Rosalind E M Rickaby

List of Publications by Year
in descending order

98 papers	5,986 citations	81743 39 h-index	76769 74 g-index
99 all docs	99 docs citations	99 times ranked	5858 citing authors

#	Article	IF	Citations
1	Proteomic response of the marine ammoniaâ€oxidising archaeon Nitrosopumilus maritimus to iron limitation reveals strategies to compensate for nutrient scarcity. Environmental Microbiology, 2022, 24, 835-849.	1.8	6
2	Deuterium in marine organic biomarkers: toward a new tool for quantifying aquatic mixotrophy. New Phytologist, 2022, 234, 776-782.	3.5	4
3	Single-entity coccolithophore electrochemistry shows size is no guide to the degree of calcification. Environmental Science Advances, 2022, 1, 156-163.	1.0	8
4	The meaning of net zero and how to get it right. Nature Climate Change, 2022, 12, 15-21.	8.1	257
5	Rapid Opto-electrochemical Differentiation of Marine Phytoplankton. ACS Measurement Science Au, 2022, 2, 342-350.	1.9	6
6	Marine ammonia-oxidising archaea and bacteria occupy distinct iron and copper niches. ISME Communications, 2021, 1, .	1.7	15
7	The influence of elevated SiO₂(aq) on intracellular silica uptake and microbial metabolism. Geobiology, 2021, 19, 421-433.	1.1	4
8	Optoâ€Electrochemical Dissolution Reveals Coccolith Calcium Carbonate Content. Angewandte Chemie, 2021, 133, 21167-21174.	1.6	10
9	Optoâ€Electrochemical Dissolution Reveals Coccolith Calcium Carbonate Content. Angewandte Chemie - International Edition, 2021, 60, 20999-21006.	7.2	9
10	Proxies for paleo-oxygenation: A downcore comparison between benthic foraminiferal surface porosity and I/Ca. Palaeogeography, Palaeoclimatology, Palaeoecology, 2021, 579, 110588.	1.0	6
11	The mode of speciation during a recent radiation in open-ocean phytoplankton. Current Biology, 2021, 31, 5439-5449.e5.	1.8	22
12	Earthâ€™s eccentric orbit paced the evolution of marine phytoplankton. Nature, 2021, , .	13.7	0
13	Refining the planktic foraminiferal I/Ca proxy: Results from the Southeast Atlantic Ocean. Geochimica Et Cosmochimica Acta, 2020, 287, 318-327.	1.6	20
14	Antagonistic co-limitation through ion promiscuity â€“ On the metal sensitivity of Thalassiosira oceanica under phosphorus stress. Science of the Total Environment, 2020, 699, 134080.	3.9	3
15	Evolution of Mutation Rate in Astronomically Large Phytoplankton Populations. Genome Biology and Evolution, 2020, 12, 1051-1059.	1.1	28
16	Biophysical analysis of the structural evolution of substrate specificity in RuBisCO. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30451-30457.	3.3	14
17	Carbon Export Buffering and CO₂ Drawdown by Flexible Phytoplankton C:N:P Under Glacial Conditions. Paleoceanography and Paleoclimatology, 2020, 35, e2019PA003823.	1.3	21
18	Towards the use of the coccolith vital effects in palaeoceanography: A field investigation during the middle Miocene in the SW Pacific Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2020, 160, 103262.	0.6	3

