

Don Canfield

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266
papers

35,621
citations

95
h-index

187
g-index

298
ext. papers

40,301
ext. citations

10.5
avg, IF

7.66
L-index

#	Paper	IF	Citations
266	The evolution and future of Earth's nitrogen cycle. <i>Science</i> , 2010 , 330, 192-6	33.3	1368
265	The global carbon cycle: a test of our knowledge of earth as a system. <i>Science</i> , 2000 , 290, 291-6	33.3	1294
264	The use of chromium reduction in the analysis of reduced inorganic sulfur in sediments and shales. <i>Chemical Geology</i> , 1986 , 54, 149-155	4.2	990
263	A new model for Proterozoic ocean chemistry. <i>Nature</i> , 1998 , 396, 450-453	50.4	883
262	Reactive iron in marine sediments. <i>Geochimica Et Cosmochimica Acta</i> , 1989 , 53, 619-32	5.5	771
261	Development of a sequential extraction procedure for iron: implications for iron partitioning in continentally derived particulates. <i>Chemical Geology</i> , 2005 , 214, 209-221	4.2	716
260	The anaerobic degradation of organic matter in Danish coastal sediments: iron reduction, manganese reduction, and sulfate reduction. <i>Geochimica Et Cosmochimica Acta</i> , 1993 , 57, 3867-83	5.5	675
259	THE EARLY HISTORY OF ATMOSPHERIC OXYGEN: Homage to Robert M. Garrels. <i>Annual Review of Earth and Planetary Sciences</i> , 2005 , 33, 1-36	15.3	670
258	Late-Neoproterozoic deep-ocean oxygenation and the rise of animal life. <i>Science</i> , 2007 , 315, 92-5	33.3	668
257	Late Proterozoic rise in atmospheric oxygen concentration inferred from phylogenetic and sulphur-isotope studies. <i>Nature</i> , 1996 , 382, 127-32	50.4	647
256	Factors influencing organic carbon preservation in marine sediments. <i>Chemical Geology</i> , 1994 , 114, 315-292	4.2	635
255	Calibration of sulfate levels in the archaean ocean. <i>Science</i> , 2002 , 298, 2372-4	33.3	585
254	Pathways of organic carbon oxidation in three continental margin sediments. <i>Marine Geology</i> , 1993 , 113, 27-40	3.3	580
253	Ferruginous Conditions: A Dominant Feature of the Ocean through Earth's History. <i>Elements</i> , 2011 , 7, 107-112	3.8	557
252	Ferruginous conditions dominated later neoproterozoic deep-water chemistry. <i>Science</i> , 2008 , 321, 949-53	33.3	511
251	Comparative Earth History and Late Permian Mass Extinction. <i>Science</i> , 1996 , 273, 452-457	33.3	506
250	N ₂ production by the anammox reaction in the anoxic water column of Golfo Dulce, Costa Rica. <i>Nature</i> , 2003 , 422, 606-8	50.4	499

