K W Lewis

List of Publications by Year
in descending order

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42 papers	5,006 citations	186209 28 h-index	265120 42 g-index
43 all docs	43 docs citations	43 times ranked	2939 citing authors

#	Article	IF	Citations
1	The Need for and Feasibility of Alternative Ground Robots to Traverse Sandy and Rocky Extraterrestrial Terrain. Advanced Intelligent Systems, 2023, 5, .	3.3	7
2	A fragile record of fleeting water on Mars. Geology, 2022, 50, 152-157.	2.0	4
3	Diurnal Variability in Aeolian Sediment Transport at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	9
4	Orbital Observations of a Marker Horizon at Gale Crater. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	5
5	Burial and Exhumation of Sedimentary Rocks Revealed by the Base Stimson Erosional Unconformity, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
6	Barometric Pumping Through Fractured Rock: A Mechanism for Venting Deep Methane to Mars' Atmosphere. Geophysical Research Letters, 2022, 49, .	1.5	3
7	Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 2: Local Meteorology, Transport Dynamics, and Model Analysis. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006514.	1.5	19
8	A Rock Record of Complex Aeolian Bedforms in a Hesperian Desert Landscape: The Stimson Formation as Exposed in the Murray Buttes, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006554.	1.5	34
9	A surface gravity traverse on Mars indicates low bedrock density at Gale crater. Science, 2019, 363, 535-537.	6.0	49
10	Compositional Constraints on the North Polar Cap of Mars from Gravity and Topography. Geophysical Research Letters, 2019, 46, 8671-8679.	1.5	13
11	Depletion of Heat Producing Elements in the Martian Mantle. Geophysical Research Letters, 2019, 46, 12756-12763.	1.5	9
12	Ancient Martian aeolian processes and palaeomorphology reconstructed from the Stimson formation on the lower slope of Aeolis Mons, Gale crater, Mars. Sedimentology, 2018, 65, 993-1042.	1.6	143
13	The Thermophysical Properties of the Bagnold Dunes, Mars: Groundâ€Truthing Orbital Data. Journal of Geophysical Research E: Planets, 2018, 123, 1307-1326.	1.5	34
14	Shaler: inÂsitu analysis of a fluvial sedimentary deposit on Mars. Sedimentology, 2018, 65, 96-122.	1.6	59
15	The Density of the Medusae Fossae Formation: Implications for its Composition, Origin, and Importance in Martian History. Journal of Geophysical Research E: Planets, 2018, 123, 1368-1379.	1.5	31
16	Coarse Sediment Transport in the Modern Martian Environment. Journal of Geophysical Research E: Planets, 2018, 123, 1380-1394.	1.5	44
17	Complex bedding geometry in the upper portion of Aeolis Mons, Gale crater, Mars. Icarus, 2018, 314, 246-264.	1.1	20
18	Morphologic Diversity of Martian Ripples: Implications for Largeâ€Ripple Formation. Geophysical Research Letters, 2018, 45, 10,229.	1.5	59

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19	The Bagnold Dunes in Southern Summer: Active Sediment Transport on Mars Observed by the Curiosity Rover. Geophysical Research Letters, 2018, 45, 8853-8863.	1.5	50
20	The Medusae Fossae Formation as the single largest source of dust on Mars. Nature Communications, 2018, 9, 2867.	5.8	29
21	Thermophysical properties along Curiosity's traverse in Gale crater, Mars, derived from the REMS ground temperature sensor. Icarus, 2017, 284, 372-386.	1.1	74
22	Sedimentary processes of the Bagnold Dunes: Implications for the eolian rock record of Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2544-2573.	1.5	83
23	Evolution of major sedimentary mounds on Mars: Buildup via anticompensational stacking modulated by climate change. Journal of Geophysical Research E: Planets, 2016, 121, 2282-2324.	1.5	28
24	Characteristics of pebble and cobble-sized clasts along the Curiosity rover traverse from sol 100 to 750: Terrain types, potential sources, and transport mechanisms. Icarus, 2016, 280, 72-92.	1.1	19
25	Large wind ripples on Mars: A record of atmospheric evolution. Science, 2016, 353, 55-58.	6.0	144
26	Paleohydrology of Eberswalde crater, Mars. Geomorphology, 2015, 240, 83-101.	1.1	60
27	Resolving the era of river-forming climates on Mars using stratigraphic logs of river-deposit dimensions. Earth and Planetary Science Letters, 2015, 420, 55-65.	1.8	25
28	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	6.0	471
29	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
30	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
31	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
32	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224
33	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
34	The rock abrasion record at Gale Crater: Mars Science Laboratory results from Bradbury Landing to Rocknest. Journal of Geophysical Research E: Planets, 2014, 119, 1374-1389.	1.5	46
35	Occurrence and origin of rhythmic sedimentary rocks on Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1432-1457.	1.5	42
36	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280

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37	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367
38	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
39	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	6.0	134
40	Growth and form of the mound in Gale Crater, Mars: Slope wind enhanced erosion and transport. Geology, 2013, 41, 543-546.	2.0	147
41	Sulfate-Rich Eolian and Wet Interdune Deposits, Erebus Crater, Meridiani Planum, Mars. Journal of Sedimentary Research, 2009, 79, 247-264.	0.8	57
42	Stratigraphic analysis of the distributary fan in Eberswalde crater using stereo imagery. Journal of Geophysical Research, 2006, 111, .	3.3	77