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19	Interactions of thallium with marine phytoplankton. Geochimica Et Cosmochimica Acta, 2020, 276, 1-13.	1.6	30
20	I/Ca in epifaunal benthic foraminifera: A semi-quantitative proxy for bottom water oxygen in a multi-proxy compilation for glacial ocean deoxygenation. Earth and Planetary Science Letters, 2020, 533, 116055.	1.8	26
21	Susceptibility of algae to Cr toxicity reveals contrasting metal management strategies. Limnology and Oceanography, 2019, 64, 2271-2282.	1.6	9
22	Fluoro-electrochemical microscopy reveals group specific differential susceptibility of phytoplankton towards oxidative damage. Chemical Science, 2019, 10, 7988-7993.	3.7	11
23	Repeated species radiations in the recent evolution of the key marine phytoplankton lineage Gephyrocapsa. Nature Communications, 2019, 10, 4234.	5.8	61
24	Upper ocean oxygenation, evolution of RuBisCO and the Phanerozoic succession of phytoplankton. Free Radical Biology and Medicine, 2019, 140, 295-304.	1.3	20
25	Iron requirements and uptake strategies of the globally abundant marine ammonia-oxidising archaeon, Nitrosopumilus maritimus SCM1. ISME Journal, 2019, 13, 2295-2305.	4.4	38
26	CO2 Removal With Enhanced Weathering and Ocean Alkalinity Enhancement: Potential Risks and Co-benefits for Marine Pelagic Ecosystems. Frontiers in Climate, 2019, 1, .	1.3	107
27	Polymorph Selectivity of Coccolithâ€Associated Polysaccharides from Gephyrocapsa Oceanica on Calcium Carbonate Formation In Vitro. Advanced Functional Materials, 2019, 29, 1807168.	7.8	21
28	Carbon isotope ratios of coccolithâ€“associated polysaccharides of Emiliania huxleyi as a function of growth rate and CO2 concentration. Organic Geochemistry, 2018, 119, 1-10.	0.9	22
29	Carbonate ions, orbits and Mg/Ca at ODP 1123. Geochimica Et Cosmochimica Acta, 2018, 236, 384-398.	1.6	2
30	Glacial expansion of oxygen-depleted seawater in the eastern tropical Pacific. Nature, 2018, 562, 410-413.	13.7	78
31	Direct measurement of multi-elements in high matrix samples with a flow injection ICP-MS: application to the extendedEmiliania huxleyiRedfield ratio. Journal of Analytical Atomic Spectrometry, 2018, 33, 1196-1208.	1.6	18
32	Late inception of a resiliently oxygenated upper ocean. Science, 2018, 361, 174-177.	6.0	117
33	Reaction: Chemical Cycle of Life and the Environment in the Anthropocene. CheM, 2017, 2, 157-158.	5.8	0
34	The origin of carbon isotope vital effects in coccolith calcite. Nature Communications, 2017, 8, 14511.	5.8	46
35	The effect of ocean alkalinity and carbon transfer on deep-sea carbonate ion concentration during the past five glacial cycles. Earth and Planetary Science Letters, 2017, 471, 42-53.	1.8	37
36	Postâ€mortem oxygen isotope exchange within cultured diatom silica. Rapid Communications in Mass Spectrometry, 2017, 31, 1749-1760.	0.7	15

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37	The role of Rubisco kinetics and pyrenoid morphology in shaping the CCM of haptophyte microalgae. Journal of Experimental Botany, 2017, 68, 3959-3969.	2.4	54
38	Overcoming adversity through diversity: aquatic carbon concentrating mechanisms. Journal of Experimental Botany, 2017, 68, 3689-3695.	2.4	39
39	Rubisco Extraction and Purification from Diatoms. Bio-protocol, 2017, 7, e2191.	0.2	0
40	Vanishing coccolith vital effects with alleviated carbon limitation. Biogeosciences, 2016, 13, 301-312.	1.3	34
41	Oxygen depletion recorded in upper waters of the glacial Southern Ocean. Nature Communications, 2016, 7, 11146.	5.8	83
42	Calcification response of a key phytoplankton family to millennial-scale environmental change. Scientific Reports, 2016, 6, 34263.	1.6	43
43	Why marine phytoplankton calcify. Science Advances, 2016, 2, e1501822.	4.7	181
44	Environmental carbonate chemistry selects for phenotype of recently isolated strains of Emiliania huxleyi. Deep-Sea Research Part II: Topical Studies in Oceanography, 2016, 127, 28-40.	0.6	34
45	Harry Elderfield (1943â€“2016). Nature, 2016, 533, 322-322.	13.7	1
46	An explanation for the 18O excess in Noelaerhabdaceae coccolith calcite. Geochimica Et Cosmochimica Acta, 2016, 189, 132-142.	1.6	14
47	Expanded oxygen minimum zones during the late Paleoceneâ€early Eocene: Hints from multiproxy comparison and ocean modeling. Paleoceanography, 2016, 31, 1532-1546.	3.0	40
48	Breathing more deeply: Deep ocean carbon storage during the mid-Pleistocene climate transition. Geology, 2016, 44, 1035-1038.	2.0	44
49	Large variation in the Rubisco kinetics of diatoms reveals diversity among their carbon-concentrating mechanisms. Journal of Experimental Botany, 2016, 67, 3445-3456.	2.4	176
50	Inherent characteristics of sawtooth cycles can explain different glacial periodicities. Climate Dynamics, 2016, 46, 557-569.	1.7	9
51	Ikaite Abundance Controlled by Porewater Phosphorus Level: Potential Links to Dust and Productivity. Journal of Geology, 2015, 123, 269-281.	0.7	40
52	Goldilocks and the three inorganic equilibria: how Earthâ€™s chemistry and life coevolve to be nearly in tune. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140188.	1.6	13
53	Refining our estimate of atmospheric CO 2 across the Eoceneâ€“Oligocene climatic transition. Earth and Planetary Science Letters, 2015, 409, 329-338.	1.8	24
54	Glacialâ€“interglacial changes in bottom-water oxygen content on the Portuguese margin. Nature Geoscience, 2015, 8, 40-43.	5.4	103