249	A new model for atmospheric oxygen over Phanerozoic time. <i>Numerische Mathematik</i> , 1989 , 289, 333-615.3	494
248	Sources of iron for pyrite formation in marine sediments. <i>Numerische Mathematik</i> , 1998 , 298, 219-245	5.3 479
247	Isotopic evidence for microbial sulphate reduction in the early Archaean era. <i>Nature</i> , 2001 , 410, 77-81	50.4 477
246	The production of ³⁴ S-depleted sulfide during bacterial disproportionation of elemental sulfur. <i>Science</i> , 1994 , 266, 1973-5	33.3 456
245	Fluctuations in Precambrian atmospheric oxygenation recorded by chromium isotopes. <i>Nature</i> , 2009 , 461, 250-3	50.4 454
244	Anaerobic ammonium oxidation (anammox) in the marine environment. <i>Research in Microbiology</i> , 2005 , 156, 457-64	4 454
243	Atmospheric oxygenation three billion years ago. <i>Nature</i> , 2013 , 501, 535-8	50.4 443
242	A cryptic sulfur cycle in oxygen-minimum-zone waters off the Chilean coast. <i>Science</i> , 2010 , 330, 1375-8	33.3 424
241	Dissolution and pyritization of magnetite in anoxic marine sediments. <i>Geochimica Et Cosmochimica Acta</i> , 1987 , 51, 645-659	5.5 406
240	The Iron Biogeochemical Cycle Past and Present. <i>Geochemical Perspectives</i> , 2012 , 1, 1-220	0 396
239	Isotope fractionation by natural populations of sulfate-reducing bacteria. <i>Geochimica Et Cosmochimica Acta</i> , 2001 , 65, 1117-1124	5.5 372
238	The Archean sulfur cycle and the early history of atmospheric oxygen. <i>Science</i> , 2000 , 288, 658-61	33.3 367
237	Biogeochemistry of Sulfur Isotopes. <i>Reviews in Mineralogy and Geochemistry</i> , 2001 , 43, 607-636	7.1 348
236	Concentration and transport of nitrate by the mat-forming sulphur bacterium <i>Thioploca</i> . <i>Nature</i> , 1995 , 374, 713-715	50.4 346
235	Could bacteria have formed the Precambrian banded iron formations?. <i>Geology</i> , 2002 , 30, 1079	5 344
234	Aerobic sulfate reduction in microbial mats. <i>Science</i> , 1991 , 251, 1471-3	33.3 337
233	Animal evolution, bioturbation, and the sulfate concentration of the oceans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 8123-7	11.5 322
232	Sulfur isotope fractionation during bacterial sulfate reduction in organic-rich sediments. <i>Geochimica Et Cosmochimica Acta</i> , 1997 , 61, 5351-61	5.5 322

231	The transition to a sulphidic ocean approximately 1.84 billion years ago. <i>Nature</i> , 2004 , 431, 173-7	50.4	322
230	Sulfate reduction and oxic respiration in marine sediments: implications for organic carbon preservation in euxinic environments. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1989 , 36, 121-38		316
229	Ocean productivity before about 1.9 Gyr ago limited by phosphorus adsorption onto iron oxides. <i>Nature</i> , 2002 , 417, 159-62	50.4	296
228	Microbial oceanography of anoxic oxygen minimum zones. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 15996-6003	11.5	285
227	A comparison of iron extraction methods for the determination of degree of pyritisation and the recognition of iron-limited pyrite formation. <i>Chemical Geology</i> , 1994 , 111, 101-10	4.2	281
226	Devonian rise in atmospheric oxygen correlated to the radiations of terrestrial plants and large predatory fish. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 17911-5	11.5	278
225	Spatial variability in oceanic redox structure 1.8 billion years ago. <i>Nature Geoscience</i> , 2010 , 3, 486-490	18.3	267
224	The evolution of the Earth surface sulfur reservoir. <i>Numerische Mathematik</i> , 2004 , 304, 839-861	5.3	264
223	Anaerobic ammonium-oxidizing bacteria in marine environments: widespread occurrence but low diversity. <i>Environmental Microbiology</i> , 2007 , 9, 1476-84	5.2	257
222	Early anaerobic metabolisms. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2006 , 361, 1819-34; discussion 1835-6	5.8	255
221	High isotope fractionations during sulfate reduction in a low-sulfate euxinic ocean analog. <i>Geology</i> , 2010 , 38, 415-418	5	241
220	Pathways of carbon oxidation in continental margin sediments off central Chile. <i>Limnology and Oceanography</i> , 1996 , 41, 1629-50	4.8	236
219	Sulfur isotope fractionation during bacterial reduction and disproportionation of thiosulfate and sulfite. <i>Geochimica Et Cosmochimica Acta</i> , 1998 , 62, 2585-2595	5.5	221
218	Biogeochemical cycles of carbon, sulfur, and free oxygen in a microbial mat. <i>Geochimica Et Cosmochimica Acta</i> , 1993 , 57, 3971-84	5.5	220
217	Oxygen requirements of the earliest animals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 4168-72	11.5	203
216	Multiple sulphur isotopic interpretations of biosynthetic pathways: implications for biological signatures in the sulphur isotope record. <i>Geobiology</i> , 2003 , 1, 27-36	4.3	195
215	Isotope fractionation by sulfate-reducing natural populations and the isotopic composition of sulfide in marine sediments. <i>Geology</i> , 2001 , 29, 555	5	190
214	Sources of particulate organic matter in rivers from the continental usa: lignin phenol and stable carbon isotope compositions. <i>Geochimica Et Cosmochimica Acta</i> , 2000 , 64, 3539-3546	5.5	189

