Richard Morris

List of Publications by Year
in descending order

162 papers	19,976 citations	8749 75 h-index	10441 139 g-index
166 all docs	166 docs citations	166 times ranked	6221 citing authors

#	Article	IF	Citations
1	In Situ Evidence for an Ancient Aqueous Environment at Meridiani Planum, Mars. Science, 2004, 306, 1709-1714.	6.0	845
2	Jarosite and Hematite at Meridiani Planum from Opportunity's MÃ¶ssbauer Spectrometer. Science, 2004, 306, 1740-1745.	6.0	733
3	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
4	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
5	The Opportunity Rover's Athena Science Investigation at Meridiani Planum, Mars. Science, 2004, 306, 1698-1703.	6.0	507
6	The Sample Analysis at Mars Investigation and Instrument Suite. Space Science Reviews, 2012, 170, 401-478.	3.7	435
7	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Body Unit and Combined System Tests. Space Science Reviews, 2012, 170, 167-227.	3.7	429
8	Detection of crystalline hematite mineralization on Mars by the Thermal Emission Spectrometer: Evidence for near-surface water. Journal of Geophysical Research, 2000, 105, 9623-9642.	3.3	427
9	The Spirit Rover's Athena Science Investigation at Gusev Crater, Mars. Science, 2004, 305, 794-799.	6.0	404
10	Detection of Silica-Rich Deposits on Mars. Science, 2008, 320, 1063-1067.	6.0	399
11	Spectral and other physicochemical properties of submicron powders of hematite (Î±â€Fe₂O₃), maghemite (Î³â€Fe₂O₃), magnetite (Fe₃O₄), goethite (Î±â€FeOOH), and lepidocrocite (Î³â€FeOOH). Journal of Geophysical Research, 1985, 90, 3126-3144.	3.3	375
12	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367
13	Identification of Carbonate-Rich Outcrops on Mars by the Spirit Rover. Science, 2010, 329, 421-424.	6.0	358
14	An integrated view of the chemistry and mineralogy of martian soils. Nature, 2005, 436, 49-54.	13.7	348
15	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	6.0	327
16	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
17	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
18	MÃ¶ssbauer mineralogy of rock, soil, and dust at Gusev crater, Mars: Spirit's journey through weakly altered olivine basalt on the plains and pervasively altered basalt in the Columbia Hills. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	314

#	Article	IF	Citations
19	Evidence for Calcium Carbonate at the Mars Phoenix Landing Site. Science, 2009, 325, 61-64.	6.0	300
20	Mineralogy, composition, and alteration of Mars Pathfinder rocks and soils: Evidence from multispectral, elemental, and magnetic data on terrestrial analogue, SNC meteorite, and Pathfinder samples. Journal of Geophysical Research, 2000, 105, 1757-1817.	3.3	294
21	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280
22	Mineralogy at Gusev Crater from the Mossbauer Spectrometer on the Spirit Rover. Science, 2004, 305, 833-836.	6.0	279
23	Mineralogic and compositional properties of Martian soil and dust: Results from Mars Pathfinder. Journal of Geophysical Research, 2000, 105, 1721-1755.	3.3	274
24	Mars Exploration Rover Athena Panoramic Camera (Pancam) investigation. Journal of Geophysical Research, 2003, 108, .	3.3	247
25	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
26	Basaltic Rocks Analyzed by the Spirit Rover in Gusev Crater. Science, 2004, 305, 842-845.	6.0	244
27	Overview of the Spirit Mars Exploration Rover Mission to Gusev Crater: Landing site to Backstay Rock in the Columbia Hills. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	238
28	Geochemical and mineralogical indicators for aqueous processes in the Columbia Hills of Gusev crater, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	234
29	Athena Mars rover science investigation. Journal of Geophysical Research, 2003, 108, .	3.3	233
30	Characterization and petrologic interpretation of olivine-rich basalts at Gusev Crater, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	227
31	MÃ¶ssbauer 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
32	Characterization and Calibration of the CheMin Mineralogical Instrument on Mars Science Laboratory. Space Science Reviews, 2012, 170, 341-399.	3.7	220
33	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	6.0	215
34	Athena MIMOS II MÃ¶ssbauer spectrometer investigation. Journal of Geophysical Research, 2003, 108, .	3.3	210
35	Evidence for pigmentary hematite on Mars based on optical, magnetic, and Mossbauer studies of superparamagnetic (nanocrystalline) hematite. Journal of Geophysical Research, 1989, 94, 2760-2778.	3.3	199
36	Ancient Aqueous Environments at Endeavour Crater, Mars. Science, 2014, 343, 1248097.	6.0	176

