCAS
GRV 022489	01/21/2003	72°46'32"	75°19'40"	0.48	1	H5	S2	W2	19.1	17.1	1.1		PMO

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 022491	01/21/2003	72°46'32"	75°19'42"	0.97	1	H5	S2	W3	19.1	16.6	1.3	PMO	
GRV 022495	01/21/2003	72°46'32"	75°19'46"	0.45	1	L6	S3	W2	22.7	20.1	1.5	GUT	
GRV 022502	01/21/2003	72°46'28"	75°19'09"	0.48	1	H5	S3	W2	19.3	16.9	1.1	PMO	
GRV 022503	01/21/2003	72°46'28"	75°19'10"	0.45	1	H6	S2	W1	18.1	16.0	1.3	IGGCAS	
GRV 022511	01/21/2003	72°46'27"	75°19'54"	0.67	1	H5	S3	W1	18.1	17.0	1.2	IGGCAS	
GRV 022526	01/21/2003	72°46'22"	75°19'07"	1.50	1	H5	S3	W2	18.6	16.7	1.1	PMO	
GRV 022531	01/21/2003	72°46'23"	75°19'29"	1.08	1	H5	S2	W2	19.1	17.1	1.1	PMO	
GRV 022543	01/21/2003	72°46'24"	75°18'56"	3.12	1	H4	S1	W2	19.0	17.3	1.4	IGGCAS	
GRV 022552	01/21/2003	72°46'25"	75°20'28"	0.55	1	H3	S1	W2	18.2	15.6	0.6	GUT	
									(17.1–27.0)	(13.4–19.6)			
GRV 022555	01/21/2003	72°46'26"	75°20'31"	1.15	1	L5	S3	W1	24.0	20.2	1.9	NAOC	
GRV 022558	01/21/2003	72°46'26"	75°20'34"	0.80	1	H4	S2	W3	17.7	15.4	1.0	NU	
GRV 022568	01/21/2003	72°46'28"	75°18'25"	1.08	1	H5	S3	W2	18.8	16.7	1.1	PMO	
GRV 022570	01/21/2003	72°46'28"	75°18'27"	0.45	1	H6	S4	W1	18.3	16.5	1.2	IGGCAS	
GRV 022578	01/21/2003	72°46'24"	75°20'13"	0.59	1	H5	S2	W3	18.7	16.5	1.4	PMO	
GRV 022583	01/21/2003	72°46'24"	75°20'18"	0.47	1	H5	S4	W2	18.8	16.6	1.2	GUT	
GRV 022593	01/21/2003	72°46'57"	75°16'43"	0.97	1	L6	S3	W1	24.7	20.9	1.7	GIGCAS	
GRV 022598	01/21/2003	72°46'57"	75°16'48"	0.69	1	L6	S2	W1	23.9	20.7	1.8	IGGCAS	
GRV 022599	01/21/2003	72°46'57"	75°16'49"	0.55	1	L6	S3	W2	22.4	19.5	1.5	GUT	
GRV 022600	01/21/2003	72°46'57"	75°16'50"	0.81	1	L6	S5	W1	23.7	20.1	1.9	NAOC	
GRV 022601	01/21/2003	72°46'57"	75°16'51"	1.06	1	H5	S3	W1	18.4	16.2	1.4	NAOC	
GRV 022602	01/21/2003	72°46'57"	75°16'52"	0.47	1	L5	S3	W1	24.2	21.3	1.7	IGGCAS	
GRV 022604	01/21/2003	72°46'57"	75°16'54"	0.48	1	L6	S4	W2	22.9	19.4	1.3	GUT	
GRV 022611	01/21/2003	72°46'57"	75°16'55"	1.05	1	L6	S5	W1	25.2	21.3	1.2	NU	
GRV 022619	01/21/2003	72°46'57"	75°16'37"	0.59	1	L6	S3	W1	23.1	20.1	1.5	GUT	
GRV 022622	01/21/2003	72°46'57"	75°16'38"	1.50	1	L6	S4	W1	23.4	21.1	1.7	GIGCAS	
GRV 022623	01/21/2003	72°46'57"	75°16'39"	0.56	1	L6	S5	W1	24.2	20.6	1.5	PMO	
GRV 022629	01/21/2003	72°46'57"	75°16'40"	0.48	1	L6	S4	W2	22.5	19.4	1.5	GUT	
GRV 022634	01/21/2003	72°46'58"	75°16'38"	1.05	1	L6	S5	W1	22.9	19.4	1.9	NU	
GRV 022638	01/21/2003	72°46'58"	75°16'40"	0.55	1	L6	S3	W1	23.9	21.2	1.8	IGGCAS	
GRV 022641	01/21/2003	72°46'58"	75°16'43"	1.05	1	H5	S3	W1	19.3	17.0	1.1	GUT	
GRV 022646	01/21/2003	72°46'55"	75°17'07"	0.47	1	L6	S3	W1	24.2	21.1	1.6	IGGCAS	
GRV 022651	01/21/2003	72°46'55"	75°17'12"	0.63	1	L5	S5	W1	24.0	21.0	1.8	IGGCAS	
GRV 022661	01/21/2003	72°46'50"	75°17'11"	0.59	1	L6	S3	W1	22.9	20.0	1.4	GUT	
GRV 022662	01/21/2003	72°46'50"	75°17'12"	0.69	1	L5	S2	W2	26.0	22.1	1.7	PMO	
GRV 022665	01/21/2003	72°46'50"	75°17'15"	1.57	1	H4	S4	W1	17.9	16.1	1.0	IGGCAS	
GRV 022672	01/21/2003	72°46'53"	75°16'46"	0.63	1	H5	S5	W1	18.4	16.7	1.2	IGGCAS	
GRV 022675	01/21/2003	72°46'53"	75°16'46"	0.65	1	H5	S2	W1	18.6	16.6	1.3	BeiAP	
GRV 022680	01/21/2003	72°47'05"	75°16'12"	1.15	1	H6	S4	W1	18.2	16.4	1.3	BeiAP	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 022711	01/21/2003	72°46'51"	75°16'40"	0.69	1	L5	S5	W1	25.1	21.3	1.5	PMO	
GRV 022718	01/21/2003	72°46'45"	75°17'31"	0.47	1	L6	S5	W1	24.7	20.8	1.7	PMO	
GRV 022726	01/21/2003	72°46'45"	75°17'39"	0.59	1	L5	S3	W1	23.9	20.7	1.8	IGGCAS	
GRV 022741	01/21/2003	72°46'45"	75°17'54"	0.56	1	L6	S5	W1	25.1	21.4	1.6	PMO	
GRV 022775	01/22/2003	72°46'30"	75°19'45"	40.56	1	L6	S4	W1	25.2	21.1	1.8	BeiAP	
GRV 022776	01/22/2003	72°46'30"	75°19'46"	14.56	1	L6	S3	W1	24.6	21.1	1.6	GIGCAS	
GRV 022777	01/22/2003	72°46'30"	75°19'47"	10.42	1	L6	S4	W1	24.2	20.6	1.4	IGGCAS	
GRV 022778	01/22/2003	72°46'30"	75°19'48"	10.24	1	L6	S5	W1	23.6	20.0	1.7	NU	
GRV 022785	01/22/2003	72°46'32"	75°20'16"	17.90	1	L6	S5	W1	23.7	20.7	2.0	IGGCAS	
GRV 022786	01/22/2003	72°46'32"	75°20'17"	8.36	1	L5	S3	W1	22.2	19.3	1.3	GUT	
GRV 022794	01/22/2003	72°46'32"	75°20'19"	1.33	1	H5	S3	W2	19.1	17.3	1.5	NAOC	
GRV 022800	01/22/2003	72°46'31"	75°19'38"	1.05	1	H4	S3	W2	18.0	16.2	1.2	GUT	
GRV 022804	01/22/2003	72°46'31"	75°19'42"	1.57	1	L5	S2	W2	24.6	20.6	1.6	PMO	
GRV 022805	01/22/2003	72°46'31"	75°19'43"	0.83	1	L5	S3	W1	23.8	21.0	1.7	IGGCAS	
GRV 022811	01/22/2003	72°46'31"	75°19'49"	0.47	1	L6	S5	W2	24.3	20.4	1.6	PMO	
GRV 022822	01/22/2003	72°46'25"	75°20'13"	0.98	1	L5	S3	W1	22.6	19.3	1.4	GUT	
GRV 022823	01/22/2003	72°46'25"	75°20'14"	0.69	1	L6	S3	W1	24.7	21.3	1.6	GIGCAS	
GRV 022827	01/22/2003	72°46'25"	75°20'18"	0.64	1	L5	S3	W1	22.4	17.8	1.3	GUT	
GRV 022833	01/22/2003	72°46'25"	75°20'21"	1.00	1	H6	S2	W1	19.7	17.3	1.5	BeiAP	
GRV 022834	01/22/2003	72°46'25"	75°20'21"	0.65	1	H4	S2	W1	18.7	16.7	1.4	IGGCAS	
GRV 022835	01/22/2003	72°46'25"	75°20'21"	1.08	1	Ureilite			93.6	70.1–80.5	1.7–44.3	GIGCAS	
GRV 022850	01/22/2003	72°46'25"	75°20'27"	0.48	1	H6	S1	W1	19.6	17.5	1.5	IGGCAS	
GRV 022856	01/22/2003	72°46'25"	75°20'32"	0.46	1	H4	S3	W2	15.6	14.2	1.1	GUT	
GRV 022859	01/22/2003	72°46'25"	75°20'32"	2.05	1	H6	S2	W1	19.3	17.7	1.3	IGGCAS	
GRV 022863	01/22/2003	72°46'26"	75°20'00"	0.60	1	H5	S2	W2	19.0	16.9	1.3	PMO	
GRV 022864	01/22/2003	72°46'26"	75°20'00"	0.63	1	H5	S3	W2	19.1	17.0	1.1	PMO	
GRV 022872	01/22/2003	72°46'26"	75°20'06"	1.80	1	H5	S2	W1	17.7	16.7	1.2	GIGCAS	
GRV 022887	01/22/2003	72°46'29"	75°18'43"	1.58	1	H4	S4	W2	18.9	17.1	1.3	IGGCAS	
GRV 022890	01/22/2003	72°46'29"	75°18'46"	2.06	1	Wi-nonaitic	S1	W1	2.7	4.3	1.7	BeiAP	
GRV 022893	01/22/2003	72°46'29"	75°18'49"	1.84	1	H4	S2	W3	16.3	13.7	0.9	NU	
GRV 022894	01/22/2003	72°46'29"	75°18'50"	0.90	1	H6	S2	W3	18.6	16.3	1.6	NU	
GRV 022899	01/22/2003	72°46'30"	75°18'20"	0.88	1	H5	S4	W1	20.3	17.7	1.3	GUT	
GRV 022906	01/22/2003	72°46'30"	75°19'02"	8.05	1	H5	S1	W2	18.7	16.5	1.5	NAOC	
GRV 022907	01/22/2003	72°46'30"	75°19'03"	35.91	1	H3	S2	W1	16.2	13.2	1.6	IGGCAS	
GRV 022909	01/22/2003	72°46'30"	75°19'05"	5.83	1	LL6	S3	W1	27.0	22.9	1.5	PMO	
GRV 022910	01/22/2003	72°46'30"	75°19'06"	10.12	1	L5	S4	W1	23.0	19.4	1.5	GUT	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces		Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
					pieces	Number								
GRV 022911	01/22/2003	72°46'30"	75°19'07"	4.25	1	1	L6	S2	W1	24.8	22.3	1.6		GIGCAS
GRV 022919	01/22/2003	72°46'29"	75°19'23"	8.10	1	1	L6	S3	W1	23.0	20.9	1.7		GIGCAS
GRV 022921	01/22/2003	72°46'29"	75°19'23"	2.43	1	1	H3	S2	W2	17.8 (11.5-21.0)	11.2 (1.4-18.6)	0.9 (0.2-1.5)		PMO
GRV 022922	01/22/2003	72°46'29"	75°19'23"	3.91	1	1	H5	S4	W2	17.7	16.0	1.3		NU
GRV 022924	01/22/2003	72°46'29"	75°19'25"	3.44	1	1	L4	S2	W1	22.9	19.8	1.4		IGGCAS
GRV 022941	01/22/2003	72°46'28"	75°19'21"	0.83	1	1	L5	S5	W1	25.1	21.0	2.0		IGGCAS
GRV 022946	01/22/2003	72°46'28"	75°19'22"	0.59	1	1	H5	S3	W1	18.2	16.3	1.3		IGGCAS
GRV 022947	01/22/2003	72°46'28"	75°19'22"	0.48	1	1	H5	S2	W1	18.4	16.8	1.4		IGGCAS
GRV 022955	01/22/2003	72°46'28"	75°19'31"	0.46	1	1	H4	S2	W2	17.9	16.0	1.2		GUT
GRV 022965	01/22/2003	72°46'27"	75°18'56"	1.00	1	1	H5	S3	W1	18.2	16.0	0.8		BeiAP
GRV 022966	01/22/2003	72°46'27"	75°18'57"	0.91	1	1	H5	S2	W1	17.9	15.7	1.4		NAOC
GRV 022967	01/22/2003	72°46'27"	75°18'58"	0.47	1	1	H4	S2	W2	17.1	15.5	1.1		GUT
GRV 022968	01/22/2003	72°46'27"	75°18'59"	0.91	1	1	H5	S2	W1	18.1	16.1	1.2		NAOC
GRV 022975	01/22/2003	72°46'26"	75°19'12"	0.87	1	1	H5	S2	W1	18.0	16.1	1.3		NAOC
GRV 022977	01/22/2003	72°46'26"	75°19'14"	0.65	1	1	H4	S1	W1	18.8	16.8	0.9		IGCAS
GRV 022985	01/22/2003	72°46'25"	75°20'37"	0.69	1	1	H4	S1	W1	18.3	16.6	1.1		GIGCAS
GRV 022986	01/22/2003	72°46'25"	75°20'37"	0.47	1	1	H4	S2	W3	18.3	16.0	1.1		GUT
GRV 023001	01/22/2003	72°46'25"	75°20'48"	0.47	1	1	H5	S2	W1	18.5	16.3	1.3		IGGCAS
GRV 023006	01/22/2003	72°46'26"	75°19'41"	0.45	1	1	H5	S2	W1	18.6	16.4	1.2		PMO
GRV 023035	01/22/2003	72°46'24"	75°19'19"	0.69	1	1	L6	S5	W1	24.1	20.6	1.8		NAOC
GRV 023037	01/22/2003	72°46'24"	75°19'20"	0.56	1	1	H5	S2	W1	18.3	16.5	1.3		GUT
GRV 023046	01/22/2003	72°46'24"	75°19'29"	0.56	1	1	L5	S3	W2	21.9	19.6	1.4		GUT
GRV 023047	01/22/2003	72°46'24"	75°19'30"	0.64	1	1	H6	S3	W2	18.0	16.1	1.2		GUT
GRV 023052	01/22/2003	72°46'24"	75°19'35"	0.59	1	1	H4	S2	W2	17.1	15.4	1.2		PMO
GRV 023086	01/22/2003	72°46'32"	75°19'28"	1.56	1	1	H4	S1	W1	17.9	16.0	0.8		BeiAP
GRV 023088	01/22/2003	72°46'32"	75°19'30"	1.16	1	1	H4	S2	W3	18.6	16.6	1.3		PMO
GRV 023105	01/22/2003	72°46'28"	75°19'18"	1.29	1	1	L5	S4	W2	24.7	21.3	1.7		IGGCAS
GRV 023106	01/22/2003	72°46'28"	75°19'18"	1.52	1	1	H5	S2	W3	18.0	16.2	1.0		GUT
GRV 023107	01/22/2003	72°46'28"	75°19'19"	1.08	1	1	L6	S3	W1	25.2	22.3	1.5		GIGCAS
GRV 023110	01/22/2003	72°46'28"	75°19'22"	1.20	1	1	L5	S2	W1	22.6	19.8	1.5		GUT
GRV 023111	01/22/2003	72°46'28"	75°19'23"	1.28	1	1	H6	S1	W3	19.4	17.3	1.5		GIGCAS
GRV 023113	01/22/2003	72°46'28"	75°19'25"	1.19	1	1	H5	S2	W3	19.3	16.8	1.4		PMO
GRV 023126	01/22/2003	72°46'27"	75°19'07"	0.59	1	1	H5	S2	W3	19.8	17.5	1.3		PMO
GRV 023127	01/22/2003	72°46'27"	75°19'08"	0.98	1	1	H6	S3	W1	20.0	17.4	1.4		GUT
GRV 023128	01/22/2003	72°46'27"	75°19'09"	0.98	1	1	H4	S3	W2	19.3	16.9	1.3		IGGCAS
GRV 023129	01/22/2003	72°46'27"	75°19'10"	1.83	1	1	H5	S2	W3	17.4	15.6	1.2		GUT
GRV 023133	01/22/2003	72°46'27"	75°19'14"	0.64	1	1	L5	S2	W1	24.3	21.0	1.8		IGGCAS
GRV 023140	01/22/2003	72°46'24"	75°20'11"	2.16	1	1	L5	S2	W2	23.3	20.3	1.5		NU

