Global Mineralogical and Aqueous Mars History Derive

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Citation Report

#	Article	IF	CITATIONS
1	Geologic analogies between the surface of Mars and the McMurdo Dry Valleys: microclimate-related geomorphic features and evidence for climate change. , 2010, , 9-77.		5
2	Antarctic McMurdo Dry Valley stream ecosystems as analog to fluvial systems on Mars. , 0, , 139-159.		2
3	Application of the Mars Organic Analyzer to Nucleobase and Amine Biomarker Detection. Astrobiology, 2006, 6, 824-837.	1.5	34
4	Astrophysics in 2005. Publications of the Astronomical Society of the Pacific, 2006, 118, 947-1047.	1.0	6
5	Distribution of rocks on the Gusev Plains and on Husband Hill, Mars. Geophysical Research Letters, 2006, 33, .	1.5	50
6	Continental-scale salt tectonics on Mars and the origin of Valles Marineris and associated outflow channels. Bulletin of the Geological Society of America, 2006, preprint, 1.	1.6	25
7	Erosion rates at the Mars Exploration Rover landing sites and long-term climate change on Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	215
8	Finding mineralogically interesting targets for exploration from spatially coarse visible and near IR spectra. Earth and Planetary Science Letters, 2006, 252, 201-214.	1.8	10
9	Aqueous biotic and abiotic alteration of silicate rock: evaluation of landing sites on Mars for their potential of revealing evidence for life. , 2006, 6309, 29.		6
10	MR PRISM: a spectral analysis tool for the PRISM. , 2006, , .		4
11	Astrobiological significance of minerals on Mars surface environment. Reviews in Environmental Science and Biotechnology, 2006, 5, 219-231.	3.9	31
12	WatSen: searching for clues for water (and life) on Mars. International Journal of Astrobiology, 2006, 5, 211-219.	0.9	3
13	Mössbauer mineralogy of rock, soil, and dust at Meridiani Planum, Mars: Opportunity's journey across sulfate-rich outcrop, basaltic sand and dust, and hematite lag deposits. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	225
15	Planetary science: Multiple data sets, multiple scales, and unlocking the third dimension. , 2007, 3, 435.		0
16	A Sulfur Dioxide Climate Feedback on Early Mars. Science, 2007, 318, 1903-1907.	6.0	168
17	Geological mapping on Mars by segmentation of hyperspectral OMEGA data. , 2007, , .		2
18	Haematite–water system on Mars and its possible role in chemical evolution. International Journal of Astrobiology, 2007, 6, 267-271.	0.9	15
19	Fracture-Controlled Paleo-Fluid Flow in Candor Chasma, Mars. Science, 2007, 315, 983-985.	6.0	77

		Citation R	EPORT	
#	Article		IF	CITATIONS
20	Coupled Ferric Oxides and Sulfates on the Martian Surface. Science, 2007, 317, 1206-	1210.	6.0	161
21	Evidence for a sedimentary origin of clay minerals in the Mawrth Vallis region, Mars. Ge 35, 951.	eology, 2007,	2.0	85
22	The extraction of intracrystalline biomarkers and other organic compounds from sulph using a microfluidic format – a feasibility study for remote fossil-life detection using H-cell. International Journal of Astrobiology, 2007, 6, 27-36.	ate minerals a microfluidic	0.9	6
23	Hydration state of the Martian surface as seen by Mars Express OMEGA: 2. H _{2<!-- the surface. Journal of Geophysical Research, 2007, 112, .</td--><td>sub>O content of</td><td>3.3</td><td>98</td>}	sub>O content of	3.3	98
24	Habitable planets around the star GlieseÂ581?. Astronomy and Astrophysics, 2007, 47	'6, 1373-1387.	2.1	408
25	Phyllosilicates in the Mawrth Vallis region of Mars. Journal of Geophysical Research, 20	07, 112, .	3.3	153
26	Evidence for late Hesperian lacustrine activity in Shalbatana Vallis, Mars. Journal of Geo Research, 2007, 112, .	ophysical	3.3	42
27	Daytime rapid detection of minerals and organics from 50 and 100 m distances using system. , 2007, , .	a remote Raman		6
28	Is there red soil on Mars? (as proof of water and vegetation). , 2007, , .			0
29	Geomorphic and stratigraphic analysis of Crater Terby and layered deposits north of H Mars. Journal of Geophysical Research, 2007, 112, .	ellas basin,	3.3	108
30	Mineralogy of the Nili Fossae region with OMEGA/Mars Express data: 1. Ancient impac Basin and implications for the transition from the Noachian to Hesperian. Journal of Ge Research, 2007, 112, .	t melt in the Isidis 20physical	3.3	130
31	Thermal stability of amino acids in siliceous ooze under alkaline hydrothermal conditio Geochemistry, 2007, 38, 1897-1909.	ns. Organic	0.9	8
32	A Concept for NASA's Mars 2016 Astrobiology Field Laboratory. Astrobiology, 2007, 7	, 545-577.	1.5	44
33	Goldschmidt Abstracts 2007- K. Geochimica Et Cosmochimica Acta, 2007, 71, A456-A	533.	1.6	3
34	Goldschmidt Abstracts 2007- M. Geochimica Et Cosmochimica Acta, 2007, 71, A607-A	697.	1.6	3
35	Astrobiological significance of minerals on Mars surface environment. , 2006, , 55-67.			2
36	Water on the Terrestrial Planets. , 2007, , 371-420.			0
38	Gain and loss of uranium by meteorites and rocks, and implications for the redistributi on Mars. Meteoritics and Planetary Science, 2007, 42, 951-962.	on of uranium	0.7	2

ARTICLE IF CITATIONS # The force from without. Nature, 2007, 446, 151-152. 13.7 6 39 Chemical compositions at Mars landing sites subject to Mars Odyssey Gamma Ray Spectrometer 3.3 23 constraints. Journal of Geophysical Research, 2007, 112, . 41 Geology, Life and Habitability., 2007, , 421-437. 4 Mineralogy of the Nili Fossae region with OMEGA/Mars Express data: 2. Aqueous alteration of the 154 crust. Journal of Geophysical Research, 2007, 112, . CRISM multispectral summary products: Parameterizing mineral diversity on Mars from reflectance. 43 3.3 304 Journal of Geophysical Research, 2007, 112, . Algae and Cyanobacteria in Extreme Environments. Cellular Origin and Life in Extreme Habitats, 2007, , . 0.3 Evidence for Water Rings in the Hexahydrated Sulfate Dianion from IR Spectroscopy. Journal of the 45 6.6 89 American Chemical Society, 2007, 129, 2220-2221. Geochemistry of Martian soil and bedrock in mantled and less mantled terrains with gamma ray data 3.3 46 34 from Mars Odyssey. Journal of Geophysical Research, 2007, 112, . Timing of acid weathering on Mars: A kineticâ€thermodynamic assessment. Journal of Geophysical 47 3.3 103 Research, 2007, 112, . Atmospheric conditions on early Mars and the missing layered carbonates. Geophysical Research 1.5 Letters, 2007, 34, . Search for past life on Mars: Physical and chemical characterization of minerals of biotic and abiotic 49 1.5 16 origin: 2. Aragonite. Geophysical Research Letters, 2007, 34, . Mars solar wind interaction: Formation of the Martian corona and atmospheric loss to space. 3.3 115 Journal of Geophysical Research, 2007, 112, . Introduction to special section: OMEGA/Mars Express Mars Surface and Atmospheric Properties. 51 3.3 2 Journal of Geophysical Research, 2007, 112, . Searching for Life on Mars: Selection of Molecular Targets for ESA's Aurora ExoMars Mission. 1.5 172 Astrobiology, 2007, 7, 578-604. Martian surface mineralogy from Observatoire pour la Minéralogie, l'Eau, les Glaces et l'Activité on board the Mars Express spacecraft (OMEGA/MEx): Global mineral maps. Journal of Geophysical 53 3.3 191 Research, 2007, 112, . Inukshuk Landed Robotic Canadian Mission to Mars using a Miniature Sample Analysis Lab for 54 Planetary Mineralogy and Microbiology., 2007,,. 55 On the origin of gypsum in the Mars north polar region. Journal of Geophysical Research, 2007, 112, . 3.3 103 Remote sensing of surface pressure on Mars with the Mars Express/OMEGA spectrometer: 1. Retrieval 3.3 38 method. Journal of Geophysical Research, 2007, 112, .

#	Article	IF	CITATIONS
57	Martian ice cloud distribution obtained from SPICAM nadir UV measurements. Journal of Geophysical Research, 2007, 112, .	3.3	20
58	Recent low-latitude freeze–thaw on Mars. Icarus, 2007, 189, 83-117.	1.1	61
59	Exploration of hydrothermal targets on Mars. Icarus, 2007, 189, 308-324.	1.1	140
60	Special issue of Planetary of Space Science Planet Mars II:. Planetary and Space Science, 2007, 55, 255-257.	0.9	1
61	Visible/NIR photometric signatures of liquid water in Martian regolith simulant. Planetary and Space Science, 2007, 55, 1272-1282.	0.9	13
63	Water cycling on Mars. Nature, 2007, 446, 150-151.	13.7	10
64	Meridiani Planum and the global hydrology of Mars. Nature, 2007, 446, 163-166.	13.7	223
65	Early geochemical environment of Mars as determined from thermodynamics of phyllosilicates. Nature, 2007, 448, 60-63.	13.7	168
66	On Potential Spectroscopic Detection of Microfossils on Mars. Earth, Moon and Planets, 2007, 101, 127-140.	0.3	4
67	The Geology and Habitability of Terrestrial Planets: Fundamental Requirements for Life. Space Science Reviews, 2007, 129, 7-34.	3.7	17
68	High spectral resolution UV to near-IR observations of Mars using HST/STIS. Icarus, 2007, 191, 581-602.	1.1	15
69	Antarctic dry valleys: Microclimate zonation, variable geomorphic processes, and implications for assessing climate change on Mars. Icarus, 2007, 192, 187-222.	1.1	354
70	Oxygen and carbon isotope ratios in the martian atmosphere. Icarus, 2007, 192, 396-403.	1.1	52
71	Search for organic molecules at the Mars surface: The "Martian Organic Material Irradiation and Evolution―(MOMIE) project. Advances in Space Research, 2008, 42, 2014-2018.	1.2	16
72	Low-cost solutions for Martian base. Advances in Space Research, 2008, 41, 129-137.	1.2	12
73	Morphological Biosignatures from Subsurface Environments: Recognition on Planetary Missions. Space Science Reviews, 2008, 135, 245-254.	3.7	17
74	Urey: Mars Organic and Oxidant Detector. Space Science Reviews, 2008, 135, 269-279.	3.7	27
75	Exploration of the Habitability of Mars: Development of Analytical Protocols for Measurement of Organic Carbon on the 2009 Mars Science Laboratory. Space Science Reviews, 2008, 135, 255-268.	3.7	59

#	Article	IF	CITATIONS
76	Morphological Biosignatures in Early Terrestrial andÂExtraterrestrial Materials. Space Science Reviews, 2008, 135, 95-114.	3.7	75
77	Recent geological and hydrological activity on Mars: The Tharsis/Elysium corridor. Planetary and Space Science, 2008, 56, 985-1013.	0.9	92
78	Heterogeneous solid/gas chemistry of organic compounds related to comets, meteorites, Titan, and Mars: Laboratory and in lower Earth orbit experiments. Advances in Space Research, 2008, 42, 2019-2035.	1.2	38
79	The microbial case for Mars and its implication for human expeditions to Mars. Acta Astronautica, 2008, 63, 1015-1024.	1.7	21
80	Spectral and geological study of the sulfate-rich region of West Candor Chasma, Mars. Icarus, 2008, 194, 519-543.	1.1	130
81	The timing of martian valley network activity: Constraints from buffered crater counting. Icarus, 2008, 195, 61-89.	1.1	375
82	Observation of the hydrogen corona with SPICAM on Mars Express. Icarus, 2008, 195, 598-613.	1.1	139
83	Mojave Mars simulant—Characterization of a new geologic Mars analog. Icarus, 2008, 197, 470-479.	1.1	153
84	Evidence for ponding and catastrophic floods in central Valles Marineris, Mars. Icarus, 2008, 198, 351-364.	1.1	50
85	Water distribution in Martian permafrost regions from joint analysis of HEND (Mars Odyssey) and MOLA (Mars Global Surveyor) data. Astronomy Letters, 2008, 34, 713-723.	0.1	6
86	Hydrated silicate minerals on Mars observed by the Mars Reconnaissance Orbiter CRISM instrument. Nature, 2008, 454, 305-309.	13.7	630
87	Ancient groundwater flow in the Valles Marineris on Mars inferred from fault traceÂridges. Nature Geoscience, 2008, 1, 181-183.	5.4	34
88	Organic burial site on Mars?. Nature Geoscience, 2008, 1, 348-350.	5.4	7
89	Seeing through tectonic plates. Nature Geoscience, 2008, 1, 350-351.	5.4	1
90	Monolithic photolithographically patterned Fluorocurâ"¢ PFPE membrane valves and pumps for in situ planetary exploration. Lab on A Chip, 2008, 8, 1024.	3.1	25
91	A new hypothesis for the origin and redistribution of sulfates in the equatorial region of western Mars. Geophysical Research Letters, 2008, 35, .	1.5	7
92	Dust haze in Valles Marineris observed by HRSC and OMEGA on board Mars Express. Journal of Geophysical Research, 2008, 113, .	3.3	18
93	Ferric oxides in East Candor Chasma, Valles Marineris (Mars) inferred from analysis of OMEGA/Mars Express data: Identification and geological interpretation. Journal of Geophysical Research, 2008, 113, .	3.3	40

#	Article	IF	CITATIONS
94	Multiple flooding events in Martian outflow channels. Journal of Geophysical Research, 2008, 113, .	3.3	53
95	Frequency and temperature dependence in electromagnetic properties of Martian analog minerals. Journal of Geophysical Research, 2008, 113, .	3.3	54
96	Global distribution, composition, and abundance of olivine on the surface of Mars from thermal infrared data. Journal of Geophysical Research, 2008, 113, .	3.3	189
97	Geomorphic study of fluvial landforms on the northern Valles Marineris plateau, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	65
98	Constraints on the elastic thickness, heat flow, and melt production at early Tharsis from topography and magnetic field observations. Journal of Geophysical Research, 2008, 113, .	3.3	16
99	Visible, nearâ€infrared, and middle infrared spectroscopy of altered basaltic tephras: Spectral signatures of phyllosilicates, sulfates, and other aqueous alteration products with application to the mineralogy of the Columbia Hills of Gusev Crater, Mars. Journal of Geophysical Research, 2008, 113	3.3	79
100	Stratigraphy and structure of interior layered deposits in west Candor Chasma, Mars, from High Resolution Stereo Camera (HRSC) stereo imagery and derived elevations. Journal of Geophysical Research, 2008, 113, .	3.3	40
101	Largeâ€scale spring deposits on Mars?. Journal of Geophysical Research, 2008, 113, .	3.3	115
102	Strength of the H ₂ O nearâ€infrared absorption bands in hydrated minerals: Effects of particle size and correlation with albedo. Journal of Geophysical Research, 2008, 113, .	3.3	25
103	Geological context of waterâ€altered minerals in Valles Marineris, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	48
105	Subsurface formation of oxidants on Mars and implications for the preservation of organic biosignatures. Earth and Planetary Science Letters, 2008, 272, 456-463.	1.8	45
106	Constraints on the maximum crustal density from gravity–topography modeling: Applications to the southern highlands of Mars. Earth and Planetary Science Letters, 2008, 276, 253-261.	1.8	27
107	Modeling ferrous–ferric iron chemistry with application to martian surface geochemistry. Geochimica Et Cosmochimica Acta, 2008, 72, 242-266.	1.6	80
108	On the in situ aqueous alteration of soils on Mars. Geochimica Et Cosmochimica Acta, 2008, 72, 3845-3864.	1.6	54
109	The LaPaz Icefield 04840 meteorite: Mineralogy, metamorphism, and origin of an amphibole- and biotite-bearing R chondrite. Geochimica Et Cosmochimica Acta, 2008, 72, 5757-5780.	1.6	90
110	Earth's atmosphere – Hadean to early Proterozoic. Chemie Der Erde, 2008, 68, 235-264.	0.8	82
111	New perspectives on Mars' crustal magnetic field. Comptes Rendus - Geoscience, 2008, 340, 791-800.	0.4	10
112	Rapid decrease in Martian crustal magnetization in the Noachian era: Implications for the dynamo and climate of early Mars. Geophysical Research Letters, 2008, 35, .	1.5	138

#	Article	IF	CITATIONS
113	Compositional stratigraphy of clayâ€bearing layered deposits at Mawrth Vallis, Mars. Geophysical Research Letters, 2008, 35, .	1.5	165
114	Phyllosilicate and sulfateâ€hematite deposits within Miyamoto crater in southern Sinus Meridiani, Mars. Geophysical Research Letters, 2008, 35, .	1.5	63
115	Evidence for extensive olivineâ€rich basalt bedrock outcrops in Ganges and Eos chasmas, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	64
116	Strength of the H ₂ O nearâ€infrared absorption bands in hydrated minerals: Effects of measurement geometry. Journal of Geophysical Research, 2008, 113, .	3.3	21
117	Iron mineralogy and aqueous alteration from Husband Hill through Home Plate at Gusev Crater, Mars: Results from the M¶ssbauer instrument on the Spirit Mars Exploration Rover. Journal of Geophysical Research, 2008, 113, .	3.3	162
118	Statistical exploration and volume reduction of planetary remote sensing spectral data. Journal of Geophysical Research, 2008, 113, .	3.3	22
119	The loss of K, REE, Th, and U from a Martian and a terrestrial basalt by acidic leaching. Meteoritics and Planetary Science, 2008, 43, 1895-1908.	0.7	5
120	Impact crater formation in icy layered terrains on Mars. Meteoritics and Planetary Science, 2008, 43, 1993-2013.	0.7	127
121	Mineral evolution. American Mineralogist, 2008, 93, 1693-1720.	0.9	569
122	Subcritical Water Extractor for Mars Analog Soil Analysis. Astrobiology, 2008, 8, 597-604.	1.5	24
123	Reflectance and emission spectroscopy study of four groups of phyllosilicates: smectites, kaolinite-serpentines, chlorites and micas. Clay Minerals, 2008, 43, 35-54.	0.2	424
124	Basalt weathering rates on Earth and the duration of liquid water on the plains of Gusev Crater, Mars. Geology, 2008, 36, 67.	2.0	106
125	Opaline silica in young deposits on Mars. Geology, 2008, 36, 847.	2.0	303
126	Science Priorities for Mars Sample Return. Astrobiology, 2008, 8, 489-535.	1.5	41
127	Science Results from a Mars Drilling Simulation (RÃo Tinto, Spain) and Ground Truth for Remote Science Observations. Astrobiology, 2008, 8, 967-985.	1.5	21
128	Orbital Identification of Carbonate-Bearing Rocks on Mars. Science, 2008, 322, 1828-1832.	6.0	560
129	Role of DNA Protection and Repair in Resistance of Bacillus subtilis Spores to Ultrahigh Shock Pressures Simulating Hypervelocity Impacts. Applied and Environmental Microbiology, 2008, 74, 6682-6689.	1.4	33
130	Visible–Near Infrared Point Spectrometry of Drill Core Samples from RÃo Tinto, Spain: Results from the 2005 Mars Astrobiology Research and Technology Experiment (MARTE) Drilling Exercise. Astrobiology, 2008, 8, 1049-1060.	1.5	9

#	Article	IF	Citations
131	Short- and Long-Term Olivine Weathering in Svalbard: Implications for Mars. Astrobiology, 2008, 8, 1079-1092.	1.5	44
133	Terrestrial exoplanets: diversity, habitability and characterization. Physica Scripta, 2008, T130, 014032.	1.2	19
134	MicrOmega: a VIS/NIR hyperspectral microscope for in situ analysis in space. , 2008, , .		0
135	Volatiles on Mars: scientific results from the Mars Odyssey Neutron Spectrometer. , 2008, , 125-148.		20
136	Mineralogy of the Martian surface from Mars Express OMEGA observations. , 0, , 151-168.		7
137	Global mineralogy mapped from the Mars Global Surveyor Thermal Emission Spectrometer. , 2008, , 193-220.		7
138	The compositional diversity and physical properties mapped from the Mars Odyssey Thermal Emission Imaging System. , 2008, , 221-241.		6
139	Iron mineralogy and aqueous alteration on Mars from the MER Mössbauer spectrometers. , 2008, , 339-365.		13
140	Aqueous alteration on Mars. , 2008, , 519-540.		26
141	Astrobiological implications of Mars' surface composition and properties. , 2008, , 599-624.		19
142	Mars: crustal composition and evolution. , 0, , 141-180.		4
143	In Situ Planetary Resource Exploration using Miniature Robotic Subsurface Sample Analysis. , 2009, , .		Ο
144	Hyperspectral and Luminescence Observer (HALO) Mars mission concept - innovative data triage, compression, processing and analysis for the hyperspectral imager. , 2009, , .		0
145	Diverse aqueous environments on ancient Mars revealed in the southern highlands. Geology, 2009, 37, 1043-1046.	2.0	142
146	ESSC-ESF Position Paper—Science-Driven Scenario for Space Exploration: Report from the European Space Sciences Committee (ESSC). Astrobiology, 2009, 9, 23-41.	1.5	13
147	Habitability on planetary surfaces: interdisciplinary preparation phase for future Mars missions. International Journal of Astrobiology, 2009, 8, 301-315.	0.9	20
149	The Effect of Evaporated Salt Solutions on the Optical Dating Properties of JSC Mars-1: "Seasoning― for a Mars Soil Simulant. Astrobiology, 2009, 9, 531-534.	1.5	0
150	Investigating the Photostability of Carboxylic Acids Exposed to Mars Surface Ultraviolet Radiation Conditions. Astrobiology, 2009, 9, 543-549.	1.5	50

#	Article	IF	CITATIONS
151	Planetary targets in the search for extrasolar oxygenic photosynthesis. Plant Ecology and Diversity, 2009, 2, 207-219.	1.0	14
152	Volcanic spreading and lateral variations in the structure of Olympus Mons, Mars. Geology, 2009, 37, 139-142.	2.0	79
153	Deformation band clusters on Mars and implications for subsurface fluid flow. Bulletin of the Geological Society of America, 2009, 121, 474-482.	1.6	47
154	Laboratory simulations of prebiotic molecule stability in the jarosite mineral group; end member evaluation of detection and decomposition behavior related to Mars sample return. Planetary and Space Science, 2009, 57, 1381-1388.	0.9	8
155	Composition and thermal inertia of the Mawrth Vallis region of Mars from TES and THEMIS data. Icarus, 2009, 199, 25-48.	1.1	49
156	Mars environment and magnetic orbiter model payload. Experimental Astronomy, 2009, 23, 761-783.	1.6	7
157	A view of extraterrestrial soils. European Journal of Soil Science, 2009, 60, 1078-1092.	1.8	15
158	Stability against freezing of aqueous solutions on early Mars. Nature, 2009, 459, 401-404.	13.7	124
159	Meridiani Planum sediments on Mars formed through weathering in massive ice deposits. Nature Geoscience, 2009, 2, 215-220.	5.4	149
160	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233.	5.4	45
160 161	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233. Alteration textures in terrestrial volcanic glass and the associated bacterial community. Geobiology, 2009, 7, 50-65.	5.4	45 56
160 161 162	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233. Alteration textures in terrestrial volcanic glass and the associated bacterial community. Geobiology, 2009, 7, 50-65. Evaluation of carbonate abundance in putative martian paleolake basins. Icarus, 2009, 200, 426-435.	5.4 1.1 1.1	45 56 8
160 161 162 163	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233. Alteration textures in terrestrial volcanic glass and the associated bacterial community. Geobiology, 2009, 7, 50-65. Evaluation of carbonate abundance in putative martian paleolake basins. Icarus, 2009, 200, 426-435. Principal components analysis of Mars in the near-infrared. Icarus, 2009, 204, 32-47.	5.4 1.1 1.1 1.1	45 56 8 5
160 161 162 163 164	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233. Alteration textures in terrestrial volcanic glass and the associated bacterial community. Geobiology, 2009, 7, 50-65. Evaluation of carbonate abundance in putative martian paleolake basins. Icarus, 2009, 200, 426-435. Principal components analysis of Mars in the near-infrared. Icarus, 2009, 204, 32-47. Water sorption on martian regolith analogs: Thermodynamics and near-infrared reflectance spectroscopy. Icarus, 2009, 204, 114-136.	5.4 1.1 1.1 1.1 1.1	45 56 8 5 63
 160 161 162 163 164 165 	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233. Alteration textures in terrestrial volcanic glass and the associated bacterial community. Geobiology, 2009, 7, 50-65. Evaluation of carbonate abundance in putative martian paleolake basins. Icarus, 2009, 200, 426-435. Principal components analysis of Mars in the near-infrared. Icarus, 2009, 204, 32-47. Water sorption on martian regolith analogs: Thermodynamics and near-infrared reflectance spectroscopy. Icarus, 2009, 204, 114-136. Discovery of jarosite within the Mawrth Vallis region of Mars: Implications for the geologic history of the region. Icarus, 2009, 204, 478-488.	5.4 1.1 1.1 1.1 1.1 1.1	45 56 8 5 63 155
160 161 162 163 164 165	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233. Alteration textures in terrestrial volcanic glass and the associated bacterial community. Geobiology, 2009, 7, 50-65. Evaluation of carbonate abundance in putative martian paleolake basins. Icarus, 2009, 200, 426-435. Principal components analysis of Mars in the near-infrared. Icarus, 2009, 204, 32-47. Water sorption on martian regolith analogs: Thermodynamics and near-infrared reflectance spectroscopy. Icarus, 2009, 204, 114-136. Discovery of jarosite within the Mawrth Vallis region of Mars: Implications for the geologic history of the region. Icarus, 2009, 204, 478-488. Minimum estimates of the amount and timing of gases released into the martian atmosphere from volcanic eruptions. Icarus, 2009, 204, 512-526.	5.4 1.1 1.1 1.1 1.1 1.1	45 56 8 5 63 155 95
 160 161 162 163 164 165 166 167 	Beyond water on Mars. Nature Geoscience, 2009, 2, 231-233. Alteration textures in terrestrial volcanic glass and the associated bacterial community. Geobiology, 2009, 7, 50-65. Evaluation of carbonate abundance in putative martian paleolake basins. Icarus, 2009, 200, 426-435. Principal components analysis of Mars in the near-infrared. Icarus, 2009, 204, 32-47. Water sorption on martian regolith analogs: Thermodynamics and near-infrared reflectance spectroscopy. Icarus, 2009, 204, 114-136. Discovery of jarosite within the Mawrth Vallis region of Mars: Implications for the geologic history of the region. Icarus, 2009, 204, 478-488. Minimum estimates of the amount and timing of gases released into the martian atmosphere from volcanic eruptions. Icarus, 2009, 204, 512-526. Episodes of floods in Mangala Valles, Mars, from the analysis of HRSC, MOC and THEMIS images. Planetary and Space Science, 2009, 57, 917-943.	 5.4 1.1 1.1 1.1 1.1 1.1 1.1 0.9 	45 56 8 3 5 63 155 95 64

