

Planetary material samples curation facility in JAXA

Toru Yada[1]; Akio Fujimura[2]; Manabu Kato[3]; Yada Toru Advisory Committee for Planetary Sample Curation Facility[4]

[1] JAXA; [2] ISAS; [3] ISAS/JAXA; [4] -

Facilities for curation of planetary material samples are now under preparation. The main purposes of the facilities are, (1) curation of planetary material samples which were recovered, or will be recovered by past, ongoing and future sample return missions in space, (2) fundamental development related to the sampling of future sample return missions, and (3) studies for developing an appropriate system for planetary sample curation, including planetary customs. The facilities will be basically composed of four clean rooms, two rooms for assistance of clean room operation, and two experimental rooms without clean level control. There will be two small rooms in the clean rooms for acid/base and organic solvent cleaning, which will be ventilated independently of air circulation of other clean rooms in order to keep those chemicals away from clean room atmosphere. Returned planetary samples will be handled inside clean chambers, which will be placed in the cleanest room among the clean rooms. They will be extracted from sampler and enclosed into sample cases under ultra-pure nitrogen environment, and preserved under ultra high vacuum. The construction of the facilities will be finished in fiscal year of 2007, and their test run, which should be preliminary for Hayabusa sample returned in 2010, will be performed from fiscal year of 2008.