

METEORITE NEWS

Volume 8, Number 1 (December 27, 1999)

Antarctic Meteorite Research Center
National Institute of Polar Research
Tokyo

From Director - Taking a step forward

Since the new Antarctic Meteorite Research Center was established in 1998, we have been making efforts to build up the organization of the center: we took on two new staff (Keiji Misawa and Akira Yamaguchi) for the center and established new analytical facilities such as ion microprobe and SEM/EDS/CL system. More than 4100 specimens brought by the meteorite search party (led by Dr. Kojima of NIPR) of the 39th Japanese Antarctic Research Expedition might be a gift from heaven for the start of the new center. Now it is the time to take a step forward. On behalf of the staff of the center, I wish all of the scientists to collaborate with, and support the activities of, the Antarctic Meteorite Research Center.

Kazuyuki Shiraishi

Member of Antarctic Meteorite Research Center

Academic staff

Kazuyuki Shiraishi (Professor): metamorphic geology
Hideyasu Kojima (Associate Professor and curator): meteoritics
Keiji Misawa (Associate Professor): cosmochemistry
Naoya Imae (Research Associate): meteoritics
Akira Yamaguchi (Research Associate): meteoritics

Technical staff for curatorial works

Fujiko Wakisaka, Toshiko Shirowa, Miyuki Naito,
Syoichi Ohno, Hiroshi Haramura, Hisako Kiso, Satsuki Ikadai

Student

Takayuki Tomiyama, Shinobu Sawada

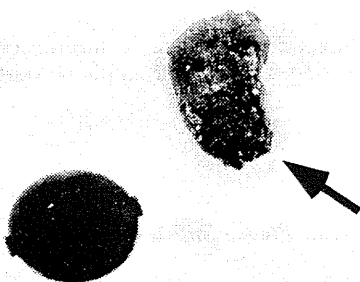
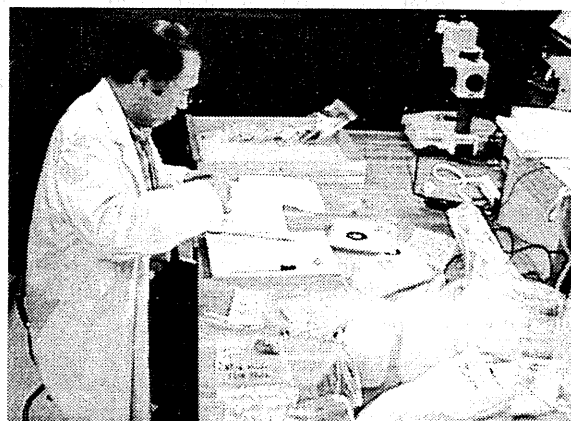


*Director of Antarctic Meteorite
Research Center
- Kazuyuki Shiraishi*

Starting initial processing of Yamato 98 Meteorite Collection

The collection from the 1998~1999 season was officially named the Yamato 98 meteorites. Although the Yamato 98 collection is kept frozen (below -20°C) in the freezer in the NIPR, the curator began initial processing of Yamato 98 Meteorite collection in late November. 1/4 of the collection was first returned to room temperature in a dry nitrogen-filled cabinet. They were labeled as Yamato 980001 to Yamato 98xxxx, in order of discovery. The initial processing including weighing, three dimensional measurement and brief classification will continue for several months.

Hideyasu Kojima



*Lunar meteorite
(Yamato 98) in the
meteorite ice field
around the Yamato
Mountains (left). One
of the largest
meteorites, possibly,
ordinary chondrite
(right).*

Antarctic Meteorite Research Center

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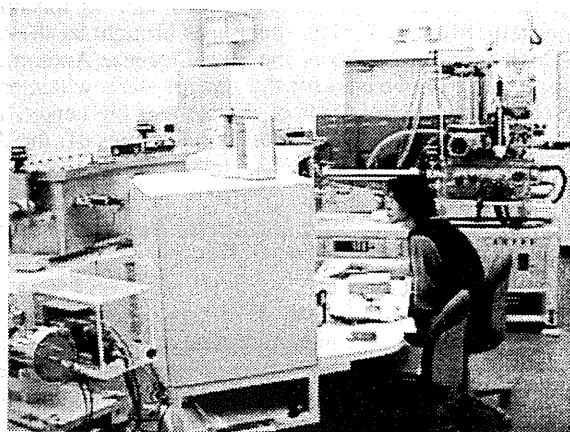
Dr. Imae left for the Antarctic

