Mineralogy of Vera Rubin Ridge From the Mars Science

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Citation Report

#	Article	IF	Citations
1	Effects of Environmental Fe Concentrations on Formation and Evolution of Allophane in Alâ€Siâ€Fe Systems: Implications for Both Earth and Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006590.	1.5	8
2	Analyses of Highâ€Iron Sedimentary Bedrock and Diagenetic Features Observed With ChemCam at Vera Rubin Ridge, Gale Crater, Mars: Calibration and Characterization. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006314.	1.5	30
3	Evidence for a Diagenetic Origin of Vera Rubin Ridge, Gale Crater, Mars: Summary and Synthesis of <i>Curiosity</i>'s Exploration Campaign. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006527.	1.5	69
4	Synergistic Ground and Orbital Observations of Iron Oxides on Mt. Sharp and Vera Rubin Ridge. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006294.	1.5	27
5	Elemental Composition and Chemical Evolution of Geologic Materials in Gale Crater, Mars: APXS Results From Bradbury Landing to the Vera Rubin Ridge. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006536.	1.5	33
6	APXSâ€Derived Compositional Characteristics of Vera Rubin Ridge and Murray Formation, Gale Crater, Mars: Geochemical Implications for the Origin of the Ridge. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006319.	1.5	31
7	Diagenesis of Vera Rubin Ridge, Gale Crater, Mars, From Mastcam Multispectral Images. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006322.	1.5	33
8	Spectral, Compositional, and Physical Properties of the Upper Murray Formation and Vera Rubin Ridge, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006290.	1.5	20
9	Iron Mobility During Diagenesis at Vera Rubin Ridge, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006299.	1.5	30
10	Constraints on the Mineralogy and Geochemistry of Vera Rubin Ridge, Gale Crater, Mars, From Mars Science Laboratory Sample Analysis at Mars Evolved Gas Analyses. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006309.	1.5	32
11	Hydrothermal Precipitation of Sanidine (Adularia) Having Full Al,Si Structural Disorder and Specular Hematite at Maunakea Volcano (Hawai'i) and at Gale Crater (Mars). Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006324.	1.5	14
12	The Chemostratigraphy of the Murray Formation and Role of Diagenesis at Vera Rubin Ridge in Gale Crater, Mars, as Observed by the ChemCam Instrument. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006320.	1.5	41
13	Mineralogy and geochemistry of sedimentary rocks and eolian sediments in Gale crater, Mars: A review after six Earth years of exploration with Curiosity. Chemie Der Erde, 2020, 80, 125605.	0.8	137
14	Hydrogen Variability in the Murray Formation, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006289.	1.5	12
15	Formation of Tridymite and Evidence for a Hydrothermal History at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006569.	1.5	21
16	Sourceâ€toâ€Sink Terrestrial Analogs for the Paleoenvironment of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006530.	1.5	15
17	Reactive Transport Modeling of Aqueous Alteration in the Murray Formation, Gale Crater, Mars. ACS Earth and Space Chemistry, 2021, 5, 424-435.	1.2	2
18	Xâ€Ray Amorphous Components in Sedimentary Rocks of Gale Crater, Mars: Evidence for Ancient Formation and Longâ€Lived Aqueous Activity. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006782.	1.5	22