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37	Pyroclastic Activity at Home Plate in Gusev Crater, Mars. Science, 2007, 316, 738-742.	6.0	174
38	Initial Results from the Mini-TES Experiment in Gusev Crater from the Spirit Rover. Science, 2004, 305, 837-842.	6.0	168
39	Miniature Thermal Emission Spectrometer for the Mars Exploration Rovers. Journal of Geophysical Research, 2003, 108, .	3.3	163
40	Geochemical properties of rocks and soils in Gusev Crater, Mars: Results of the Alpha Particle Xâ€Ray Spectrometer from Cumberland Ridge to Home Plate. Journal of Geophysical Research, 2008, 113, .	3.3	162
41	Iron mineralogy and aqueous alteration from Husband Hill through Home Plate at Gusev Crater, Mars: Results from the MÃ¶ssbauer instrument on the Spirit Mars Exploration Rover. Journal of Geophysical Research, 2008, 113, .	3.3	162
42	Mineralogy, provenance, and diagenesis of a potassic basaltic sandstone on Mars: CheMin Xâ€ray diffraction of the Windjana sample (Kimberley area, Gale Crater). Journal of Geophysical Research E: Planets, 2016, 121, 75-106.	1.5	159
43	Silicic volcanism on Mars evidenced by tridymite in high-SiO ₂ sedimentary rock at Gale crater. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7071-7076.	3.3	158
44	Characteristics, distribution, origin, and significance of opaline silica observed by the Spirit rover in Gusev crater, Mars. Journal of Geophysical Research, 2011, 116, .	3.3	155
45	Soils of Eagle Crater and Meridiani Planum at the Opportunity Rover Landing Site. Science, 2004, 306, 1723-1726.	6.0	153
46	Pancam Multispectral Imaging Results from the Spirit Rover at Gusev Crater. Science, 2004, 305, 800-806.	6.0	153
47	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. Science Advances, 2018, 4, eaar3330.	4.7	150
48	Overview of the Opportunity Mars Exploration Rover Mission to Meridiani Planum: Eagle Crater to Purgatory Ripple. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	149
49	Alkaline volcanic rocks from the Columbia Hills, Gusev crater, Mars. Journal of Geophysical Research, 2006, 111, .	3.3	148
50	Rocks of the Columbia Hills. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	146
51	Nature and origin of the hematite-bearing plains of Terra Meridiani based on analyses of orbital and Mars Exploration rover data sets. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	144
52	Recalibration of the Mars Science Laboratory ChemCam instrument with an expanded geochemical database. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 129, 64-85.	1.5	137
53	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	6.0	134
54	Athena Microscopic Imager investigation. Journal of Geophysical Research, 2003, 108, .	3.3	129