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 023146	01/22/2003	72°46'24"	75°20'17"	0.84	1	L6	S2	W1	22.5	19.3	1.5	NU	
GRV 023155	01/22/2003	72°46'25"	75°20'19"	0.41	1	CV3			6.0 (0.3–28.9)	1.1 (0.4–2.5)	1.1 (0.8–1.5)	PMO	
GRV 023161	01/22/2003	72°46'26"	75°20'22"	9.80	1	H5	S2	W3	18.9	16.7	1.3	PMO	
GRV 023165	01/22/2003	72°46'26"	75°20'22"	9.75	1	L6	S5	W1	24.8	21.1	1.5	PMO	
GRV 023167	01/22/2003	72°46'26"	75°20'22"	8.08	1	L6	S4	W1	24.0	21.2	1.7	GIGCAS	
GRV 023172	01/22/2003	72°46'26"	75°20'22"	2.44	1	L5	S4	W1	23.9	20.9	1.7	IGGCAS	
GRV 023176	01/22/2003	72°46'26"	75°20'22"	0.88	1	H5	S4	W1	18.3	16.8	1.1	IGGCAS	
GRV 023177	01/22/2003	72°46'26"	75°20'22"	0.48	1	H5	S2	W2	18.6	16.4	1.2	PMO	
GRV 023182	01/22/2003	72°46'26"	75°20'22"	0.46	1	H6	S3	W1	18.1	16.4	1.3	IGGCAS	
GRV 023188	01/22/2003	72°46'26"	75°20'23"	0.46	1	H5	S2	W1	18.3	16.7	1.2	IGGCAS	
GRV 023220	01/22/2003	72°46'24"	75°20'19"	1.33	1	H6	S5	W2	18.5	16.4	1.3	BeiAP	
GRV 023221	01/22/2003	72°46'24"	75°20'19"	0.91	1	H6	S3	W1	18.3	16.6	1.5	BeiAP	
GRV 023222	01/22/2003	72°46'24"	75°20'19"	0.65	1	H5	S1	W2	17.1	15.9	1.2	NU	
GRV 023226	01/22/2003	72°46'24"	75°20'19"	0.60	1	H5	S2	W1	17.1	15.0	1.2	PMO	
GRV 023243	01/22/2003	72°46'25"	75°19'12"	1.73	1	H4	S3	W1	18.3	17.4	1.2	BeiAP	
GRV 023245	01/22/2003	72°46'25"	75°19'12"	2.06	1	H4	S2	W1	18.2	16.3	1.1	IGCAS	
GRV 023250	01/22/2003	72°46'25"	75°19'12"	0.46	1	H5	S2	W2	19.4	16.7	1.2	PMO	
GRV 023265	01/22/2003	72°46'25"	75°19'13"	0.67	1	H5	S3	W1	18.4	16.9	1.3	IGGCAS	
GRV 023267	01/22/2003	72°46'25"	75°19'13"	0.60	1	H5	S3	W2	17.4	16.0	1.1	GUT	
GRV 023269	01/22/2003	72°46'25"	75°19'13"	0.46	1	H5	S2	W2	19.1	16.7	1.2	PMO	
GRV 023270	01/22/2003	72°46'25"	75°19'13"	0.47	1	L6	S2	W1	24.4	21.0	1.7	IGGCAS	
GRV 023286	01/22/2003	72°46'25"	75°19'15"	1.14	1	H4	S2	W1	18.0	15.9	1.2	NU	
GRV 023289	01/22/2003	72°46'25"	75°19'15"	0.55	1	L6	S3	W1	25.0	21.5	1.8	IGGCAS	
GRV 023298	01/22/2003	72°46'25"	75°19'16"	0.55	1	L6	S5	W1	24.3	20.7	1.5	PMO	
GRV 023299	01/22/2003	72°46'25"	75°19'16"	0.48	1	L6	S5	W1	23.3	19.4	1.6	PMO	
GRV 023301	01/23/2003	72°46'30"	75°20'20"	5.71	1	L6	S3	W1	23.9	21.2	1.0	GIGCAS	
GRV 023302	01/23/2003	72°46'30"	75°20'20"	3.20	1	L5	S2	W2	23.0	19.3	1.4	NU	
GRV 023310	01/23/2003	72°46'30"	75°20'20"	0.46	1	H6	S3	W2	18.7	16.8	1.1	GUT	
GRV 023535	01/31/2003	72°59'00"	75°15'05"	0.45	1	L5	S2	W1	25.2	21.3	1.5	PMO	
GRV 023542	01/31/2003	72°59'00"	75°15'05"	0.47	1	L5	S3	W1	25.1	21.3	1.5	PMO	
GRV 023550	01/31/2003	72°59'00"	75°15'05"	0.46	1	L5	S4	W3	22.1	19.3	1.2	GUT	
GRV 023554	01/31/2003	72°59'03"	75°14'47"	0.48	1	L5	S4	W3	22.7	19.2	1.3	GUT	
GRV 023562	01/31/2003	72°59'03"	75°14'47"	0.45	1	H5	S3	W2	20.7	17.9	1.2	GUT	
GRV 023566	01/31/2003	72°59'03"	75°14'47"	0.64	1	L5	S3	W1	24.7	21.0	0.0	IGGCAS	
GRV 023571	01/31/2003	72°59'03"	75°14'48"	0.48	1	L5	S4	W2	22.4	19.4	1.3	GUT	
GRV 023578	01/31/2003	72°59'03"	75°14'48"	0.47	1	L6	S3	W2	24.4	20.4	1.4	PMO	
GRV 023583	01/31/2003	72°59'03"	75°14'48"	0.59	1	L5	S4	W2	22.6	19.1	1.3	GUT	
GRV 023586	01/31/2003	72°59'03"	75°14'48"	8.27	1	L4	S4	W2	24.3	21.3	1.6	IGGCAS	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces		Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
					pieces	Number of pieces								
GRV 023589	01/31/2003	72°59'02"	75°15'05"	1.57	1	1	L5	S3	W1	25.0	21.3	1.3	PMO	
GRV 023594	01/31/2003	72°59'02"	75°15'05"	1.20	1	1	L5	S3	W1	22.4	18.8	1.3	GUT	
GRV 023595	01/31/2003	72°59'02"	75°15'05"	1	1	1	L6	S5	W1	23.5	20.4	1.4	IGGCAS	
GRV 023598	01/31/2003	72°59'02"	75°15'05"	1.15	1	1	L5	S2	W1	24.2	20.9	1.5	BeiAP	
GRV 023600	01/31/2003	72°59'02"	75°15'05"	1.06	1	1	L6	S3	W1	24.2	20.6	1.6	BeiAP	
GRV 023608	01/31/2003	72°59'02"	75°15'05"	1.08	1	1	L5	S4	W1	23.8	20.3	1.7	NAOC	
GRV 023609	01/31/2003	72°59'02"	75°15'05"	0.88	1	1	L5	S4	W1	24.1	21.0	1.5	IGGCAS	
GRV 023610	01/31/2003	72°59'02"	75°15'05"	0.83	1	1	L5	S2	W1	24.9	21.3	1.3	PMO	
GRV 023611	01/31/2003	72°59'33"	75°15'05"	1.72	1	1	L5	S1	W2	23.3	22.2	1.5	NU	
GRV 023613	01/31/2003	72°59'02"	75°15'05"	0.98	1	1	L5	S3	W1	25.0	21.1	1.5	IGGCAS	
GRV 023689	01/31/2003	72°58'59"	75°15'10"	0.60	1	1	H4	S4	W2	18.8	16.4	1.1	GUT	
GRV 023711	01/31/2003	72°59'02"	75°15'03"	0.46	1	1	L6	S5	W1	24.0	20.5	1.6	IGGCAS	
GRV 023732	01/31/2003	72°59'02"	75°15'04"	0.56	1	1	L5	S4	W1	23.8	20.8	1.4	IGGCAS	
GRV 023735	01/31/2003	72°59'02"	75°15'04"	0.56	1	1	L5	S4	W1	24.1	20.8	1.6	IGGCAS	
GRV 023754	01/31/2003	72°59'03"	75°15'08"	3.36	1	1	L5	S2	W1	24.1	20.3	1.5	BeiAP	
GRV 023757	01/31/2003	72°59'03"	75°15'08"	1.81	1	1	L5	S2	W1	25.2	21.4	1.4	PMO	
GRV 023759	01/31/2003	72°59'04"	75°15'00"	1.28	1	1	L6	S3	W1	23.8	21.5	1.4	GIGCAS	
GRV 023760	01/31/2003	72°59'04"	75°15'00"	1.05	1	1	L4	S4	W2	24.3	21.5	1.8	IGGCAS	
GRV 023761	01/31/2003	72°59'04"	75°15'00"	0.81	1	1	L6	S3	W2	23.7	20.1	1.6	NAOC	
GRV 023763	01/31/2003	72°59'04"	75°15'00"	0.87	1	1	L5	S4	W1	23.9	20.0	1.6	NAOC	
GRV 023769	02/01/2003	72°59'04"	75°15'00"	53.35	1	1	H4	S2	W1	14.2	8.2	2.6	NAOC	
GRV 023781	02/01/2003	72°59'05"	75°14'58"	0.90	1	1	L5	S3	W1	22.6	19.5	1.4	GUT	
GRV 023783	02/01/2003	72°59'05"	75°14'58"	0.48	1	1	L6	S6	W1	24.0	20.9	1.6	IGGCAS	
GRV 023791	02/01/2003	72°59'01"	75°15'01"	0.60	1	1	L5	S3	W1	24.0	20.9	1.5	IGGCAS	
GRV 023819	02/01/2003	72°59'01"	75°15'03"	0.47	1	1	L5	S4	W1	22.5	19.5	1.4	GUT	
GRV 023895	02/01/2003	72°59'01"	75°14'51"	0.46	1	1	L6	S5	W1	24.0	20.8	1.5	IGGCAS	
GRV 023899	02/01/2003	72°58'56"	75°14'56"	0.46	1	1	L5	S3	W1	24.4	20.7	1.4	PMO	
GRV 024007	02/01/2003	72°59'33"	75°15'08"	0.80	1	1	L5	S2	W1	23.0	19.7	1.2	NU	
GRV 024012	02/01/2003	72°59'01"	75°15'08"	0.48	1	1	H5	S2	W1	18.0	16.2	1.5	IGGCAS	
GRV 024061	02/01/2003	72°58'55"	75°14'48"	8.24	1	1	L5	S3	W1	24.5	20.7	1.3	PMO	
GRV 024063	02/01/2003	72°58'53"	75°14'44"	0.68	1	1	H3	S3	W1	20.7	14.5	1.4	BeiAP	
GRV 024064	02/01/2003	72°59'51"	75°14'39"	8.83	1	1	H5	S1	W1	19.4	17.2	1.5	NAOC	
GRV 024066	02/01/2003	72°59'51"	75°14'39"	0.45	1	1	LL5	S3	W1	28.3	23.5	1.8	GUT	
GRV 024130	02/01/2003	72°59'06"	75°15'24"	3.99	1	1	H6	S1	W1	17.8	15.5	1.3	IGGCAS	
GRV 024150	02/01/2003	72°58'57"	75°15'06"	2.41	1	1	H5	S2	W2	18.6	16.5	1.3	NAOC	
GRV 024240	02/01/2003	72°58'57"	75°15'00"	1.56	1	1	L6	S3	W2	24.4	21.3	1.6	BeiAP	
GRV 024241	02/01/2003	72°58'57"	75°15'00"	0.91	1	1	L6	S3	W1	24.3	20.7	1.7	BeiAP	
GRV 024242	02/01/2003	72°58'57"	75°15'00"	1.73	1	1	L6	S2	W1	24.0	20.3	1.5	BeiAP	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 024247	02/01/2003	72°58'57"	75°15'01"	0.48	1	L5	S3	W2	24.5	20.9	1.4	PMO	
GRV 024248	02/01/2003	72°58'57"	75°15'01"	0.88	1	L6	S3	W1	24.9	21.3	1.3	PMO	
GRV 024251	02/01/2003	72°58'57"	75°15'01"	0.87	1	L6	S4	W1	23.9	20.6	1.6	BeiAP	
GRV 024259	02/01/2003	72°58'57"	75°15'01"	0.45	1	L5	S5	W1	23.8	20.7	1.4	IGGCAS	
GRV 024262	02/01/2003	72°58'57"	75°15'01"	0.45	1	L5	S3	W1	24.2	20.8	1.5	IGGCAS	
GRV 024447	01/20/2003	72°46'30"	75°20'32"	8.52	1	L5	S2	W1	22.7	19.1	1.6	NU	
GRV 024448	01/22/2003	72°46'30"	75°19'47"	0.38	1	H5	S2	W2	17.9	15.3	1.3	NU	
GRV 050027	01/04/2006	72°59'44"	75°11'21"	69.28	1	H5	S2	W1	18.6	16.4	1.4	NAOC	
GRV 050035	01/05/2006	72°59'59"	75°11'39"	43.82	1	L5	S1	W1	24.2	20.5	1.6	IGGCAS	
GRV 050037	01/05/2006	72°59'48"	75°13'00"	29.57	1	L6	S1	W1	24.1	20.4	1.6	IGCAS	
GRV 050047	01/05/2006	72°59'49"	75°13'03"	16.54	1	L5	S4	W1	22.2	19.8	1.2	GUT	
GRV 050048	01/05/2006	72°59'33"	75°13'05"	15.28	1	L6	S3	W1	23.0	19.7	1.6	NU	
GRV 050059	01/05/2006	72°59'33"	75°14'04"	5.16	1	L5	S3	W1	24.0	20.5	1.7	BeiAP	
GRV 050073	01/05/2006	73°04'50"	75°08'56"	2.41	1	H6	S2	W1	18.9	16.9	1.5	BeiAP	
GRV 050076	01/05/2006	73°5'28"	75°09'40"	1.18	1	H5	S1	W2	18.6	16.7	1.7	GIGCAS	
GRV 050093	01/05/2006	73°0'02"	75°11'26"	4.97	1	H5	S2	W1	18.2	16.4	1.3	GIGCAS	
GRV 050110	01/06/2006	72°58'40"	75°15'58"	3.38	1	L5	S3	W1	24.8	21.1	1.3	PMO	
GRV 050119	01/06/2006	72°58'36"	75°15'49"	21.78	1	L6	S3	W1	24.3	20.5	1.7	NAOC	
GRV 050127	01/06/2006	72°59'01"	75°15'30"	155.94	1	H5	S1	W1	19.1	16.7	1.6	NAOC	
GRV 050137	01/06/2006	72°58'43"	75°15'25"	0.51	1	L5	S2	W2	24.5	21.4	1.6	NAOC	
GRV 050169	01/06/2006	72°58'36"	75°15'44"	2.89	1	L5	S4	W2	23.4	20.5	1.3	GUT	
GRV 050176	01/07/2006	72°58'42"	75°17'28"	74.33	1	L6	S5	W1	24.5	20.7	1.3	PMO	
GRV 050180	01/07/2006	72°57'36"	75°13'45"	16.67	1	L5	S2	W1	23.7	19.8	1.8	NU	
GRV 050190	01/07/2006	72°58'31"	75°16'10"	8.93	1	L6	S4	W1	23.2	21.0	1.8	GIGCAS	
GRV 050205	01/07/2006	72°57'13"	75°14'14"	11.70	1	H6	S2	W1	19.4	17.1	1.6	BeiAP	
GRV 050208	01/07/2006	72°57'08"	75°14'08"	2.53	1	L4	S1	W1	22.8	20.1	0.8	NU	
GRV 050252	01/08/2006	72°59'02"	75°14'48"	1.80	1	L5	S2	W1	22.0	18.9	1.2	PMO	
GRV 050257	01/08/2006	72°59'02"	75°14'48"	0.50	1	L5	S3	W2	26.3	22.5	1.3	PMO	
GRV 050258	01/08/2006	72°59'02"	75°14'48"	0.50	1	L6	S3	W1	23.7	21.0	1.7	GIGCAS	
GRV 050385	01/08/2006	72°57'34"	75°13'36"	6.72	1	L5	S3	W1	22.8	19.3	1.4	GUT	
GRV 050388	01/08/2006	72°56'13"	75°17'51"	174.56	1	H5	S3	W2	19.0	16.7	1.1	PMO	
GRV 050389	01/08/2006	72°56'14"	75°17'50"	6.34	1	H5	S2	W1	19.3	17.1	1.6	BeiAP	
GRV 050392	01/08/2006	72°58'40"	75°11'45"	0.50	1	H5	S1	W2	18.2	16.9	1.5	GIGCAS	
GRV 050403	01/09/2006	72°59'28"	75°13'47"	15.61	1	L5	S3	W1	24.4	22.1	1.5	GIGCAS	
GRV 050405	01/09/2006	72°59'43"	75°11'07"	6.51	1	L5	S4	W1	24.2	20.5	1.1	IGGCAS	
GRV 050406	01/09/2006	72°59'43"	75°16'28"	4.98	1	H5	S2	W2	19.0	16.8	1.4	PMO	
GRV 050407	01/09/2006	72°59'46"	75°16'27"	2.93	1	H4	S1	W1	18.4	16.1	1.2	NAOC	
GRV 050408	01/09/2006	72°59'37"	75°16'25"	2.41	1	H5	S2	W1	18.5	16	1.6	IGCAS	
