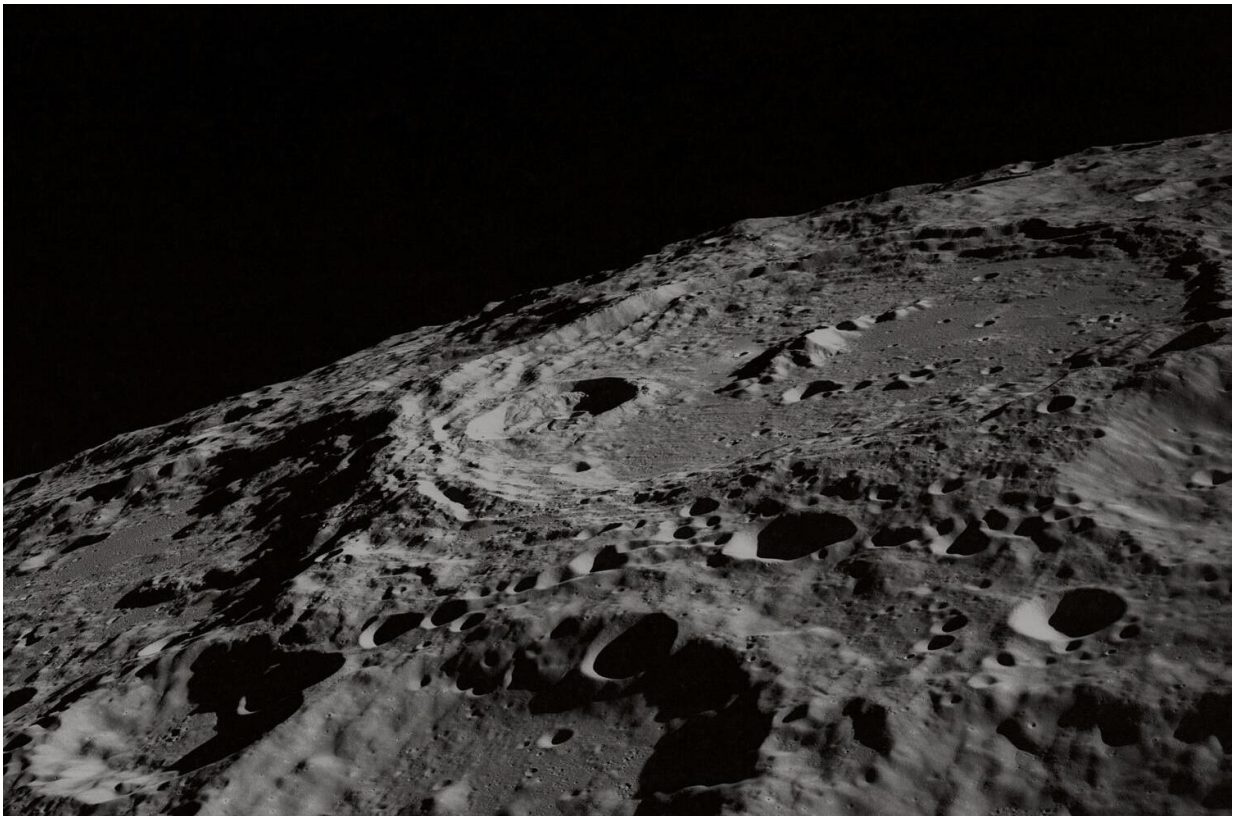


Chinese lunar probe finds water in moon samples

July 23 2024



Credit: CC0 Public Domain

A Chinese lunar probe found traces of water in samples of the moon's soil, scientists have said, as the country pushes its ambitious space program into high gear.

The Chang'e-5 rover completed its mission in 2020, returning to Earth with rock and [soil samples](#) from the moon.

The lunar samples "revealed the presence of trace water", the group of scientists from Chinese universities [wrote](#) in the *Nature Astronomy* journal published Monday.

A NASA infrared detector already confirmed in 2020 the existence of water on the moon, while scientists found traces of water in recent analyses of samples dating from the 1960s and 1970s.

But the Chang'e-5 samples are from a "much higher latitude", providing new clues as to what form water takes on the moon's surface, the Chinese scientists wrote.

The samples suggest that "[water molecules](#) can persist in sunlit areas of the moon in the form of hydrated salts", they said.

Chang'e-5 was the world's first mission in four decades to collect samples from the moon.

It followed the Chang'e-4's historic first landing on the far side of the moon in January 2019.

And last month, the Chang'e-6 lunar probe completed its mission to collect the first samples from the far side of the moon.

China has poured huge resources into its [space program](#) over the past decade, targeting ambitious undertakings in an effort to catch up to traditional space powers the United States and Russia.

It has built a [space station](#) and become the third country to send astronauts into orbit.

China also aims to send a crewed mission to the moon by 2030 and plans to build a base on the [lunar surface](#).

More information: Shifeng Jin et al, Evidence of a hydrated mineral enriched in water and ammonium molecules in the Chang'e-5 lunar sample, *Nature Astronomy* (2024). DOI: 10.1038/s41550-024-02306-8 , www.nature.com/articles/s41550-024-02306-8

© 2024 AFP

Citation: Chinese lunar probe finds water in moon samples (2024, July 23) retrieved 9 September 2024 from <https://phys.org/news/2024-07-chinese-lunar-probe-moon-samples.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.