Nicolas Mangold

List of Publications by Year
in descending order

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183 papers	19,463 citations	10389 72 h-index	11308 136 g-index
187 all docs	187 docs citations	187 times ranked	6064 citing authors

#	Article	IF	Citations
1	Sulfates in Martian Layered Terrains: The OMEGA/Mars Express View. Science, 2005, 307, 1587-1591.	12.6	867
2	Mars Surface Diversity as Revealed by the OMEGA/Mars Express Observations. Science, 2005, 307, 1576-1581.	12.6	842
3	Phyllosilicates on Mars and implications for early martian climate. Nature, 2005, 438, 623-627.	27.8	825
4	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	12.6	687
5	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	12.6	508
6	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	12.6	471
7	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Body Unit and Combined System Tests. Space Science Reviews, 2012, 170, 167-227.	8.1	429
8	Hydrous minerals on Mars as seen by the CRISM and OMEGA imaging spectrometers: Updated global view. Journal of Geophysical Research E: Planets, 2013, 118, 831-858.	3.6	420
9	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Science Objectives and Mast Unit Description. Space Science Reviews, 2012, 170, 95-166.	8.1	372
10	Formation of Recent Martian Debris Flows by Melting of Near-Surface Ground Ice at High Obliquity. Science, 2002, 295, 110-113.	12.6	368
11	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
12	Olivine and Pyroxene Diversity in the Crust of Mars. Science, 2005, 307, 1594-1597.	12.6	348
13	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	12.6	327
14	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	12.6	327
15	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	326
16	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	12.6	323
17	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	12.6	280
18	Perennial water ice identified in the south polar cap of Mars. Nature, 2004, 428, 627-630.	27.8	279

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19	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
20	Isotope Ratios of H, C, and O in CO ₂ and H ₂ O of the Martian Atmosphere. Science, 2013, 341, 260-263.	12.6	241
21	Evidence for Precipitation on Mars from Dendritic Valleys in the Valles Marineris Area. Science, 2004, 305, 78-81.	12.6	237
22	In situ evidence for continental crust on early Mars. Nature Geoscience, 2015, 8, 605-609.	12.9	233
23	High latitude patterned grounds on Mars: Classification, distribution and climatic control. Icarus, 2005, 174, 336-359.	2.5	228
24	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
25	Calcium sulfate veins characterized by ChemCam/Curiosity at Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1991-2016.	3.6	214
26	Geomorphic analysis of lobate debris aprons on Mars at Mars Orbiter Camera scale: Evidence for ice sublimation initiated by fractures. Journal of Geophysical Research, 2003, 108, .	3.3	162
27	Coupled Ferric Oxides and Sulfates on the Martian Surface. Science, 2007, 317, 1206-1210.	12.6	161
28	The SuperCam Instrument Suite on the NASA Mars 2020 Rover: Body Unit and Combined System Tests. Space Science Reviews, 2021, 217, 4.	8.1	160
29	The volcanic history of central Elysium Planitia: Implications for martian magmatism. Icarus, 2009, 204, 418-442.	2.5	157
30	Mineralogy of the Nili Fossae region with OMEGA/Mars Express data: 2. Aqueous alteration of the crust. Journal of Geophysical Research, 2007, 112, .	3.3	154
31	Phyllosilicates in the Mawrth Vallis region of Mars. Journal of Geophysical Research, 2007, 112, .	3.3	153
32	Widespread surface weathering on early Mars: A case for a warmer and wetter climate. Icarus, 2015, 248, 373-382.	2.5	151
33	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. Science Advances, 2018, 4, eaar3330.	10.3	150
34	Stratigraphy in the Mawrth Vallis region through OMEGA, HRSC color imagery and DTM. Icarus, 2010, 205, 396-418.	2.5	146
35	Composition, Morphology, and Stratigraphy of Noachian Crust around the Isidis basin. Journal of Geophysical Research, 2009, 114, .	3.3	144
36	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134