213	Middle Proterozoic ocean chemistry: Evidence from the McArthur Basin, northern Australia. <i>Numerische Mathematik</i> , 2002 , 302, 81-109	5.3	185
212	Sulfate was a trace constituent of Archean seawater. <i>Science</i> , 2014 , 346, 735-9	33.3	184
211	Sufficient oxygen for animal respiration 1,400 million years ago. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 1731-6	11.5	180
210	Active microbial sulfur disproportionation in the Mesoproterozoic. <i>Science</i> , 2005 , 310, 1477-9	33.3	177
209	High rates of microbial carbon turnover in sediments in the deepest oceanic trench on Earth. <i>Nature Geoscience</i> , 2013 , 6, 284-288	18.3	176
208	Large colonial organisms with coordinated growth in oxygenated environments 2.1 Gyr ago. <i>Nature</i> , 2010 , 466, 100-4	50.4	175
207	Photoferrotrophs thrive in an Archean Ocean analogue. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 15938-43	11.5	171
206	Sulfur isotope insights into microbial sulfate reduction: When microbes meet models. <i>Geochimica Et Cosmochimica Acta</i> , 2007 , 71, 3929-3947	5.5	168
205	An emerging picture of Neoproterozoic ocean chemistry: Insights from the Chuar Group, Grand Canyon, USA. <i>Earth and Planetary Science Letters</i> , 2010 , 290, 64-73	5.3	164
204	Oxygen at nanomolar levels reversibly suppresses process rates and gene expression in anammox and denitrification in the oxygen minimum zone off northern Chile. <i>MBio</i> , 2014 , 5, e01966	7.8	153
203	Community composition of a hypersaline endoevaporitic microbial mat. <i>Applied and Environmental Microbiology</i> , 2005 , 71, 7352-65	4.8	148
202	Porewater pH and authigenic phases formed in the uppermost sediments of the Santa Barbara Basin. <i>Geochimica Et Cosmochimica Acta</i> , 1996 , 60, 4037-4057	5.5	145
201	Anaerobic ammonium oxidation by marine and freshwater planctomycete-like bacteria. <i>Applied Microbiology and Biotechnology</i> , 2003 , 63, 107-14	5.7	143
200	Multiple sulfur isotope fractionations in biological systems: A case study with sulfate reducers and sulfur disproportionators. <i>Numerische Mathematik</i> , 2005 , 305, 645-660	5.3	139
199	A sulfidic driver for the end-Ordovician mass extinction. <i>Earth and Planetary Science Letters</i> , 2012 , 331-332, 128-139	5.3	136
198	Aerobic growth at nanomolar oxygen concentrations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 18755-60	11.5	134
197	Ammonium and nitrite oxidation at nanomolar oxygen concentrations in oxygen minimum zone waters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 10601-6	11.5	134
196	Reconstruction of secular variation in seawater sulfate concentrations. <i>Biogeosciences</i> , 2015 , 12, 2131-2141	15.1	133

