Amy C Mcadam

List of Publications by Year
in descending order

64 papers	7,761 citations	109321 35 h-index	114465 63 g-index
64 all docs	64 docs citations	64 times ranked	4350 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	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	12.6	475
4	The Sample Analysis at Mars Investigation and Instrument Suite. Space Science Reviews, 2012, 170, 401-478.	8.1	435
5	Organic molecules in the Sheepbed Mudstone, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2015, 120, 495-514.	3.6	375
6	Organic matter preserved in 3-billion-year-old mudstones at Gale crater, Mars. Science, 2018, 360, 1096-1101.	12.6	369
7	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
8	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	12.6	327
9	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	12.6	327
10	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	326
11	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	12.6	323
12	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	12.6	280
13	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
14	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	12.6	224
15	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
16	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
17	Evolved gas analyses of sedimentary rocks and eolian sediment in Gale Crater, Mars: Results of the Curiosity rover's sample analysis at Mars instrument from Yellowknife Bay to the Namib Dune. Journal of Geophysical Research E: Planets, 2017, 122, 2574-2609.	3.6	168
18	Mineralogy, provenance, and diagenesis of a potassic basaltic sandstone on Mars: CheMin Xâ€ray diffraction of the Windjana sample (Kimberley area, Gale Crater). Journal of Geophysical Research E: Planets, 2016, 121, 75-106.	3.6	159

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19	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. Science Advances, 2018, 4, eaar3330.	10.3	150
20	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
21	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	1.9	122
22	The imprint of atmospheric evolution in the D/H of Hesperian clay minerals on Mars. Science, 2015, 347, 412-414.	12.6	113
23	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	12.6	103
24	Mineralogy of Vera Rubin Ridge From the Mars Science Laboratory CheMin Instrument. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006306.	3.6	86
25	Abundances and implications of volatileâ€bearing species from evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 237-254.	3.6	73
26	A Twoâ€Step Kâ€Ar Experiment on Mars: Dating the Diagenetic Formation of Jarosite from Amazonian Groundwaters. Journal of Geophysical Research E: Planets, 2017, 122, 2803-2818.	3.6	72
27	Sulfur-bearing phases detected by evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 373-393.	3.6	65
28	Large sulfur isotope fractionations in Martian sediments at Gale crater. Nature Geoscience, 2017, 10, 658-662.	12.9	53
29	Sand Mineralogy Within the Bagnold Dunes, Gale Crater, as Observed In Situ and From Orbit. Geophysical Research Letters, 2018, 45, 9488-9497.	4.0	52
30	Brine-driven destruction of clay minerals in Gale crater, Mars. Science, 2021, 373, 198-204.	12.6	52
31	Fluids during diagenesis and sulfate vein formation in sediments at Gale crater, Mars. Meteoritics and Planetary Science, 2016, 51, 2175-2202.	1.6	50
32	The influence of mineralogy on recovering organic acids from Mars analogue materials using the â€œone-potâ€•derivatization experiment on the Sample Analysis at Mars (SAM) instrument suite. Planetary and Space Science, 2012, 67, 1-13.	1.7	49
33	Evidence for Multiple Diagenetic Episodes in Ancient Fluvialâ€Lacustrine Sedimentary Rocks in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006295.	3.6	45
34	Formation of silica by lowâ€temperature acid alteration of Martian rocks: Physicalâ€chemical constraints. Journal of Geophysical Research, 2008, 113, .	3.3	41
35	Indigenous and exogenous organics and surfaceâ€“atmosphere cycling inferred from carbon and oxygen isotopes at Gale crater. Nature Astronomy, 2020, 4, 526-532.	10.1	41
36	A novel study on the influence of cork waste residue on metakaolin-zeolite based geopolymers. Applied Clay Science, 2018, 152, 196-210.	5.2	38

