Dawn Y Sumner

List of Publications by Year
in descending order

112	10,387	38742 50	32842 100
papers	citations	h-index	g-index

118	118	118	5882
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Burial and Exhumation of Sedimentary Rocks Revealed by the Base Stimson Erosional Unconformity, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	3
2	Importance of environmental factors over habitat connectivity in shaping bacterial communities in microbial mats and bacterioplankton in an Antarctic freshwater system. FEMS Microbiology Ecology, 2021, 97, .	2.7	13
3	Metabolic Capacity of the Antarctic Cyanobacterium Phormidium pseudopriestleyi That Sustains Oxygenic Photosynthesis in the Presence of Hydrogen Sulfide. Genes, 2021, 12, 426.	2.4	12
4	Phylogeny and Evolutionary History of Respiratory Complex I Proteins in Melainabacteria. Genes, 2021, 12, 929.	2.4	1
5	First Detections of Dichlorobenzene Isomers and Trichloromethylpropane from Organic Matter Indigenous to Mars Mudstone in Gale Crater, Mars: Results from the Sample Analysis at Mars Instrument Onboard the Curiosity Rover. Astrobiology, 2020, 20, 292-306.	3.0	50
6	Energetic and Environmental Constraints on the Community Structure of Benthic Microbial Mats in Lake Fryxell, Antarctica. FEMS Microbiology Ecology, 2020, 96, .	2.7	13
7	Structure and distribution of chalky deposits in the Pacific oyster using x-ray computed tomography (CT). Scientific Reports, 2020, 10, 12118.	3.3	12
8	A phylogenetically novel cyanobacterium most closely related to Gloeobacter. ISME Journal, 2020, 14, 2142-2152.	9.8	45
9	Grain Size Variations in the Murray Formation: Stratigraphic Evidence for Changing Depositional Environments in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006230.	3.6	29
10	Environmental control on the distribution of metabolic strategies of benthic microbial mats in Lake Fryxell, Antarctica. PLoS ONE, 2020, 15, e0231053.	2.5	13
11	In a PICL: The sedimentary deposits and facies of perennially iceâ€covered lakes. Sedimentology, 2019, 66, 917-939.	3.1	7
12	Environmental controls on bacteriohopanepolyol profiles of benthic microbial mats from Lake Fryxell, Antarctica. Geobiology, 2019, 17, 551-563.	2.4	7
13	Bacteriohopanepolyols across environmental gradients in Lake Vanda, Antarctica. Geobiology, 2019, 17, 308-319.	2.4	8
14	Evidence for plunging river plume deposits in the Pahrump Hills member of the Murray formation, Gale crater, Mars. Sedimentology, 2019, 66, 1768-1802.	3.1	80
15	Using ChemCam LIBS data to constrain grain size in rocks on Mars: Proof of concept and application to rocks at Yellowknife Bay and Pahrump Hills, Gale crater. Icarus, 2019, 321, 82-98.	2.5	37
16	Ancient Martian aeolian processes and palaeomorphology reconstructed from the Stimson formation on the lower slope of Aeolis Mons, Gale crater, Mars. Sedimentology, 2018, 65, 993-1042.	3.1	143
17	Shaler: inÂsitu analysis of a fluvial sedimentary deposit on Mars. Sedimentology, 2018, 65, 96-122.	3.1	59
18	Stromatolite records of environmental change in perennially ice-covered Lake Joyce, McMurdo Dry Valleys, Antarctica. Biogeochemistry, 2018, 137, 73-92.	3.5	31