GRV 050411	01/09/2006	72°59'01"	75°17'09"	4.11	1	H4	S2	W2	17.3	15.4	1.2	GUT	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 050417	01/09/2006	72°59'06"	75°14'02"	12.54	1	L6	S2	W1	24.7	20.5	1.7	IGGCAS	
GRV 050426	01/09/2006	72°59'02"	75°14'44"	0.51	1	L6	S2	W1	24.1	20.7	1.6	BeiAP	
GRV 050429	01/09/2006	72°59'02"	75°14'44"	0.50	1	L6	S2	W1	24.1	20.4	1.6	NAOC	
GRV 050613	01/09/2006	72°59'02"	75°14'44"	12.50	1	H5	S3	W2	19.9	17.6	1.0	PMO	
GRV 050724	01/09/2006	72°59'02"	75°14'44"	0.51	1	L4	S3	W1	24.0	21.4	1.4	BeiAP	
GRV 050726	01/09/2006	72°59'02"	75°14'44"	0.51	1	L5	S4	W1	23.1	20.1	1.3	IGGCAS	
GRV 050728	01/09/2006	72°59'02"	75°14'44"	0.50	1	L6	S5	W2	24.3	20.6	1.6	NAOC	
GRV 051009	01/09/2006	72°59'02"	75°14'44"	0.50	1	L6	S5	W2	24.2	20.5	1.5	BeiAP	
GRV 051018	01/09/2006	72°59'02"	75°14'44"	0.51	1	L6	S3	W1	23.6	20.2	1.4	IGGCAS	
GRV 051094	01/09/2006	72°59'03"	75°14'43"	1.18	1	L6	S3	W1	23.1	20.7	1.5	GIGCAS	
GRV 051104	01/09/2006	72°59'03"	75°14'43"	0.51	1	L6	S2	W1	23.3	19.8	1.5	NU	
GRV 051106	01/09/2006	72°59'03"	75°14'43"	0.50	1	L6	S2	W1	24.1	20.3	1.6	BeiAP	
GRV 051221	01/09/2006	72°59'02"	75°14'44"	1.39	1	L5	S3	W1	25.7	21.5	1.4	PMO	
GRV 051236	01/09/2006	72°59'02"	75°14'44"	0.51	1	L6	S2	W2	23.2	19.6	1.6	NU	
GRV 051534	01/11/2006	72°56'13"	75°17'40"	3.20	1	H5	S1	W2	17.7	15.9	1.6	GIGCAS	
GRV 051547	01/11/2006	72°56'07"	75°19'19"	8.25	1	H4	S2	W1	18.0	17.1	1.2	IGGCAS	
GRV 051562	01/11/2006	72°56'07"	75°19'10"	21.70	1	L6	S2	W2	24.8	21.0	2.6	NAOC	
GRV 051563	01/11/2006	72°56'07"	75°19'10"	6.78	1	H4	S2	W2	16.5	14.6	0.8	NU	
GRV 051566	01/11/2006	72°55'51"	75°20'31"	16.83	1	H4	S1	W1	16.9	15.6	1.1	IGGCAS	
GRV 051574	01/11/2006	72°55'57"	75°20'59"	1.44	1	H4	S3	W1	21.1	17.9	1.4	BeiAP	
GRV 051576	01/11/2006	72°55'57"	75°19'42"	0.5	1	H4	S2	W1	20.2	16.5	1.0	IGGCAS	
GRV 051586	01/11/2006	72°56'07"	75°19'12"	20.94	1	L5	S5	W2	23.8	19.9	1.5	NU	
GRV 051587	01/11/2006	72°56'06"	75°19'09"	26.62	1	H4	S1	W1	19.1	17.6	1.6	GIGCAS	
GRV 051588	01/11/2006	72°56'15"	75°18'27"	4.05	1	L5	S2	W1	24.2	21.6	1.6	IGGCAS	
GRV 051590	01/12/2006	72°56'10"	75°18'59"	2.21	1	L6	S3	W1	23.0	19.9	1.3	GUT	
GRV 051595	01/12/2006	72°56'20"	75°17'36"	19.61	1	H4	S1	W1	18.4	16.3	2.0	IGGCAS	
GRV 051596	01/12/2006	72°56'26"	75°16'59"	8.31	1	L5	S4	W1	23.4	20.0	1.5	GUT	
GRV 051597	01/12/2006	72°56'26"	75°16'59"	4.02	1	L5	S1	W1	17.7	16.8	1.0	GIGCAS	
GRV 051603	01/12/2006	72°56'03"	75°19'12"	11.69	1	H4	S1	W1	18.9	17.8	1.2	IGGCAS	
GRV 051606	01/12/2006	72°56'03"	75°19'12"	2.16	1	H5	S2	W1	18.7	16.7	1.3	NAOC	
GRV 051611	01/14/2006	72°56'15"	75°18'51"	8.72	1	H6	S3	W1	18.7	17.2	1.5	IGGCAS	
GRV 051619	01/16/2006	72°46'52"	75°18'44"	188.02	1	L4	S2	W1	23.7	20.1	1.8	IGGCAS	
GRV 051620	01/16/2006	72°46'50"	75°18'33"	183.73	1	L5	S5	W1	25.0	21.1	1.5	PMO	
GRV 051621	01/16/2006	72°46'49"	75°19'03"	11.57	1	L6	S5	W2	23.6	19.8	1.9	NU	
GRV 051627	01/16/2006	72°46'44"	75°19'01"	172.52	1	L6	S3	W1	24.3	21.2	1.7	GIGCAS	
GRV 051630	01/16/2006	72°46'47"	75°20'0"	78.57	1	L6	S4	W1	22.7	20.1	1.7	NU	
GRV 051631	01/16/2006	72°46'46"	75°19'26"	71.28	1	L6	S4	W1	23.7	21.1	1.8	GIGCAS	
GRV 051632	01/16/2006	72°46'46"	75°19'39"	81.52	1	L6	S4	W1	24.0	20.5	1.8	BeiAP	
GRV 051635	01/16/2006	72°46'48"	75°19'29"	27.62	1	L5	S4	W2	22.6	19.8	1.4	GUT	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 051636	01/16/2006	72°46'45"	75°19'10"	79.70	1	L5	S4	W2	22.8	19.4	1.5	NU	
GRV 051641	01/16/2006	72°46'39"	75°19'44"	27.95	1	L6	S6	W2	23.3	20.0	1.6	NU	
GRV 051653	01/16/2006	72°46'51"	75°19'08"	16.31	1	L5	S5	W1	24.1	20.7	1.4	PMO	
GRV 051657	01/16/2006	72°46'47"	75°19'47"	2.81	1	L4	S2	W1	24.8	19.6	1.6	IGGCAS	
GRV 051662	01/16/2006	72°46'46"	75°19'25"	2.13	1	H5	S3	W3	16.9	14.7	1.3	NU	
GRV 051664	01/16/2006	72°46'41"	75°19'23"	4.94	1	L6	S3	W2	24.2	20.8	1.6	NAOC	
GRV 051686	01/16/2006	72°46'44"	75°18'54"	12.20	1	L6	S2	W1	24.3	20.7	1.9	NAOC	
GRV 051707	01/16/2006	72°46'50"	75°19'33"	15.3	1	L5	S2	W1	23.5	20.3	1.6	IGGCAS	
GRV 051708	01/16/2006	72°46'47"	75°18'58"	6.50	1	L5	S2	W1	23.6	20.0	1.5	IGGCAS	
GRV 051718	01/16/2006	72°46'39"	75°19'44"	12.42	1	L6	S3	W1	24.7	22.6	1.9	GIGCAS	
GRV 051719	01/16/2006	72°46'40"	75°19'37"	11.68	1	L6	S3	W1	23.6	19.9	1.5	IGGCAS	
GRV 051735	01/16/2006	72°46'42"	75°19'06"	1.38	1	L6	S4	W1	24.3	20.6	1.9	BeiAP	
GRV 051745	01/16/2006	72°46'42"	75°19'03"	11.53	1	L6	S6	W2	23.3	19.5	1.7	NU	
GRV 051759	01/16/2006	72°46'52"	75°18'19"	4.02	1	L6	S3	W1	23.4	21.3	1.8	GIGCAS	
GRV 051766	01/16/2006	72°46'43"	75°19'04"	6.89	1	L6	S2	W1	24.1	20.1	1.8	NAOC	
GRV 051768	01/16/2006	72°46'43"	75°19'04"	4.94	1	L6	S4	W1	24.1	20.5	1.8	BeiAP	
GRV 051771	01/16/2006	72°46'44"	75°19'39"	294.00	1	L6	S4	W1	22.6	19.1	1.6	NU	
GRV 051772	01/16/2006	72°46'52"	75°18'22"	291.00	1	L5	S3	W1	22.5	19.2	1.5	GUT	
GRV 051775	01/16/2006	72°46'41"	75°19'18"	8.75	1	L6	S2	W1	23.6	19.9	1.3	IGGCAS	
GRV 051777	01/16/2006	72°46'40"	75°19'17"	3.90	1	L5	S5	W1	23.9	19.7	2.0	NU	
GRV 051792	01/16/2006	72°46'42"	75°19'06"	3.88	1	L5	S2	W2	23.1	20.7	1.9	NU	
GRV 051797	01/16/2006	72°46'44"	75°19'58"	8.14	1	L6	S3	W1	23.6	20.1	1.8	GIGCAS	
GRV 051801	01/16/2006	72°46'49"	75°19'24"	2.77	1	L6	S2	W1	24.2	20.4	1.8	NAOC	
GRV 051804	01/16/2006	72°46'45"	75°19'25"	44.15	1	L5	S2	W1	23.3	20.0	1.4	GUT	
GRV 051808	01/16/2006	72°46'45"	75°19'42"	12.58	1	L5	S3	W2	22.7	19.5	1.3	GUT	
GRV 051816	01/16/2006	72°46'46"	75°19'11"	4.10	1	L5	S3	W1	22.2	18.6	1.4	GUT	
GRV 051845	01/16/2006	72°46'48"	75°18'43"	19.47	1	L5	S4	W1	24.1	20.4	1.9	IGGCAS	
GRV 051849	01/16/2006	72°46'48"	75°18'43"	16.51	1	L5	S4	W1	23.0	19.8	1.4	GUT	
GRV 051856	01/16/2006	72°46'48"	75°18'43"	6.82	1	L5	S4	W1	23.2	20.2	1.5	IGGCAS	
GRV 051874	01/16/2006	72°46'46"	75°19'46"	44.93	1	L6	S4	W1	23.1	20.1	1.5	IGGCAS	
GRV 051880	01/16/2006	72°46'44"	75°19'15"	21.49	1	L6	S3	W1	23.1	19.7	1.5	IGGCAS	
GRV 051882	01/16/2006	72°46'47"	75°19'40"	20.71	1	L6	S3	W1	22.4	19.2	1.4	GUT	
GRV 051884	01/16/2006	72°46'53"	75°19'13"	30.75	1	L6	S3	W1	23.1	19.7	1.4	PMO	
GRV 051886	01/16/2006	72°46'49"	75°18'37"	16.75	1	L5	S2	W1	23.4	19.9	1.5	IGGCAS	
GRV 051888	01/16/2006	72°46'54"	75°19'06"	27.17	1	L5	S4	W1	24.3	20.8	1.5	IGGCAS	
GRV 051893	01/16/2006	72°46'51"	75°18'47"	16.34	1	L6	S5	W1	24.8	20.8	1.6	PMO	
GRV 051895	01/16/2006	72°46'50"	75°19'23"	16.46	1	L6	S3	W1	24.2	20.5	1.6	IGGCAS	
GRV 051901	01/16/2006	72°46'54"	75°19'07"	8.20	1	L6	S3	W1	24.4	20.5	1.5	PMO	
GRV 051904	01/16/2006	72°46'54"	75°19'02"	6.48	1	L6	S5	W1	25.2	21.4	1.5	PMO	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces		Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
					pieces	of								
GRV 051908	01/16/2006	72°46'50"	75°19'47"	5.12	1		L6	S3	W1	22.6	19.3	1.5	GUT	
GRV 051911	01/16/2006	72°46'43"	75°18'54"	6.74	1		L6	S4	W1	22.6	20.2	1.5	GUT	
GRV 051914	01/16/2006	72°46'49"	75°19'06"	3.25	1		L5	S2	W1	23.5	19.7	1.8	IGGCAS	
GRV 051931	01/16/2006	72°46'46"	75°19'26"	44.85	1		L5	S4	W2	23.5	19.9	2.0	NU	
GRV 051942	01/16/2006	72°46'44"	75°18'56"	5.11	1		L5	S2	W1	24.3	20.7	1.8	IGGCAS	
GRV 051946	01/16/2006	72°46'45"	75°18'18"	0.5	1		L5	S2	W1	23.7	20.1	1.6	IGGCAS	
GRV 051951	01/16/2006	72°46'38"	75°19'47"	8.32	1		H4	S3	W1	17.2	15.7	1.1	GUT	
GRV 051956	01/16/2006	72°46'54"	75°18'02"	4.94	1		L6	S2	W1	24.2	20.6	1.8	BeiAP	
GRV 051957	01/16/2006	72°46'53"	75°18'06"	2.92	1		L6	S2	W1	23.8	20.3	1.9	BeiAP	
GRV 051959	01/16/2006	72°46'53"	75°18'07"	2.41	1		H5	S2	W1	18.8	16.7	1.3	IGGCAS	
GRV 051962	01/16/2006	72°46'42"	75°19'03"	66.53	1		L6	S3	W1	24.1	20.7	1.4	IGGCAS	
GRV 051971	01/16/2006	72°46'55"	75°17'58"	44.91	1		L6	S2	W1	23	19.6	1.6	IGGCAS	
GRV 051976	01/16/2006	72°46'56"	75°17'58"	3.26	1		L6	S4	W1	22.9	19.3	1.5	GUT	
GRV 051977	01/16/2006	72°46'56"	75°17'58"	1.74	1		L6	S2	W1	23.7	20.2	1.8	IGGCAS	
GRV 051985	01/16/2006	72°46'45"	75°19'18"	27.92	1		L6	S5	W2	23.3	22.1	1.8	NU	
GRV 051986	01/16/2006	72°46'53"	75°18'12"	11.46	1		L6	S4	W1	24.6	20.3	1.8	IGGCAS	
GRV 052000	01/16/2006	72°46'55"	75°17'58"	5.12	1		H6	S2	W1	18.5	16.5	1.4	IGGCAS	
GRV 052006	01/16/2006	72°46'44"	75°19'06"	48.41	1		L6	S2	W1	24.1	20.3	1.7	NAOC	
GRV 052007	01/16/2006	72°46'44"	75°19'08"	50.10	1		L5	S4	W1	24.3	21.0	1.6	IGGCAS	
GRV 052016	01/16/2006	72°46'44"	75°19'07"	1.32	1		L6	S5	W3	23.4	19.7	1.6	NU	
GRV 052021	01/16/2006	72°46'55"	75°17'58"	69.20	1		L6	S2	W1	24.5	20.7	1.8	BeiAP	
GRV 052027	01/16/2006	72°46'55"	75°17'58"	15.64	1		L6	S3	W1	23.5	21.4	1.6	GIGCAS	
GRV 052032	01/16/2006	72°46'42"	75°19'05"	3.12	1		L6	S2	W1	23.4	19.7	1.6	IGGCAS	
GRV 052033	01/16/2006	72°46'42"	75°19'04"	294.00	1		L5	S5	W1	23.4	19.6	1.7	NU	
GRV 052039	01/16/2006	72°46'42"	75°19'05"	29.87	1		L6	S3	W1	24.0	20.3	1.8	NAOC	
GRV 052040	01/16/2006	72°46'42"	75°19'05"	20.55	1		L5	S4	W1	22.6	19.7	1.5	GUT	
GRV 052041	01/16/2006	72°46'42"	75°19'05"	11.52	1		L5	S4	W1	22.0	19.6	1.6	GUT	
GRV 052044	01/16/2006	72°46'42"	75°19'05"	6.43	1		L6	S2	W1	24.3	20.6	1.9	NAOC	
GRV 052046	01/16/2006	72°46'42"	75°19'05"	3.84	1		L6	S3	W2	22.7	19.7	1.6	GUT	
GRV 052075	01/16/2006	72°46'28"	75°20'28"	78.11	1		L5	S4	W2	22.0	18.9	1.6	GUT	
GRV 052079	01/16/2006	72°46'22"	75°20'32"	30.76	1		H5	S2	W3	18.5	16.3	1.3	PMO	
GRV 052080	01/16/2006	72°46'33"	75°20'23"	49.43	1		L3	S1	W1	24.1	19.6	0.88	GIGCAS	
										(21.8–28.3)	(18.1–21.3)	(0.33–1.25)		
GRV 052081	01/16/2006	72°46'23"	75°20'32"	29.65	1		L6	S4	W1	24.0	20.2	1.8	BeiAP	
GRV 052105	01/16/2006	72°46'49"	75°19'51"	6.85	1		L6	S4	W2	23.8	20.4	1.8	BeiAP	
GRV 052106	01/16/2006	72°46'48"	75°19'09"	4.02	1		L6	S4	W1	24.1	20.4	1.7	NAOC	
GRV 052108	01/16/2006	72°46'49"	75°19'38"	2.81	1		L5	S2	W1	23.8	20.3	1.9	IGGCAS	
