

C N Achilles

List of Publications by Year in descending order

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45
papers

6,379
citations

136950

32
h-index

233421

45
g-index

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all docs

45
docs citations

45
times ranked

3911
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	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	12.6	508
3	Mars's Surface Radiation Environment Measured with the Mars Science Laboratory's Curiosity Rover. Science, 2014, 343, 1244797.	12.6	475
4	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
5	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	12.6	327
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	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	12.6	280
10	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
11	Characterization and Calibration of the CheMin Mineralogical Instrument on Mars Science Laboratory. Space Science Reviews, 2012, 170, 341-399.	8.1	220
12	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
13	Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the Curiosity rover investigations at Gale crater, Mars. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4245-4250.	7.1	172
14	Mineralogy, provenance, and diagenesis of a potassic basaltic sandstone on Mars: CheMin X-ray diffraction of the Windjana sample (Kimberley area, Gale Crater). Journal of Geophysical Research E: Planets, 2016, 121, 75-106.	3.6	159
15	Silicic volcanism on Mars evidenced by tridymite in high-SiO ₂ sedimentary rock at Gale crater. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7071-7076.	7.1	158
16	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. Science Advances, 2018, 4, eaar3330.	10.3	150
17	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
18	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	1.9	122

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19	Low Upper Limit to Methane Abundance on Mars. <i>Science</i> , 2013, 342, 355-357.	12.6	103
20	Mineralogy of an active eolian sediment from the Namib dune, Gale crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2344-2361.	3.6	98
21	Gypsum, bassanite, and anhydrite at Gale crater, Mars. <i>American Mineralogist</i> , 2018, 103, 1011-1020.	1.9	96
22	Chemistry, mineralogy, and grain properties at Namib and High dunes, Bagnold dune field, Gale crater, Mars: A synthesis of Curiosity rover observations. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2510-2543.	3.6	95
23	Crystal chemistry of martian minerals from Bradbury Landing through Naukluft Plateau, Gale crater, Mars. <i>American Mineralogist</i> , 2018, 103, 857-871.	1.9	94
24	Mineralogy of Vera Rubin Ridge From the Mars Science Laboratory CheMin Instrument. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006306.	3.6	86
25	Ferrian saponite from the Santa Monica Mountains (California, U.S.A., Earth): Characterization as an analog for clay minerals on Mars with application to Yellowknife Bay in Gale Crater. <i>American Mineralogist</i> , 2014, 99, 2234-2250.	1.9	67
26	Sand Mineralogy Within the Bagnold Dunes, Gale Crater, as Observed In Situ and From Orbit. <i>Geophysical Research Letters</i> , 2018, 45, 9488-9497.	4.0	52
27	Chemical alteration of fine-grained sedimentary rocks at Gale crater. <i>Icarus</i> , 2019, 321, 619-631.	2.5	52
28	Brine-driven destruction of clay minerals in Gale crater, Mars. <i>Science</i> , 2021, 373, 198-204.	12.6	52
29	Evidence for Multiple Diagenetic Episodes in Ancient Fluvial-Lacustrine Sedimentary Rocks in Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006295.	3.6	45
30	Visible/near-infrared spectral diversity from in situ observations of the Bagnold Dune Field sands in Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2655-2684.	3.6	40
31	Relationships between unit-cell parameters and composition for rock-forming minerals on Earth, Mars, and other extraterrestrial bodies. <i>American Mineralogist</i> , 2018, 103, 848-856.	1.9	40
32	The first X-ray diffraction measurements on Mars. <i>IUCr</i> , 2014, 1, 514-522.	2.2	38
33	Constraints on the Mineralogy and Geochemistry of Vera Rubin Ridge, Gale Crater, Mars, From Mars Science Laboratory Sample Analysis at Mars Evolved Gas Analyses. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006309.	3.6	32
34	A Review of the Phyllosilicates in Gale Crater as Detected by the CheMin Instrument on the Mars Science Laboratory, Curiosity Rover. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 847.	2.0	23
35	Water Abundance of Dunes in Gale Crater, Mars From Active Neutron Experiments and Implications for Amorphous Phases. <i>Geophysical Research Letters</i> , 2018, 45, 12,766.	4.0	22
36	X-Ray Amorphous Components in Sedimentary Rocks of Gale Crater, Mars: Evidence for Ancient Formation and Long-Lived Aqueous Activity. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006782.	3.6	22

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37	Formation of Tridymite and Evidence for a Hydrothermal History at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006569.	3.6	21
38	Spectral, Compositional, and Physical Properties of the Upper Murray Formation and Vera Rubin Ridge, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006290.	3.6	20
39	Pyrolysis of Oxalate, Acetate, and Perchlorate Mixtures and the Implications for Organic Salts on Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006803.	3.6	20
40	Hydrothermal Precipitation of Sanidine (Adularia) Having Full Al,Si Structural Disorder and Specular Hematite at Maunakea Volcano (Hawai'i) and at Gale Crater (Mars). Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006324.	3.6	14
41	Evolved Gas Analyses of Sedimentary Rocks From the Glen Torridon Clay-Bearing Unit, Gale Crater, Mars: Results From the Mars Science Laboratory Sample Analysis at Mars Instrument Suite. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	12
42	Lipid Biomarkers in Ephemeral Acid Salt Lake Mudflat/Sandflat Sediments: Implications for Mars. Astrobiology, 2020, 20, 167-178.	3.0	11
43	An Insight Into Ancient Aeolian Processes and Post-Noachian Aqueous Alteration in Gale Crater, Mars, Using ChemCam Geochemical Data From the Greenheugh Capping Unit. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	11
44	X-Ray Amorphous Sulfur-Bearing Phases in Sedimentary Rocks of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	10
45	Early diagenesis at and below Vera Rubin ridge, Gale crater, Mars. Meteoritics and Planetary Science, 2021, 56, 1905-1932.	1.6	7