

Research Field: Planetary Geology and Geodynamics Focused Field: Impact Effects in Solar System



Meng-Hua Zhu (祝夢華)

Professor



Ph.D.: Planetary Science – Macau University of Science and Technology (2010)

B.S.: Computer Science – National University of Defense Technology (2003)

SHORT BIO

My research interests include (1) impact effects in the Solar System from observations, numerical simulations, and laboratory impact experiments; (2) late accretion history of terrestrial planets; (3) lunar and planetary remote sensing observation (x/gamma-ray, neutron, hyper-spectroscopy). As a participant scientist, I fully joined the China's Chang'E missions to the Moon and Tianwen-1 mission to Mars.

<u>I am looking for master/PhD students and</u> <u>Postdocs. Contact me if you are interested</u> in my research.

PROFESSIONAL EXPERIENCE

2022 – present Full Professor, Macau University of Science and Technology

2019 – 2022 Associate Professor, Macau University of Science and Technology

2012 – 2019 Assistant Professor, Macau University of Science and Technology

2012 – present *Visiting Scientist,* Museum für Naturkunde, Berlin

PUBLICATIONS (selected papers from last three years)

- Ding, M. and M. –H. Zhu (2022), Effects of Regional Thermal State on the Crustal Annulus Relaxation of Lunar Large Impact Basins, *JGR-Planets*, e2021JE007132.
- Zhang N., M. Ding, **M. –H. Zhu**, H. C. Li, et al. (2022), Lunar compositional asymmetry explained by mantle overturn following the South Pole-Aitken impact, *Nature Geosci.*, 15, 37-41. (*Highlighted by Nature*)
- Yang Y. Z., S. Li, **M. –H. Zhu**, Y. Liu, et al. (2022), Impact remnants rich in carbonaceous chondrites detected on the Moon by the Chang'e-4 rover, *Nature Astron.*, 6, 207-213.
- **Zhu M.** –**H.**, A. Morbidelli, W. Neumann, et al. (2021), Common feedstocks of late accretion for the terrestrial planets, *Nature Astron*., 5, 1,286-1,296. (*Highlighted by Nature Astronomy*).
- Liu T., G. Michael, **M. –H. Zhu**, K. Wünnemann (2021), Predicted sources of samples returned from Chang'e-5 landing region, *GRL*, 48, e2021GL092434.
- Zhang J.*, B. Zhou*, Y. Lin, **M. –H. Zhu***, et al. (2021), Lunar regolith and substructure at Chang'E-4 landing site in South-Pole Aitken basin, *Nature Astron.*, 5, 25-30. (*Equal contribution to this work).
- Ma P., Y. Sun, **M. –H. Zhu**, Y. Z. Yang, et al. (2020), A plagioclase-rich rock measured by Yutu-2 rover in Von Karman crater on the farside of the Moon, *Icarus*, 350, 113901.
- Di K., M. –H. Zhu, Z. Yue, Y. Lin, et al. (2019), Topographic evolution of Von Karman crater revealed by the lunar rover Yutu-2, 2019, *GRL*, 46, 12,764-12,770.
- **Zhu M. –H.**, N. Artemieva, A. Morbidelli, Q. –Z. Yin, et al. (2019), Reconstructing the late accretion history of the Moon, *Nature*, 571, 226-229.
- Hu X. Y., P. Ma, Y. Z. Yang, **M. –H. Zhu**, et al. (2019), Mineral abundances inferred from reflectance measurements of Chang'E-4 landing site in South Pole-Aitken basin, *GRL*, 46, 9,439-9,447.
- Zhang X. Y. and M. –H. Zhu, R. Bugiolacchi (2019), Mafic minerals of the South Pole-Aitken basin, <u>JGR-Planets</u>, 124, 1,581-1,591.
- **Zhu M. –H.**, K. Wünnemann, R. W. K. Potter, T. Kleine, and A. Morbidelli (2019), Forming the Moon's nearside-farside dichotomies via giant impact, *JGR-Planets*, 124, 2,117-2,140.
- **Zhu M. –H.**, J. Chang, T. Ma (2019), Thorium distribution on the Moon: new insights from Chang'E-2 Gamma-ray Spectrometer, *RAA*, 19 (6), 76.

Personal website: www.zhumenghua.com

Email: <u>mhzhu@must.edu.mo</u> Tel.: (853) 8897 2024