Scott C Doney

List of Publications by Year
in descending order

342 papers	60,709 citations	1536 106 h-index	1116 231 g-index
450 all docs	450 docs citations	450 times ranked	40293 citing authors

#	Article	IF	Citations
1	Anthropogenic ocean acidification over the twenty-first century and its impact on calcifying organisms. Nature, 2005, 437, 681-686.	27.8	3,772
2	Oceanic vertical mixing: A review and a model with a nonlocal boundary layer parameterization. Reviews of Geophysics, 1994, 32, 363.	23.0	3,497
3	Ocean Acidification: The Other CO₂Problem. Annual Review of Marine Science, 2009, 1, 169-192.	11.6	3,246
4	Climateâ€"Carbon Cycle Feedback Analysis: Results from the C4MIP Model Intercomparison. Journal of Climate, 2006, 19, 3337-3353.	3.2	2,647
5	Climate Change Impacts on Marine Ecosystems. Annual Review of Marine Science, 2012, 4, 11-37.	11.6	2,117
6	The Community Climate System Model Version 3 (CCSM3). Journal of Climate, 2006, 19, 2122-2143.	3.2	2,075
7	Trends in the sources and sinks of carbon dioxide. Nature Geoscience, 2009, 2, 831-836.	12.9	1,746
8	Multiple stressors of ocean ecosystems in the 21st century: projections with CMIP5 models. Biogeosciences, 2013, 10, 6225-6245.	3.3	1,191
9	Global Carbon Budget 2018. Earth System Science Data, 2018, 10, 2141-2194.	9.9	1,167
10	Riverine coupling of biogeochemical cycles between land, oceans, and atmosphere. Frontiers in Ecology and the Environment, 2011, 9, 53-60.	4.0	927
11	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	9.9	905
12	Ocean Acidification: Present Conditions and Future Changes in a High-CO2 World. Oceanography, 2009, 22, 36-47.	1.0	841
13	An index to assess the health and benefits of the global ocean. Nature, 2012, 488, 615-620.	27.8	736
14	Upper ocean ecosystem dynamics and iron cycling in a global three-dimensional model. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	734
15	Response of ocean ecosystems to climate warming. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	694
16	The Growing Human Footprint on Coastal and Open-Ocean Biogeochemistry. Science, 2010, 328, 1512-1516.	12.6	668
17	Coupled biogeochemical cycles: eutrophication and hypoxia in temperate estuaries and coastal marine ecosystems. Frontiers in Ecology and the Environment, 2011, 9, 18-26.	4.0	656
18	The Orbiting Carbon Observatory (OCO) mission. Advances in Space Research, 2004, 34, 700-709.	2.6	596

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19	Recent trends and drivers of regional sources and sinks of carbon dioxide. Biogeosciences, 2015, 12, 653-679.	3.3	587
20	Recent Changes in Phytoplankton Communities Associated with Rapid Regional Climate Change Along the Western Antarctic Peninsula. Science, 2009, 323, 1470-1473.	12.6	579
21	The global carbon budget 1959â€“2011. Earth System Science Data, 2013, 5, 165-185.	9.9	527
22	Projected 21st century decrease in marine productivity: a multi-model analysis. Biogeosciences, 2010, 7, 979-1005.	3.3	520
23	Iron cycling and nutrient-limitation patterns in surface waters of the World Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 49, 463-507.	1.4	496
24	Iron supply and demand in the upper ocean. Global Biogeochemical Cycles, 2000, 14, 281-295.	4.9	472
25	Oceanic sources, sinks, and transport of atmospheric CO₂. Global Biogeochemical Cycles, 2009, 23, .	4.9	455
26	The North Atlantic Spring Phytoplankton Bloom and Sverdrup's Critical Depth Hypothesis. Science, 2002, 296, 730-733.	12.6	446
27	An intermediate complexity marine ecosystem model for the global domain. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 49, 403-462.	1.4	418
28	Imminent ocean acidification in the Arctic projected with the NCAR global coupled carbon cycle-climate model. Biogeosciences, 2009, 6, 515-533.	3.3	417
29	Sensitivity to Surface Forcing and Boundary Layer Mixing in a Global Ocean Model: Annual-Mean Climatology. Journal of Physical Oceanography, 1997, 27, 2418-2447.	1.7	410
30	Plankton in a warmer world. Nature, 2006, 444, 695-696.	27.8	404
31	Carbon-nitrogen interactions regulate climate-carbon cycle feedbacks: results from an atmosphere-ocean general circulation model. Biogeosciences, 2009, 6, 2099-2120.	3.3	399
32	Climate, ecosystems, and planetary futures: The challenge to predict life in Earth system models. Science, 2018, 359, .	12.6	397
33	Global assessment of ocean carbon export by combining satellite observations and foodâ€web models. Global Biogeochemical Cycles, 2014, 28, 181-196.	4.9	368
34	Skill assessment for coupled biological/physical models of marine systems. Journal of Marine Systems, 2009, 76, 4-15.	2.1	365
35	Detection of anthropogenic climate change in satellite records of ocean chlorophyll and productivity. Biogeosciences, 2010, 7, 621-640.	3.3	360
36	Observed 20th century desert dust variability: impact on climate and biogeochemistry. Atmospheric Chemistry and Physics, 2010, 10, 10875-10893.	4.9	355