GRV 052120	01/16/2006	72°46'36"	75°19'22"	70.43	1		L6	S2	W2	24.2	20.6	1.8	NAOC	
GRV 052123	01/16/2006	72°46'25"	75°19'43"	49.73	1		L6	S3	W1	25.0	21.2	1.5	PMO	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 052128	01/16/2006	72°46'25"	75°20'38"	26.76	1	L6	S3	W1	24.2	20.6	1.4	PMO	
GRV 052131	01/16/2006	72°46'18"	75°19'48"	12.47	1	L6	S2	W1	24.6	21.0	1.4	PMO	
GRV 052134	01/16/2006	72°46'22"	75°19'46"	11.83	1	L6	S4	W1	24.3	20.4	1.8	BeiAP	
GRV 052167	01/16/2006	72°46'19"	75°20'41"	0.50	1	H6	S3	W3	17.7	16.1	1.1	NU	
GRV 052179	01/16/2006	72°46'23"	75°20'17"	1.78	1	H5	S1	W1	18.8	16.7	1.4	NAOC	
GRV 052185	01/16/2006	72°46'23"	75°20'18"	1.39	1	L6	S3	W2	25.6	21.5	1.7	PMO	
GRV 052187	01/16/2006	72°46'23"	75°20'17"	1.81	1	L5	S2	W2	23.9	20.4	1.7	IGGCAS	
GRV 052189	01/16/2006	72°46'23"	75°20'17"	1.57	1	H5	S3	W1	19.4	17.3	1.5	BeiAP	
GRV 052204	01/16/2006	72°46'23"	75°20'17"	0.51	1	H5	S1	W3	18.4	16.1	1.1	GUT	
GRV 052207	01/16/2006	72°46'21"	75°20'48"	5.13	1	L5	S3	W1	22.8	20.2	1.4	GUT	
GRV 052211	01/16/2006	72°46'21"	75°20'48"	2.21	1	L5	S4	W1	22.7	19.6	1.4	GUT	
GRV 052215	01/16/2006	72°46'21"	75°20'48"	2.23	1	L6	S5	W2	24.6	19.6	1.6	NU	
GRV 052232	01/16/2006	72°46'16"	75°20'17"	0.51	1	L6	S3	W1	22.1	19.2	1.3	GUT	
GRV 052254	01/17/2006	72°46'35"	75°18'35"	1.41	1	L6	S3	W1	22.2	19.1	1.4	GUT	
GRV 052260	01/17/2006	72°46'34"	75°20'04"	21.69	1	L6	S3	W1	23.9	20.4	1.6	BeiAP	
GRV 052263	01/17/2006	72°46'34"	75°20'04"	8.15	1	L6	S3	W1	23.7	20.4	1.7	GIGCAS	
GRV 052267	01/17/2006	72°46'34"	75°20'04"	1.28	1	L6	S2	W1	24.2	20.7	1.9	NAOC	
GRV 052270	01/17/2006	72°46'41"	75°19'42"	3.38	1	L6	S4	W1	24.2	21.4	1.7	GIGCAS	
GRV 052286	01/17/2006	72°46'40"	75°18'02"	6.81	1	L5	S2	W1	24.2	19.9	1.8	NU	
GRV 052290	01/17/2006	72°46'34"	75°19'43"	2.93	1	L6	S5	W1	24.1	20.4	1.9	BeiAP	
GRV 052292	01/17/2006	72°46'36"	75°19'19"	65.66	1	L5	S5	W2	23.4	20.2	1.7	NU	
GRV 052293	01/17/2006	72°46'46"	75°18'58"	44.82	1	L4	S3	W2	23.7	19.8	1.3	NU	
GRV 052295	01/17/2006	72°46'47"	75°18'52"	1.43	1	L5	S2	W2	23.8	20.0	1.8	NU	
GRV 052298	01/17/2006	72°46'34"	75°19'37"	1.27	1	L5	S2	W1	22.6	19.6	1.5	IGGCAS	
GRV 052300	01/17/2006	72°46'36"	75°18'47"	1.32	1	H6	S3	W3	18.2	15.9	1.0	NU	
GRV 052303	01/17/2006	72°46'52"	75°19'42"	15.33	1	L6	S3	W1	23.1	19.9	1.5	IGGCAS	
GRV 052306	01/17/2006	72°46'51"	75°18'56"	4.10	1	L5	S2	W1	23.9	20.4	0.0	IGGCAS	
GRV 052308	01/17/2006	72°46'43"	75°18'50"	2.13	1	H4	S2	W2	17.3	15.8	1.1	GUT	
GRV 052315	01/17/2006	72°46'48"	75°19'42"	30.67	1	L6	S3	W1	24.5	21.5	1.8	GIGCAS	
GRV 052317	01/17/2006	72°46'48"	75°19'11"	12.57	1	L5	S4	W1	24.2	20.9	1.7	IGGCAS	
GRV 052318	01/17/2006	72°46'48"	75°19'11"	12.60	1	L5	S4	W1	22.5	20.8	1.3	GUT	
GRV 052319	01/17/2006	72°46'48"	75°19'11"	21.18	1	L5	S4	W3	22.9	21.5	1.3	NU	
GRV 052328	01/17/2006	72°46'44"	75°18'35"	1.39	1	L6	S3	W1	23.8	21.6	1.5	GIGCAS	
GRV 052338	01/17/2006	72°46'44"	75°18'35"	0.51	1	H5	S2	W1	18.8	16.6	1.3	IGGCAS	
GRV 052346	01/17/2006	72°46'56"	75°19'18"	1.75	1	H3	S1	W2	15.9 (15.3–17.0)	14.9 (13.7–18.2)	1.1	GUT	
GRV 052360	01/17/2006	72°46'58"	75°17'56"	2.42	1	L6	S3	W1	24.0	20.4	1.7	NAOC	
GRV 052362	01/17/2006	72°46'58"	75°17'56"	2.16	1	L6	S2	W1	23.9	20.2	1.9	NAOC	
GRV 052363	01/17/2006	72°46'58"	75°17'56"	1.31	1	L6	S4	W1	23.9	20.0	1.8	IGGCAS	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 052372	01/17/2006	72°46'55"	75°18'53"	76.64	1	L6	S5	W1	21.9	18.6	1.4	PMO	
GRV 052374	01/17/2006	72°46'55"	75°18'53"	45.50	1	L6	S2	W1	24.2	20.7	1.9	BeiAP	
GRV 052377	01/17/2006	72°46'55"	75°18'53"	44.81	1	L5	S4	W1	22.7	19.1	1.6	GUT	
GRV 052379	01/17/2006	72°46'55"	75°18'53"	8.76	1	L6	S2	W1	23.9	20.2	1.9	BeiAP	
GRV 052387	01/17/2006	72°47'13"	75°16'22"	1.76	1	H5	S3	W1	18.1	16.2	1.2	IGCCAS	
GRV 052389	01/17/2006	72°47'13"	75°16'22"	1.39	1	H5	S1	W2	18.9	17.2	1.4	GIGCCAS	
GRV 052398	01/17/2006	72°47'02"	75°16'18"	4.04	1	L6	S3	W1	24.4	20.7	1.6	PMO	
GRV 052399	01/17/2006	72°47'02"	75°16'18"	2.77	1	L6	S2	W1	24.6	21.1	1.6	BeiAP	
GRV 052403	01/17/2006	72°47'02"	75°16'18"	1.76	1	H4	S1	W1	18.2	16.2	1.4	IGCCAS	
GRV 052405	01/17/2006	72°47'02"	75°16'18"	1.54	1	L5	S3	W2	23.9	19.6	1.3	GUT	
GRV 052406	01/17/2006	72°47'02"	75°16'18"	1.16	1	L6	S3	W1	22.9	20.4	1.5	IGCCAS	
GRV 052413	01/17/2006	72°46'34"	75°19'55"	30.15	1	L6	S3	W1	23.5	21.1	1.8	GIGCCAS	
GRV 052429	01/17/2006	72°46'58"	75°19'28"	5.11	1	H5	S3	W2	19.9	16.8	1.6	PMO	
GRV 052434	01/17/2006	72°46'55"	75°19'23"	5.14	1	L5	S2	W2	23.1	19.9	1.7	NU	
GRV 052443	01/17/2006	72°46'42"	75°19'07"	2.43	1	L5	S3	W1	25.6	21.4	1.6	PMO	
GRV 052447	01/17/2006	72°46'42"	75°19'07"	3.33	1	L6	S2	W1	24.2	20.4	1.8	BeiAP	
GRV 052449	01/17/2006	72°46'42"	75°19'07"	1.78	1	L6	S3	W1	24.0	20.5	1.7	BeiAP	
GRV 052456	01/17/2006	72°46'34"	75°18'50"	1.18	1	L6	S2	W1	24.7	21.1	1.7	NAOC	
GRV 052473	01/17/2006	72°47'01"	75°17'54"	0.50	1	L6	S4	W1	22.9	19.8	1.8	NU	
GRV 052486	01/17/2006	72°46'47"	75°18'58"	29.98	1	L6	S2	W1	24.2	20.7	1.8	NAOC	
GRV 052492	01/17/2006	72°46'47"	75°18'58"	6.83	1	L6	S4	W1	22.9	20	1.6	IGCCAS	
GRV 052499	01/17/2006	72°46'45"	75°18'26"	6.47	1	H4	S1	W1	18.0	17.2	0.9	GIGCCAS	
GRV 052504	01/17/2006	72°46'41"	75°18'19"	3.25	1	L4	S4	W1	24.2	20.9	1.9	IGCCAS	
GRV 052546	01/17/2006	72°47'06"	75°17'41"	0.51	1	L5	S3	W2	23.7	20.1	1.8	IGCCAS	
GRV 052571	01/17/2006	72°46'51"	75°18'13"	1.41	1	L5	S2	W1	23.4	19.7	1.5	GUT	
GRV 052572	01/17/2006	72°46'51"	75°18'13"	1.41	1	L5	S2	W1	23.9	20.4	0.0	IGCCAS	
GRV 052573	01/17/2006	72°46'51"	75°18'13"	1.38	1	L6	S2	W1	24.3	20.7	1.9	BeiAP	
GRV 052596	01/17/2006	72°46'59"	75°17'50"	0.51	1	L5	S5	W1	25.7	21.8	1.5	PMO	
GRV 052657	01/17/2006	72°46'49"	75°18'56"	4.96	1	L6	S4	W1	23.4	21.0	1.5	GIGCCAS	
GRV 052658	01/17/2006	72°46'49"	75°18'56"	2.13	1	H4	S2	W2	17.2	15.9	1.1	GUT	
GRV 052659	01/17/2006	72°46'60"	75°18'21"	296	1	L6	S3	W1	23.2	20.8	1.3	IGCCAS	
GRV 052661	01/17/2006	72°46'43"	75°19'06"	5.14	1	L6	S6	W1	23.9	20.0	1.7	NU	
GRV 052666	01/17/2006	72°46'46"	75°18'42"	1.57	1	L6	S4	W1	23.2	20.2	1.5	IGCCAS	
GRV 052676	01/17/2006	72°46'42"	75°19'21"	21.19	1	L6	S4	W1	24.2	21	1.5	IGCCAS	
GRV 052682	01/17/2006	72°46'49"	75°18'31"	1.57	1	L6	S2	W1	23.7	20.7	1.4	IGCCAS	
GRV 052683	01/17/2006	72°46'59"	75°18'21"	2.21	1	L6	S2	W1	24.3	21.1	1.7	IGCCAS	
GRV 052687	01/17/2006	72°46'45"	75°18'50"	16.45	1	L5	S4	W1	24.0	20.2	1.9	IGCCAS	
GRV 052689	01/17/2006	72°46'45"	75°18'50"	4.04	1	L6	S3	W1	24.0	20.5	1.5	PMO	
GRV 052696	01/17/2006	72°46'50"	75°18'22"	4.90	1	L3	S1	W1	21.7	11.4	0.6	NU	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 052721	01/17/2006	72°47'05"	75°17'21"	3.96	1	L6	S1	W1	24.2	20.2	1.9	NAOC	
GRV 052722	01/17/2006	72°47'05"	75°17'21"	2.20	1	H3	S2	W2	21.0 (16.3–26.2)	17.1 (6.0–29.1)	1.3 (0.1–4.0)	PMO	
GRV 052727	01/17/2006	72°47'05"	75°17'21"	1.80	1	L6	S4	W1	23.4	21.4	1.8	GIGCAS	
GRV 052730	01/17/2006	72°47'21"	75°16'20"	1.16	1	L6	S2	W1	23.4	20.1	1.5	IGCAS	
GRV 052748	01/17/2006	72°47'00"	75°17'43"	1.18	1	L6	S2	W1	24.1	20.4	1.8	NAOC	
GRV 052753	01/17/2006	72°47'07"	75°17'04"	0.51	1	L6	S5	W1	24.9	20.9	1.8	PMO	
GRV 052758	01/17/2006	72°46'43"	75°19'00"	393.00	1	L6	S2	W2	24.0	20.4	1.9	NAOC	
GRV 052759	01/17/2006	72°46'48"	75°19'01"	395.00	1	L6	S4	W1	23.5	21.1	1.8	GIGCAS	
GRV 052764	01/17/2006	72°46'38"	75°18'55"	77.84	1	L5	S4	W1	24.0	20.4	1.9	IGGCAS	
GRV 052766	01/17/2006	72°46'42"	75°18'56"	77.83	1	L5	S4	W1	23.8	20.3	1.8	IGGCAS	
GRV 052771	01/17/2006	72°46'41"	75°18'53"	43.12	1	L5	S2	W1	24.2	20.7	1.9	IGGCAS	
GRV 052772	01/17/2006	72°46'38"	75°18'51"	48.24	1	L6	S2	W1	23.8	20.2	1.8	NAOC	
GRV 052776	01/17/2006	72°46'40"	75°18'50"	18.76	1	L6	S3	W1	23.5	21.5	1.7	GIGCAS	
GRV 052782	01/17/2006	72°46'53"	75°18'52"	15.42	1	L6	S5	W1	24.0	20.5	1.7	BeiAP	
GRV 052783	01/17/2006	72°46'46"	75°18'50"	15.29	1	L6	S6	W2	22.9	19.5	2.1	NU	
GRV 052786	01/17/2006	72°46'31"	75°20'19"	67.46	1	L6	S3	W1	24.2	20.5	1.7	BeiAP	
GRV 052788	01/17/2006	72°46'31"	75°20'19"	66.47	1	L6	S2	W1	24.2	21.2	1.5	IGGCAS	
GRV 052792	01/17/2006	72°46'31"	75°20'19"	50.61	1	L5	S3	W1	22.6	19.4	1.6	GUT	
GRV 052802	01/17/2006	72°49'31"	75°21'13"	1.41	1	H4	S1	W2	18.4	16.5	1.3	IGGCAS	
GRV 052829	01/17/2006	72°49'31"	75°21'13"	3.35	1	L6	S2	W1	24.1	20.5	1.8	BeiAP	
GRV 052833	01/17/2006	72°46'31"	75°21'13"	1.56	1	L6	S5	W1	23.4	19.5	1.4	NU	
GRV 052861	01/17/2006	72°49'31"	75°21'13"	2.95	1	L6	S2	W1	24.2	20.6	1.7	NAOC	
GRV 052862	01/17/2006	72°49'31"	75°21'13"	1.58	1	L6	S3	W1	24.2	20.4	1.6	NAOC	
GRV 052872	01/17/2006	72°49'31"	75°21'13"	0.51	1	L6	S3	W1	23.7	21.3	1.6	GIGCAS	
GRV 052881	01/17/2006	72°46'31"	75°21'13"	8.35	1	L6	S5	W2	23.4	19.4	1.7	NU	
GRV 052886	01/17/2006	72°49'31"	75°21'13"	5.16	1	L5	S2	W1	23.8	20.5	1.4	IGCAS	
GRV 052887	01/17/2006	72°49'31"	75°21'13"	2.51	1	L5	S3	W1	22.9	19.3	1.4	GUT	
GRV 052888	01/17/2006	72°49'31"	75°21'13"	2.58	1	L6	S3	W1	24.1	20.7	1.7	BeiAP	
GRV 052896	01/17/2006	72°49'31"	75°21'13"	2.80	1	L5	S5	W1	24.3	20.7	1.4	PMO	
GRV 052905	01/17/2006	72°46'45"	75°19'00"	359.00	1	L6	S2	W1	24.1	20.2	1.9	BeiAP	
GRV 052912	01/17/2006	72°46'43"	75°19'04"	19.02	1	L5	S5	W2	24.8	21.1	1.5	PMO	
GRV 052913	01/17/2006	72°46'45"	75°19'00"	15.48	1	L5	S4	W0	23.7	20.4	1.8	NAOC	
GRV 052935	01/17/2006	72°46'42"	75°17'59"	2.56	1	L6	S2	W1	23.8	20.2	1.6	IGCAS	
GRV 052965	01/17/2006	72°46'46"	75°18'32"	162.08	1	L6	S4	W1	23.8	21.4	1.8	GIGCAS	
GRV 052969	01/17/2006	72°46'55"	75°17'56"	71.26	1	L7	S4	W1	23.6	21.0	1.6	GIGCAS	
GRV 052975	01/17/2006	72°46'40"	75°18'19"	18.75	1	L5	S2	W1	24.4	20.4	1.8	NAOC	
GRV 052978	01/17/2006	72°46'52"	75°17'58"	8.38	1	L6	S5	W2	24.5	19.6	2.2	NU	