195	Mechanism for Burgess Shale-type preservation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 5180-4	11.5	133
194	Connections between Sulfur Cycle Evolution, Sulfur Isotopes, Sediments, and Base Metal Sulfide Deposits. <i>Economic Geology</i> , 2010 , 105, 509-533	4.3	131
193	Nitrogen removal in marine environments: recent findings and future research challenges. <i>Marine Chemistry</i> , 2005 , 94, 125-145	3.7	126
192	Green rust formation controls nutrient availability in a ferruginous water column. <i>Geology</i> , 2012 , 40, 599-602	5	121
191	Isotope fractionation and sulfur metabolism by pure and enrichment cultures of elemental sulfur-disproportionating bacteria. <i>Limnology and Oceanography</i> , 1998 , 43, 253-264	4.8	120
190	Sulfate reduction in deep-sea sediments. <i>Numerische Mathematik</i> , 1991 , 291, 177-88	5.3	119
189	Iron oxides, divalent cations, silica, and the early earth phosphorus crisis. <i>Geology</i> , 2015 , 43, 135-138	5	116
188	Climate change and the integrity of science. <i>Science</i> , 2010 , 328, 689-90	33.3	116
187	Rates of reaction between silicate iron and dissolved sulfide in Peru Margin sediments. <i>Geochimica Et Cosmochimica Acta</i> , 1996 , 60, 2777-2787	5.5	114
186	The iron paleoredox proxies: A guide to the pitfalls, problems and proper practice. <i>Numerische Mathematik</i> , 2018 , 318, 491-526	5.3	109
185	The behavior of molybdenum and its isotopes across the chemocline and in the sediments of sulfidic Lake Cadagno, Switzerland. <i>Geochimica Et Cosmochimica Acta</i> , 2010 , 74, 144-163	5.5	108
184	N ₂ production rates limited by nitrite availability in the Bay of Bengal oxygen minimum zone. <i>Nature Geoscience</i> , 2017 , 10, 24-29	18.3	107
183	Sulphur isotope fractionation in modern microbial mats and the evolution of the sulphur cycle. <i>Nature</i> , 1996 , 382, 342-343	50.4	107
182	Temperature and its control of isotope fractionation by a sulfate-reducing bacterium. <i>Geochimica Et Cosmochimica Acta</i> , 2006 , 70, 548-561	5.5	105
181	The geochemistry of river particulates from the continental USA: major elements. <i>Geochimica Et Cosmochimica Acta</i> , 1997 , 61, 3349-65	5.5	102
180	Uranium isotopes distinguish two geochemically distinct stages during the later Cambrian SPICE event. <i>Earth and Planetary Science Letters</i> , 2014 , 401, 313-326	5.3	100
179	Fractionation of multiple sulfur isotopes during phototrophic oxidation of sulfide and elemental sulfur by a green sulfur bacterium. <i>Geochimica Et Cosmochimica Acta</i> , 2009 , 73, 291-306	5.5	98
178	Benthic mineralization and exchange in Arctic sediments (Svalbard, Norway). <i>Marine Ecology - Progress Series</i> , 1998 , 173, 237-251	2.6	97

