



## SCIENCE & TECHNOLOGY

# China Research Mission Finds New Source of Water on Moon

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Scientists report they have discovered water in materials collected during a Chinese moon **mission**.

The water is in extremely small glass **beads** that were found in the dirt where many meteorites have hit the moon. The dirt was collected in 2020.

Hejiu Hui of Nanjing University took part in the study, which was published recently in *Nature Geoscience*.

Hui said the beads differ in size from the width of one hair to several hairs. The amount of water inside was extremely small.

Since billions if not trillions of these beads exist on the moon, there could be large amounts of water. But mining it would be difficult, the research team said.

“Yes, it will require lots and lots of glass beads,” Hui said in an email. “On the other hand, there are lots and lots of beads on the moon.”

The findings are based on 32 glass beads **randomly** chosen from moon dirt collected on China’s Chang’e 5 moon mission.

More will be studied, Hui said.

The beads are everywhere, the result of the cooling of melted material sent out by incoming space rocks.

This shows “water can be recharged on the moon’s surface ... a new water **reservoir** on the moon,” Hui said.

The study's findings raise the possibility that water could be removed by heating the beads in future robotic missions.

Still, more studies would be needed to show whether such water removals are possible or if the water would be safe to drink.

Earlier studies found water in glass beads formed by volcanic activity on the moon. Those studies used material collected on the moon by American astronauts more than fifty years ago.

The American space agency NASA plans to put astronauts back on the moon's surface by the end of 2025. The astronauts will aim for the south pole where craters are believed to be filled with frozen water.

I'm John Russell.

*Marcia Dunn reported on this story for the Associated Press. John Russell adapted it for VOA Learning English.*

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## Words in This Story

**mission** -- *n.* a flight by a spacecraft to perform a specific task

**bead** -- *n.* a small, round drop of liquid (such as water or blood)

**randomly** -- *adv.* chosen, done, etc., without a particular plan or pattern

**reservoir** -- *n.* an extra supply of something