Abundance and Isotopic Composition of Gases in the M Curiosity Rover

Science 341, 263-266 DOI: 10.1126/science.1237966

Citation Report

#	Article	IF	CITATIONS
1	Development of an Electrostatic Precipitator to Remove Martian Atmospheric Dust From ISRU Gas Intakes During Planetary Exploration Missions. IEEE Transactions on Industry Applications, 2013, 49, 2388-2396.	3.3	7
2	Primordial argon isotope fractionation in the atmosphere of Mars measured by the SAM instrument on <i>Curiosity</i> and implications for atmospheric loss. Geophysical Research Letters, 2013, 40, 5605-5609.	1.5	101
3	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	6.0	327
4	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367
5	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
6	Interplanetary Disturbances Affecting Space Weather. Proceedings of the International Astronomical Union, 2013, 8, 297-306.	0.0	2
7	lsotopes of nitrogen on Mars: Atmospheric measurements by Curiosity's mass spectrometer. Geophysical Research Letters, 2013, 40, 6033-6037.	1.5	72
8	High manganese concentrations in rocks at Gale crater, Mars. Geophysical Research Letters, 2014, 41, 5755-5763.	1.5	81
9	Geochemical and Planetary Dynamical Views on the Origin of Earth's Atmosphere and Oceans. , 2014, , 1-35.		23
10	Application of Magnetohydrodynamic Energy Generation to Planetary Entry Vehicles. , 2014, , .		0
11	High resolution heterodyne spectroscopy of the atmospheric methane NIR absorption. Optics Express, 2014, 22, 13825.	1.7	55
12	NanoSIMS analysis of organic carbon from the Tissint Martian meteorite: Evidence for the past existence of subsurface organicâ€bearing fluids on Mars. Meteoritics and Planetary Science, 2014, 49, 2201-2218.	0.7	46
13	Trace element geochemistry (Li, Ba, Sr, and Rb) using <i>Curiosity</i> 's ChemCam: Early results for Gale crater from Bradbury Landing Site to Rocknest. Journal of Geophysical Research E: Planets, 2014, 119, 255-285.	1.5	86
14	Diurnal variations of energetic particle radiation at the surface of Mars as observed by the Mars Science Laboratory Radiation Assessment Detector. Journal of Geophysical Research E: Planets, 2014, 119, 1345-1358.	1.5	44
15	Evidence of martian perchlorate, chlorate, and nitrate in Mars meteorite EETA79001: Implications for oxidants and organics. Icarus, 2014, 229, 206-213.	1.1	133
16	The Drive to Life on Wet and Icy Worlds. Astrobiology, 2014, 14, 308-343.	1.5	232
17	Curiosity's rover environmental monitoring station: Overview of the first 100 sols. Journal of Geophysical Research E: Planets, 2014, 119, 1680-1688.	1.5	112
18	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224

#	Article	IF	CITATIONS
19	A New Analysis of Mars "Special Regions― Findings of the Second MEPAG Special Regions Science Analysis Group (SR-SAG2). Astrobiology, 2014, 14, 887-968.	1.5	317
20	Nitrogen speciation in upper mantle fluids and the origin of Earth's nitrogen-rich atmosphere. Nature Geoscience, 2014, 7, 816-819.	5.4	137
21	Evidence for direct molecular oxygen production in CO ₂ photodissociation. Science, 2014, 346, 61-64.	6.0	103
22	Low palaeopressure of the martian atmosphere estimated from the size distribution of ancient craters. Nature Geoscience, 2014, 7, 335-339.	5.4	88
23	Effect of Gas Species on Gas–Monolayer Interactions: Tangential Momentum Accommodation. Journal of Physical Chemistry C, 2014, 118, 20275-20282.	1.5	13
24	Enzyme Biofuel Cells: Thermodynamics, Kinetics and Challenges in Applicability. ChemElectroChem, 2014, 1, 1751-1777.	1.7	104
25	Analytical techniques for retrieval of atmospheric composition with the quadrupole mass spectrometer of the Sample Analysis at Mars instrument suite on Mars Science Laboratory. Planetary and Space Science, 2014, 96, 99-113.	0.9	20
26	Modern atmospheric signatures in 4.4 Ga Martian meteorite NWA 7034. Earth and Planetary Science Letters, 2014, 400, 77-87.	1.8	69
27	Overview of the Mars Science Laboratory mission: Bradbury Landing to Yellowknife Bay and beyond. Journal of Geophysical Research E: Planets, 2014, 119, 1134-1161.	1.5	104
28	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
29	The MAVEN Magnetic Field Investigation. Space Science Reviews, 2015, 195, 257-291.	3.7	371
30	Structure and composition of the neutral upper atmosphere of Mars from the MAVEN NGIMS investigation. Geophysical Research Letters, 2015, 42, 8951-8957.	1.5	168
31	ACS experiment for atmospheric studies on "ExoMars-2016―Orbiter. Solar System Research, 2015, 49, 529-537.	0.3	19
32	The Martian atmospheric ion escape rate dependence on solar wind and solar EUV conditions: 1. Seven years of Mars Express observations. Journal of Geophysical Research E: Planets, 2015, 120, 1298-1309.	1.5	84
33	Probing of meteor showers at Mars during the encounter of comet C/2013 A1: predictions for the arrival of MAVEN/Mangalyaan. Geoscience Letters, 2015, 2, .	1.3	4
34	Effects of Magnetohydrodynamic Energy Generation on Planetary Entry Vehicle Flight Dynamics. , 2015, , .		2
35	Assessing the Ecophysiology of Methanogens in the Context of Recent Astrobiological and Planetological Studies. Life, 2015, 5, 1652-1686.	1.1	55
36	Methane Clathrates in the Solar System. Astrobiology, 2015, 15, 308-326.	1.5	62

