Don Canfield

List of Publications by Year
in descending order

250 papers	45,241 citations	1792 103 h-index	1928 207 g-index
299 all docs	299 docs citations	299 times ranked	21875 citing authors

#	Article	IF	Citations
1	The Evolution and Future of Earthâ€™s Nitrogen Cycle. Science, 2010, 330, 192-196.	6.0	1,912
2	The Global Carbon Cycle: A Test of Our Knowledge of Earth as a System. Science, 2000, 290, 291-296.	6.0	1,601
3	The use of chromium reduction in the analysis of reduced inorganic sulfur in sediments and shales. Chemical Geology, 1986, 54, 149-155.	1.4	1,173
4	A new model for Proterozoic ocean chemistry. Nature, 1998, 396, 450-453.	13.7	1,096
5	Development of a sequential extraction procedure for iron: implications for iron partitioning in continentally derived particulates. Chemical Geology, 2005, 214, 209-221.	1.4	932
6	Reactive iron in marine sediments. Geochimica Et Cosmochimica Acta, 1989, 53, 619-632.	1.6	907
7	THE EARLY HISTORY OF ATMOSPHERIC OXYGEN: Homage to Robert M. Garrels. Annual Review of Earth and Planetary Sciences, 2005, 33, 1-36.	4.6	833
8	Late-Neoproterozoic Deep-Ocean Oxygenation and the Rise of Animal Life. Science, 2007, 315, 92-95.	6.0	812
9	The anaerobic degradation of organic matter in Danish coastal sediments: Iron reduction, manganese reduction, and sulfate reduction. Geochimica Et Cosmochimica Acta, 1993, 57, 3867-3883.	1.6	806
10	Late Proterozoic rise in atmospheric oxygen concentration inferred from phylogenetic and sulphur-isotope studies. Nature, 1996, 382, 127-132.	13.7	790
11	Factors influencing organic carbon preservation in marine sediments. Chemical Geology, 1994, 114, 315-329.	1.4	789
12	Ferruginous Conditions: A Dominant Feature of the Ocean through Earth's History. Elements, 2011, 7, 107-112.	0.5	717
13	Pathways of organic carbon oxidation in three continental margin sediments. Marine Geology, 1993, 113, 27-40.	0.9	680
14	Calibration of Sulfate Levels in the Archean Ocean. Science, 2002, 298, 2372-2374.	6.0	671
15	Ferruginous Conditions Dominated Later Neoproterozoic Deep-Water Chemistry. Science, 2008, 321, 949-952.	6.0	626
16	A new model for atmospheric oxygen over Phanerozoic time. Numerische Mathematik, 1989, 289, 333-361.	0.7	621
17	Comparative Earth History and Late Permian Mass Extinction. Science, 1996, 273, 452-457.	6.0	600
18	Isotopic evidence for microbial sulphate reduction in the early Archaean era. Nature, 2001, 410, 77-81.	13.7	599

