

# Violaine Sautter

## List of Publications by Year in descending order

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41  
papers

6,156  
citations

101543

36  
h-index

276875

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g-index

41  
all docs

41  
docs citations

41  
times ranked

3302  
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	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
4	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
5	Volatile, Isotope, and Organic Analysis of Martian Finest with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
6	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	12.6	327
7	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	326
8	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	12.6	280
9	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
10	In situ evidence for continental crust on early Mars. Nature Geoscience, 2015, 8, 605-609.	12.9	233
11	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
12	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
13	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
14	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
15	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	8.1	131
16	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
17	Oxidation of manganese in an ancient aquifer, Kimberley formation, Gale crater, Mars. Geophysical Research Letters, 2016, 43, 7398-7407.	4.0	110
18	First detection of fluorine on Mars: Implications for Gale Crater's geochemistry. Geophysical Research Letters, 2015, 42, 1020-1028.	4.0	107

#	ARTICLE	IF	CITATIONS
19	Hydration state of calcium sulfates in Gale crater, Mars: Identification of bassanite veins. <i>Earth and Planetary Science Letters</i> , 2016, 452, 197-205.	4.4	103
20	Classification of igneous rocks analyzed by ChemCam at Gale crater, Mars. <i>Icarus</i> , 2017, 288, 265-283.	2.5	96
21	Onboard calibration igneous targets for the Mars Science Laboratory Curiosity rover and the Chemistry Camera laser induced breakdown spectroscopy instrument. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2011, 66, 280-289.	2.9	90
22	Diagenetic silica enrichment and late-stage groundwater activity in Gale crater, Mars. <i>Geophysical Research Letters</i> , 2017, 44, 4716-4724.	4.0	87
23	Laser induced breakdown spectroscopy library for the Martian environment. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2011, 66, 805-814.	2.9	86
24	Trace element geochemistry (Li, Ba, Sr, and Rb) using <i>Curiosity's</i> ChemCam: Early results for Gale crater from Bradbury Landing Site to Rocknest. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 255-285.	3.6	86
25	High manganese concentrations in rocks at Gale crater, Mars. <i>Geophysical Research Letters</i> , 2014, 41, 5755-5763.	4.0	81
26	The potassic sedimentary rocks in Gale Crater, Mars, as seen by ChemCam on board <i>Curiosity</i> . <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 784-804.	3.6	67
27	Magmatic complexity on early Mars as seen through a combination of orbital, in-situ and meteorite data. <i>Lithos</i> , 2016, 254-255, 36-52.	1.4	66
28	Compositions of coarse and fine particles in martian soils at gale: A window into the production of soils. <i>Icarus</i> , 2015, 249, 22-42.	2.5	64
29	Hydrogen detection with ChemCam at Gale crater. <i>Icarus</i> , 2015, 249, 43-61.	2.5	58
30	ChemCam results from the Shaler outcrop in Gale crater, Mars. <i>Icarus</i> , 2015, 249, 2-21.	2.5	52
31	Chemical variations in Yellowknife Bay formation sedimentary rocks analyzed by ChemCam on board the Curiosity rover on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2015, 120, 452-482.	3.6	51
32	Alkali trace elements in Gale crater, Mars, with ChemCam: Calibration update and geological implications. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 650-679.	3.6	48
33	Geochemistry of the Bagnold dune field as observed by ChemCam and comparison with other aeolian deposits at Gale Crater. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2144-2162.	3.6	46
34	In situ calibration using univariate analyses based on the onboard ChemCam targets: first prediction of Martian rock and soil compositions. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2014, 99, 34-51.	2.9	45
35	SuperCam Calibration Targets: Design and Development. <i>Space Science Reviews</i> , 2020, 216, 138.	8.1	44
36	Martian Eolian Dust Probed by ChemCam. <i>Geophysical Research Letters</i> , 2018, 45, 10,968.	4.0	40

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37	Copper enrichments in the Kimberley formation in Gale crater, Mars: Evidence for a Cu deposit at the source. <i>Icarus</i> , 2019, 321, 736-751.	2.5	23
38	SuperCam calibration targets on board the perseverance rover: Fabrication and quantitative characterization. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2022, 188, 106341.	2.9	20
39	Homogeneity assessment of the SuperCam calibration targets onboard rover perseverance. <i>Analytica Chimica Acta</i> , 2022, 1209, 339837.	5.4	9
40	Alkali magmatism on Mars: an unexpected diversity. <i>Comptes Rendus - Geoscience</i> , 2021, 353, 61-90.	1.2	8
41	Delos Archaeological Marbles: A Preliminary Geochemistry-Based Quarry Provenance Study. <i>Archaeometry</i> , 2021, 63, 907-922.	1.3	6