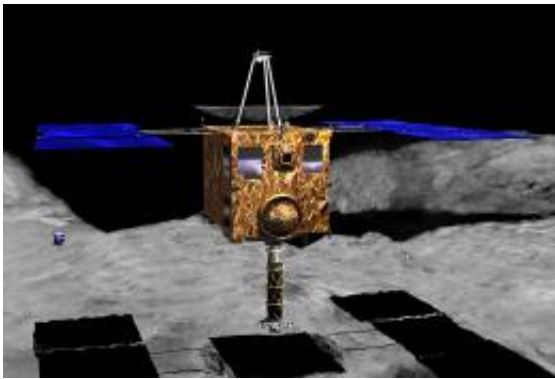


Japan lab finds trace of gas in deep space asteroid pod

June 24 2010



Artist's impression of Hayabusa in proximity to Itokawa's surface.

Japan's space agency said it had found a trace of gas Thursday in a capsule thought to contain asteroid dust that was brought back to Earth after a multi-billion-kilometre (mile) space journey.

Researchers at the Japan Aerospace Exploration Agency's Sagamihara Campus in Kanagawa began opening the [Hayabusa](#) capsule, a process expected to take about a week, [JAXA](#) said.

Using an [optical microscope](#), they plan to analyse the inside of the container, which was shielded by a Frisbee-sized capsule.

Opening the capsule on Thursday, they collected a trace of [gas](#), a JAXA spokeswoman said.

"We still don't know exactly what kind of gas it is, but the researchers confirmed a trace of low-pressured gas in the capsule," she said.

Scientists hope any dust samples from the ancient asteroid in the capsule could help reveal secrets about the origins of the solar system.

"If the capsule contains fragments of at least 10 micron (0.01 millimetre), researchers can make an analysis," the spokeswoman said.

But it will take at least a few more months before they determine whether the sample comes from the potato-shaped Itokawa asteroid or not.



This photo taken and released on June 14 by the Japan Aerospace Exploration Agency (JAXA) shows JAXA personnel inspecting the capsule carried by the Japanese Hayabusa spacecraft after it parachuted back to land in the Australian Outback. JAXA said it had found a trace of gas in a capsule thought to contain asteroid dust that was brought back to Earth after a multi-billion-kilometre space journey.

After a seven-year space odyssey, the heat-proof pod was fired back to Earth by the Hayabusa probe earlier this month after a five billion kilometre (three billion mile) journey.

Technical problems plagued Hayabusa, which at one stage spun out of control and lost contact with JAXA for seven weeks, delaying the mission for three years until the asteroid and Earth re-aligned.

When it finally latched onto the Itokawa asteroid, a pellet-firing system designed to stir up dust malfunctioned, leaving it unclear how much material the probe was able to gather.

Scientists expect to recover at least some [asteroid](#) dust from the world-first mission.

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