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19	Sources of iron for pyrite formation in marine sediments. Numerische Mathematik, 1998, 298, 219-245.	0.7	598
20	N2 production by the anammox reaction in the anoxic water column of Golfo Dulce, Costa Rica. Nature, 2003, 422, 606-608.	13.7	582
21	Fluctuations in Precambrian atmospheric oxygenation recorded by chromium isotopes. Nature, 2009, 461, 250-253.	13.7	554
22	Atmospheric oxygenation three billion years ago. Nature, 2013, 501, 535-538.	13.7	547
23	The production of 34S-depleted sulfide during bacterial disproportionation of elemental sulfur. Science, 1994, 266, 1973-1975.	6.0	545
24	A Cryptic Sulfur Cycle in Oxygen-Minimumâ€"Zone Waters off the Chilean Coast. Science, 2010, 330, 1375-1378.	6.0	545
25	Anaerobic ammonium oxidation (anammox) in the marine environment. Research in Microbiology, 2005, 156, 457-464.	1.0	538
26	The Iron Biogeochemical Cycle Past and Present. Geochemical Perspectives, 2012, 1, 1-220.	3.8	518
27	Dissolution and pyritization of magnetite in anoxie marine sediments. Geochimica Et Cosmochimica Acta, 1987, 51, 645-659.	1.6	465
28	Biogeochemistry of Sulfur Isotopes. Reviews in Mineralogy and Geochemistry, 2001, 43, 607-636.	2.2	460
29	Could bacteria have formed the Precambrian banded iron formations?. Geology, 2002, 30, 1079.	2.0	444
30	Isotope fractionation by natural populations of sulfate-reducing bacteria. Geochimica Et Cosmochimica Acta, 2001, 65, 1117-1124.	1.6	443
31	The Archean Sulfur Cycle and the Early History of Atmospheric Oxygen. Science, 2000, 288, 658-661.	6.0	430
32	Animal evolution, bioturbation, and the sulfate concentration of the oceans. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8123-8127.	3.3	416
33	Aerobic sulfate reduction in microbial mats. Science, 1991, 251, 1471-1473.	6.0	414
34	Concentration and transport of nitrate by the mat-forming sulphur bacterium Thioploca. Nature, 1995, 374, 713-715.	13.7	410
35	The transition to a sulphidic ocean â^¼ 1.84 billion years ago. Nature, 2004, 431, 173-177.	13.7	405
36	Ocean productivity before about 1.9â€‰Gyr ago limited by phosphorus adsorption onto iron oxides. Nature, 2002, 417, 159-162.	13.7	386

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37	Sulfur isotope fractionation during bacterial sulfate reduction in organic-rich sediments. Geochimica Et Cosmochimica Acta, 1997, 61, 5351-5361.	1.6	383
38	Sulfate reduction and oxic respiration in marine sediments: implications for organic carbon preservation in euxinic environments. Deep-sea Research Part A, Oceanographic Research Papers, 1989, 36, 121-138.	1.6	381
39	Microbial oceanography of anoxic oxygen minimum zones. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15996-16003.	3.3	365
40	Devonian rise in atmospheric oxygen correlated to the radiations of terrestrial plants and large predatory fish. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17911-17915.	3.3	340
41	Spatial variability in oceanic redox structure 1.8â€‰billion years ago. Nature Geoscience, 2010, 3, 486-490.	5.4	338
42	The evolution of the Earth surface sulfur reservoir. Numerische Mathematik, 2004, 304, 839-861.	0.7	325
43	Towards a consistent classification scheme for geochemical environments, or, why we wish the term â€˜suboxicâ€™ would go away. Geobiology, 2009, 7, 385-392.	1.1	324
44	Early anaerobic metabolisms. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 1819-1836.	1.8	323
45	A comparison of iron extraction methods for the determination of degree of pyritisation and the recognition of iron-limited pyrite formation. Chemical Geology, 1994, 111, 101-110.	1.4	318
46	Anaerobic ammonium-oxidizing bacteria in marine environments: widespread occurrence but low diversity. Environmental Microbiology, 2007, 9, 1476-1484.	1.8	307
47	High isotope fractionations during sulfate reduction in a low-sulfate euxinic ocean analog. Geology, 2010, 38, 415-418.	2.0	296
48	Pathways of carbon oxidation in continental margin sediments off central Chile. Limnology and Oceanography, 1996, 41, 1629-1650.	1.6	292
49	Oxygen requirements of the earliest animals. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4168-4172.	3.3	276
50	Biogeochemical cycles of carbon, sulfur, and free oxygen in a microbial mat. Geochimica Et Cosmochimica Acta, 1993, 57, 3971-3984.	1.6	266
51	High rates of microbial carbon turnover in sediments in the deepest oceanic trench on Earth. Nature Geoscience, 2013, 6, 284-288.	5.4	262
52	Sufficient oxygen for animal respiration 1,400 million years ago. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1731-1736.	3.3	259
53	Sulfur isotope fractionation during bacterial reduction and disproportionation of thiosulfate and sulfite. Geochimica Et Cosmochimica Acta, 1998, 62, 2585-2595.	1.6	257
54	Sulfate was a trace constituent of Archean seawater. Science, 2014, 346, 735-739.	6.0	246