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55	Genotyping an <i>Emiliania huxleyi</i> (prymnesiophyceae) bloom event in the North Sea reveals evidence of asexual reproduction. Biogeosciences, 2014, 11, 5215-5234.	1.3	35
56	I/Ca evidence for upper ocean deoxygenation during the PETM. Paleoceanography, 2014, 29, 964-975.	3.0	73
57	Poleward expansion of the coccolithophore Emiliania huxleyi. Journal of Plankton Research, 2014, 36, 316-325.	0.8	112
58	Constraints on the vital effect in coccolithophore and dinoflagellate calcite by oxygen isotopic modification of seawater. Geochimica Et Cosmochimica Acta, 2014, 141, 612-627.	1.6	40
59	Controls on stable strontium isotope fractionation in coccolithophores with implications for the marine Sr cycle. Geochimica Et Cosmochimica Acta, 2014, 128, 225-235.	1.6	75
60	On the potential role of marine calcifiers in glacialâ€interglacial dynamics. Global Biogeochemical Cycles, 2013, 27, 692-704.	1.9	21
61	Opening the gateways for diatoms primes Earth for Antarctic glaciation. Earth and Planetary Science Letters, 2013, 375, 34-43.	1.8	63
62	Thermal, trophic and metabolic life histories of inaccessible fishes revealed from stableâ€isotope analyses: a case study using orange roughy Hoplostethus atlanticus. Journal of Fish Biology, 2013, 83, 1613-1636.	0.7	18
63	Nonspecific uptake and homeostasis drive the oceanic cadmium cycle. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2500-2505.	3.3	99
64	Cloning, Expression and Characterization of the Î´â€carbonic Anhydrase of Thalassiosira weissflogii (Bacillariophyceae). Journal of Phycology, 2013, 49, 170-177.	1.0	25
65	Reply to Morel: Cadmium as a micronutrient and macrotoxin in the oceans. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1878-E1878.	3.3	5
66	Evidence for changes in carbon isotopic fractionation by phytoplankton between 1960 and 2010. Global Biogeochemical Cycles, 2013, 27, 505-515.	1.9	31
67	The Giant Pacific Oyster (Crassostrea gigas) as a modern analog for fossil ostreoids: Isotopic (Ca, O, C) and elemental (Mg/Ca, Sr/Ca, Mn/Ca) proxies. Geochemistry, Geophysics, Geosystems, 2013, 14, 4109-4120.	1.0	38
68	Adaptive signals in algal Rubisco reveal a history of ancient atmospheric carbon dioxide. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 483-492.	1.8	102
69	Diatom silicon isotopes as a proxy for silicic acid utilisation: A Southern Ocean core top calibration. Geochimica Et Cosmochimica Acta, 2012, 96, 174-192.	1.6	72
70	Interaction of the coccolithophore Gephyrocapsa oceanica with its carbon environment: response to a recreated highâ€CO₂ geological past. Geobiology, 2012, 10, 72-81.	1.1	15
71	Sensitivity of coccolithophores to carbonate chemistry and ocean acidification. Nature, 2011, 476, 80-83.	13.7	389
72	Isotopic fractionation of cadmium into calcite. Earth and Planetary Science Letters, 2011, 312, 243-253.	1.8	98