#	Article	IF	CITATIONS
169	Investigation of water signatures at gully-exposed sites on Mars by hyperspectral image analysis. Planetary and Space Science, 2009, 57, 93-104.	0.9	7
170	Evidence for Amazonian acidic liquid water on Mars—A reinterpretation of MER mission results. Planetary and Space Science, 2009, 57, 276-287.	0.9	36
171	Spectral and thermodynamic constraints on the existence of gypsum at the Juventae Chasma on Mars. Planetary and Space Science, 2009, 57, 975-981.	0.9	8
172	Micromega/IR: Design and status of a near-infrared spectral microscope for in situ analysis of Mars samples. Planetary and Space Science, 2009, 57, 1068-1075.	0.9	37
173	GRS evidence and the possibility of paleooceans on Mars. Planetary and Space Science, 2009, 57, 664-684.	0.9	107
174	Photoelectron Spectroscopy of Cold Hydrated Sulfate Clusters, SO ₄ ^{2â^'} (H ₂ O) _{<i>n</i>} (<i>n</i> = 4â^'7): Temperature-Dependent Isomer Populations. Journal of Physical Chemistry A, 2009, 113, 5567-5576.	1.1	47
175	The Role of Biofilms in the Sedimentology of Actively Forming Gypsum Deposits at Guerrero Negro, Mexico. Astrobiology, 2009, 9, 875-893.	1.5	31
176	Serpentinization of the martian crust during Noachian. Earth and Planetary Science Letters, 2009, 277, 184-193.	1.8	62
177	True Polar Wander driven by late-stage volcanism and the distribution of paleopolar deposits on Mars. Earth and Planetary Science Letters, 2009, 280, 254-267.	1.8	24
178	Insights into the formation of Fe- and Mg-rich aqueous solutions on early Mars provided by the ALH 84001 carbonates. Earth and Planetary Science Letters, 2009, 286, 122-130.	1.8	26
179	Jarosite growth zoning as a recorder of fluid evolution. Geochimica Et Cosmochimica Acta, 2009, 73, 3248-3259.	1.6	8
180	Modeling aluminum–silicon chemistries and application to Australian acidic playa lakes as analogues for Mars. Geochimica Et Cosmochimica Acta, 2009, 73, 3493-3511.	1.6	27
181	Evaluation of paleohydrologic models for terrestrial inverted channels: Implications for application to martian sinuous ridges. Geomorphology, 2009, 107, 300-315.	1.1	99
182	A Laboratory Technique for Thermal Emission Measurement of Hydrated Minerals. Applied Spectroscopy, 2009, 63, 678-688.	1.2	8
183	Missing salts on early Mars. Geophysical Research Letters, 2009, 36, .	1.5	52
184	Association of phyllosilicates and the inverted channel in Miyamoto crater, Mars. Geophysical Research Letters, 2009, 36, .	1.5	18
185	Positive identification of lake strandlines in Shalbatana Vallis, Mars. Geophysical Research Letters, 2009, 36, .	1.5	32
186	Contemporaneous deposition of phyllosilicates and sulfates: Using Australian acidic saline lake deposits to describe geochemical variability on Mars. Geophysical Research Letters, 2009, 36, .	1.5	53

#	Article	IF	CITATIONS
187	Phyllosilicates and sulfates at Endeavour Crater, Meridiani Planum, Mars. Geophysical Research Letters, 2009, 36, .	1.5	88
188	Sulfur dioxide inhibits calcium carbonate precipitation: Implications for early Mars and Earth. Geophysical Research Letters, 2009, 36, .	1.5	27
189	Identification of hydrated silicate minerals on Mars using MROâ€CRISM: Geologic context near Nili Fossae and implications for aqueous alteration. Journal of Geophysical Research, 2009, 114, .	3.3	483
190	A synthesis of Martian aqueous mineralogy after 1 Mars year of observations from the Mars Reconnaissance Orbiter. Journal of Geophysical Research, 2009, 114, .	3.3	445
191	Evidence for the origin of layered deposits in Candor Chasma, Mars, from mineral composition and hydrologic modeling. Journal of Geophysical Research, 2009, 114, .	3.3	159
192	Compact Reconnaissance Imaging Spectrometer for Mars investigation and data set from the Mars Reconnaissance Orbiter's primary science phase. Journal of Geophysical Research, 2009, 114, .	3.3	178
193	Composition, Morphology, and Stratigraphy of Noachian Crust around the Isidis basin. Journal of Geophysical Research, 2009, 114, .	3.3	144
194	Reconciling channel formation processes with the nature of elevated outflow systems at Ophir and Aurorae Plana, Mars. Journal of Geophysical Research, 2009, 114, .	3.3	30
195	Humidity-induced phase transitions of ferric sulfate minerals studied by in situ and ex situ X-ray diffraction. American Mineralogist, 2009, 94, 1629-1637.	0.9	18
196	Mars Environment and Magnetic Orbiter Scientific and Measurement Objectives. Astrobiology, 2009, 9, 71-89.	1.5	4
198	Distribution of hydrated minerals in the north polar region of Mars. Journal of Geophysical Research, 2009, 114, .	3.3	61
199	Testing evidence of recent hydration state change in sulfates on Mars. Journal of Geophysical Research, 2009, 114, .	3.3	78
200	Roaming zones of precipitation on ancient Mars as recorded in valley networks. Journal of Geophysical Research, 2009, 114, .	3.3	76
201	Automated classification of visible and infrared spectra using cluster analysis. Journal of Geophysical Research, 2009, 114, .	3.3	21
202	Phase transition pathways of the hydrates of magnesium sulfate in the temperature range 50°C to 5°C: Implication for sulfates on Mars. Journal of Geophysical Research, 2009, 114, .	3.3	44
203	Giant impacts on early Mars and the cessation of the Martian dynamo. Journal of Geophysical Research, 2009, 114, .	3.3	93
204	Characterization of phyllosilicates observed in the central Mawrth Vallis region, Mars, their potential formational processes, and implications for past climate. Journal of Geophysical Research, 2009, 114, .	3.3	117
205	A model of thermal conductivity for planetary soils: 2. Theory for cemented soils. Journal of Geophysical Research, 2009, 114, .	3.3	51

	CHAHON R	EPOKI	
#	Article	IF	CITATIONS
206	Strong Release of Methane on Mars in Northern Summer 2003. Science, 2009, 323, 1041-1045.	6.0	516
208	How long was Meridiani Planum wet? Applying a jarosite stopwatch to determine the duration of aqueous diagenesis. Geology, 2009, 37, 635-638.	2.0	46
209	Mars tectonics. , 2009, , 183-232.		13
211	Microscope spectrometer for the Phobos-Grunt mission. Solar System Research, 2010, 44, 403-408.	0.3	1
212	Sulfur on Mars. Elements, 2010, 6, 107-112.	0.5	148
213	Habitability: from stars to cells. Astronomy and Astrophysics Review, 2010, 18, 383-416.	9.1	23
214	HiRISE images of yardangs and sinuous ridges in the lower member of the Medusae Fossae Formation, Mars. Icarus, 2010, 205, 198-210.	1.1	82
215	Evidence for debris flow gully formation initiated by shallow subsurface water on Mars. Icarus, 2010, 205, 103-112.	1.1	61
216	Mars Reconnaissance Orbiter observations of light-toned layered deposits and associated fluvial landforms on the plateaus adjacent to Valles Marineris. Icarus, 2010, 205, 73-102.	1.1	79
217	The High Resolution Imaging Science Experiment (HiRISE) during MRO's Primary Science Phase (PSP). Icarus, 2010, 205, 2-37.	1.1	153
218	Study of terrestrial fossils in phyllosilicate-rich soils: Implication in the search for biosignatures on Mars. Icarus, 2010, 208, 202-206.	1.1	16
219	Evidence for Hesperian impact-induced hydrothermalism on Mars. Icarus, 2010, 208, 667-683.	1.1	127
220	Water ice cloud formation on Mars is more difficult than presumed: Laboratory studies of ice nucleation on surrogate materials. Icarus, 2010, 210, 985-991.	1.1	37
221	The geology of Australian Mars analogue sites. Planetary and Space Science, 2010, 58, 447-458.	0.9	31
222	A formation mechanism for hematite-rich spherules on Mars. Planetary and Space Science, 2010, 58, 401-410.	0.9	12
223	Morphology and origin of an evaporitic dome in the eastern Tithonium Chasma, Mars. Planetary and Space Science, 2010, 58, 847-857.	0.9	23
224	Tsunamis on Mars: Earth analogues of projected Martian sediment. Planetary and Space Science, 2010, 58, 1823-1831.	0.9	26
225	Biological influences on modern sulfates: Textures and composition of gypsum deposits from Guerrero Negro, Baja California Sur, Mexico. Sedimentary Geology, 2010, 223, 265-280.	1.0	33

#	Article	IF	CITATIONS
226	Thermal decomposition behavior of potassium and sodium jarosite synthesized in the presence of methylamine and alanine. Journal of Thermal Analysis and Calorimetry, 2010, 102, 23-29.	2.0	15
227	A tale of two planets: geomorphology applied to Mars' surface, fluvioâ€deltaic processes and landforms. Earth Surface Processes and Landforms, 2010, 35, 102-117.	1.2	16
228	Acid drainage generation and associated Ca–Fe–SO4 minerals in a periglacial environment, Eagle Plains, Northern Yukon, Canada: A potential analogue for low-temperature sulfate formation on Mars. Planetary and Space Science, 2010, 58, 509-521.	0.9	20
229	Ismenius Cavus, Mars: A deep paleolake with phyllosilicate deposits. Planetary and Space Science, 2010, 58, 941-946.	0.9	44
230	UVolution, a photochemistry experiment in low earth orbit: Investigation of the photostability of carbonates exposed to martian-like UV radiation conditions. Planetary and Space Science, 2010, 58, 1617-1624.	0.9	8
231	Silica-rich deposits and hydrated minerals at Gusev Crater, Mars: Vis-NIR spectral characterization and regional mapping. Icarus, 2010, 205, 375-395.	1.1	93
232	Geomorphic knobs of Candor Chasma, Mars: New Mars Reconnaissance Orbiter data and comparisons to terrestrial analogs. Icarus, 2010, 205, 138-153.	1.1	26
233	Stratigraphy in the Mawrth Vallis region through OMEGA, HRSC color imagery and DTM. Icarus, 2010, 205, 396-418.	1.1	146
234	Hydrated mineral stratigraphy of Ius Chasma, Valles Marineris. Icarus, 2010, 206, 253-268.	1.1	119
235	Thermal contraction crack polygons on Mars: A synthesis from HiRISE, Phoenix, and terrestrial analog studies. Icarus, 2010, 206, 229-252.	1.1	147
236	Analysis of phyllosilicate deposits in the Nili Fossae region of Mars: Comparison of TES and OMEGA data. Icarus, 2010, 206, 269-289.	1.1	48
237	Enhanced CO2 trapping in water ice via atmospheric deposition with relevance to Mars. Icarus, 2010, 206, 707-715.	1.1	14
238	A Late Amazonian alteration layer related to local volcanism on Mars. Icarus, 2010, 207, 265-276.	1.1	39
239	Morphology and geology of the ILD in Capri/Eos Chasma (Mars) from visible and infrared data. Icarus, 2010, 207, 175-185.	1.1	30
240	Diagenetic haematite and sulfate assemblages in Valles Marineris. Icarus, 2010, 207, 659-674.	1.1	63
241	Magnetic anomalies near Apollinaris Patera and the Medusae Fossae Formation in Lucus Planum, Mars. Icarus, 2010, 208, 118-131.	1.1	45
242	Martian post-impact hydrothermal systems incorporating freezing. Icarus, 2010, 208, 101-117.	1.1	57
243	Thermal alteration of nontronite and montmorillonite: Implications for the martian surface. Icarus, 2010, 208, 721-734.	1.1	30

	CITATI	ION REPORT	
#	Article	IF	CITATIONS
244	Identification of the Ca-sulfate bassanite in Mawrth Vallis, Mars. Icarus, 2010, 209, 416-421.	1.1	114
245	Infrared collision-induced and far-line absorption in dense CO2 atmospheres. Icarus, 2010, 210, 992-997.	1.1	128
246	Deep crustal carbonate rocks exposed by meteor impact on Mars. Nature Geoscience, 2010, 3, 751-755.	5.4	160
247	Aqueous depositional settings in Holden crater, Mars. , 2010, , 323-346.		5
248	The Search for Sustainable Subsurface Habitats on Mars, and the Sampling of Impact Ejecta. Sustainability, 2010, 2, 1969-1990.	1.6	10
249	The Case of the Lacking Carbonates and the Emergence of Early Life on Mars. Sustainability, 2010, 2, 2541-2554.	1.6	1
250	Water on Mars. , 0, , 234-244.		0
251	Growth Performance and Root Transcriptome Remodeling of Arabidopsis in Response to Mars-Like Levels of Magnesium Sulfate. PLoS ONE, 2010, 5, e12348.	1.1	47
252	Tumbleweed: A New Paradigm for Surveying Mars for In Situ Resources. , 2010, , .		2
253	Searching for lakes on Mars. , 2010, , 1-29.		14
254	Detection of Hydrated Silicates in Crustal Outcrops in the Northern Plains of Mars. Science, 2010, 328, 1682-1686.	6.0	134
255	Geology of Mars after the first 40 years of exploration. Research in Astronomy and Astrophysics, 2010, 10, 621-652.	0.7	11
256	Compact time-resolved remote Raman system for detection of anhydrous and hydrous minerals and ices for planetary exploration. , 2010, , .		10
257	Subglacial Hydrothermal Alteration Minerals in Jökulhlaup Deposits of Southern Iceland, with Implications for Detecting Past or Present Habitable Environments on Mars. Astrobiology, 2010, 10, 523-547.	1.5	34
258	UVolution, a Photochemistry Experiment in Low Earth Orbit: Investigation of the Photostability of Carboxylic Acids Exposed to Mars Surface UV Radiation Conditions. Astrobiology, 2010, 10, 449-461.	1.5	30
259	Astrobiological Considerations for the Selection of the Geological Filters on the ExoMars PanCam Instrument. Astrobiology, 2010, 10, 933-951.	1.5	15
260	Mapping P-T conditions in hydrothermal systems using hyperspectral remote sensing and object based techniques. , 2010, , .		0
261	Sources and sinks of clay minerals on Mars. Philosophical Magazine, 2010, 90, 2293-2308.	0.7	104

#	Article	IF	CITATIONS
262	The Mawrth Vallis Region of Mars: A Potential Landing Site for the Mars Science Laboratory (MSL) Mission. Astrobiology, 2010, 10, 687-703.	1.5	48
263	Correlation Between the Extent of Catalytic Activity and Charge Density of Montmorillonites. Astrobiology, 2010, 10, 743-749.	1.5	15
264	Noachian and more recent phyllosilicates in impact craters on Mars. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12095-12100.	3.3	73
265	What we know about Mars from its impact craters. Bulletin of the Geological Society of America, 2010, 122, 644-657.	1.6	37
266	The Mars Astrobiology Explorer-Cacher (MAX-C): A Potential Rover Mission for 2018. Astrobiology, 2010, 10, 127-163.	1.5	15
267	3GPP LTE access network planning. , 2010, , .		2
268	Hygroscopic Salts and the Potential for Life on Mars. Astrobiology, 2010, 10, 617-628.	1.5	138
270	Paleoclimate of Mars as captured by the stratigraphic record in Gale Crater. Geophysical Research Letters, 2010, 37, .	1.5	368
271	Evaluation of the orogenic belt hypothesis for the formation of the Thaumasia Highlands, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	33
272	Mineralogy and stratigraphy of phyllosilicateâ€bearing and dark mantling units in the greater Mawrth Vallis/west Arabia Terra area: Constraints on geological origin. Journal of Geophysical Research, 2010, 115, .	3.3	104
273	Spectral and stratigraphic mapping of hydrated sulfate and phyllosilicateâ€bearing deposits in northern Sinus Meridiani, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	73
274	Watershed modeling in the Tyrrhena Terra region of Mars. Journal of Geophysical Research, 2010, 115, .	3.3	18
275	Early Mars hydrology: Meridiani playa deposits and the sedimentary record of Arabia Terra. Journal of Geophysical Research, 2010, 115, .	3.3	148
276	Distribution and variation of plagioclase compositions on Mars. Journal of Geophysical Research, 2010, 115, .	3.3	28
277	Investigation of an Argyre basin ring structure using Mars Reconnaissance Orbiter/Compact Reconnaissance Imaging Spectrometer for Mars. Journal of Geophysical Research, 2010, 115, .	3.3	25
278	Updated global map of Martian valley networks and implications for climate and hydrologic processes. Journal of Geophysical Research, 2010, 115, .	3.3	364
279	Experimental investigation of the mechanical properties of synthetic magnesium sulfate hydrates: Implications for the strength of hydrated deposits on Mars. Journal of Geophysical Research, 2010, 115,	3.3	25
280	Identification, distribution and possible origins of sulfates in Capri Chasma (Mars), inferred from CRISM data. Journal of Geophysical Research, 2010, 115, .	3.3	48

#	Article	IF	CITATIONS
281	Permittivity estimation of layers beneath the northern polar layered deposits, Mars. Geophysical Research Letters, 2010, 37, .	1.5	18
282	Rift zone volcanism and associated cinder cone field in Utopia Planitia, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	36
283	Determining the modal mineralogy of Martian soils. Journal of Geophysical Research, 2010, 115, .	3.3	60
284	Water ice at low to midlatitudes on Mars. Journal of Geophysical Research, 2010, 115, .	3.3	78
285	Basalt and olivine dissolution under cold, salty, and acidic conditions: What can we learn about recent aqueous weathering on Mars?. Journal of Geophysical Research, 2010, 115, .	3.3	35
286	Geologic context of proposed chlorideâ€bearing materials on Mars. Journal of Geophysical Research, 2010, 115, .	3.3	204
287	Search for the global signature of the Martian dynamo. Journal of Geophysical Research, 2010, 115, .	3.3	21
288	The Formation of Martian River Valleys by Impacts. Annual Review of Earth and Planetary Sciences, 2010, 38, 303-322.	4.6	77
289	Astrobiology through the Ages of Mars: The Study of Terrestrial Analogues to Understand the Habitability of Mars. Astrobiology, 2010, 10, 821-843.	1.5	141
290	Mineralogical characterization of acid weathered phyllosilicates with implications for secondary martian deposits. Geochimica Et Cosmochimica Acta, 2010, 74, 6232-6248.	1.6	46
291	Geologic history of Mars. Earth and Planetary Science Letters, 2010, 294, 185-203.	1.8	538
292	Morphologic, stratigraphic and morphometric investigations of valley networks in eastern Libya Montes, Mars: Implications for the Noachian/Hesperian climate change. Earth and Planetary Science Letters, 2010, 294, 291-305.	1.8	28
293	The Western Libya Montes Valley System on Mars: Evidence for episodic and multi-genetic erosion events during the Martian history. Earth and Planetary Science Letters, 2010, 294, 272-290.	1.8	41
294	3D structure of the Gusev Crater region. Earth and Planetary Science Letters, 2010, 294, 411-423.	1.8	29
295	Hydrothermal formation of Clay-Carbonate alteration assemblages in the Nili Fossae region of Mars. Earth and Planetary Science Letters, 2010, 297, 174-182.	1.8	169
296	Acquisition and history of water on Mars. , 2010, , 31-67.		10
297	Authigenic phyllosilicates in modern acid saline lake sediments and implications for Mars. Journal of Geophysical Research, 2010, 115, .	3.3	38
298	Laboratory simulations of Mars evaporite geochemistry. Journal of Geophysical Research, 2010, 115, .	3.3	12

#	Article	IF	CITATIONS
299	Origin of acidic surface waters and the evolutionÂof atmospheric chemistry on early Mars. Nature Geoscience, 2010, 3, 323-326.	5.4	155
300	A cold and wet Mars. Icarus, 2010, 208, 165-175.	1.1	143
301	Using portable Raman spectrometers for the identification of organic compounds at low temperatures and high altitudes: exobiological applications. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 3109-3125.	1.6	73
302	Biomass and habitability potential of clay minerals- and iron-rich environments: Testing novel analogs for Mars Science Laboratory landing sites candidates. Philosophical Magazine, 2010, 90, 2309-2327.	0.7	10
303	Dark aeolian sediments in Martian craters: Composition and sources. Journal of Geophysical Research, 2011, 116, .	3.3	67
304	Role of impact excavation in distributing clays over Noachian surfaces. Journal of Geophysical Research, 2011, 116, .	3.3	24
305	Radar penetrates only the youngest geological units on Mars. Journal of Geophysical Research, 2011, 116, .	3.3	41
306	Evidence for mechanical and chemical alteration of iron-nickel meteorites on Mars: Process insights for Meridiani Planum. Journal of Geophysical Research, 2011, 116, .	3.3	28
307	Columbus crater and other possible groundwater-fed paleolakes of Terra Sirenum, Mars. Journal of Geophysical Research, 2011, 116, .	3.3	148
308	Early Mars hydrology: 2. Hydrological evolution in the Noachian and Hesperian epochs. Journal of Geophysical Research, 2011, 116, .	3.3	112
309	Origin of basaltic soils at Gusev crater, Mars, by aeolian modification of impact-generated sediment. Journal of Geophysical Research, 2011, 116, .	3.3	47
310	Spectroscopic study of the dehydration and/or dehydroxylation of phyllosilicate and zeolite minerals. Journal of Geophysical Research, 2011, 116, .	3.3	89
311	Late alluvial fan formation in southern Margaritifer Terra, Mars. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	84
312	Mars Odyssey neutron data: 2. Search for buried excess water ice deposits at nonpolar latitudes on Mars. Journal of Geophysical Research, 2011, 116, .	3.3	51
313	Classification of Modern and Old RÃo Tinto Sedimentary Deposits Through the Biomolecular Record Using a Life Marker Biochip: Implications for Detecting Life on Mars. Astrobiology, 2011, 11, 29-44.	1.5	24
314	Subsurface water and clay mineral formation during the early history of Mars. Nature, 2011, 479, 53-60.	13.7	651
315	Cyanobacteria, Diversity and Evolution of. , 2011, , 397-401.		0
316	Estimating hydraulic conductivity for the Martian subsurface based on drainage patterns — A case study in the Mare Tyrrhenum Quadrangle. Geomorphology, 2011, 125, 414-420.	1.1	16

