Jeremie Lasue

List of Publications by Year
in descending order

76 papers	8,625 citations	50276 46 h-index	76900 74 g-index
78 all docs	78 docs citations	78 times ranked	4592 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 Fines 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	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	Pre-flight calibration and initial data processing for the ChemCam laser-induced breakdown spectroscopy instrument on the Mars Science Laboratory rover. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 82, 1-27.	2.9	258
11	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
12	Isotope Ratios of H, C, and O in CO ₂ and H ₂ O of the Martian Atmosphere. Science, 2013, 341, 260-263.	12.6	241
13	In situ evidence for continental crust on early Mars. Nature Geoscience, 2015, 8, 605-609.	12.9	233
14	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
15	Calcium sulfate veins characterized by ChemCam/Curiosity at Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1991-2016.	3.6	214
16	Depth of the Martian cryosphere: Revised estimates and implications for the existence and detection of subpermafrost groundwater. Journal of Geophysical Research, 2010, 115, .	3.3	200
17	Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the <i>Curiosity</i> 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
18	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

#	Article	IF	Citations
19	Recalibration of the Mars Science Laboratory ChemCam instrument with an expanded geochemical database. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 129, 64-85.	2.9	137
20	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
21	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
22	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	8.1	131
23	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
24	Oxidation of manganese in an ancient aquifer, Kimberley formation, Gale crater, Mars. Geophysical Research Letters, 2016, 43, 7398-7407.	4.0	110
25	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	12.6	103
26	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
27	Synthesis of the morphological description of cometary dust at comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2019, 630, A24.	5.1	100
28	Chemistry of diagenetic features analyzed by ChemCam at Pahrump Hills, Gale crater, Mars. Icarus, 2017, 281, 121-136.	2.5	90
29	Quantitative Assessments of the Martian Hydrosphere. Space Science Reviews, 2013, 174, 155-212.	8.1	88
30	Cometary Dust. Space Science Reviews, 2018, 214, 1.	8.1	88
31	Cometary dust properties retrieved from polarization observations: Application to C/1995 O1 Haleâ€“Bopp and 1P/Halley. Icarus, 2009, 199, 129-144.	2.5	86
32	Trace element geochemistry (Li, Ba, Sr, and Rb) using <i>Curiosity</i>'s ChemCam: Early results for Gale crater from Bradbury Landing Site to Rocknest. Journal of Geophysical Research E: Planets, 2014, 119, 255-285.	3.6	86
33	The potassic sedimentary rocks in Gale Crater, Mars, as seen by ChemCam on board <i>Curiosity</i>. Journal of Geophysical Research E: Planets, 2016, 121, 784-804.	3.6	67
34	Photogeologic Map of the Perseverance Rover Field Site in Jezero Crater Constructed by the Mars 2020 Science Team. Space Science Reviews, 2020, 216, 1.	8.1	67
35	Independent component analysis classification of laser induced breakdown spectroscopy spectra. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 86, 31-41.	2.9	66
36	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