GRV 052979	01/17/2006	72°47'12"	75°17'30"	3.27	1	L6	S2	W1	22.9	19.5	1.4	IGCAS	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 052982	01/17/2006	72°47'12"	75°17'30"	1.78	1	L6	S3	W1	24.4	20.6	2.0	BeiAP	
GRV 052984	01/17/2006	72°47'12"	75°17'30"	1.27	1	L6	S5	W1	23.5	20.0	1.8	NU	
GRV 052986	01/18/2006	72°46'45"	75°18'48"	18.56	1	L6	S2	W1	23.9	20.4	1.8	BeiAP	
GRV 052988	01/18/2006	72°46'40"	75°18'37"	18.57	1	H5	S1	W1	19.7	17.3	1.5	BeiAP	
GRV 052992	01/18/2006	72°46'58"	75°17'48"	3.95	1	L6	S4	W1	24.0	20.4	1.7	BeiAP	
GRV 053002	01/18/2006	72°46'42"	75°18'36"	3.36	1	L6	S3	W1	23.2	21.1	1.6	GIGCAS	
GRV 053004	01/18/2006	72°46'42"	75°18'36"	1.54	1	L5	S3	W1	22.3	18.8	1.5	GUT	
GRV 053005	01/18/2006	72°46'42"	75°18'36"	1.28	1	L6	S2	W1	24.5	20.3	1.7	NAOC	
GRV 053008	01/18/2006	72°46'40"	75°18'32"	1.31	1	L5	S2	W1	24.2	20.4	1.9	IGGCAS	
GRV 053022	01/18/2006	72°47'27"	75°16'49"	1.54	1	L5	S2	W1	24.4	21.3	1.8	IGGCAS	
GRV 053023	01/18/2006	72°47'23"	75°16'49"	2.21	1	L4	S2	W1	24.3	19.8	1.6	IGGCAS	
GRV 053040	01/18/2006	72°46'35"	75°16'44"	2.53	1	H4	S1	W1	18.1	16.4	0.8	NU	
GRV 053065	01/18/2006	72°46'58"	75°17'23"	0.51	1	H6	S3	W1	18.1	17.2	1.3	GIGCAS	
GRV 053077	01/18/2006	72°46'45"	75°18'56"	50.23	1	L5	S3	W1	23.4	20.0	1.9	IGGCAS	
GRV 053080	01/18/2006	72°46'45"	75°18'56"	29.27	1	L5	S2	W1	22.9	19.5	1.5	IGCAS	
GRV 053084	01/18/2006	72°46'45"	75°18'56"	18.69	1	L6	S5	W1	24.2	20.5	1.8	NAOC	
GRV 053100	01/18/2006	72°47'22"	75°16'42"	1.19	1	H5	S1	W2	19.5	17.3	1.2	IGGCAS	
GRV 053106	01/18/2006	72°46'40"	75°19'35"	6.88	1	L6	S4	W2	24.8	20.9	1.8	NAOC	
GRV 053113	01/18/2006	72°46'51"	75°18'23"	1.38	1	L6	S2	W1	23.5	19.6	1.4	IGCAS	
GRV 053117	01/18/2006	72°46'52"	75°18'30"	12.28	1	L6	S2	W1	24.7	21.2	1.9	NAOC	
GRV 053128	01/18/2006	72°46'10"	75°20'15"	3.26	1	L5	S3	W1	22.5	19.2	1.5	GUT	
GRV 053140	01/18/2006	72°46'29"	75°20'24"	26.96	1	L6	S4	W1	24.0	20.5	1.6	IGGCAS	
GRV 053145	01/18/2006	72°46'29"	75°20'24"	8.25	1	H4	S2	W1	19.2	17.2	1.0	IGGCAS	
GRV 053184	01/18/2006	72°46'29"	75°20'24"	0.51	1	H4	S2	W1	18.5	16.5	1.2	NAOC	
GRV 053196	01/18/2006	72°46'29"	75°20'24"	0.50	1	H5	S4	W1	17.7	16.0	1.0	GUT	
GRV 053202	01/18/2006	72°46'29"	75°20'24"	1.43	1	L6	S5	W1	23.7	20.0	1.6	NU	
GRV 053203	01/18/2006	72°46'29"	75°20'24"	1.27	1	L6	S2	W1	24.1	20.1	1.7	NU	
GRV 053230	01/18/2006	72°46'29"	75°20'24"	1.54	1	H5	S2	W3	18.5	16.2	1.7	IGGCAS	
GRV 053231	01/18/2006	72°46'29"	75°20'24"	1.32	1	L5	S3	W1	22.5	19.2	1.5	GUT	
GRV 053256	01/18/2006	72°46'29"	75°20'24"	0.50	1	L5	S3	W2	23.2	19.2	1.3	GUT	
GRV 053276	01/18/2006	72°46'29"	75°20'24"	5.16	1	L5	S2	W1	23.9	20.6	1.5	IGCAS	
GRV 053279	01/18/2006	72°46'29"	75°20'24"	3.22	1	L5	S6	W1	24.5	20.7	1.5	PMO	
GRV 053283	01/18/2006	72°46'29"	75°20'24"	1.58	1	L6	S3	W1	24.1	20.6	1.9	NAOC	
GRV 053315	01/18/2006	72°46'29"	75°20'24"	0.50	1	L6	S2	W1	23.9	20.3	1.6	IGGCAS	
GRV 053340	01/18/2006	72°46'38"	75°19'42"	160.87	1	L6	S2	W1	24.0	20.3	1.8	NAOC	
GRV 053344	01/18/2006	72°46'46"	75°18'48"	29.59	1	L6	S3	W1	24.0	20.6	1.8	BeiAP	
GRV 053345	01/18/2006	72°46'46"	75°18'48"	26.85	1	L5	S5	W1	25.2	21.6	1.6	PMO	
GRV 053362	01/18/2006	72°46'46"	75°17'55"	1.76	1	H5	S3	W1	17.8	15.7	1.2	NU	
GRV 053363	01/18/2006	72°46'46"	75°17'55"	1.32	1	H5	S3	W3	16.2	14.9	1.0	GUT	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 053364	01/18/2006	72°46'46"	75°17'55"	1.38	1	H5	S1	W1	18.6	17.4	1.2	IGGCAS	
GRV 053389	01/18/2006	72°46'46"	75°17'55"	2.42	1	L6	S2	W1	24.1	20.6	1.7	NAOC	
GRV 053399	01/18/2006	72°46'46"	75°17'55"	0.51	1	L6	S2	W1	24.4	20.7	1.7	NAOC	
GRV 053419	01/18/2006	72°47'37"	75°17'05"	3.36	1	L6	S3	W1	24.5	20.8	1.8	NAOC	
GRV 053423	01/18/2006	72°47'37"	75°17'05"	1.31	1	H5	S2	W3	17.6	15.6	0.9	PMO	
GRV 053431	01/18/2006	72°47'29"	75°16'51"	1.57	1	L5	S4	W1	25.3	21.1	1.3	NU	
GRV 053458	01/18/2006	72°47'26"	75°16'47"	2.22	1	L6	S6	W1	24.0	20.2	1.4	NU	
GRV 053477	01/18/2006	72°47'16"	75°16'13"	2.55	1	L5	S2	W1	23.7	19.9	1.6	IGGCAS	
GRV 053478	01/18/2006	72°47'16"	75°16'13"	2.51	1	L5	S2	W1	23.8	19.9	1.6	IGGCAS	
GRV 053480	01/18/2006	72°47'16"	75°16'13"	1.44	1	L6	S2	W1	24.3	20.5	1.8	BeiAP	
GRV 053481	01/18/2006	72°47'16"	75°16'13"	1.81	1	L6	S2	W1	24.1	20.2	1.8	IGGCAS	
GRV 053483	01/18/2006	72°47'16"	75°16'13"	1.44	1	L6	S2	W1	23.6	20.4	1.4	IGGCAS	
GRV 053491	01/18/2006	72°46'44"	75°19'08"	336.00	1	L6	S2	W1	24.3	20.7	1.9	BeiAP	
GRV 053495	01/18/2006	72°46'44"	75°19'00"	8.80	1	L6	S4	W1	23.8	20.3	1.8	NAOC	
GRV 053503	01/18/2006	72°46'46"	75°19'07"	49.59	1	L6	S3	W1	23.7	21.4	1.7	IGGCAS	
GRV 053506	01/18/2006	72°46'43"	75°19'07"	45.08	1	L6	S3	W1	24.0	20.2	1.9	BeiAP	
GRV 053517	01/18/2006	72°46'52"	75°18'21"	2.43	1	L6	S3	W1	23.4	21.3	1.7	IGGCAS	
GRV 053525	01/18/2006	72°46'44"	75°18'56"	19.18	1	L5	S5	W1	25.0	21.2	1.5	PMO	
GRV 053527	01/18/2006	72°46'55"	75°17'53"	395.00	1	L6	S2	W1	24.1	20.3	1.7	NAOC	
GRV 053532	01/18/2006	72°46'45"	75°18'33"	80.25	1	L5	S2	W1	23.4	20	1.9	IGGCAS	
GRV 053534	01/18/2006	72°46'52"	75°17'55"	78.43	1	L6	S3	W1	22.5	19.5	1.5	GUT	
GRV 053535	01/18/2006	72°46'48"	75°17'57"	49.80	1	L6	S5	W1	24.0	20.1	1.4	PMO	
GRV 053536	01/18/2006	72°46'41"	75°18'21"	3.40	1	L6	S4	W1	24.1	20.4	1.9	IGGCAS	
GRV 053542	01/18/2006	72°46'47"	75°18'30"	21.64	1	L6	S3	W1	24.6	20.8	1.8	BeiAP	
GRV 053544	01/18/2006	72°46'42"	75°18'23"	16.56	1	L5	S5	W2	23.5	19.6	2.0	NU	
GRV 053549	01/18/2006	72°46'45"	75°18'29"	8.92	1	L6	S2	W1	24.2	20.5	1.7	NAOC	
GRV 053553	01/18/2006	72°46'42"	75°18'18"	18.81	1	L6	S2	W1	23.8	21.4	1.8	IGGCAS	
GRV 053556	01/18/2006	72°46'53"	75°18'00"	9.09	1	L6	S5	W1	21.8	19.0	1.6	PMO	
GRV 053562	01/18/2006	72°46'54"	75°18'0"	26.75	1	L6	S2	W1	23.6	21.3	1.6	IGGCAS	
GRV 053566	01/18/2006	72°46'54"	75°18'0"	12.38	1	L5	S2	W1	23.4	21.3	1.7	IGGCAS	
GRV 053571	01/18/2006	72°46'56"	75°18'31"	9.10	1	L5	S3	W1	24.1	20.3	1.4	PMO	
GRV 053579	01/18/2006	72°46'51"	75°18'04"	3.85	1	L6	S3	W1	22.7	19.4	1.6	GUT	
GRV 053580	01/18/2006	72°46'51"	75°18'04"	1.79	1	L6	S2	W1	24.3	20.4	1.7	NAOC	
GRV 053582	01/18/2006	72°46'57"	75°18'01"	8.79	1	L6	S5	W1	23.8	20.4	1.8	BeiAP	
GRV 053583	01/18/2006	72°46'57"	75°18'01"	4.92	1	L6	S5	W1	23.2	20.3	1.6	IGGCAS	
GRV 053584	01/18/2006	72°46'57"	75°18'01"	2.80	1	L6	S6	W1	25.1	21.3	1.7	PMO	
GRV 053586	01/18/2006	72°46'57"	75°18'1"	3.27	1	L6	S5	W1	23.2	20.2	2.1	NU	
GRV 053602	01/18/2006	72°46'47"	75°18'27"	3.22	1	L6	S3	W1	24.8	20.9	1.6	PMO	
GRV 053603	01/18/2006	72°46'47"	75°18'27"	3.27	1	L6	S4	W1	23.6	20.1	1.4	NU	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 053605	01/18/2006	72°46'47"	75°18'27"	1.53	1	L6	S5	W1	24.1	20.1	1.6	PMO	
GRV 053606	01/18/2006	72°46'47"	75°18'27"	1.75	1	L4	S4	W1	24.0	21.2	1.6	IGGCAS	
GRV 053621	01/18/2006	72°46'55"	75°18'02"	1.80	1	L6	S3	W1	23.6	21.3	1.6	GIGCAS	
GRV 053622	01/18/2006	72°46'55"	75°18'02"	2.43	1	L6	S3	W1	23.3	21.2	1.7	GIGCAS	
GRV 053625	01/18/2006	72°46'55"	75°18'02"	1.27	1	L6	S3	W1	22.9	20.4	1.8	GUT	
GRV 053638	01/19/2006	72°49'31"	75°21'07"	80.38	1	H4	S2	W1	19	16.7	1.3	IGGCAS	
GRV 053642	01/19/2006	72°47'02"	75°16'10"	6.46	1	H5	S1	W2	17.8	17.0	1.5	GIGCAS	
GRV 053645	01/19/2006	72°47'00"	75°16'10"	4.91	1	H3	S2	W1	19.7 (3.1–40.7)	11.9 (2.4–30.2)	0.7	IGGCAS	
GRV 053653	01/19/2006	72°47'06"	75°17'49"	2.79	1	H4	S3	W1	18.0	17.0	1.3	GIGCAS	
GRV 053655	01/19/2006	72°47'06"	75°17'49"	2.15	1	H6	S1	W1	17.3	16	1.1	IGGCAS	
GRV 053689	01/20/2006	72°49'32"	75°21'05"	2812.00	1	H4	S1	W3	18.0	17.1	1.2	GIGCAS	
GRV 053694	01/20/2006	72°49'32"	75°21'10"	2.42	1	H4	S2	W1	18.8	16.6	1.4	BeiAP	
GRV 053699	01/21/2006	72°49'31"	75°21'20"	2.21	1	L5	S5	W2	23.9	19.9	1.6	PMO	
GRV 053700	01/12/2006	72°49'30"	75°21'22"	27.88	1	L5	S2	W2	23.6	19.7	1.3	GUT	
GRV 053702	01/21/2006	72°49'32"	75°21'0"	8.95	1	H4	S1	W3	18.1	17.1	1.6	GIGCAS	
GRV 053704	01/12/2006	72°47'11"	75°17'01"	11.48	1	L6	S4	W1	22.5	18.9	1.3	GUT	
GRV 053706	01/21/2006	72°49'30"	75°21'15"	1.39	1	L6	S2	W1	24.4	20.3	1.8	NAOC	
GRV 053721	01/23/2006	72°46'49"	75°16'27"	197.06	1	L6	S2	W1	24.5	20.5	1.7	IGGCAS	
GRV 053723	01/23/2006	72°46'49"	75°16'33"	50.41	1	L5	S4	W1	22.4	19.7	1.4	GUT	
GRV 053726	01/23/2006	72°46'47"	75°16'10"	2.92	1	L5	S2	W1	23	19.6	1.5	IGGCAS	
GRV 053745	01/23/2006	72°46'52"	75°18'43"	1.59	1	H5	S1	W3	18.9	17.1	1.3	GIGCAS	
GRV 053790	01/23/2006	72°47'06"	75°16'17"	1.53	1	H4	S1	W1	17.9	17.5	1.3	GIGCAS	
GRV 053799	01/23/2006	72°47'06"	75°16'17"	0.51	1	H6	S2	W1	18.5	16.3	1.2	BeiAP	
GRV 053815	01/23/2006	72°46'55"	75°16'14"	1.28	1	L6	S4	W2	24.9	21.0	1.9	BeiAP	
GRV 053822	01/23/2006	72°46'46"	75°16'12"	6.87	1	L5	S3	W1	24.7	20.8	1.6	BeiAP	
GRV 053824	01/23/2006	72°46'46"	75°16'12"	6.45	1	H4	S5	W1	20.1	17.5	1.5	NAOC	
GRV 053825	01/23/2006	72°46'46"	75°16'12"	6.49	1	H5	S2	W2	18.9	16.6	1.3	PMO	
GRV 053832	01/23/2006	72°46'46"	75°16'12"	2.16	1	L6	S2	W1	23.9	20.3	1.7	BeiAP	
GRV 053843	01/23/2006	72°47'02"	75°16'21"	1.28	1	H5	S2	W1	18.8	16.3	1.7	BeiAP	
GRV 053845	01/23/2006	72°47'02"	75°16'21"	1.19	1	L5	S4	W1	24.0	20.3	1.9	IGGCAS	
GRV 053986	01/23/2006	72°46'39"	75°17'02"	1.74	1	L5	S5	W2	24.5	20.6	1.7	PMO	
GRV 053997	01/23/2006	72°47'04"	75°16'49"	2.16	1	L6	S2	W1	24.1	20.7	1.8	BeiAP	
GRV 053998	01/23/2006	72°47'04"	75°16'49"	2.96	1	L5	S3	W1	24.7	21.3	1.7	GIGCAS	
GRV 053999	01/23/2006	72°47'04"	75°16'49"	2.80	1	H5	S2	W1	18.2	17.2	1.0	GIGCAS	
GRV 054000	01/23/2006	72°47'04"	75°16'49"	2.50	1	L5	S2	W2	26.1	22.2	1.5	PMO	
GRV 054001	01/23/2006	72°47'04"	75°16'49"	1.76	1	L6	S5	W2	23.3	19.9	1.7	NU	
GRV 054008	01/23/2006	72°47'04"	75°16'49"	1.53	1	L6	S1	W1	23.9	21.5	1.5	GIGCAS	
GRV 054009	01/23/2006	72°47'04"	75°16'49"	1.27	1	L5	S3	W1	22.9	19.5	1.4	GUT	