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55	Large colonial organisms with coordinated growth in oxygenated environments 2.1â€‰Gyr ago. Nature, 2010, 466, 100-104.	13.7	235
56	Middle Proterozoic ocean chemistry: Evidence from the McArthur Basin, northern Australia. Numerische Mathematik, 2002, 302, 81-109.	0.7	234
57	Multiple sulphur isotopic interpretations of biosynthetic pathways: implications for biological signatures in the sulphur isotope record. Geobiology, 2003, 1, 27-36.	1.1	234
58	Isotope fractionation by sulfate-reducing natural populations and the isotopic composition of sulfide in marine sediments. Geology, 2001, 29, 555.	2.0	230
59	Photoferrotrophs thrive in an Archean Ocean analogue. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15938-15943.	3.3	229
60	Sources of particulate organic matter in rivers from the continental usa: lignin phenol and stable carbon isotope compositions. Geochimica Et Cosmochimica Acta, 2000, 64, 3539-3546.	1.6	218
61	Oxygen at Nanomolar Levels Reversibly Suppresses Process Rates and Gene Expression in Anammox and Denitrification in the Oxygen Minimum Zone off Northern Chile. MBio, 2014, 5, e01966.	1.8	216
62	Active Microbial Sulfur Disproportionation in the Mesoproterozoic. Science, 2005, 310, 1477-1479.	6.0	215
63	Sulfur isotope insights into microbial sulfate reduction: When microbes meet models. Geochimica Et Cosmochimica Acta, 2007, 71, 3929-3947.	1.6	206
64	Reconstruction of secular variation in seawater sulfate concentrations. Biogeosciences, 2015, 12, 2131-2151.	1.3	197
65	Ammonium and nitrite oxidation at nanomolar oxygen concentrations in oxygen minimum zone waters. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10601-10606.	3.3	195
66	An emerging picture of Neoproterozoic ocean chemistry: Insights from the Chuar Group, Grand Canyon, USA. Earth and Planetary Science Letters, 2010, 290, 64-73.	1.8	194
67	N2 production rates limited by nitrite availability in the Bay of Bengal oxygen minimum zone. Nature Geoscience, 2017, 10, 24-29.	5.4	180
68	Multiple sulfur isotope fractionations in biological systems: A case study with sulfate reducers and sulfur disproportionators. Numerische Mathematik, 2005, 305, 645-660.	0.7	179
69	Aerobic growth at nanomolar oxygen concentrations. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18755-18760.	3.3	178
70	Community Composition of a Hypersaline Endoevaporitic Microbial Mat. Applied and Environmental Microbiology, 2005, 71, 7352-7365.	1.4	174
71	Connections between Sulfur Cycle Evolution, Sulfur Isotopes, Sediments, and Base Metal Sulfide Deposits. Economic Geology, 2010, 105, 509-533.	1.8	174
72	A sulfidic driver for the end-Ordovician mass extinction. Earth and Planetary Science Letters, 2012, 331-332, 128-139.	1.8	174