177	Organic Matter Oxidation in Marine Sediments 1993 , 333-363		97
176	Metal limitation of cyanobacterial N ₂ fixation and implications for the Precambrian nitrogen cycle. <i>Geobiology</i> , 2006 , 4, 285-297	4.3	96
175	Rates and pathways of carbon oxidation in permanently cold Arctic sediments. <i>Marine Ecology - Progress Series</i> , 1999 , 180, 7-21	2.6	94
174	Evolution of the oceanic sulfur cycle at the end of the Paleoproterozoic. <i>Geochimica Et Cosmochimica Acta</i> , 2006 , 70, 5723-5739	5.5	93
173	Oxygen dynamics in the aftermath of the Great Oxidation of Earth's atmosphere. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 16736-41	11.5	92
172	Highly fractionated chromium isotopes in Mesoproterozoic-aged shales and atmospheric oxygen. <i>Nature Communications</i> , 2018 , 9, 2871	17.4	91
171	Biogenic Fe(III) minerals: From formation to diagenesis and preservation in the rock record. <i>Earth-Science Reviews</i> , 2014 , 135, 103-121	10.2	91
170	Towards a quantitative understanding of the late Neoproterozoic carbon cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 5542-7	11.5	90
169	Oxygen distribution and aerobic respiration in the north and south eastern tropical Pacific oxygen minimum zones. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2014 , 94, 173-183	2.5	89
168	Molybdenum evidence for expansive sulfidic water masses in ~ 750 Ma oceans. <i>Earth and Planetary Science Letters</i> , 2011 , 311, 264-274	5.3	89
167	Orbital forcing of climate 1.4 billion years ago. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E1406-13	11.5	85
166	Salinity responses of benthic microbial communities in a solar saltern (Eilat, Israel). <i>Applied and Environmental Microbiology</i> , 2004 , 70, 1608-16	4.8	84
165	A comparison of closed- and open-system models for porewater pH and calcite-saturation state. <i>Geochimica Et Cosmochimica Acta</i> , 1993 , 57, 317-334	5.5	84
164	Oxygen and animal evolution: did a rise of atmospheric oxygen "trigger" the origin of animals?. <i>BioEssays</i> , 2014 , 36, 1145-55	4.1	81
163	Stabilization of the coupled oxygen and phosphorus cycles by the evolution of bioturbation. <i>Nature Geoscience</i> , 2014 , 7, 671-676	18.3	81
162	Pyrite Formation and Fossil Preservation. <i>Topics in Geobiology</i> , 1991 , 337-387	0.2	79
161	Reply to Butterfield: The Devonian radiation of large predatory fish coincided with elevated atmospheric oxygen levels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, E29-E29	11.5	78
160	A provisional diagenetic model for pH in anoxic porewaters: Application to the FOAM Site. <i>Journal of Marine Research</i> , 1988 , 46, 429-455	1.5	77

159	Carbonate Precipitation and Dissolution. <i>Topics in Geobiology</i> , 1991 , 411-453	0.2	77
158	The Early Diagenetic Formation of Organic Sulfur in the Sediments of Mangrove Lake, Bermuda. <i>Geochimica Et Cosmochimica Acta</i> , 1998 , 62, 767-781	5.5	75
157	Fate of elemental sulfur in an intertidal sediment. <i>FEMS Microbiology Ecology</i> , 1996 , 19, 95-103	4.3	72
156	Fluctuations in late Neoproterozoic atmospheric oxidation $\delta^{13}C$ isotope chemostratigraphy and iron speciation of the late Ediacaran lower Arroyo del Soldado Group (Uruguay). <i>Gondwana Research</i> , 2013 , 23, 797-811	5.1	71
155	Sulfur and oxygen isotope study of sulfate reduction in experiments with natural populations from Fjlestrand, Denmark. <i>Geochimica Et Cosmochimica Acta</i> , 2008 , 72, 2805-2821	5.5	71
154	Effect of low sulfate concentrations on lactate oxidation and isotope fractionation during sulfate reduction by <i>Archaeoglobus fulgidus</i> strain Z. <i>Applied and Environmental Microbiology</i> , 2005 , 71, 3770-7	4.8	69
153	Models of oxic respiration, denitrification and sulfate reduction in zones of coastal upwelling. <i>Geochimica Et Cosmochimica Acta</i> , 2006 , 70, 5753-5765	5.5	68
152	Tracing euxinia by molybdenum concentrations in sediments using handheld X-ray fluorescence spectroscopy (HHXRF). <i>Chemical Geology</i> , 2013 , 360-361, 241-251	4.2	64
151	Evaluating the S-isotope fractionation associated with Phanerozoic pyrite burial. <i>Geochimica Et Cosmochimica Acta</i> , 2010 , 74, 2053-2071	5.5	64
150	Redox-sensitive trace metals as paleoredox proxies: A review and analysis of data from modern sediments. <i>Earth-Science Reviews</i> , 2020 , 204, 103175	10.2	63
149	Geochemistry of the Onyx River (Wright Valley, Antarctica) and its role in the chemical evolution of Lake Vanda. <i>Geochimica Et Cosmochimica Acta</i> , 1984 , 48, 2457-2467	5.5	63
148	Nitrate-dependent iron oxidation limits iron transport in anoxic ocean regions. <i>Earth and Planetary Science Letters</i> , 2016 , 454, 272-281	5.3	63
147	Sulphur isotopes and the search for life: strategies for identifying sulphur metabolisms in the rock record and beyond. <i>Geobiology</i> , 2008 , 6, 425-35	4.3	60
146	Vertical partitioning of nitrogen-loss processes across the oxic-anoxic interface of an oceanic oxygen minimum zone. <i>Environmental Microbiology</i> , 2014 , 16, 3041-54	5.2	59
145	Pelagic photoferrotrophy and iron cycling in a modern ferruginous basin. <i>Scientific Reports</i> , 2015 , 5, 13803	4.9	57
144	Anammox, denitrification and fixed-nitrogen removal in sediments from the Lower St. Lawrence Estuary. <i>Biogeosciences</i> , 2012 , 9, 4309-4321	4.6	57
143	Selenium isotope evidence for progressive oxidation of the Neoproterozoic biosphere. <i>Nature Communications</i> , 2015 , 6, 10157	17.4	56
142	Production of ^{15}N -depleted biomass during cyanobacterial N_2 -fixation at high Fe concentrations. <i>Journal of Geophysical Research</i> , 2008 , 113,		56

