Meng-Hua Zhu

List of Publications by Year
in descending order

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48 papers	1,135 citations	331259 21 h-index	414034 32 g-index
48 all docs	48 docs citations	48 times ranked	944 citing authors

#	Article	IF	Citations
1	Impact remnants rich in carbonaceous chondrites detected on the Moon by the Changâ€™e-4 rover. Nature Astronomy, 2022, 6, 207-213.	4.2	6
2	Lunar compositional asymmetry explained by mantle overturn following the South Poleâ€“Aitken impact. Nature Geoscience, 2022, 15, 37-41.	5.4	21
3	Lunar Crater Detection on Digital Elevation Model: A Complete Workflow Using Deep Learning and Its Application. Remote Sensing, 2022, 14, 621.	1.8	8
4	Effects of Regional Thermal State on the Crustal Annulus Relaxation of Lunar Large Impact Basins. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	4
5	Lunar regolith and substructure at Changâ€™E-4 landing site in South Poleâ€“Aitken basin. Nature Astronomy, 2021, 5, 25-30.	4.2	61
6	In situ lunar phase curves measured by Changâ€™E-4 in the Von KÃ¡rmÃ¡n Crater, South Pole-Aitken basin. Astronomy and Astrophysics, 2021, 646, A2.	2.1	8
7	Predicted Sources of Samples Returned From Changâ€™eâ€™5 Landing Region. Geophysical Research Letters, 2021, 48, e2021GL092434.	1.5	13
8	Mare basalt flooding events surrounding Chang'e-4 landing site as revealed by Zhinyu crater ejecta. Icarus, 2021, 360, 114370.	1.1	9
9	Common feedstocks of late accretion for the terrestrial planets. Nature Astronomy, 2021, 5, 1286-1296.	4.2	9
10	Olivine-norite rock detected by the lunar rover Yutu-2 likely crystallized from the SPA-impact melt pool. National Science Review, 2020, 7, 913-920.	4.6	51
11	A plagioclase-rich rock measured by Yutu-2 Rover in Von KÃ¡rmÃ¡n crater on the far side of the Moon. Icarus, 2020, 350, 113901.	1.1	13
12	Mineral Abundances Inferred From In Situ Reflectance Measurements of Chang'Eâ€4 Landing Site in South Poleâ€Aitken Basin. Geophysical Research Letters, 2019, 46, 9439-9447.	1.5	47
13	Reconstructing the late-accretion history of the Moon. Nature, 2019, 571, 226-229.	13.7	42
14	Thickness of Lunar Mare Basalts: New Results Based on Modeling the Degradation of Partially Buried Craters. Journal of Geophysical Research E: Planets, 2019, 124, 2430-2459.	1.5	36
15	Thorium distribution on the Moon: new insights from Changâ€™E-2 gamma-ray spectrometer*. Research in Astronomy and Astrophysics, 2019, 19, 076.	0.7	5
16	Mafic Minerals in the South Poleâ€Aitken Basin. Journal of Geophysical Research E: Planets, 2019, 124, 1581-1591.	1.5	3
17	Are the Moon's Nearsideâ€Farside Asymmetries the Result of a Giant Impact?. Journal of Geophysical Research E: Planets, 2019, 124, 2117-2140.	1.5	32
18	Selenophysical parameter inversion in the Lunar Southern Hemisphere Highland based on mutant particle swarm optimization. Physics of the Earth and Planetary Interiors, 2019, 292, 55-66.	0.7	3

