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	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
2	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
3	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	6.0	471
4	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367
5	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
6	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
7	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280
8	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
9	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224
10	Growth and form of the mound in Gale Crater, Mars: Slope wind enhanced erosion and transport. Geology, 2013, 41, 543-546.	2.0	147
11	Large wind ripples on Mars: A record of atmospheric evolution. Science, 2016, 353, 55-58.	6.0	144
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 Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	6.0	134
14	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
15	Stratigraphic analysis of the distributary fan in Eberswalde crater using stereo imagery. Journal of Geophysical Research, 2006, 111, .	3.3	77
16	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
17	Paleohydrology of Eberswalde crater, Mars. Geomorphology, 2015, 240, 83-101.	1.1	60
18	Shaler: inÂsitu analysis of a fluvial sedimentary deposit on Mars. Sedimentology, 2018, 65, 96-122.	1.6	59

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19	Morphologic Diversity of Martian Ripples: Implications for Largeâ€Ripple Formation. Geophysical Research Letters, 2018, 45, 10,229.	1.5	59
20	Sulfate-Rich Eolian and Wet Interdune Deposits, Erebus Crater, Meridiani Planum, Mars. Journal of Sedimentary Research, 2009, 79, 247-264.	0.8	57
21	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
22	A surface gravity traverse on Mars indicates low bedrock density at Gale crater. Science, 2019, 363, 535-537.	6.0	49
23	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
24	Coarse Sediment Transport in the Modern Martian Environment. Journal of Geophysical Research E: Planets, 2018, 123, 1380-1394.	1.5	44
25	Occurrence and origin of rhythmic sedimentary rocks on Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1432-1457.	1.5	42
26	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
27	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
28	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
29	The Medusae Fossae Formation as the single largest source of dust on Mars. Nature Communications, 2018, 9, 2867.	5.8	29
30	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
31	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
32	Complex bedding geometry in the upper portion of Aeolis Mons, Gale crater, Mars. Icarus, 2018, 314, 246-264.	1.1	20
33	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
34	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
35	Compositional Constraints on the North Polar Cap of Mars from Gravity and Topography. Geophysical Research Letters, 2019, 46, 8671-8679.	1.5	13
36	Depletion of Heat Producing Elements in the Martian Mantle. Geophysical Research Letters, 2019, 46, 12756-12763.	1.5	9

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37	Diurnal Variability in Aeolian Sediment Transport at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	9
38	The Need for and Feasibility of Alternative Ground Robots to Traverse Sandy and Rocky Extraterrestrial Terrain. Advanced Intelligent Systems, 2023, 5, .	3.3	7
39	Orbital Observations of a Marker Horizon at Gale Crater. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	5
40	A fragile record of fleeting water on Mars. Geology, 2022, 50, 152-157.	2.0	4
41	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
42	Barometric Pumping Through Fractured Rock: A Mechanism for Venting Deep Methane to Mars' Atmosphere. Geophysical Research Letters, 2022, 49, .	1.5	3