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73	The iron paleoredox proxies: A guide to the pitfalls, problems and proper practice. Numerische Mathematik, 2018, 318, 491-526.	0.7	174
74	Porewater pH and authigenic phases formed in the uppermost sediments of the Santa Barbara Basin. Geochimica Et Cosmochimica Acta, 1996, 60, 4037-4057.	1.6	170
75	Iron oxides, divalent cations, silica, and the early earth phosphorus crisis. Geology, 2015, 43, 135-138.	2.0	168
76	Mechanism for Burgess Shale-type preservation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5180-5184.	3.3	167
77	Sulfate reduction in deep-sea sediments. Numerische Mathematik, 1991, 291, 177-188.	0.7	165
78	Redox-sensitive trace metals as paleoredox proxies: A review and analysis of data from modern sediments. Earth-Science Reviews, 2020, 204, 103175.	4.0	161
79	Green rust formation controls nutrient availability in a ferruginous water column. Geology, 2012, 40, 599-602.	2.0	159
80	Anaerobic ammonium oxidation by marine and freshwater planctomycete-like bacteria. Applied Microbiology and Biotechnology, 2003, 63, 107-114.	1.7	156
81	Isotope fractionation and sulfur metabolism by pure and enrichment cultures of elemental sulfurâ€disproportionating bacteria. Limnology and Oceanography, 1998, 43, 253-264.	1.6	148
82	Climate Change and the Integrity of Science. Science, 2010, 328, 689-690.	6.0	143
83	Organic Matter Oxidation in Marine Sediments. , 1993, , 333-363.		143
84	Nitrogen removal in marine environments: recent findings and future research challenges. Marine Chemistry, 2005, 94, 125-145.	0.9	142
85	Benthic mineralization and exchange in Arctic sediments (Svalbard, Norway). Marine Ecology - Progress Series, 1998, 173, 237-251.	0.9	141
86	Uranium isotopes distinguish two geochemically distinct stages during the later Cambrian SPICE event. Earth and Planetary Science Letters, 2014, 401, 313-326.	1.8	134
87	Highly fractionated chromium isotopes in Mesoproterozoic-aged shales and atmospheric oxygen. Nature Communications, 2018, 9, 2871.	5.8	130
88	Rates of reaction between silicate iron and dissolved sulfide in Peru Margin sediments. Geochimica Et Cosmochimica Acta, 1996, 60, 2777-2787.	1.6	129
89	The geochemistry of river particulates from the continental USA: Major elements. Geochimica Et Cosmochimica Acta, 1997, 61, 3349-3365.	1.6	129
90	The behavior of molybdenum and its isotopes across the chemocline and in the sediments of sulfidic Lake Cadagno, Switzerland. Geochimica Et Cosmochimica Acta, 2010, 74, 144-163.	1.6	129

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91	Fractionation of multiple sulfur isotopes during phototrophic oxidation of sulfide and elemental sulfur by a green sulfur bacterium. Geochimica Et Cosmochimica Acta, 2009, 73, 291-306.	1.6	124
92	Temperature and its control of isotope fractionation by a sulfate-reducing bacterium. Geochimica Et Cosmochimica Acta, 2006, 70, 548-561.	1.6	122
93	Oxygen distribution and aerobic respiration in the north and south eastern tropical Pacific oxygen minimum zones. Deep-Sea Research Part I: Oceanographic Research Papers, 2014, 94, 173-183.	0.6	122
94	Sulphur isotope fractionation in modern microbial mats and the evolution of the sulphur cycle. Nature, 1996, 382, 342-343.	13.7	120
95	Rates and pathways of carbon oxidation in permanently cold Arctic sediments. Marine Ecology - Progress Series, 1999, 180, 7-21.	0.9	119
96	Pyrite Formation and Fossil Preservation. Topics in Geobiology, 1991, , 337-387.	0.6	118
97	Metal limitation of cyanobacterial N2fixation and implications for the Precambrian nitrogen cycle. Geobiology, 2006, 4, 285-297.	1.1	115
98	Towards a quantitative understanding of the late Neoproterozoic carbon cycle. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5542-5547.	3.3	113
99	Oxygen dynamics in the aftermath of the Great Oxidation of Earthâ€™s atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16736-16741.	3.3	112
100	Biogenic Fe(III) minerals: From formation to diagenesis and preservation in the rock record. Earth-Science Reviews, 2014, 135, 103-121.	4.0	110
101	Orbital forcing of climate 1.4 billion years ago. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1406-13.	3.3	110
102	A 200-million-year delay in permanent atmospheric oxygenation. Nature, 2021, 592, 232-236.	13.7	105
103	Carbonate Precipitation and Dissolution. Topics in Geobiology, 1991, , 411-453.	0.6	105
104	Stabilization of the coupled oxygen and phosphorus cycles by the evolution of bioturbation. Nature Geoscience, 2014, 7, 671-676.	5.4	104
105	A comparison of closed- and open-system models for porewater pH and calcite-saturation state. Geochimica Et Cosmochimica Acta, 1993, 57, 317-334.	1.6	103
106	Evolution of the oceanic sulfur cycle at the end of the Paleoproterozoic. Geochimica Et Cosmochimica Acta, 2006, 70, 5723-5739.	1.6	102
107	Molybdenum evidence for expansive sulfidic water masses in ~750Ma oceans. Earth and Planetary Science Letters, 2011, 311, 264-274.	1.8	102
108	Salinity Responses of Benthic Microbial Communities in a Solar Saltern (Eilat, Israel). Applied and Environmental Microbiology, 2004, 70, 1608-1616.	1.4	101