#	Article	IF	CITATIONS
37	Evidence in Tissint for recent subsurface water on Mars. Earth and Planetary Science Letters, 2015, 425, 55-63.	1.8	29
38	Next Generation Laser-Based Standoff Spectroscopy Techniques for Mars Exploration. Applied Spectroscopy, 2015, 69, 173-192.	1.2	56
39	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
40	The physics of Martian weather and climate: a review. Reports on Progress in Physics, 2015, 78, 125901.	8.1	54
41	Altitude profiles of O2 on Mars from SPICAM stellar occultations. Icarus, 2015, 252, 154-160.	1.1	37
42	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
43	Detection of Trace Organics in Mars Analog Samples Containing Perchlorate by Laser Desorption/Ionization Mass Spectrometry. Astrobiology, 2015, 15, 104-110.	1.5	33
44	Volatile and Isotopic Imprints of Ancient Mars. Elements, 2015, 11, 51-56.	0.5	12
45	The Neutral Gas and Ion Mass Spectrometer on the Mars Atmosphere and Volatile Evolution Mission. Space Science Reviews, 2015, 195, 49-73.	3.7	229
46	Planetary Atmospheres. , 2015, , 429-472.		16
46 47	Planetary Atmospheres. , 2015, , 429-472. Evidence for methane in Martian meteorites. Nature Communications, 2015, 6, 7399.	5.8	16 47
46 47 48	Planetary Atmospheres. , 2015, , 429-472. Evidence for methane in Martian meteorites. Nature Communications, 2015, 6, 7399. Resistance of the Lichen <i>Buellia frigida </i> to Simulated Space Conditions during the Preflight Tests for BIOMEXâ€"Viability Assay and Morphological Stability. Astrobiology, 2015, 15, 601-615.	5.8	16 47 26
46 47 48 49	Planetary Atmospheres., 2015, , 429-472. Evidence for methane in Martian meteorites. Nature Communications, 2015, 6, 7399. Resistance of the Lichen (i> Buellia frigida (i> to Simulated Space Conditions during the Preflight Tests for BIOMEXâ€"Viability Assay and Morphological Stability. Astrobiology, 2015, 15, 601-615. A qualitative study of the retention and release of volatile gases in JSC-1A lunar soil simulant at room temperature under ultrahigh vacuum (UHV) conditions. Icarus, 2015, 255, 30-43.	5.8 1.5 1.1	16 47 26 7
46 47 48 49 50	Planetary Atmospheres., 2015, , 429-472. Evidence for methane in Martian meteorites. Nature Communications, 2015, 6, 7399. Resistance of the Lichen (1> Buellia frigida ()> to Simulated Space Conditions during the Preflight Tests for BIOMEXãe" Viability Assay and Morphological Stability. Astrobiology, 2015, 15, 601-615. A qualitative study of the retention and release of volatile gases in JSC-1A lunar soil simulant at room temperature under ultrahigh vacuum (UHV) conditions. Icarus, 2015, 255, 30-43. A search for SO2, H2S and SO above Tharsis and Syrtis volcanic districts on Mars using ground-based high-resolution submillimeter spectroscopy. Icarus, 2015, 253, 130-141.	5.8 1.5 1.1 1.1	16 47 26 7 30
46 47 48 49 50 51	Planetary Atmospheres., 2015, , 429-472. Evidence for methane in Martian meteorites. Nature Communications, 2015, 6, 7399. Resistance of the Lichen in Martian meteorites. Nature Communications, 2015, 6, 7399. Resistance of the Lichen in Martian meteorites. Nature Communications, 2015, 6, 7399. A qualitative study of the retention and release of volatile gases in JSC-1A lunar soil simulant at room temperature under ultrahigh vacuum (UHV) conditions. Icarus, 2015, 255, 30-43. A search for SO2, H2S and SO above Tharsis and Syrtis volcanic districts on Mars using ground-based high-resolution submillimeter spectroscopy. Icarus, 2015, 253, 130-141. Reevaluated martian atmospheric mixing ratios from the mass spectrometer on the Curiosity rover. Planetary and Space Science, 2015, 109-110, 154-158.	5.8 1.5 1.1 1.1 0.9	 16 47 26 7 30 28
 46 47 48 49 50 51 52 	Planetary Atmospheres. , 2015, , 429-472. Evidence for methane in Martian meteorites. Nature Communications, 2015, 6, 7399. Resistance of the Lichen (1) Buellia frigida (/)> to Simulated Space Conditions during the Preflight Tests for BIOMEXâ€"Viability Assay and Morphological Stability. Astrobiology, 2015, 15, 601-615. A qualitative study of the retention and release of volatile gases in JSC-1A lunar soil simulant at room temperature under ultrahigh vacuum (UHV) conditions. Icarus, 2015, 255, 30-43. A search for SO2, H2S and SO above Tharsis and Syrtis volcanic districts on Mars using ground-based high-resolution submillimeter spectroscopy. Icarus, 2015, 253, 130-141. Reevaluated martian atmospheric mixing ratios from the mass spectrometer on the Curiosity rover. Planetary and Space Science, 2015, 109-110, 154-158. Variations of carbon monoxide in the martian lower atmosphere. Icarus, 2015, 253, 149-155.	5.8 1.5 1.1 1.1 0.9	16 47 26 7 30 28 33
 46 47 48 49 50 51 52 53 	Planetary Atmospheres., 2015, , 429-472. Evidence for methane in Martian meteorites. Nature Communications, 2015, 6, 7399. Resistance of the Lichen (1) Buellia frigida (1) to Simulated Space Conditions during the Preflight Tests for BIOMEXã("Viability Assay and Morphological Stability. Astrobiology, 2015, 15, 601-615. A qualitative study of the retention and release of volatile gases in JSC-1A lunar soil simulant at room temperature under ultrahigh vacuum (UHV) conditions. Icarus, 2015, 255, 30-43. A search for SO2, H2S and SO above Tharsis and Syrtis volcanic districts on Mars using ground-based high-resolution submillimeter spectroscopy. Icarus, 2015, 253, 130-141. Reevaluated martian atmospheric mixing ratios from the mass spectrometer on the Curiosity rover. Planetary and Space Science, 2015, 109-110, 154-158. Variations of carbon monoxide in the martian lower atmosphere. Icarus, 2015, 253, 149-155. Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the <i>Curiosity Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the <i>Curiosity Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the <i>Curiosity Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the <i>Curiosity Evidence for indigenous nitrogen in sedimentary and aeolian deposits from the <i>Curiosity Revisitions at Gale crater, Mars. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4245-4250.</i></i></i></i></i>	5.8 1.5 1.1 1.1 0.9 1.1 3.3	16 47 26 7 30 28 33 172

