Susanne P Schwenzer

List of Publications by Year
in descending order

72 papers	5,663 citations	101543 36 h-index	95266 68 g-index
72 all docs	72 docs citations	72 times ranked	3937 citing authors

#	Article	IF	Citations
1	Oligotrophic Growth of Nitrate-Dependent Fe2+-Oxidising Microorganisms Under Simulated Early Martian Conditions. Frontiers in Microbiology, 2022, 13, 800219.	3.5	4
2	An Insight Into Ancient Aeolian Processes and Postâ€Noachian Aqueous Alteration in Gale Crater, Mars, Using ChemCam Geochemical Data From the Greenheugh Capping Unit. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	11
3	Sulfur Cycling as a Viable Metabolism under Simulated Noachian/Hesperian Chemistries. Life, 2022, 12, 523.	2.4	3
4	Constraints on the formation of carbonates and lowâ€grade metamorphic phases in the Martian crust as a function of H ₂ Oâ€CO ₂ fluids. Meteoritics and Planetary Science, 2022, 57, 77-104.	1.6	2
5	Microbes from Brine Systems with Fluctuating Salinity Can Thrive under Simulated Martian Chemical Conditions. Life, 2022, 12, 12.	2.4	1
6	Scientific Value of Including an Atmospheric Sample as Part of Mars Sample Return (MSR). Astrobiology, 2022, 22, S-165-S-175.	3.0	7
7	Overview of the Morphology and Chemistry of Diagenetic Features in the Clayâ€Rich Glen Torridon Unit of Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	17
8	Formation of Tridymite and Evidence for a Hydrothermal History at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006569.	3.6	21
9	Exploring the environments of Martian impactâ€generated hydrothermal systems and their potential to support life. Meteoritics and Planetary Science, 2021, 56, 1350-1368.	1.6	9
10	Habitability of Martian Noachian Hydrothermal Systems as Constrained by a Terrestrial Analog on the Colorado Plateau. Planetary Science Journal, 2021, 2, 138.	3.6	2
11	Early diagenesis at and below Vera Rubin ridge, Gale crater, Mars. Meteoritics and Planetary Science, 2021, 56, 1905-1932.	1.6	7
12	The identification of sulfide oxidation as aÂpotential metabolism driving primary production on late Noachian Mars. Scientific Reports, 2020, 10, 10941.	3.3	23
13	Evidence for a Diagenetic Origin of Vera Rubin Ridge, Gale Crater, Mars: Summary and Synthesis of <i>Curiosity</i>'s Exploration Campaign. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006527.	3.6	69
14	Iron Mobility During Diagenesis at Vera Rubin Ridge, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006299.	3.6	30
15	Boron and Lithium in Calcium Sulfate Veins: Tracking Precipitation of Diagenetic Materials in Vera Rubin Ridge, Gale Crater. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006301.	3.6	8
16	Multiple early-formed water reservoirs in the interior of Mars. Nature Geoscience, 2020, 13, 260-264.	12.9	43
17	Simulating microbial processes in extraterrestrial, aqueous environments. Journal of Microbiological Methods, 2020, 172, 105883.	1.6	7
18	Habitability of hydrothermal systems at Jezero and Gusev Craters as constrained by hydrothermal alteration of a terrestrial mafic dike. Chemie Der Erde, 2020, 80, 125613.	2.0	12

#	Article	IF	Citations
19	New simulants for martian regolith: Controlling iron variability. Planetary and Space Science, 2019, 179, 104722.	1.7	28
20	The potential science and engineering value of samples delivered to Earth by Mars sample return. Meteoritics and Planetary Science, 2019, 54, S3.	1.6	73
21	Phase Equilibria Modeling of Lowâ€Grade Metamorphic Martian Rocks. Journal of Geophysical Research E: Planets, 2019, 124, 681-702.	3.6	11
22	Introduction to Volatiles in the Martian Crust. , 2019, , 1-12.		5
23	Noble Gases in Martian Meteorites. , 2019, , 35-70.		9
24	Conclusions and Implications for Habitability of the Martian Crust. , 2019, , 393-399.		0
25	The Microbial Community of a Terrestrial Anoxic Inter-Tidal Zone: A Model for Laboratory-Based Studies of Potentially Habitable Ancient Lacustrine Systems on Mars. Microorganisms, 2018, 6, 61.	3.6	7
26	Nitrate-Dependent Iron Oxidation: A Potential Mars Metabolism. Frontiers in Microbiology, 2018, 9, 513.	3.5	46
27	Background levels of methane in Marsâ€™ atmosphere show strong seasonal variations. Science, 2018, 360, 1093-1096.	12.6	224
28	Diagenetic silica enrichment and lateâ€stage groundwater activity in Gale crater, Mars. Geophysical Research Letters, 2017, 44, 4716-4724.	4.0	87
29	Centimeter to decimeter hollow concretions and voids in Gale Crater sediments, Mars. Icarus, 2017, 289, 144-156.	2.5	12
30	In situ detection of boron by ChemCam on Mars. Geophysical Research Letters, 2017, 44, 8739-8748.	4.0	56
31	Large sulfur isotope fractionations in Martian sediments at Gale crater. Nature Geoscience, 2017, 10, 658-662.	12.9	53
32	Basaltâ€“trachybasalt samples in Gale Crater, Mars. Meteoritics and Planetary Science, 2017, 52, 2931-2410.	1.6	34
33	A Twoâ€Step Kâ€Ar Experiment on Mars: Dating the Diagenetic Formation of Jarosite from Amazonian Groundwaters. Journal of Geophysical Research E: Planets, 2017, 122, 2803-2818.	3.6	72
34	Determination of Geochemical Bio-Signatures in Mars-Like Basaltic Environments. Frontiers in Microbiology, 2017, 8, 1668.	3.5	15
35	Serpentinite with and without brucite: A reaction pathway analysis of a natural serpentinite in the Josephine ophiolite, California. Journal of Mineralogical and Petrological Sciences, 2017, 112, 59-76.	0.9	11
36	In situ measurement of atmospheric krypton and xenon on Mars with Mars Science Laboratory. Earth and Planetary Science Letters, 2016, 454, 1-9.	4.4	59

