



# Research Field: Lunar & planetary surface environment

## Focused Field: Lunar regolith & extraterrestrial samples

### SHORT BIO

I obtained my Bachelor's degree in Gemology and Materials Technology from China University of Geosciences (Wuhan) in 2011. From 2011 to 2018, I pursued my Ph.D. in Geochemistry at University of Chinese Academy of Sciences, with a joint training experience at the Department of Chemistry, Tsinghua University from 2013 to 2016.

In October 2016, I led the establishment of the Micro-area Analysis Laboratory at the Analysis and Testing Center, Guangdong University of Technology. From January 2018 to January 2026, I served as the Director of the Micro-area Analysis Laboratory at GDUT.

Since January 2026, I have been working as an Associate Professor at the State Key Laboratory of Lunar and Planetary Sciences, Macau University of Science and Technology. My research focuses on lunar and planetary surface environment, lunar samples analysis, and advanced electron microscopy methods. I am a board member of the Guangdong Electron Microscopy Society and the responsible person for the usage of lunar scientific research samples of the Chang'e project.

### Associate Professor

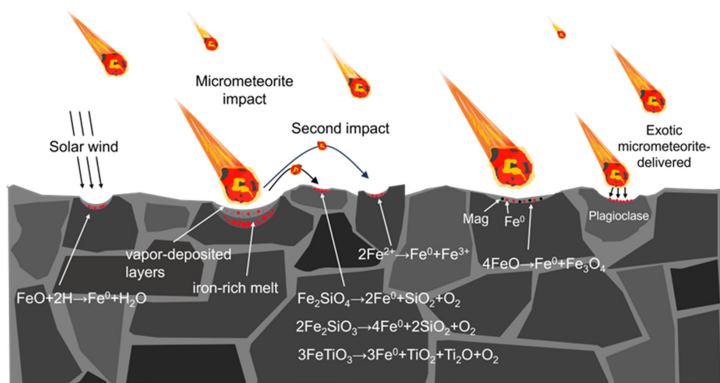
YANXUE WU

吴焱学



Ph.D. (2018): Geochemistry (Cosmochemistry) – University of Chinese Academy of Sciences

B.S. (2011): Gemology and Materials Technology – China University of Geosciences (Wuhan)



Space Weathering Processes on the Lunar Surface

### RECENT PUBLICATIONS (60+ papers, 1500+ citations)

Xiong M, Chen Z, **Wu Y\***, et al. Baddeleyite is a Resistant Mineral in Lunar and Airless Body Space Weathering Environments. **Journal of Geophysical Research: Planets**. 2026. (DOI: 10.1029/2025JE009335)

Zeng X#, **Wu Y#**, Yu W, et al. Unusual Ti Minerals on the Moon Produced by Space Weathering. **Nature Astronomy**. 2024;8(6):732–8.

**Wu Y**, Li X, Yao W, Wang S. Impact Characteristics of Different Rocks in a Pulsed Laser Irradiation Experiment: Simulation of Micrometeorite Bombardment on the Moon. **Journal of Geophysical Research: Planets**. 2017;122(10):1956–67.

### PROFESSIONAL EXPERIENCE

**2026.01 – now** – Macau University of Science and Technology, Macau, China – Associate Professor

**2018.01 – 2026.01** – Director of Micro-area Analysis Laboratory, Analysis and Testing Center, Guangdong University of Technology, China – Senior Experimentalist

**2016.10 – 2018.01** – Led the establishment of Micro-area Analysis Laboratory, Analysis and Testing Center, Guangdong University of Technology, China

### PROJECTS & AWARDS

Excellent Young Talent Award in China University Analytical Testing, 2025

First Prize of Science and Technology Award of China Association for Instrumental Analysis, 2019

**NSFC – 2023-2026 – PI** – Exploration of new minerals in lunar regolith and their genetic implications

**NSFC – 2023-2025 – PI** – Analysis of the growth mechanism of metallic iron particles in Chang'e-5 lunar samples

**STPG – 2024-2025 – PI** – Study on micro-area structure of evaporated deposition layers on lunar regolith particle surfaces

**STPG – 2021-2023 – PI** – In-situ TEM Study on Growth Mechanisms of Nanoscale Metallic Iron in Lunar Regolith Ilmenite