John E Moores

List of Publications by Year
in descending order

82 papers	6,056 citations	159585 30 h-index	76900 74 g-index
86 all docs	86 docs citations	86 times ranked	4615 citing authors

#	Article	IF	Citations
1	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	12.6	687
2	Rain, winds and haze during the Huygens probe's descent to Titan's surface. Nature, 2005, 438, 765-778.	27.8	529
3	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	12.6	475
4	Mars methane detection and variability at Gale crater. Science, 2015, 347, 415-417.	12.6	373
5	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
6	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	12.6	327
7	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	326
8	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	12.6	323
9	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
10	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	12.6	224
11	Background levels of methane in Marsâ€™ atmosphere show strong seasonal variations. Science, 2018, 360, 1093-1096.	12.6	224
12	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
13	Mars Water-Ice Clouds and Precipitation. Science, 2009, 325, 68-70.	12.6	173
14	Mars Science Laboratory Observations of the 2018/Mars Year 34 Global Dust Storm. Geophysical Research Letters, 2019, 46, 71-79.	4.0	138
15	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
16	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	12.6	103
17	Winds at the Phoenix landing site. Journal of Geophysical Research, 2010, 115, .	3.3	89
18	Preliminary interpretation of the REMS pressure data from the first 100 sols of the MSL mission. Journal of Geophysical Research E: Planets, 2014, 119, 440-453.	3.6	80

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19	Observational evidence of a suppressed planetary boundary layer in northern Gale Crater, Mars as seen by the Navcam instrument onboard the Mars Science Laboratory rover. Icarus, 2015, 249, 129-142.	2.5	66
20	Slow degradation of ATP in simulated martian environments suggests long residence times for the biosignature molecule on spacecraft surfaces on Mars. Icarus, 2008, 194, 86-100.	2.5	59
21	Crack propagation by differential insolation on desert surface clasts. Geomorphology, 2008, 102, 472-481.	2.6	56
22	Convective vortices and dust devils at the MSL landing site: Annual variability. Journal of Geophysical Research E: Planets, 2016, 121, 1514-1549.	3.6	55
23	The shielding effect of small-scale martian surface geometry on ultraviolet flux. Icarus, 2007, 192, 417-433.	2.5	53
24	Penitentes as the origin of the bladed terrain of Tartarus Dorsa on Pluto. Nature, 2017, 541, 188-190.	27.8	43
25	Impacts of Cosmic Dust on Planetary Atmospheres and Surfaces. Space Science Reviews, 2018, 214, 1.	8.1	43
26	UV degradation of accreted organics on Mars: IDP longevity, surface reservoir of organics, and relevance to the detection of methane in the atmosphere. Journal of Geophysical Research, 2012, 117, .	3.3	41
27	Phoenix and MRO coordinated atmospheric measurements. Journal of Geophysical Research, 2010, 115, .	3.3	40
28	Experimental and theoretical simulations of ice sublimation with implications for the chemical, isotopic, and physical evolution of icy objects. Planetary and Space Science, 2012, 60, 166-180.	1.7	35
29	Methane from UVâ€irradiated carbonaceous chondrites under simulated Martian conditions. Journal of Geophysical Research, 2012, 117, .	3.3	33
30	Atmospheric dynamics at the Phoenix landing site as seen by the Surface Stereo Imager. Journal of Geophysical Research, 2010, 115, .	3.3	31
31	The Methane Diurnal Variation and Microseepage Flux at Gale Crater, Mars as Constrained by the ExoMars Trace Gas Orbiter and Curiosity Observations. Geophysical Research Letters, 2019, 46, 9430-9438.	4.0	31
32	A full martian year of line-of-sight extinction within Gale Crater, Mars as acquired by the MSL Navcam through sol 900. Icarus, 2016, 264, 102-108.	2.5	29
33	Atmospheric movies acquired at the Mars Science Laboratory landing site: Cloud morphology, frequency and significance to the Gale Crater water cycle and Phoenix mission results. Advances in Space Research, 2015, 55, 2217-2238.	2.6	28
34	Lunar water migration in the interval between large impacts: Heterogeneous delivery to Permanently Shadowed Regions, fractionation, and diffusive barriers. Journal of Geophysical Research E: Planets, 2016, 121, 46-60.	3.6	24
35	Methane seasonal cycle at Gale Crater on Mars consistent with regolith adsorption and diffusion. Nature Geoscience, 2019, 12, 321-325.	12.9	24
36	Day-night differences in Mars methane suggest nighttime containment at Gale crater. Astronomy and Astrophysics, 2021, 650, A166.	5.1	22

