

Japanese lab finds 'minute particles' in asteroid pod

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An artist's impression of Japan's space probe "Hayabusa" (Falcon) and an asteroid, called Itokawa in space. When Hayabusa was launched in 2003, the canister was open, meaning it may contain materials that originated on Earth, a JAXA spokesman said.

Japan's space agency said Monday it has found "minute particles" of what it hopes is asteroid dust in the capsule of the space probe Hayabusa which returned to Earth last month.

Scientists hope any dust samples from the potato-shaped asteroid Itokawa could help reveal secrets about the origins of the solar system.

"We have started the opening process of the sample container of Hayabusa since June 24, 2010 and confirmed there are minute particles," the Japan Aerospace Exploration Agency (JAXA) said.

But the agency added it remained unclear whether the particles are contaminants from Earth or come from Itokawa, which the space probe landed on during its multi-billion-kilometre (mile) journey.

It is expected to take months to get the final results of the analysis.

Hayabusa project manager Junichiro Kawaguchi said scientists believed materials from Earth were among the particles found in the pod.

"But it's important that it wasn't empty... I'm glad that there is the possibility" that some are from the asteroid, Kawaguchi told a press briefing.

Researchers have not fully opened the capsule yet but have found more than 10 specks visible to the naked eye, said another JAXA scientist, Toshifumi Mukai.

Mukai conceded these particles may not have come from the asteroid.

"I have a feeling that they are not cosmic dust," he said, adding that it was also possible that they were from deep space.

Separately, an electron microscope found two more minute particles, estimated to be slightly bigger than 10 microns each, scientists said. One micron is one-millionth of a metre.

When Hayabusa was launched in 2003, the canister was open, meaning it may contain materials that originated on Earth, a JAXA spokesman said.

Technical problems plagued the journey of 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.

After a seven-year space odyssey, the heatproof pod was fired back to Earth by the Hayabusa probe in June.

Researchers at JAXA's Sagami-hara Campus near Tokyo, have been opening the multi-layered canister in cooperation with US space agency NASA.

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