		CITATION R	EPORT	
#	Article		IF	CITATIONS
55	The Mars Atmosphere and Volatile Evolution (MAVEN) Mission. Space Science Reviews, 202	5, 195, 3-48.	3.7	563
56	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. Science, aad0459.	2015, 350,	6.0	90
57	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Sci 350, aac7575.	ence, 2015,	6.0	471
58	Variations of Stable Isotope Ratios in Nature. , 2015, , 191-383.			0
59	The imprint of atmospheric evolution in the D/H of Hesperian clay minerals on Mars. Scienc 412-414.	e, 2015, 347,	6.0	113
60	New temperature and pressure retrieval algorithm for high-resolution infrared solar occultar spectroscopy: analysis and validation against ACE-FTS and COSMIC. Atmospheric Measurer Techniques, 2016, 9, 1063-1082.	tion nent	1.2	3
61	Oxidation of manganese in an ancient aquifer, Kimberley formation, Gale crater, Mars. Geop Research Letters, 2016, 43, 7398-7407.	hysical	1.5	110
62	The chlorine isotope composition of Martian meteorites 2. Implications for the early solar synthetic formation of Mars. Meteoritics and Planetary Science, 2016, 51, 2111-2126.	vstem and	0.7	38
63	Nucleation and growth kinetics of La0.7Sr0.3Cr0.4Mn0.6O3-δ SOFC perovskite: Symmetry evolution induced by Cu2+ and Ni2+ impregnation. Progress in Natural Science: Materials International, 2016, 26, 665-670.	alteration	1.8	1
64	WITHDRAWN due to Technical Error: Survivability and Growth Kinetics of Methanogenic Ar various pHs and Pressures: Implications for Deep Subsurface Life on Mars. Planetary and Sp 2016, , .	chaea at ace Science,	0.9	0
65	A novel double-focusing time-of-flight mass spectrometer for absolute recoil ion cross secti measurements. Review of Scientific Instruments, 2016, 87, 083112.	ons	0.6	15
66	Atmospheric nitrogen evolution on Earth and Venus. Earth and Planetary Science Letters, 2 103-111.	016, 447,	1.8	58
67	Scenarios of atmospheric mass evolution on Mars influenced by asteroid and comet impact late Noachian. Planetary and Space Science, 2016, 125, 1-11.	s since the	0.9	11
68	Jumping grains on Mars. Nature Geoscience, 2016, 9, 414-415.		5.4	0
69	Determination of spectral parameters for lines targeted by the Tunable Laser Spectrometer the Mars Curiosity rover. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016	(TLS) on 5, 171, 28-38.	1.1	1
70	In situ measurement of atmospheric krypton and xenon on Mars with Mars Science Laborat and Planetary Science Letters, 2016, 454, 1-9.	ory. Earth	1.8	59
71	The mechanism of ArF laser-induced fluorescence of dense plume matter. Journal of Analyti Spectrometry, 2016, 31, 2363-2374.	cal Atomic	1.6	18
72	Mars: a small terrestrial planet. Astronomy and Astrophysics Review, 2016, 24, 1.		9.1	22

#	Article	IF	CITATIONS
73	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
74	A review of volatiles in the Martian interior. Meteoritics and Planetary Science, 2016, 51, 1935-1958.	0.7	43
75	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
76	On the abundances of carbon dioxide isotopologues in the atmospheres of mars and earth. Solar System Research, 2016, 50, 161-164.	0.3	7
77	<scp>KA</scp> rMars: A Breadboard Model for <i>In Situ</i> Absolute Geochronology Based on the K–Ar Method Using <scp>UV</scp> â€Laserâ€Induced Breakdown Spectroscopy and Quadrupole Mass Spectrometry. Geostandards and Geoanalytical Research, 2016, 40, 517-532.	1.7	13
78	A new approach to cosmogenic corrections in 40Ar/39Ar chronometry: Implications for the ages of Martian meteorites. Geochimica Et Cosmochimica Acta, 2016, 187, 279-293.	1.6	10
79	Argon isotopes as tracers for martian atmospheric loss. Icarus, 2016, 272, 212-227.	1.1	20
80	Expected performances of the NOMAD/ExoMars instrument. Planetary and Space Science, 2016, 124, 94-104.	0.9	31
81	The Planetary and Space Simulation Facilities at DLR Cologne. Microgravity Science and Technology, 2016, 28, 215-229.	0.7	27
82	On Detecting Biospheres from Chemical Thermodynamic Disequilibrium in Planetary Atmospheres. Astrobiology, 2016, 16, 39-67.	1.5	94
83	Origins of volatile elements (H, C, N, noble gases) on Earth and Mars in light of recent results from the ROSETTA cometary mission. Earth and Planetary Science Letters, 2016, 441, 91-102.	1.8	143
84	Loess and life out of Earth?. Quaternary International, 2016, 399, 208-217.	0.7	6
85	Miniature and Fieldable Mass Spectrometers: Recent Advances. Analytical Chemistry, 2016, 88, 2-29.	3.2	319
86	Effects of shock and Martian alteration on Tissint hydrogen isotope ratios and water content. Geochimica Et Cosmochimica Acta, 2017, 200, 280-294.	1.6	25
87	On the development of a new nonequilibrium chemistry model for Mars entry. , 2017, , .		7
88	Chromium Isotope Geochemistry. Reviews in Mineralogy and Geochemistry, 2017, 82, 379-414.	2.2	81
89	From single cells to our planet—recent advances in using mass spectrometry for spatially resolved metabolomics. Current Opinion in Chemical Biology, 2017, 36, 24-31.	2.8	75
90	Anoxic atmospheres on Mars driven by volcanism: Implications for past environments and life. Icarus, 2017, 290, 46-62.	1.1	24