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73	Silicon isotopes in Antarctic sponges: an interlaboratory comparison. Antarctic Science, 2011, 23, 34-42.	0.5	46
74	The role of SO4 in the switch from calcite to aragonite seas. Geology, 2011, 39, 331-334.	2.0	95
75	The cadmium-phosphate relationship in brine: biological versus physical control over micronutrients in sea ice environments. Antarctic Science, 2010, 22, 11.	0.5	11
76	Iodine to calcium ratios in marine carbonate as a paleo-redox proxy during oceanic anoxic events. Geology, 2010, 38, 1107-1110.	2.0	175
77	The role of sea ice formation in cycling of aluminium in northern Marguerite Bay, Antarctica. Estuarine, Coastal and Shelf Science, 2010, 87, 103-112.	0.9	18
78	Perturbing phytoplankton: response and isotopic fractionation with changing carbonate chemistry in two coccolithophore species. Climate of the Past, 2010, 6, 771-785.	1.3	94
79	A synthesis of marine sediment core Î´¹³C data over the last 150 000 years. Climate of the Past, 2010, 6, 645-673.	1.3	71
80	Deep ocean nutrients during the Last Glacial Maximum deduced from sponge silicon isotopic compositions. Earth and Planetary Science Letters, 2010, 292, 290-300.	1.8	77
81	Migration of the subtropical front as a modulator of glacial climate. Nature, 2009, 460, 380-383.	13.7	196
82	Controls on stable isotope and trace metal uptake in Neogloboquadrina pachyderma (sinistral) from an Antarctic sea-ice environment. Earth and Planetary Science Letters, 2009, 278, 67-77.	1.8	52
83	Palaeoenvironmental significance of carbon- and oxygen-isotope stratigraphy of marine Triassicâ€“Jurassic boundary sections in SW Britain. Journal of the Geological Society, 2009, 166, 431-445.	0.9	139
84	Cadmium and phosphate in coastal Antarctic seawater: Implications for Southern Ocean nutrient cycling. Marine Chemistry, 2008, 112, 149-157.	0.9	33
85	Systematic change of foraminiferal Mg/Ca ratios across a strong salinity gradient. Earth and Planetary Science Letters, 2008, 265, 153-166.	1.8	149
86	Phytoplankton Calcification in a High-CO ₂ World. Science, 2008, 320, 336-340.	6.0	695
87	Calcite crystal growth orientation: implications for trace metal uptake into coccoliths. Mineralogical Magazine, 2008, 72, 269-272.	0.6	10
88	Evidence for a multi-species coccolith volume change over the past two centuries: understanding a potential ocean acidification response. Biogeosciences, 2008, 5, 1651-1655.	1.3	22
89	Juvenile life history of NE Atlantic orange roughy from otolith stable isotopes. Deep-Sea Research Part I: Oceanographic Research Papers, 2007, 54, 1221-1230.	0.6	44
90	Coccolith chemistry reveals secular variations in the global ocean carbon cycle?. Earth and Planetary Science Letters, 2007, 253, 83-95.	1.8	98

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91	A coccolithophore concept for constraining the Cenozoic carbon cycle. Biogeosciences, 2007, 4, 323-329.	1.3	28
92	Potential of ikaite to record the evolution of oceanic Î´18O. Geology, 2006, 34, 497.	2.0	29
93	Globally increased pelagic carbonate production during the Mid-Brunhes dissolution interval and the CO2 paradox of MIS 11. Quaternary Science Reviews, 2006, 25, 3278-3293.	1.4	87
94	Specimen preparation for NanoSIMS analysis of biological materials. Applied Surface Science, 2006, 252, 6917-6924.	3.1	58
95	Cool La Nina During the Warmth of the Pliocene?. Science, 2005, 307, 1948-1952.	6.0	72
96	Oceanic Cd/P ratio and nutrient utilization in the glacial Southern Ocean. Nature, 2000, 405, 305-310.	13.7	219
97	Cd in planktonic and benthic foraminiferal shells determined by thermal ionisation mass spectrometry. Geochimica Et Cosmochimica Acta, 2000, 64, 1229-1236.	1.6	25
98	Planktonic foraminiferal Cd/Ca: Paleonutrients or paleotemperature?. Paleoceanography, 1999, 14, 293-303.	3.0	106