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55	Hydrothermal processes at Gusev Crater: An evaluation of Paso Robles class soils. Journal of Geophysical Research, 2008, 113, .	3.3	129
56	Pigmenting agents in martian soils: Inferences from spectral, MÃ¶ssbauer, and magnetic properties of nanophase and other iron oxides in Hawaiian palagonitic soil PN-9. Geochimica Et Cosmochimica Acta, 1993, 57, 4597-4609.	1.6	127
57	Geochemistry of Carbonates on Mars: Implications for Climate History and Nature of Aqueous Environments. Space Science Reviews, 2013, 174, 301-328.	3.7	126
58	Indication of drier periods on Mars from the chemistry and mineralogy of atmospheric dust. Nature, 2005, 436, 62-65.	13.7	125
59	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	0.9	122
60	A hematite-bearing layer in Gale Crater, Mars: Mapping and implications for past aqueous conditions. Geology, 2013, 41, 1103-1106.	2.0	113
61	The Mars Science Laboratory Curiosity rover Mastcam instruments: Preflight and inâ€flight calibration, validation, and data archiving. Earth and Space Science, 2017, 4, 396-452.	1.1	113
62	Opportunity Mars Rover mission: Overview and selected results from Purgatory ripple to traverses to Endeavour crater. Journal of Geophysical Research, 2011, 116, .	3.3	106
63	Spirit Mars Rover Mission to the Columbia Hills, Gusev Crater: Mission overview and selected results from the Cumberland Ridge to Home Plate. Journal of Geophysical Research, 2008, 113, .	3.3	99
64	Mineralogy of an active eolian sediment from the Namib dune, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2344-2361.	1.5	98
65	Mineralogy of volcanic rocks in Gusev Crater, Mars: Reconciling MÃ¶ssbauer, Alpha Particle Xâ€Ray Spectrometer, and Miniature Thermal Emission Spectrometer spectra. Journal of Geophysical Research, 2008, 113, .	3.3	96
66	Gypsum, bassanite, and anhydrite at Gale crater, Mars. American Mineralogist, 2018, 103, 1011-1020.	0.9	96
67	Phyllosilicate-poor palagonitic dust from Mauna Kea Volcano (Hawaii): A mineralogical analogue for magnetic Martian dust?. Journal of Geophysical Research, 2001, 106, 5057-5083.	3.3	95
68	Chemistry, mineralogy, and grain properties at Namib and High dunes, Bagnold dune field, Gale crater, Mars: A synthesis of Curiosity rover observations. Journal of Geophysical Research E: Planets, 2017, 122, 2510-2543.	1.5	95
69	Crystal chemistry of martian minerals from Bradbury Landing through Naukluft Plateau, Gale crater, Mars. American Mineralogist, 2018, 103, 857-871.	0.9	94
70	Concentrated perchlorate at the Mars Phoenix landing site: Evidence for thin film liquid water on Mars. Geophysical Research Letters, 2010, 37, .	1.5	92
71	Mineralogy of Vera Rubin Ridge From the Mars Science Laboratory CheMin Instrument. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006306.	1.5	86
72	Evidence for montmorillonite or its compositional equivalent in Columbia Hills, Mars. Journal of Geophysical Research, 2007, 112, .	3.3	81

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73	The influence of multivariate analysis methods and target grain size on the accuracy of remote quantitative chemical analysis of rocks using laser induced breakdown spectroscopy. Icarus, 2011, 215, 608-627.	1.1	81
74	Evidence for platy hematite grains in Sinus Meridiani, Mars. Journal of Geophysical Research, 2002, 107, 9-1-9-15.	3.3	79
75	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
76	Origins of Marslike spectral and magnetic properties of a Hawaiian palagonitic soil. Journal of Geophysical Research, 1990, 95, 14427-14434.	3.3	76
77	Meteorites on Mars observed with the Mars Exploration Rovers. Journal of Geophysical Research, 2008, 113, .	3.3	75
78	Stratigraphy of hydrated sulfates in the sedimentary deposits of Aram Chaos, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	74
79	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
80	Abundances and implications of volatileâ€bearing species from evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 237-254.	1.5	73
81	Hydrothermal origin of halogens at Home Plate, Gusev Crater. Journal of Geophysical Research, 2008, 113, .	3.3	71
82	Improved accuracy in quantitative laser-induced breakdown spectroscopy using sub-models. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 129, 49-57.	1.5	71
83	Matrix effects for reflectivity spectra of dispersed nanophase (superparamagnetic) hematite with application to Martian spectral data. Journal of Geophysical Research, 1990, 95, 5101-5109.	3.3	70
84	Laboratory-simulated acid-sulfate weathering of basaltic materials: Implications for formation of sulfates at Meridiani Planum and Gusev crater, Mars. Journal of Geophysical Research, 2005, 110, .	3.3	69
85	Evidence for a Diagenetic Origin of Vera Rubin Ridge, Gale Crater, Mars: Summary and Synthesis of Curiosity's Exploration Campaign. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006527.	1.5	69
86	Ferrian saponite from the Santa Monica Mountains (California, U.S.A., Earth): Characterization as an analog for clay minerals on Mars with application to Yellowknife Bay in Gale Crater. American Mineralogist, 2014, 99, 2234-2250.	0.9	67
87	Nickel on Mars: Constraints on meteoritic material at the surface. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	65
88	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
89	Hematite, pyroxene, and phyllosilicates on Mars: Implications from oxidized impact melt rocks from Manicouagan Crater, Quebec, Canada. Journal of Geophysical Research, 1995, 100, 5319.	3.3	64
90	Phyllosilicate and sulfateâ€hematite deposits within Miyamoto crater in southern Sinus Meridiani, Mars. Geophysical Research Letters, 2008, 35, .	1.5	63