#	Article	IF	Citations
19	An experimental study of photo-oxidation of Fe(II): Implications for the formation of Fe(III) (hydro)oxides on early Mars and Earth. Geochimica Et Cosmochimica Acta, 2021, 299, 35-51.	1.6	16
20	Nanoscale Variations in Natural Amorphous and Nanocrystalline Weathering Products in Mafic to Intermediate Volcanic Terrains on Earth: Implications for Amorphous Detections on Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006769.	1.5	11
21	Diagenesis Revealed by Fineâ€Scale Features at Vera Rubin Ridge, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2019JE006311.	1.5	7
22	Formation of Fe(III) (Hydr)oxides from Fe(II) Sulfides: Implications for Akaganeite Detection on Mars. ACS Earth and Space Chemistry, 2021, 5, 1934-1947.	1.2	7
23	Brine-driven destruction of clay minerals in Gale crater, Mars. Science, 2021, 373, 198-204.	6.0	52
24	The hydrology and climate of Mars during the sedimentary infilling of Gale crater. Earth and Planetary Science Letters, 2021, 568, 117032.	1.8	12
25	Transformation of Cyanobacterial Biomolecules by Iron Oxides During Flash Pyrolysis: Implications for Mars Life-Detection Missions. Astrobiology, 2021, 21, 1363-1386.	1.5	2
26	Intense subaerial weathering of eolian sediments in Gale crater, Mars. Science Advances, 2021, 7, .	4.7	13
27	A Review of the Phyllosilicates in Gale Crater as Detected by the CheMin Instrument on the Mars Science Laboratory, Curiosity Rover. Minerals (Basel, Switzerland), 2021, 11, 847.	0.8	23
28	Merging Perspectives on Secondary Minerals on Mars: A Review of Ancient Water-Rock Interactions in Gale Crater Inferred from Orbital and In-Situ Observations. Minerals (Basel, Switzerland), 2021, 11, 986.	0.8	12
29	Successes and challenges of factor analysis/target transformation application to visible-to-near-infrared hyperspectral data. Icarus, 2021, 365, 114402.	1.1	8
30	Early diagenesis at and below Vera Rubin ridge, Gale crater, Mars. Meteoritics and Planetary Science, 2021, 56, 1905-1932.	0.7	7
31	Imaging Mars analog minerals' reflectance spectra and testing mineral detection algorithms. Icarus, 2021, 369, 114644.	1.1	4
32	Clustering Supported Classification of ChemCam Data From Gale Crater, Mars. Earth and Space Science, 2021, 8, .	1.1	7
33	The upper-thermal stability of an iron-rich smectite: Implications for smectite formation on Mars. Icarus, 2022, 374, 114816.	1.1	2
34	Mars: new insights and unresolved questions. International Journal of Astrobiology, 2021, 20, 394-426.	0.9	19
35	Meteorite hazard model for a space mission to Mars. Journal of Physics: Conference Series, 2021, 2103, 012031.	0.3	1
36	Rates and Products of Iron Oxidation by Chlorate at Low Temperatures (0 to 25 Â°C) and Implications for Mars Geochemistry. ACS Earth and Space Chemistry, 2022, 6, 250-260.	1.2	6

#	Article	IF	Citations
37	Preferential Formation of Chlorate over Perchlorate on Mars Controlled by Iron Mineralogy. Nature Astronomy, 2022, 6, 436-441.	4.2	9
38	Reconstruction of pH, redox condition, and concentrations of major components in ancient liquid water from the Karasburg member, Murray formation, Gale Crater, Mars. Geochimica Et Cosmochimica Acta, 2022, 325, 129-151.	1.6	4
39	Mineral Matrix Effects on Pyrolysis Products of Kerogens Infer Difficulties in Determining Biological Provenance of Macromolecular Organic Matter at Mars. Astrobiology, 2022, 22, 520-540.	1.5	6
40	Bedrock Geochemistry and Alteration History of the Clayâ€Bearing Glen Torridon Region of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	17
41	An Insight Into Ancient Aeolian Processes and Postâ€Noachian Aqueous Alteration in Gale Crater, Mars, Using ChemCam Geochemical Data From the Greenheugh Capping Unit. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	11
43	A mineralogical study of glacial flour from Three Sisters, Oregon: An analog for a cold and icy early Mars. Earth and Planetary Science Letters, 2022, 584, 117471.	1.8	8
44	Mission Overview and Scientific Contributions from the Mars Science Laboratory Curiosity Rover After Eight Years of Surface Operations. Space Science Reviews, 2022, 218, 14.	3.7	25
45	Occurrence of secondary minerals at Tharsis Montes of Mars: A critical assessment. Icarus, 2022, 378, 114953.	1.1	3
46	Crystallinity effects on the vibrational spectral features of saponite: Implications for characterizing variable crystalline phyllosilicates on Mars. Icarus, 2022, 379, 114951.	1.1	5
47	Overview of the Morphology and Chemistry of Diagenetic Features in the Clayâ€Rich Glen Torridon Unit of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	17
48	Ultraviolet Photooxidation of Smectiteâ€Bound Fe(II) and Implications for the Origin of Martian Nontronites. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
49	Identifying Shocked Feldspar on Mars Using Perseverance Spectroscopic Instruments: Implications for Geochronology Studies on Returned Samples. Earth, Moon and Planets, 2022, 126, .	0.3	4
50	Xâ€Ray Amorphous Sulfurâ€Bearing Phases in Sedimentary Rocks of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	10
51	Orbital and Inâ€Situ Investigation of Periodic Bedrock Ridges in Glen Torridon, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	18
52	Effects of Formation Pathways and Bromide Incorporation on Jarosite Dissolution Rates: Implications for Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	2
53	Weathering of Chlorite Illite Deposits in the Hyperarid Qaidam Basin: Implications to Post-Depositional Alteration on Martian Clay Minerals. Frontiers in Astronomy and Space Sciences, 2022, 9, .	1.1	1
54	Evolved Gas Analyses of Sedimentary Rocks From the Glen Torridon Clayâ€Bearing Unit, Gale Crater, Mars: Results From the Mars Science Laboratory Sample Analysis at Mars Instrument Suite. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	12
55	Statistical Analysis of APXSâ€Derived Chemistry of the Clayâ€Bearing Glen Torridon Region and Mount Sharp Group, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	15