	Charlow	LEPORT	
#	Article	IF	CITATIONS
91	Titan's atmosphere and climate. Journal of Geophysical Research E: Planets, 2017, 122, 432-482.	1.5	228
92	Determination of foreign broadening coefficients for Methane Lines Targeted by the Tunable Laser Spectrometer (TLS) on the Mars Curiosity Rover. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 191, 59-66.	1.1	13
93	Atmospheric Reconstruction with Stagnation Pressure Flight Data from Mars Science Laboratory. Journal of Spacecraft and Rockets, 2017, 54, 609-620.	1.3	4
94	Hot climate inhibits volcanism on Venus: Constraints from rock deformation experiments and argon isotope geochemistry. Physics of the Earth and Planetary Interiors, 2017, 268, 18-34.	0.7	10
95	DAVINCI: Deep atmosphere venus investigation of noble gases, chemistry, and imaging. , 2017, , .		13
96	Application of advanced technology to build a vibrant environment on planet mars. International Journal of Environmental Science and Technology, 2017, 14, 2709-2720.	1.8	12
97	The Effect of the Spin-forbidden CO (1Σ+) + O (3P) → CO2 (1Σg+) Recombination Reaction on Afterbody Heating of Mars Entry Vehicles. , 2017, , .		4
98	Mars Organic Molecule Analyzer (MOMA) laser desorption/ionization source design and performance characterization. International Journal of Mass Spectrometry, 2017, 422, 177-187.	0.7	40
99	A whiff of nebular gas in Titan's atmosphere – Potential implications for the conditions and timing of Titan's formation. Icarus, 2017, 293, 231-242.	1.1	8
100	Mars' atmospheric history derived from upper-atmosphere measurements of ³⁸ Ar/ ³⁶ Ar. Science, 2017, 355, 1408-1410.	6.0	183
101	Initial SAM calibration gas experiments on Mars: Quadrupole mass spectrometer results and implications. Planetary and Space Science, 2017, 138, 44-54.	0.9	84
102	Survivability and growth kinetics of methanogenic archaea at various pHs and pressures: Implications for deep subsurface life on Mars. Planetary and Space Science, 2017, 136, 15-24.	0.9	9
103	Taking the pulse of Mars via dating of a plume-fed volcano. Nature Communications, 2017, 8, 640.	5.8	43
104	Carbon Nanotube Fiber Ionization Mass Spectrometry: A Fundamental Study of a Multi-Walled Carbon Nanotube Functionalized Corona Discharge Pin for Polycyclic Aromatic Hydrocarbons Analysis. Journal of the American Society for Mass Spectrometry, 2017, 28, 2408-2413.	1.2	7
105	Photochemical determination of O densities in the Martian thermosphere: Effect of a revised rate coefficient. Geophysical Research Letters, 2017, 44, 8099-8106.	1.5	18
106	The noble gas concentrations of the Martian meteorites <scp>GRV</scp> 99027 and paired <scp>NWA</scp> 7906/ <scp>NWA</scp> 7907. Meteoritics and Planetary Science, 2017, 52, 2505-2520.	0.7	8
107	Simulation of the GCR spectrum in the Mars curiosity rover's RAD detector using MCNP6. Life Sciences in Space Research, 2017, 14, 43-50.	1.2	9
108	Annual mean mixing ratios of N 2 , Ar, O 2 , and CO in the martian atmosphere. Planetary and Space Science, 2017, 144, 71-73.	0.9	26

#	Article	IF	CITATIONS
109	Experimental characterization of elastomeric O-rings as reusable seals for mass spectrometric measurements: Application to in situ K–Ar dating on Mars. Advances in Space Research, 2017, 60, 1453-1462.	1.2	2
110	SPICAM on Mars Express: A 10 year in-depth survey of the Martian atmosphere. Icarus, 2017, 297, 195-216.	1.1	64
111	The radiation environment on the surface of Mars - Summary of model calculations and comparison to RAD data. Life Sciences in Space Research, 2017, 14, 18-28.	1.2	57
112	Molecular oxygen observed by direct photoproduction from carbon dioxide. Physical Review A, 2017, 95, .	1.0	13
113	Paleohydrology on Mars constrained by mass balance and mineralogy of preâ€Amazonian sodium chloride lakes. Journal of Geophysical Research E: Planets, 2017, 122, 1802-1823.	1.5	8
114	Understanding Mars and Its Atmosphere. , 2017, , 3-19.		10
115	History of Mars Atmosphere Observations. , 2017, , 20-41.		4
116	Thermal Structure and Composition. , 2017, , 42-75.		19
117	The CO2 Cycle. , 2017, , 374-404.		5
118	Atmospheric Photochemistry. , 2017, , 405-432.		18
119	The Early Mars Climate System. , 2017, , 526-568.		9
121	Production of reactive oxygen species from abraded silicates. Implications for the reactivity of the Martian soil. Earth and Planetary Science Letters, 2017, 473, 113-121.	1.8	21
122	Triboelectric nanogenerator for Mars environment. Nano Energy, 2017, 39, 238-244.	8.2	49
123	Rate-Controlled Constrained Equilibrium for Nozzle and Shock Flows. Journal of Propulsion and Power, 2017, 33, 776-792.	1.3	3
124	Flow chemistry in space–a unique opportunity to perform extraterrestrial research. Journal of Flow Chemistry, 2017, 7, 151-156.	1.2	11
125	10 Chromium Isotope Geochemistry. , 2017, , .		2
126	Gas-phase broadband spectroscopy using active sources: progress, status, and applications [Invited]. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 104.	0.9	105
127	A Distributed Simulation of a Martian Fuel Production Facility. , 2017, , .		3