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19	Gypsum, bassanite, and anhydrite at Gale crater, Mars. American Mineralogist, 2018, 103, 1011-1020.	1.9	96
20	Organic matter preserved in 3-billion-year-old mudstones at Gale crater, Mars. Science, 2018, 360, 1096-1101.	12.6	369
21	Filamentous Hydrous Ferric Oxide Biosignatures in a Pipeline Carrying Acid Mine Drainage at Iron Mountain Mine, California. Geomicrobiology Journal, 2017, 34, 193-206.	2.0	13
22	Increased mud deposition reduces stromatolite complexity. Geology, 2017, 45, 663-666.	4.4	13
23	Diagenetic silica enrichment and lateâ€stage groundwater activity in Gale crater, Mars. Geophysical Research Letters, 2017, 44, 4716-4724.	4.0	87
24	Characterisation of a deep-water moss from the perennially ice-covered Lake Vanda, Antarctica. Polar Biology, 2017, 40, 2063-2076.	1.2	7
25	Redox stratification of an ancient lake in Gale crater, Mars. Science, 2017, 356, .	12.6	209
26	Morphological signatures of microbial activity across sediment and light microenvironments of Lake Vanda, Antarctica. Sedimentary Geology, 2017, 361, 82-92.	2.1	13
27	The Mars Science Laboratory (MSL) Mast cameras and Descent imager: Investigation and instrument descriptions. Earth and Space Science, 2017, 4, 506-539.	2.6	117
28	Observation of >â€‰5â€‰wt % zinc at the Kimberley outcrop, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2016, 121, 338-352.	3.6	32
29	Mineralogy, provenance, and diagenesis of a potassic basaltic sandstone on Mars: CheMin Xâ€ray diffraction of the Windjana sample (Kimberley area, Gale Crater). Journal of Geophysical Research E: Planets, 2016, 121, 75-106.	3.6	159
30	Growth of elaborate microbial pinnacles in Lake Vanda, Antarctica. Geobiology, 2016, 14, 556-574.	2.4	33
31	Sequence and relative timing of large lakes in Gale crater (Mars) after the formation of Mount Sharp. Journal of Geophysical Research E: Planets, 2016, 121, 472-496.	3.6	72
32	Thrombolite fabrics and origins: Influences of diverse microbial and metazoan processes on Cambrian thrombolite variability in the Great Basin, California and Nevada. Sedimentology, 2016, 63, 2217-2252.	3.1	25
33	Large wind ripples on Mars: A record of atmospheric evolution. Science, 2016, 353, 55-58.	12.6	144
34	Microbial Mat Communities along an Oxygen Gradient in a Perennially Ice-Covered Antarctic Lake. Applied and Environmental Microbiology, 2016, 82, 620-630.	3.1	69
35	FACIES ANALYSIS AND STRATIGRAPHIC CONTEXT OF THE PAHRUMP HILLS OUTCROP, TYPE LOCALITY OF THE BASAL MURRAY FORMATION, GALE CRATER, MARS. , 2016, , .		1
36	Organic molecules in the Sheepbed Mudstone, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2015, 120, 495-514.	3.6	375

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37	Carbonate fabrics in the modern microbialites of Pavilion Lake: two suites of microfabrics that reflect variation in microbial community morphology, growth habit, and lithification. Geobiology, 2015, 13, 357-372.	2.4	18
38	Growth of modern branched columnar stromatolites in Lake Joyce, Antarctica. Geobiology, 2015, 13, 373-390.	2.4	29
39	Chemical variations in Yellowknife Bay formation sedimentary rocks analyzed by ChemCam on board the Curiosity rover on Mars. Journal of Geophysical Research E: Planets, 2015, 120, 452-482.	3.6	51
40	Scientific Delirium Madness Gallery. Leonardo, 2015, 48, 220-225.	0.3	0
41	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	1.9	122
42	Cyanobacterial diversity in benthic mats of the McMurdo Dry Valley lakes, Antarctica. Polar Biology, 2015, 38, 1097-1110.	1.2	52
43	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	12.6	471
44	Preserved Filamentous Microbial Biosignatures in the Brick Flat Gossan, Iron Mountain, California. Astrobiology, 2015, 15, 637-668.	3.0	25
45	Antarctic microbial mats: A modern analog for Archean lacustrine oxygen oases. Geology, 2015, 43, 887-890.	4.4	55
46	Late <scp>M</scp>iocene to <scp>P</scp>liocene stratigraphy of the <scp>K</scp>ura <scp>B</scp>asin, a subbasin of the <scp>S</scp>outh <scp>C</scp>aspian <scp>B</scp>asin: implications for the diachroneity of stage boundaries. Basin Research, 2015, 27, 247-271.	2.7	20
47	The origin and evolution of the Peace Vallis fan system that drains to the Curiosity landing area, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 705-728.	3.6	112
48	Unraveling the three-dimensional morphology of Archean microbialites. Journal of Paleontology, 2014, 88, 719-726.	0.8	12
49	Meteoric diagenesis and fluid-rock interaction in the Middle Permian Capitan backreef: Yates Formation, Slaughter Canyon, New Mexico. AAPG Bulletin, 2014, 98, 1495-1519.	1.5	43
50	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	12.6	323
51	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	12.6	687
52	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	12.6	508
53	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	12.6	475
54	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	12.6	224