#	Article	IF	CITATIONS
317	A volcanic origin for the outflow channels of Mars: Key evidence and major implications. Geomorphology, 2011, 132, 51-75.	1.1	133
318	Volatiles in the atmosphere of Mars: The effects of volcanism and escape constrained by isotopic data. Earth and Planetary Science Letters, 2011, 303, 299-309.	1.8	32
319	Volcanic outgassing of CO2 and H2O on Mars. Earth and Planetary Science Letters, 2011, 308, 391-400.	1.8	139
320	Constraining methane release due to serpentinization by the observed D/H ratio on Mars. Earth and Planetary Science Letters, 2011, 310, 262-271.	1.8	40
321	Planetary magnetic fields: Observations and models. Physics of the Earth and Planetary Interiors, 2011, 187, 92-108.	0.7	98
322	Volcano-Ice Interaction as a Microbial Habitat on Earth and Mars. Astrobiology, 2011, 11, 695-710.	1.5	52
323	Diverse mineralogies in two troughs of Noctis Labyrinthus, Mars. Geology, 2011, 39, 899-902.	2.0	63
324	Use of Geochemistry Data Collected by the Mars Exploration Rover Spirit in Gusev Crater to Teach Geomorphic Zonation through Principal Components Analysis. Journal of Geoscience Education, 2011, 59, 184-193.	0.8	0
325	Field astrobiology research in Moon–Mars analogue environments: instruments and methods. International Journal of Astrobiology, 2011, 10, 141-160.	0.9	30
326	Carbonate rocks in the Mojave Desert as an analogue for Martian carbonates. International Journal of Astrobiology, 2011, 10, 349-358.	0.9	29
327	<i>SPITZER</i> INFRARED SPECTROGRAPH SPECTROSCOPY OF THE 10 Myr OLD EF Cha DEBRIS DISK: EVIDENCE FOR PHYLLOSILICATE-RICH DUST IN THE TERRESTRIAL ZONE. Astrophysical Journal, 2011, 734, 115.	1.6	21
328	Isolation of obligately alkaliphilic magnetotactic bacteria from extremely alkaline environments. Environmental Microbiology, 2011, 13, 2342-2350.	1.8	72
329	Microbial colonization of Ca-sulfate crusts in the hyperarid core of the Atacama Desert: implications for the search for life on Mars. Geobiology, 2011, 9, 44-60.	1.1	143
330	Thermal history of Mars inferred from orbital geochemistry of volcanic provinces. Nature, 2011, 472, 338-341.	13.7	116
331	The environment of early Mars and the missing carbonates. Meteoritics and Planetary Science, 2011, 46, 1447-1469.	0.7	15
332	A survey of the signal stability and radiation dose response of sulfates in the context of adapting optical dating for Mars. Journal of Luminescence, 2011, 131, 2762-2768.	1.5	10
333	The science process for selecting the landing site for the 2011 Mars Science Laboratory. Planetary and Space Science, 2011, 59, 1114-1127.	0.9	68
334	Volcaniclastic habitats for early life on Earth and Mars: A case study from â^1⁄43.5Ga-old rocks from the Pilbara, Australia. Planetary and Space Science, 2011, 59, 1093-1106.	0.9	63

#	Article	IF	CITATIONS
335	Geological, geomorphological, facies and allostratigraphic maps of the Eberswalde fan delta. Planetary and Space Science, 2011, 59, 1166-1178.	0.9	18
336	Effects of impacts on the atmospheric evolution: Comparison between Mars, Earth, and Venus. Planetary and Space Science, 2011, 59, 1087-1092.	0.9	24
337	Constraints on the origin and evolution of the layered mound in Gale Crater, Mars using Mars Reconnaissance Orbiter data. Icarus, 2011, 214, 413-432.	1.1	258
338	The stratigraphy of the Amenthes region, Mars: Time limits for the formation of fluvial, volcanic and tectonic landforms. Icarus, 2011, 215, 128-152.	1.1	58
339	Organic sedimentary deposits in Titan's dry lakebeds: Probable evaporite. Icarus, 2011, 216, 136-140.	1.1	96
340	Evidence for weathering on early Mars from a comparison with terrestrial weathering profiles. Icarus, 2011, 216, 257-268.	1.1	59
341	Interpretation of reflectance spectra of clay mineral-silica mixtures: implications for Martian clay mineralogy at Mawrth Vallis. Clays and Clay Minerals, 2011, 59, 400-415.	0.6	46
342	Evidence for low-grade metamorphism, hydrothermal alteration, and diagenesis on Mars from phyllosilicate mineral assemblages. Clays and Clay Minerals, 2011, 59, 359-377.	0.6	107
343	Interior layered deposits within a perched basin, southern Coprates Chasma, Mars: Evidence for their formation, alteration, and erosion. Journal of Geophysical Research, 2011, 116, .	3.3	36
344	Evidence for episodic alluvial fan formation in far western Terra Tyrrhena, Mars. Icarus, 2011, 211, 222-237.	1.1	31
345	A lake in Uzboi Vallis and implications for Late Noachian–Early Hesperian climate on Mars. Icarus, 2011, 212, 110-122.	1.1	27
346	A large sedimentary basin in the Terra Sirenum region of the southern highlands of Mars. Icarus, 2011, 212, 579-589.	1.1	21
347	High albedo dune features suggest past dune migration and possible geochemical cementation of aeolian sediments on Mars. Icarus, 2011, 212, 590-596.	1.1	6
348	A new systematic approach using the Modified Gaussian Model: Insight for the characterization of chemical composition of olivines, pyroxenes and olivine–pyroxene mixtures. Icarus, 2011, 213, 404-422.	1.1	63
349	Water ice in the dark dune spots of Richardson crater on Mars. Planetary and Space Science, 2011, 59, 26-42.	0.9	33
350	A demonstration of an affinity between pyrite and organic matter in a hydrothermal setting. Geochemical Transactions, 2011, 12, 3.	1.8	13
352	Preservation of Late Amazonian Mars ice and water-related deposits in a unique crater environment in Noachis Terra: Age relationships between lobate debris tongues and gullies. Icarus, 2011, 211, 347-365.	1.1	21
353	RÃo Tinto sedimentary mineral assemblages: A terrestrial perspective that suggests some formation pathways of phyllosilicates on Mars. Icarus, 2011, 211, 114-138.	1.1	26

#	Article	IF	CITATIONS
354	Stratigraphy, mineralogy, and origin of layered deposits inside Terby crater, Mars. Icarus, 2011, 211, 273-304.	1.1	131
355	Sequence and timing of conditions on early Mars. Icarus, 2011, 211, 1204-1214.	1.1	140
356	Predicted and observed magnetic signatures of martian (de)magnetized impact craters. Icarus, 2011, 212, 568-578.	1.1	16
357	A spectroscopic method for identifying terrestrial biocarbonates and application to Mars. Icarus, 2011, 213, 473-479.	1.1	5
358	Assessing spectral evidence of aqueous activity in two putative martian paleolakes. Icarus, 2011, 214, 240-245.	1.1	1
359	Methane release and the carbon cycle on Mars. Planetary and Space Science, 2011, 59, 207-217.	0.9	40
360	Clays Beyond Earth. Clays and Clay Minerals, 2011, 59, 337-338.	0.6	2
361	A Bacterial Enrichment Study and Overview of the Extractable Lipids from Paleosols in the Dry Valleys, Antarctica: Implications for Future Mars Reconnaissance. Astrobiology, 2011, 11, 303-321.	1.5	14
362	Compact remote Raman and LIBS system for detection of minerals, water, ices, and atmospheric gases for planetary exploration. Proceedings of SPIE, 2011, , .	0.8	13
363	Mineralogical, chemical, organic and microbial properties of subsurface soil cores from Mars Desert Research Station (Utah, USA): Phyllosilicate and sulfate analogues to Mars mission landing sites. International Journal of Astrobiology, 2011, 10, 269-289.	0.9	17
364	An inventory of potentially habitable environments on Mars: Geological and biological perspectives. , 2011, , .		11
365	A background to Mars exploration and research. Geological Society Special Publication, 2011, 356, 5-20.	0.8	7
366	Organic host analogues and the search for life on Mars. International Journal of Astrobiology, 2011, 10, 31-44.	0.9	26
367	Analysis of mineral matrices of planetary soil analogues from the Utah Desert. International Journal of Astrobiology, 2011, 10, 221-229.	0.9	17
368	A comparative study of interior layered deposits on Mars. Geological Society Special Publication, 2011, 356, 281-300.	0.8	9
370	Comparison of two partial least squares-discriminant analysis algorithms for identifying geological samples with the ChemCam laser-induced breakdown spectroscopy instrument. Applied Optics, 2012, 51, B130.	0.9	33
371	Riverine carbon unravelled. Nature Geoscience, 2012, 5, 684-684.	5.4	2
372	The PROCESS Experiment: Amino and Carboxylic Acids Under Mars-Like Surface UV Radiation Conditions in Low-Earth Orbit. Astrobiology, 2012, 12, 436-444.	1.5	33

		EPUKI	
#	Article	IF	CITATIONS
373	Aeolian processes on the terrestrial planets. Progress in Physical Geography, 2012, 36, 110-124.	1.4	24
374	The fluvial history of Mars. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 2193-2215.	1.6	88
375	Aqueous environmental history of Mars revealed by mineralogy and geochemistry of outcrop exposures of sedimentary rocks. Journal of the Geological Society of Japan, 2012, 118, 650-663.	0.2	1
376	A proposal for rover geological exploration on Mars. Journal of the Geological Society of Japan, 2012, 118, 606-617.	0.2	0
377	Aqueous Alteration in Martian Meteorites: Comparing Mineral Relations in Igneous-Rock Weathering of Martian Meteorites and in the Sedimentary Cycle of Mars. , 2012, , 97-117.		15
378	Geochemistry of Sedimentary Processes on Mars. , 2012, , 119-138.		19
379	Source-to-Sink: An Earth/Mars Comparison of Boundary Conditions for Eolian Dune Systems. , 2012, , 151-168.		17
380	An inâ€ s itu record of major environmental transitions on early Mars at Northeast Syrtis Major. Geophysical Research Letters, 2012, 39, .	1.5	94
381	Lichens as survivors in space and on Mars. Fungal Ecology, 2012, 5, 472-479.	0.7	48
382	The history of Mars' dynamo as revealed by modeling magnetic anomalies near Tyrrhenus Mons and Syrtis Major. Journal of Geophysical Research, 2012, 117, .	3.3	37
383	Mars Hesperian Magmatism as Revealed by Syrtis Major and the Circum-Hellas Volcanic Province. Earth, Moon and Planets, 2012, 109, 61-75.	0.3	6
384	Surface Properties of the Mars Science Laboratory Candidate Landing Sites: Characterization from Orbit and Predictions. Space Science Reviews, 2012, 170, 739-773.	3.7	37
385	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Science Objectives and Mast Unit Description. Space Science Reviews, 2012, 170, 95-166.	3.7	372
386	The Radiation Assessment Detector (RAD) Investigation. Space Science Reviews, 2012, 170, 503-558.	3.7	155
387	Selection of the Mars Science Laboratory Landing Site. Space Science Reviews, 2012, 170, 641-737.	3.7	216
388	Late Hesperian aqueous alteration at Majuro crater, Mars. Planetary and Space Science, 2012, 72, 18-30.	0.9	52
389	Glacial paleoenvironments on Mars revealed by the paucity of hydrated silicates in the Noachian crust of the Northern Lowlands. Planetary and Space Science, 2012, 70, 126-133.	0.9	6
390	Gale Crater: Formation and post-impact hydrous environments. Planetary and Space Science, 2012, 70, 84-95.	0.9	67

#	Article	IF	CITATIONS
391	From meteorites to evolution and habitability of planets. Planetary and Space Science, 2012, 72, 3-17.	0.9	30
392	Chronology of deposition and alteration in the Mawrth Vallis region, Mars. Planetary and Space Science, 2012, 72, 31-43.	0.9	65
393	Selecting the geology filter wavelengths for the ExoMars Panoramic Camera instrument. Planetary and Space Science, 2012, 71, 80-100.	0.9	28
394	Potential failure of life detection experiments on Mars resulting from adsorption of organic compounds on to common instrument materials. Planetary and Space Science, 2012, 73, 262-270.	0.9	5
395	Uninhabitable martian clays?. Nature Geoscience, 2012, 5, 683-684.	5.4	2
396	The Sample Analysis at Mars Investigation and Instrument Suite. Space Science Reviews, 2012, 170, 401-478.	3.7	435
397	Reconstructing the distribution and depositional history of the sedimentary deposits of Arabia Terra, Mars. Icarus, 2012, 220, 311-330.	1.1	66
398	The origin and timing of fluvial activity at Eberswalde crater, Mars. Icarus, 2012, 220, 530-551.	1.1	89
399	Puncturing Mars: How impact craters interact with the Martian cryosphere. Earth and Planetary Science Letters, 2012, 335-336, 9-17.	1.8	46
400	Remote laser-induced breakdown spectroscopy analysis of East African Rift sedimentary samples under Mars conditions. Chemical Geology, 2012, 294-295, 135-151.	1.4	30
401	Oxidation pathways for formic acid under low temperature hydrothermal conditions: Implications for the chemical and isotopic evolution of organics on Mars. Geochimica Et Cosmochimica Acta, 2012, 76, 14-28.	1.6	26
402	Evaluating the role of sulfide-weathering in the formation of sulfates or carbonates on Mars. Geochimica Et Cosmochimica Acta, 2012, 90, 47-63.	1.6	62
403	Jarosite dissolution rates and nanoscale mineralogy. Geochimica Et Cosmochimica Acta, 2012, 91, 306-321.	1.6	105
404	Soil mineralogy at the Mars Exploration Rover landing sites: An assessment of the competing roles of physical sorting and chemical weathering. Journal of Geophysical Research, 2012, 117, .	3.3	49
405	Evidence for superthermal secondary electrons produced by SEP ionization in the Martian atmosphere. Journal of Geophysical Research, 2012, 117, .	3.3	17
406	Extensive surface pedogenic alteration of the Martian Noachian crust suggested by plateau phyllosilicates around Valles Marineris. Journal of Geophysical Research, 2012, 117, .	3.3	79
407	A chronology of early Mars climatic evolution from impact crater degradation. Journal of Geophysical Research, 2012, 117, .	3.3	115
408	Low temperature optical constants of some hydrated sulfates relevant to planetary surfaces. Journal of Geophysical Research, 2012, 117, .	3.3	30

#	Article	IF	CITATIONS
409	Geology of quartz and hydrated silicaâ€bearing deposits near Antoniadi Crater, Mars. Journal of Geophysical Research, 2012, 117, .	3.3	43
410	The formation of Valles Marineris: 3. Trough formation through superâ€isostasy, stress, sedimentation, and subsidence. Journal of Geophysical Research, 2012, 117, .	3.3	40
411	Iron mineralogy of the surface of Mars from the 1 <i>μ</i> m band spectral properties. Journal of Geophysical Research, 2012, 117, .	3.3	13
412	Global maps of anhydrous minerals at the surface of Mars from OMEGA/MEx. Journal of Geophysical Research, 2012, 117, .	3.3	133
413	Low temperature aqueous alteration of basalt: Mineral assemblages of Deccan basalts and implications for Mars. Journal of Geophysical Research, 2012, 117, .	3.3	38
414	A spectroscopic analysis of Martian crater central peaks: Formation of the ancient crust. Journal of Geophysical Research, 2012, 117, .	3.3	32
415	Mineralogy and chemistry of altered Icelandic basalts: Application to clay mineral detection and understanding aqueous environments on Mars. Journal of Geophysical Research, 2012, 117, .	3.3	62
416	Trapped Ar isotopes in meteorite ALH 84001 indicate Mars did not have a thick ancient atmosphere. Icarus, 2012, 221, 461-465.	1.1	24
417	Composition and structures of the subsurface in the vicinity of Valles Marineris as revealed by central uplifts of impact craters. Icarus, 2012, 221, 436-452.	1.1	43
418	Origin of water and mantle–crust interactions on Mars inferred from hydrogen isotopes and volatile element abundances of olivine-hosted melt inclusions of primitive shergottites. Earth and Planetary Science Letters, 2012, 357-358, 119-129.	1.8	152
419	Jarosite dissolution rates and maximum lifetimes in high salinity brines: Implications for Earth and Mars. Earth and Planetary Science Letters, 2012, 357-358, 327-336.	1.8	28
420	Time-resolved remote Raman and fluorescence spectrometers for planetary exploration. Proceedings of SPIE, 2012, , .	0.8	5
422	The comparative planetary geology of oceans, lakes and outflow channels on Mars. Journal of the Geological Society of Japan, 2012, 118, 618-631.	0.2	0
424	Planning for Mars Returned Sample Science: Final Report of the MSR End-to-End International Science Analysis Group (E2E-iSAG). Astrobiology, 2012, 12, 175-230.	1.5	58
425	Most Mars minerals in a nutshell: Various alteration phases formed in a single environment in Noctis Labyrinthus. Journal of Geophysical Research, 2012, 117, .	3.3	74
426	Formation of an Hesperian-aged sedimentary basin containing phyllosilicates in Coprates Catena, Mars. Icarus, 2012, 218, 178-195.	1.1	26
427	Major episodes of geologic history of Isidis Planitia on Mars. Icarus, 2012, 218, 24-46.	1.1	94
428	The detection of carbonate in the martian soil at the Phoenix Landing site: A laboratory investigation and comparison with the Thermal and Evolved Gas Analyzer (TEGA) data. Icarus, 2012, 218, 290-296.	1.1	49

ARTICLE IF CITATIONS Photometry of meteorites. Icarus, 2012, 218, 364-377. 1.1 58 429 Hydrated minerals in the deposits of Aureum Chaos. Icarus, 2012, 218, 406-419. 1.1 The effect of high temperatures on the mid-to-far-infrared emission and near-infrared reflectance 431 spectra of phyllosilicates and natural zeolites: Implications for martian exploration. Icarus, 2012, 218, 1.1 44 585-601. Mars' atmospheric 40Ar: A tracer for past crustal erosion. Icarus, 2012, 218, 561-570. 1.1 Valleys, paleolakes and possible shorelines at the Libya Montes/Isidis boundary: Implications for the 433 1.1 43 hydrologic evolution of Mars. Icarus, 2012, 219, 393-413. Characterization of hydrated silicate-bearing outcrops in Tyrrhena Terra, Mars: Implications to the alteration history of Mars. Icarus, 2012, 219, 476-497. 434 1.1 435 Habitable periglacial landscapes in martian mid-latitudes. Icarus, 2012, 219, 345-357. 1.1 36 Synthesis of a spinifexâ€ŧextured basalt as an analog to Gusev crater basalts, Mars. Meteoritics and Planetary Science, 2012, 47, 820-831. 437 Fluvial landforms on fresh impact ejecta on Mars. Planetary and Space Science, 2012, 62, 69-85. 0.9 49 An overfilled lacustrine system and progradational delta in Jezero crater, Mars: Implications for 138 Noachian climate. Planetary and Space Science, 2012, 67, 28-45. The influence of mineralogy on recovering organic acids from Mars analogue materials using the "one-pot―derivatization experiment on the Sample Analysis at Mars (SAM) instrument suite. Planetary 439 49 0.9 and Space Science, 2012, 67, 1-13. Extraction of polar and nonpolar biomarkers from the martian soil using aqueous surfactant 440 0.9 solutions. Planetary and Space Science, 2012, 67, 109-118. Bedform migration on Mars: Current results and future plans. Aeolian Research, 2013, 9, 133-151. 441 1.1 76 Habitability on Mars from a Microbial Point of View. Astrobiology, 2013, 13, 887-897. 442 1.5 138 443 The Mojave Vadose Zone: A Subsurface Biosphere Analogue for Mars. Astrobiology, 2013, 13, 637-646. 1.5 4 A systematic mapping procedure based on the Modified Gaussian Model to characterize magmatic units 444 from olivine/pyroxenes mixtures: Application to the Syrtis Major volcanic shield on Mars. Journal of 33 Geophysical Research E: Planets, 2013, 118, 1632-1655. 3D modelling of the early martian climate under a denser CO2 atmosphere: Temperatures and CO2 ice 445 1.1 259 clouds. Icarus, 2013, 222, 81-99. An assessment of the fluvial geomorphology of subcatchments in Parana Valles, Mars. 446 1.1 Geomorphology, 2013, 183, 96-109.

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#	Article	IF	CITATIONS
447	Na-jarosite dissolution rates: The effect of mineral composition on jarosite lifetimes. Icarus, 2013, 223, 438-443.	1.1	24
448	A sensitive search for organics (CH4, CH3OH, H2CO, C2H6, C2H2, C2H4), hydroperoxyl (HO2), nitrogen compounds (N2O, NH3, HCN) and chlorine species (HCl, CH3Cl) on Mars using ground-based high-resolution infrared spectroscopy. Icarus, 2013, 223, 11-27.	1.1	126
449	Multiple techniques for mineral identification of terrestrial evaporites relevant to Mars exploration. Icarus, 2013, 224, 86-96.	1.1	4
450	Hydrated silica on Mars: Combined analysis with near-infrared and thermal-infrared spectroscopy. Icarus, 2013, 223, 633-648.	1.1	61
451	Supervolcanoes within an ancient volcanic province in Arabia Terra, Mars. Nature, 2013, 502, 47-52.	13.7	123
452	Searching for stromatolites: The 3.4Ga Strelley Pool Formation (Pilbara region, Western Australia) as a Mars analogue. Icarus, 2013, 224, 413-423.	1.1	9
453	Sequestration of Martian CO2 by mineral carbonation. Nature Communications, 2013, 4, 2662.	5.8	46
454	Crystal-chemistry of interstratified Mg/Fe-clay minerals from seafloor hydrothermal sites. Chemical Geology, 2013, 360-361, 142-158.	1.4	44
455	NIR reflectance hyperspectral microscopy for planetary science: Application to the MicrOmega instrument. Planetary and Space Science, 2013, 76, 42-52.	0.9	45
456	Gypsum, opal, and fluvial channels within a trough of Noctis Labyrinthus, Mars: Implications for aqueous activity during the Late Hesperian to Amazonian. Planetary and Space Science, 2013, 87, 130-145.	0.9	42
457	Searching for biomolecules on Mars: Considerations for operation of a life marker chip instrument. Planetary and Space Science, 2013, 86, 66-74.	0.9	17
458	Hellas Planitia as a potential site of sedimentary minerals. Planetary and Space Science, 2013, 78, 25-32.	0.9	8
459	Automated processing of planetary hyperspectral datasets for the extraction of weak mineral signatures and applications to CRISM observations of hydrated silicates on Mars. Planetary and Space Science, 2013, 76, 53-67.	0.9	43
460	Clay mineral evolution. American Mineralogist, 2013, 98, 2007-2029.	0.9	112
461	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	6.0	327
462	Isotope Ratios of H, C, and O in CO ₂ and H ₂ O of the Martian Atmosphere. Science, 2013, 341, 260-263.	6.0	241
463	Selecting samples for Mars sample return: Triage by pyrolysis–FTIR. Planetary and Space Science, 2013, 78, 45-51.	0.9	10
464	Impact-generated hydrothermal systems on Earth and Mars. Icarus, 2013, 224, 347-363.	1.1	219

		CITATION REPORT		
#	Article		IF	Citations
465	Systems paleobiology. Bulletin of the Geological Society of America, 2013, 125, 3-13.		1.6	26
466	Groundwater activity on Mars and implications for a deep biosphere. Nature Geoscienc 133-138.	e, 2013, 6,	5.4	189
467	Geochemical Consequences of Widespread Clay Mineral Formation in Mars' Ancien Science Reviews, 2013, 174, 329-364.	it Crust. Space	3.7	108
468	Geochemistry of Carbonates on Mars: Implications for Climate History and Nature of Ac Environments. Space Science Reviews, 2013, 174, 301-328.	queous	3.7	126
469	Outgassing History and Escape of the Martian Atmosphere and Water Inventory. Space Reviews, 2013, 174, 113-154.	2 Science	3.7	159
470	Quantitative Assessments of the Martian Hydrosphere. Space Science Reviews, 2013, 1	.74, 155-212.	3.7	88
471	Geochemical Reservoirs and Timing of Sulfur Cycling on Mars. Space Science Reviews, 2	2013, 174, 251-300.	3.7	103
472	Long-Term Evolution of the Martian Crust-Mantle System. Space Science Reviews, 2013	3, 174, 49-111.	3.7	124
473	Seasonal melting and the formation of sedimentary rocks on Mars, with predictions for Crater mound. Icarus, 2013, 223, 181-210.	the Gale	1.1	95
474	Morphology and geology of an interior layered deposit in the western Tithonium Chasn Planetary and Space Science, 2013, 89, 140-150.	na, Mars.	0.9	15
475	Infrared spectroscopy of microbially induced carbonates and past life on Mars. Icarus, 2 119-126.	:013, 226,	1.1	13
476	Using THEMIS data to resolve the discrepancy between CRISM/OMEGA and TES modele abundance in Mawrth Vallis. Icarus, 2013, 226, 497-509.	ed phyllosilicate	1.1	15
477	Alteration minerals in impact-generated hydrothermal systems – Exploring host rock Icarus, 2013, 226, 487-496.	variability.	1.1	45
478	Reflectance spectra diversity of silica-rich materials: Sensitivity to environment and imp detections on Mars. Icarus, 2013, 223, 499-533.	lications for	1.1	79
479	Morphology and evolution of the ejecta of Hale crater in Argyre basin, Mars: Results fro resolution mapping. Icarus, 2013, 226, 905-922.	m high	1.1	68
480	Multiple working hypotheses for the formation of compositional stratigraphy on Mars: the Mawrth Vallis region. Icarus, 2013, 226, 816-840.	Insights from	1.1	53
481	CO2–SO2 clathrate hydrate formation on early Mars. Icarus, 2013, 223, 878-891.		1.1	18
482	Glaciovolcanic hydrothermal environments in Iceland and implications for their detection Journal of Volcanology and Geothermal Research, 2013, 256, 61-77.	on on Mars.	0.8	40