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37	Geologic overview of the Mars Science Laboratory rover mission at the Kimberley, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2-20.	3.6	60
38	Hydrogen detection with ChemCam at Gale crater. Icarus, 2015, 249, 43-61.	2.5	58
39	Characterization of LIBS emission lines for the identification of chlorides, carbonates, and sulfates in salt/basalt mixtures for the application to MSL ChemCam data. Journal of Geophysical Research E: Planets, 2017, 122, 744-770.	3.6	57
40	Remote laserâ€induced breakdown spectroscopy (LIBS) for lunar exploration. Journal of Geophysical Research, 2012, 117, .	3.3	55
41	Ceramic ChemCam Calibration Targets on Mars Science Laboratory. Space Science Reviews, 2012, 170, 229-255.	8.1	52
42	ChemCam results from the Shaler outcrop in Gale crater, Mars. Icarus, 2015, 249, 2-21.	2.5	52
43	Chemical variations in Yellowknife Bay formation sedimentary rocks analyzed by ChemCam on board the Curiosity rover on Mars. Journal of Geophysical Research E: Planets, 2015, 120, 452-482.	3.6	51
44	Interplanetary Dust, Meteoroids, Meteors and Meteorites. Space Science Reviews, 2019, 215, 1.	8.1	49
45	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
46	Puncturing Mars: How impact craters interact with the Martian cryosphere. Earth and Planetary Science Letters, 2012, 335-336, 9-17.	4.4	46
47	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
48	Correcting for variable laser-target distances of laser-induced breakdown spectroscopy measurements with ChemCam using emission lines of Martian dust spectra. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 96, 51-60.	2.9	45
49	In situ calibration using univariate analyses based on the onboard ChemCam targets: first prediction of Martian rock and soil compositions. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 99, 34-51.	2.9	45
50	SuperCam Calibration Targets: Design and Development. Space Science Reviews, 2020, 216, 138.	8.1	44
51	Nonlinear mapping technique for data visualization and clustering assessment of LIBS data: application to ChemCam data. Analytical and Bioanalytical Chemistry, 2011, 400, 3247-3260.	3.7	40
52	Martian Eolian Dust Probed by ChemCam. Geophysical Research Letters, 2018, 45, 10,968.	4.0	40
53	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106347.	2.9	40
54	Volatile Trapping in Martian Clathrates. Space Science Reviews, 2013, 174, 213-250.	8.1	39

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55	Inferring the interplanetary dust properties. Astronomy and Astrophysics, 2007, 473, 641-649.	5.1	35
56	Roughness effects on the hydrogen signal in laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 137, 13-22.	2.9	34
57	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
58	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
59	Laser-induced breakdown spectroscopy acoustic testing of the Mars 2020 microphone. Planetary and Space Science, 2019, 165, 260-271.	1.7	32
60	In situ recording of Mars soundscape. Nature, 2022, 605, 653-658.	27.8	30
61	Application of distance correction to ChemCam laser-induced breakdown spectroscopy measurements. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 120, 19-29.	2.9	27
62	Dust in cometary comae: Present understanding of the structure and composition of dust particles. Planetary and Space Science, 2008, 56, 1719-1724.	1.7	26
63	Early Mars serpentinizationâ€derived <scp>CH</scp>₄ reservoirs, H₂â€induced warming and paleopressure evolution. Meteoritics and Planetary Science, 2016, 51, 2234-2245.	1.6	24
64	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
65	SuperCam calibration targets on board the perseverance rover: Fabrication and quantitative characterization. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106341.	2.9	20
66	Methane storage capacity of the early martian cryosphere. Icarus, 2015, 260, 205-214.	2.5	17
67	Bedrock Geochemistry and Alteration History of the Clayâ€Bearing Glen Torridon Region of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	17
68	Zodiacal light observations and its link with cosmic dust: A review. Planetary and Space Science, 2020, 190, 104973.	1.7	14
69	Flattened loose particles from numerical simulations compared to particles collected by Rosetta. Astronomy and Astrophysics, 2019, 630, A28.	5.1	11
70	Laser-Induced Breakdown Spectroscopy (LIBS) characterization of granular soils: Implications for ChemCam analyses at Gale crater, Mars. Icarus, 2021, 365, 114481.	2.5	11
71	Interpretation through experimental simulations of phase functions revealed by Rosetta in 67P/Churyumov-Gerasimenko dust coma. Astronomy and Astrophysics, 2019, 630, A20.	5.1	9
72	Linking studies of tiny meteoroids, zodiacal dust, cometary dust and circumstellar disks. Planetary and Space Science, 2020, 186, 104896.	1.7	9

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73	Homogeneity assessment of the SuperCam calibration targets onboard rover perseverance. Analytica Chimica Acta, 2022, 1209, 339837.	5.4	9
74	The Hydrology of Mars Including a Potential Cryosphere. , 2019, , 185-246.		7
75	Clustering Supported Classification of ChemCam Data From Gale Crater, Mars. Earth and Space Science, 2021, 8, .	2.6	7
76	Laser-induced breakdown spectroscopy in planetary science. , 2020, , 441-471.		4