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91	An experimental study on kineticallyâ€driven precipitation of calciumâ€magnesiumâ€iron carbonates from solution: Implications for the lowâ€temperature formation of carbonates in martian meteorite Allan Hills 84001. Meteoritics and Planetary Science, 2000, 35, 457-465.	0.7	60
92	Mineralogy of three slightly palagonitized basaltic tephra samples from the summit of Mauna Kea, Hawaii. Journal of Geophysical Research, 1993, 98, 3401-3411.	3.3	56
93	High concentrations of manganese and sulfur in deposits on Murray Ridge, Endeavour Crater, Mars. American Mineralogist, 2016, 101, 1389-1405.	0.9	55
94	Large sulfur isotope fractionations in Martian sediments at Gale crater. Nature Geoscience, 2017, 10, 658-662.	5.4	53
95	Acid sulfate alteration of fluorapatite, basaltic glass and olivine by hydrothermal vapors and fluids: Implications for fumarolic activity and secondary phosphate phases in sulfateâ€rich Paso Robles soil at Gusev Crater, Mars. Journal of Geophysical Research E: Planets, 2013, 118, 1-13.	1.5	52
96	Sand Mineralogy Within the Bagnold Dunes, Gale Crater, as Observed In Situ and From Orbit. Geophysical Research Letters, 2018, 45, 9488-9497.	1.5	52
97	Brine-driven destruction of clay minerals in Gale crater, Mars. Science, 2021, 373, 198-204.	6.0	52
98	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
99	Evidence for Multiple Diagenetic Episodes in Ancient Fluvialâ€Lacustrine Sedimentary Rocks in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006295.	1.5	45
100	MÃ¶ssbauer spectroscopy on Mars: goethite in the Columbia Hills at Gusev crater. Hyperfine Interactions, 2005, 166, 549-554.	0.2	44
101	Clustering and training set selection methods for improving the accuracy of quantitative laser induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 70, 24-32.	1.5	41
102	Relationships between unit-cell parameters and composition for rock-forming minerals on Earth, Mars, and other extraterrestrial bodies. American Mineralogist, 2018, 103, 848-856.	0.9	40
103	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106347.	1.5	40
104	Microscopy analysis of soils at the Phoenix landing site, Mars: Classification of soil particles and description of their optical and magnetic properties. Journal of Geophysical Research, 2010, 115, .	3.3	38
105	Goldenrod Pigments and the Occurrence of Hematite and Possibly Goethite in the Olympusâ€“Amazonis Region of Mars. Icarus, 1998, 134, 1-10.	1.1	36
106	The H2O and CO2 adsorption properties of phyllosilicate-poor palagonitic dust and smectites under martian environmental conditions. Icarus, 2009, 200, 463-467.	1.1	36
107	Bounce Rockâ€”A shergottiteâ€like basalt encountered at Meridiani Planum, Mars. Meteoritics and Planetary Science, 2011, 46, 1-20.	0.7	32
108	Constraints on the Mineralogy and Geochemistry of Vera Rubin Ridge, Gale Crater, Mars, From Mars Science Laboratory Sample Analysis at Mars Evolved Gas Analyses. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006309.	1.5	32