#	Article	IF	CITATIONS
483	Knob fields in the Terra Cimmeria/Terra Sirenum region of Mars: Stratigraphy, mineralogy and morphology. Icarus, 2013, 225, 200-215.	1.1	13
484	Characterization of the acidic cold seep emplaced jarositic Golden Deposit, NWT, Canada, as an analogue for jarosite deposition on Mars. Icarus, 2013, 224, 382-398.	1.1	16
485	A double-spike method for K–Ar measurement: A technique for high precision in situ dating on Mars and other planetary surfaces. Geochimica Et Cosmochimica Acta, 2013, 110, 1-12.	1.6	30
486	The preservation of subsurface sulfates with mid-to-high degree of hydration in equatorial regions on Mars. Icarus, 2013, 226, 980-991.	1.1	24
487	Pre-4.0 billion year weathering on Mars constrained by Rb–Sr geochronology on meteorite ALH84001. Earth and Planetary Science Letters, 2013, 361, 173-182.	1.8	22
488	Mineralogy of saline perennial cold springs on Axel Heiberg Island, Nunavut, Canada and implications for spring deposits on Mars. Icarus, 2013, 224, 364-381.	1.1	30
489	HABITABLE ZONES AROUND MAIN-SEQUENCE STARS: NEW ESTIMATES. Astrophysical Journal, 2013, 765, 131.	1.6	1,142
490	The Icebreaker Life Mission to Mars: A Search for Biomolecular Evidence for Life. Astrobiology, 2013, 13, 334-353.	1.5	104
491	Global modelling of the early martian climate under a denser CO2 atmosphere: Water cycle and ice evolution. Icarus, 2013, 222, 1-19.	1.1	275
492	Variability of rock texture and morphology correlated with the clayâ€bearing units at Mawrth Vallis, Mars. Journal of Geophysical Research E: Planets, 2013, 118, 1245-1256.	1.5	12
493	Deriving chemical trends from thermal infrared spectra of weathered basalt: Implications for remotely determining chemical trends on Mars. Icarus, 2013, 225, 749-762.	1.1	9
494	Missions to Mars: Characterisation of Mars analogue rocks for the International Space Analogue Rockstore (ISAR). Planetary and Space Science, 2013, 82-83, 113-127.	0.9	31
495	Martian fluid and Martian weathering signatures identified in Nakhla, NWA 998 and MIL 03346 by halogen and noble gas analysis. Geochimica Et Cosmochimica Acta, 2013, 105, 255-293.	1.6	27
496	A REVISED ESTIMATE OF THE OCCURRENCE RATE OF TERRESTRIAL PLANETS IN THE HABITABLE ZONES AROUND <i>KEPLER</i> M-DWARFS. Astrophysical Journal Letters, 2013, 767, L8.	3.0	202
497	Bed thickness distributions on Mars: An orbital perspective. Journal of Geophysical Research E: Planets, 2013, 118, 1323-1349.	1.5	20
498	Experimental study of acidâ€sulfate alteration of basalt and implications for sulfate deposits on Mars. Journal of Geophysical Research E: Planets, 2013, 118, 577-614.	1.5	32
500	Role of geobiology in the astrobiological exploration of the Solar System. , 2013, , .		2
501	Plausible microbial metabolisms on Mars. Astronomy and Geophysics, 2013, 54, 1.13-1.16.	0.1	41

# 502	ARTICLE Smaller, better, more: Five decades of advances in geochemistry. , 2013, , .	IF	CITATIONS
503	Thermal infrared and Raman microspectroscopy of moganite-bearing rocks. American Mineralogist, 2013, 98, 78-84.	0.9	8
505	Bacterial communities in Fe/Mn films, sulphate crusts, and aluminium glazes from Swedish Lapland: implications for astrobiology on Mars. International Journal of Astrobiology, 2013, 12, 345-356.	0.9	10
506	A Comparative Analysis of Evaporate Sediments on Earth and Mars: Implications for the Climate Change on Mars. Acta Geologica Sinica, 2013, 87, 885-897.	0.8	11
507	Paleomineralogy of the Hadean Eon: A preliminary species list. Numerische Mathematik, 2013, 313, 807-843.	0.7	119
508	Alteration mineralogy of Home Plate and Columbia Hills—Formation conditions in context to impact, volcanism, and fluvial activity. Meteoritics and Planetary Science, 2013, 48, 1937-1957.	0.7	32
509	Can alteration experiments on impact melts from El'gygytgyn and volcanic glasses shed new light on the Martian surface?. Meteoritics and Planetary Science, 2013, 48, 1287-1295.	0.7	9
510	Martian minerals components at Gale crater detected by MRO CRISM hyperspectral images. , 2013, , .		Ο
511	Analysis of polygonal cracking patterns in chlorideâ€bearing terrains on Mars: Indicators of ancient playa settings. Journal of Geophysical Research E: Planets, 2013, 118, 2263-2278.	1.5	45
512	NIR hyperspectral microscopy for planetary science : The MicrOmega instrument and its capability to identify grains of specific composition within samples through automated algorithms. , 2013, , .		Ο
513	MAHLI at the Rocknest sand shadow: Science and scienceâ€enabling activities. Journal of Geophysical Research E: Planets, 2013, 118, 2338-2360.	1.5	67
514	Gale crater: the Mars Science Laboratory/Curiosity Rover Landing Site. International Journal of Astrobiology, 2013, 12, 25-38.	0.9	76
515	Chemical and mineralogical trends during acidâ€sulfate alteration of pyroclastic basalt at Cerro Negro volcano and implications for early Mars. Journal of Geophysical Research E: Planets, 2013, 118, 1719-1751.	1.5	20
516	Assessment of environmental controls on acidâ€sulfate alteration at active volcanoes in Nicaragua: Applications to relic hydrothermal systems on Mars. Journal of Geophysical Research E: Planets, 2013, 118, 2083-2104.	1.5	35
517	Thermodynamic and mass balance constraints on ironâ€bearing phyllosilicate formation and alteration pathways on early Mars. Journal of Geophysical Research E: Planets, 2013, 118, 2124-2136.	1.5	49
518	Time history of the Martian dynamo from crater magnetic field analysis. Journal of Geophysical Research E: Planets, 2013, 118, 1488-1511.	1.5	86
519	Characteristics of pebble―and cobbleâ€sized clasts along the Curiosity rover traverse from Bradbury Landing to Rocknest. Journal of Geophysical Research E: Planets, 2013, 118, 2361-2380.	1.5	44
520	Hydrous minerals on Mars as seen by the CRISM and OMEGA imaging spectrometers: Updated global view. Journal of Geophysical Research E: Planets, 2013, 118, 831-858.	1.5	420

#	Article	IF	Citations
521	Exposures of olivineâ€rich rocks in the vicinity of Ares Vallis: Implications for Noachian and Hesperian volcanism. Journal of Geophysical Research E: Planets, 2013, 118, 916-929.	1.5	11
522	The fate of early Mars' lost water: The role of serpentinization. Journal of Geophysical Research E: Planets, 2013, 118, 1123-1134.	1.5	59
523	Uncertainties in the shock devolatilization of hydrated minerals: A nontronite case study. Journal of Geophysical Research E: Planets, 2013, 118, 2137-2145.	1.5	9
524	Visibleâ€nearâ€infrared reflectance spectroscopy of volcanic acidâ€sulfate alteration in Nicaragua: Analogs for early Mars. Journal of Geophysical Research E: Planets, 2013, 118, 2213-2233.	1.5	17
525	An impact origin for hydrated silicates on Mars: A synthesis. Journal of Geophysical Research E: Planets, 2013, 118, 994-1012.	1.5	46
526	Asynchronous formation of Hesperian and Amazonianâ€aged deltas on Mars and implications for climate. Journal of Geophysical Research E: Planets, 2013, 118, 1529-1544.	1.5	72
527	Effects of obliquity and water vapor/trace gas greenhouses in the early martian climate. Journal of Geophysical Research E: Planets, 2013, 118, 560-576.	1.5	68
528	A new method for the semiquantitative determination of major rockâ€forming minerals with thermal infrared multispectral data: Application to THEMIS infrared data. Journal of Geophysical Research E: Planets, 2013, 118, 2146-2152.	1.5	6
529	The petrological expression of early Mars volcanism. Journal of Geophysical Research E: Planets, 2013, 118, 59-64.	1.5	76
530	Sequence of infilling events in Gale Crater, Mars: Results from morphology, stratigraphy, and mineralogy. Journal of Geophysical Research E: Planets, 2013, 118, 2439-2473.	1.5	139
531	Experimental investigation into the effects of meteoritic impacts on the spectral properties of phyllosilicates on Mars. Journal of Geophysical Research E: Planets, 2013, 118, 65-80.	1.5	15
533	CO ₂ -SO ₂ clathrate hydrate formation on early Mars. BIO Web of Conferences, 2014, 2, 01004.	0.1	0
534	Stratigraphy and mineralogy of Candor Mensa, West Candor Chasma, Mars: Insights into the geologic history of Valles Marineris. Journal of Geophysical Research E: Planets, 2014, 119, 331-354.	1.5	19
535	An Alternative Approach to Mapping Thermophysical Units from Martian Thermal Inertia and Albedo Data Using a Combination of Unsupervised Classification Techniques. Remote Sensing, 2014, 6, 5184-5237.	1.8	22
536	Mechanisms and timescales of fluvial activity at Mojave and other young Martian craters. Journal of Geophysical Research E: Planets, 2014, 119, 604-634.	1.5	18
538	Planetary Environments: Scientific Issues and Perspectives. BIO Web of Conferences, 2014, 2, 01001.	0.1	1
540	Raman spectroscopy on Mars: identification of geological and bio-geological signatures in Martian analogues using miniaturized Raman spectrometers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140204.	1.6	29
541	High manganese concentrations in rocks at Gale crater, Mars. Geophysical Research Letters, 2014, 41, 5755-5763.	1.5	81

#	Article	IF	CITATIONS
542	Basal Scarp. , 2014, , 1-6.		0
543	Aeolian Dust Deposits. , 2014, , 1-8.		2
544	Threeâ€dimensional simulations of the southern polar giant impact hypothesis for the origin of the Martian dichotomy. Geophysical Research Letters, 2014, 41, 8736-8743.	1.5	71
545	Statistics Provide Guidance for Indigenous Organic Carbon Detection on Mars Missions. Astrobiology, 2014, 14, 706-713.	1.5	6
546	Flower-like apatite recording microbial processes through deep geological time and its implication to the search for mineral records of life on Mars. American Mineralogist, 2014, 99, 2116-2125.	0.9	18
547	Detection of copiapite in the northern Mawrth Vallis region of Mars: Evidence of acid sulfate alteration. Icarus, 2014, 241, 346-357.	1.1	19
549	Gypsum in modern Kamchatka volcanic hot springs and the Lower Cambrian black shale: Applied to the microbial-mediated precipitation of sulfates on Mars. American Mineralogist, 2014, 99, 2126-2137.	0.9	18
550	10. Spectroscopy from Space. , 2014, , 399-446.		1
551	Identification of minerals at Martian Jezero crater using MRO CRISM images. , 2014, , .		0
552	11. The subsurface habitability of terrestrial rocky planets: Mars. , 2014, , 225-260.		13
553	Reflectance spectroscopy and optical functions for hydrated Fe-sulfates. American Mineralogist, 2014, 99, 1593-1603.	0.9	13
554	A Conspicuous Clay Ovoid in Nakhla: Evidence for Subsurface Hydrothermal Alteration on Mars with Implications for Astrobiology. Astrobiology, 2014, 14, 651-693.	1.5	32
555	Mineralogy, chemistry and biological contingents of an early-middle Miocene Antarctic paleosol and its relevance as a Martian analogue. Planetary and Space Science, 2014, 104, 253-269.	0.9	8
556	The Remodeling of Seedling Development in Response to Long-Term Magnesium Toxicity and Regulation by ABA–DELLA Signaling in Arabidopsis. Plant and Cell Physiology, 2014, 55, 1713-1726.	1.5	43
558	Alteration of Hawaiian basalts under sulfur-rich conditions: Applications to understanding surface-atmosphere interactions on Mars and Venus. American Mineralogist, 2014, 99, 291-302.	0.9	17
559	The Potassiumâ€Argon Laser Experiment (<scp>KA</scp> r <scp>LE</scp>): <i>In Situ</i> Geochronology for Planetary Robotic Missions. Geostandards and Geoanalytical Research, 2014, 38, 421-439.	1.7	27
560	Soluble salts at the Phoenix Lander site, Mars: A reanalysis of the Wet Chemistry Laboratory data. Geochimica Et Cosmochimica Acta, 2014, 136, 142-168.	1.6	51
561	The formation of infilled craters on Mars: Evidence for widespread impact induced decompression of the early martian mantle?. Icarus, 2014, 228, 149-166.	1.1	32

#	Article	IF	CITATIONS
562	Identification of the perchlorate parent salts at the Phoenix Mars landing site and possible implications. Icarus, 2014, 232, 226-231.	1.1	123
563	Microbialites vs detrital micrites: Degree of biogenicity, parameter suitable for Mars analogues. Planetary and Space Science, 2014, 97, 34-42.	0.9	6
564	Ferric saponite and serpentine in the nakhlite martian meteorites. Geochimica Et Cosmochimica Acta, 2014, 136, 194-210.	1.6	92
565	Insights on Environmental Changes. GeoPlanet: Earth and Planetary Sciences, 2014, , .	0.2	1
566	Spectroscopy from Space. Reviews in Mineralogy and Geochemistry, 2014, 78, 399-446.	2.2	17
567	The formation of sulfate, nitrate and perchlorate salts in the martian atmosphere. Icarus, 2014, 231, 51-64.	1.1	108
568	Evolution of water reservoirs on Mars: Constraints from hydrogen isotopes in martian meteorites. Earth and Planetary Science Letters, 2014, 394, 179-185.	1.8	97
569	Weathering of olivine under CO2 atmosphere: A martian perspective. Geochimica Et Cosmochimica Acta, 2014, 135, 170-189.	1.6	30
570	Experimental comparison of the pathways and rates of the dehydration of Al-, Fe-, Mg- and Ca-sulfates under Mars relevant conditions. Icarus, 2014, 234, 162-173.	1.1	32
571	Science Applications of a Multispectral Microscopic Imager for the Astrobiological Exploration of Mars. Astrobiology, 2014, 14, 132-169.	1.5	10
572	Trajectories of Martian Habitability. Astrobiology, 2014, 14, 182-203.	1.5	72
573	Mineralogy of the Martian Surface. Annual Review of Earth and Planetary Sciences, 2014, 42, 291-315.	4.6	472
574	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
575	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
576	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224
577	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
578	Growth of the acidophilic iron–sulfur bacterium Acidithiobacillus ferrooxidans under Mars-like geochemical conditions. Planetary and Space Science, 2014, 98, 205-215.	0.9	31
579	Processing OMEGA/Mars Express hyperspectral imagery from radiance-at-sensor to surface reflectance. Planetary and Space Science, 2014, 90, 1-9.	0.9	16

#	Article	IF	CITATIONS
580	Planetary habitability: lessons learned from terrestrial analogues. International Journal of Astrobiology, 2014, 13, 81-98.	0.9	107
581	Infrared Spectroscopic Biosignatures from Hidden Cave, New Mexico: Possible Applications for Remote Life Detection. Geomicrobiology Journal, 2014, 31, 929-941.	1.0	11
582	Comparison of Prototype and Laboratory Experiments on MOMA GCMS: Results from the AMASE11 Campaign. Astrobiology, 2014, 14, 780-797.	1.5	17
583	Calcium sulfate veins characterized by ChemCam/Curiosity at Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1991-2016.	1.5	214
584	The dominance of cold and dry alteration processes on recent Mars, as revealed through pan-spectral orbital analyses. Earth and Planetary Science Letters, 2014, 404, 261-272.	1.8	18
585	Landscape formation at the Deuteronilus contact in southern Isidis Planitia, Mars: Implications for an Isidis Sea?. Icarus, 2014, 242, 329-351.	1.1	12
586	Use of miniaturized Raman spectrometer for detection of sulfates of different hydration states – Significance for Mars studies. Icarus, 2014, 243, 440-453.	1.1	32
587	Spectral masking of goethite in abandoned mine drainage systems: Implications for Mars. Earth and Planetary Science Letters, 2014, 403, 217-224.	1.8	8
588	Local variations of bulk hydrogen and chlorineâ€equivalent neutron absorption content measured at the contact between the Sheepbed and Gillespie Lake units in Yellowknife Bay, Gale Crater, using the DAN instrument onboard Curiosity. Journal of Geophysical Research E: Planets, 2014, 119, 1259-1275.	1.5	33
589	Potential desiccation cracks on Mars: A synthesis from modeling, analogue-field studies, and global observations. Icarus, 2014, 241, 248-268.	1.1	54
590	Occurrences of possible hydrated sulfates in the southern high latitudes of Mars. Icarus, 2014, 243, 311-324.	1.1	22
591	High-temperature chlorine-rich fluid in the martian crust: A precursor to habitability. Earth and Planetary Science Letters, 2014, 401, 110-115.	1.8	47
592	Stability and crystal chemistry of iron-bearing dense hydrous magnesium silicates. Chemie Der Erde, 2014, 74, 489-496.	0.8	11
595	Thermal breakdown of calcium carbonate and constraints on its use as a biomarker. Icarus, 2014, 229, 1-10.	1.1	11
596	Geometry, stratigraphy and evidences for fluid expulsion within Crommelin crater deposits, Arabia Terra, Mars. Planetary and Space Science, 2014, 92, 34-48.	0.9	27
597	A network of lava tubes as the origin of Labyrinthus Noctis and Valles Marineris on Mars. Journal of Volcanology and Geothermal Research, 2014, 277, 1-8.	0.8	47
598	Water and Martian habitability: Results of an integrative study of water related processes on Mars in context with an interdisciplinary Helmholtz research alliance "Planetary Evolution and Life― Planetary and Space Science, 2014, 98, 128-145.	0.9	6
599	Clay mineral formation on Mars: Chemical constraints and possible contribution of basalt out-gassing. Planetary and Space Science, 2014, 95, 25-32.	0.9	12

#	Article	IF	CITATIONS
600	Nontronite dissolution rates and implications for Mars. Geochimica Et Cosmochimica Acta, 2014, 126, 192-211.	1.6	29
601	Automated algorithms to identify and locate grains of specific composition for NIR hyperspectral microscopes: Application to the MicrOmega instrument onboard ExoMars. Planetary and Space Science, 2014, 99, 7-18.	0.9	5
602	Mineralogy of the MSL Curiosity landing site in Gale crater as observed by MRO/CRISM. Geophysical Research Letters, 2014, 41, 4880-4887.	1.5	59
603	Volumetric estimates of ancient water on Mount Sharp based on boxwork deposits, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 189-198.	1.5	29
604	Sulfur-bearing phases detected by evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 373-393.	1.5	65
605	The geology and mineralogy of Ritchey crater, Mars: Evidence for postâ€Noachian clay formation. Journal of Geophysical Research E: Planets, 2014, 119, 810-836.	1.5	33
606	Thermal alteration: A possible reason for the inconsistency between OMEGA/CRISM and TES detections of phyllosilicates on Mars?. Geophysical Research Letters, 2014, 41, 321-327.	1.5	11
607	Fresh exposures of hydrous Feâ€bearing amorphous silicates on Mars. Geophysical Research Letters, 2014, 41, 8744-8751.	1.5	21
608	Eastern Olympus Mons Basal Scarp: Structural and mechanical evidence for largeâ€scale slope instability. Journal of Geophysical Research E: Planets, 2014, 119, 1089-1109.	1.5	10
609	Inventory of H ₂ 0 in the ancient Martian regolith from Northwest Africa 7034: The important role of Fe oxides. Geophysical Research Letters, 2014, 41, 8235-8244.	1.5	43
610	The climate history of early Mars: insights from the Antarctic McMurdo Dry Valleys hydrologic system. Antarctic Science, 2014, 26, 774-800.	0.5	84
611	Laboratory simulations of acidâ€sulfate weathering under volcanic hydrothermal conditions: Implications for early Mars. Journal of Geophysical Research E: Planets, 2014, 119, 679-703.	1.5	18
612	Sand-Wedge Polygon. , 2015, , 1849-1851.		0
613	Sublimation-Type Polygon. , 2015, , 2095-2099.		0
614	Petrology on Mars. American Mineralogist, 2015, 100, 2380-2395.	0.9	126
615	The MAVEN Magnetic Field Investigation. Space Science Reviews, 2015, 195, 257-291.	3.7	371
616	A Noachian source region for the "Black Beauty―meteorite, and a source lithology for Mars surface hydrated dust?. Earth and Planetary Science Letters, 2015, 427, 104-111.	1.8	24
617	Barchan. , 2015, , 125-134.		0

#	Article	IF	CITATIONS
618	Mars water discoveries – implications for finding ancient and current life. Life Sciences in Space Research, 2015, 7, A1-A5.	1.2	4
619	Ancient and recent clay formation on Mars as revealed from a global survey of hydrous minerals in crater central peaks. Journal of Geophysical Research E: Planets, 2015, 120, 2293-2332.	1.5	71
620	Rb‧r resonance ionization geochronology of the Duluth Gabbro: A proof of concept for <i>in situ</i> dating on the Moon. Rapid Communications in Mass Spectrometry, 2015, 29, 1457-1464.	0.7	16
621	Field investigation of dried lakes in western United States as an analogue to desiccation fractures on Mars. Journal of Geophysical Research E: Planets, 2015, 120, 2241-2257.	1.5	11
622	Recent (Late Amazonian) enhanced backweathering rates on Mars: Paracratering evidence from gully alcoves. Journal of Geophysical Research E: Planets, 2015, 120, 2169-2189.	1.5	34
623	The Interlayer Regions of Sheet Silicates as a Favorable Habitat for Endolithic Microorganisms. Geomicrobiology Journal, 2015, 32, 530-537.	1.0	3
624	Submarine Fan. , 2015, , 2099-2099.		0
625	Geologic evolution of the eastern Eridania basin: Implications for aqueous processes in the southern highlands of Mars. Journal of Geophysical Research E: Planets, 2015, 120, 1774-1799.	1.5	16
626	Near―and midâ€infrared reflectance spectra of hydrated oxychlorine salts with implications for Mars. Journal of Geophysical Research E: Planets, 2015, 120, 1415-1426.	1.5	25
627	The early heat loss evolution of Mars and their implications for internal and environmental history. Scientific Reports, 2014, 4, 4338.	1.6	23
628	Soil. , 2015, , 2012-2012.		0
630	Hydraulic modeling of the tributary and the outlet of a Martian paleolake located in the Memnonia quadrangle. Journal of Geophysical Research E: Planets, 2015, 120, 1597-1619.	1.5	5
631	History of the clay-rich unit at Mawrth Vallis, Mars: High-resolution mapping of a candidate landing site. Journal of Geophysical Research E: Planets, 2015, 120, 1820-1846.	1.5	24
632	Assessing hydrodynamic effects on jarosite dissolution rates, reaction products, and preservation on Mars. Journal of Geophysical Research E: Planets, 2015, 120, 625-642.	1.5	20
634	Mars Reconnaissance Orbiter and Opportunity observations of the Burns formation: Crater hopping at Meridiani Planum. Journal of Geophysical Research E: Planets, 2015, 120, 429-451.	1.5	30
635	Inferring alteration conditions on Mars: Insights from near-infrared spectra of terrestrial basalts altered in cold and hot arid environments. Planetary and Space Science, 2015, 119, 137-154.	0.9	5
636	Investigations on alunogen under Mars-relevant temperature conditions: An example for a single-crystal-to-single-crystal phase transition. American Mineralogist, 2015, 100, 2548-2558.	0.9	6
637	Sinuous Rille. , 2015, , 1957-1963.		1