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19	Topographic Evolution of Von KÃ¡rmÃ¡n Crater Revealed by the Lunar Rover Yutuâ€². Geophysical Research Letters, 2019, 46, 12764-12770.	1.5	38
20	Diversity of basaltic lunar volcanism associated with buried impact structures: Implications for intrusive and extrusive events. Icarus, 2018, 307, 216-234.	1.1	13
21	Effect of target properties and impact velocity on ejection dynamics and ejecta deposition. Meteoritics and Planetary Science, 2018, 53, 1705-1732.	0.7	29
22	Reconnaissance survey of the Duolun ring structure in Inner Mongolia: Not an impact structure. Meteoritics and Planetary Science, 2017, 52, 1822-1842.	0.7	3
23	Newly Discovered Ringâ€Moat Dome Structures in the Lunar Maria: Possible Origins and Implications. Geophysical Research Letters, 2017, 44, 9216-9224.	1.5	18
24	The role of impact bombardment history in lunar evolution. Icarus, 2017, 286, 138-152.	1.1	38
25	Effects of Moon's Thermal State on the Impact Basin Ejecta Distribution. Geophysical Research Letters, 2017, 44, 11,292.	1.5	25
26	Effect of Topography Degradation on Crater Sizeâ€Frequency Distributions: Implications for Populations of Small Craters and Age Dating. Geophysical Research Letters, 2017, 44, 10,171.	1.5	40
27	Global Mg/Si and Al/Si Distributions on the Lunar Surface Derived from Chang'E-2 X-ray Spectrometer. Research in Astronomy and Astrophysics, 2016, 16, 004.	0.7	10
28	Estimates of primary ejecta and local material for the Orientale basin: Implications for the formation and ballistic sedimentation of multi-ring basins. Earth and Planetary Science Letters, 2016, 440, 71-80.	1.8	25
29	On estimating the background of remote sensing gamma-ray spectroscopic data. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 832, 259-263.	0.7	2
30	Impacts into quartz sand: Crater formation, shock metamorphism, and ejecta distribution in laboratory experiments and numerical models. Meteoritics and Planetary Science, 2016, 51, 1762-1794.	0.7	52
31	Late stage Imbrium volcanism on the Moon: Evidence for two source regions and implications for the thermal history of Mare Imbrium. Earth and Planetary Science Letters, 2016, 445, 13-27.	1.8	13
32	Numerical modeling of the ejecta distribution and formation of the Orientale basin on the Moon. Journal of Geophysical Research E: Planets, 2015, 120, 2118-2134.	1.5	36
33	Regolith stratigraphy at the Chang'Eâ€3 landing site as seen by lunar penetrating radar. Geophysical Research Letters, 2015, 42, 10,179.	1.5	107
34	In situ optical measurements of Chang'Eâ€3 landing site in Mare Imbrium: 1. Mineral abundances inferred from spectral reflectance. Geophysical Research Letters, 2015, 42, 6945-6950.	1.5	28
35	In situ optical measurements of Chang'E-3 landing site in Mare Imbrium: 2. Photometric properties of the regolith. Geophysical Research Letters, 2015, 42, 8312-8319.	1.5	33
36	The uniform K distribution of the mare deposits in the Orientale Basin: Insights from Chang'E-2 gamma-ray spectrometer. Earth and Planetary Science Letters, 2015, 418, 172-180.	1.8	9

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37	Regolith thickness over Sinus Iridum: Results from morphology and size-frequency distribution of small impact craters. Journal of Geophysical Research E: Planets, 2014, 119, 1914-1935.	1.5	37
38	Morphology of asteroid (4179) Toutatis as imaged by Chang'Eâ€2 spacecraft. Geophysical Research Letters, 2014, 41, 328-333.	1.5	19
39	The Ginger-shaped Asteroid 4179 Toutatis: New Observations from a Successful Flyby of Chang'e-2. Scientific Reports, 2013, 3, 3411.	1.6	89
40	Gamma-ray spectrometer onboard Chang'E-2. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 726, 113-115.	0.7	14
41	Potassium Map from Chang'E-2 Constraints the Impact of Crisium and Orientale Basin on the Moon. Scientific Reports, 2013, 3, 1611.	1.6	27
42	Lunar potassium distribution: Results from Changâ€™E-1 gamma ray spectrometer. Science China: Physics, Mechanics and Astronomy, 2011, 54, 2083-2090.	2.0	7
43	Changâ€™E-1 gamma ray spectrometer and preliminary radioactive results on the lunar surface. Planetary and Space Science, 2010, 58, 1547-1554.	0.9	25
44	Least square fitting of low resolution gamma ray spectra with cubic B-spline basis functions. Chinese Physics C, 2009, 33, 24-30.	1.5	13
45	Heuristic approach for peak regions estimation in gamma-ray spectra measured by a NaI detector. Chinese Physics C, 2009, 33, 205-209.	1.5	1
46	Iterative estimation of the background in noisy spectroscopic data. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 602, 597-599.	0.7	10
47	Smoothing noisy spectroscopic data with many-knot spline method. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 589, 484-486.	0.7	1
48	Least-Squares Fitting of Gamma-Ray Spectra with B-Spline Basis Functions. , 2008, , .		2