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37	ChemCam activities and discoveries during the nominal mission of the Mars Science Laboratory in Gale crater, Mars. Journal of Analytical Atomic Spectrometry, 2016, 31, 863-889.	3.0	134
38	Debris flows over sand dunes on Mars: Evidence for liquid water. Journal of Geophysical Research, 2003, 108, .	3.3	133
39	Stratigraphy, mineralogy, and origin of layered deposits inside Terby crater, Mars. Icarus, 2011, 211, 273-304.	2.5	131
40	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	8.1	131
41	Spectral and geological study of the sulfate-rich region of West Candor Chasma, Mars. Icarus, 2008, 194, 519-543.	2.5	130
42	New observations of Warrego Valles, Mars: Evidence for precipitation and surface runoff. Planetary and Space Science, 2006, 54, 219-242.	1.7	128
43	Abundance of minerals in the phyllosilicate-rich units on Mars. Astronomy and Astrophysics, 2008, 487, L41-L44.	5.1	123
44	Orientation and distribution of recent gullies in the southern hemisphere of Mars: Observations from High Resolution Stereo Camera/Mars Express (HRSC/MEX) and Mars Orbiter Camera/Mars Global Surveyor (MOC/MGS) data. Journal of Geophysical Research, 2006, 111, .	3.3	120
45	Sinuous gullies on Mars: Frequency, distribution, and implications for flow properties. Journal of Geophysical Research, 2010, 115, .	3.3	118
46	A chronology of early Mars climatic evolution from impact crater degradation. Journal of Geophysical Research, 2012, 117, .	3.3	115
47	Igneous mineralogy at Bradbury Rise: The first ChemCam campaign at Gale crater. Journal of Geophysical Research E: Planets, 2014, 119, 30-46.	3.6	114
48	Oxidation of manganese in an ancient aquifer, Kimberley formation, Gale crater, Mars. Geophysical Research Letters, 2016, 43, 7398-7407.	4.0	110
49	Quantitative compositional analysis of martian mafic regions using the MEx/OMEGA reflectance data. Icarus, 2009, 201, 84-101.	2.5	109
50	Geochemical Consequences of Widespread Clay Mineral Formation in Marsâ€™ Ancient Crust. Space Science Reviews, 2013, 174, 329-364.	8.1	108
51	First detection of fluorine on Mars: Implications for Gale Crater's geochemistry. Geophysical Research Letters, 2015, 42, 1020-1028.	4.0	107
52	An interval of high salinity in ancient Gale crater lake on Mars. Nature Geoscience, 2019, 12, 889-895.	12.9	105
53	Overview of the Mars Science Laboratory mission: Bradbury Landing to Yellowknife Bay and beyond. Journal of Geophysical Research E: Planets, 2014, 119, 1134-1161.	3.6	104
54	Hydration state of calcium sulfates in Gale crater, Mars: Identification of bassanite veins. Earth and Planetary Science Letters, 2016, 452, 197-205.	4.4	103

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55	Fluvial and lacustrine activity on layered deposits in Melas Chasma, Valles Marineris, Mars. Journal of Geophysical Research, 2005, 110, .	3.3	102
56	Classification of igneous rocks analyzed by ChemCam at Gale crater, Mars. Icarus, 2017, 288, 265-283.	2.5	96
57	The ChemCam Remote Micro-Imager at Gale crater: Review of the first year of operations on Mars. Icarus, 2015, 249, 93-107.	2.5	95
58	Chemistry of diagenetic features analyzed by ChemCam at Pahrump Hills, Gale crater, Mars. Icarus, 2017, 281, 121-136.	2.5	90
59	The origin and timing of fluvial activity at Eberswalde crater, Mars. Icarus, 2012, 220, 530-551.	2.5	89
60	Ages of Valles Marineris (Mars) landslides and implications for canyon history. Icarus, 2004, 172, 555-572.	2.5	88
61	Quantitative Assessments of the Martian Hydrosphere. Space Science Reviews, 2013, 174, 155-212.	8.1	88
62	The timing of alluvial activity in Gale crater, Mars. Geophysical Research Letters, 2014, 41, 1142-1149.	4.0	88
63	Diagenetic silica enrichment and lateâ€stage groundwater activity in Gale crater, Mars. Geophysical Research Letters, 2017, 44, 4716-4724.	4.0	87
64	Trace element geochemistry (Li, Ba, Sr, and Rb) using Curiosity's ChemCam: Early results for Gale crater from Bradbury Landing Site to Rocknest. Journal of Geophysical Research E: Planets, 2014, 119, 255-285.	3.6	86
65	Perseverance rover reveals an ancient delta-lake system and flood deposits at Jezero crater, Mars. Science, 2021, 374, 711-717.	12.6	86
66	High manganese concentrations in rocks at Gale crater, Mars. Geophysical Research Letters, 2014, 41, 5755-5763.	4.0	81
67	Diagenetic origin of nodules in the Sheepbed member, Yellowknife Bay formation, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1637-1664.	3.6	80
68	Noachianâ€“Hesperian geologic history of the Echus Chasma and Kasei Valles system on Mars: New data and interpretations. Earth and Planetary Science Letters, 2010, 294, 256-271.	4.4	79
69	Wrinkle ridges of Mars: structural analysis and evidence for shallow deformation controlled by ice-rich dÃ©collements. Planetary and Space Science, 1998, 46, 345-356.	1.7	78
70	Detailed study of an hydrological system of valleys, a delta and lakes in the Southwest Thaumasia region, Mars. Icarus, 2006, 180, 75-87.	2.5	76
71	Spatial relationships between patterned ground and ground ice detected by the Neutron Spectrometer on Mars. Journal of Geophysical Research, 2004, 109, .	3.3	74
72	Most Mars minerals in a nutshell: Various alteration phases formed in a single environment in Noctis Labyrinthus. Journal of Geophysical Research, 2012, 117, .	3.3	74