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37	The Temporal and Geographic Extent of Seasonal Cold Trapping on the Moon. Journal of Geophysical Research E: Planets, 2019, 124, 1935-1944.	3.6	21
38	Observations of near-surface fog at the Phoenix Mars landing site. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	20
39	The first Martian year of cloud activity from Mars Science Laboratory (sol 0â€“800). Advances in Space Research, 2016, 57, 1223-1240.	2.6	20
40	Lidar measurements of clouds in the planetary boundary layer on Mars. Geophysical Research Letters, 2010, 37, .	4.0	18
41	A Lunar Microbial Survival Model for Predicting the Forward Contamination of the Moon. Astrobiology, 2019, 19, 730-756.	3.0	18
42	A Mission Control Architecture for robotic lunar sample return as field tested in an analogue deployment to the sudbury impact structure. Advances in Space Research, 2012, 50, 1666-1686.	2.6	14
43	Modelling the atmosphere of lava planet K2-141b: implications for low- and high-resolution spectroscopy. Monthly Notices of the Royal Astronomical Society, 2020, 499, 4605-4612.	4.4	14
44	Impact-Generated Endolithic Habitat Within Crystalline Rocks of the Haughton Impact Structure, Devon Island, Canada. Astrobiology, 2014, 14, 522-533.	3.0	13
45	Visibility and Lineâ€ofâ€Sight Extinction Estimates in Gale Crater During the 2018/MY34 Global Dust Storm. Geophysical Research Letters, 2019, 46, 9414-9421.	4.0	13
46	Experimental and theoretical simulation of sublimating dusty water ice with implications for D/H ratios of water ice on Comets and Mars. Planetary Science, 2012, 1, .	1.5	12
47	Transient atmospheric effects of the landing of the Mars Science Laboratory rover: The emission and dissipation of dust and carbazic acid. Advances in Space Research, 2016, 58, 1066-1092.	2.6	12
48	UV production of methane from surface and sedimenting IDPs on Mars in light of REMS data and with insights for TGO. Planetary and Space Science, 2017, 147, 48-60.	1.7	11
49	A Cruise-Phase Microbial Survival Model for Calculating Bioburden Reductions on Past or Future Spacecraft Throughout Their Missions with Application to Europa Clipper. Astrobiology, 2020, 20, 1450-1464.	3.0	10
50	Estimating the altitudes of Martian water-ice clouds above the Mars Science Laboratory rover landing site. Planetary and Space Science, 2020, 182, 104785.	1.7	9
51	Constraints on Mars Aphelion Cloud Belt phase function and ice crystal geometries. Planetary and Space Science, 2019, 168, 62-72.	1.7	8
52	Collisionâ€Induced Absorption of CH₄â€CO₂ and H₂â€CO₂ Complexes and Their Effect on the Ancient Martian Atmosphere. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006357.	3.6	8
53	Illumination conditions within permanently shadowed regions at the lunar poles: Implications for in-situ passive remote sensing. Acta Astronautica, 2021, 178, 432-451.	3.2	8
54	Adsorptive fractionation of HDO on JSC MARS-1 during sublimation with implications for the regolith of Mars. Icarus, 2011, 211, 1129-1149.	2.5	7

