Alexis S Templeton

List of Publications by Year
in descending order

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75 papers	4,222 citations	117625 34 h-index	114465 63 g-index
81 all docs	81 docs citations	81 times ranked	4528 citing authors

#	Article	IF	Citations
1	Geomicrobiology of manganese(II) oxidation. Trends in Microbiology, 2005, 13, 421-428.	7.7	606
2	Diverse Mn(II)-Oxidizing Bacteria Isolated from Submarine Basalts at Loihi Seamount. Geomicrobiology Journal, 2005, 22, 127-139.	2.0	195
3	Hydrogen generation from low-temperature waterâ€“rock reactions. Nature Geoscience, 2013, 6, 478-484.	12.9	184
4	Variable carbon isotope fractionation expressed by aerobic CH4-oxidizing bacteria. Geochimica Et Cosmochimica Acta, 2006, 70, 1739-1752.	3.9	175
5	3.5Âbillion years of glass bioalteration: Volcanic rocks as a basis for microbial life?. Earth-Science Reviews, 2008, 89, 156-176.	9.1	171
6	Temperature trends for reaction rates, hydrogen generation, and partitioning of iron during experimental serpentinization of olivine. Geochimica Et Cosmochimica Acta, 2016, 181, 175-200.	3.9	143
7	Geological and Geochemical Controls on Subsurface Microbial Life in the Samail Ophiolite, Oman. Frontiers in Microbiology, 2017, 8, 56.	3.5	126
8	Subsurface Microbial Diversity in Deep-Granitic-Fracture Water in Colorado. Applied and Environmental Microbiology, 2008, 74, 143-152.	3.1	122
9	Pb(II) distributions at biofilm-metal oxide interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 11897-11902.	7.1	116
10	Modern water/rock reactions in Oman hyperalkaline peridotite aquifers and implications for microbial habitability. Geochimica Et Cosmochimica Acta, 2016, 179, 217-241.	3.9	102
11	Sorption versus Biomineralization of Pb(II) withinBurkholderia cepaciaBiofilms. Environmental Science & Technology, 2003, 37, 300-307.	10.0	92
12	Loihichelins Aâ€“F, a Suite of Amphiphilic Siderophores Produced by the Marine Bacterium Halomonas LOB-5. Journal of Natural Products, 2009, 72, 884-888.	3.0	90
13	A seafloor microbial biome hosted within incipient ferromanganese crusts. Nature Geoscience, 2009, 2, 872-876.	12.9	87
14	Fungal Diversity Associated with an Active Deep Sea Volcano: Vailulu'u Seamount, Samoa. Geomicrobiology Journal, 2009, 26, 597-605.	2.0	82
15	Vailulu'u Seamount, Samoa: Life and death on an active submarine volcano. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 6448-6453.	7.1	81
16	Mineralogy of Iron Microbial Mats from Loihi Seamount. Frontiers in Microbiology, 2012, 3, 118.	3.5	79
17	Speciation of Pb(II) Sorbed byBurkholderia cepacia/Goethite Composites. Environmental Science & Technology, 2003, 37, 2166-2172.	10.0	77
18	Microbial Ecology of Fe (hydr)oxide Mats and Basaltic Rock from Vailulu'u Seamount, American Samoa. Geomicrobiology Journal, 2009, 26, 581-596.	2.0	70