#	Article	IF	Citations
37	Fluids during diagenesis and sulfate vein formation in sediments at Gale crater, Mars. Meteoritics and Planetary Science, 2016, 51, 2175-2202.	1.6	50
38	A review of volatiles in the Martian interior. Meteoritics and Planetary Science, 2016, 51, 1935-1958.	1.6	43
39	Alteration minerals, fluids, and gases on early Mars: Predictions from 1â€Đ flow geochemical modeling of mineral assemblages in meteorite <scp>ALH</scp> 84001. Meteoritics and Planetary Science, 2016, 51, 2154-2174.	1.6	28
40	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.	7.1	158
41	Diagenesis and clay mineral formation at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2015, 120, 1-19.	3.6	72
42	Igneous and shock processes affecting chassignite amphibole evaluated using chlorine/water partitioning and hydrogen isotopes. Meteoritics and Planetary Science, 2015, 50, 433-460.	1.6	37
43	Mars methane detection and variability at Gale crater. Science, 2015, 347, 415-417.	12.6	373
44	Gale crater and impact processes â€“ Curiosityâ€™s first 364 Sols on Mars. Icarus, 2015, 249, 108-128.	2.5	37
45	ChemCam results from the Shaler outcrop in Gale crater, Mars. Icarus, 2015, 249, 2-21.	2.5	52
46	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	12.6	323
47	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	12.6	687
48	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	12.6	224
49	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
50	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	12.6	327
51	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
52	Alteration minerals in impact-generated hydrothermal systems â€“ Exploring host rock variability. Icarus, 2013, 226, 487-496.	2.5	45
53	Quantifying noble gas contamination during terrestrial alteration in Martian meteorites from Antarctica. Meteoritics and Planetary Science, 2013, 48, 929-954.	1.6	9
54	Petrography, mineral chemistry, and crystallization history of olivineâ€phyric shergottite NWA 6234: A new melt composition. Meteoritics and Planetary Science, 2013, 48, 854-871.	1.6	61

#	Article	IF	Citations
55	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	326
56	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
57	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
58	Alteration mineralogy of Home Plate and Columbia Hillsâ€"Formation conditions in context to impact, volcanism, and fluvial activity. Meteoritics and Planetary Science, 2013, 48, 1937-1957.	1.6	32
59	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	12.6	103
60	Gale Crater: Formation and post-impact hydrous environments. Planetary and Space Science, 2012, 70, 84-95.	1.7	67
61	Puncturing Mars: How impact craters interact with the Martian cryosphere. Earth and Planetary Science Letters, 2012, 335-336, 9-17.	4.4	46
62	The nakhlite hydrothermal brine on Mars. Earth and Planetary Science Letters, 2012, 359-360, 117-123.	4.4	92
63	Uninhabited habitats on Mars. Icarus, 2012, 217, 184-193.	2.5	58
64	Noble gas adsorption with and without mechanical stress: Not Martian signatures but fractionated air. Meteoritics and Planetary Science, 2012, 47, 1049-1061.	1.6	8
65	Geochemistry of intermediate olivineâ€phyric shergottite Northwest Africa 6234, with similarities to basaltic shergottite Northwest Africa 480 and olivineâ€phyric shergottite Northwest Africa 2990. Meteoritics and Planetary Science, 2012, 47, 1256-1273.	1.6	46
66	⁴⁰Arâ€³⁹Ar and cosmicâ€ray exposure ages of nakhlitesâ€"Nakhla, Lafayette, Governador Valadaresâ€"and Chassigny. Meteoritics and Planetary Science, 2011, 46, 1397-1417.	1.6	31
67	Impact-generated hydrothermal systems capable of forming phyllosilicates on Noachian Mars. Geology, 2009, 37, 1091-1094.	4.4	129
68	Noble gases and nitrogen in Martian meteorites Dar al Gani 476, Sayh al Uhaymir 005 and Lewis Cliff 88516: EFA and extra neon. Geochimica Et Cosmochimica Acta, 2009, 73, 1505-1522.	3.9	40
69	Noble gases in two shergottites and one nakhlite from Antarctica: Y000027, Y000097, and Y000593. Polar Science, 2009, 3, 83-99.	1.2	11
70	Helium loss from Martian meteorites mainly induced by shock metamorphism: Evidence from new data and a literature compilation. Meteoritics and Planetary Science, 2008, 43, 1841-1859.	1.6	35
71	Noble gases in mineral separates from three shergottites: Shergotty, Zagami, and EETA79001. Meteoritics and Planetary Science, 2007, 42, 387-412.	1.6	44
72	Speciation and oxidation kinetics of arsenic in the thermal springs of Wiesbaden spa, Germany. Fresenius' Journal of Analytical Chemistry, 2001, 371, 927-933.	1.5	29