

Richard Morris

List of Publications by Citations

Source: <https://exaly.com/author-pdf/7857482/richard-morris-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

161
papers

16,115
citations

70
h-index

126
g-index

165
ext. papers

18,061
ext. citations

12.6
avg, IF

5.19
L-index

#	Paper	IF	Citations
161	In situ evidence for an ancient aqueous environment at Meridiani Planum, Mars. <i>Science</i> , 2004 , 306, 1709-1714	33.3	693
160	Jarosite and hematite at Meridiani Planum from Opportunity's Mossbauer Spectrometer. <i>Science</i> , 2004 , 306, 1740-5	33.3	636
159	A habitable fluvio-lacustrine environment at Yellowknife Bay, Gale crater, Mars. <i>Science</i> , 2014 , 343, 1242-1247	33.3	536
158	The Opportunity Rover's Athena science investigation at Meridiani Planum, Mars. <i>Science</i> , 2004 , 306, 1698-703	33.3	421
157	Detection of crystalline hematite mineralization on Mars by the Thermal Emission Spectrometer: Evidence for near-surface water. <i>Journal of Geophysical Research</i> , 2000 , 105, 9623-9642		364
156	The Spirit Rover's Athena Science Investigation at Gusev Crater, Mars. <i>Science</i> , 2004 , 305, 794-799	33.3	358
155	Mineralogy of a mudstone at Yellowknife Bay, Gale crater, Mars. <i>Science</i> , 2014 , 343, 1243-1248	33.3	344
154	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Body Unit and Combined System Tests. <i>Space Science Reviews</i> , 2012 , 170, 167-227	7.5	336
153	Detection of silica-rich deposits on Mars. <i>Science</i> , 2008 , 320, 1063-7	33.3	330
152	Spectral and other physicochemical properties of submicron powders of hematite (alpha-Fe ₂ O ₃), maghemite (gamma-Fe ₂ O ₃), magnetite (Fe ₃ O ₄), goethite (alpha-FeOOH), and lepidocrocite (gamma-FeOOH). <i>Journal of Geophysical Research</i> , 1985 , 90, 3126-44		321
151	The Sample Analysis at Mars Investigation and Instrument Suite. <i>Space Science Reviews</i> , 2012 , 170, 401-478	7.5	320
150	Volatile, isotope, and organic analysis of martian fines with the Mars Curiosity rover. <i>Science</i> , 2013 , 341, 1238-1243	33.3	306
149	Identification of carbonate-rich outcrops on Mars by the Spirit rover. <i>Science</i> , 2010 , 329, 421-4	33.3	303
148	An integrated view of the chemistry and mineralogy of martian soils. <i>Nature</i> , 2005 , 436, 49-54	50.4	299
147	Mossbauer 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. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		278
146	Volatile and organic compositions of sedimentary rocks in Yellowknife Bay, Gale crater, Mars. <i>Science</i> , 2014 , 343, 1245-1250	33.3	277
145	Martian fluvial conglomerates at Gale crater. <i>Science</i> , 2013 , 340, 1068-72	33.3	269

