

Brad Sutter

List of Publications by Year in descending order

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65
papers

8,348
citations

94433

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110387

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66
all docs

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docs citations

66
times ranked

4813
citing authors

#	ARTICLE	IF	CITATIONS
1	The Curiosity Rover's Exploration of Glen Torridon, Gale Crater, Mars: An Overview of the Campaign and Scientific Results. <i>Journal of Geophysical Research E: Planets</i> , 2023, 128, .	3.6	27
2	Water uptake by chlorate salts under Mars-relevant conditions. <i>Icarus</i> , 2022, 371, 114715.	2.5	5
3	Organic molecules revealed in Mars's Bagnold Dunes by Curiosity's derivatization experiment. <i>Nature Astronomy</i> , 2022, 6, 129-140.	10.1	29
4	Mineralogy and diagenesis of Mars-analog paleosols from eastern Oregon, USA. <i>Icarus</i> , 2022, 380, 114965.	2.5	4
5	X-Ray Amorphous Sulfur-Bearing Phases in Sedimentary Rocks of Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	10
6	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. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	12
7	Organic carbon concentrations in 3.5-billion-year-old lacustrine mudstones of Mars. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	14
8	Formation of Tridymite and Evidence for a Hydrothermal History at Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006569.	3.6	21
9	A Review of Sample Analysis at Mars-Evolved Gas Analysis Laboratory Analog Work Supporting the Presence of Perchlorates and Chlorates in Gale Crater, Mars. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 475.	2.0	14
10	Pyrolysis of Oxalate, Acetate, and Perchlorate Mixtures and the Implications for Organic Salts on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006803.	3.6	20
11	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
12	First Detections of Dichlorobenzene Isomers and Trichloromethylpropane from Organic Matter Indigenous to Mars Mudstone in Gale Crater, Mars: Results from the Sample Analysis at Mars Instrument Onboard the Curiosity Rover. <i>Astrobiology</i> , 2020, 20, 292-306.	3.0	50
13	High-Temperature HCl Evolutions From Mixtures of Perchlorates and Chlorides With Water-Bearing Phases: Implications for the SAM Instrument in Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006173.	3.6	6
14	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
15	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
16	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
17	Indigenous and exogenous organics and surface-atmosphere cycling inferred from carbon and oxygen isotopes at Gale crater. <i>Nature Astronomy</i> , 2020, 4, 526-532.	10.1	41
18	Evidence for Adsorption of Chlorine Species on Iron (III) (Hydr)oxides in the Sheepbed Mudstone, Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006220.	3.6	6

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19	Volatile Detections in Gale Crater Sediment and Sedimentary Rock. , 2019, , 369-392.		3
20	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
21	Smectite formation in the presence of sulfuric acid: Implications for acidic smectite formation on early Mars. Geochimica Et Cosmochimica Acta, 2018, 220, 248-260.	3.9	26
22	Chlorate/Fe-bearing Phase Mixtures as a Possible Source of Oxygen and Chlorine Detected by the Sample Analysis at Mars Instrument in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2920-2938.	3.6	26
23	Major Volatiles Evolved From Eolian Materials in Gale Crater. Geophysical Research Letters, 2018, 45, 10,240.	4.0	19
24	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
25	Background levels of methane in Mars's atmosphere show strong seasonal variations. Science, 2018, 360, 1093-1096.	12.6	224
26	Organic matter preserved in 3-billion-year-old mudstones at Gale crater, Mars. Science, 2018, 360, 1096-1101.	12.6	369
27	Low Hesperian P_{CO_2} constrained from in situ mineralogical analysis at Gale Crater, Mars. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2166-2170.	7.1	59
28	The nitrate/perchlorate relationship on Mars. Geophysical Research Letters, 2017, 44, 2643-2651.	4.0	49
29	Mineralogy of an ancient lacustrine mudstone succession from the Murray formation, Gale crater, Mars. Earth and Planetary Science Letters, 2017, 471, 172-185.	4.4	247
30	Chemistry, mineralogy, and grain properties at Namib and High dunes, Bagnold dune field, Gale crater, Mars: A synthesis of Curiosity rover observations. Journal of Geophysical Research E: Planets, 2017, 122, 2510-2543.	3.6	95
31	Large sulfur isotope fractionations in Martian sediments at Gale crater. Nature Geoscience, 2017, 10, 658-662.	12.9	53
32	Measurements of Oxychlorine species on Mars. International Journal of Astrobiology, 2017, 16, 203-217.	1.6	33
33	Multiple stages of aqueous alteration along fractures in mudstone and sandstone strata in Gale Crater, Mars. Earth and Planetary Science Letters, 2017, 471, 186-198.	4.4	137
34	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
35	Synthesis of akaganeite in the presence of sulfate: Implications for akaganeite formation in Yellowknife Bay, Gale Crater, Mars. Geochimica Et Cosmochimica Acta, 2016, 188, 284-296.	3.9	17
36	Organic molecules in the Sheepbed Mudstone, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2015, 120, 495-514.	3.6	375