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73	Topographic analysis of features related to ice on Mars. Geophysical Research Letters, 2001, 28, 407-410.	4.0	73
74	Experimental and theoretical deformation of iceâ€“rock mixtures: Implications on rheology and ice content of Martian permafrost. Planetary and Space Science, 2002, 50, 385-401.	1.7	73
75	Formation and evolution of the chaotic terrains by subsidence and magmatism: Hydraotes Chaos, Mars. Icarus, 2008, 194, 487-500.	2.5	73
76	The potential science and engineering value of samples delivered to Earth by Mars sample return. Meteoritics and Planetary Science, 2019, 54, S3.	1.6	73
77	Diagenesis and clay mineral formation at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2015, 120, 1-19.	3.6	72
78	Sequence and relative timing of large lakes in Gale crater (Mars) after the formation of Mount Sharp. Journal of Geophysical Research E: Planets, 2016, 121, 472-496.	3.6	72
79	The sustainability of habitability on terrestrial planets: Insights, questions, and needed measurements from Mars for understanding the evolution of Earthâ€like worlds. Journal of Geophysical Research E: Planets, 2016, 121, 1927-1961.	3.6	72
80	Desiccation cracks provide evidence of lake drying on Mars, Sutton Island member, Murray formation, Gale Crater. Geology, 2018, 46, 515-518.	4.4	71
81	Ice sublimation as a geomorphic process: A planetary perspective. Geomorphology, 2011, 126, 1-17.	2.6	70
82	Chemistry of fractureâ€filling raised ridges in Yellowknife Bay, Gale Crater: Window into past aqueous activity and habitability on Mars. Journal of Geophysical Research E: Planets, 2014, 119, 2398-2415.	3.6	70
83	Evidence for a Diagenetic Origin of Vera Rubin Ridge, Gale Crater, Mars: Summary and Synthesis of Curiosity's Exploration Campaign. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006527.	3.6	69
84	The potassic sedimentary rocks in Gale Crater, Mars, as seen by ChemCam on board Curiosity. Journal of Geophysical Research E: Planets, 2016, 121, 784-804.	3.6	67
85	Photogeologic Map of the Perseverance Rover Field Site in Jezero Crater Constructed by the Mars 2020 Science Team. Space Science Reviews, 2020, 216, 1.	8.1	67
86	Magmatic complexity on early Mars as seen through a combination of orbital, in-situ and meteorite data. Lithos, 2016, 254-255, 36-52.	1.4	66
87	Geomorphic study of fluvial landforms on the northern Valles Marineris plateau, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	65
88	Chronology of deposition and alteration in the Mawrth Vallis region, Mars. Planetary and Space Science, 2012, 72, 31-43.	1.7	65
89	Quantification of water content by laser induced breakdown spectroscopy on Mars. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 130, 82-100.	2.9	65
90	Compositions of coarse and fine particles in martian soils at gale: A window into the production of soils. Icarus, 2015, 249, 22-42.	2.5	64