144	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. <i>Journal of Geophysical Research</i> , 2000 , 105, 1757-1817		264
143	Evidence for calcium carbonate at the Mars Phoenix landing site. <i>Science</i> , 2009 , 325, 61-4	33.3	257
142	Mineralogy at Gusev Crater from the Mössbauer spectrometer on the Spirit Rover. <i>Science</i> , 2004 , 305, 833-6	33.3	248
141	Basaltic Rocks Analyzed by the Spirit Rover in Gusev Crater. <i>Science</i> , 2004 , 305, 842-845	33.3	228
140	Mineralogic and compositional properties of Martian soil and dust: Results from Mars Pathfinder. <i>Journal of Geophysical Research</i> , 2000 , 105, 1721-1755		225
139	Curiosity at Gale crater, Mars: characterization and analysis of the Rocknest sand shadow. <i>Science</i> , 2013 , 341, 1239505	33.3	222
138	X-ray diffraction results from Mars Science Laboratory: mineralogy of Rocknest at Gale crater. <i>Science</i> , 2013 , 341, 1238932	33.3	217
137	Elemental geochemistry of sedimentary rocks at Yellowknife Bay, Gale crater, Mars. <i>Science</i> , 2014 , 343, 1244734	33.3	205
136	Characterization and petrologic interpretation of olivine-rich basalts at Gusev Crater, Mars. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		203
135	Athena Mars rover science investigation. <i>Journal of Geophysical Research</i> , 2003 , 108,		199
134	Overview of the Spirit Mars Exploration Rover Mission to Gusev Crater: Landing site to Backstay Rock in the Columbia Hills. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		198
133	Mars Exploration Rover Athena Panoramic Camera (Pancam) investigation. <i>Journal of Geophysical Research</i> , 2003 , 108,		197
132	Geochemical and mineralogical indicators for aqueous processes in the Columbia Hills of Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		195
131	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. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		190
130	Soil diversity and hydration as observed by ChemCam at Gale crater, Mars. <i>Science</i> , 2013 , 341, 1238670	33.3	185
129	Athena MIMOS II Mössbauer spectrometer investigation. <i>Journal of Geophysical Research</i> , 2003 , 108,		183
128	Evidence for pigmentary hematite on Mars based on optical, magnetic, and Mossbauer studies of superparamagnetic (nanocrystalline) hematite. <i>Journal of Geophysical Research</i> , 1989 , 94, 2760-2778		178
127	Characterization and Calibration of the CheMin Mineralogical Instrument on Mars Science Laboratory. <i>Space Science Reviews</i> , 2012 , 170, 341-399	7.5	172

126	Initial results from the Mini-TES experiment in Gusev Crater from the Spirit Rover. <i>Science</i> , 2004 , 305, 837-42	33.3	154
125	Pyroclastic activity at Home Plate in Gusev Crater, Mars. <i>Science</i> , 2007 , 316, 738-42	33.3	142
124	Pancam multispectral imaging results from the Spirit Rover at Gusev Crater. <i>Science</i> , 2004 , 305, 800-6	33.3	141
123	Miniature Thermal Emission Spectrometer for the Mars Exploration Rovers. <i>Journal of Geophysical Research</i> , 2003 , 108,		133
122	Ancient aqueous environments at Endeavour crater, Mars. <i>Science</i> , 2014 , 343, 1248097	33.3	132
121	Geochemical properties of rocks and soils in Gusev Crater, Mars: Results of the Alpha Particle X-Ray Spectrometer from Cumberland Ridge to Home Plate. <i>Journal of Geophysical Research</i> , 2008 , 113,		132
120	Rocks of the Columbia Hills. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		132
119	Iron mineralogy and aqueous alteration from Husband Hill through Home Plate at Gusev Crater, Mars: Results from the Mössbauer instrument on the Spirit Mars Exploration Rover. <i>Journal of Geophysical Research</i> , 2008 , 113,		130
118	Soils of Eagle crater and Meridiani Planum at the Opportunity Rover landing site. <i>Science</i> , 2004 , 306, 1723-6	33.3	130
117	Mineralogy, provenance, and diagenesis of a potassic basaltic sandstone on Mars: CheMin X-ray diffraction of the Windjana sample (Kimberley area, Gale Crater). <i>Journal of Geophysical Research E: Planets</i> , 2016 , 121, 75-106	4.1	128
116	Alkaline volcanic rocks from the Columbia Hills, Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2006 , 111,		127
115	Nature and origin of the hematite-bearing plains of Terra Meridiani based on analyses of orbital and Mars Exploration rover data sets. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		127
114	Silicic volcanism on Mars evidenced by tridymite in high-SiO ₂ sedimentary rock at Gale crater. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 7071-6	11.5	126
113	Characteristics, distribution, origin, and significance of opaline silica observed by the Spirit rover in Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2011 , 116,		123
112	Overview of the Opportunity Mars Exploration Rover Mission to Meridiani Planum: Eagle Crater to Purgatory Ripple. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		123
111	Pigmenting agents in Martian soils: inferences from spectral, Mossbauer, and magnetic properties of nanophase and other iron oxides in Hawaiian palagonitic soil PN-9. <i>Geochimica Et Cosmochimica Acta</i> , 1993 , 57, 4597-609	5.5	118
110	The petrochemistry of Jake_M: a martian mugearite. <i>Science</i> , 2013 , 341, 1239463	33.3	114
109	Indication of drier periods on Mars from the chemistry and mineralogy of atmospheric dust. <i>Nature</i> , 2005 , 436, 62-5	50.4	111