141	Experimental incubations elicit profound changes in community transcription in OMZ bacterioplankton. <i>PLoS ONE</i> , 2012 , 7, e37118	3.7	54
140	New insights into the burial history of organic carbon on the early Earth. <i>Geochemistry, Geophysics, Geosystems</i> , 2004 , 5,	3.6	52
139	Evidence of molybdenum association with particulate organic matter under sulfidic conditions. <i>Geobiology</i> , 2017 , 15, 311-323	4.3	51
138	Deposition and cycling of sulfur controls mercury accumulation in Isle Royale fish. <i>Environmental Science & Technology</i> , 2007 , 41, 7266-72	10.3	51
137	Co-diagenesis of iron and phosphorus in hydrothermal sediments from the southern East Pacific Rise: Implications for the evaluation of paleoseawater phosphate concentrations. <i>Geochimica Et Cosmochimica Acta</i> , 2006 , 70, 5883-5898	5.5	50
136	The last common ancestor of animals lacked the HIF pathway and respired in low-oxygen environments. <i>ELife</i> , 2018 , 7,	8.9	50
135	Sulfur isotope biogeochemistry of the Proterozoic McArthur Basin. <i>Geochimica Et Cosmochimica Acta</i> , 2008 , 72, 4278-4290	5.5	49
134	The cycling of nutrients in a closed-basin antarctic lake: Lake Vanda. <i>Biogeochemistry</i> , 1985 , 1, 233-256	3.8	49
133	Biogeochemistry of a gypsum-encrusted microbial ecosystem. <i>Geobiology</i> , 2004 , 2, 133-150	4.3	48
132	Carbon mineralization and oxygen dynamics in sediments with deep oxygen penetration, Lake Superior. <i>Limnology and Oceanography</i> , 2012 , 57, 1634-1650	4.8	47
131	Early Cambrian oxygen minimum zone-like conditions at Chengjiang. <i>Earth and Planetary Science Letters</i> , 2017 , 475, 160-168	5.3	46
130	Microbial communities and processes within a hypersaline gypsum crust in a saltern evaporation pond (Eilat, Israel). <i>Hydrobiologia</i> , 2009 , 626, 15-26	2.4	46
129	Proterozoic seawater sulfate scarcity and the evolution of ocean-atmosphere chemistry. <i>Nature Geoscience</i> , 2019 , 12, 375-380	18.3	44
128	The Sulfur Cycle. <i>Advances in Marine Biology</i> , 2005 , 313-381	2.1	43
127	Effect of hydrogen limitation and temperature on the fractionation of sulfur isotopes by a deep-sea hydrothermal vent sulfate-reducing bacterium. <i>Geochimica Et Cosmochimica Acta</i> , 2006 , 70, 5831-5841	5.5	43
126	Dominance of a clonal green sulfur bacterial population in a stratified lake. <i>FEMS Microbiology Ecology</i> , 2009 , 70, 30-41	4.3	42
125	Pathways of organic carbon oxidation in a deep lacustrine sediment, Lake Michigan. <i>Limnology and Oceanography</i> , 2004 , 49, 2046-2057	4.8	42
124	Annual fluctuations in sulfur isotope fractionation in the water column of a euxinic marine basin. <i>Geochimica Et Cosmochimica Acta</i> , 2004 , 68, 503-515	5.5	41