# 128	ARTICLE A Discrete-Event Simulation of the NASA Fuel Production Plant on Mars. , 2017, , .	IF	CITATIONS
129	Determination of Geochemical Bio-Signatures in Mars-Like Basaltic Environments. Frontiers in Microbiology, 2017, 8, 1668.	1.5	15
130	Silicates Eroded under Simulated Martian Conditions Effectively Kill Bacteria—A Challenge for Life on Mars. Frontiers in Microbiology, 2017, 8, 1709.	1.5	9
131	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
132	Perchlorate-Coupled Carbon Monoxide (CO) Oxidation: Evidence for a Plausible Microbe-Mediated Reaction in Martian Brines. Frontiers in Microbiology, 2017, 8, 2571.	1.5	18
134	Martian methane plume models for defining Mars rover methane source search strategies. International Journal of Astrobiology, 2018, 17, 228-238.	0.9	3
135	Chemical–Mineralogical Systems That Are Able To Generate Nitrogen Compounds on Earth and Even Mars. ACS Earth and Space Chemistry, 2018, 2, 340-346.	1.2	3
136	The Atmospheric Chemistry Suite (ACS) of Three Spectrometers for the ExoMars 2016 Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	3.7	119
137	Retrieval of water vapor column abundance and aerosol properties from ChemCam passive sky spectroscopy. Icarus, 2018, 307, 294-326.	1.1	39
138	Virginia Tech-NASA Auto-Deployable Mars Rover Design and Development Project. , 2018, , .		0
139	Investigating CO Dissociation by means of Coarse Grained Ab-Initio Rate Constants. , 2018, , .		4
140	Star-Planet Interactions and Habitability: Radiative Effects. , 2018, , 1-23.		3
141	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
142	Earth Without Life: A Systems Model of a Global Abiotic Nitrogen Cycle. Astrobiology, 2018, 18, 897-914.	1.5	28
143	The climatology of carbon monoxide and water vapor on Mars as observed by CRISM and modeled by the GEM-Mars general circulation model. Icarus, 2018, 301, 117-131.	1.1	74
144	The GEM-Mars general circulation model for Mars: Description and evaluation. Icarus, 2018, 300, 458-476.	1.1	46
145	A lower limit of atmospheric pressure on early Mars inferred from nitrogen and argon isotopic compositions. Icarus, 2018, 299, 443-459.	1.1	41
146	The When and Where of Water in the History of the Universe. , 2018, , 47-73.		1

#	Article	IF	CITATIONS
147	Modeling Magnetohydrodynamic Energy Generation and Storage in Planetary Entry System Conceptual Design. Journal of Spacecraft and Rockets, 2018, 55, 356-364.	1.3	4
148	Nitrogen Concentrations and Isotopic Compositions of Seafloor-Altered Terrestrial Basaltic Glass: Implications for Astrobiology. Astrobiology, 2018, 18, 330-342.	1.5	15
149	Laser-Induced Fluorescence Investigations for Temperature Measurements in a Carbon Dioxide Flow. Journal of Thermophysics and Heat Transfer, 2018, 32, 216-225.	0.9	1
150	Mars submillimeter sensor on microsatellite: sensor feasibility study. Geoscientific Instrumentation, Methods and Data Systems, 2018, 7, 331-341.	0.6	6
151	Variability of Martian Turbopause Altitudes. Journal of Geophysical Research E: Planets, 2018, 123, 2939-2957.	1.5	30
152	Martian magmatism from plume metasomatized mantle. Nature Communications, 2018, 9, 4799.	5.8	41
153	Star-Planet Interactions and Habitability: Radiative Effects. , 2018, , 2995-3017.		3
154	The Paleomineralogy of the Hadean Eon Revisited. Life, 2018, 8, 64.	1.1	27
155	Transcriptomic responses of Serratia liquefaciens cells grown under simulated Martian conditions of low temperature, low pressure, and CO2-enriched anoxic atmosphere. Scientific Reports, 2018, 8, 14938.	1.6	12
156	The Solar System as a Benchmark for Exoplanet Systems Interpretation. , 2018, , 421-444.		0
157	O2 solubility in Martian near-surface environments and implications for aerobic life. Nature Geoscience, 2018, 11, 905-909.	5.4	57
158	Operational Conditions and In Situ Resources for Mars Surface Exploration. New Space, 2018, 6, 320-334.	0.4	2
159	Surface Deposition of Molecular Contaminants in the Mars 2020 Rover Wake. , 2018, , .		1
160	Characterization of a radiometer window for Mars aftbody heating including ablation product deposition using a miniature arc jet. , 2018, , .		8
161	Humidity Measurement in Carbon Dioxide with Capacitive Humidity Sensors at Low Temperature and Pressure. Sensors, 2018, 18, 2615.	2.1	9
162	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
163	Biogeochemical probing of microbial communities in a basaltâ€hosted hot spring at Kverkfjöll volcano, Iceland. Geobiology, 2018, 16, 507-521.	1.1	15
164	On the role of spatially inhomogeneous diabatic effects upon the evolution of Mars' annular polar vortex. Icarus, 2018, 314, 376-388.	1.1	14

#	Article	IF	Citations
165	Exoplanet Biosignatures: Future Directions. Astrobiology, 2018, 18, 779-824.	1.5	85
166	Photochemical controls on chlorine and bromine geochemistry at the Martian surface. Earth and Planetary Science Letters, 2018, 497, 102-112.	1.8	28
167	Nitrate-Dependent Iron Oxidation: A Potential Mars Metabolism. Frontiers in Microbiology, 2018, 9, 513.	1.5	46
168	UV and Life Adaptation Potential on Early Mars: Lessons From Extreme Terrestrial Analogs. , 2018, , 233-248.		4
169	Ice state evolution during spring in Richardson crater, Mars. Icarus, 2018, 315, 158-173.	1.1	13
170	Variations of Stable Isotope Ratios in Nature. Springer Textbooks in Earth Sciences, Geography and Environment, 2018, , 229-432.	0.1	4
171	Origin and evolution of the atmospheres of early Venus, Earth and Mars. Astronomy and Astrophysics Review, 2018, 26, 1.	9.1	124
172	Decision support algorithm for the selection of analytical methods in organic compounds detection for future extraterrestrial exploratory missions. Electrophoresis, 2018, 39, 2884-2889.	1.3	6
173	Orbital (Climatic) Forcing and Its Imprint on the Global Landscape. , 2018, , 3-48.		4
174	The Exotic Processes Driving Ephemeral Seasonal Surface Change on Mars. , 2018, , 157-186.		2
175	MAVEN/IUVS Stellar Occultation Measurements of Mars Atmospheric Structure and Composition. Journal of Geophysical Research E: Planets, 2018, 123, 1449-1483.	1.5	56
176	Water in the history of Mars: An assessment. Planetary and Space Science, 2019, 166, 70-89.	0.9	11
177	Follow the Oxygen: Comparative Histories of Planetary Oxygenation and Opportunities for Aerobic Life. Astrobiology, 2019, 19, 811-824.	1.5	17
178	Twenty-Five-Fold Reduction in Measurement Uncertainty for a Molecular Line Intensity. Physical Review Letters, 2019, 123, 043001.	2.9	33
179	Seasonal Variations and Global Wave Distributions in the Mars Thermosphere From MAVEN and Multisatellites Accelerometerâ€Derived Mass Densities. Journal of Geophysical Research: Space Physics, 2019, 124, 9315-9334.	0.8	12
180	Two-Dimensional Tandem Mass Spectrometry in a Single Scan on a Linear Quadrupole Ion Trap. Analytical Chemistry, 2019, 91, 13752-13762.	3.2	19
181	Vibrational and electronic collisional-radiative model in CO2-N2-Ar mixtures for Mars entry problems. Physics of Plasmas, 2019, 26, .	0.7	13
182	Accuracies of lithium, boron, carbon, and sulfur quantification in geological samples with laser-induced breakdown spectroscopy in Mars, Earth, and vacuum conditions. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2019, 162, 105715.	1.5	16

