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Current status of the planetary sample curation facility of Japan

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http://www.isas.jaxa.jp/j/index.shtml

In our country, some planetary sample return missions are executed and planned. Hayabusa mission is an asteroid sample return mission and the spacecraft will come back to the earth in 2010. Based on their necessities, a planetary sample curation facility has been built in JAXA at the end of March, 2008.

A variety of instruments and equipments has been installed in clean rooms of this facility; such as those for cleaning, evaluation of cleanliness and both initial description and preservation of the samples. Especially, clean chambers has been installed there, that realize a sample handling in both highly purified nitrogen condition of atmospheric pressure and controllable pressure from atmospheric pressure down to ultra high vacuum. They are specified for treating small planetary samples, so that they can sample residual gases in a sample capsule to measure heavy noble gases in there, weigh the samples by a microbalance and distribute them by specified instruments such as sample enclosure.

In 2008, the operation of this facility was executed for one year after it had completed and the comprehensive test has been held to confirm a basic function and performance of this facility.

In this talk, we report its operational results in 2008 and operational plan of the curation activity for Hayabusa returned sample.