

Xiaohui Fu

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TEACHING EXPERIENCE

- Introduction to Earth Science (For undergraduate students)
- Crystallography & Mineralogy (For undergraduate students)
- Planetary Geology and Environments (For graduate students)

RESEARCH INTERESTS

- Planetary Geology
- Lunar and Martian meteorites
- Hydrous minerals on Mars
- Space weathering effects on airless bodies

EDUCATION BACKGROUND

2007-2012: Ph.D., National Astronomical Observatories, Chinese Academy of Sciences, in Astrophysics.

- Title of dissertation: Laboratory simulation of space weathering on the Moon and solar-wind-implanted noble gas diffusion
- Advisors: Academician Ziyuan Ouyang, Professor Yongliao Zou

2003-2007: B.S., China University of Geosciences, in Geology.

EMPLOYMENT HISTORY

- 2017/01-present, Institute of Space Sciences Shandong University, Associate Professor.
- 2012/07-2016/12, National Astronomical Observatories, Chinese Academy of Sciences, Assistant Researcher.
- 2015/04-2016/04, Department of Earth and Planetary, Washington University in St. Louis, Postdoc.

SELECTED PUBLICATIONS (Google Scholar: [link](#)):

List of Publications

- [1]. Fu Xiaohui, Ling Zongcheng, Zhou Qin, Bradley L. Jolliff, Yin Qingzhu, Li Bo, Wu Zhongchen, Zhang Jiang. 2020. Alteration minerals in Martian surface rocks: a comparative study of Martian meteorites and in-situ exploration in the Gale crater. *Earth Science Frontiers*, 2020, 27(4): 340-354.
- [2]. Fu Xiaohui, Jia Liangchen, Cao Haijun, Ling Zongcheng, Liu Changqing, Shi, Erbin Wu Zhongchen, Li Bo, Zhang Jiang. 2020. Thermal stability of akaganeite and its desiccation process under conditions relevant to Mars. *Icarus*, 336(1): 113435.
- [3]. Chen J., Jolliff B. L., Korotev R. L., Wang K., Carpenter P. K., Chen H., Ling Z., Fu X. H., Ni Y., Cao H., Huang Y. 2019. Petrogenesis and shock metamorphism of basaltic lunar meteorites Northwest Africa 4734 and 10597. *Journal of Geophysical Research: Planets*, 2019, *Journal of Geophysical Research: Planets*, 124. <https://doi.org/10.1029/2019JE006084>.
- [4]. Cao Haijun, Chen Jian, Fu Xiaohui, Ling Zongcheng. Raman and infrared spectroscopic perspectives of lunar meteorite Northwest Africa 4884. *Journal of Raman Spectroscopy*, 2019, 1-15. <https://doi.org/10.1002/jrs.5727>.
- [5]. Fu Xiaohui, Qiao Le, Zhang Jiang, Ling Zongcheng, Li Bo. 2020. The subsurface structure and stratigraphy of the Chang'E-4 landing site: Orbital evidence from small craters on the Von Karman crater floor. *Research in Astronomy and Astrophysics*, 20(1): 1-12.
- [6]. Qiao Le, Ling Zongcheng, Fu Xiaohui, Li Bo. 2019. Geological characterization of the Chang'e-4 landing area on the lunar farside. *Icarus*, 333:37-51.
- [7]. Li Bo, Yue Zongyu, Zhang Jiang, Fu Xiaohui, Ling Zongcheng, Chen Shengbo, Chen Jian, Yao Peiwen. 2019. High-Resolution Terrain Analysis for Lander Safety Landing and Rover Path Planning Based on Lunar Reconnaissance Orbiter Narrow Angle Camera Images: A Case Study of China's Chang'e-4 Probe. *Earth*

and Space Science, 398-410.