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109	Oxygen and animal evolution: Did a rise of atmospheric oxygen â€œtriggerâ€•the origin of animals?. BioEssays, 2014, 36, 1145-1155.	1.2	99
110	Models of oxic respiration, denitrification and sulfate reduction in zones of coastal upwelling. Geochimica Et Cosmochimica Acta, 2006, 70, 5753-5765.	1.6	91
111	Oxygen and nitrogen production by an ammonia-oxidizing archaeon. Science, 2022, 375, 97-100.	6.0	91
112	A provisional diagenetic model for pH in anoxic porewaters: Application to the FOAM Site. Journal of Marine Research, 1988, 46, 429-455.	0.3	89
113	Evaluating the S-isotope fractionation associated with Phanerozoic pyrite burial. Geochimica Et Cosmochimica Acta, 2010, 74, 2053-2071.	1.6	89
114	Effect of Low Sulfate Concentrations on Lactate Oxidation and Isotope Fractionation during Sulfate Reduction by Archaeoglobus fulgidus Strain Z. Applied and Environmental Microbiology, 2005, 71, 3770-3777.	1.4	88
115	Fluctuations in late Neoproterozoic atmospheric oxidation â€" Cr isotope chemostratigraphy and iron speciation of the late Ediacaran lower Arroyo del Soldado Group (Uruguay). Gondwana Research, 2013, 23, 797-811.	3.0	88
116	The last common ancestor of animals lacked the HIF pathway and respired in low-oxygen environments. ELife, 2018, 7, .	2.8	88
117	The Early Diagenetic Formation of Organic Sulfur in the Sediments of Mangrove Lake, Bermuda. Geochimica Et Cosmochimica Acta, 1998, 62, 767-781.	1.6	86
118	Sulfur and oxygen isotope study of sulfate reduction in experiments with natural populations from FÃ¦llestrand, Denmark. Geochimica Et Cosmochimica Acta, 2008, 72, 2805-2821.	1.6	86
119	Fate of elemental sulfur in an intertidal sediment. FEMS Microbiology Ecology, 1996, 19, 95-103.	1.3	83
120	Vertical partitioning of nitrogenâ€loss processes across the oxicâ€anoxic interface of an oceanic oxygen minimum zone. Environmental Microbiology, 2014, 16, 3041-3054.	1.8	83
121	Nitrate-dependent iron oxidation limits iron transport in anoxic ocean regions. Earth and Planetary Science Letters, 2016, 454, 272-281.	1.8	83
122	Pelagic photoferrotrophy and iron cycling in a modern ferruginous basin. Scientific Reports, 2015, 5, 13803.	1.6	80
123	Experimental Incubations Elicit Profound Changes in Community Transcription in OMZ Bacterioplankton. PLoS ONE, 2012, 7, e37118.	1.1	79
124	Proterozoic seawater sulfate scarcity and the evolution of oceanâ€"atmosphere chemistry. Nature Geoscience, 2019, 12, 375-380.	5.4	79
125	Sulphur isotopes and the search for life: strategies for identifying sulphur metabolisms in the rock record and beyond. Geobiology, 2008, 6, 425-435.	1.1	77
126	Evidence of molybdenum association with particulate organic matter under sulfidic conditions. Geobiology, 2017, 15, 311-323.	1.1	77