#	Article	IF	CITATIONS
638	ldentifying cryptotephra units using correlated rapid, nondestructive methods: VSWIR spectroscopy, Xâ€ray fluorescence, and magnetic susceptibility. Geochemistry, Geophysics, Geosystems, 2015, 16, 4029-4056.	1.0	15
639	Comparison of "warm and wet―and "cold and icy―scenarios for early Mars in a 3â€D climate model. Journal of Geophysical Research E: Planets, 2015, 120, 1201-1219.	1.5	153
640	Spatial distributions of secondary minerals in the Martian meteorite MIL 03346,168 determined by Raman spectroscopic imaging. Journal of Geophysical Research E: Planets, 2015, 120, 1141-1159.	1.5	32
641	Quantitative compositional analysis of sedimentary materials using thermal emission spectroscopy: 1. Application to sedimentary rocks. Journal of Geophysical Research E: Planets, 2015, 120, 1956-1983.	1.5	12
642	Structural and spectroscopic changes to natural nontronite induced by experimental impacts between 10 and 40 GPa. Journal of Geophysical Research E: Planets, 2015, 120, 888-912.	1.5	20
643	Synthesis and structural characterization of ferrous trioctahedral smectites: Implications for clay mineral genesis and detectability on Mars. Journal of Geophysical Research E: Planets, 2015, 120, 1119-1140.	1.5	50
644	Evidence for the episodic erosion of the Medusae Fossae Formation preserved within the youngest volcanic province on Mars. Geophysical Research Letters, 2015, 42, 7336-7342.	1.5	34
645	Initial results from the MAVEN mission to Mars. Geophysical Research Letters, 2015, 42, 8791-8802.	1.5	101
646	Context of ancient aqueous environments on Mars from in situ geologic mapping at Endeavour Crater. Journal of Geophysical Research E: Planets, 2015, 120, 538-569.	1.5	37
647	Sulfate Minerals: A Problem for the Detection of Organic Compounds on Mars?. Astrobiology, 2015, 15, 247-258.	1.5	31
648	Methane Clathrates in the Solar System. Astrobiology, 2015, 15, 308-326.	1.5	62
649	First Lunar Flashes Observed from Morocco (ILIAD Network): Implications for Lunar Seismology. Earth, Moon and Planets, 2015, 115, 1-21.	0.3	13
650	Fluvial geomorphology on Earth-like planetary surfaces: A review. Geomorphology, 2015, 245, 149-182.	1.1	70
651	PELS (Planetary Environmental Liquid Simulator): A New Type of Simulation Facility to Study Extraterrestrial Aqueous Environments. Astrobiology, 2015, 15, 111-118.	1.5	21
652	Quantifying geological processes on Mars—Results of the high resolution stereo camera (HRSC) on Mars express. Planetary and Space Science, 2015, 112, 53-97.	0.9	63
653	Evaporite karst in three interior layered deposits in Iani Chaos, Mars. Geomorphology, 2015, 245, 15-22.	1.1	12
654	Evidence in Tissint for recent subsurface water on Mars. Earth and Planetary Science Letters, 2015, 425, 55-63.	1.8	29
655	Water on the Terrestrial Planets. , 2015, , 367-409.		7
#	Article	IF	CITATIONS
-----	--	-----	-----------
656	Strike-Slip Faults. , 2015, , 2069-2078.		0
657	Design of a Mars atmosphere simulation chamber and testing a Raman Laser Spectrometer (RLS) under conditions pertinent to Mars rover missions. EPJ Techniques and Instrumentation, 2015, 2, .	0.5	9
658	Aeolian Dust Deposits. , 2015, , 12-18.		0
659	Sand Sheet. , 2015, , 1846-1849.		0
660	Scopulus, Scopuli. , 2015, , 1871-1872.		0
661	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	0.9	122
662	Weathering Profiles in Phosphorus-Rich Rocks at Gusev Crater, Mars, Suggest Dissolution of Phosphate Minerals into Potentially Habitable Near-Neutral Waters. Astrobiology, 2015, 15, 1060-1075.	1.5	12
663	Magmatic controls on the genesis of Ni–Cu±(PGE) sulphide mineralisation on Mars. Ore Geology Reviews, 2015, 65, 400-412.	1.1	14
664	Sources of water for the outflow channels on Mars: Implications of the Late Noachian "icy highlands―model for melting and groundwater recharge on the Tharsis rise. Planetary and Space Science, 2015, 108, 54-65.	0.9	26
665	The effect of pH on stable iron isotope exchange and fractionation between aqueous Fe(II) and goethite. Chemical Geology, 2015, 397, 118-127.	1.4	48
666	Evaluating reaction pathways of hydrothermal abiotic organic synthesis at elevated temperatures and pressures using carbon isotopes. Geochimica Et Cosmochimica Acta, 2015, 154, 1-17.	1.6	11
667	Detection of Trace Organics in Mars Analog Samples Containing Perchlorate by Laser Desorption/Ionization Mass Spectrometry. Astrobiology, 2015, 15, 104-110.	1.5	33
668	Long-runout landslides and the long-lasting effects of early water activity on Mars. Geology, 2015, 43, 107-110.	2.0	32
669	Modeling near-infrared reflectance spectra of clay and sulfate mixtures and implications for Mars. Icarus, 2015, 250, 332-356.	1.1	16
670	Serpentinization, iron oxidation, and aqueous conditions in an ophiolite: Implications for hydrogen production and habitability on Mars. Earth and Planetary Science Letters, 2015, 416, 21-34.	1.8	24
671	In situ high-temperature XRD and FTIR investigation of hohmannite, a water-rich Fe-sulfate, and its decomposition products. Journal of Thermal Analysis and Calorimetry, 2015, 119, 1793-1802.	2.0	9
672	Strong water isotopic anomalies in the martian atmosphere: Probing current and ancient reservoirs. Science, 2015, 348, 218-221.	6.0	245
673	Geology, Life, and Habitability. , 2015, , 473-486.		8

ARTICLE IF CITATIONS # Laboratory reflectance spectra of clay minerals mixed with Mars analog materials: Toward enabling 674 1.1 15 quantitative clay abundances from Mars spectra. Icarus, 2015, 258, 454-466. The central uplift of Ritchey crater, Mars. Icarus, 2015, 252, 255-270. 1.1 676 Deep alteration between Hellas and Isidis Basins. Icarus, 2015, 260, 141-160. 1.1 27 Volcanogenic Fluvial-Lacustrine Environments in Iceland and Their Utility for Identifying Past 1.1 Habitability on Mars. Life, 2015, 5, 568-586. Late Noachian and early Hesperian ridge systems in the south circumpolar Dorsa Argentea Formation, 678 Mars: Evidence for two stages of melting of an extensive late Noachian ice sheet. Planetary and Space 0.9 33 Science, 2015, 109-110, 1-20. Stratigraphy of Aeolis Dorsa, Mars: Stratigraphic context of the great river deposits. Icarus, 2015, 253, 679 1.1 223-242. Alteration of immature sedimentary rocks on Earth and Mars: Recording aqueous and 680 1.8 18 surface–atmosphere processes. Earth and Planetary Science Letters, 2015, 417, 78-86. Insights from the Metagenome of an Acid Salt Lake: The Role of Biology in an Extreme Depositional Environment. PLoS ONE, 2015, 10, e0122869. 1.1 44 River meandering on Earth and Mars: A comparative study of Aeolis Dorsa meanders, Mars and possible 682 terrestrial analogs of the Usuktuk River, AK, and the Quinn River, NV. Geomorphology, 2015, 240, 1.1 91 102-120. Desiccation of phyllosilicate-bearing samples as analog for desiccation cracks on Mars: Experimental setup and initial results. Planetary and Space Science, 2015, 111, 134-143. Equatorial layered deposits in Arabia Terra, Mars: Facies and process variability. Bulletin of the 684 1.6 13 Geological Society of America, 0, , B31225.1. Assessing the mineralogy of the watershed and fan deposits of the Jezero crater paleolake system, 1.5 193 Mars. Journal of Geophysical Research E: Planets, 2015, 120, 775-808. The Mars Atmosphere and Volatile Evolution (MAVEN) Mission. Space Science Reviews, 2015, 195, 3-48. 686 3.7 563 Martian Hydrate Feasibility: Extending Extreme Seafloor Environments., 2015, , 323-360. Hydrothermal alteration and diagenesis of terrestrial lacustrine pillow basalts: Coordination of 688 hyperspectral imaging with laboratory measurements. Geochimica Et Cosmochimica Acta, 2015, 171, 1.6 18 174-200. Constraints on the crystal-chemistry of Fe/Mg-rich smectitic clays on Mars and links to global 1.8 alteration trends. Earth and Planetary Science Letters, 2015, 427, 215-225. Methane storage capacity of the early martian cryosphere. Icarus, 2015, 260, 205-214. 690 1.1 17 691 Metamorphism in the Martian crust. Meteoritics and Planetary Science, 2015, 50, 590-603.

	CITATION RI	EPORT	
#	Article	IF	CITATIONS
692	Effect of Nontronite Smectite Clay on the Chemical Evolution of Several Organic Molecules under Simulated Martian Surface Ultraviolet Radiation Conditions. Astrobiology, 2015, 15, 221-237.	1.5	49
693	Sulfur in the early martian atmosphere revisited: Experiments with a 3-D Global Climate Model. Icarus, 2015, 261, 133-148.	1.1	41
694	Mineral abundances and different levels of alteration around Mawrth Vallis, Mars. Geoscience Frontiers, 2015, 6, 741-758.	4.3	3
695	A CATALOG OF STELLAR EVOLUTION PROFILES AND THE EFFECTS OF VARIABLE COMPOSITION ON HABITABLE SYSTEMS. Astrophysical Journal, 2015, 804, 145.	1.6	16
696	Mineralogy and astrobiology detection using laser remote sensing instrument. Applied Optics, 2015, 54, 7598.	2.1	25
697	The role of particle size in the laboratory reflectance spectra of pyroxenes: The case of the 670-nm minor feature. Planetary and Space Science, 2015, 117, 96-105.	0.9	1
698	Impact and admittance modeling of the Isidis Planitia, Mars. Planetary and Space Science, 2015, 117, 73-81.	0.9	6
699	Development of a mast or robotic arm-mounted infrared AOTF spectrometer for surface Moon and Mars probes. Proceedings of SPIE, 2015, , .	0.8	11
700	Minimum effective area for high resolution crater counting of martian terrains. Icarus, 2015, 245, 198-240.	1.1	103
701	Meteoritic evidence for a previously unrecognized hydrogen reservoir on Mars. Earth and Planetary Science Letters, 2015, 410, 140-151.	1.8	83
702	Embedded clays and sulfates in Meridiani Planum, Mars. Icarus, 2015, 248, 269-288.	1.1	42
703	Planetary geomorphology: Some historical/analytical perspectives. Geomorphology, 2015, 240, 8-17.	1.1	11
704	Mixtures of clays and sulfates within deposits in western Melas Chasma, Mars. Icarus, 2015, 251, 291-314.	1.1	53
705	Lithospheric flexure and volcano basal boundary conditions: keys to the structural evolution of large volcanic edifices on the terrestrial planets. Geological Society Special Publication, 2015, 401, 219-237.	0.8	18
706	Variability of the hydrogen in the martian upper atmosphere as simulated by a 3D atmosphere–exosphere coupling. Icarus, 2015, 245, 282-294.	1.1	77
707	Pleistocene Lake Bonneville as an Analog for Extraterrestrial Lakes and Oceans. Developments in Earth Surface Processes, 2016, 20, 570-597.	2.8	3
708	Identification of mafic minerals on Mars by nonlinear hyperspectral unmixing. , 2016, , .		5
709	Mineral Supertrumps: A New Card Game to Assist Learning of Mineralogy. Journal of Geoscience Education, 2016, 64, 108-114.	0.8	11

#	Article	IF	CITATIONS
710	Unique Spectroscopy and Imaging of Mars with the <i>James Webb Space Telescope</i> . Publications of the Astronomical Society of the Pacific, 2016, 128, 018004.	1.0	5
711	Discovery of alunite in Cross crater, Terra Sirenum, Mars: Evidence for acidic, sulfurous waters. American Mineralogist, 2016, 101, 1527-1542.	0.9	51
712	The Climate of Early Mars. Annual Review of Earth and Planetary Sciences, 2016, 44, 381-408.	4.6	267
713	Setting constraints on the nature and origin of the two major hydrous sulfates on Mars: Monohydrated and polyhydrated sulfates. Journal of Geophysical Research E: Planets, 2016, 121, 678-694.	1.5	40
714	Geomorphological Indication of Ancient, Recent, and Possibly Present-day Aqueous Activity on Mars. Journal of Geography (Chigaku Zasshi), 2016, 125, 121-132.	0.1	3
715	Geomorphological View of the Environmental History of Mars and Candidate Habitable Environments. Journal of Geography (Chigaku Zasshi), 2016, 125, 171-184.	0.1	4
716	Organic Matter Detection on Mars by Pyrolysis-FTIR: An Analysis of Sensitivity and Mineral Matrix Effects. Astrobiology, 2016, 16, 831-845.	1.5	14
717	Hydrothermal activity recorded in post Noachianâ€aged impact craters on Mars. Journal of Geophysical Research E: Planets, 2016, 121, 608-625.	1.5	29
718	Evolution of major sedimentary mounds on Mars: Buildup via anticompensational stacking modulated by climate change. Journal of Geophysical Research E: Planets, 2016, 121, 2282-2324.	1.5	28
719	Terrestrial planets and water delivery around low-mass stars. Astronomy and Astrophysics, 2016, 596, A54.	2.1	8
720	Implications for the aqueous history of southwest Melas Chasma, Mars as revealed by interbedded hydrated sulfate and Fe/Mg-smectite deposits. Icarus, 2016, 271, 283-291.	1.1	10
721	Orbital evidence for clay and acidic sulfate assemblages on Mars based on mineralogical analogs from Rio Tinto, Spain. Icarus, 2016, 275, 45-64.	1.1	16
722	Chemical models for martian weathering profiles: Insights into formation of layered phyllosilicate and sulfate deposits. Icarus, 2016, 275, 203-220.	1.1	55
723	The High Resolution Stereo Camera (HRSC) of Mars Express and its approach to science analysis and mapping for Mars and its satellites. Planetary and Space Science, 2016, 126, 93-138.	0.9	128
724	Elorza Crater on Mars: identification of phyllosilicate-bearing minerals by MRO-CRISM. Proceedings of SPIE, 2016, , .	0.8	0
725	Lava heating and loading of ice sheets on early Mars: Predictions for meltwater generation, groundwater recharge, and resulting landforms. Icarus, 2016, 271, 237-264.	1.1	20
726	Late Tharsis formation and implications for early Mars. Nature, 2016, 531, 344-347.	13.7	80
727	Octahedral chemistry of 2:1 clay minerals and hydroxyl band position in the near-infrared: Application to Mars. American Mineralogist, 2016, 101, 554-563.	0.9	24

#	Article	IF	CITATIONS
728	Long-runout landslides and the long-lasting effects of early water activity on Mars: REPLY. Geology, 2016, 44, e387-e387.	2.0	1
729	Mineralogical record of the redox conditions on early Mars. Icarus, 2016, 271, 67-75.	1.1	23
730	Evolution of Oxygenic Photosynthesis. Annual Review of Earth and Planetary Sciences, 2016, 44, 647-683.	4.6	334
731	Aqueous history of Mars as inferred from landed mission measurements of rocks, soils, and water ice. Journal of Geophysical Research E: Planets, 2016, 121, 1602-1626.	1.5	18
732	Amazonian-aged fluvial system and associated ice-related features in Terra Cimmeria, Mars. Icarus, 2016, 277, 286-299.	1.1	25
733	Impact ejecta-induced melting of surface ice deposits on Mars. Icarus, 2016, 280, 205-233.	1.1	15
734	Mars and Venus: Different destinies of terrestrial planets. Herald of the Russian Academy of Sciences, 2016, 86, 285-297.	0.2	0
735	Hyperspectral mapping of alteration assemblages within a hydrothermal vug at the Haughton impact structure, Canada. Meteoritics and Planetary Science, 2016, 51, 2274-2292.	0.7	3
736	Endâ€member identification and spectral mixture analysis of CRISM hyperspectral data: A case study on southwest Melas Chasma, Mars. Journal of Geophysical Research E: Planets, 2016, 121, 2004-2036.	1.5	34
737	Spectral characterization of acid weathering products on Martian basaltic glass. Journal of Geophysical Research E: Planets, 2016, 121, 516-541.	1.5	9
738	Recurring slope lineae and chlorides on the surface of Mars. Journal of Geophysical Research E: Planets, 2016, 121, 1411-1428.	1.5	15
739	Fluids during diagenesis and sulfate vein formation in sediments at Gale crater, Mars. Meteoritics and Planetary Science, 2016, 51, 2175-2202.	0.7	50
740	In situ analysis of martian regolith with the SAM experiment during the first mars year of the MSL mission: Identification of organic molecules by gas chromatography from laboratory measurements. Planetary and Space Science, 2016, 129, 88-102.	0.9	27
741	The water content of recurring slope lineae on Mars. Geophysical Research Letters, 2016, 43, 8912-8919.	1.5	56
742	The geologic history of Margaritifer basin, Mars. Journal of Geophysical Research E: Planets, 2016, 121, 273-295.	1.5	12
743	Raman spectra of Martian glass analogues: A tool to approximate their chemical composition. Journal of Geophysical Research E: Planets, 2016, 121, 740-752.	1.5	27
744	Geochemistry and Mineralogy of Western Australian Salt Lake Sediments: Implications for Meridiani Planum on Mars. Astrobiology, 2016, 16, 525-538.	1.5	14
745	Mars: a small terrestrial planet. Astronomy and Astrophysics Review, 2016, 24, 1.	9.1	22

#	Article	IF	CITATIONS
746	Styles of aqueous alteration on Mars. American Mineralogist, 2016, 101, 1925-1926.	0.9	0
747	Possible karst landforms in two unnamed craters in Tyrrhena Terra, Mars. Planetary and Space Science, 2016, 132, 57-65.	0.9	4
748	The sustainability of habitability on terrestrial planets: Insights, questions, and needed measurements from Mars for understanding the evolution of Earthâ€like worlds. Journal of Geophysical Research E: Planets, 2016, 121, 1927-1961.	1.5	72
749	Smectite deposits in Marathon Valley, Endeavour Crater, Mars, identified using CRISM hyperspectral reflectance data. Geophysical Research Letters, 2016, 43, 4885-4892.	1.5	39
750	A review of volatiles in the Martian interior. Meteoritics and Planetary Science, 2016, 51, 1935-1958.	0.7	43
751	Dissolution of nontronite in chloride brines and implications for the aqueous history of Mars. Geochimica Et Cosmochimica Acta, 2016, 195, 259-276.	1.6	11
752	Alteration minerals, fluids, and gases on early Mars: Predictions from 1â€D flow geochemical modeling of mineral assemblages in meteorite <scp>ALH</scp> 84001. Meteoritics and Planetary Science, 2016, 51, 2154-2174.	0.7	28
753	Early Mars volcanic sulfur storage in the upper cryosphere and formation ofÂtransient SO ₂ â€rich atmospheres during the Hesperian. Meteoritics and Planetary Science, 2016, 51, 2226-2233.	0.7	3
754	Examining Structural and Related Spectral Change in Mars-relevant Phyllosilicates After Experimental Impacts Between 10–40 GPa. Clays and Clay Minerals, 2016, 64, 189-209.	0.6	11
755	Geologic history of Martian regolith breccia Northwest Africa 7034: Evidence for hydrothermal activity and lithologic diversity in the Martian crust. Journal of Geophysical Research E: Planets, 2016, 121, 2120-2149.	1.5	65
756	A sedimentary origin for intercrater plains north of the Hellas basin: Implications for climate conditions and erosion rates on early Mars. Journal of Geophysical Research E: Planets, 2016, 121, 2239-2267.	1.5	25
757	Jarosite occurrence in the Deccan Volcanic Province of Kachchh, western India: Spectroscopic studies on a Martian analog locality. Journal of Geophysical Research E: Planets, 2016, 121, 402-431.	1.5	22
758	Orbital evidence for more widespread carbonateâ€bearing rocks on Mars. Journal of Geophysical Research E: Planets, 2016, 121, 652-677.	1.5	109
759	Hydrological and sedimentary analyses of well-preserved paleofluvial-paleolacustrine systems at Moa Valles, Mars. Journal of Geophysical Research E: Planets, 2016, 121, 194-232.	1.5	23
760	Exsolution and shock microstructures of igneous pyroxene clasts in the Northwest Africa 7533 Martian meteorite. Meteoritics and Planetary Science, 2016, 51, 932-945.	0.7	13
761	Martian surface microtexture from orbital CRISM multi-angular observations: A new perspective for the characterization of the geological processes. Planetary and Space Science, 2016, 128, 30-51.	0.9	20
762	Indicators and Methods to Understand Past Environments from ExoMars Rover Drills. Origins of Life and Evolution of Biospheres, 2016, 46, 435-454.	0.8	19
763	Observations of an aeolian landscape: From surface to orbit in Gale Crater. Icarus, 2016, 280, 37-71.	1.1	85

#	Article	IF	CITATIONS
764	Elevated bulk-silica exposures and evidence for multiple aqueous alteration episodes in Nili Fossae, Mars. Icarus, 2016, 276, 39-51.	1.1	18
765	Estimating mineral abundances of clay and gypsum mixtures using radiative transfer models applied to visible-near infrared reflectance spectra. Icarus, 2016, 277, 171-186.	1.1	27
766	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.	1.6	134
767	The Last Possible Outposts for Life on Mars. Astrobiology, 2016, 16, 159-168.	1.5	63
768	Morphologic evidence of subsurface sediment mobilization and mud volcanism in Candor and Coprates Chasmata, Valles Marineris, Mars. Icarus, 2016, 269, 23-37.	1.1	37
769	Rapid habitability assessment of Mars samples by pyrolysis-FTIR. Planetary and Space Science, 2016, 121, 60-75.	0.9	6
770	Correlated analysis of chemical variations with spectroscopic features of the K–Na jarosite solid solutions relevant to Mars. Icarus, 2016, 271, 19-29.	1.1	11
771	Alunite dissolution rates: Dissolution mechanisms and implications for Mars. Geochimica Et Cosmochimica Acta, 2016, 172, 93-106.	1.6	22
772	Fe/Mg smectite formation under acidic conditions on early Mars. Geochimica Et Cosmochimica Acta, 2016, 173, 37-49.	1.6	33
773	Bidirectional reflectance spectroscopy of carbonaceous chondrites: Implications for water quantification and primary composition. Icarus, 2016, 264, 172-183.	1.1	38
774	Preservation of Biomarkers from Cyanobacteria Mixed with MarsÂŁike Regolith Under Simulated Martian Atmosphere and UV Flux. Origins of Life and Evolution of Biospheres, 2016, 46, 289-310.	0.8	38
775	Earth's Early Atmosphere and Oceans, and The Origin of Life. SpringerBriefs in Earth Sciences, 2016, , .	0.5	5
776	What Can We Learn from Other Planets?. SpringerBriefs in Earth Sciences, 2016, , 95-105.	0.5	0
777	Volcanic hydrothermal systems as potential analogues of Martian sulphate-rich terrains. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2016, 95, 153-169.	0.6	15
778	Astrobiology and the Possibility of Life on Earth and Elsewhere…. Space Science Reviews, 2017, 209, 1-42.	3.7	66
779	Three eras of planetary exploration. Nature Astronomy, 2017, 1, .	4.2	4
780	Formation of the ferruginous smectite SWa-1 by alteration of soil clays. American Mineralogist, 2017, 102, 33-41.	0.9	7
781	Acidic weathering of basalt and basaltic glass: 1. Nearâ€infrared spectra, thermal infrared spectra, and implications for Mars. Journal of Geophysical Research E: Planets, 2017, 122, 172-202.	1.5	20

#	Article	IF	CITATIONS
782	Retrieving the hydrous minerals on Mars by sparse unmixing and the Hapke model using MRO/CRISM data. Icarus, 2017, 288, 160-171.	1.1	12
783	Quantification of water content by laser induced breakdown spectroscopy on Mars. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 130, 82-100.	1.5	65
784	Soil-like bodies on Mars. Eurasian Soil Science, 2017, 50, 185-197.	0.5	12
785	Widespread exposure of Noachian phyllosilicates in the Margaritifer region of Mars: Implications for paleohydrology and astrobiological detection. Journal of Geophysical Research E: Planets, 2017, 122, 483-500.	1.5	9
786	3D modelling of the climatic impact of outflow channel formation events on early Mars. Icarus, 2017, 288, 10-36.	1.1	37
787	Low Hesperian <i>P</i> _{CO2} constrained from in situ mineralogical analysis at Gale Crater, Mars. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2166-2170.	3.3	59
788	A 40,000 yr record of clay mineralogy at Lake Towuti, Indonesia: Paleoclimate reconstruction from reflectance spectroscopy and perspectives on paleolakes on Mars. Bulletin of the Geological Society of America, 2017, 129, 806-819.	1.6	16
789	Evidence for stabilization of the ice-cemented cryosphere in earlier martian history: Implications for the current abundance of groundwater at depth on Mars. Icarus, 2017, 288, 120-147.	1.1	28
790	Superficial alteration mineralogy in active volcanic systems: An example of Poás volcano, Costa Rica. Journal of Volcanology and Geothermal Research, 2017, 346, 54-80.	0.8	36
791	Coogoon Valles, western Arabia Terra: Hydrological evolution of a complex Martian channel system. Icarus, 2017, 293, 27-44.	1.1	25
792	Evolution of the rheological structure of Mars. Earth, Planets and Space, 2017, 69, .	0.9	11
793	The structural, stratigraphic, and paleoenvironmental record exposed on the rim and walls of Iazu Crater, Mars. Journal of Geophysical Research E: Planets, 2017, 122, 1138-1156.	1.5	6
794	Mineralogy and chemistry of San Carlos high-alkali basalts: Analyses of alteration with application for Mars exploration. American Mineralogist, 2017, 102, 284-301.	0.9	6
795	Evidence for a spatially extensive hydrothermal system at the Ries impact structure, Germany. Meteoritics and Planetary Science, 2017, 52, 351-371.	0.7	11
796	Numerical modelling of erosion and assimilation of sulfur-rich substrate by martian lava flows: Implications for the genesis of massive sulfide mineralization on Mars. Icarus, 2017, 296, 257-274.	1.1	11
797	Visible to near-infrared MSL/Mastcam multispectral imaging: Initial results from select high-interest science targets within Gale Crater, Mars. American Mineralogist, 2017, 102, 1202-1217.	0.9	43
798	Shock metamorphism of clay minerals on Mars by meteor impact. Geophysical Research Letters, 2017, 44, 6562-6569.	1.5	11
799	Geochemistry of Martian basalts with constraints on magma genesis. Chemical Geology, 2017, 466, 1-14.	1.4	57