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/ yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 054010	01/23/2006	72°47'40"	75°16'49"	1.44	1	L6	S2	W1	24.1	20.8	1.4		IGGCAS
GRV 054027	01/23/2006	72°47'25"	75°16'23"	0.51	1	L6	S2	W1	24.1	20.5	1.7		BeiAP
GRV 054044	01/23/2006	72°46'45"	75°17'07"	3.93	1	H4	S1	W1	18.9	16.5	0.9		IGGCAS
GRV 054046	01/23/2006	72°47'14"	75°16'28"	1.19	1	H5	S2	W2	18.7	16.6	1.2		PMO
GRV 054065	01/23/2006	72°47'06"	75°17'01"	1.31	1	H5	S2	W2	19.6	17.4	1.2		PMO
GRV 054080	01/23/2006	72°47'06"	75°17'00"	0.51	1	H5	S2	W1	18	16.7	1		IGGCAS
GRV 054081	01/23/2006	72°47'06"	75°17'00"	0.52	1	H5	S2	W1	17.5	15.8	1.1		NU
GRV 054098	01/23/2006	72°47'15"	75°16'13"	1.18	1	H6	S3	W1	19.0	19.5	1.5		BeiAP
GRV 054116	01/23/2006	72°47'12"	75°16'44"	0.52	1	L5	S3	W2	23.0	19.7	1.2		GUT
GRV 054137	01/23/2006	72°47'34"	75°16'29"	1.18	1	L6	S2	W1	24.5	20.8	1.8		BeiAP
GRV 054150	01/23/2006	72°47'34"	75°16'29"	0.51	1	L5	S2	W1	23.1	19.3	1.4		IGGCAS
GRV 054228	01/23/2006	72°46'57"	75°18'41"	2.51	1	H4	S2	W1	19.8	17.4	1.1		IGGCAS
GRV 054237	01/23/2006	72°46'58"	75°17'45"	1.76	1	L6	S4	W1	22.4	19.4	1.5		GUT
GRV 054241	01/23/2006	72°46'53"	75°17'52"	1.59	1	L6	S1	W1	23.1	21.2	1.8		IGGCAS
GRV 054274	01/23/2006	72°46'55"	75°16'52"	0.51	1	L6	S2	W1	24.1	20.1	1.7		NU
GRV 054293	01/23/2006	72°46'45"	75°19'22"	15.55	1	L6	S5	W2	24.1	20.9	1.8		NAOC
GRV 054296	01/23/2006	72°46'48"	75°16'46"	4.96	1	L6	S2	W1	24.0	20.4	1.7		NAOC
GRV 054297	01/23/2006	72°46'48"	75°16'46"	2.53	1	L5	S3	W1	22.6	19.7	1.5		GUT
GRV 054306	01/23/2006	72°46'34"	75°20'03"	1.54	1	L5	S5	W1	25.5	21.5	1.4		PMO
GRV 054322	01/23/2006	72°46'55"	75°17'48"	155.70	1	L6	S3	W1	24.0	20.6	1.7		BeiAP
GRV 054323	01/23/2006	72°46'50"	75°17'58"	65.49	1	L6	S6	W2	22.8	19.5	1.8		NU
GRV 054330	01/23/2006	72°46'50"	75°17'58"	3.95	1	H4	S4	W1	24.4	21.4	2.0		BeiAP
GRV 054344	01/23/2006	72°46'31"	75°19'59"	3.82	1	L5	S4	W1	24.5	20.5	1.7		IGGCAS
GRV 054346	01/23/2006	72°46'35"	75°19'58"	2.82	1	L5	S3	W2	22.9	19.7	1.4		GUT
GRV 054348	01/23/2006	72°46'32"	75°19'52"	2.92	1	H6	S2	W1	18.5	16.2	1.2		IGGCAS
GRV 054350	01/23/2006	72°46'33"	75°19'54"	2.20	1	L6	S3	W1	24.1	21.7	1.6		IGGCAS
GRV 054369	01/23/2006	72°46'36"	75°19'50"	0.51	1	L6	S2	W2	24.2	20.1	2.0		NU
GRV 054404	01/23/2006	72°46'41"	75°17'26"	15.43	1	L6	S4	W1	24.0	20.4	1.9		BeiAP
GRV 054458	01/25/2006	72°54'57"	75°06'03"	3.36	1	H6	S1	W1	19.5	16.9	1.6		NAOC
GRV 054464	01/29/2006	72°55'06"	75°05'13"	1.74	1	H4	S3	W1	19.9	18.1	1.1		PMO
GRV 054472	01/30/2006	72°54'58"	75°06'01"	197.71	1	H3	S1	W1	17.2 (16.4–18.9)	15.4 (14.4–16.9)	1.0		GUT
GRV 054479	01/30/2006	72°54'58"	75°06'01"	11.48	1	H5	S1	W1	18.7	15.9	1.2		IGGCAS
GRV 054480	01/30/2006	72°54'58"	75°06'01"	8.23	1	L5	S2	W2	24.1	20.3	1.3		PMO
GRV 054483	01/30/2006	72°54'58"	75°06'01"	4.14	1	H4	S2	W1	18.1	15.3	2.2		NU
GRV 054486	01/30/2006	72°54'58"	75°06'01"	3.39	1	H5	S2	W1	19.4	17.2	1.1		PMO
GRV 054494	01/30/2006	72°54'58"	75°06'01"	3.33	1	H4	S1	W1	18.9	17	1.9		IGGCAS
GRV 054497	01/30/2006	72°54'58"	75°06'01"	1.19	1	H5	S2	W2	19.6	17.3	1.5		PMO
GRV 054498	01/30/2006	72°54'58"	75°06'01"	1.53	1	H5	S2	W1	18.5	16.4	1.8		NAOC