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19	Microscale Imaging and Identification of Fe Speciation and Distribution during Fluidâ€“Mineral Reactions under Highly Reducing Conditions. Environmental Science & Technology, 2011, 45, 4468-4474.	10.0	65
20	Low temperature hydrogen production during experimental hydration of partially-serpentinized dunite. Geochimica Et Cosmochimica Acta, 2017, 209, 161-183.	3.9	62
21	Physiological adaptations to serpentinization in the Samail Ophiolite, Oman. ISME Journal, 2019, 13, 1750-1762.	9.8	61
22	Self-assembly of biomorphic carbon/sulfur microstructures in sulfidic environments. Nature Communications, 2016, 7, 12812.	12.8	60
23	Microbial Transformations of Minerals and Metals: Recent Advances in Geomicrobiology Derived from Synchrotron-Based X-Ray Spectroscopy and X-Ray Microscopy. Annual Review of Earth and Planetary Sciences, 2009, 37, 367-391.	11.0	58
24	Lowâ€Fe(III) Greenalite Was a Primary Mineral From Neoarchean Oceans. Geophysical Research Letters, 2018, 45, 3182-3192.	4.0	54
25	Methane on Mars and Habitability: Challenges and Responses. Astrobiology, 2018, 18, 1221-1242.	3.0	50
26	Structure and reactivity of environmental interfaces: Application of grazing angle X-ray spectroscopy and long-period X-ray standing waves. Journal of Electron Spectroscopy and Related Phenomena, 2006, 150, 66-85.	1.7	49
27	Biosignature Detection at an Arctic Analog to Europa. Astrobiology, 2012, 12, 135-150.	3.0	47
28	Metagenomic evidence for sulfur lithotrophy by Epsilonproteobacteria as the major energy source for primary productivity in a sub-aerial arctic glacial deposit, Borup Fiord Pass. Frontiers in Microbiology, 2013, 4, 63.	3.5	42
29	Science Goals and Mission Architecture of the Europa Lander Mission Concept. Planetary Science Journal, 2022, 3, 22.	3.6	42
30	Selenium speciation and partitioning within Burkholderia cepacia biofilms formed on Î±-Al2O3 surfaces. Geochimica Et Cosmochimica Acta, 2003, 67, 3547-3557.	3.9	41
31	Submarine Basaltic Glass Colonization by the Heterotrophic Fe(II)-Oxidizing and Siderophore-Producing Deep-Sea Bacterium Pseudomonas stutzeri VS-10: The Potential Role of Basalt in Enhancing Growth. Frontiers in Microbiology, 2017, 8, 363.	3.5	41
32	Large carbon isotope variability during methanogenesis under alkaline conditions. Geochimica Et Cosmochimica Acta, 2018, 237, 18-31.	3.9	39
33	Application of the Long-Period X-ray Standing Wave Technique to the Analysis of Surface Reactivity:Â Pb(II) Sorption at Î±-Al2O3/Aqueous Solution Interfaces in the Presence and Absence of Se(VI). Langmuir, 2002, 18, 5782-5791.	3.5	38
34	Low temperature S0 biomineralization at a supraglacial spring system in the Canadian High Arctic. Geobiology, 2011, 9, 360-375.	2.4	38
35	Diversification of methanogens into hyperalkaline serpentinizing environments through adaptations to minimize oxidant limitation. ISME Journal, 2021, 15, 1121-1135.	9.8	37
36	Grazing-Incidence XAFS Study of Aqueous Zn(II) Sorption on Î±-Al2O3 Single Crystals. Journal of Colloid and Interface Science, 2001, 244, 239-244.	9.4	35

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37	Bioenergetic constraints on the origin of autotrophic metabolism. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190151.	3.4	33
38	Potential for Nitrogen Fixation and Nitrification in the Granite-Hosted Subsurface at Henderson Mine, CO. Frontiers in Microbiology, 2011, 2, 254.	3.5	31
39	Low-temperature formation and stabilization of rare allotropes of cyclooctasulfur (Î²-S8 and Î³-S8) in the presence of organic carbon at a sulfur-rich glacial site in the Canadian High Arctic. Geochimica Et Cosmochimica Acta, 2017, 200, 218-231.	3.9	31
40	Utilization of Substrate Components during Basaltic Glass Colonization byPseudomonasandShewanellaIsolates. Geomicrobiology Journal, 2009, 26, 648-656.	2.0	30
41	Iron transformations during low temperature alteration of variably serpentinized rocks from the Samail ophiolite, Oman. Geochimica Et Cosmochimica Acta, 2018, 222, 704-728.	3.9	30
42	Hydrogen generation and iron partitioning during experimental serpentinization of an olivineâ€“pyroxene mixture. Geochimica Et Cosmochimica Acta, 2020, 282, 55-75.	3.9	30
43	Isotopic evidence for biological controls on migration of petroleum hydrocarbons. Organic Geochemistry, 1999, 30, 843-859.	1.8	29
44	Assessment of in-situ bioremediation at a refinery waste-contaminated site and an aviation gasoline contaminated site. Biodegradation, 2002, 13, 79-90.	3.0	29
45	Ralstonia species mediate Fe-oxidation in circumneutral, metal-rich subsurface fluids of Henderson mine, CO. Chemical Geology, 2011, 284, 339-350.	3.3	29
46	Molecular Evidence for an Active Microbial Methane Cycle in Subsurface Serpentinite-Hosted Groundwaters in the Samail Ophiolite, Oman. Applied and Environmental Microbiology, 2021, 87, .	3.1	29
47	Formation and stabilization of elemental sulfur through organomineralization. Geochimica Et Cosmochimica Acta, 2019, 247, 59-82.	3.9	28
48	Geochemical characterization of tubular alteration features in subseafloor basalt glass. Earth and Planetary Science Letters, 2013, 374, 239-250.	4.4	27
49	Accessing the Subsurface Biosphere Within Rocks Undergoing Active Lowâ€Temperature Serpentinization in the Samail Ophiolite (Oman Drilling Project). Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006315.	3.0	27
50	Seasonally-Induced Fluctuations in Microbial Production and Consumption of Methane during Bioremediation of Aged Subsurface Refinery Contamination. Environmental Science & Technology, 1999, 33, 4061-4068.	10.0	25
51	Geomicrobiology of Iron in Extreme Environments. Elements, 2011, 7, 95-100.	0.5	25
52	Formation and loss of metastable brucite: does Fe(II)-bearing brucite support microbial activity in serpentinizing ecosystems?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20180423.	3.4	24
53	Environmental Interfaces, Heavy Metals, Microbes, and Plants Applications of XAFS Spectroscopy and Related Synchrotron Radiation Methods to Environmental Science. Physica Scripta, 2005, , 80.	2.5	23
54	Aqueous Geochemical and Microbial Variation Across Discrete Depth Intervals in a Peridotite Aquifer Assessed Using a Packer System in the Samail Ophiolite, Oman. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006319.	3.0	23

