Jeremie Lasue

List of Publications by Year
in descending order

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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	SuperCam calibration targets on board the perseverance rover: Fabrication and quantitative characterization. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106341.	2.9	20
2	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106347.	2.9	40
3	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
4	In situ recording of Mars soundscape. Nature, 2022, 605, 653-658.	27.8	30
5	Homogeneity assessment of the SuperCam calibration targets onboard rover perseverance. Analytica Chimica Acta, 2022, 1209, 339837.	5.4	9
6	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	8.1	131
7	Laser-Induced Breakdown Spectroscopy (LIBS) characterization of granular soils: Implications for ChemCam analyses at Gale crater, Mars. Icarus, 2021, 365, 114481.	2.5	11
8	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
9	Clustering Supported Classification of ChemCam Data From Gale Crater, Mars. Earth and Space Science, 2021, 8, .	2.6	7
10	Zodiacal light observations and its link with cosmic dust: A review. Planetary and Space Science, 2020, 190, 104973.	1.7	14
11	SuperCam Calibration Targets: Design and Development. Space Science Reviews, 2020, 216, 138.	8.1	44
12	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
13	Laser-induced breakdown spectroscopy in planetary science. , 2020, , 441-471.		4
14	Linking studies of tiny meteoroids, zodiacal dust, cometary dust and circumstellar disks. Planetary and Space Science, 2020, 186, 104896.	1.7	9
15	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
16	Interplanetary Dust, Meteoroids, Meteors and Meteorites. Space Science Reviews, 2019, 215, 1.	8.1	49
17	Synthesis of the morphological description of cometary dust at comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2019, 630, A24.	5.1	100
18	Flattened loose particles from numerical simulations compared to particles collected by Rosetta. Astronomy and Astrophysics, 2019, 630, A28.	5.1	11

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19	The Hydrology of Mars Including a Potential Cryosphere. , 2019, , 185-246.		7
20	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
21	Laser-induced breakdown spectroscopy acoustic testing of the Mars 2020 microphone. Planetary and Space Science, 2019, 165, 260-271.	1.7	32
22	Cometary Dust. Space Science Reviews, 2018, 214, 1.	8.1	88
23	Martian Eolian Dust Probed by ChemCam. Geophysical Research Letters, 2018, 45, 10,968.	4.0	40
24	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
25	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
26	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
27	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
28	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
29	Roughness effects on the hydrogen signal in laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 137, 13-22.	2.9	34
30	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
31	Chemistry of diagenetic features analyzed by ChemCam at Pahrump Hills, Gale crater, Mars. Icarus, 2017, 281, 121-136.	2.5	90
32	Oxidation of manganese in an ancient aquifer, Kimberley formation, Gale crater, Mars. Geophysical Research Letters, 2016, 43, 7398-7407.	4.0	110
33	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
34	Application of distance correction to ChemCam laser-induced breakdown spectroscopy measurements. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 120, 19-29.	2.9	27
35	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
36	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

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37	The potassic sedimentary rocks in Gale Crater, Mars, as seen by ChemCam on board Curiosity. Journal of Geophysical Research E: Planets, 2016, 121, 784-804.	3.6	67
38	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
39	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
40	Hydrogen detection with ChemCam at Gale crater. Icarus, 2015, 249, 43-61.	2.5	58
41	In situ evidence for continental crust on early Mars. Nature Geoscience, 2015, 8, 605-609.	12.9	233
42	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
43	Methane storage capacity of the early martian cryosphere. Icarus, 2015, 260, 205-214.	2.5	17
44	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
45	ChemCam results from the Shaler outcrop in Gale crater, Mars. Icarus, 2015, 249, 2-21.	2.5	52
46	Trace element geochemistry (Li, Ba, Sr, and Rb) using Curiosity'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
47	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
48	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	12.6	323
49	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	12.6	687
50	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	12.6	508
51	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
52	Calcium sulfate veins characterized by ChemCam/Curiosity at Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1991-2016.	3.6	214
53	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
54	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

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55	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
56	Independent component analysis classification of laser induced breakdown spectroscopy spectra. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 86, 31-41.	2.9	66
57	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	12.6	327
58	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	12.6	280
59	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
60	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
61	Volatile Trapping in Martian Clathrates. Space Science Reviews, 2013, 174, 213-250.	8.1	39
62	Quantitative Assessments of the Martian Hydrosphere. Space Science Reviews, 2013, 174, 155-212.	8.1	88
63	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	326
64	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
65	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
66	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	12.6	103
67	Remote laserâ€induced breakdown spectroscopy (LIBS) for lunar exploration. Journal of Geophysical Research, 2012, 117, .	3.3	55
68	Ceramic ChemCam Calibration Targets on Mars Science Laboratory. Space Science Reviews, 2012, 170, 229-255.	8.1	52
69	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
70	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
71	Puncturing Mars: How impact craters interact with the Martian cryosphere. Earth and Planetary Science Letters, 2012, 335-336, 9-17.	4.4	46
72	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

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73	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
74	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
75	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
76	Inferring the interplanetary dust properties. Astronomy and Astrophysics, 2007, 473, 641-649.	5.1	35