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109	Overview of the magnetic properties experiments on the Mars Exploration Rovers. Journal of Geophysical Research, 2009, 114, .	3.3	31
110	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
111	Coordinated analyses of orbital and Spirit Rover data to characterize surface materials on the cratered plains of Gusev Crater, Mars. Journal of Geophysical Research, 2007, 112, .	3.3	29
112	Diverse Lithologies and Alteration Events on the Rim of Noachianâ€Aged Endeavour Crater, Meridiani Planum, Mars: In Situ Compositional Evidence. Journal of Geophysical Research E: Planets, 2018, 123, 1255-1306.	1.5	28
113	Oxidative Alteration of Ferrous Smectites and Implications for the Redox Evolution of Early Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2469-2488.	1.5	28
114	Synergistic Ground and Orbital Observations of Iron Oxides on Mt. Sharp and Vera Rubin Ridge. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006294.	1.5	27
115	The Spirit Rover's Athena Science Investigation at Gusev Crater, Mars. Science, 2004, 305, 794-799.	6.0	27
116	MÃ¶ssbauer mineralogy on the Moon: The lunar regolith. , 1998, 117, 405-432.		26
117	Aqueous alteration on Mars. , 2008, , 519-540.		26
118	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
119	Chlorate/Feâ€Bearing Phase Mixtures as a Possible Source of Oxygen and Chlorine Detected by the Sample Analysis at Mars Instrument in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2920-2938.	1.5	26
120	Field reconnaissance geologic mapping of the Columbia Hills, Mars, based on Mars Exploration Rover Spirit and MRO HiRISE observations. Journal of Geophysical Research, 2011, 116, .	3.3	24
121	Recognizing sulfate and phosphate complexes chemisorbed onto nanophase weathering products on Mars using in-situ and remote observationsk. American Mineralogist, 2016, 101, 678-689.	0.9	23
122	Abiotic Input of Fixed Nitrogen by Bolide Impacts to Gale Crater During the Hesperian: Insights From the Mars Science Laboratory. Journal of Geophysical Research E: Planets, 2019, 124, 94-113.	1.5	23
123	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
124	Geomorphologic and mineralogic characterization of the northern plains of Mars at the Phoenix Mission candidate landing sites. Journal of Geophysical Research, 2008, 113, .	3.3	22
125	Two earth years of MÃ¶ssbauer studies of the surface of Mars with MIMOS II. Hyperfine Interactions, 2006, 170, 169-177.	0.2	21
126	Formation of Tridymite and Evidence for a Hydrothermal History at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006569.	1.5	21

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127	Depth selective MÃ¶ssbauer spectroscopy: Analysis and simulation of 6.4 keV and 14.4 keV spectra obtained from rocks at Gusev Crater, Mars, and layered laboratory samples. Journal of Geophysical Research, 2008, 113, .	3.3	20
128	Effect of Solution pH and Chloride Concentration on Akaganeite Precipitation: Implications for Akaganeite Formation on Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2211-2222.	1.5	20
129	Properties and distribution of paired candidate stony meteorites at Meridiani Planum, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	19
130	Esperance: Multiple episodes of aqueous alteration involving fracture fills and coatings at Matijevic Hill, Mars. American Mineralogist, 2016, 101, 1515-1526.	0.9	19
131	Hyperspectral reflectance mapping of cinder cones at the summit of Mauna Kea and implications for equivalent observations on Mars. Journal of Geophysical Research, 2007, 112, .	3.3	18
132	Reaction of Akaganeite with Mars-Relevant Anions. ACS Earth and Space Chemistry, 2019, 3, 314-323.	1.2	14
133	Hydrothermal Precipitation of Sanidine (Adularia) Having Full Al,Si Structural Disorder and Specular Hematite at Maunakea Volcano (Hawai'i) and at Gale Crater (Mars). Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006324.	1.5	14
134	A Review of Sample Analysis at Mars-Evolved Gas Analysis Laboratory Analog Work Supporting the Presence of Perchlorates and Chlorates in Gale Crater, Mars. Minerals (Basel, Switzerland), 2021, 11, 475.	0.8	14
135	Iron mineralogy and aqueous alteration on Mars from the MER MÃ¶ssbauer spectrometers. , 2008, , 339-365.		13
136	Metasomatic control of hydrogen contents in the layered cratonic mantle lithosphere sampled by Lac de Gras xenoliths in the central Slave craton, Canada. Geochimica Et Cosmochimica Acta, 2020, 286, 29-53.	1.6	13
137	Evolved Gas Analyses of Sedimentary Rocks From the Glen Torridon Clayâ€Bearing Unit, Gale Crater, Mars: Results From the Mars Science Laboratory Sample Analysis at Mars Instrument Suite. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	12
138	Mars Exploration Rover Pancam multispectral imaging of rocks, soils, and dust at Gusev crater and Meridiani Planum. , 0, , 281-314.		11
139	Surface Kinetic Temperatures and Nontronite Single Scattering Albedo Spectra From Mars Reconnaissance Orbiter CRISM Hyperspectral Imaging Data Over Glen Torridon, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	11
140	Search for magnetic minerals in Martian rocks: Overview of the Rock Abrasion Tool (RAT) magnet investigation on Spirit and Opportunity. Journal of Geophysical Research, 2008, 113, .	3.3	10
141	Distinct hematite populations from simultaneous fitting of MÃ¶ssbauer spectra from Meridiani Planum, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	10
142	Extraterrestrial MÃ¶ssbauer spectroscopy: more than 3Âyears of Mars exploration and developments for future missions. Hyperfine Interactions, 2008, 182, 149-156.	0.2	9
143	Isotopic and geochemical investigation of two distinct Mars analog environments using evolved gas techniques in Svalbard, Norway. Icarus, 2013, 224, 297-308.	1.1	9
144	Particle Induced X-ray Emission spectrometry (PIXE) of Hawaiian volcanics: An analogue study to evaluate the APXS field analysis of geologic materials on Mars. Icarus, 2020, 345, 113708.	1.1	9