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55	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	12.6	246
56	Calcium sulfate veins characterized by ChemCam/Curiosity at Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1991-2016.	3.6	214
57	Diagenetic origin of nodules in the Sheepbed member, Yellowknife Bay formation, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1637-1664.	3.6	80
58	Subaqueous shrinkage cracks in the Sheepbed mudstone: Implications for early fluid diagenesis, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1597-1613.	3.6	50
59	Sulfur-bearing phases detected by evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 373-393.	3.6	65
60	Constructing Point Clouds from Underwater Stereo Movies. Lecture Notes in Computer Science, 2014, , 423-434.	1.3	0
61	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	12.6	327
62	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
63	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	326
64	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	12.6	134
65	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
66	MAHLI at the Rocknest sand shadow: Science and scienceâ€enabling activities. Journal of Geophysical Research E: Planets, 2013, 118, 2338-2360.	3.6	67
67	Timescales of Growth Response of Microbial Mats to Environmental Change in an Ice-Covered Antarctic Lake. Biology, 2013, 2, 151-176.	2.8	32
68	Curiosityâ€™s Mars Hand Lens Imager (MAHLI) Investigation. Space Science Reviews, 2012, 170, 259-317.	8.1	185
69	Origins of Microbial Microstructures In the Neoproterozoic Beck Spring Dolomite: Variations In Microbial Community and Timing of Lithification. Journal of Sedimentary Research, 2012, 82, 709-722.	1.6	30
70	Curiosityâ€™s Mars Hand Lens Imager (MAHLI) Investigation. , 2012, , 259-317.		0
71	Understanding Microbialite Morphology Using a Comprehensive Suite of Three-Dimensional Analysis Tools. Astrobiology, 2011, 11, 509-518.	3.0	5
72	Paraburdoo spherule layer (Hamersley Basin, Western Australia): Distal ejecta from a fourth large impact near the Archean-Proterozoic boundary. Geology, 2011, 39, 307-310.	4.4	34

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73	Mars Sedimentary Geology: Key Concepts and Outstanding Questions. Astrobiology, 2011, 11, 77-87.	3.0	93
74	Origin and evolution of polygonal cracks in hydrous sulphate sands, White Sands National Monument, New Mexico. Sedimentology, 2011, 58, 407-423.	3.1	15
75	Microbialites of the Neoproterozoic Beck Spring Dolomite, Southern California. Sedimentology, 2011, 58, 1648-1673.	3.1	46
76	Discovery of large conical stromatolites in Lake Untersee, Antarctica. Geobiology, 2011, 9, 280-293.	2.4	97
77	Legacies of recent environmental change in the benthic communities of Lake Joyce, a perennially ice-covered Antarctic lake. Geobiology, 2011, 9, 394-410.	2.4	31
78	Preservation of Martian Organic and Environmental Records: Final Report of the Mars Biosignature Working Group. Astrobiology, 2011, 11, 157-181.	3.0	255
79	The Sedimentary Record of Mars. The Sedimentary Record, 2011, 9, 4-8.	0.6	10
80	Blending Art and Science: Collapse (suddenly falling down). Leonardo, 2010, 43, 274-281.	0.3	5
81	Undirected motility of filamentous cyanobacteria produces reticulate mats. Geobiology, 2010, 8, 179-190.	2.4	107
82	Blending Art and Science to Create Collapse (suddenly falling down). Leonardo, 2010, 43, 204-204.	0.3	2
83	Late Archean molecular fossils from the Transvaal Supergroup record the antiquity of microbial diversity and aerobiosis. Precambrian Research, 2009, 169, 28-47.	2.7	151
84	Lithofacies control on multiple-sulfur isotope records and Neoarchean sulfur cycles. Precambrian Research, 2009, 169, 58-67.	2.7	81
85	Correlating multiple Neoarcheanâ€“Paleoproterozoic impact spherule layers between South Africa and Western Australia. Precambrian Research, 2009, 169, 100-111.	2.7	32
86	Interactive Visualization to Advance Earthquake Simulation. Pure and Applied Geophysics, 2008, 165, 621-633.	1.9	8
87	Variations in Neoarchean microbialite morphologies: clues to controls on microbialite morphologies through time. Sedimentology, 2008, 55, 1189-1202.	3.1	21
88	A geoscience perspective on immersive 3D gridded data visualization. Computers and Geosciences, 2008, 34, 1056-1072.	4.2	96
89	Tube structures of probable microbial origin in the Neoarchean Carawine Dolomite, Hamersley Basin, Western Australia. Geobiology, 2007, 6, 070627140740001-???.	2.4	9
90	Cracks and fins in sulfate sand: Evidence for recent mineral-atmospheric water cycling in Meridiani Planum outcrops?. Geology, 2006, 34, 229.	4.4	31