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91	Diverse mineralogies in two troughs of Noctis Labyrinthus, Mars. Geology, 2011, 39, 899-902.	4.4	63
92	Quantifying geological processes on Marsâ€"Results of the high resolution stereo camera (HRSC) on Mars express. Planetary and Space Science, 2015, 112, 53-97.	1.7	63
93	Evaluating the role of sulfide-weathering in the formation of sulfates or carbonates on Mars. Geochimica Et Cosmochimica Acta, 2012, 90, 47-63.	3.9	62
94	Evidence for weathering on early Mars from a comparison with terrestrial weathering profiles. Icarus, 2011, 216, 257-268.	2.5	59
95	Outflow channels with deltaic deposits in Ismenius Lacus, Mars. Icarus, 2013, 226, 385-401.	2.5	59
96	Shaler: inÂsitu analysis of a fluvial sedimentary deposit on Mars. Sedimentology, 2018, 65, 96-122.	3.1	59
97	Refining the age, emplacement and alteration scenarios of the olivine-rich unit in the Nili Fossae region, Mars. Icarus, 2020, 336, 113436.	2.5	59
98	Hydrogen detection with ChemCam at Gale crater. Icarus, 2015, 249, 43-61.	2.5	58
99	The role of the wind-transported dust in slope streaks activity: Evidence from the HRSC data. Icarus, 2006, 183, 30-45.	2.5	56
100	Composition of conglomerates analyzed by the Curiosity rover: Implications for Gale Crater crust and sediment sources. Journal of Geophysical Research E: Planets, 2016, 121, 353-387.	3.6	53
101	Late Hesperian aqueous alteration at Majuro crater, Mars. Planetary and Space Science, 2012, 72, 18-30.	1.7	52
102	ChemCam results from the Shaler outcrop in Gale crater, Mars. Icarus, 2015, 249, 2-21.	2.5	52
103	Mars Science Laboratory Observations of Chloride Salts in Gale Crater, Mars. Geophysical Research Letters, 2019, 46, 10754-10763.	4.0	52
104	Chemical alteration of fine-grained sedimentary rocks at Gale crater. Icarus, 2019, 321, 619-631.	2.5	52
105	Chemical variations in Yellowknife Bay formation sedimentary rocks analyzed by ChemCam on board the Curiosity rover on Mars. Journal of Geophysical Research E: Planets, 2015, 120, 452-482.	3.6	51
106	Volcanic sands of Iceland â€•Diverse origins of aeolian sand deposits revealed at Dyngjusandur and Lambahraun. Earth Surface Processes and Landforms, 2011, 36, 1789-1808.	2.5	50
107	Fluids during diagenesis and sulfate vein formation in sediments at Gale crater, Mars. Meteoritics and Planetary Science, 2016, 51, 2175-2202.	1.6	50
108	Segregation of olivine grains in volcanic sands in Iceland and implications for Mars. Earth and Planetary Science Letters, 2011, 310, 233-243.	4.4	49

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109	Fluvial landforms on fresh impact ejecta on Mars. Planetary and Space Science, 2012, 62, 69-85.	1.7	49
110	Understanding the signature of rock coatings in laser-induced breakdown spectroscopy data. Icarus, 2015, 249, 62-73.	2.5	49
111	Chemistry and texture of the rocks at Rocknest, Gale Crater: Evidence for sedimentary origin and diagenetic alteration. Journal of Geophysical Research E: Planets, 2014, 119, 2109-2131.	3.6	48
112	Alkali trace elements in Gale crater, Mars, with ChemCam: Calibration update and geological implications. Journal of Geophysical Research E: Planets, 2017, 122, 650-679.	3.6	48
113	Topography of valley networks on Mars from Mars Express High Resolution Stereo Camera digital elevation models. Journal of Geophysical Research, 2008, 113, .	3.3	46
114	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.	3.6	46
115	Classification scheme for sedimentary and igneous rocks in Gale crater, Mars. Icarus, 2017, 284, 1-17.	2.5	46
116	Fluvial Regimes, Morphometry, and Age of Jezero Crater Paleolake Inlet Valleys and Their Exobiological Significance for the 2020 Rover Mission Landing Site. Astrobiology, 2020, 20, 994-1013.	3.0	46
117	Chronology of compressional deformation on Mars: evidence for a single and global origin. Planetary and Space Science, 2000, 48, 1201-1211.	1.7	44
118	Ismenius Cavus, Mars: A deep paleolake with phyllosilicate deposits. Planetary and Space Science, 2010, 58, 941-946.	1.7	44
119	Characteristics of pebbleâ€•and cobbleâ€sized clasts along the Curiosity rover traverse from Bradbury Landing to Rocknest. Journal of Geophysical Research E: Planets, 2013, 118, 2361-2380.	3.6	44
120	Terrain physical properties derived from orbital data and the first 360 sols of Mars Science Laboratory Curiosity rover observations in Gale Crater. Journal of Geophysical Research E: Planets, 2014, 119, 1322-1344.	3.6	43
121	Mineralogy of recent volcanic plains in the Tharsis region, Mars, and implications for platy-ridged flow composition. Earth and Planetary Science Letters, 2010, 294, 440-450.	4.4	42
122	Characterization of hydrated silicate-bearing outcrops in Tyrrhena Terra, Mars: Implications to the alteration history of Mars. Icarus, 2012, 219, 476-497.	2.5	42
123	The Chemostratigraphy of the Murray Formation and Role of Diagenesis at Vera Rubin Ridge in Gale Crater, Mars, as Observed by the ChemCam Instrument. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006320.	3.6	41
124	Martian Eolian Dust Probed by ChemCam. Geophysical Research Letters, 2018, 45, 10,968.	4.0	40
125	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106347.	2.9	40
126	A Late Amazonian alteration layer related to local volcanism on Mars. Icarus, 2010, 207, 265-276.	2.5	39