Table 6. *Continued.* Meteorites collected in Antarctica by the Chinese Antarctic Research Expedition (CHINARE) to Grove Mountains.

Name	Date of recovery (mm/dd/yyyy)	Latitude (S)	Longitude (E)	Mass (g)	Number of pieces	Class	Shock	WG	Fa (mol%)	Fs (mol%)	Wo (mol%)	Info ¹	Comments
GRV 054516	01/07/2006	72°59'56"	75°11'14"	1.31	1	L6	S4	W1	23.5	21.2	1.5	GIGCAS	
GRV 054528	01/07/2006	72°59'56"	75°11'14"	1.31	1	L6	S3	W1	23.4	21.3	1.4	GIGCAS	
GRV 054544	01/07/2006	72°59'56"	75°11'14"	0.51	1	L5	S3	W1	22.5	19.3	1.6	GUT	
GRV 054555	01/07/2006	72°59'56"	75°11'14"	0.52	1	L5	S4	W1	22.3	19.2	1.4	GUT	
GRV 054572	01/07/2006	72°59'56"	75°11'14"	0.52	1	L5	S2	W1	23.9	20.3	0.5	IGGCAS	
GRV 054584	01/07/2006	72°59'56"	75°11'14"	0.52	1	L6	S2	W1	24.0	20.3	1.4	IGGCAS	
GRV 054604	01/08/2006	72°59'56"	75°11'14"	0.52	1	L5	S3	W3	24.9	21.2	1.4	PMO	
GRV 054607	01/08/2006	72°59'56"	75°11'14"	2.78	1	L5	S3	W1	24.2	20.4	1.4	NAOC	
GRV 054613	01/08/2006	72°59'56"	75°11'14"	2.14	1	L5	S2	W1	23.4	19.6	1.3	IGGCAS	
GRV 054617	01/08/2006	72°59'56"	75°11'14"	2.90	1	L5	S2	W1	24.6	19.5	1.4	NU	
GRV 054620	01/08/2006	72°59'56"	75°11'14"	2.14	1	L5	S2	W1	24.4	19.8	1.4	NU	
GRV 054622	01/08/2006	72°59'56"	75°11'14"	1.28	1	L5	S3	W1	23.3	20	1.2	IGGCAS	
GRV 054629	01/08/2006	72°59'56"	75°11'14"	2.92	1	L5	S3	W2	23.8	19.8	1.5	NU	
GRV 054632	01/08/2006	72°59'56"	75°11'14"	1.39	1	L6	S2	W1	23.9	20.9	1.5	NAOC	
GRV 054636	01/08/2006	72°59'56"	75°11'14"	1.53	1	H5	S2	W1	18.7	16.4	1.3	NAOC	
GRV 054641	01/08/2006	72°59'56"	75°11'14"	1.81	1	L5	S3	W1	22.1	18.9	1.3	PMO	
GRV 054650	01/08/2006	72°59'56"	75°11'14"	2.20	1	L5	S4	W1	24.1	21.3	1.5	GIGCAS	
GRV 054651	01/08/2006	72°59'56"	75°11'14"	3.95	1	H4	S1	W2	17.8	15.8	1.5	IGGCAS	
GRV 054658	01/08/2006	72°59'56"	75°11'14"	0.52	1	L5	S3	W2	25.0	20.8	1.5	PMO	
GRV 054790	01/09/2006	72°59'56"	75°11'14"	0.52	1	L5	S2	W1	24.6	21.5	1.6	GIGCAS	
GRV 054791	01/09/2006	72°59'56"	75°11'14"	0.52	1	H5	S1	W1	16.4	15.9	0.7	GIGCAS	
GRV 054854	01/09/2006	72°59'56"	75°11'14"	0.84	1	Mesos- siderite			22.4	30.6	3.0	NU	
GRV 054856	01/09/2006	72°59'56"	75°11'14"	1.58	1	L6	S4	W1	24.3	21.0	1.5	BetAP	
GRV 054871	01/09/2006	72°59'56"	75°11'14"	0.51	1	L5	S3	W1	23.2	19.6	1.3	GUT	
GRV 054880	01/09/2006	72°59'56"	75°11'14"	0.51	1	L6	S2	W2	24.2	20.4	1.6	IGGCAS	
GRV 054955	01/09/2006	72°59'56"	75°11'14"	0.26	1	L4	S3	W2	25.1	21.1	1.3	PMO	
GRV 054956	01/09/2006	72°59'56"	75°11'14"	0.51	1	L5	S3	W1	23.9	20.4	1.4	IGGCAS	
GRV 054971	01/09/2006	72°59'56"	75°11'14"	0.52	1	L6	S1	W1	24.4	20.6	1.6	NAOC	
GRV 055055	01/09/2006	72°59'56"	75°11'14"	0.23	1	Mesos- siderite		W3	23.6	21.3	1.4	GIGCAS	
GRV 055153	01/09/2006	72°59'56"	75°11'14"	0.17	1	Mesos- siderite		W1	23.9	21.3	1.4	GIGCAS	
GRV 055157	01/09/2006	72°59'56"	75°11'14"	0.51	1	L5	S3	W1	26.3	22.4	1.3	PMO	
GRV 055253	01/09/2006	72°59'56"	75°11'14"	0.35	1	L5	S3	W1	24.6	21.0	1.4	IGGCAS	
GRV 055254	01/09/2006	72°59'56"	75°11'14"	0.25	1	L5	S3	W2	24.7	21.0	1.5	PMO	