108	Athena Microscopic Imager investigation. <i>Journal of Geophysical Research</i> , 2003 , 108,		109
107	Geochemistry of Carbonates on Mars: Implications for Climate History and Nature of Aqueous Environments. <i>Space Science Reviews</i> , 2013 , 174, 301-328	7.5	106
106	Hydrothermal processes at Gusev Crater: An evaluation of Paso Robles class soils. <i>Journal of Geophysical Research</i> , 2008 , 113,		105
105	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. <i>Science Advances</i> , 2018 , 4, eaar3330	14.3	104
104	A hematite-bearing layer in Gale Crater, Mars: Mapping and implications for past aqueous conditions. <i>Geology</i> , 2013 , 41, 1103-1106	5	91
103	Recalibration of the Mars Science Laboratory ChemCam instrument with an expanded geochemical database. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017 , 129, 64-85	3.1	90
102	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. <i>American Mineralogist</i> , 2015 , 100, 824-836	2.9	90
101	Mineralogy of volcanic rocks in Gusev Crater, Mars: Reconciling Mössbauer, Alpha Particle X-Ray Spectrometer, and Miniature Thermal Emission Spectrometer spectra. <i>Journal of Geophysical Research</i> , 2008 , 113,		80
100	Spirit Mars Rover Mission to the Columbia Hills, Gusev Crater: Mission overview and selected results from the Cumberland Ridge to Home Plate. <i>Journal of Geophysical Research</i> , 2008 , 113,		78
99	Mineralogy of an active eolian sediment from the Namib dune, Gale crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2017 , 122, 2344-2361	4.1	75
98	Phyllosilicate-poor palagonitic dust from Mauna Kea Volcano (Hawaii): A mineralogical analogue for magnetic Martian dust?. <i>Journal of Geophysical Research</i> , 2001 , 106, 5057-5083		75
97	Chemistry, mineralogy, and grain properties at Namib and High dunes, Bagnold dune field, Gale crater, Mars: A synthesis of Curiosity rover observations. <i>Journal of Geophysical Research E: Planets</i> , 2017 , 122, 2510-2543	4.1	74
96	Opportunity Mars Rover mission: Overview and selected results from Purgatory ripple to traverses to Endeavour crater. <i>Journal of Geophysical Research</i> , 2011 , 116,		74
95	Origins of Marslike spectral and magnetic properties of a Hawaiian palagonitic soil. <i>Journal of Geophysical Research</i> , 1990 , 95, 14427		72
94	Concentrated perchlorate at the Mars Phoenix landing site: Evidence for thin film liquid water on Mars. <i>Geophysical Research Letters</i> , 2010 , 37, n/a-n/a	4.9	71
93	Visible, near-infrared, and middle infrared spectroscopy of altered basaltic tephtras: Spectral signatures of phyllosilicates, sulfates, and other aqueous alteration products with application to the mineralogy of the Columbia Hills of Gusev Crater, Mars. <i>Journal of Geophysical Research</i> , 2008 , 113,		71
92	Evidence for platy hematite grains in Sinus Meridiani, Mars. <i>Journal of Geophysical Research</i> , 2002 , 107, 9-1-9-15		70
91	The influence of multivariate analysis methods and target grain size on the accuracy of remote quantitative chemical analysis of rocks using laser induced breakdown spectroscopy. <i>Icarus</i> , 2011 , 215, 608-627	3.8	67