- [8]. Fu Xiaohui, Alian Wang, M. J. Krawczynski. 2016. Characterizing amorphous silicates in extraterrestrial materials: polymerization effects on Raman and Mid-IR spectral features of silicate glasses. *Journal of Geophysics Letter*. DOI: 10.1002/2016JE005241.
- [9]. Zhang Guangliang, Li Chunlai, Fu Xiaohui, Zou Yongliao, Liu Jianjun, Ren Xin, Tan Xu, Zhang Xiaoxia, Zuo Wei, Wen Weibin, Peng Wenxi, Cui Xingzhu, Zhang Chengmo, Wang Huanyu. 2016. Laboratory verification of the Active Particle-induced X-ray Spectrometer (APXS) on the Chang'e-3 mission. *Research in Astronomy and Astrophysics*, 15(11): 1595-1606.
- [10]. Zhu Yongchao, Fu Xiaohui, Zhang Feng, Xu Lin, Zheng Yongchun, Zou Yongliao. 2014. Surface modification induced by low energy ion irradiation: implications for solar-wind exposure effects in lunar soil. *Chinese Journal of Geochemistry*, 33(4):351–356.
- [11]. Wang Xiaoqian, Cui Jun, Li Han, Fu Xiaohui, Liu Bin, Li Chunlai. 2015. A Study of Reflectance Characteristics in Regions of Several Lunar Magnetic Anomalies. *Astronomical Research & Technology*, 12 (2), 219-227. (In Chinese)
- [12]. Fu Xiaohui, Li Chunlai, Zhang Guangliang, Zou Yongliao, Liu Jianjun, Ren Xin, Tan Xu, Zhang Xiaoxia, Zuo Wei, Wen Weibin, Peng Wenxi, Cui Xingzhu, Zhang Chengmo, Wang Huanyu. 2014. Data processing for the Active Particle-induced X-ray Spectrometer and initial scientific results from Chang'e-3. *Research in Astronomy and Astrophysics*, 14(12): 1595-1606.
- [13]. Fu Xiaohui, Ouyang Ziyuan, Zou Yongliao. 2014. A review on the search for life in our Solar System. *Earth Science Frontiers*, 21(1): 1-17. (In Chinese)
- [14]. Zhang Feng, Zou Yongliao, Zheng Yongchun, Fu Xiaohui, Zhu Yongchao. 2014. Lunar Mare Basalts in the Aristarchus Region: Implications for the Stratigraphic Sequence from Clementine UVVIS data. *ICARUS*, 272(1):132-151.
- [15]. Zhang Feng, Zou Yongliao, Zheng Yongchun, Fu Xiaohui, Zhu Yongchao. 2014. Mapping and Stratigraphic Analysis on Lunar Mare Basalt Units in the Aristarchus Region of the Moon Using Clementine Data. *Research in Astronomy and Astrophysics*, 14(1): 113-128.
- Fu Xiaohui, Zou Yongliao, Zheng Yongchun, Ouyang Ziyuan. 2012. Effects of space weathering on diagnostic spectral features: Results from He⁺ irradiation experiments. *ICARUS*, 219(2): 630-640.
- [16]. Zhang Feng, Zou Yongliao, Zheng Yongchun, Fu Xiaohui. 2012. A new automated approach to detecting and extracting lunar craters and its application. *Earth Science Frontiers*, 19(6):118-127. (In Chinese)
- [17]. Zheng Yongchun, Zou Yongliao, Fu Xiaohui. 2011. Water on the Moon: History of exploration and new evidence. *Acta Geologica Sinica*, 85(7):

1069-1078. (In Chinese)

- [18]. Fu Xiaohui, Zou Yongliao, Zheng Yongchun, He Huaiyu, Ouyang Ziyuan. 2011. Noble gas diffusion mechanism in lunar simulant grains: results from 4He^+ implantation and extraction experiments. *Journal of Earth Science*. 22(5): 566-577.
- [19]. Fu Xiaohui, Zou Yongliao, Zheng Yongchun, Ouyang Zhiyuan. 2011. Space weathering processes and effects on the Moon. *Chinese Journal of Space Science*, 31(6):705-715. (In Chinese)
- [20]. Fu Xiaohui, Zou Yongliao, Ouyang Zhiyuan. 2010. REE characteristics and Nd isotopic compositions of lunar pristine rocks: Implications for petrogenesis of pristine rocks and source regions. *Chinese Journal of Geochemistry*, 29(3): 326-336.