123	Mass-dependent sulfur isotope fractionation during reoxidative sulfur cycling: A case study from Mangrove Lake, Bermuda. <i>Geochimica Et Cosmochimica Acta</i> , 2015 , 149, 152-164	5.5	40
122	LUMOS--A Sensitive and Reliable Optode System for Measuring Dissolved Oxygen in the Nanomolar Range. <i>PLoS ONE</i> , 2015 , 10, e0128125	3.7	40
121	Deep-water anoxygenic photosynthesis in a ferruginous chemocline. <i>Geobiology</i> , 2014 , 12, 322-39	4.3	40
120	Oxygen, climate and the chemical evolution of a 1400 million year old tropical marine setting. <i>Numerische Mathematik</i> , 2017 , 317, 861-900	5.3	39
119	A Mesoproterozoic iron formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E3895-E3904	11.5	37
118	Systematics and Phylogeny. <i>Advances in Marine Biology</i> , 2005 , 1-21	2.1	36
117	A 200-million-year delay in permanent atmospheric oxygenation. <i>Nature</i> , 2021 , 592, 232-236	50.4	36
116	Iron-dependent nitrogen cycling in a ferruginous lake and the nutrient status of Proterozoic oceans. <i>Nature Geoscience</i> , 2017 , 10, 217-221	18.3	35
115	Nitrogen cycle feedbacks as a control on euxinia in the mid-Proterozoic ocean. <i>Nature Communications</i> , 2013 , 4, 1533	17.4	35
114	Burgess shale-type biotas were not entirely burrowed away. <i>Geology</i> , 2012 , 40, 283-286	5	34
113	Metabolomics Reveals Cryptic Interactive Effects of Species Interactions and Environmental Stress on Nitrogen and Sulfur Metabolism in Seagrass. <i>Environmental Science & Technology</i> , 2016 , 50, 11602-11609	10.3	33
112	The 2.1 Ga old Francevillian biota: biogenicity, taphonomy and biodiversity. <i>PLoS ONE</i> , 2014 , 9, e99438	3.7	33
111	Bacterial Biomineralization 2012 , 105-130		33
110	Aquatic geomicrobiology. <i>Advances in Marine Biology</i> , 2005 , 48, 1-599	2.1	30
109	Mn, Fe, Cu and Cd distributions and residence times in closed basin Lake Vanda (Wright Valley, Antarctica). <i>Hydrobiologia</i> , 1986 , 134, 237-248	2.4	30
108	Carbon isotopes in clastic rocks and the Neoproterozoic carbon cycle. <i>Numerische Mathematik</i> , 2020 , 320, 97-124	5.3	29
107	Phosphorus cycling in Lake Cadagno, Switzerland: A low sulfate euxinic ocean analogue. <i>Geochimica Et Cosmochimica Acta</i> , 2019 , 251, 116-135	5.5	28
106	Sulfur isotopes in coal constrain the evolution of the Phanerozoic sulfur cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 8443-6	11.5	27

105	Biogeochemistry of manganese in ferruginous Lake Matano, Indonesia. <i>Biogeosciences</i> , 2011 , 8, 2977-2991	4.16	27
104	Comment on "Physical model for the decay and preservation of marine organic carbon". <i>Science</i> , 2008 , 319, 1616; author reply 1616	33.3	27
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