#	Article	IF	CITATIONS
800	Martian aeolian activity at the Bagnold Dunes, Gale Crater: The view from the surface and orbit. Journal of Geophysical Research E: Planets, 2017, 122, 2077-2110.	1.5	77
801	Redox stratification of an ancient lake in Gale crater, Mars. Science, 2017, 356, .	6.0	209
802	The geological history of Northeast Syrtis Major, Mars. Icarus, 2017, 293, 66-93.	1.1	62
803	The paleolacustrine evolution of Juventae Chasma and Maja Valles and its implications for the formation of interior layered deposits on Mars. Icarus, 2017, 292, 125-143.	1.1	15
804	Silicate mineralogy at the surface of Mercury. Nature Geoscience, 2017, 10, 9-13.	5.4	71
805	The Evolution of Juventae Chasma, Valles Marineris, Mars: Progressive Collapse and Sedimentation. Journal of Geophysical Research E: Planets, 2017, 122, 2223-2249.	1.5	11
806	Chemical and spectroscopic investigations of <scp>Kâ€H₃Oâ€Na</scp> jarosite solid solutions applicable for Mars explorations. Journal of Raman Spectroscopy, 2017, 48, 1544-1553.	1.2	6
807	Mineral paragenesis on Mars: The roles of reactive surface area and diffusion. Journal of Geophysical Research E: Planets, 2017, 122, 1855-1879.	1.5	5
808	Hydrothermally enhanced magnetization at the center of the Haughton impact structure?. Meteoritics and Planetary Science, 2017, 52, 2147-2165.	0.7	10
809	Habitability on Early Mars and the Search for Biosignatures with the ExoMars Rover. Astrobiology, 2017, 17, 471-510.	1.5	371
810	Largeâ€scale fluidâ€deposited mineralization in Margaritifer Terra, Mars. Geophysical Research Letters, 2017, 44, 6579-6588.	1.5	9
811	Infrared Spectrometer for ExoMars: A Mast-Mounted Instrument for the Rover. Astrobiology, 2017, 17, 542-564.	1.5	61
812	Escape and evolution of Mars's CO ₂ atmosphere: Influence of suprathermal atoms. Journal of Geophysical Research E: Planets, 2017, 122, 1321-1337.	1.5	19
813	Geochemistry and mineralogy of a saprolite developed on Columbia River Basalt: Secondary clay formation, element leaching, and mass balance during weathering. American Mineralogist, 2017, 102, 1632-1645.	0.9	12
814	The Early Mars Climate System. , 2017, , 526-568.		9
815	The ADRON-RM Instrument Onboard the ExoMars Rover. Astrobiology, 2017, 17, 585-594.	1.5	17
816	Dioctahedral Phyllosilicates Versus Zeolites and Carbonates Versus Zeolites Competitions as Constraints to Understanding Early Mars Alteration Conditions. Journal of Geophysical Research E: Planets, 2017, 122, 2328-2343.	1.5	20
817	Antarctic environments as models of planetary habitats: University Valley as a model for modern Mars and Lake Untersee as a model for Enceladus and ancient Mars. Polar Journal, 2017, 7, 303-318.	0.4	10

#	Article	IF	CITATIONS
818	The Lost City Hydrothermal Field: A Spectroscopic and Astrobiological Analogue for Nili Fossae, Mars. Astrobiology, 2017, 17, 1138-1160.	1.5	17
819	Higher Order Nonlinear Hyperspectral Unmixing for Mineralogical Analysis Over Extraterrestrial Bodies. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 3722-3733.	2.3	3
820	Secondary minerals associated with Lassen fumaroles and hot springs: Implications for martian hydrothermal deposits. American Mineralogist, 2017, 102, 1418-1434.	0.9	16
821	Space as a Tool for Astrobiology: Review and Recommendations for Experimentations in Earth Orbit and Beyond. Space Science Reviews, 2017, 209, 83-181.	3.7	54
822	The Influence of Mineral Matrices on the Thermal Behavior of Glycine. Origins of Life and Evolution of Biospheres, 2017, 47, 427-452.	0.8	13
823	Regolith breccia Northwest Africa 7533: Mineralogy and petrology with implications for early Mars. Meteoritics and Planetary Science, 2017, 52, 89-124.	0.7	43
824	Encounters with an unearthly mudstone: Understanding the first mudstone found on Mars. Sedimentology, 2017, 64, 311-358.	1.6	48
825	Geochemical constraints on the presence of clay minerals in the Burns formation, Meridiani Planum, Mars. Icarus, 2017, 281, 137-150.	1.1	16
826	Analysis and modeling of remote observations of the martian hydrogen exosphere. Icarus, 2017, 281, 264-280.	1.1	27
827	Sedimentary differentiation of aeolian grains at the White Sands National Monument, New Mexico, USA. Aeolian Research, 2017, 26, 117-136.	1.1	10
828	Regularization of Mars Reconnaissance Orbiter CRISM alongâ€ŧrack oversampled hyperspectral imaging observations of Mars. Icarus, 2017, 282, 136-151.	1.1	27
829	Remote sensing and in situ mineralogic survey of the Chilean salars: An analog to Mars evaporate deposits?. Icarus, 2017, 282, 152-173.	1.1	29
830	Aeolian dune sediment flux heterogeneity in Meridiani Planum, Mars. Aeolian Research, 2017, 26, 73-88.	1.1	26
831	The central uplift of Elorza Crater: Insights into its geology and possible relationships to the Valles Marineris and Tharsis regions. Icarus, 2017, 284, 284-304.	1.1	5
832	The Main Belt Comets and ice in the Solar System. Astronomy and Astrophysics Review, 2017, 25, 1.	9.1	60
833	Remote Detection of Clay Minerals. Developments in Clay Science, 2017, 8, 482-514.	0.3	11
835	Aeolian saltation on Mars at low wind speeds. Journal of Geophysical Research E: Planets, 2017, 122, 2111-2143.	1.5	90
836	A Two‣tep Kâ€Ar Experiment on Mars: Dating the Diagenetic Formation of Jarosite from Amazonian Groundwaters. Journal of Geophysical Research E: Planets, 2017, 122, 2803-2818.	1.5	72

#	Article	IF	CITATIONS
837	Determination of Geochemical Bio-Signatures in Mars-Like Basaltic Environments. Frontiers in Microbiology, 2017, 8, 1668.	1.5	15
838	Exploring Fingerprints of the Extreme Thermoacidophile Metallosphaera sedula Grown on Synthetic Martian Regolith Materials as the Sole Energy Sources. Frontiers in Microbiology, 2017, 8, 1918.	1.5	42
839	Migrating Jupiter up to the habitable zone: Earth-like planet formation and water delivery. Astronomy and Astrophysics, 2017, 607, A63.	2.1	7
840	Volcanic flows versus water- and ice-related outburst deposits in eastern Hellas: A comparison. Icarus, 2018, 307, 1-16.	1.1	4
841	Evaluation of the Tindouf Basin Region in Southern Morocco as an Analogue Site for Soil Geochemistry on Noachian Mars. Astrobiology, 2018, 18, 1318-1328.	1.5	8
842	A truly international lunar base as the next logical step for human spaceflight. Advances in Space Research, 2018, 61, 2983-2988.	1.2	9
843	Hapke mixture modeling applied to <scp>VNIR</scp> spectra of mafic mineral mixtures and shergottites: Implications for quantitative analysis of satellite data. Meteoritics and Planetary Science, 2018, 53, 1179-1206.	0.7	5
844	The geological and climatological case for a warmer and wetter early Mars. Nature Geoscience, 2018, 11, 230-237.	5.4	116
845	Detecting Kerogen as a Biosignature Using Colocated UV Time-Gated Raman and Fluorescence Spectroscopy. Astrobiology, 2018, 18, 431-453.	1.5	34
846	The Role of Halogens During Fluid and Magmatic Processes on Mars. Springer Geochemistry, 2018, , 959-995.	0.1	7
847	A Method for Choosing the Best Samples for Mars Sample Return. Astrobiology, 2018, 18, 556-570.	1.5	3
848	The Coevolution of Life and Environment on Mars: An Ecosystem Perspective on the Robotic Exploration of Biosignatures. Astrobiology, 2018, 18, 1-27.	1.5	64
849	Comment on Batalha et al.: Climate cycling on early Mars caused by the carbonate–silicate cycle. Earth and Planetary Science Letters, 2018, 484, 412-414.	1.8	1
850	Investigation of carbonates in the Sutter's Mill meteorite grains with hyperspectral infrared imaging micro-spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 194, 92-101.	2.0	2
851	The Search for Hesperian Organic Matter on Mars: Pyrolysis Studies of Sediments Rich in Sulfur and Iron. Astrobiology, 2018, 18, 454-464.	1.5	16
852	Formation of a hybrid-type proto-atmosphere on Mars accreting in the solar nebula. Monthly Notices of the Royal Astronomical Society, 2018, 475, 1274-1287.	1.6	16
853	Meteoric water alteration of soil and landscapes at Meridiani Planum, Mars. Earth and Planetary Science Letters, 2018, 488, 155-167.	1.8	12
854	Impact-melt hygrometer for Mars: The case of shergottite Elephant Moraine (EETA) 79001. Earth and Planetary Science Letters, 2018, 490, 206-215.	1.8	18

#	Article	IF	Citations
855	A search for minerals associated with serpentinization across Mars using CRISM spectral data. Icarus, 2018, 311, 113-134.	1.1	59
856	Chemical variability in mineralized veins observed by ChemCam on the lower slopes of Mount Sharp in Gale crater, Mars. Icarus, 2018, 311, 69-86.	1.1	34
857	Stepped fans and facies-equivalent phyllosilicates in Coprates Catena, Mars. Icarus, 2018, 307, 260-280.	1.1	9
858	Smectite formation in the presence of sulfuric acid: Implications for acidic smectite formation on early Mars. Geochimica Et Cosmochimica Acta, 2018, 220, 248-260.	1.6	26
859	Is Kasei Valles (Mars) the largest volcanic channel in the solar system?. Icarus, 2018, 301, 37-57.	1.1	13
860	Online characterization of planetary surfaces: PlanetServer, an open-source analysis and visualization tool. Planetary and Space Science, 2018, 150, 141-156.	0.9	6
861	Bulk mineralogy of the NE Syrtis and Jezero crater regions of Mars derived through thermal infrared spectral analyses. Icarus, 2018, 301, 76-96.	1.1	51
862	Mineral composition of the Martian Gale and Nili Fossae regions from Mars Reconnaissance Orbiter CRISM images. Planetary and Space Science, 2018, 163, 97-105.	0.9	6
863	Aqueous alteration detection in Tikhonravov crater, Mars. Planetary and Space Science, 2018, 152, 165-175.	0.9	3
864	Spectral and stratigraphic mapping of hydrated minerals associated with interior layered deposits near the southern wall of Melas Chasma, Mars. Icarus, 2018, 302, 62-79.	1.1	14
865	Impact cratering as a cause of climate change, surface alteration, and resurfacing during the early history of Mars. Meteoritics and Planetary Science, 2018, 53, 687-725.	0.7	26
866	Carbonate dissolution rates in high salinity brines: Implications for post-Noachian chemical weathering on Mars. Icarus, 2018, 307, 281-293.	1.1	10
867	Anaerobic microorganisms in astrobiological analogue environments: from field site to culture collection. International Journal of Astrobiology, 2018, 17, 314-328.	0.9	21
868	ESA's Planetary Science Archive: Preserve and present reliable scientific data sets. Planetary and Space Science, 2018, 150, 131-140.	0.9	47
869	Planetary formation and water delivery in the habitable zone around solar-type stars in different dynamical environments. Astronomy and Astrophysics, 2018, 609, A76.	2.1	13
870	Substrate controls on valley formation by groundwater on Earth and Mars. Geology, 2018, 46, 531-534.	2.0	23
871	Diverse mineral assemblages of acidic alteration in the Rio Tinto area (southwest Spain): Implications for Mars. American Mineralogist, 2018, 103, 1877-1890.	0.9	10
872	Ion Escape From Mars Through Time: An Extrapolation of Atmospheric Loss Based on 10 Years of Mars Express Measurements. Journal of Geophysical Research E: Planets, 2018, 123, 3051-3060.	1.5	29

#	Article	IF	CITATIONS
873	The Habitable Zone: The Climatic Limits of Habitability. , 2018, , 2981-2993.		4
874	Catalytic/Protective Properties of Martian Minerals and Implications for Possible Origin of Life on Mars. Life, 2018, 8, 56.	1.1	38
876	Clay minerals related to the late magmatic activity of the Piton des Neiges (Réunion Island): consequence for the primitive crusts. Clay Minerals, 2018, 53, 675-690.	0.2	3
877	Experimental studies addressing the longevity of Bacillus subtilis spores – The first data from a 500-year experiment. PLoS ONE, 2018, 13, e0208425.	1.1	56
878	Fe-oxide concretions formed by interacting carbonate and acidic waters on Earth and Mars. Science Advances, 2018, 4, eaau0872.	4.7	33
879	Syndepositional precipitation of calcium sulfate in Gale Crater, Mars. Terra Nova, 2018, 30, 431-439.	0.9	35
880	Early Mars Climate History: Characterizing a "Warm and Wet―Martian Climate With a 3â€D Global Climate Model and Testing Geological Predictions. Geophysical Research Letters, 2018, 45, 10,249.	1.5	22
881	Geology of Hebes Chasma, Mars: 1. Structure, Stratigraphy, and Mineralogy of the Interior Layered Deposits. Journal of Geophysical Research E: Planets, 2018, 123, 2893-2919.	1.5	10
882	A hydrohalite spring deposit in the Canadian high Arctic: A potential Mars analogue. Earth and Planetary Science Letters, 2018, 504, 126-138.	1.8	9
883	Composition and Chemistry of the Atmospheres of Terrestrial Planets: Venus, the Earth, Mars, and Titan. , 2018, , 187-214.		0
884	Solar Models with Dynamic Screening and Early Mass Loss Tested by Helioseismic, Astrophysical, and Planetary Constraints. Solar Physics, 2018, 293, 1.	1.0	4
885	Constraints on the Noachian Paleoclimate of the Martian Highlands From Landscape Evolution Modeling. Journal of Geophysical Research E: Planets, 2018, 123, 2958-2979.	1.5	24
886	A Systematic Method for Classifying and Grouping Late Noachian and Early Hesperian Rock Targets Analyzed by the Mars Exploration Rover Opportunity at Endeavour Crater, Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2980-3004.	1.5	3
887	Survival of Extremophilic Yeasts in the Stratospheric Environment during Balloon Flights and in Laboratory Simulations. Applied and Environmental Microbiology, 2018, 84, .	1.4	31
888	Data Processing Results for the Active Neutron Measurements by the DAN Instrument on the Curiosity Mars Rover. Astronomy Letters, 2018, 44, 482-489.	0.1	6
889	Dalangtan Saline Playa in a Hyperarid Region on Tibet Plateau: II. Preservation of Salts with High Hydration Degrees in Subsurface. Astrobiology, 2018, 18, 1254-1276.	1.5	15
890	A slow-cooling-ratein situcell for long-duration studies of mineral precipitation in cold aqueous environments on Earth and other planetary bodies. Journal of Applied Crystallography, 2018, 51, 1197-1210.	1.9	1
891	Episodic and Declining Fluvial Processes in Southwest Melas Chasma, Valles Marineris, Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2527-2549.	1.5	18

#	Article	IF	Citations
892	Cold Dense Ion Outflow Observed in the Martianâ€Induced Magnetotail by MAVEN. Geophysical Research Letters, 2018, 45, 5283-5289.	1.5	22
893	UV irradiation of biomarkers adsorbed on minerals under Martian-like conditions: Hints for life detection on Mars. Icarus, 2018, 313, 38-60.	1.1	44
894	The Microbial Community of a Terrestrial Anoxic Inter-Tidal Zone: A Model for Laboratory-Based Studies of Potentially Habitable Ancient Lacustrine Systems on Mars. Microorganisms, 2018, 6, 61.	1.6	7
895	Water and Volatile Inventories of Mercury, Venus, the Moon, and Mars. Space Science Reviews, 2018, 214, 1.	3.7	27
896	Nitrate-Dependent Iron Oxidation: A Potential Mars Metabolism. Frontiers in Microbiology, 2018, 9, 513.	1.5	46
897	Building a Geochemical View of Microbial Salt Tolerance: Halophilic Adaptation of Marinococcus in a Natural Magnesium Sulfate Brine. Frontiers in Microbiology, 2018, 9, 739.	1.5	20
898	An Origin of Life on Mars?. , 2018, , 13-35.		2
899	Remote Detection of Phyllosilicates on Mars and Implications for Climate and Habitability. , 2018, , 37-75.		15
900	Martian Habitability as Inferred From Landed Mission Observations. , 2018, , 77-126.		5
901	Searching for Traces of Life With the ExoMars Rover. , 2018, , 309-347.		14
902	Exploration of Planetary Hyperspectral Images with Unsupervised Spectral Unmixing: A Case Study of Planet Mars. Remote Sensing, 2018, 10, 737.	1.8	6
903	The science process for selecting the landing site for the 2020 Mars rover. Planetary and Space Science, 2018, 164, 106-126.	0.9	64
904	Dalangtan Playa (Qaidam Basin, NW China): Its microbial life and physicochemical characteristics and their astrobiological implications. PLoS ONE, 2018, 13, e0200949.	1.1	7
905	Dark Dunes of Mars. , 2018, , 317-360.		2
906	Karst Landforms as Markers of Recent Climate Change on Mars. , 2018, , 411-429.		1
907	Dalangtan Saline Playa in a Hyperarid Region of Tibet Plateau: III. Correlated Multiscale Surface Mineralogy and Geochemistry Survey. Astrobiology, 2018, 18, 1277-1304.	1.5	6
908	Clobal Map of Martian Fluvial Systems: Age and Total Eroded Volume Estimations. Earth and Space Science, 2018, 5, 560-577.	1.1	34
909	Estimate of the water flow duration in large Martian fluvial systems. Planetary and Space Science, 2018, 163, 83-96.	0.9	26

ARTICLE IF CITATIONS # Aqueous Processes From Diverse Hydrous Minerals in the Vicinity of Amazonianâ€Aged Lyot Crater. 910 1.5 3 Journal of Geophysical Research E: Planets, 2018, 123, 1618-1648. Ejecta deposits of Bakhuysen Crater, Mars. Icarus, 2018, 314, 175-194. 1.1 Hypotheses for the origin of the Hypanis fan-shaped deposit at the edge of the Chryse escarpment, 912 25 1.1 Mars: Is it a delta?. Icarus, 2019, 319, 885-908. Water in the history of Mars: An assessment. Planetary and Space Science, 2019, 166, 70-89. History of Exploration of Mars., 2019, , 4-9. 915 0 Global Character of Mars., 2019, , 10-24. 917 Regional Geographic Features and Surface Views of Mars., 2019, , 25-38. 0 Geology of Mars., 2019,, 39-62. 919 Mare Boreum (MC-1)., 2019,, 64-71. 0 Diacria (MC-2)., 2019, , 72-77. Arcadia (MC-3)., 2019,, 78-83. 921 0 Mare Acidalium (MC-4)., 2019,, 84-89. Ismenius Lacus (MC-5)., 2019, , 90-95. 923 0 Casius (MC-6)., 2019, , 96-99. Cebrenia (MC-7)., 2019,, 100-105. 925 0 Amazonis (MC-8)., 2019, , 106-113. Tharsis (MC-9)., 2019, , 114-119. 927 0 Lunae Palus (MC-10)., 2019, , 120-125.

#	Article	IF	CITATIONS
929	Oxia Palus (MC-11). , 2019, , 126-131.		0
930	Arabia (MC-12). , 2019, , 132-135.		1
931	Syrtis Major (MC-13). , 2019, , 136-139.		0
932	Amenthes (MC-14). , 2019, , 140-143.		0
933	Elysium (MC-15). , 2019, , 144-149.		0
934	Memnonia (MC-16). , 2019, , 150-155.		0
935	Phoenicis Lacus (MC-17). , 2019, , 156-161.		0
936	Coprates (MC-18). , 2019, , 162-169.		0
937	Margaritifer Sinus (MC-19). , 2019, , 170-175.		0
938	Sinus Sabaeus (MC-20). , 2019, , 176-179.		0
939	lapygia (MC-21). , 2019, , 180-185.		0
940	Mare Tyrrhenum (MC-22). , 2019, , 186-191.		0
941	Aeolis (MC-23)., 2019, , 192-197.		0
942	Phaethontis (MC-24). , 2019, , 198-203.		0
943	Thaumasia (MC-25). , 2019, , 204-209.		0
944	Argyre (MC-26). , 2019, , 210-215.		0
945	Noachis (MC-27). , 2019, , 216-221.		0
946	Hellas (MC-28). , 2019, , 222-227.		0

#	Article	IF	CITATIONS
947	Eridania (MC-29). , 2019, , 228-233.		0
948	Mare Australe (MC-30). , 2019, , 234-243.		0
949	Moons: Phobos and Deimos. , 2019, , 244-246.		0
955	Calcium sulfate precipitation pathways in natural and engineered environments. Chemical Geology, 2019, 530, 119274.	1.4	90
956	How to Search for Life in Martian Chemical Sediments and Their Fluid and Solid Inclusions Using Petrographic and Spectroscopic Methods. Frontiers in Environmental Science, 2019, 7, .	1.5	23
957	Statistical Study of Heavy Ion Outflows From Mars Observed in the Martianâ€Induced Magnetotail by MAVEN. Journal of Geophysical Research: Space Physics, 2019, 124, 5482-5497.	0.8	29
958	Follow the Oxygen: Comparative Histories of Planetary Oxygenation and Opportunities for Aerobic Life. Astrobiology, 2019, 19, 811-824.	1.5	17
959	Experimental reproduction of the martian weathering profiles argues for a dense Noachian CO2 atmosphere. Chemical Geology, 2019, 525, 82-95.	1.4	9
960	Formation of Ares Vallis (Mars) by effusions of low-viscosity lava within multiple regions of chaotic terrain. Geomorphology, 2019, 345, 106828.	1.1	7
961	<i>In Situ</i> Geochronology on Mars and the Development of Future Instrumentation. Astrobiology, 2019, 19, 1303-1314.	1.5	15
962	Mapping and Characterization of Martian Intercrater Bedrock Plains: Insights Into Resurfacing Processes in the Martian Cratered Highlands. Journal of Geophysical Research E: Planets, 2019, 124, 3181-3204.	1.5	9
963	Sample Collection and Return from Mars: Optimising Sample Collection Based on the Microbial Ecology of Terrestrial Volcanic Environments. Space Science Reviews, 2019, 215, 1.	3.7	6
964	The Italian Solfatara as an analog for Mars fumarolic alteration. American Mineralogist, 2019, 104, 1565-1577.	0.9	8
965	Semiarid climate and hyposaline lake on early Mars inferred from reconstructed water chemistry at Gale. Nature Communications, 2019, 10, 4896.	5.8	49
966	Microbial Markers Profile in Anaerobic Mars Analogue Environments Using the LDChip (Life Detector) Tj ETQq0 0 7, 365.	0 rgBT /0 1.6	verlock 10 Tf 16
967	An interval of high salinity in ancient Gale crater lake on Mars. Nature Geoscience, 2019, 12, 889-895.	5.4	105
968	Geological Evidence of Planetâ€Wide Groundwater System on Mars. Journal of Geophysical Research E: Planets, 2019, 124, 374-395.	1.5	54
969	Assessing martian bedrock mineralogy through "windows―in the dust using near-infrared and thermal infrared remote sensing. Icarus, 2019, 324, 15-40.	1.1	4

#	Article	IF	CITATIONS
970	Geologic Constraints on Early Mars Climate. Space Science Reviews, 2019, 215, 1.	3.7	85
971	Groundwater Control and Process Variability on the Equatorial Layered Deposits of Kotido Crater, Mars. Journal of Geophysical Research E: Planets, 2019, 124, 779-800.	1.5	16
972	Solid adenine and seawater salts exposed to gamma radiation: An FT-IR and EPR spectroscopy analysis for prebiotic chemistry. Heliyon, 2019, 5, e01584.	1.4	2
973	Aqueous alteration of pyroxene in sulfate, chloride, and perchlorate brines: Implications for post-Noachian aqueous alteration on Mars. Geochimica Et Cosmochimica Acta, 2019, 257, 336-353.	1.6	9
974	Laboratory synthesis and spectroscopic studies of hydrated Al-sulfates relevant to Mars. Icarus, 2019, 333, 283-293.	1.1	7
975	New Constraints on Early Mars Weathering Conditions From an Experimental Approach on Crust Simulants. Journal of Geophysical Research E: Planets, 2019, 124, 1783-1801.	1.5	9
976	Record of low-temperature aqueous alteration of Martian zircon during the late Amazonian. Nature Communications, 2019, 10, 2457.	5.8	13
977	Microbial Communities in Sediments From Four Mildly Acidic Ephemeral Salt Lakes in the Yilgarn Craton (Australia) – Terrestrial Analogs to Ancient Mars. Frontiers in Microbiology, 2019, 10, 779.	1.5	15
978	Seasonal Variability of Deuterium in the Upper Atmosphere of Mars. Journal of Geophysical Research: Space Physics, 2019, 124, 2152-2164.	0.8	13
979	Performance of the SAM gas chromatographic columns under simulated flight operating conditions for the analysis of chlorohydrocarbons on Mars. Journal of Chromatography A, 2019, 1598, 183-195.	1.8	7
980	Hydrated Sulfate Clusters SO ₄ ^{2–} (H ₂ O) _{<i>n</i>} (<i>n</i> = 1–40): Charge Distribution Through Solvation Shells and Stabilization. Journal of Physical Chemistry B, 2019, 123, 4065-4069.	1.2	32
981	Exploring, Mapping, and Data Management Integration of Habitable Environments in Astrobiology. Frontiers in Microbiology, 2019, 10, 147.	1.5	3
982	The potential science and engineering value of samples delivered to Earth by Mars sample return. Meteoritics and Planetary Science, 2019, 54, S3.	0.7	73
983	What Geology and Mineralogy Tell Us About Water on Mars. , 2019, , 345-352.		4
984	A Low-Diversity Microbiota Inhabits Extreme Terrestrial Basaltic Terrains and Their Fumaroles: Implications for the Exploration of Mars. Astrobiology, 2019, 19, 284-299.	1.5	19
985	Morphometric evidence of 3.6â€ ⁻ Ga glacial valleys and glacial cirques in martian highlands: South of Terra Sabaea. Geomorphology, 2019, 334, 91-111.	1.1	20
986	Requirements for Portable Instrument Suites during Human Scientific Exploration of Mars. Astrobiology, 2019, 19, 401-425.	1.5	21
987	The Deposition and Alteration History of the Northeast Syrtis Major Layered Sulfates. Journal of Geophysical Research E: Planets, 2019, 124, 1743-1782.	1.5	12