90	Crystal chemistry of martian minerals from Bradbury Landing through Naukluft Plateau, Gale crater, Mars. <i>American Mineralogist</i> , 2018 , 103, 857-871	2.9	67
89	The Mars Science Laboratory Curiosity rover Mastcam instruments: Preflight and in-flight calibration, validation, and data archiving. <i>Earth and Space Science</i> , 2017 , 4, 396-452	3.1	65
88	Evidence for montmorillonite or its compositional equivalent in Columbia Hills, Mars. <i>Journal of Geophysical Research</i> , 2007 , 112,		65
87	Matrix effects for reflectivity spectra of dispersed nanophase (superparamagnetic) hematite with application to Martian spectral data. <i>Journal of Geophysical Research</i> , 1990 , 95, 5101		65
86	Abundances and implications of volatile-bearing species from evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014 , 119, 237-254	4.1	63
85	Stratigraphy of hydrated sulfates in the sedimentary deposits of Aram Chaos, Mars. <i>Journal of Geophysical Research</i> , 2010 , 115,		63
84	Hydrothermal origin of halogens at Home Plate, Gusev Crater. <i>Journal of Geophysical Research</i> , 2008 , 113,		62
83	Meteorites on Mars observed with the Mars Exploration Rovers. <i>Journal of Geophysical Research</i> , 2008 , 113,		61
82	Spectral and stratigraphic mapping of hydrated sulfate and phyllosilicate-bearing deposits in northern Sinus Meridiani, Mars. <i>Journal of Geophysical Research</i> , 2010 , 115,		59
81	Phyllosilicate and sulfate-hematite deposits within Miyamoto crater in southern Sinus Meridiani, Mars. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	59
80	Hematite, pyroxene, and phyllosilicates on Mars: Implications from oxidized impact melt rocks from Manicouagan Crater, Quebec, Canada. <i>Journal of Geophysical Research</i> , 1995 , 100, 5319		59
79	Nickel on Mars: Constraints on meteoritic material at the surface. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a		56
78	An experimental study on kinetically-driven precipitation of calcium-magnesium-iron carbonates from solution: Implications for the low-temperature formation of carbonates in martian meteorite Allan Hills 84001. <i>Meteoritics and Planetary Science</i> , 2000 , 35, 457-465	2.8	56
77	Gypsum, bassanite, and anhydrite at Gale crater, Mars. <i>American Mineralogist</i> , 2018 , 103, 1011-1020	2.9	55
76	Laboratory-simulated acid-sulfate weathering of basaltic materials: Implications for formation of sulfates at Meridiani Planum and Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2005 , 110,		54
75	Mineralogy of three slightly palagonitized basaltic tephra samples from the summit of Mauna Kea, Hawaii. <i>Journal of Geophysical Research</i> , 1993 , 98, 3401-3411		53
74	Improved accuracy in quantitative laser-induced breakdown spectroscopy using sub-models. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017 , 129, 49-57	3.1	50
73	Sulfur-bearing phases detected by evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014 , 119, 373-393	4.1	50

