

# R B Anderson

## List of Publications by Year in descending order

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Version: 2024-02-01

39  
papers

5,086  
citations

136950

32  
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330143

37  
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42  
all docs

42  
docs citations

42  
times ranked

2984  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1242777.	12.6	687
2	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1243480.	12.6	508
3	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. <i>Science</i> , 2013, 341, 1238937.	12.6	367
4	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. <i>Science</i> , 2013, 341, 1238932.	12.6	327
5	Martian Fluvial Conglomerates at Gale Crater. <i>Science</i> , 2013, 340, 1068-1072.	12.6	326
6	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. <i>Science</i> , 2013, 341, 1239505.	12.6	280
7	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. <i>Science</i> , 2013, 341, 1238670.	12.6	215
8	Calcium sulfate veins characterized by ChemCam/Curiosity at Gale crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 1991-2016.	3.6	214
9	Geologic mapping and characterization of Gale Crater and implications for its potential as a Mars Science Laboratory landing site. <i>Mars the International Journal of Mars Science and Exploration</i> , 0, 5, 76-128.	0.8	181
10	The mineral diversity of Jezero crater: Evidence for possible lacustrine carbonates on Mars. <i>Icarus</i> , 2020, 339, 113526.	2.5	166
11	Recalibration of the Mars Science Laboratory ChemCam instrument with an expanded geochemical database. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017, 129, 64-85.	2.9	137
12	The Petrochemistry of Jake_M: A Martian Mugearite. <i>Science</i> , 2013, 341, 1239463.	12.6	134
13	ChemCam activities and discoveries during the nominal mission of the Mars Science Laboratory in Gale crater, Mars. <i>Journal of Analytical Atomic Spectrometry</i> , 2016, 31, 863-889.	3.0	134
14	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. <i>Space Science Reviews</i> , 2021, 217, 1.	8.1	131
15	The Mars Science Laboratory <i>Curiosity</i> rover Mastcam instruments: Preflight and in-flight calibration, validation, and data archiving. <i>Earth and Space Science</i> , 2017, 4, 396-452.	2.6	113
16	Diagenetic silica enrichment and late-stage groundwater activity in Gale crater, Mars. <i>Geophysical Research Letters</i> , 2017, 44, 4716-4724.	4.0	87
17	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. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 255-285.	3.6	86
18	The influence of multivariate analysis methods and target grain size on the accuracy of remote quantitative chemical analysis of rocks using laser induced breakdown spectroscopy. <i>Icarus</i> , 2011, 215, 608-627.	2.5	81

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19	High manganese concentrations in rocks at Gale crater, Mars. <i>Geophysical Research Letters</i> , 2014, 41, 5755-5763.	4.0	81
20	Improved accuracy in quantitative laser-induced breakdown spectroscopy using sub-models. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017, 129, 49-57.	2.9	71
21	Chemistry of fracture-filling raised ridges in Yellowknife Bay, Gale Crater: Window into past aqueous activity and habitability on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 2398-2415.	3.6	70
22	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
23	Photogeologic Map of the Perseverance Rover Field Site in Jezero Crater Constructed by the Mars 2020 Science Team. <i>Space Science Reviews</i> , 2020, 216, 1.	8.1	67
24	Shaler: <i>in situ</i> analysis of a fluvial sedimentary deposit on Mars. <i>Sedimentology</i> , 2018, 65, 96-122.	3.1	59
25	Composition of conglomerates analyzed by the Curiosity rover: Implications for Gale Crater crust and sediment sources. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 353-387.	3.6	53
26	ChemCam results from the Shaler outcrop in Gale crater, Mars. <i>Icarus</i> , 2015, 249, 2-21.	2.5	52
27	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
28	Understanding the signature of rock coatings in laser-induced breakdown spectroscopy data. <i>Icarus</i> , 2015, 249, 62-73.	2.5	49
29	Chemistry and texture of the rocks at Rocknest, Gale Crater: Evidence for sedimentary origin and diagenetic alteration. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 2109-2131.	3.6	48
30	Clustering and training set selection methods for improving the accuracy of quantitative laser induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2012, 70, 24-32.	2.9	41
31	Martian Eolian Dust Probed by ChemCam. <i>Geophysical Research Letters</i> , 2018, 45, 10,968.	4.0	40
32	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2022, 188, 106347.	2.9	40
33	Basaltic trachybasalt samples in Gale Crater, Mars. <i>Meteoritics and Planetary Science</i> , 2017, 52, 2931-2410.	1.6	34
34	Complex bedding geometry in the upper portion of Aeolis Mons, Gale crater, Mars. <i>Icarus</i> , 2018, 314, 246-264.	2.5	20
35	Stratigraphic Relationships in Jezero Crater, Mars: Constraints on the Timing of Fluvial-Lacustrine Activity From Orbital Observations. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006840.	3.6	20
36	Overview of the Morphology and Chemistry of Diagenetic Features in the Clay-Rich Glen Torridon Unit of Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	17

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37	Quantification of manganese for ChemCam Mars and laboratory spectra using a multivariate model. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 181, 106223.	2.9	16
38	Improving ChemCam LIBS long-distance elemental compositions using empirical abundance trends. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 182, 106247.	2.9	16
39	Laser-Induced Breakdown Spectroscopy. , 2019, , 168-190.		0