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37	Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the <i>Curiosity</i> rover investigations at Gale crater, Mars. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 4245-4250.	7.1	172
38	Mars methane detection and variability at Gale crater. <i>Science</i> , 2015, 347, 415-417.	12.6	373
39	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1245267.	12.6	323
40	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1242777.	12.6	687
41	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1243480.	12.6	508
42	Mars's Surface Radiation Environment Measured with the Mars Science Laboratory's Curiosity Rover. <i>Science</i> , 2014, 343, 1244797.	12.6	475
43	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1244734.	12.6	246
44	Sulfur-bearing phases detected by evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 373-393.	3.6	65
45	Abundances and implications of volatile-bearing species from evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 237-254.	3.6	73
46	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. <i>Science</i> , 2013, 341, 1238932.	12.6	327
47	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. <i>Science</i> , 2013, 341, 1239505.	12.6	280
48	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. <i>Science</i> , 2013, 341, 1238937.	12.6	367
49	The effects of instrument parameters and sample properties on thermal decomposition: interpreting thermal analysis data from Mars. <i>Planetary Science</i> , 2013, 2, .	1.5	25
50	Geochemistry of Carbonates on Mars: Implications for Climate History and Nature of Aqueous Environments. <i>Space Science Reviews</i> , 2013, 174, 301-328.	8.1	126
51	Martian Fluvial Conglomerates at Gale Crater. <i>Science</i> , 2013, 340, 1068-1072.	12.6	326
52	The Petrochemistry of Jake_M: A Martian Mugearite. <i>Science</i> , 2013, 341, 1239463.	12.6	134
53	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. <i>Science</i> , 2013, 341, 1238670.	12.6	215
54	Low Upper Limit to Methane Abundance on Mars. <i>Science</i> , 2013, 342, 355-357.	12.6	103

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55	Evidence for perchlorates and the origin of chlorinated hydrocarbons detected by SAM at the Rocknest aeolian deposit in Gale Crater. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1955-1973.	3.6	306
56	Perchlorate induced low temperature carbonate decomposition in the Mars Phoenix Thermal and Evolved Gas Analyzer (TEGA). <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	33
57	The detection of carbonate in the martian soil at the Phoenix Landing site: A laboratory investigation and comparison with the Thermal and Evolved Gas Analyzer (TEGA) data. <i>Icarus</i> , 2012, 218, 290-296.	2.5	49
58	Evidence for Calcium Carbonate at the Mars Phoenix Landing Site. <i>Science</i> , 2009, 325, 61-64.	12.6	300
59	The 2005 MARTE Robotic Drilling Experiment in R�o Tinto, Spain: Objectives, Approach, and Results of a Simulated Mission to Search for Life in the Martian Subsurface. <i>Astrobiology</i> , 2008, 8, 921-945.	3.0	52
60	The MARTE VNIR Imaging Spectrometer Experiment: Design and Analysis. <i>Astrobiology</i> , 2008, 8, 1001-1011.	3.0	70
61	Visible�Near Infrared Point Spectrometry of Drill Core Samples from R�o Tinto, Spain: Results from the 2005 Mars Astrobiology Research and Technology Experiment (MARTE) Drilling Exercise. <i>Astrobiology</i> , 2008, 8, 1049-1060.	3.0	9
62	The Subsurface Geology of R�o Tinto: Material Examined During a Simulated Mars Drilling Mission for the Mars Astrobiology Research and Technology Experiment (MARTE). <i>Astrobiology</i> , 2008, 8, 1013-1021.	3.0	12
63	Terrestrial analogs for interpretation of infrared spectra from the Martian surface and subsurface: Sulfate, nitrate, carbonate, and phyllosilicate�bearing Atacama Desert soils. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	35
64	Terrestrial analogs for interpretation of infrared spectra from the Martian surface and subsurface: Sulfate, nitrate, carbonate, and phyllosilicate-bearing Atacama Desert soils. , 2007, .		1
65	A threshold in soil formation at Earth�s arid�hyperarid transition. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 5293-5322.	3.9	233