#	Apticie	IC	CITATIONS
# 988	Methane production and carbon assimilation in nontronite at 25â€ [–] °C. Applied Clay Science, 2019, 174, 29-37.	2.6	4
989	Spectro-chemical study of moldavites from Ries impact structure (Germany) using LIBS. Optics and Laser Technology, 2019, 114, 146-157.	2.2	11
990	Phase Equilibria Modeling of Lowâ€Grade Metamorphic Martian Rocks. Journal of Geophysical Research E: Planets, 2019, 124, 681-702.	1.5	11
991	Visible to Short-Wave Infrared Spectral Analyses of Mars from Orbit Using CRISM and OMEGA. , 2019, , 453-483.		6
992	Volatiles in Martian Magmas and the Interior. , 2019, , 13-33.		12
993	Sulfur on Mars from the Atmosphere to the Core. , 2019, , 119-183.		25
994	The Hydrology of Mars Including a Potential Cryosphere. , 2019, , 185-246.		7
995	Sequestration of Volatiles in the Martian Crust Through Hydrated Minerals. , 2019, , 247-263.		13
996	Volatiles Measured by the Phoenix Lander at the Northern Plains of Mars. , 2019, , 265-283.		4
997	Mars Exploration Rover Opportunity. , 2019, , 285-328.		5
998	Alteration Processes in Gusev Crater, Mars. , 2019, , 329-368.		2
999	Methane on Mars: New insights into the sensitivity of CH4 with the NOMAD/ExoMars spectrometer through its first in-flight calibration. Icarus, 2019, 321, 671-690.	1.1	32
1000	UV luminescence characterisation of organics in Mars-analogue substrates. Icarus, 2019, 321, 929-937.	1.1	5
1001	In-situ K-Ar dating on Mars based on UV-Laser ablation coupled with a LIBS-QMS system: Development, calibration and application of the KArMars instrument. Chemical Geology, 2019, 506, 1-16.	1.4	11
1002	Mineralogical constraints on the thermal history of martian regolith breccia Northwest Africa 8114. Geochimica Et Cosmochimica Acta, 2019, 246, 267-298.	1.6	12
1003	The formation of irregular polygonal ridge networks, Nili Fossae, Mars: Implications for extensive subsurface channelized fluid flow in the Noachian. Icarus, 2019, 319, 852-868.	1.1	12
1004	Experimental hydrothermal alteration of basaltic glass with relevance to Mars. Meteoritics and Planetary Science, 2019, 54, 357-378.	0.7	7
1005	Alteration trends and geochemical source region characteristics preserved in the fluviolacustrine sedimentary record of Gale crater, Mars. Geochimica Et Cosmochimica Acta, 2019, 246, 234-266.	1.6	39

#	Article	IF	CITATIONS
1006	Constraints on the nature of the effusive volcanic eruptions that incised Ravi Vallis, Mars. Planetary and Space Science, 2019, 167, 54-70.	0.9	7
1007	Searching for Signs of Life on Other Planets: Mars a Case Study. Advances in Astrobiology and Biogeophysics, 2019, , 283-300.	0.6	2
1008	Role of Mineral Surfaces in Prebiotic Processes and Space-Like Conditions. Advances in Astrobiology and Biogeophysics, 2019, , 183-204.	0.6	3
1009	Implications of Microbial Thiosulfate Utilization in Red Clay Sediments of the Central Indian Basin: The Martian Analogy. Geochemistry, Geophysics, Geosystems, 2019, 20, 708-729.	1.0	3
1010	The Sedimentary Cycle on Early Mars. Annual Review of Earth and Planetary Sciences, 2019, 47, 91-118.	4.6	59
1011	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. Icarus, 2019, 319, 669-684.	1.1	8
1012	Testing S isotopes as biomarkers for Mars. International Journal of Astrobiology, 2019, 18, 436-439.	0.9	7
1013	Orbital remote sensing of impact-induced hydrothermal systems on Mars. Ore Geology Reviews, 2019, 108, 101-111.	1.1	6
1014	The environmental effects of very large bolide impacts on early Mars explored with a hierarchy of numerical models. Icarus, 2020, 335, 113419.	1.1	30
1015	Anomalous Phyllosilicateâ€Bearing Outcrops South of Coprates Chasma: A Study of Possible Emplacement Mechanisms. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006043.	1.5	5
1016	New Raman–visible nearâ€infrared database of inorganic and mineralogical planetary and terrestrial compounds and its implications for Mars: Phyllosilicates. Journal of Raman Spectroscopy, 2020, 51, 1750-1760.	1.2	7
1017	Infrared Spectroscopic Detection of Biosignatures at Lake TÃrez, Spain: Implications for Mars. Astrobiology, 2020, 20, 15-25.	1.5	7
1018	Characterizing the Mineral Assemblages of Hot Spring Environments and Applications to Mars Orbital Data. Astrobiology, 2020, 20, 453-474.	1.5	8
1019	UV attenuation by Martian brines. Canadian Journal of Physics, 2020, 98, 567-570.	0.4	4
1020	Multistage ice-damming of volcanic flows and fluvial systems in Northeast Syrtis Major. Icarus, 2020, 340, 113608.	1.1	4
1021	Laboratory Raman and VNIR spectroscopic studies of jarosite and other secondary mineral mixtures relevant to Mars. Journal of Raman Spectroscopy, 2020, 51, 1575-1588.	1.2	4
1022	Regional Correlations in the Layered Deposits of Arabia Terra, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006188.	1.5	11
1023	Particular H 2 O dissolution mechanism in ironâ€rich melt: Application to martian basaltic melt genesis. Journal of Raman Spectroscopy, 2020, 51, 493-507.	1.2	8

#	Article	IF	CITATIONS
1024	Present-day mass wasting in sulfate-rich sediments in the equatorial regions of Mars. Icarus, 2020, 342, 113566.	1.1	11
1025	Glacial landscape and paleoglaciation in Terra Sabaea: Evidence for a 3.6 Ga polythermal plateau ice cap. Geomorphology, 2020, 350, 106858.	1.1	11
1026	Lava filling of Gale crater from Tyrrhenus Mons on Mars. Journal of Volcanology and Geothermal Research, 2020, 389, 106743.	0.8	10
1027	Organic Records of Early Life on Mars: The Role of Iron, Burial, and Kinetics on Preservation. Astrobiology, 2020, 20, 53-72.	1.5	16
1028	Geochemical and spectral characterization of an altered Antarctic dolerite: Implications for recent weathering on Mars. Planetary and Space Science, 2020, 194, 105106.	0.9	0
1029	Oceans, Lakes, and Stromatolites on Mars. Advances in Astronomy, 2020, 2020, 1-15.	0.5	6
1030	Ne-Ar separation using a permeable membrane to measure Ne isotopes for future planetary explorations. Planetary and Space Science, 2020, 193, 105046.	0.9	1
1031	Engraved on the rocks—Aeolian abrasion of Martian mudstone exposures and their relationship to modern wind patterns in Gale Crater, Mars. Depositional Record, 2020, 6, 625-647.	0.8	9
1032	Diverse Polygonal Patterned Grounds in the Northern Eridania Basin, Mars: Possible Origins and Implications. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006647.	1.5	5
1033	Impact heat driven volatile redistribution at Occator crater on Ceres as a comparative planetary process. Nature Communications, 2020, 11, 3679.	5.8	19
1034	Defining Surface Types of Mars Using Global CRISM Summary Product Maps. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006337.	1.5	7
1035	A small S-MIF signal in Martian regolith pyrite: Implications for the atmosphere. Geochimica Et Cosmochimica Acta, 2020, 290, 59-75.	1.6	2
1036	Probing Heterogeneous Efflorescence of Mars-Relevant Salts with an Optical Levitator. ACS Earth and Space Chemistry, 2020, 4, 1947-1956.	1.2	1
1037	Capacity of Chlorate to Oxidize Ferrous Iron: Implications for Iron Oxide Formation on Mars. Minerals (Basel, Switzerland), 2020, 10, 729.	0.8	15
1038	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
1039	Amphitheatreâ€headed canyons of Southern Utah: Stratigraphic control of canyon morphology. Earth Surface Processes and Landforms, 2020, 45, 3607-3622.	1.2	5
1040	Characterizing low-temperature aqueous alteration of Mars-analog basalts from Mauna Kea at multiple scales. American Mineralogist, 2020, 105, 1306-1316.	0.9	2
1041	Volcanic Holocrystalline Bedrock and Hydrothermal Alteration: A Terrestrial Analogue for Mars. Minerals (Basel, Switzerland), 2020, 10, 1082.	0.8	5

ARTICLE IF CITATIONS Inhabited subsurface wet smectites in the hyperarid core of the Atacama Desert as an analog for the 1042 21 1.6 search for life on Mars. Scientific Reports, 2020, 10, 19183. Sustained fluvial deposition recorded in Mars' Noachian stratigraphic record. Nature 1043 5.8 Communications, 2020, 11, 2067. Advantages of first-derivative reflectance spectroscopy in the VNIR-SWIR for the quantification of 1044 0.9 7 olivine and hematite. Planetary and Space Science, 2020, 188, 104957. Hydrogen Isotopic Variations in the Shergottites. Geosciences (Switzerland), 2020, 10, 148. 1045 1.0 Exploring Mars with Returned Samples. Space Science Reviews, 2020, 216, 1. 1046 3.7 15 Planetary Terrestrial Analogues Library project: 1. characterization of samples by near-infrared point spectrometer. Planetary and Space Science, 2020, 189, 104989. Mineralogy of Vera Rubin Ridge From the Mars Science Laboratory CheMin Instrument. Journal of 1048 1.586 Geophysical Research E: Planets, 2020, 125, e2019JE006306. Dating a Martian meteorite with 20 Myr precision using a prototype in-situ dating instrument. 1049 9 Planetary and Space Science, 2020, 191, 105007. Hydrothermal Alteration of Etna Ash and Implications for Mars. Minerals (Basel, Switzerland), 2020, 1050 0.8 4 10, 450. Water on Marsâ€"A Literature Review. Galaxies, 2020, 8, 40. 1.1 Biosignature Analysis of Mars Soil Analogs from the Atacama Desert: Challenges and Implications for 1052 17 1.5 Future Missions to Mars. Astrobiology, 2020, 20, 766-784. Perspectives on Atmospheric Evolution from Noble Gas and Nitrogen Isotopes on Earth, Mars & amp; 3.7 Venus. Space Science Reviews, 2020, 216, 1. Warming early Mars with climate cycling: The effect of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e688" altimg="si136.svg"><mml:mrow><mml:mi>C</mml:mi><mml:msub><mml:mrow><mml:mi>O</mml:mi></mml:mrow><m xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e701" 1054 altimg="si135.svg"><mml:msub><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></ml:mrow></ml> Geomorphological Analysis of ExoMars Candidate Landing Site Oxia Planum. Solar System Research, 2020, 54, 1-14. 0.3 24 Incision of Ma'adim Vallis (Mars) by dry volcanic megafloods effused from multiple highland sources. 1056 0.9 8 Planetary and Space Science, 2020, 191, 105021. The Importance of Phobos Sample Return for Understanding the Mars-Moon System. Space Science Reviews, 2020, 216, 1. Evidence for Multiple Diagenetic Episodes in Ancient Fluvial‣acustrine Sedimentary Rocks in Gale 1058 1.545 Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006295. Assessment of water content in martian subsurface along the traverse of the Curiosity rover based 1.1 on passive measurements of the DAN instrument. Icarus, 2020, 346, 113818.

#	Article	IF	CITATIONS
1060	LIBS study of geological samples coupled with chemometric methods. , 2020, , 369-384.		0
1061	Toward the geological significance of hydrated silica detected by near infrared spectroscopy on Mars based on terrestrial reference samples. Icarus, 2020, 347, 113706.	1.1	14
1062	Studies of a Lacustrineâ€Volcanic Mars Analog Field Site With Marsâ€2020â€Like Instruments. Earth and Space Science, 2020, 7, e2019EA000720.	1.1	18
1063	Habitability of hydrothermal systems at Jezero and Gusev Craters as constrained by hydrothermal alteration of a terrestrial mafic dike. Chemie Der Erde, 2020, 80, 125613.	0.8	12
1064	Reconstructing paleolakes in Nepenthes Mensae, Mars, using the distribution of putative deltas, coastal-like features, and terrestrial analogs. Geomorphology, 2020, 359, 107129.	1.1	8
1065	Closed depressions in Kotido crater, Arabia Terra, Mars. Possible evidence of evaporite dissolution-induced subsidence. Icarus, 2020, 341, 113680.	1.1	11
1066	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
1067	Effects of an Intrinsic Magnetic Field on Ion Loss From Ancient Mars Based on Multispecies MHD Simulations. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA026945.	0.8	24
1068	Terrestrial alteration mineral assemblages in the NWA 10416 olivine phyric shergottite. Geochimica Et Cosmochimica Acta, 2020, 280, 26-45.	1.6	5
1069	Deposition of >3.7 Ga clay-rich strata of the Mawrth Vallis Group, Mars, in lacustrine, alluvial, and aeolian environments. Bulletin of the Geological Society of America, 2020, 132, 17-30.	1.6	20
1070	The Absence of an Ocean and the Fate of Water all Over the Martian History. Earth and Space Science, 2020, 7, e2019EA001031.	1.1	11
1071	Disambiguating the soils of Mars. Planetary and Space Science, 2020, 186, 104922.	0.9	16
1072	High-Pressure Behavior of Nickel Sulfate Monohydrate: Isothermal Compressibility, Structural Polymorphism, and Transition Pathway. Inorganic Chemistry, 2020, 59, 6255-6266.	1.9	18
1073	Aram Dorsum: An Extensive Midâ€Noachian Age Fluvial Depositional System in Arabia Terra, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006244.	1.5	19
1074	A new method for atmospheric correction and de-noising of CRISM hyperspectral data. Icarus, 2021, 354, 114024.	1.1	12
1075	Detection of nucleotides adsorbed onto clay by UV resonant raman spectroscopy: A step towards the search for biosignatures on Mars. Applied Clay Science, 2021, 200, 105824.	2.6	9
1076	Contemporary Liquid Water on Mars?. Annual Review of Earth and Planetary Sciences, 2021, 49, 141-171.	4.6	10
1077	Precambrian. , 2021, , 23-54.		0

#	Article	IF	CITATIONS
1078	Did Mars Possess a Dense Atmosphere During the First \$sim400\$ Million Years?. Space Science Reviews, 2021, 217, 1.	3.7	15
1079	Determination of optical constants from Martian analog materials using a spectro-polarimetric technique. Planetary and Space Science, 2021, 195, 105138.	0.9	1
1080	Stable Fe isotope fractionation during dissimilatory Fe(III) reduction by a thermoacidophile in acidic hydrothermal environments. Geochimica Et Cosmochimica Acta, 2021, 292, 427-451.	1.6	8
1081	Reflectance study of ice and Mars soil simulant associations – I. H2O ice. Icarus, 2021, 358, 114169.	1.1	5
1082	Study of the hydrogen escape rate at Mars during martian years 28 and 29 from comparisons between SPICAM/Mars express observations and GCM-LMD simulations. Icarus, 2021, 353, 113498.	1.1	16
1083	In-Situ Planetary Spectroscopy. , 2021, , 194-206.		0
1084	Dry megafloods on Mars: formation of the outflow channels by voluminous effusions of low viscosity lava. , 2021, , 61-93.		0
1085	Life analog sites for Mars from early Earth: diverse habitats from the Pilbara Craton and Mount Bruce Supergroup, Western Australia. , 2021, , 357-403.		3
1086	The McMurdo Dry Valleys of Antarctica: a geological, environmental, and ecological analog to the Martian surface and near surface. , 2021, , 291-332.		4
1087	Outflow channels on Mars. , 2021, , 13-40.		1
1088	Medusae Fossae Formation and the northern lowlands. , 2021, , 138-160.		1
1089	Mars Mineralogical Spectrometer (MMS) on the Tianwen-1 Mission. Space Science Reviews, 2021, 217, 1.	3.7	11
1090	The Diverse Planetary Ingassing/Outgassing Paths Produced over Billions of Years of Magmatic Activity. Space Science Reviews, 2021, 217, 1.	3.7	32
1091	The Role of Minerals in Events That Led to the Origin of Life. Astrobiology, 2021, 21, 137-150.	1.5	4
1092	Life on Mars: Clues, Evidence or Proof?. , 0, , .		1
1093	Artificial Maturation of Iron- and Sulfur-Rich Mars Analogues: Implications for the Diagenetic Stability of Biopolymers and Their Detection with Pyrolysis–Gas Chromatography–Mass Spectrometry. Astrobiology, 2021, 21, 199-218.	1.5	5
1094	EXAFS Determination of Clay Minerals in Martian Meteorite Allan Hills 84001 and Its Implication for the Noachian Aqueous Environment. Minerals (Basel, Switzerland), 2021, 11, 176.	0.8	2
1095	Updated Perspectives and Hypotheses on the Mineralogy of Lower Mt. Sharp, Mars, as Seen From Orbit. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006372.	1.5	21

#	Article	IF	CITATIONS
1096	In search of the RNA world on Mars. Geobiology, 2021, 19, 307-321.	1.1	9
1097	Martian Hydrated Minerals: A Significant Water Sink. Journal of Geophysical Research E: Planets, 2021, 126, e2019JE006351.	1.5	19
1098	Visualizing Planetary Spectroscopy through Immersive On-site Rendering. , 2021, , .		3
1099	Mars, The Nearest Habitable World $\hat{a} \in$ " A Comprehensive Program For Future Mars Exploration. , 2021, 53, .		2
1100	A coupled model of episodic warming, oxidation and geochemical transitions on early Mars. Nature Geoscience, 2021, 14, 127-132.	5.4	64
1101	Solar Direct-drive Integrated Anode Power Supply Conversion Circuit. , 2021, , .		0
1102	The Mars Orbiter for Resources, Ices, and Environments (MORIE) Science Goals and Instrument Trades in Radar, Imaging, and Spectroscopy. Planetary Science Journal, 2021, 2, 76.	1.5	2
1103	Carbonateâ€Phyllosilicate Parageneses and Environments of Aqueous Alteration in Nili Fossae and Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006698.	1.5	7
1104	Minimum Units of Habitability and Their Abundance in the Universe. Astrobiology, 2021, 21, 481-489.	1.5	6
1105	The Effect of the Martian 2018 Global Dust Storm on HDO as Predicted by a Mars Global Climate Model. Geophysical Research Letters, 2021, 48, e2020GL090962.	1.5	12
1106	The Aeolian Environment of the Landing Site for the ExoMars Rosalind Franklin Rover in Oxia Planum, Mars. Journal of Geophysical Research E: Planets, 2021, 126, 2020JE006723.	1.5	20
1107	Chronological Analysis and Remote Sensing of Craters on the Surface of Mars. Frontiers in Environmental Science, 2021, 9, .	1.5	2
1108	DISSOLUTION RATES OF ALLOPHANE WITH VARIABLE Fe CONTENTS: IMPLICATIONS FOR AQUEOUS ALTERATION AND THE PRESERVATION OF X-RAY AMORPHOUS MATERIALS ON MARS. Clays and Clay Minerals, 2021, 69, 263-288.	0.6	9
1109	Alternating wet and dry depositional environments recorded in the stratigraphy of Mount Sharp at Gale crater, Mars. Geology, 2021, 49, 842-846.	2.0	33
1110	Chemical Gardens Under Mars Conditions: Imaging Chemical Garden Growth In Situ in an Environmental Scanning Electron Microscope. Geophysical Research Letters, 2021, 48, e2021GL092883.	1.5	8
1111	Clay coatings on sands in the western Qaidam Basin, Tibetan Plateau, China: Implications for the Martian clay detection. Applied Clay Science, 2021, 205, 106065.	2.6	1
1112	China's Mars Exploration Mission and Science Investigation. Space Science Reviews, 2021, 217, 1.	3.7	66
1113	Martian Magmatic Clay Minerals Forming Vesicles: Perfect Niches for Emerging Life?. Astrobiology, 2021, 21, 605-612.	1.5	5

	Сітат	CITATION REPORT	
#	Article	IF	CITATIONS
1114	Small Mars Mission Architecture Study. Advances in Astronomy, 2021, 2021, 1-12.	0.5	1
1116	Thermophysical Properties and Surface Heterogeneity of Landing Sites on Mars From Overlapping Thermal Emission Imaging System (THEMIS) Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006713.	1.5	13
1117	Origin of Life on Mars: Suitability and Opportunities. Life, 2021, 11, 539.	1.1	18
1118	Synthesis and characterization of Fe(III)-Fe(II)-Mg-Al smectite solid solutions and implications for planetary science. American Mineralogist, 2021, 106, 964-982.	0.9	15
1119	Advanced Hyperspectral Analysis of Sediment Core Samples from the Chew Bahir Basin, Ethiopian Rift, in the Spectral Range from 0.25 to 17µm: Support for Climate Proxy Interpretation. Frontiers in Earth Science, 2021, 9, .	0.8	6
1120	Formation of Magnesium Carbonates on Earth and Implications for Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006828.	1.5	12
1121	Brine-driven destruction of clay minerals in Gale crater, Mars. Science, 2021, 373, 198-204.	6.0	52
1122	Active Mars: A Dynamic World. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006876.	1.5	17
1123	Habitability of Martian Noachian Hydrothermal Systems as Constrained by a Terrestrial Analog on the Colorado Plateau. Planetary Science Journal, 2021, 2, 138.	1.5	2
1124	On the origin of saline compounds in acidic salt flats (Central Andean Altiplano). Chemical Geology, 2021, 574, 120155.	1.4	4
1125	Siderite Dissolution in Mars-analog Brines: Kinetics and Reaction Products. Planetary Science Journal, 2021, 2, 169.	1.5	3
1127	Targeting mixtures of jarosite and clay minerals for Mars exploration. American Mineralogist, 2021, 106, 1237-1254.	0.9	3
1128	Spectral and Chemical Characterization of Copiapite and Rozenite from Padinjarathara in Wayanad, Southern India: Implications for Mars Exploration. Chemical Geology, 2021, 575, 120043.	1.4	10
1129	Nitrogen Fixation at Early Mars. Astrobiology, 2021, 21, 968-980.	1.5	10
1130	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
1131	Manganese oxides in Martian meteorites Northwest Africa (NWA) 7034 and 7533. Icarus, 2021, 364, 11	4471. 1.1	8
1132	In Situ Geochronology for the Next Decade: Mission Designs for the Moon, Mars, and Vesta. Planetary Science Journal, 2021, 2, 145.	1.5	6
1133	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

#	Article	IF	Citations
1134	Bridging the gap between microbial limits and extremes in space: space microbial biotechnology in the next 15 years. Microbial Biotechnology, 2022, 15, 29-41.	2.0	7
1135	Quantifying the minerals abundances on planetary surfaces using VIS–NIR spectroscopy, what uncertainties should we expect? General results and application to the case of phyllosilicates and carbonates on Mars. Icarus, 2021, 365, 114498.	1.1	2
1136	Laser-Induced Breakdown Spectroscopy (LIBS) characterization of granular soils: Implications for ChemCam analyses at Gale crater, Mars. Icarus, 2021, 365, 114481.	1.1	11
1137	Geological History of Southeastern Gorgonum Chaos, Mars: A Story of Water and Wind. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006903.	1.5	1
1138	Orientation Averaged Visible/Nearâ€Infrared and Midâ€Infrared Optical Constants of Hydrous Caâ€Sulfates: Gypsum and Bassanite. Earth and Space Science, 2021, 8, e2021EA001834.	1.1	5
1139	Early diagenesis at and below Vera Rubin ridge, Gale crater, Mars. Meteoritics and Planetary Science, 2021, 56, 1905-1932.	0.7	7
1140	Exposure of cyanobacterium Nostoc sp. to the Mars-like stratosphere environment. Journal of Photochemistry and Photobiology B: Biology, 2021, 224, 112307.	1.7	13
1141	The Zephyria Planum hills as a source of water. Planetary and Space Science, 2021, 208, 105340.	0.9	0
1142	A new laboratory emissivity and reflectance spectral library for the interpretation of Mars thermal infrared spectral data. Icarus, 2021, 368, 114622.	1.1	6
1143	Imaging Mars analog minerals' reflectance spectra and testing mineral detection algorithms. Icarus, 2021, 369, 114644.	1.1	4
1144	Spatial distributions and origin of hydrated sulfate minerals at the mineral bowl in Ophir Chasma, Mars. Planetary and Space Science, 2021, 207, 105323.	0.9	0
1145	Global climate and river transport simulations of early Mars around the Noachian and Hesperian boundary. Icarus, 2021, 368, 114618.	1.1	16
1146	Inverted channel variations identified on a distal portion of a bajada in the central Atacama Desert, Chile. Geomorphology, 2021, 393, 107925.	1.1	6
1147	Spectral endmember variability on hyperspectral datasets of a martian meteorite — implications for planetary surfaces. Icarus, 2021, 370, 114656.	1.1	2
1148	Igneous composition. , 2021, , 162-189.		0
1149	Reconstructing the past climate at Gale crater, Mars, from hydrological modeling of lateâ€stage lakes. Geophysical Research Letters, 2017, 44, 8196-8204.	1.5	25
1151	Morphological Biosignatures in Early Terrestrial andÂExtraterrestrial Materials. Space Sciences Series of ISSI, 2008, , 95-114.	0.0	5
1152	Iron-Tolerant Cyanobacteria. Cellular Origin and Life in Extreme Habitats, 2007, , 425-442.	0.3	5