The 41st Japanese Antarctic Research Expedition (JARE) including the meteorite search party left for the Antarctic on November 14, 1999. The party consists of Naoya Imae and Yasuyoshi Shimoda of NIPR, Naoyoshi Iwata of Yamagata Univ. and other several members. After wintering at the Syowa Station, they will carry out meteorite search around the Yamato Mountains in 2000~ 2001 field season.

New Analytical Facilities

SHRIMP II

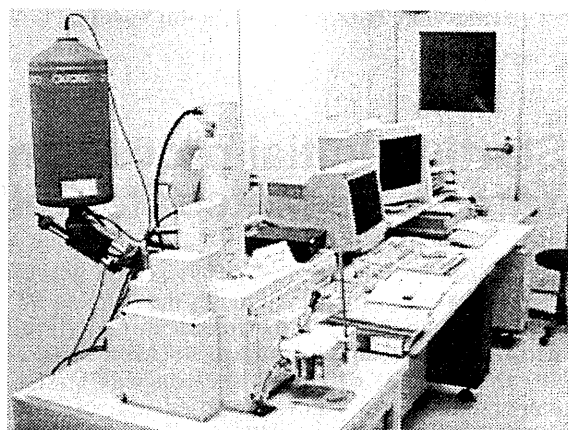
An ion microprobe -the SHRIMP II (Sensitive High Resolution Ion MicroProbe)- at Antarctic Meteorite Research Center, National Institute of Polar Research (NIPR) was installed in May 1999. Australian Scientific Instruments has been developing a negative ion capability with the addition of a Cesium gun and electron gun to the instrument. Our instrument possesses duoplasmatron and Cs ion sources, thus may operate in either positive or negative secondary ion polarity. We are currently working on the development of precise isotopic characterization of micron-sized phases as well as the study of U-Th-Pb isotopic systematics of zircon, apatite, and monazite. In situ trace element analysis of constituent phases of meteorites will be carried out by using the energy filtering technique. Once fundamental data taking methods and routine operation are established, the SHRIMP II will be accessible for use by cooperative programs with not only from inside but also outside the institute, other government departments, and universities. We will present results of the first actual measurements with the new instrument at the forthcoming NIPR Symposium on Antarctic Meteorites.



SHRIMP II

JEOL JSM-5900 LV

JEOL 5900LV is a scanning electron microscope with the capacity to operate in the low vacuum range. The microscope is equipped with an energy dispersive spectrometer and a cathodoluminescence detector. An Oxford Link Isis analyzer provides the capability of quantitative analysis and chemical map imaging. SEM/EDS/CL system is used for general studies and documentation of meteorite and terrestrial rocks. It is also used for basic characterization of Antarctic micrometeorites because imaging can be done without coating in the low-vacuum mode.



JEOL JSM-5900 LV

Clean Room

Two class-100 clean benches have been installed in a class-10000 clean room. This clean room is used for initial processing of Antarctic micrometeorites.

Upcoming events

January 25, 2000

Sample request deadline.

Request that are received before Jan. 25, 2000 will be reviewed at the Antarctic Meteorite Research Committee on Feb.8. Please refer to "NIPR sample allocation policies" in the *METEORITE NEWS*, vol. 7 no. 1. Sample request should be made in writing to:

Hideyasu Kojima, Curator
Antarctic Meteorite Research Center
National Institute of Polar Research
Kaga 1-9-10, Itabashi, Tokyo 173-8515, Japan.

Due to the short time until the deadline, we accept sample request by e-mail or fax. Please follow up transmissions by sending a hard copy by regular mail before Feb. 8.

June 21-23, 2000

25th Symposium on Antarctic Meteorites, Tokyo.

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