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127	Gale crater and impact processes â€“ Curiosityâ€™s first 364 Sols on Mars. Icarus, 2015, 249, 108-128.	2.5	37
128	Using ChemCam LIBS data to constrain grain size in rocks on Mars: Proof of concept and application to rocks at Yellowknife Bay and Pahrump Hills, Gale crater. Icarus, 2019, 321, 82-98.	2.5	37
129	Martian perched craters and large ejecta volume: Evidence for episodes of deflation in the northern lowlands. Meteoritics and Planetary Science, 2006, 41, 1647-1658.	1.6	36
130	In Situ Analysis of Opal in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2018, 123, 1955-1972.	3.6	36
131	Comprehensive analysis of glaciated martian crater Greg. Icarus, 2014, 228, 96-120.	2.5	35
132	Chemical variability in mineralized veins observed by ChemCam on the lower slopes of Mount Sharp in Gale crater, Mars. Icarus, 2018, 311, 69-86.	2.5	34
133	Shape, rheology and emplacement times of small martian shield volcanoes. Journal of Volcanology and Geothermal Research, 2009, 185, 47-68.	2.1	33
134	Diagenesis of Vera Rubin Ridge, Gale Crater, Mars, From Mastcam Multispectral Images. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006322.	3.6	33
135	Alternating wet and dry depositional environments recorded in the stratigraphy of Mount Sharp at Gale crater, Mars. Geology, 2021, 49, 842-846.	4.4	33
136	Thermal properties of lobate ejecta in Syrtis Major, Mars: Implications for the mechanisms of formation. Journal of Geophysical Research, 2005, 110, .	3.3	32
137	Observation of >â€‰5â€‰wt % zinc at the Kimberley outcrop, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2016, 121, 338-352.	3.6	32
138	Weathering of olivine under CO2 atmosphere: A martian perspective. Geochimica Et Cosmochimica Acta, 2014, 135, 170-189.	3.9	30
139	Analyses of Highâ€Iron Sedimentary Bedrock and Diagenetic Features Observed With ChemCam at Vera Rubin Ridge, Gale Crater, Mars: Calibration and Characterization. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006314.	3.6	30
140	Iron Mobility During Diagenesis at Vera Rubin Ridge, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006299.	3.6	30
141	Grain Size Variations in the Murray Formation: Stratigraphic Evidence for Changing Depositional Environments in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006230.	3.6	29
142	Contribution of Mars Odyssey GRS at Central Elysium Planitia. Icarus, 2009, 200, 19-29.	2.5	28
143	3D morphometry of valley networks on Mars from HRSC/MEX DEMs: Implications for climatic evolution through time. Journal of Geophysical Research E: Planets, 2013, 118, 1873-1894.	3.6	27
144	Evidence for thermal-stress-induced rockfalls on Mars impact crater slopes. Icarus, 2020, 342, 113503.	2.5	27