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37	Recovery of Fatty Acids from Mineralogic Mars Analogs by TMAH Thermochemolysis for the Sample Analysis at Mars Wet Chemistry Experiment on the Curiosity Rover. Astrobiology, 2019, 19, 522-546.	3.0	33
38	Constraints on the Mineralogy and Geochemistry of Vera Rubin Ridge, Gale Crater, Mars, From Mars Science Laboratory Sample Analysis at Mars Evolved Gas Analyses. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006309.	3.6	32
39	Magnesium sulfate as a key mineral for the detection of organic molecules on Mars using pyrolysis. Journal of Geophysical Research E: Planets, 2016, 121, 61-74.	3.6	31
40	Preferential low-pH dissolution of pyroxene in plagioclaseâ€“pyroxene mixtures: Implications for martian surface materials. Icarus, 2008, 196, 90-96.	2.5	28
41	The Curiosity Rover's Exploration of Glen Torridon, Gale Crater, Mars: An Overview of the Campaign and Scientific Results. Journal of Geophysical Research E: Planets, 2023, 128, .	3.6	27
42	Detection of Reduced Sulfur on Vera Rubin Ridge by Quadratic Discriminant Analysis of Volatiles Observed During Evolved Gas Analysis. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006304.	3.6	25
43	Abiotic Input of Fixed Nitrogen by Bolide Impacts to Gale Crater During the Hesperian: Insights From the Mars Science Laboratory. Journal of Geophysical Research E: Planets, 2019, 124, 94-113.	3.6	23
44	A Review of the Phyllosilicates in Gale Crater as Detected by the CheMin Instrument on the Mars Science Laboratory, Curiosity Rover. Minerals (Basel, Switzerland), 2021, 11, 847.	2.0	23
45	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
46	Accuracies and detection limits of major, minor, and trace element quantification in rocks by portable laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 171, 105946.	2.9	20
47	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
48	Major Volatiles Evolved From Eolian Materials in Gale Crater. Geophysical Research Letters, 2018, 45, 10,240.	4.0	19
49	A Review of Sample Analysis at Mars-Evolved Gas Analysis Laboratory Analog Work Supporting the Presence of Perchlorates and Chlorates in Gale Crater, Mars. Minerals (Basel, Switzerland), 2021, 11, 475.	2.0	14
50	Organic carbon concentrations in 3.5-billion-year-old lacustrine mudstones of Mars. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	14
51	Benzoic Acid as the Preferred Precursor for the Chlorobenzene Detected on Mars: Insights from the Unique Cumberland Analog Investigation. Planetary Science Journal, 2020, 1, 41.	3.6	12
52	Evolved Gas Analyses of Sedimentary Rocks From the Glen Torridon Clayâ€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
53	The Characterization of Biosignatures in Caves Using an Instrument Suite. Astrobiology, 2017, 17, 1203-1218.	3.0	11
54	Lipid Biomarkers in Ephemeral Acid Salt Lake Mudflat/Sandflat Sediments: Implications for Mars. Astrobiology, 2020, 20, 167-178.	3.0	11

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55	Xâ€Ray Amorphous Sulfurâ€Bearing Phases in Sedimentary Rocks of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	10
56	Isotopic and geochemical investigation of two distinct Mars analog environments using evolved gas techniques in Svalbard, Norway. Icarus, 2013, 224, 297-308.	2.5	9
57	Fatty Acid Preservation in Modern and Relict Hot-Spring Deposits in Iceland, with Implications for Organics Detection on Mars. Astrobiology, 2021, 21, 60-82.	3.0	8
58	Visible, near-infrared, and mid-infrared spectral characterization of Hawaiian fumarolic alteration near Kilauea's December 1974 flow: Implications for spectral discrimination of alteration environments on Mars. American Mineralogist, 2018, 103, 11-25.	1.9	7
59	Early diagenesis at and below Vera Rubin ridge, Gale crater, Mars. Meteoritics and Planetary Science, 2021, 56, 1905-1932.	1.6	7
60	The Incorporation of Field Portable Instrumentation Into Human Planetary Surface Exploration. Earth and Space Science, 2018, 5, 697-720.	2.6	6
61	Highâ€Temperature HCl Evolutions From Mixtures of Perchlorates and Chlorides With Waterâ€Bearing Phases: Implications for the SAM Instrument in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006173.	3.6	6
62	Oxidized and Reduced Sulfur Observed by the Sample Analysis at Mars (SAM) Instrument Suite on the Curiosity Rover Within the Glen Torridon Region at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	6
63	Volatile Detections in Gale Crater Sediment and Sedimentary Rock. , 2019, , 369-392.		3
64	Solubility of CO2 in Sodium Silicate Melts. ACS Earth and Space Chemistry, 2020, 4, 2113-2120.	2.7	1