#	Article	IF	Citations
1153	Hydrothermal Processes and Systems on Other Planets and Satellites: Clues for the Search of Extraterrestrial Life. , 2009, , 1131-1211.		1
1154	The Radiation Assessment Detector (RAD) Investigation. , 2012, , 503-558.		5
1155	Selection of the Mars Science Laboratory Landing Site. , 2012, , 641-737.		10
1156	Long-Term Evolution of the Martian Crust-Mantle System. Space Sciences Series of ISSI, 2012, , 49-111.	0.0	4
1157	Outgassing History and Escape of the Martian Atmosphere and Water Inventory. Space Sciences Series of ISSI, 2012, , 113-154.	0.0	6
1158	Geochemical Reservoirs and Timing of Sulfur Cycling on Mars. Space Sciences Series of ISSI, 2012, , 251-300.	0.0	2
1159	Lacustrine Features (Mars). , 2014, , 1-10.		1
1161	The Microbiological Promises of Extreme Soils. Soil Biology, 2008, , 3-13.	0.6	4
1163	Preservation Potential and Habitability of Clay Minerals- and Iron-Rich Environments: Novel Analogs for the 2011 Mars Science Laboratory Mission. Cellular Origin and Life in Extreme Habitats, 2011, , 705-722.	0.3	3
1164	Microbial Scale Habitability on Mars. Cellular Origin and Life in Extreme Habitats, 2013, , 183-202.	0.3	4
1165	Evidence for ancient lakes in the Hellas region. , 2010, , 195-222.		9
1168	Review of high fidelity imaging spectrometer design for remote sensing. Optical Engineering, 2018, 57, 1.	0.5	37
1169	The Sedimentary Rock Record of Mars: Distribution, Origins, and Global Stratigraphy. , 2012, , 1-48.		60
1170	An Atlas of Mars Sedimentary Rocks as seen by HIRISE. , 2012, , 49-95.		4
1171	Focusing the Search for Biosignatures on Mars: Facies Prediction with an Example from Acidalia Planitia. , 2012, , 183-194.		6
1172	Early Diagenesis by Modern Acid Brines in Western Australia and Implications for the History of Sedimentary Modification on Mars. , 2012, , 229-252.		12
1174	Combined investigation of H isotopic compositions and U-Pb chronology of young Martian meteorite Larkman Nunatak 06319. Geochemical Journal, 2016, 50, 363-377.	0.5	9
1175	Comparative Climatology of Terrestrial Planets. , 2013, , .		6

# 1176	ARTICLE Sedimentary Processes on Earth, Mars, Titan, and Venus. , 2013, , .	IF	Citations 18
1177	Atmospheric Escape and Climate Evolution of Terrestrial Planets. , 2013, , .		8
1178	Identification and visualisation of possible ancient ocean shoreline on Mars using submeter-resolution Digital Terrain Models. Geologos, 2014, 20, 289-301.	0.2	5
1180	Very recent karst landforms within Cagli crater, Sinus Meridiani, Mars. Italian Journal of Geosciences, 2019, 138, 262-273.	0.4	2
1181	Space-based spectroscopy of Mars: new methods and new results. Physics-Uspekhi, 2013, 56, 722-729.	0.8	2
1183	Karst Landforms in a Martian Evaporitic Dome. Acta Carsologica, 2012, 38, .	0.3	15
1184	Mineralogical characterization of Martian Jezero crater from MRO CRISM hyperspectral images. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XL-4, 117-119.	0.2	1
1185	History of Scientific Studies and Current Views of Mars. , 2021, , 1-17.		0
1186	Fungal biomarkers are detectable in Martian rock-analogues after space exposure: implications for the search of life on Mars. International Journal of Astrobiology, 2021, 20, 345-358.	0.9	8
1187	A Global and Seasonal Perspective of Martian Water Vapor From ExoMars/NOMAD. Journal of Geophysical Research E: Planets, 2021, 126, .	1.5	8
1188	The Geology and Habitability of Terrestrial Planets: Fundamental Requirements for Life. Space Sciences Series of ISSI, 2007, , 7-34.	0.0	0
1189	Urey: Mars Organic and Oxidant Detector. Space Sciences Series of ISSI, 2008, , 269-279.	0.0	0
1190	Tumbleweed: A New Paradigm for Surveying the Surface of Mars for In-situ Resources. , 2009, , 401-429.		2
1191	Available Resources and Energy Sources from Mars Rock and Soil. , 2009, , 483-516.		1
1192	Preservation Windows for Paleobiological Traces in the Mars Geological Record. Cellular Origin and Life in Extreme Habitats, 2009, , 491-512.	0.3	0
1193	Mars as a place to live? Past, present and future. Studies in Space Policy, 2009, , 202-209.	0.3	0
1194	Episodic ponding and outburst flooding associated with chaotic terrains in Valles Marineris. , 2010, , 163-194.		1
1195	Potential of the Solar Energy on Mars. , 0, , .		2

		TION REPORT	
# 1196	ARTICLE Hyperspectral Analysis of Rocky Surfaces on the Earth and Other Planetary Bodies. , 2011, , 637-660.	IF	CITATIONS
1197	Quantitative Assessments of the Martian Hydrosphere. Space Sciences Series of ISSI, 2012, , 155-212.	0.0	0
1198	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Science Objectives and Mast Unit Description. , 2012, , 95-166.		2
1199	Geochemical Consequences of Widespread Clay Mineral Formation in Mars' Ancient Crust. Space Sciences Series of ISSI, 2012, , 329-364.	0.0	0
1200	Surface Properties of the Mars Science Laboratory Candidate Landing Sites: Characterization from Orbit and Predictions. , 2012, , 739-773.		2
1201	Geochemistry of Carbonates on Mars: Implications for Climate History and Nature of Aqueous Environments. Space Sciences Series of ISSI, 2012, , 301-328.	0.0	2
1202	The Sample Analysis at Mars Investigation and Instrument Suite. , 2012, , 401-478.		5
1203	Missions to Mars: Reimagining the Red Planet in the Age of Spaceflight. , 2013, , 249-272.		0
1204	Terrestrial Planets. , 2013, , 111-193.		0
1205	Phyllosilicates, Extraterrestrial. , 2014, , 1-2.		0
1206	Chronostratigraphy. , 2014, , 1-14.		0
1207	Sedimentary Rocks (Mars). , 2014, , 1-9.		0
1209	Mars Science Laboratory. , 2014, , 1-17.		0
1210	Mars Science Laboratory. , 2015, , 1479-1493.		0
1211	Planetare Fernerkundung. , 2015, , 1-58.		0
1212	Sedimentary Rocks (Mars). , 2015, , 1900-1907.		0
1213	Lacustrine Features (Mars). , 2015, , 1087-1094.		0
1215	Phyllosilicates, Extraterrestrial. , 2015, , 1884-1885.		0

#	Article	IF	CITATIONS
1216	Chronostratigraphy. , 2015, , 454-466.		0
1217	Basal Scarp (Olympus Mons, Mars). , 2015, , 137-141.		1
1218	Composition and Chemistry of the Atmospheres of Terrestrial Planets: Venus, the Earth, Mars, and Titan. , 2017, , 1-28.		1
1219	Planetare Fernerkundung. , 2017, , 373-429.		0
1220	The Habitable Zone: The Climatic Limits of Habitability. , 2018, , 1-13.		0
1221	Water and Volatile Inventories of Mercury, Venus, the Moon, and Mars. Space Sciences Series of ISSI, 2018, , 151-189.	0.0	0
1223	A GRADIENT-REGION CONSTRAINED LEVEL SET METHOD FOR AUTONOMOUS ROCK DETECTION FROM MARS ROVER IMAGE. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2/W13, 1479-1485.	0.2	6
1225	Extraterrestrial Fluvial Environments. , 2020, , 994-994.		0
1227	The Coastal Geomorphology of Mars. , 2021, , .		0
1228	Petrologic Evolution of Martian Volcanism and Clues from Meteorites. , 2021, , 51-69.		0
1230	An arid-semiarid climate during the Noachian-Hesperian transition in the Huygens region, Mars: Evidence from morphological studies of valley networks. Icarus, 2022, 373, 114789.	1.1	3
1231	Depositional Controls of the Layered Deposits of Arabia Terra, Mars: Hints From Basin Geometries and Stratigraphic Trends. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006974.	1.5	7
1234	Extensive jarosite deposits formed through auto-combustion and weathering of pyritiferous mudstone, Smoking Hills (Ingniryuat), Northwest Territories, Canadian Arctic – A potential Mars analogue. Chemical Geology, 2022, 587, 120634.	1.4	7
1235	The M3 project: 3 – Global abundance distribution of hydrated silicates at Mars. Icarus, 2022, 374, 114809.	1.1	7
1236	The SuperCam infrared spectrometer for the perseverance rover of the Mars2020 mission. Icarus, 2022, 373, 114773.	1.1	19
1237	Spectral reflectance properties of minerals exposed to martian surface conditions: Implications for spectroscopy-based mineral detection on Mars. Planetary and Space Science, 2022, 210, 105377.	0.9	5
1238	Irregular polygonal ridge networks in ancient Noachian terrain on Mars. Icarus, 2021, 374, 114833.	1.1	2
1239	Effusive silicate volcanism: Observations and processes. , 2022, , 5-75.		1

#	Article	IF	CITATIONS
1240	The Mars system revealed by the Martian Moons eXploration mission. Earth, Planets and Space, 2022, 74, .	0.9	11
1241	Using Long wave Infrared Spectroscopy to Determine Changes in the Mafic Mineralogy of Drill Core Samples from the Humu'ula Groundwater Research Project. , 2020, , .		Ο
1242	Seeding the Solar System with Life: Mars, Venus, Earth, Moon, Protoplanets. Open Astronomy, 2020, 29, 124-157.	0.2	2
1243	Rivers and Lakes in Western Arabia Terra: The Fluvial Catchment of the ExoMars 2022 Rover Landing Site. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	9
1244	Circumpolar ocean stability on Mars 3 Gy ago. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	17
1245	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. Earth, Planets and Space, 2022, 74, .	0.9	51
1246	The Evolution of Ancient Fluvial Systems in Memnonia Sulci, Mars: Impact Crater Damming, Aggradation, and a Large Water Body on the Dichotomy?. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	2
1247	Assessing the role of clay and salts on the origin of MARSIS basal bright reflections. Earth and Planetary Science Letters, 2022, 579, 117370.	1.8	15
1248	Insight into martian crater degradation history based on crater depth and diameter statistics. Icarus, 2022, 377, 114898.	1.1	4
1249	Clays and the Origin of Life: The Experiments. Life, 2022, 12, 259.	1.1	25
1250	Carbonate dissolution and replacement by odinite and saponite in the lafayette nakhlite: part of the CO2-CH4 cycle on mars?. Geochimica Et Cosmochimica Acta, 2022, , .	1.6	3
1251	Constraints on the uncertainty, timing, and magnitude of potential Mars oceans from topographic deformation models. Icarus, 2022, 378, 114934.	1.1	8
1253	Chirality in Organic and Mineral Systems: A Review of Reactivity and Alteration Processes Relevant to Prebiotic Chemistry and Life Detection Missions. Symmetry, 2022, 14, 460.	1.1	15
1254	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
1255	Visible to Midâ \in Infrared Optical Constants of Orthopyroxenes. Earth and Space Science, 2022, 9, .	1.1	1
1256	Testing Correspondence between Areas with Hydrated Minerals, as Observed by CRISM/MRO, and Spots of Enhanced Subsurface Water Content, as Found by DAN along the Traverse of Curiosity. Advances in Astronomy, 2022, 2022, 1-10.	0.5	3
1257	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
1258	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

ARTICLE

IF CITATIONS

1259 Geology, in-situ resource-identification and engineering analysis of the Vernal crater area (Arabia) Tj ETQq0 0 0 rgBT/Qverlock 10 Tf 50 2

1260	Wind-snow interactions at the Ojos del Salado region as a potential Mars analogue site in the Altiplano - Atacama desert region. Icarus, 2022, 378, 114941.	1.1	2
1261	Occurrence of secondary minerals at Tharsis Montes of Mars: A critical assessment. Icarus, 2022, 378, 114953.	1.1	3
1262	Constraining the formation of paleolake inlet valleys across crater rims. Icarus, 2022, 378, 114945.	1.1	5
1263	Crystallinity effects on the vibrational spectral features of saponite: Implications for characterizing variable crystalline phyllosilicates on Mars. Icarus, 2022, 379, 114951.	1.1	5
1264	Development of Shalbatana Vallis (Mars) by dry volcanic processes. Planetary and Space Science, 2022, 215, 105464.	0.9	1
1265	Electronic and spectroscopic studies of rare earth doped yttrium strontium silicate fluorapatite compound. Optics and Laser Technology, 2022, 152, 108108.	2.2	2
1266	Lunar Infrared Spectrometer with TV Support of the Robotic Arm Working Zone (LIS-TV-RPM). Solar System Research, 2021, 55, 537-549.	0.3	2
1268	Hydrothermal alteration at the basaltâ€hosted Vista Alegre impact structure, Brazil. Meteoritics and Planetary Science, 2021, 56, 2155-2174.	0.7	0
1269	Constraints on the formation of carbonates and lowâ€grade metamorphic phases in the Martian crust as a function of H ₂ O O ₂ fluids. Meteoritics and Planetary Science, 2022, 57, 77-104.	0.7	2
1270	Ground Validation Experiment and Spectral Detection Capability Evaluation of Mars Mineralogical Spectrometer (MMS) Aboard HX-1 Orbiter. Space Science Reviews, 2022, 218, 1.	3.7	3
1271	Mars as a time machine to Precambrian Earth. Journal of the Geological Society, 2022, 179, .	0.9	1
1272	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
1275	Thermodynamics of the External Geodynamics of Mars Water Phases and Weathering Processes. Advances in Chemical and Materials Engineering Book Series, 2022, , 1-37.	0.2	0
1276	Remote and in-Situ Characterization of Mars Analogs: Coupling Scales to Improve the Search for Microbial Signatures on Mars. Frontiers in Astronomy and Space Sciences, 2022, 9, .	1.1	0
1277	Zhurong reveals recent aqueous activities in Utopia Planitia, Mars. Science Advances, 2022, 8, eabn8555.	4.7	34
1278	Xâ€Ray Amorphous Sulfurâ€Bearing Phases in Sedimentary Rocks of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	10
1279	Presence of clay minerals can obscure spectral evidence of Mg sulfates: implications for orbital observations of Mars. Icarus, 2022, 383, 115083.	1.1	5

#	Article	IF	CITATIONS
1280	Orbital and Inâ€ S itu Investigation of Periodic Bedrock Ridges in Glen Torridon, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	18
1281	A Laboratory Open-Set Martian Rock Classification Method Based on Spectral Signatures. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-15.	2.7	4
1282	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
1283	Evolution of ice sheets on early Mars with subglacial river systems. Icarus, 2022, 385, 115117.	1.1	4
1284	Standards of evidence in the search for extraterrestrial life. , 2022, , 1-17.		0
1285	Sulfur isotopes as biosignatures for Mars and Europa exploration. Journal of the Geological Society, 0, , jgs2021-134.	0.9	3
1286	The Deuterium Isotopic Ratio of Water Released From the Martian Caps as Measured With TGO/NOMAD. Geophysical Research Letters, 2022, 49, .	1.5	15
1287	Fe-Rich Fossil Vents as Mars Analog Samples: Identification of Extinct Chimneys in Miocene Marine Sediments Using Raman Spectroscopy, X-Ray Diffraction, and Scanning Electron Microscopy–Energy Dispersive X-Ray Spectroscopy. Astrobiology, 0, , .	1.5	1
1288	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
1289	Concept and Design of Martian Far-IR ORE Spectrometer (MIRORES). Remote Sensing, 2022, 14, 2799.	1.8	2
1290	Exploring the Shallow Subsurface of Mars with the Ma_MISS Spectrometer on the ExoMars Rover Rosalind Franklin. Planetary Science Journal, 2022, 3, 142.	1.5	9
1291	Constraining the spectral behavior of the clay-bearing outcrops in Oxia Planum, the landing site for ExoMars "Rosalind Franklin―rover. Icarus, 2022, 386, 115114.	1.1	10
1292	Database on mineral mediated carbon reduction: implications for future research. International Journal of Astrobiology, 0, , 1-18.	0.9	1
1293	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
1296	Possible widespread occurrence of vermiculite on Mars. Applied Clay Science, 2022, 228, 106643.	2.6	7
1297	Episodic and declining fluvial processes in Noctis Fossae, Syria Planum Province, Mars. Advances in Space Research, 2022, , .	1.2	0
1298	Thermophysical and compositional properties of paleobedforms on Mars. Journal of Geophysical Research E: Planets, 0, , .	1.5	0
1299	Methods and explanatory notes. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	0

#	Article	IF	CITATIONS
1301	Sedimentological and Geochemical Perspectives on a Marginal Lake Environment Recorded in the Hartmann's Valley and Karasburg Members of the Murray Formation, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	9
1302	Enigmatic Issues and Widening Implications of Research on Martian Clay Minerals. ACS Earth and Space Chemistry, 0, , .	1.2	3
1304	Microbial diversity and adaptive strategies in the Marsâ€like Qaidam Basin, North Tibetan Plateau, China. Environmental Microbiology Reports, 2022, 14, 873-885.	1.0	11
1305	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
1306	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
1307	Preservation of glycine coordination compounds under a gamma radiation dose representative of natural mars radioactivity. Scientific Reports, 2022, 12, .	1.6	1
1308	Understanding redox processes during iron precipitation in standing water: implications in formation of iron oxides minerals in the terrestrial planetary environment (especially Mars). Proceedings of the Indian National Science Academy, 0, , .	0.5	0
1309	A Mars orbital catalog of aqueous alteration signatures (MOCAAS). Icarus, 2023, 389, 115164.	1.1	7
1310	Serpentine-magnesite association of Salem Ultramafic Complex, southern India: A potential analogue for mars. Planetary and Space Science, 2022, , 105528.	0.9	1
1311	Ma'adim Vallis, Mars: Insights into episodic and late-stage water activity from an impact crater. Icarus, 2022, 387, 115214.	1.1	0
1312	Possible formation pathways for zeolites in closed-basin lakes on noachian Mars: Insights from geochemical modeling. Icarus, 2023, 389, 115271.	1.1	2
1313	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
1314	Nitrogen Incorporation in Potassic and Micro- and Meso-Porous Minerals: Potential Biogeochemical Records and Targets for Mars Sampling. Astrobiology, 2022, 22, 1293-1309.	1.5	1
1315	Experiments on the reactivity of basaltic minerals and glasses in Venus surface conditions using the Glenn Extreme Environment Rig. Meteoritics and Planetary Science, 2022, 57, 1796-1819.	0.7	4
1316	Protracted Hydrogeological Activity in Arabia Terra, Mars: Evidence From the Structure and Mineralogy of the Layered Deposits of Becquerel Crater. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	8
1317	Martian Atmospheric Spectral Endâ€Members Retrieval From ExoMars Thermal Infrared (TIRVIM) Data. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	0
1318	An Analysis of Morphology and Diverse Mineralogy in Ius Chasma, Valles Marineris Using MCC, CRISM and CTX Data. Journal of the Indian Society of Remote Sensing, 2022, 50, 2395-2410.	1.2	1
1319	The visible mid-wave Dyson imaging spectrometer (VMDIS). , 2022, , .		2

#	Article	IF	CITATIONS
1320	Basin-scale subsurface characterization using single-station teleseismic receiver function analysis. The Leading Edge, 2022, 41, 700-708.	0.4	0
1321	Pit-floored craters and layered terrains in the circum-Hellas region, Mars: Morphology, topography, stratigraphy, and relation to Late Noachian–Early Hesperian climate. Planetary and Space Science, 2022, 222, 105574.	0.9	1
1322	Impact of CaSO4-rich soil on Miocene surface preservation and Quaternary sinuous to meandering channel forms in the hyperarid Atacama Desert. Scientific Reports, 2022, 12, .	1.6	10
1323	The archaeal class Halobacteria and astrobiology: Knowledge gaps and research opportunities. Frontiers in Microbiology, 0, 13, .	1.5	2
1324	Spectroscopic Studies on the Puga Hot Spring Deposits, Ladakh, an Astrobiological Martian Analog Site in India. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	1
1325	Characterization of Clasts in the Glen Torridon Region of Gale Crater Observed by the Mars Science Laboratory Curiosity Rover. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
1326	Supervolcanic resurfacing in northwestern Arabia Terra, Mars. Icarus, 2023, 390, 115303.	1.1	1
1327	From planetary exploration goals to technology requirements. , 2023, , 177-248.		1
1329	Water and Chlorine in the Martian Subsurface Along the Traverse of NASA's Curiosity Rover: 1. DAN Measurement Profiles Along the Traverse. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
1330	Chemical weathering over hundreds of millions of years of greenhouse conditions on Mars. Communications Earth & Environment, 2022, 3, .	2.6	3
1331	Geochemical bio-signatures in Martian analogue basaltic environments using laboratory experiments and thermochemical modelling. Frontiers in Astronomy and Space Sciences, 0, 9, .	1.1	1
1332	A Positive Feedback Between Crustal Thickness and Melt Extraction for the Origin of the Martian Dichotomy. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
1333	Barform deposits of the Carolyn Shoemaker formation, Gale crater, Mars. Journal of Sedimentary Research, 2022, 92, 1071-1092.	0.8	6
1334	Stable Bassanite Bulk Phase Formed in Aqueous Solution under the Control of Polymer-Mediated Water Activity. Crystal Growth and Design, 2023, 23, 1172-1178.	1.4	1
1335	The Water Activity of Mars-relevant Multicomponent Brines: The Changing Influence of Perchlorate on Habitability over Time. Planetary Science Journal, 2023, 4, 6.	1.5	0
1336	AstroVision: Towards autonomous feature detection and description for missions to small bodies using deep learning. Acta Astronautica, 2023, 210, 393-410.	1.7	2
1337	New Detections of Feldsparâ€Bearing Volcanic Rocks in the Walls of Valles Marineris, Mars. Geophysical Research Letters, 2023, 50, .	1.5	1
1338	Phyllosilicate formation on early Mars via open-system acid alteration of basaltic glass. Earth and Planetary Science Letters, 2023, 603, 117987.	1.8	3
CITATION REPORT

#	Article	IF	CITATIONS
1339	Liquid water lake under ice in Mars's southern hemisphere—Possibility of subsurface biosphere and life. , 2023, , 453-522.		0
1340	Surface environment evolution for Venus, Earth, and Mars—the planets which began with the same inventory of elements. , 2023, , 359-398.		0
1341	Ancient Siliciclastic–Evaporites as Seen by Remote Sensing Instrumentation with Implications for the Rover-Scale Exploration of Sedimentary Environments on Mars. Astrobiology, 2023, 23, 477-495.	1.5	0
1342	Spectral reflectance properties of nontronite exposed to Mars-like surface conditions and low-temperature heating (<300°C). Icarus, 2023, 395, 115448.	1.1	1
1343	Gradeability of †Zhu Rong' Mars rover based on the simulated Martian terrain. Journal of Terramechanics, 2023, 106, 57-73.	1.4	0
1344	Spectral Analysis of Clay-bearing Outcrops in Northern Xanthe Terra, Mars: Comparison with Oxia Planum, the Landing Site for the ExoMars Rover Mission. Planetary Science Journal, 2023, 4, 27.	1.5	0
1345	Sources of Clayâ€Rich Sediment in Eberswalde Crater, Mars With Implications for Biopreservation Potential. Journal of Geophysical Research E: Planets, 2023, 128, .	1.5	0
1346	Groundwaterâ€Controlled Deposition of Equatorial Layered Deposits in Central Arabia Terra, Mars. Journal of Geophysical Research E: Planets, 2023, 128, .	1.5	1
1347	Mapping Brazilian soil mineralogy using proximal and remote sensing data. Geoderma, 2023, 432, 116413.	2.3	5
1348	The Role of Sulfate in Cation Exchange Reactions: Applications to Clay–Brine Interactions on Mars. Planetary Science Journal, 2023, 4, 48.	1.5	1
1349	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
1350	The ultraviolet habitable zone of exoplanets. Monthly Notices of the Royal Astronomical Society, 2023, 522, 1411-1418.	1.6	0
1351	Thermal Stability of (Bio)Carbonates: A Potential Signature for Detecting Life on Mars?. Astrobiology, 2023, 23, 359-371.	1.5	0
1352	SOPHIA: A mineralogical simulant for phyllosilicate terrains at the Rosalind Franklin landing site, Oxia Planum, Mars. Icarus, 2023, 400, 115568.	1.1	0
1353	Planetary Exploration of Mars. , 2023, , 689-720.		0
1354	Mars Simulation Facilities: A Review of Recent Developments, Capabilities and Applications. Journal of the Indian Institute of Science, 0, , .	0.9	1
1368	Phyllosilicates, Extraterrestrial. , 2023, , 2311-2312.		0
1370	Chronostratigraphy. , 2023, , 567-579.		0

#	Article	IF	CITATIONS
1383	Geological evidence for multiple climate transitions on Early Mars. Nature Geoscience, 2024, 17, 10-19.	5.4	0

CITATION REPORT