72	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. <i>American Mineralogist</i> , 2014 , 99, 2234-2250	2.9	46
71	Mineralogy of Vera Rubin Ridge From the Mars Science Laboratory CheMin Instrument. <i>Journal of Geophysical Research E: Planets</i> , 2020 , 125, e2019JE006306	4.1	40
70	High concentrations of manganese and sulfur in deposits on Murray Ridge, Endeavour Crater, Mars. <i>American Mineralogist</i> , 2016 , 101, 1389-1405	2.9	40
69	Large sulfur isotope fractionations in Martian sediments at Gale crater. <i>Nature Geoscience</i> , 2017 , 10, 658-662	18.3	38
68	Sand Mineralogy Within the Bagnold Dunes, Gale Crater, as Observed In Situ and From Orbit. <i>Geophysical Research Letters</i> , 2018 , 45, 9488-9497	4.9	36
67	Goldenrod Pigments and the Occurrence of Hematite and Possibly Goethite in the Olympus Amazonis Region of Mars. <i>Icarus</i> , 1998 , 134, 1-10	3.8	35
66	Mössbauer spectroscopy on Mars: goethite in the Columbia Hills at Gusev crater. <i>Hyperfine Interactions</i> , 2005 , 166, 549-554	0.8	35
65	Evidence for a Diagenetic Origin of Vera Rubin Ridge, Gale Crater, Mars: Summary and Synthesis of S Exploration Campaign. <i>Journal of Geophysical Research E: Planets</i> , 2020 , 125, e2020JE006527	4.1	33
64	The H ₂ O and CO ₂ adsorption properties of phyllosilicate-poor palagonitic dust and smectites under martian environmental conditions. <i>Icarus</i> , 2009 , 200, 463-467	3.8	32
63	Synthesis and structural characterization of ferrous trioctahedral smectites: Implications for clay mineral genesis and detectability on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2015 , 120, 1119-1140	4.1	31
62	Clustering and training set selection methods for improving the accuracy of quantitative laser induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2012 , 70, 24-32	3.1	31
61	Mars Reconnaissance Orbiter and Opportunity observations of the Burns formation: Crater hopping at Meridiani Planum. <i>Journal of Geophysical Research E: Planets</i> , 2015 , 120, 429-451	4.1	26
60	Acid sulfate alteration of fluorapatite, basaltic glass and olivine by hydrothermal vapors and fluids: Implications for fumarolic activity and secondary phosphate phases in sulfate-rich Paso Robles soil at Gusev Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2013 , 118, 1-13	4.1	26
59	Coordinated analyses of orbital and Spirit Rover data to characterize surface materials on the cratered plains of Gusev Crater, Mars. <i>Journal of Geophysical Research</i> , 2007 , 112,		26
58	The Spirit Rover's Athena science investigation at Gusev Crater, Mars. <i>Science</i> , 2004 , 305, 794-9	33.3	24
57	Relationships between unit-cell parameters and composition for rock-forming minerals on Earth, Mars, and other extraterrestrial bodies. <i>American Mineralogist</i> , 2018 , 103, 848-856	2.9	24
56	Evidence for Multiple Diagenetic Episodes in Ancient Fluvial-Lacustrine Sedimentary Rocks in Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020 , 125, e2019JE006295	4.1	23
55	Overview of the magnetic properties experiments on the Mars Exploration Rovers. <i>Journal of Geophysical Research</i> , 2009 , 114,		23