ARTICLE IF CITATIONS # Seasonal Variations in Atmospheric Composition as Measured in Gale Crater, Mars. Journal of 183 1.5 71 Geophysical Research E: Planets, 2019, 124, 3000-3024. An Analysis Tool for the Detection of Methane in the Martian Atmosphere., 2019, , . 184 185 Astrobiologie - die Suche nach auÄŸerirdischem Leben., 2019,,. 2 Habitability of Mars: How Welcoming Are the Surface and Subsurface to Life on the Red Planet?. 186 Geosciences (Switzerland), 2019, 9, 361. High-precision measurements of krypton and xenon isotopes with a new static-mode quadrupole ion 187 1.6 14 trap mass spectrometer. Journal of Analytical Atomic Spectrometry, 2019, 34, 104-117. Light on windy nights on Mars: A study of saltation-mediated ionization of argon in a Mars-like 1.1 atmosphere. Icarus, 2019, 332, 14-18. 189 The CO2 inventory on Mars. Planetary and Space Science, 2019, 175, 52-59. 0.9 29 The Effect of Background Gas on the Excitation Temperature and Electron Number Density of Basalt Plasma Induced by 10.6 Micron Laser Radiation. Plasma Chemistry and Plasma Processing, 2019, 39, 1.1 985-1000. Experimental measurements of the high-temperature oxidation of carbon fibers. International Journal 191 2.5 21 of Heat and Mass Transfer, 2019, 136, 972-986. Mars atmospheric chemistry simulations with the GEM-Mars general circulation model. Icarus, 2019, 1.1 326, 197-224. The potential science and engineering value of samples delivered to Earth by Mars sample return. 193 0.7 73 Meteoritics and Planetary Science, 2019, 54, S3. Surface deposition of molecular contaminants in the mars 2020 rover wake. Planetary and Space 194 Science, 2019, 168, 1-14. Durability of platinum coating anode in molten carbonate electrolysis cell. Corrosion Science, 2019, 195 3.0 24 153, 12-18. A Maximum Subsurface Biomass on Mars from Untapped Free Energy: CO and H₂as 1.5 Potential Antibiosignatures. Astrobiology, 2019, 19, 655-668. 198 The Solar System., 2019, , 1-10. 0 Atmospheric Structure., 2019,, 11-29. 199 Aerosol Extinction and Scattering., 2019, , 52-64. 0 201 Quantitative Spectroscopy., 2019, , 65-77.

#	Article	IF	CITATIONS
203	Spectrographs. , 2019, , 78-85.		0
204	Spectroscopic Methods to Study Planetary Atmospheres. , 2019, , 86-102.		0
205	Solar Radiation, Its Absorption in the Atmospheres, and Airglow. , 2019, , 103-119.		0
206	Chemical Kinetics. , 2019, , 120-139.		0
207	Photochemical Modeling. , 2019, , 140-154.		0
210	Titan. , 2019, , 367-442.		0
211	Triton. , 2019, , 443-466.		0
212	Pluto and Charon. , 2019, , 467-496.		0
215	Response of Methanogenic Archaea from Siberian Permafrost and Non-permafrost Environments to Simulated Mars-like Desiccation and the Presence of Perchlorate. Astrobiology, 2019, 19, 197-208.	1.5	14
216	Noble Gases in Martian Meteorites. , 2019, , 35-70.		9
217	The Hydrology of Mars Including a Potential Cryosphere. , 2019, , 185-246.		7
218	Volatile Detections in Gale Crater Sediment and Sedimentary Rock. , 2019, , 369-392.		3
219	Evolutionary exobiology: towards the qualitative assessment of biological potential on exoplanets. International Journal of Astrobiology, 2019, 18, 204-208.	0.9	8
220	Evidence for diurnally varying enrichment of heavy oxygen in Mars atmosphere. Icarus, 2020, 335, 113387.	1.1	4
221	Mars InSight Entry, Descent, and Landing Trajectory and Atmosphere Reconstruction. , 2020, , .		6
222	Study of Exospheric Neutral Composition of Mars observed from Indian Mars Orbiter Mission. New Astronomy, 2020, 77, 101349.	0.8	0
223	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
224	The identification of sulfide oxidation as aÂpotential metabolism driving primary production on late Noachian Mars. Scientific Reports, 2020, 10, 10941.	1.6	23