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145	3D digital outcrop model reconstruction of the Kimberley outcrop (Gale crater, Mars) and its integration into Virtual Reality for simulated geological analysis. Planetary and Space Science, 2020, 182, 104808.	1.7	27
146	Fluvial morphology of Naktong Vallis, Mars: A late activity with multiple processes. Planetary and Space Science, 2009, 57, 982-999.	1.7	26
147	Characterization of fluvial activity in Parana Valles using different age-dating techniques. Icarus, 2010, 207, 686-698.	2.5	26
148	A sedimentary origin for intercrater plains north of the Hellas basin: Implications for climate conditions and erosion rates on early Mars. Journal of Geophysical Research E: Planets, 2016, 121, 2239-2267.	3.6	25
149	Near infrared signature of opal and chalcedony as a proxy for their structure and formation conditions. European Journal of Mineralogy, 2017, 29, 409-421.	1.3	24
150	Mineralogical record of the redox conditions on early Mars. Icarus, 2016, 271, 67-75.	2.5	23
151	Copper enrichments in the Kimberley formation in Gale crater, Mars: Evidence for a Cu deposit at the source. Icarus, 2019, 321, 736-751.	2.5	23
152	Mars: a small terrestrial planet. Astronomy and Astrophysics Review, 2016, 24, 1.	25.5	22
153	Xâ€Ray Amorphous Components in Sedimentary Rocks of Gale Crater, Mars: Evidence for Ancient Formation and Longâ€Lived Aqueous Activity. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006782.	3.6	22
154	Extraformational sediment recycling on Mars. , 2020, 16, 1508-1537.		20
155	Estimated Minimum Life Span of the Jezero Fluvial Delta (Mars). Astrobiology, 2020, 20, 977-993.	3.0	20
156	From Lake to River: Documenting an Environmental Transition Across the Jura/Knockfarril Hill Members Boundary in the Glen Torridon Region of Gale Crater (Mars). Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	19
157	Fluidized-sediment pipes in Gale crater, Mars, and possible Earth analogs. Geology, 2017, 45, 7-10.	4.4	18
158	Formation of clay minerals on Mars: Insights from long-term experimental weathering of olivine. Icarus, 2018, 311, 210-223.	2.5	17
159	Bedrock Geochemistry and Alteration History of the Clayâ€Bearing Glen Torridon Region of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	17
160	Evidence of liquid water in recent debris avalanche on Mars. Geophysical Research Letters, 2002, 29, 60-1.	4.0	14
161	Toward the geological significance of hydrated silica detected by near infrared spectroscopy on Mars based on terrestrial reference samples. Icarus, 2020, 347, 113706.	2.5	14
162	A new view of dark Martian regions from geomorphic and spectroscopic analysis of Syrtis Major. Astronomy and Astrophysics, 2003, 412, L19-L23.	5.1	13

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163	Voluminous Silica Precipitated from Martian Waters during Late-stage Aqueous Alteration. Planetary Science Journal, 2021, 2, 65.	3.6	13
164	Centimeter to decimeter hollow concretions and voids in Gale Crater sediments, Mars. Icarus, 2017, 289, 144-156.	2.5	12
165	Origin and composition of three heterolithic boulder- and cobble-bearing deposits overlying the Murray and Stimson formations, Gale Crater, Mars. Icarus, 2020, 350, 113897.	2.5	11
166	Evidence for Amazonian mid-latitude glaciation on Mars from impact crater asymmetry. Icarus, 2013, 225, 413-423.	2.5	10
167	Structural analysis of sulfate vein networks in Gale crater (Mars). Journal of Structural Geology, 2020, 137, 104083.	2.3	10
168	Xâ€Ray Amorphous Sulfurâ€Bearing Phases in Sedimentary Rocks of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	10
169	New Constraints on Early Mars Weathering Conditions From an Experimental Approach on Crust Simulants. Journal of Geophysical Research E: Planets, 2019, 124, 1783-1801.	3.6	9
170	Waterâ€Ice Exposing Scarps Within the Northern Midlatitude Craters on Mars. Geophysical Research Letters, 2020, 47, e2020GL089057.	4.0	9
171	Investigating the role of anhydrous oxidative weathering on sedimentary rocks in the Transantarctic Mountains and implications for the modern weathering of sedimentary lithologies on Mars. Icarus, 2019, 319, 669-684.	2.5	8
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