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127	Tracing euxinia by molybdenum concentrations in sediments using handheld X-ray fluorescence spectroscopy (HHXRF). Chemical Geology, 2013, 360-361, 241-251.	1.4	73
128	Selenium isotope evidence for progressive oxidation of the Neoproterozoic biosphere. Nature Communications, 2015, 6, 10157.	5.8	72
129	Pathways of organic carbon oxidation in a deep lacustrine sediment, Lake Michigan. Limnology and Oceanography, 2004, 49, 2046-2057.	1.6	71
130	Geochemistry of the Onyx River (Wright Valley, Antarctica) and its role in the chemical evolution of Lake Vanda. Geochimica Et Cosmochimica Acta, 1984, 48, 2457-2467.	1.6	70
131	Co-diagenesis of iron and phosphorus in hydrothermal sediments from the southern East Pacific Rise: Implications for the evaluation of paleoseawater phosphate concentrations. Geochimica Et Cosmochimica Acta, 2006, 70, 5883-5898.	1.6	70
132	Production of ¹⁵Nâ€depleted biomass during cyanobacterial N₂â€fixation at high Fe concentrations. Journal of Geophysical Research, 2008, 113, .	3.3	69
133	Sulfur isotope biogeochemistry of the Proterozoic McArthur Basin. Geochimica Et Cosmochimica Acta, 2008, 72, 4278-4290.	1.6	67
134	Oxygen, climate and the chemical evolution of a 1400 million year old tropical marine setting. Numerische Mathematik, 2017, 317, 861-900.	0.7	67
135	Anammox, denitrification and fixed-nitrogen removal in sediments from the Lower St. Lawrence Estuary. Biogeosciences, 2012, 9, 4309-4321.	1.3	66
136	New insights into the burial history of organic carbon on the early Earth. Geochemistry, Geophysics, Geosystems, 2004, 5, .	1.0	65
137	Iron-dependent nitrogen cycling in a ferruginous lake and the nutrient status of Proterozoic oceans. Nature Geoscience, 2017, 10, 217-221.	5.4	61
138	A Mesoproterozoic iron formation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3895-E3904.	3.3	61
139	Mass-dependent sulfur isotope fractionation during reoxidative sulfur cycling: A case study from Mangrove Lake, Bermuda. Geochimica Et Cosmochimica Acta, 2015, 149, 152-164.	1.6	59
140	Deposition and Cycling of Sulfur Controls Mercury Accumulation in Isle Royale Fish. Environmental Science & Technology, 2007, 41, 7266-7272.	4.6	57
141	Carbon mineralization and oxygen dynamics in sediments with deep oxygen penetration, Lake Superior. Limnology and Oceanography, 2012, 57, 1634-1650.	1.6	57
142	Early Cambrian oxygen minimum zone-like conditions at Chengjiang. Earth and Planetary Science Letters, 2017, 475, 160-168.	1.8	57
143	The Sulfur Cycle. Advances in Marine Biology, 2005, , 313-381.	0.7	56
144	Carbon isotopes in clastic rocks and the Neoproterozoic carbon cycle. Numerische Mathematik, 2020, 320, 97-124.	0.7	55

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145	Microbial communities and processes within a hypersaline gypsum crust in a saltern evaporation pond (Eilat, Israel). Hydrobiologia, 2009, 626, 15-26.	1.0	54
146	Dominance of a clonal green sulfur bacterial population in a stratified lake. FEMS Microbiology Ecology, 2009, 70, 30-41.	1.3	54
147	The cycling of nutrients in a closed-basin antarctic lake: Lake Vanda. Biogeochemistry, 1985, 1, 233-256.	1.7	53
148	Biogeochemistry of a gypsum-encrusted microbial ecosystem. Geobiology, 2004, 2, 133-150.	1.1	53
149	The 2.1 Ga Old Francevillian Biota: Biogenicity, Taphonomy and Biodiversity. PLoS ONE, 2014, 9, e99438.	1.1	53
150	Phosphorus cycling in Lake Cadagno, Switzerland: A low sulfate euxinic ocean analogue. Geochimica Et Cosmochimica Acta, 2019, 251, 116-135.	1.6	51
151	Effect of hydrogen limitation and temperature on the fractionation of sulfur isotopes by a deep-sea hydrothermal vent sulfate-reducing bacterium. Geochimica Et Cosmochimica Acta, 2006, 70, 5831-5841.	1.6	50
152	Metabolomics Reveals Cryptic Interactive Effects of Species Interactions and Environmental Stress on Nitrogen and Sulfur Metabolism in Seagrass. Environmental Science & Technology, 2016, 50, 11602-11609.	4.6	48
153	Deepâ€water anoxygenic photosythesis in a ferruginous chemocline. Geobiology, 2014, 12, 322-339.	1.1	47
154	Organism motility in an oxygenated shallow-marine environment 2.1 billion years ago. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 3431-3436.	3.3	47
155	Annual fluctuations in sulfur isotope fractionation in the water column of a euxinic marine basin. Geochimica Et Cosmochimica Acta, 2004, 68, 503-515.	1.6	46
156	LUMOS - A Sensitive and Reliable Optode System for Measuring Dissolved Oxygen in the Nanomolar Range. PLoS ONE, 2015, 10, e0128125.	1.1	45
157	Preface. Advances in Marine Biology, 2005, 48, xi-xii.	0.7	44
158	Systematics and Phylogeny. Advances in Marine Biology, 2005, , 1-21.	0.7	44
159	The oxic degradation of sedimentary organic matter 1400â€‰Ma constrains atmospheric oxygen levels. Biogeosciences, 2017, 14, 2133-2149.	1.3	43
160	Nitrogen cycle feedbacks as a control on euxinia in the mid-Proterozoic ocean. Nature Communications, 2013, 4, 1533.	5.8	42
161	Paleoenvironmental proxies and what the Xiamaling Formation tells us about the midâ€Proterozoic ocean. Geobiology, 2019, 17, 225-246.	1.1	41
162	Benthic Respiration in Aquatic Sediments. , 2000, , 86-103.		39

