

STARDUST SAMPLE LOSS OR CONSUMPTION FORM

Sample Number: C2067.2.112.1.0

Consumption: (How consumed)

I was planning to do SEM analysis using field-emission SEM Hitachi S-4500S at the Material Characterization Central Laboratory at Waseda University on May 12th. Because the machine is only available under the direct supervision of the technician of the laboratory, I left the sample with the technician. He handled the sample and tried to load the sample into chamber. Accidentally, he dropped the sample in the sample exchange chamber. After the accident, I looked at the surface of the potted butt chip with the SEM, but found no grain, suggesting the potted butt was broken. I recovered few grains from the floor of the sample exchange chamber, however, it may not be possible to identify the original grain.

Loss: (Give all known details, including place, date, and circumstances)

Mutsumi Komatsu 6/2/2011

Signature and Date

Mutsumi Komatsu

Printed name

Waseda University

Affiliation

Min/Pet

Subgroup (Min/Pet, Cratering, etc.)

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Report

This is to report on the incident that damaged the sample on May 11, 2011.

1. Facts

- 1) On May 11, 2011, Dr. Mutsumi Komatsu, FAGAN Laboratory, Faculty of Education and Integrated Arts and Sciences, requested for the analysis of cometary dust at the Material Characterization Central Laboratory.
- 2) Makoto Miyashita, a staff of the Material Characterization Central Laboratory accepted the request, and kept "the sample packaged in resin" (hereinafter referred to as "the sample"), put the sample on the sample holder and insert it into the emission spare room of the scanning electron microscope to prepare for the analysis by EDS scheduled for the following day.
- 3) In this process, as the sample was too big, he decided to take it out of "the emission spare room" (herein after referred to as "the spare room"). When he took it out, it hit the shutter and fell in the spare room. He took it out right away, shaped the sample holder smaller and inserted it into the spare room again.
- 4) On the following day, May 12, in the presence of Dr. Mutsumi Komatsu, he started the analysis but could not find a part of the sample as big as 30μ , which was originally visible, so he took it out of the device. Later, when he observed the surface of the sample by using the stereomicroscope, he confirmed the damage.

2. Causes

● It is likely that the sample was damaged when it fell on May 11.

3. Future measures

● We will raise awareness of further meticulous care when treating the samples, etc. to prevent similar incidents.

4. Others

● Waseda University has provided the "Material Characterization Central Laboratory" as the facility to measure the sample property to support the research activities of the researchers.

● At the Central Laboratory mentioned above, staff are assigned to operate the scanning electron microscope and the device of EDS.

Hirashi Kambe