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56	The Curiosity Rover's Exploration of Glen Torridon, Gale Crater, Mars: An Overview of the Campaign and Scientific Results. Journal of Geophysical Research E: Planets, 2023, 128, .	1.5	27
57	Characterization of groundwater chemistry beneath Gale Crater on early Mars by hydrothermal experiments. Icarus, 2022, 386, 115149.	1.1	0
58	Alteration at the Base of the Siccar Point Unconformity and Further Evidence for an Alkaline Provenance at Gale Crater: Exploration of the Mount Sharp Group, Greenheugh Pediment Cap Rock Contact With APXS. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	9
59	The Distribution of Clay Minerals and Their Impact on Diagenesis in Glen Torridon, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	10
60	Spectral Diversity of Rocks and Soils in Mastcam Observations Along the Curiosity Rover's Traverse in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	10
61	Mars Science Laboratory CheMin Data From the Glen Torridon Region and the Significance of Lakeâ€Groundwater Interactions in Interpreting Mineralogy and Sedimentary History. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	31
62	Testing Rover Science Protocols to Identify Possible Biosignatures on Mars: Achieving Sampling Goals Under a Highly Constrained Time Line. Astrobiology, 0, , .	1.5	0
63	Hydration of a Clayâ€Rich Unit on Mars, Comparison of Orbital Data to Rover Data. Journal of Geophysical Research E: Planets, 2023, 128, .	1.5	4
64	A free and open-source solution for Rietveld refinement of XRD data from the CheMin instrument onboard the Mars rover Curiosity. Planetary and Space Science, 2022, 224, 105596.	0.9	1
65	Constraining Alteration Processes Along the Siccar Point Group Unconformity, Gale Crater, Mars: Results From the Sample Analysis at Mars Instrument. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
66	Quantification of amorphous Si, Al, and Fe in palagonitic Mars analogs by chemical extraction and X-ray spectroscopy. Icarus, 2023, 392, 115362.	1.1	2
67	Reliable spectroscopic identification of minerals associated with serpentinization: Relevance to Mars exploration. Icarus, 2023, 394, 115440.	1.1	2
68	An Examination of Soil Crusts on the Floor of Jezero Crater, Mars. Journal of Geophysical Research E: Planets, 2023, 128, .	1.5	4
69	Dark microbiome and extremely low organics in Atacama fossil delta unveil Mars life detection limits. Nature Communications, 2023, 14, .	5.8	11
70	Compositional Variations in Sedimentary Deposits in Gale Crater as Observed by ChemCam Passive and Active Spectra. Journal of Geophysical Research E: Planets, 2023, 128, .	1.5	0
71	Occurrence and formational mechanisms of spherical Fe-oxide concretions on Earth and Mars. Journal of the Geological Society of Japan, 2023, 129, 199-221.	0.2	1
75	Development and Testing of the MarSCoDe LIBS Calibration Target in Chinaâ€™s Tianwen-1 Mars Mission. Space Science Reviews, 2023, 219, .	3.7	1