54	Mössbauer mineralogy on the Moon: The lunar regolith 1998 , 117, 405-432		21
53	Geomorphologic and mineralogic characterization of the northern plains of Mars at the Phoenix Mission candidate landing sites. <i>Journal of Geophysical Research</i> , 2008 , 113,		21
52	Chlorate/Fe-Bearing Phase Mixtures as a Possible Source of Oxygen and Chlorine Detected by the Sample Analysis at Mars Instrument in Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2018 , 123, 2920-2938	4.1	21
51	Field reconnaissance geologic mapping of the Columbia Hills, Mars, based on Mars Exploration Rover Spirit and MRO HiRISE observations. <i>Journal of Geophysical Research</i> , 2011 , 116,		18
50	Depth selective Mössbauer spectroscopy: Analysis and simulation of 6.4 keV and 14.4 keV spectra obtained from rocks at Gusev Crater, Mars, and layered laboratory samples. <i>Journal of Geophysical Research</i> , 2008 , 113,		18
49	Aqueous alteration on Mars 519-540		18
48	Oxidative alteration of ferrous smectites and implications for the redox evolution of early Mars. <i>Journal of Geophysical Research E: Planets</i> , 2017 , 122, 2469-2488	4.1	18
47	Diverse Lithologies and Alteration Events on the Rim of Noachian-Aged Endeavour Crater, Meridiani Planum, Mars: In Situ Compositional Evidence. <i>Journal of Geophysical Research E: Planets</i> , 2018 , 123, 1255-1306	4.1	17
46	Esperance: Multiple episodes of aqueous alteration involving fracture fills and coatings at Matijevec Hill, Mars. <i>American Mineralogist</i> , 2016 , 101, 1515-1526	2.9	17
45	Recognizing sulfate and phosphate complexes chemisorbed onto nanophase weathering products on Mars using in-situ and remote observations. <i>American Mineralogist</i> , 2016 , 101, 678-689	2.9	17
44	Microscopy analysis of soils at the Phoenix landing site, Mars: Classification of soil particles and description of their optical and magnetic properties. <i>Journal of Geophysical Research</i> , 2010 , 115,		17
43	Synergistic Ground and Orbital Observations of Iron Oxides on Mt. Sharp and Vera Rubin Ridge. <i>Journal of Geophysical Research E: Planets</i> , 2020 , 125, e2019JE006294	4.1	17
42	Smectite formation in the presence of sulfuric acid: Implications for acidic smectite formation on early Mars. <i>Geochimica Et Cosmochimica Acta</i> , 2018 , 220, 248-260	5.5	16
41	Bounce Rock shergottite-like basalt encountered at Meridiani Planum, Mars. <i>Meteoritics and Planetary Science</i> , 2011 , 46, no-no	2.8	16
40	Properties and distribution of paired candidate stony meteorites at Meridiani Planum, Mars. <i>Journal of Geophysical Research</i> , 2010 , 115,		16
39	Two earth years of Mössbauer studies of the surface of Mars with MIMOS II. <i>Hyperfine Interactions</i> , 2006 , 170, 169-177	0.8	16
38	Effect of Solution pH and Chloride Concentration on Akaganeite Precipitation: Implications for Akaganeite Formation on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2018 , 123, 2211-2222	4.1	16
37	Hyperspectral reflectance mapping of cinder cones at the summit of Mauna Kea and implications for equivalent observations on Mars. <i>Journal of Geophysical Research</i> , 2007 , 112,		15

36	Constraints on the Mineralogy and Geochemistry of Vera Rubin Ridge, Gale Crater, Mars, From Mars Science Laboratory Sample Analysis at Mars Evolved Gas Analyses. <i>Journal of Geophysical Research E: Planets</i> , 2020 , 125, e2019JE006309	4.1	14
35	Reaction of Akaganeite with Mars-Relevant Anions. <i>ACS Earth and Space Chemistry</i> , 2019 , 3, 314-323	3.2	12
34	Abiotic Input of Fixed Nitrogen by Bolide Impacts to Gale Crater During the Hesperian: Insights From the Mars Science Laboratory. <i>Journal of Geophysical Research E: Planets</i> , 2019 , 124, 94	4.1	12
33	Brine-driven destruction of clay minerals in Gale crater, Mars. <i>Science</i> , 2021 , 373, 198-204	33.3	11
32	Hydrothermal Precipitation of Sanidine (Adularia) Having Full Al,Si Structural Disorder and Specular Hematite at Maunakea Volcano (Hawaii) and at Gale Crater (Mars). <i>Journal of Geophysical Research E: Planets</i> , 2020 , 125, e2019JE006324	4.1	10
31	Iron mineralogy and aqueous alteration on Mars from the MER Mössbauer spectrometers	339-365	10
30	Distinct hematite populations from simultaneous fitting of Mössbauer spectra from Meridiani Planum, Mars. <i>Journal of Geophysical Research</i> , 2010 , 115,		9
29	Extraterrestrial Mössbauer spectroscopy: more than 3 years of Mars exploration and developments for future missions. <i>Hyperfine Interactions</i> , 2008 , 182, 149-156	0.8	9
28	Formation of Tridymite and Evidence for a Hydrothermal History at Gale Crater, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2021 , 126, e2020JE006569	4.1	9
27	Search for magnetic minerals in Martian rocks: Overview of the Rock Abrasion Tool (RAT) magnet investigation on Spirit and Opportunity. <i>Journal of Geophysical Research</i> , 2008 , 113,		8
26	Mars Exploration Rover Pancam multispectral imaging of rocks, soils, and dust at Gusev crater and Meridiani Planum	281-314	8
25	Basaltic rocks analyzed by the Spirit Rover in Gusev Crater. <i>Science</i> , 2004 , 305, 842-5	33.3	8
24	Particle Induced X-ray Emission spectrometry (PIXE) of Hawaiian volcanics: An analogue study to evaluate the APXS field analysis of geologic materials on Mars. <i>Icarus</i> , 2020 , 345, 113708	3.8	6
23	Isotopic and geochemical investigation of two distinct Mars analog environments using evolved gas techniques in Svalbard, Norway. <i>Icarus</i> , 2013 , 224, 297-308	3.8	6
22	Mauna Kea, Hawaii, as an Analog Site for Future Planetary Resource Exploration: Results from the 2010 ILSO-ISRU Field-Testing Campaign. <i>Journal of Aerospace Engineering</i> , 2013 , 26, 183-196	1.4	6
21	Multispectral imaging from Mars Pathfinder	263-280	6
20	Metasomatic control of hydrogen contents in the layered cratonic mantle lithosphere sampled by Lac de Gras xenoliths in the central Slave craton, Canada. <i>Geochimica Et Cosmochimica Acta</i> , 2020 , 286, 29-53	5.5	6
19	A Review of the Phyllosilicates in Gale Crater as Detected by the CheMin Instrument on the Mars Science Laboratory, Curiosity Rover. <i>Minerals (Basel, Switzerland)</i> , 2021 , 11, 847	2.4	6

