William Rapin

List of Publications by Year
in descending order

42 papers	2,588 citations	172457 29 h-index	265206 42 g-index
42 all docs	42 docs citations	42 times ranked	1881 citing authors

#	Article	IF	Citations
1	In situ evidence for continental crust on early Mars. Nature Geoscience, 2015, 8, 605-609.	12.9	233
2	Calcium sulfate veins characterized by ChemCam/Curiosity at Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1991-2016.	3.6	214
3	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
4	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
5	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	8.1	131
6	An interval of high salinity in ancient Gale crater lake on Mars. Nature Geoscience, 2019, 12, 889-895.	12.9	105
7	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
8	Classification of igneous rocks analyzed by ChemCam at Gale crater, Mars. Icarus, 2017, 288, 265-283.	2.5	96
9	Gypsum, bassanite, and anhydrite at Gale crater, Mars. American Mineralogist, 2018, 103, 1011-1020.	1.9	96
10	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
11	Chemistry of diagenetic features analyzed by ChemCam at Pahrump Hills, Gale crater, Mars. Icarus, 2017, 281, 121-136.	2.5	90
12	Diagenetic silica enrichment and lateâ€stage groundwater activity in Gale crater, Mars. Geophysical Research Letters, 2017, 44, 4716-4724.	4.0	87
13	Quantification of water content by laser induced breakdown spectroscopy on Mars. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 130, 82-100.	2.9	65
14	Evaluating the Wind-Induced Mechanical Noise on the InSight Seismometers. Space Science Reviews, 2017, 211, 429-455.	8.1	65
15	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
16	Hydrogen detection with ChemCam at Gale crater. Icarus, 2015, 249, 43-61.	2.5	58
17	In situ detection of boron by ChemCam on Mars. Geophysical Research Letters, 2017, 44, 8739-8748.	4.0	56
18	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

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19	Mars Science Laboratory Observations of Chloride Salts in Gale Crater, Mars. Geophysical Research Letters, 2019, 46, 10754-10763.	4.0	52
20	Chemical alteration of fine-grained sedimentary rocks at Gale crater. Icarus, 2019, 321, 619-631.	2.5	52
21	Fluids during diagenesis and sulfate vein formation in sediments at Gale crater, Mars. Meteoritics and Planetary Science, 2016, 51, 2175-2202.	1.6	50
22	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
23	Geochemistry of the Bagnold dune field as observed by ChemCam and comparison with other aeolian deposits at Gale Crater. Journal of Geophysical Research E: Planets, 2017, 122, 2144-2162.	3.6	46
24	Martian Eolian Dust Probed by ChemCam. Geophysical Research Letters, 2018, 45, 10,968.	4.0	40
25	In Situ Analysis of Opal in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2018, 123, 1955-1972.	3.6	36
26	Roughness effects on the hydrogen signal in laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 137, 13-22.	2.9	34
27	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
28	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
29	Characterization of Hydrogen in Basaltic Materials With Laserâ€Induced Breakdown Spectroscopy (<scp>LIBS</scp>) for Application to <scp>MSL</scp> ChemCam Data. Journal of Geophysical Research E: Planets, 2018, 123, 1996-2021.	3.6	32
30	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
31	Iron Mobility During Diagenesis at Vera Rubin Ridge, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006299.	3.6	30
32	Analysis of carbon and nitrogen signatures with laser-induced breakdown spectroscopy; the quest for organics under Mars-like conditions. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 131, 8-17.	2.9	25
33	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
34	Water Abundance of Dunes in Gale Crater, Mars From Active Neutron Experiments and Implications for Amorphous Phases. Geophysical Research Letters, 2018, 45, 12,766.	4.0	22
35	Fluidized-sediment pipes in Gale crater, Mars, and possible Earth analogs. Geology, 2017, 45, 7-10.	4.4	18
36	Identification and Description of a Silicic Volcaniclastic Layer in Gale Crater, Mars, Using Active Neutron Interrogation. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006180.	3.6	16

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37	Deposition and erosion of a Light-Toned Yardang-forming unit of Mt Sharp, Gale crater, Mars. Earth and Planetary Science Letters, 2021, 554, 116681.	4.4	13
38	Centimeter to decimeter hollow concretions and voids in Gale Crater sediments, Mars. Icarus, 2017, 289, 144-156.	2.5	12
39	Hydrogen Variability in the Murray Formation, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006289.	3.6	12
40	Laser-Induced Breakdown Spectroscopy (LIBS) characterization of granular soils: Implications for ChemCam analyses at Gale crater, Mars. Icarus, 2021, 365, 114481.	2.5	11
41	Detection and Degradation of Adenosine Monophosphate in Perchlorate-Spiked Martian Regolith Analog, by Deep-Ultraviolet Spectroscopy. Astrobiology, 2021, 21, 511-525.	3.0	10
42	Long-Distance 3D Reconstructions Using Photogrammetry with Curiosityâ€™s ChemCam Remote Micro-Imager in Gale Crater (Mars). Remote Sensing, 2021, 13, 4068.	4.0	5