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163	Osculum dynamics and filtration activity in small single-osculum explants of the demosponge Halichondria panicea. Marine Ecology - Progress Series, 2017, 572, 117-128.	0.9	37
164	Comment on "Physical Model for the Decay and Preservation of Marine Organic Carbon". Science, 2008, 319, 1616-1616.	6.0	36
165	Burgess shaleâ^'type biotas were not entirely burrowed away. Geology, 2012, 40, 283-286.	2.0	36
166	The modern phosphorus cycle informs interpretations of Mesoproterozoic Era phosphorus dynamics. Earth-Science Reviews, 2020, 208, 103267.	4.0	36
167	Sulfur isotopes in coal constrain the evolution of the Phanerozoic sulfur cycle. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8443-8446.	3.3	35
168	Mn, Fe, Cu and Cd distributions and residence times in closed basin Lake Vanda (Wright Valley,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54	1.0	34
169	Sulfur cycling in oceanic oxygen minimum zones. Limnology and Oceanography, 2021, 66, 2360-2392.	1.6	34
170	Biogeochemistry of manganese in ferruginous Lake Matano, Indonesia. Biogeosciences, 2011, 8, 2977-2991.	1.3	33
171	No nitrogen fixation in the Bay of Bengal?. Biogeosciences, 2020, 17, 851-864.	1.3	33
172	Palaeoecology A breath of fresh air. Nature, 1999, 400, 503-505.	13.7	31
173	Carbon isotope fractionation by anoxygenic phototrophic bacteria in euxinic Lake Cadagno. Geobiology, 2017, 15, 798-816.	1.1	31
174	Evidence of oxygenic phototrophy in ancient phosphatic stromatolites from the Paleoproterozoic Vindhyan and Aravalli Supergroups, India. Geobiology, 2018, 16, 139-159.	1.1	31
175	Chromium isotope cycling in the water column and sediments of the Peruvian continental margin. Geochimica Et Cosmochimica Acta, 2019, 257, 224-242.	1.6	31
176	The carbon isotope biogeochemistry of microbial mats. , 1994, , 289-298.		31
177	Construction of STOX Oxygen Sensors and Their Application for Determination of O2 Concentrations in Oxygen Minimum Zones. Methods in Enzymology, 2011, 486, 325-341.	0.4	30
178	Novel anammox bacteria and nitrogen loss from Lake Superior. Scientific Reports, 2017, 7, 13757.	1.6	30
179	Petrographic carbon in ancient sediments constrains Proterozoic Era atmospheric oxygen levels. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	30
180	Sulfidic anoxia in the oceans during the Late Ordovician mass extinctions â€" insights from molybdenum and uranium isotopic global redox proxies. Earth-Science Reviews, 2021, 220, 103748.	4.0	30

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