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145	Basaltic Rocks Analyzed by the Spirit Rover in Gusev Crater. Science, 2004, 305, 842-845.	6.0	9
146	New insights into the mineralogy and weathering of the Meridiani Planum meteorite, Mars. Meteoritics and Planetary Science, 2011, 46, 21-34.	0.7	7
147	Mauna Kea, Hawaii, as an Analog Site for Future Planetary Resource Exploration: Results from the 2010 ILSO-ISRU Field-Testing Campaign. Journal of Aerospace Engineering, 2013, 26, 183-196.	0.8	7
148	Formation of Fe(III) (Hydr)oxides from Fe(II) Sulfides: Implications for Akaganeite Detection on Mars. ACS Earth and Space Chemistry, 2021, 5, 1934-1947.	1.2	7
149	Characterization and Calibration of the CheMin Mineralogical Instrument on Mars Science Laboratory. , 2012, , 341-399.		7
150	Multispectral imaging from Mars Pathfinder. , 0, , 263-280.		6
151	Geology and Geochemistry of Noachian Bedrock and Alteration Events, Meridiani Planum, Mars: MER Opportunity Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006915.	1.5	6
152	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Body Unit and Combined System Tests. , 2012, , 167-227.		6
153	In-situ MÃ¶ssbauer spectroscopy with MIMOS II. Hyperfine Interactions, 2012, 207, 97-105.	0.2	5
154	The Sample Analysis at Mars Investigation and Instrument Suite. , 2012, , 401-478.		5
155	MÃ¶ssbauer and VNIR study of dust generated from olivine basalt: application to Mars. Hyperfine Interactions, 2008, 186, 127-133.	0.2	4
156	Field-portable MÃ¶ssbauer spectroscopy on Earth, the Moon, Mars, and beyond. Geochemistry: Exploration, Environment, Analysis, 2011, 11, 129-143.	0.5	4
157	MÃ¶ssbauer Spectroscopy at Gusev Crater and Meridiani Planum. , 2019, , 538-554.		4
158	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
159	In-situ MÃ¶ssbauer spectroscopy with MIMOS II. , 2013, , 533-541.		1
160	Two earth years of MÃ¶ssbauer studies of the surface of Mars with MIMOS II. , 2007, , 169-177.		0
161	MÃ¶ssbauer and VNIR study of dust generated from olivine basalt: application to Mars. , 2008, , 1009-1015.		0
162	Extraterrestrial MÃ¶ssbauer spectroscopy: more than 3Âyears of Mars exploration and developments for future missions. , 2008, , 149-156.		0