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91	Molar tooth structures of the Neoarchean Monteville Formation, Transvaal Supergroup, South Africa. I: Constraints on microcrystalline CaCO₃ precipitation. Sedimentology, 2006, 53, 1049-1068.	3.1	34
92	Molar tooth structures of the Neoarchean Monteville Formation, Transvaal Supergroup, South Africa. II: A waveâ€induced fluid flow model. Sedimentology, 2006, 53, 1069-1082.	3.1	34
93	Isotopic fingerprints of microbial respiration in aragonite from Bahamian stromatolites. Geology, 2006, 34, 973.	4.4	112
94	Sequence Stratigraphic Development of the Neoarchean Transvaal carbonate platform, Kaapvaal Craton, South Africa. South African Journal of Geology, 2006, 109, 11-22.	1.2	79
95	Neoarchaean impact spherule layers in the Fortescue and Hamersley Groups, Western Australia: stratigraphic and depositional implications of re-correlation. Australian Journal of Earth Sciences, 2005, 52, 759-771.	1.0	25
96	Implications for Neoarchaean ocean chemistry from primary carbonate mineralogy of the Campbellrand-Malmani Platform, South Africa. Sedimentology, 2004, 51, 1273-1299.	3.1	101
97	Poor preservation potential of organics in Meridiani Planum hematite-bearing sedimentary rocks. Journal of Geophysical Research, 2004, 109, .	3.3	51
98	Secular variations in Precambrian seawater chemistry and the timing of Precambrian aragonite seas and calcite seas: Comment and Reply. Geology, 2004, 32, e1-e1.	4.4	2
99	Famennian microbial reef facies, Napier and Oscar Ranges, Canning Basin, western Australia. Sedimentology, 2003, 50, 1283-1302.	3.1	41
100	Late Devonian carbon isotope stratigraphy and sea level fluctuations, Canning Basin, Western Australia. Palaeogeography, Palaeoclimatology, Palaeoecology, 2003, 191, 203-219.	2.3	58
101	Microbial Processes Forming Marine Stromatolites. , 2003, , 103-118.		22
102	Renalcids as Fossilized Biofilm Clusters. Palaios, 2002, 17, 225-236.	1.3	49
103	Biology and Geology: A Necessary Symbiosis. Palaios, 2002, 17, 307-308.	1.3	0
104	Microbial Influences on Local Carbon Isotopic Ratios and Their Preservation in Carbonate. Astrobiology, 2001, 1, 57-70.	3.0	39
105	Microbial vs Environmental Influences on the Morphology of Late Archean Fenestrate Microbialites. , 2000, , 307-314.		22
106	LATE ARCHEAN ARAGONITE PRECIPITATION: PETROGRAPHY, FACIES ASSOCIATIONS, AND ENVIRONMENTAL SIGNIFICANCE. , 2000, , 123-144.		43
107	Late Archean Calcite-Microbe Interactions: Two Morphologically Distinct Microbial Communities That Affected Calcite Nucleation Differently. Palaios, 1997, 12, 302.	1.3	100
108	Uî—¸Pb geochronologic constraints on deposition of the Campbellrand Subgroup, Transvaal Supergroup, South Africa. Precambrian Research, 1996, 79, 25-35.	2.7	115

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109	Were kinetics of Archean calcium carbonate precipitation related to oxygen concentration?. Geology, 1996, 24, 119.	4.4	136
110	Herringbone Calcite: Petrography and Environmental Significance. Journal of Sedimentary Research, 1996, Vol. 66, .	1.6	22
111	Numerical Modeling of Ooid Size and the Problem of Neoproterozoic Giant Ooids. Journal of Sedimentary Research, 1993, Vol. 63, 974-82.	1.6	32
112	Decimetre-Thick Encrustations of Calcite and Aragonite on the Sea-Floor and Implications for Neoarchaean and Neoproterozoic Ocean Chemistry. , 0, , 107-120.		15