#	Article	IF	CITATIONS
225	Reviewing Martian Atmospheric Noble Gas Measurements: From Martian Meteorites to Mars Missions. Geosciences (Switzerland), 2020, 10, 439.	1.0	6
227	Seasonal and Latitudinal Variations of Dayside N ₂ /CO ₂ Ratio in the Martian Thermosphere Derived From MAVEN IUVS Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006378.	1.5	8
228	A small S-MIF signal in Martian regolith pyrite: Implications for the atmosphere. Geochimica Et Cosmochimica Acta, 2020, 290, 59-75.	1.6	2
229	Carbon photochemistry at Mars: Updates with recent data. Icarus, 2020, 352, 114001.	1.1	12
230	Martian Multichannel Diode Laser Spectrometer (M-DLS) for In-Situ Atmospheric Composition Measurements on Mars Onboard ExoMars-2022 Landing Platform. Applied Sciences (Switzerland), 2020, 10, 8805.	1.3	3
231	Loss and Fractionation of Noble Gas Isotopes and Moderately Volatile Elements from Planetary Embryos and Early Venus, Earth and Mars. Space Science Reviews, 2020, 216, 1.	3.7	34
232	Critical review on the origin of atmospheric oxygen: Where is organic matter?. Planetary and Space Science, 2020, 190, 105023.	0.9	3
233	Simulating microbial processes in extraterrestrial, aqueous environments. Journal of Microbiological Methods, 2020, 172, 105883.	0.7	7
234	Oxygen Isotopes and Sampling of the Solar System. Space Science Reviews, 2020, 216, 1.	3.7	22
235	Mars in situ resource utilization: a review. Planetary and Space Science, 2020, 182, 104824.	0.9	61
236	Indigenous and exogenous organics and surface–atmosphere cycling inferred from carbon and oxygen isotopes at Gale crater. Nature Astronomy, 2020, 4, 526-532.	4.2	41
237	The effect of Europa and Enceladus analog seawater composition on isotopic measurements of volatile CO2. Icarus, 2021, 358, 114216.	1.1	1
238	A study of photovoltaic degradation modes due to dust interaction on Mars. Solar Energy Materials and Solar Cells, 2021, 221, 110880.	3.0	5
239	Did Mars Possess a Dense Atmosphere During the First \$sim400\$ Million Years?. Space Science Reviews, 2021, 217, 1.	3.7	15
240	A Roadmap Toward a Unified Space Communication Architecture. IEEE Access, 2021, 9, 99633-99650.	2.6	8
241	Antarctic Water Tracks: Microbial Community Responses to Variation in Soil Moisture, pH, and Salinity. Frontiers in Microbiology, 2021, 12, 616730.	1.5	11
242	MARSBOx: Fungal and Bacterial Endurance From a Balloon-Flown Analog Mission in the Stratosphere. Frontiers in Microbiology, 2021, 12, 601713.	1.5	25
243	⁴⁰ Ar/ ³⁹ Ar ages of Northwest Africa 7034 and Northwest Africa 7533. Meteoritics and Planetary Science, 2021, 56, 515-545.	0.7	5

~	~	
	ISED	ODT
CILAD	NLF	

#	ARTICLE	IF	CITATIONS
244	Investigation on the productsÂdistribution, reaction pathway, and discharge mechanism of lowâ€pressure CO ₂ discharge by employing a 1D simulation model. Plasma Processes and Polymers, 2021, 18, 2000228.	1.6	9
245	Mars InSight Entry, Descent, and Landing Trajectory and Atmosphere Reconstruction. Journal of Spacecraft and Rockets, 2021, 58, 865-878.	1.3	15
246	China's Mars Exploration Mission and Science Investigation. Space Science Reviews, 2021, 217, 1.	3.7	66
247	Optimizing Nitrogen Fixation and Recycling for Food Production in Regenerative Life Support Systems. Frontiers in Astronomy and Space Sciences, 2021, 8, .	1.1	11
248	Exploring the environments of Martian impactâ€generated hydrothermal systems and their potential to support life. Meteoritics and Planetary Science, 2021, 56, 1350-1368.	0.7	9
249	Polarization signatures of Mars dust and clouds: Prospects for future spacecraft observations. Planetary and Space Science, 2021, 201, 105193.	0.9	0
250	Manganese oxides in Martian meteorites Northwest Africa (NWA) 7034 and 7533. Icarus, 2021, 364, 114471.	1.1	8
251	Compact 480-GHz Radiometer Calibration Unit With Specular Reflection Absorber for Atmospheric Remote Sensor On-Board Microsatellite. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 486-494.	2.0	4
252	Growth at 5 kPa Causes Differential Expression of a Number of Signals in a Bacillus subtilis Strain Adapted to Enhanced Growth at Low Pressure. Astrobiology, 2021, 21, 1076-1088.	1.5	0
253	Mars' atmospheric neon suggests volatile-rich primitive mantle. Icarus, 2021, 370, 114685.	1.1	7
254	Heterogeneous Physical Chemistry in the Atmospheres of Earth, Mars, and Venus: Perspectives for Rocky Exoplanets. ACS Earth and Space Chemistry, 2021, 5, 149-162.	1.2	3
255	Potable Water. , 2021, , 225-236.		0
256	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
259	Experimental Insights Into Space Weathering of Phobos: Laboratory Investigation of Sputtering by Atomic and Molecular Planetary Ions. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006583.	1.5	15
260	Developments in tandem ion mobility mass spectrometry. Biochemical Society Transactions, 2020, 48, 2457-2466.	1.6	34
262	Variations of Stable Isotope Ratios in Nature. Springer Textbooks in Earth Sciences, Geography and Environment, 2021, , 267-498.	0.1	1
263	Hunting for Life on Mars by Studying Life on Earth. Frontiers for Young Minds, 0, 9, .	0.8	0
264	Variations of Stable Isotope Ratios in Nature. , 2004, , 77-196.		2

