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# *METEORITE NEWSLETTER*

JAPANESE COLLECTION OF ANTARCTIC METEORITES

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# New Martian Meteorite

Sample Name: Yamato 984028

Location: Yamato Mountains

Dimensions (cm):  $2.8 \times 2.4 \times 1.7$

Weight (g): 12.34

Weathering: A

Fracturing: A

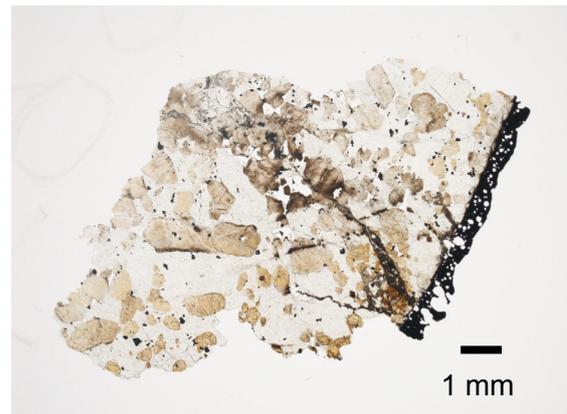
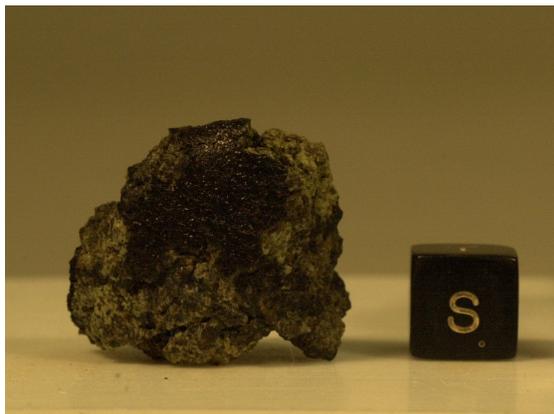
Meteorite Type: Lherzolic Shergottite

## Macroscopic Description

This is a subrounded stone with some shiny black fusion crust on one plane surface. Exposed interior shows a greenish, fine-grained granular texture. Some shock melt veins are observed.

## Petrographic Description

The section (51-1) shows a typical poikilitic texture. Large pyroxene oikocrysts enclose rounded olivines and chromites. Small amounts of maskelynite are present. A shock melt vein (400  $\mu\text{m}$  in width) cutting across the middle of the section is observed. Low-Ca pyroxene has a mean composition of  $\text{Fs}_{22.4}\text{Wo}_{3.8}$ . A mean composition of olivine is  $\text{Fa}_{31.6}$ . The texture and the chemical compositions of constituent minerals indicate that this meteorite is a lherzolic shergottite.



## Sample Request Deadline

Sample requests that are received by the curator before **September 30, 2008**, will be reviewed by the Committee on Antarctic Meteorite Research (CAMR), which is scheduled to meet in October, 2008. Requests that are received after the September 30 deadline may be delayed for review until the CAMR meeting in March, 2009.

All sample requests should be made in writing to:

Dr. Hideyasu Kojima  
Meteorite Curator  
Antarctic Meteorite Research Center  
National Institute of Polar Research (NIPR)  
9-10, Kaga 1-chome, Itabashi-ku, Tokyo 173-8515  
Japan  
FAX: 81-3-3962-5711  
E-mail: [curator@nipr.ac.jp](mailto:curator@nipr.ac.jp)

NIPR Sample Allocation Policies and the Request Form are also available in the following web site.

**<http://yamato.nipr.ac.jp/AMRC/EN/index1.html>**

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

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

### **NIPR SAMPLE ALLOCATION POLICIES**

#### **I. Basic guidelines for allocation of meteorites at NIPR**

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

Requests should consist of three parts:

- a. Background information: title of the research project; for the requesting scientist, his or her name, affiliation and position (e.g., University of Paris, Professor), and office address, including phone and preferably FAX and email; and for any coinvestigators, their name, affiliation, and position.
- b. A text section, explaining the general nature and purpose of the proposed research, and including details on the justification for each individual sample request.
- c. A summary table, with columns for each of the following information categories:
  - (1) Specimen name (e.g., Yamato-86032, or Y-86032).
  - (2) Preferred weight (the weight of sample you believe is justified for the proposed research).

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

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

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

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

### **SAMPLE DISTRIBUTION**

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

### **REPORTING RESULTS**

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

Mail requests to:

Dr. Hideyasu Kojima  
Curator, Antarctic Meteorite Research Center  
National Institute of Polar Research (NIPR)  
9-10, Kaga 1-chome, Itabashi-ku, Tokyo 173-8515, Japan  
Phone: (81) 3-3962-2938, FAX: (81) 3-3962-5711  
E-mail: [curator@nipr.ac.jp](mailto:curator@nipr.ac.jp)

## NIPR Research Program for Antarctic Meteorites

Research project: \_\_\_\_\_

Date: \_\_\_\_\_

Period of the project (months): \_\_\_\_\_

Principal investigator

Name: \_\_\_\_\_

Signature \_\_\_\_\_

Affiliation & position:

Office address:

Phone: \_\_\_\_\_ ext. \_\_\_\_\_

FAX: \_\_\_\_\_

E-mail:

Coinvestigator(s)

Name(s):

Affiliation(s) & position(s):

Description of research plan and justification for sample request:

*(continue)*

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

received

Send requests to: Antarctic Meteorite Research Center, National Institute of Polar Research, 9-10, Kaga 1-chome, Itabashi-ku, Tokyo 173-8515, Japan, Phone (81) 03-3962-2938, FAX (81) 03-3962-5711, E-mail curator@nipr.ac.jp

No.

received