18	In-situ Mössbauer spectroscopy with MIMOS II. <i>Hyperfine Interactions</i> , 2012 , 207, 97-105	0.8	5
17	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2022 , 188, 106347	3.1	5
16	Field-portable Mössbauer spectroscopy on Earth, the Moon, Mars, and beyond. <i>Geochemistry: Exploration, Environment, Analysis</i> , 2011 , 11, 129-143	1.8	3
15	Mössbauer and VNIR study of dust generated from olivine basalt: application to Mars. <i>Hyperfine Interactions</i> , 2008 , 186, 127-133	0.8	3
14	A Review of Sample Analysis at Mars-Evolved Gas Analysis Laboratory Analog Work Supporting the Presence of Perchlorates and Chlorates in Gale Crater, Mars. <i>Minerals (Basel, Switzerland)</i> , 2021 , 11, 475 ²⁻⁴		3
13	New insights into the mineralogy and weathering of the Meridiani Planum meteorite, Mars. <i>Meteoritics and Planetary Science</i> , 2011 , 46, no-no	2.8	2
12	Characterization and Calibration of the CheMin Mineralogical Instrument on Mars Science Laboratory 2012 , 341-399		2
11	Mössbauer spectroscopy on Mars: goethite in the Columbia Hills at Gusev crater 2006 , 549-554		1
10	Geochemistry of Carbonates on Mars: Implications for Climate History and Nature of Aqueous Environments. <i>Space Sciences Series of ISSI</i> , 2012 , 301-328	0.1	1
9	The Sample Analysis at Mars Investigation and Instrument Suite 2012 , 401-478		1
8	Mössbauer Spectroscopy at Gusev Crater and Meridiani Planum 2019 , 538-554		1
7	Geology and Geochemistry of Noachian Bedrock and Alteration Events, Meridiani Planum, Mars: MER Opportunity Observations. <i>Journal of Geophysical Research E: Planets</i> , 2021 , 126, e2021JE006915	4.1	1
6	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Body Unit and Combined System Tests 2012 , 167-227		0
5	In-situ Mössbauer spectroscopy with MIMOS II 2013 , 533-541		0
4	Formation of Fe(III) (Hydr)oxides from Fe(II) Sulfides: Implications for Akaganeite Detection on Mars. <i>ACS Earth and Space Chemistry</i> , 2021 , 5, 1934-1947	3.2	0
3	Two earth years of Mössbauer studies of the surface of Mars with MIMOS II 2007 , 169-177		
2	Mössbauer and VNIR study of dust generated from olivine basalt: application to Mars 2008 , 1009-1015		
1	Extraterrestrial Mössbauer spectroscopy: more than 3 years of Mars exploration and developments for future missions 2008 , 149-156		