#	ARTICLE	IF	CITATIONS
266	Extreme Organismen und Transspermie. , 2017, , 83-152.		0
267	The Solar System as a Benchmark for Exoplanet Systems Interpretation. , 2018, , 1-24.		0
268	Curiosity's Chemistry Instruments. , 2018, , 294-348.		0
269	In-Situ Resource Utilization. Advances in Public Policy and Administration, 2019, , 193-210.	0.1	0
270	Extreme Organismen und Transspermie. , 2019, , 115-192.		0
271	Ursprung und Evolution des Lebendigen. , 2019, , 193-279.		Ο
274	Evolution of the Scientific Instrumentation for In Situ Mars Exploration. , 0, , .		2
275	Mars Entry, Descent, and Landing Instrumentation 2 Trajectory, Aerodynamics, and Atmosphere Reconstruction. , 2022, , .		10
276	Evaluation of Bosch Process–Sourced Carbon in Low-Carbon Steel and Gray Iron Casting for Martian Surface Manufacturing. Journal of Aerospace Engineering, 2022, 35, .	0.8	2
277	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. Earth, Planets and Space, 2022, 74, .	0.9	51
278	Reviewing in situ analytical techniques used to research Martian geochemistry: From the Viking Project to the MMX future mission. Analytica Chimica Acta, 2022, 1197, 339499.	2.6	9
279	MEDLI2: MISP Measured Aftbody Aerothermal Environments. , 2022, , .		15
280	Physical and chemical mechanisms that impact the detection, identification, and quantification of organic matter and the survival of microorganisms on the Martian surface – a review. International Journal of Astrobiology, 2022, 21, 356-379.	0.9	3
281	Aeolian driven oxidant and hydrogen generation in Martian regolith: The role of mineralogy and abrasion temperature. Earth and Planetary Science Letters, 2022, 579, 117361.	1.8	4
282	Nitrogenous Altered Volcanic Glasses as Targets for Mars Sample Return: Examples From Antarctica and Iceland. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	2
283	In situ observations of ions and magnetic field around Phobos: the mass spectrum analyzer (MSA) for the Martian Moons eXploration (MMX) mission. Earth, Planets and Space, 2021, 73, .	0.9	14
284	Observation Capability of a Ground-Based Terahertz Radiometer for Vertical Profiles of Oxygen and Water Abundances in Martian Atmosphere. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	2.7	1
285	Oligotrophic Growth of Nitrate-Dependent Fe2+-Oxidising Microorganisms Under Simulated Early Martian Conditions. Frontiers in Microbiology, 2022, 13, 800219.	1.5	4

#	Article	IF	CITATIONS
286	Gardening of the Martian Regolith by Diurnal CO ₂ Frost and the Formation of Slope Streaks. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	6
287	Non-thermal escape of the martian CO <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline" id="d1e4486" altimg="si106.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:mrow </mml:msub></mml:math> atmosphere over time: Constrained by Ar isotopes. Icarus. 2022. 382. 115009.	1.1	6
288	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
289	Isotopic Composition of CO ₂ in the Atmosphere of Mars: Fractionation by Diffusive Separation Observed by the ExoMars Trace Gas Orbiter. Journal of Geophysical Research E: Planets, 2021, 126, .	1.5	12
291	Cultivating Mars: A Project-Based Learning Lab Analyzing an Oxygen Based Redox Reaction in Order to Design an Oxygen-Rich Environment on the Red Planet Journal of Laboratory Chemical Education, 2018, 6, 4-11.	1.0	3
292	Ultraviolet Photooxidation of Smectiteâ€Bound Fe(II) and Implications for the Origin of Martian Nontronites. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
293	Formation Mechanisms of the Molecular Ion Polar Plume and Its Contribution to Ion Escape From Mars. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	4
294	Wireless Power Transmission on Martian Surface for Zero-Energy Devices. IEEE Transactions on Aerospace and Electronic Systems. 2022, 58, 3870-3880. Reflectance study of ice and Mars soil simulant associations—II. CO <mml:math< td=""><td>2.6</td><td>1</td></mml:math<>	2.6	1
295	id="d1e1871"> <mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:mrow </mml:msub> and H <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si125.svg" display="inline"</mml:math 	1.1	0
296	nd= (121879 >/, <br Plasma-induced luminescence spectroscopy in Martian atmospheric conditions. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 194, 106464.	1.5	Ο
297	Another one derives the dust: Ultraviolet dust aerosol properties retrieved from MAVEN/IUVS data. Icarus, 2022, 387, 115177.	1.1	4
298	Noble gas evolution of the martian atmosphere in the last 4 Gyr recorded by regolith breccia NWA 8114. Geochimica Et Cosmochimica Acta, 2022, 336, 372-393.	1.6	0
299	Martian Combustion-Powered Fixed-Wing UAVs: An Introductory Investigation and Analysis. Aerospace, 2022, 9, 447.	1.1	0
300	Development of an electron impact ion source with high ionization efficiency for future planetary missions. Planetary and Space Science, 2022, 220, 105547.	0.9	2
301	Regolith-Based Polymer Matrix Composites for In Situ Material Creation for Long-Term Extraterrestrial Missions. Journal of Aerospace Engineering, 2023, 36, .	0.8	0
302	Possible formation pathways for zeolites in closed-basin lakes on noachian Mars: Insights from geochemical modeling. Icarus, 2023, 389, 115271.	1.1	2
303	Sources of Nitrogen-, Sulfur-, and Phosphorus-Containing Feedstocks for Prebiotic Chemistry in the Planetary Environment. Life, 2022, 12, 1268.	1.1	4
304	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

#	Article	IF	CITATIONS
305	Martian Atmospheric Spectral Endâ€Members Retrieval From ExoMars Thermal Infrared (TIRVIM) Data. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	0
306	Comparison study of ductile iron produced with Martian regolith harvested iron from ionic liquids and Bosch byproduct carbon for in-situ resource utilization versus commercially available 65-45-12 ductile iron. Advances in Space Research, 2023, 71, 2175-2185.	1.2	4
307	Mars Entry, Descent, and Landing Instrumentation 2 Trajectory, Aerodynamics, and Atmosphere Reconstruction. Journal of Spacecraft and Rockets, 2023, 60, 199-214.	1.3	10
308	Effects of nickel and manganese on ductile iron utilizing ionic liquid harvested iron and Bosch byproduct carbon. Acta Astronautica, 2023, 204, 175-185.	1.7	2
309	Perchlorate-Coupled Carbon Monoxide (CO) Oxidation by Moorella glycerini, an Obligately Anaerobic, Thermophilic, Nickel-Dependent Carboxydotroph. Microorganisms, 2023, 11, 462.	1.6	0
310	Constraints on the Size and Composition of the Ancient Martian Atmosphere from Coupled CO ₂ –N ₂ –Ar Isotopic Evolution Models. Planetary Science Journal, 2023, 4, 41.	1.5	1
311	Mars Simulation Facilities: A Review of Recent Developments, Capabilities and Applications. Journal of the Indian Institute of Science, 0, , .	0.9	1