¹Institution where classified.

Table 7. Meteorites from Asia.

Name	Abbrev.	Location of recovery	Date of recovery	Find/Fall	Latitude	Longitude	Total known mass (g)	No. of pieces	Class	Shock stage	Weath. grade	Fa mol%	Fs mol%	Wo mol%	Magn. sus.	Info about the classifier(s) ¹	Type specimen mass (g)	Type specimen location	Info about the main mass ²	Comments
Almahata Sitta		Sudan, Nahr an Nil, Nubian Desert	05-Dec-2008	From:	20°46.15'N	32°17.96'E	3.95 kg	47	Ureilitic, polymict, anomalous	S0	W0 (fall)	8 to 5	2	4						Debris from asteroid 2008 TC3
Dhofar 1480		Oman	2003	Find	19°9.967'N	54°40.346'E	57.7	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	18.7	Vernad	Anon	See written entry
Dhofar 1481		Oman	2003	Find	19°9.938'N	54°40.199'E	27.6	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	11.3	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1482		Oman	2003	Find	19°9.970'N	54°40.218'E	2.5	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	2.5	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1483		Oman	2003	Find	19°10.078'N	54°40.332'E	4.1	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	4.1	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1484		Oman	2003	Find	19°10.016'N	54°40.309'E	79.4	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	13.0	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1485		Oman	2003	Find	19°9.915'N	54°40.348'E	4.8	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	4.8	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1486		Oman	2003	Find	19°10.088'N	54°40.294'E	12.2	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	12.2	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1487		Oman	2003	Find	19°9.956'N	54°40.342'E	15.7	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	15.7	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1488		Oman	2003	Find	19°10.100'N	54°40.293'E	3.9	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	3.9	Vernad	Anon	Paired with Dhofar 1480
Dhofar 1489		Oman	2003	Find	19°9.701'N	54°40.471'E	25.7	1	Polymict eucrite							C. Lorenz, N. Kononkova, Vernad	1.5	Vernad	Anon	Paired with Dhofar 1480
Shisr 164		Oman	Dec-2002	Find	18°15.15'N	53°59.88'E	353	1	CV3	S1	W3	0.2–39.5 (5.9 ± 10.3)	0.9–9.9 (3.6 ± 2.9)	4.48	M. Bourton-Denise, MNHP	22.8	MNH	Labenne	In magnetite Cr ₂ O ₃ 0.79–1.75 wt%, MgO 0.44–0.97 wt%	
Sulagiri		Sulagiri, Krishnagiri District, Tamil Nadu, India	12-Sept-2008	Fall	12°40'00"N	78°02'00"E	110000	7	LL6	S2		25.4	21.9		B. Chatter-padhyay, GSI	110	GSI	GSI	See separate written description	

¹Name and institution of classifier.²Location or holder of the main mass.A key to abbreviations for addresses used in the table can be found at our web site, <http://im.er.usgs.gov/meteor/MetBull/Addresses.php>.

Table 8. Meteorites from Australia.

Name	Location of recovery	Date of recovery	Find/Fall	Latitude	Longitude	Total known mass (g)	Number of pieces	Class	Shock stage	Weathering grade	Fa mol%	Fs mol%	Wo mol%	Info about the classifier(s) ¹	Type specimen mass (g)	Info about the main mass ²
Yarringe Hill	Gawler Ranges, South Australia, Australia	18-Oct-2006	Find	32°04.972'S	135°38.991E	5750	1	H6	S3	W1	17.2	15.1		R. Tappert, University of Adelaide	5750	SAM

¹Name and institution of classifier.

²Location or holder of the main mass.

A key to abbreviations for addresses used in the table can be found at our web site, <http://tm.er.usgs.gov/meteor/MetBullAddresses.php>.

New abbreviations are given below:

Table 9. Meteorites from Europe.

Name	Location of recovery	Type of find site	Date of recovery	Find/Fall	Latitude	Longitude	Datum	Total known mass (g)	Number of pieces	Class	Weathering grade	Fa mol%	Fs mol%	Wo mol%	Info about the classifier(s) ¹	Type specimen mass (g)	Info about the main mass ²	Comments (Limited to one cell)
Maribo	2 km SW of Maribo, Danish Island Lolland	Grassy surface	4-Mar-2009	Fall (17-Jan-2009)	54°45.710N	11°28.047E	WGS 84	25.81	1	CM2	W0	Up to 58			H. Haack, NHMD	25.81	NHMD	δ ¹⁸ O = -1.27‰, δ ¹⁶ O = -4.96‰.
Zaragoza	Zaragoza, Spain		1950s	Find	41°39'N	0°52'W		162 kg	1	IVA-Anomalous				Devin Schrader, Uaz	160.75	U/Az	Farmer	See footnote 3

¹Name and institution of classifier.

²Location or holder of the main mass.

³Bulk composition for Zaragoza: (in wt%) Fe = 91.36, Ni = 7.20, Co = 0.41, S = 0.01, P = 0.03, (in ppm) Cr = 167.3, Ge = 2.5, Ga = 2.1, Ir = 2.8, Cu = 129.5, Pt = 5.4, As = 2.6, (in ppb) Se = 656, Mo = 6085, Os = 1789, Ru = 4468, Pd = 2990, Rh = 955, V = 251, Sb = 25, Re = 413, Mn = 493, Ag = 2353, Zn = 469.

A key to abbreviations for addresses used in the table can be found at our web site, <http://tm.er.usgs.gov/meteor/MetBullAddresses.php>.

New abbreviations are given below: