

Erwin Dehouck

List of Publications by Year in descending order

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Version: 2024-02-01

45
papers

1,699
citations

218677

26
h-index

276875

41
g-index

54
all docs

54
docs citations

54
times ranked

1424
citing authors

#	ARTICLE	IF	CITATIONS
1	Redox stratification of an ancient lake in Gale crater, Mars. <i>Science</i> , 2017, 356, .	12.6	209
2	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
3	Oxia Planum: The Landing Site for the ExoMars "Rosalind Franklin" Rover Mission: Geological Context and Prelanding Interpretation. <i>Astrobiology</i> , 2021, 21, 345-366.	3.0	84
4	Constraints on abundance, composition, and nature of X-ray amorphous components of soils and rocks at Gale crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 2640-2657.	3.6	73
5	Desiccation cracks provide evidence of lake drying on Mars, Sutton Island member, Murray formation, Gale Crater. <i>Geology</i> , 2018, 46, 515-518.	4.4	71
6	Quantification of water content by laser induced breakdown spectroscopy on Mars. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017, 130, 82-100.	2.9	65
7	Evaluating the role of sulfide-weathering in the formation of sulfates or carbonates on Mars. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 90, 47-63.	3.9	62
8	Evidence for weathering on early Mars from a comparison with terrestrial weathering profiles. <i>Icarus</i> , 2011, 216, 257-268.	2.5	59
9	Refining the age, emplacement and alteration scenarios of the olivine-rich unit in the Nili Fossae region, Mars. <i>Icarus</i> , 2020, 336, 113436.	2.5	59
10	Late Hesperian aqueous alteration at Majuro crater, Mars. <i>Planetary and Space Science</i> , 2012, 72, 18-30.	1.7	52
11	Chemical alteration of fine-grained sedimentary rocks at Gale crater. <i>Icarus</i> , 2019, 321, 619-631.	2.5	52
12	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
13	Ismenius Cavus, Mars: A deep paleolake with phyllosilicate deposits. <i>Planetary and Space Science</i> , 2010, 58, 941-946.	1.7	44
14	Martian Eolian Dust Probed by ChemCam. <i>Geophysical Research Letters</i> , 2018, 45, 10,968.	4.0	40
15	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
16	In Situ Analysis of Opal in Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1955-1972.	3.6	36
17	Sediment geochemistry and mineralogy from a glacial terrain river system in southwest Iceland. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 263, 140-166.	3.9	36
18	Morphological and Spectral Diversity of the Clay-Bearing Unit at the ExoMars Landing Site Oxia Planum. <i>Astrobiology</i> , 2021, 21, 464-480.	3.0	35

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19	Roughness effects on the hydrogen signal in laser-induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017, 137, 13-22.	2.9	34
20	Chemical variability in mineralized veins observed by ChemCam on the lower slopes of Mount Sharp in Gale crater, Mars. <i>Icarus</i> , 2018, 311, 69-86.	2.5	34
21	Stability and fate of ferrihydrite during episodes of water/rock interactions on early Mars: An experimental approach. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 358-382.	3.6	33
22	Weathering of olivine under CO ₂ atmosphere: A martian perspective. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 135, 170-189.	3.9	30
23	Analyses of High- $\delta^{13}\text{C}$ Iron Sedimentary Bedrock and Diagenetic Features Observed With ChemCam at Vera Rubin Ridge, Gale Crater, Mars: Calibration and Characterization. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006314.	3.6	30
24	Iron Mobility During Diagenesis at Vera Rubin Ridge, Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006299.	3.6	30
25	In situ recording of Mars soundscape. <i>Nature</i> , 2022, 605, 653-658.	27.8	30
26	The Curiosity Rover's Exploration of Glen Torridon, Gale Crater, Mars: An Overview of the Campaign and Scientific Results. <i>Journal of Geophysical Research E: Planets</i> , 2023, 128, .	3.6	27
27	Deriving Amorphous Component Abundance and Composition of Rocks and Sediments on Earth and Mars. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 2485-2505.	3.6	26
28	Mineralogical record of the redox conditions on early Mars. <i>Icarus</i> , 2016, 271, 67-75.	2.5	23
29	X-ray Amorphous Components in Sedimentary Rocks of Gale Crater, Mars: Evidence for Ancient Formation and Long-Lived Aqueous Activity. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006782.	3.6	22
30	From Lake to River: Documenting an Environmental Transition Across the Jura/Knockfarril Hill Members Boundary in the Glen Torridon Region of Gale Crater (Mars). <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	19
31	Formation of clay minerals on Mars: Insights from long-term experimental weathering of olivine. <i>Icarus</i> , 2018, 311, 210-223.	2.5	17
32	Bedrock Geochemistry and Alteration History of the Clay-Bearing Glen Torridon Region of Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	17
33	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
34	Geochemical constraints on the presence of clay minerals in the Burns formation, Meridiani Planum, Mars. <i>Icarus</i> , 2017, 281, 137-150.	2.5	16
35	Improving ChemCam LIBS long-distance elemental compositions using empirical abundance trends. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2021, 182, 106247.	2.9	16
36	Benzoic Acid as the Preferred Precursor for the Chlorobenzene Detected on Mars: Insights from the Unique Cumberland Analog Investigation. <i>Planetary Science Journal</i> , 2020, 1, 41.	3.6	12

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37	Laser-Induced Breakdown Spectroscopy (LIBS) characterization of granular soils: Implications for ChemCam analyses at Gale crater, Mars. <i>Icarus</i> , 2021, 365, 114481.	2.5	11
38	An Insight Into Ancient Aeolian Processes and Post-Noachian Aqueous Alteration in Gale Crater, Mars, Using ChemCam Geochemical Data From the Greenheugh Capping Unit. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	11
39	X-Ray Amorphous Sulfur-Bearing Phases in Sedimentary Rocks of Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	10
40	Investigating the role of anhydrous oxidative weathering on sedimentary rocks in the Transantarctic Mountains and implications for the modern weathering of sedimentary lithologies on Mars. <i>Icarus</i> , 2019, 319, 669-684.	2.5	8
41	Diagenesis Revealed by Fine-Scale Features at Vera Rubin Ridge, Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2019JE006311.	3.6	7
42	Clustering Supported Classification of ChemCam Data From Gale Crater, Mars. <i>Earth and Space Science</i> , 2021, 8, .	2.6	7
43	ROMA: A Database of Rock Reflectance Spectra for Martian In Situ Exploration. <i>Earth and Space Science</i> , 2022, 9, .	2.6	6
44	Mars Crater Database: A participative project for the classification of the morphological characteristics of large Martian craters. , 2021, , 629-644.		5
45	Martian meteorites reflectance and implications for rover missions. <i>Icarus</i> , 2021, 366, 114517.	2.5	5