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55	Martian airfall dust on smooth, inclined surfaces as observed on the Phoenix Mars Lander telltale mirror. Planetary and Space Science, 2015, 116, 6-17.	1.7	7
56	Simulating the formation of Martian penitentes. Planetary and Space Science, 2019, 174, 21-31.	1.7	6
57	Vertical and horizontal heterogeneity of atmospheric dust loading in northern Gale Crater, Mars. Icarus, 2019, 329, 197-206.	2.5	6
58	A survey of small-scale (<50Ââ€‹m) surface features on the Martian north polar cap using HiRISE. Planetary and Space Science, 2020, 182, 104809.	1.7	6
59	Aphelion Cloud Belt phase function investigations with Mars Color Imager (MARCI). Planetary and Space Science, 2020, 184, 104840.	1.7	6
60	Salt Tolerance and UV Protection of Bacillus subtilis and Enterococcus faecalis under Simulated Martian Conditions. Astrobiology, 2021, 21, 394-404.	3.0	6
61	Observations of wind direction by automated analysis of images from Mars and the MSL rover. Acta Astronautica, 2014, 94, 776-783.	3.2	5
62	Modelled small-scale crack orientations in Martian surface clasts caused by differential insolation-mobilized water. Icarus, 2020, 338, 113497.	2.5	5
63	The Siding Spring cometary encounter with Mars: A natural experiment for the Martian atmosphere?. Geophysical Research Letters, 2014, 41, 4109-4117.	4.0	4
64	UV attenuation by Martian brines. Canadian Journal of Physics, 2020, 98, 567-570.	1.1	4
65	The Lineâ€ofâ€Sight Extinction Record at Gale Crater as Observed by MSL's Mastcam and Navcam through â^¼2,500â€‰Sols. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006465.	3.6	3
66	A self-supervised learning based approach to analyze Martian waterâ€"ice cloud properties for planetary atmospheric applications. Acta Astronautica, 2021, 181, 1-13.	3.2	3
67	Thermal Forcing of the Nocturnal Near Surface Environment by Martian Water Ice Clouds. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	3
68	Laboratory investigations of Lunar ice imaging in permanently shadowed regions using reflected starlight. Acta Astronautica, 2020, 177, 604-610.	3.2	2
69	Mapping the Limited Extent of Earthshine within Lunar PSRs. Research Notes of the AAS, 2019, 3, 127.	0.7	2
70	The small reconnaissance of atmospheres mission platform concept, part 2: design of carrier spacecraft and atmospheric entry probes. International Journal of Space Science and Engineering, 2014, 2, 345.	0.1	1
71	Possible ground fog detection from SLI imagery of Titan. Icarus, 2016, 271, 269-278.	2.5	1
72	The case for a multi-channel polarization sensitive LIDAR for investigation of insolation-driven ices and atmospheres. , 2021, 53, .		1

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73	Simulating Transits of Large Objects at the L₁ Lagrange Point for the 2018 Feature Film Clara. Research Notes of the AAS, 2018, 2, 34.	0.7	1
74	A Surprising and Colorful Martian Scattering Artifact. Research Notes of the AAS, 2019, 3, 40.	0.7	1
75	A Record of Water-ice Clouds at the Phoenix Landing Site Derived from Modeling MET Temperature Data. Planetary Science Journal, 2022, 3, 97.	3.6	1
76	The small reconnaissance of atmospheres mission platform concept, part 1: motivations and outline for a swarm of scientific microprobes to the clouds of Jupiter in 2030. International Journal of Space Science and Engineering, 2014, 2, 327.	0.1	0
77	Hydrolysed polar terrain ice aerobot mission platform. International Journal of Space Science and Engineering, 2015, 3, 342.	0.1	0
78	Conceptual thermal design of a network of solar-powered Boardsat- and CubeSat-based landed spacecraft on Mars. International Journal of Space Science and Engineering, 2020, 6, 125.	0.1	0
79	Saturn ice ring exploration network mission platform. International Journal of Space Science and Engineering, 2018, 5, 16.	0.1	0
80	Starchips in solar system planetary exploration: an opportunity for Canada. International Journal of Space Science and Engineering, 2019, 5, 181.	0.1	0
81	Conceptual thermal design of a network of solar-powered Boardsat- and CubeSat-based landed spacecraft on Mars. International Journal of Space Science and Engineering, 2020, 6, 125.	0.1	0
82	Atmospheric Dust Causes Darkness to Fall Rapidly on Mars. Research Notes of the AAS, 2020, 4, 196.	0.7	0