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55	A comparative analysis of potential biosignatures in basalt glass by FIB-TEM. Chemical Geology, 2012, 330-331, 165-175.	3.3	22
56	Lowâ€Temperature Hydrogen Formation During Aqueous Alteration of Serpentinized Peridotite in the Samail Ophiolite. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021981.	3.4	22
57	Active microbial sulfate reduction in fluids of serpentinizing peridotites of the continental subsurface. Communications Earth & Environment, 2021, 2, .	6.8	21
58	Phylogenetic Relationships and Functional Genes: Distribution of a Gene (mnxG) Encoding a Putative Manganese-Oxidizing Enzyme in Bacillus Species. Applied and Environmental Microbiology, 2008, 74, 7265-7271.	3.1	20
59	Characterization of alteration textures in Cretaceous oceanic crust (pillow lava) from the N-Atlantic (DSDP Hole 418A) by spatially-resolved spectroscopy. Geochimica Et Cosmochimica Acta, 2012, 96, 80-93.	3.9	20
60	Geochemical, Biological, and Clumped Isotopologue Evidence for Substantial Microbial Methane Production Under Carbon Limitation in Serpentinites of the Samail Ophiolite, Oman. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006025.	3.0	19
61	Microbial Metabolic Redundancy Is a Key Mechanism in a Sulfur-Rich Glacial Ecosystem. MSystems, 2020, 5, .	3.8	17
62	Initial Results From the Oman Drilling Project Multiâ€Borehole Observatory: Petrogenesis and Ongoing Alteration of Mantle Peridotite in the Weathering Horizon. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022729.	3.4	16
63	Near-surface expression of a young mesothermal gold mineralizing system, Sealy Range, Southern Alps, New Zealand. Mineralium Deposita, 1999, 34, 163-172.	4.1	14
64	In Situ Oxygen Isotope Determination in Serpentine Minerals by SIMS: Addressing Matrix Effects and Providing New Insights on Serpentinisation at Hole BA1B (Samail ophiolite, Oman). Geostandards and Geoanalytical Research, 2021, 45, 161-187.	3.1	12
65	XAFS and XSW study of the distribution of Pb(II) sorbed to biofilms on Î±-Al2O3and Î±-FeOOH surfaces. Journal of Synchrotron Radiation, 1999, 6, 642-644.	2.4	11
66	Fe-bearing phases in modern lacustrine microbialites from Mexico. Geochimica Et Cosmochimica Acta, 2019, 253, 201-230.	3.9	11
67	Low-Temperature Sulfidic-Ice Microbial Communities, Borup Fiord Pass, Canadian High Arctic. Frontiers in Microbiology, 2018, 9, 1622.	3.5	10
68	Reply to â€œMethane origin in the Samail ophiolite: Comment on â€˜Modern water/rock reactions in Oman hyperalkaline peridotite aquifers and implications for microbial habitabilityâ€™â€•[Geochim. Cosmochim. Acta 179 (2016) 217â€“241]. Geochimica Et Cosmochimica Acta, 2017, 197, 471-473.	3.9	9
69	Distinct geochemistries of waterâ€“basaltâ€“Fe0 reactions in the presence versus absence of CO2-driven microbial methanogenesis. Chemical Geology, 2016, 428, 92-105.	3.3	7
70	Quantitative microscale Fe redox imaging by multiple energy X-ray fluorescence mapping at the FeKpre-edge peak. American Mineralogist, 2020, 105, 1812-1829.	1.9	6
71	Transformation of lowâ€molecularâ€weight organic acids by microbial endoliths in subsurface mafic and ultramafic igneous rock. Environmental Microbiology, 2022, 24, 4137-4152.	3.8	6
72	Acceptance of the 2006 F. W. Clarke Award. Geochimica Et Cosmochimica Acta, 2007, 71, S24-S26.	3.9	1

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73	The effect of methanogenesis on the geochemistry of low temperature waterâ€“Fe0â€“basalt reactions. Applied Geochemistry, 2011, 26, S318.	3.0	1
74	Bioenergetics of microbial sulfur-redox reactions in a glacial environment. Applied Geochemistry, 2011, 26, S323.	3.0	1
75	Sulfur- and Iron-Rich Mineralogical Features Preserved in Permafrost in the Canadian High Arctic: Analogs for the Astrobiological Exploration of Mars. Frontiers in Astronomy and Space Sciences, 2022, 9, .	2.8	1