

Researchers prove 120-million-year-old volcanism on moon

September 5 2024



Meteorite impacts and volcanic eruption producing glass beads on the moon. Credit: T. Zhang & Y. Wang

Extensive geologic evidence of ancient volcanic activity can be found on the moon, but how long this volcanism persisted has been unclear. However, Prof. Li Qiuli's Lab at the Institute of Geology and Geophysics of the Chinese Academy of Sciences (IGGCAS) has identified three volcanic glass beads from lunar soil samples collected by the Chang'e-5 mission.



Their research shows that the beads were formed 123±15 million years ago (Ma), thus representing the youngest lunar volcanism confirmed by radioisotope dating so far. The study was <u>published</u> in *Science*.

Dating of lunar volcanic basalt samples returned to Earth by the Apollo and Luna missions or delivered to Earth as lunar meteorites has shown that lunar basaltic volcanism continued until at least 2.9–2.8 billion years ago (Ga). However, analysis of lunar samples returned by China's Chang'e-5 <u>mission</u> has demonstrated that basaltic volcanism persisted until at least 2.0 Ga.

Remote sensing <u>observations</u> have indicated potentially even younger volcanism during the late Copernican era (

Citation: Researchers prove 120-million-year-old volcanism on moon (2024, September 5) retrieved 6 September 2024 from <u>https://phys.org/news/2024-09-million-year-volcanism-moon.html</u>

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