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37	Toxicity of atmospheric aerosols on marine phytoplankton. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4601-4605.	7.1	353
38	Global ocean storage of anthropogenic carbon. Biogeosciences, 2013, 10, 2169-2191.	3.3	348
39	Impact of anthropogenic atmospheric nitrogen and sulfur deposition on ocean acidification and the inorganic carbon system. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14580-14585.	7.1	332
40	Inverse estimates of anthropogenic CO2uptake, transport, and storage by the ocean. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	4.9	331
41	Systematic assessment of terrestrial biogeochemistry in coupled climateâ€“carbon models. Global Change Biology, 2009, 15, 2462-2484.	9.5	324
42	Precision requirements for space-based data. Journal of Geophysical Research, 2007, 112, .	3.3	322
43	Evolution of carbon sinks in a changing climate. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11201-11206.	7.1	318
44	Database of diazotrophs in global ocean: abundance, biomass and nitrogen fixation rates. Earth System Science Data, 2012, 4, 47-73.	9.9	315
45	Global carbon budget 2013. Earth System Science Data, 2014, 6, 235-263.	9.9	311
46	Marine Ecosystem Dynamics and Biogeochemical Cycling in the Community Earth System Model [CESM1(BGC)]: Comparison of the 1990s with the 2090s under the RCP4.5 and RCP8.5 Scenarios. Journal of Climate, 2013, 26, 9291-9312.	3.2	297
47	The Impacts of Ocean Acidification on Marine Ecosystems and Reliant Human Communities. Annual Review of Environment and Resources, 2020, 45, 83-112.	13.4	297
48	Modelling regional responses by marine pelagic ecosystems to global climate change. Geophysical Research Letters, 2002, 29, 53-1-53-4.	4.0	281
49	Satellite-detected fluorescence reveals global physiology of ocean phytoplankton. Biogeosciences, 2009, 6, 779-794.	3.3	280
50	Global ocean carbon uptake: magnitude, variability and trends. Biogeosciences, 2013, 10, 1983-2000.	3.3	276
51	Sustained climate warming drives declining marine biological productivity. Science, 2018, 359, 1139-1143.	12.6	276
52	Regional to global assessments of phytoplankton dynamics from the SeaWiFS mission. Remote Sensing of Environment, 2013, 135, 77-91.	11.0	254
53	Drivers and uncertainties of future global marine primary production in marine ecosystem models. Biogeosciences, 2015, 12, 6955-6984.	3.3	252
54	West Antarctic Peninsula: An Ice-Dependent Coastal Marine Ecosystem in Transition. Oceanography, 2013, 26, 190-203.	1.0	249

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55	Anticipating ocean acidificationâ€™s economic consequences for commercial fisheries. Environmental Research Letters, 2009, 4, 024007.	5.2	247
56	Representing key phytoplankton functional groups in ocean carbon cycle models: Coccolithophorids. Global Biogeochemical Cycles, 2002, 16, 47-1-47-20.	4.9	234
57	Winter and spring controls on the summer food web of the coastal West Antarctic Peninsula. Nature Communications, 2014, 5, 4318.	12.8	231
58	Changes in Arctic vegetation amplify high-latitude warming through the greenhouse effect. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1295-1300.	7.1	228
59	Enhanced CO2outgassing in the Southern Ocean from a positive phase of the Southern Annular Mode. Global Biogeochemical Cycles, 2007, 21, n/a-n/a.	4.9	226
60	Assessment of skill and portability in regional marine biogeochemical models: Role of multiple planktonic groups. Journal of Geophysical Research, 2007, 112, .	3.3	215
61	Biological ramifications of climate-change-mediated oceanic multi-stressors. Nature Climate Change, 2015, 5, 71-79.	18.8	214
62	A new coupled, one-dimensional biological-physical model for the upper ocean: Applications to the JGOFS Bermuda Atlantic Time-series Study (BATS) site. Deep-Sea Research Part II: Topical Studies in Oceanography, 1996, 43, 591-624.	1.4	212
63	Assessing the uncertainties of model estimates of primary productivity in the tropical Pacific Ocean. Journal of Marine Systems, 2009, 76, 113-133.	2.1	212
64	Impact of circulation on export production, dissolved organic matter, and dissolved oxygen in the ocean: Results from Phase II of the Ocean Carbonâ€cycle Model Intercomparison Project (OCMIPâ€2). Global Biogeochemical Cycles, 2007, 21, .	4.9	211
65	Evaluating global ocean carbon models: The importance of realistic physics. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	210
66	Ocean Acidification: A Critical Emerging Problem for the Ocean Sciences. Oceanography, 2009, 22, 16-25.	1.0	210
67	Skill metrics for confronting global upper ocean ecosystem-biogeochemistry models against field and remote sensing data. Journal of Marine Systems, 2009, 76, 95-112.	2.1	204
68	Toward a mechanistic understanding of the decadal trends in the Southern Ocean carbon sink. Global Biogeochemical Cycles, 2008, 22, .	4.9	202
69	Pelagic functional group modeling: Progress, challenges and prospects. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 459-512.	1.4	200
70	Will ocean acidification affect marine microbes?. ISME Journal, 2011, 5, 1-7.	9.8	200
71	Natural Variability in a Stable, 1000-Yr Global Coupled Climateâ€“Carbon Cycle Simulation. Journal of Climate, 2006, 19, 3033-3054.	3.2	199
72	Eddy-driven sources and sinks of nutrients in the upper ocean: Results from a 0.1Â° resolution model of the North Atlantic. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	195

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73	Evaluation of ocean model ventilation with CFC-11: comparison of 13 global ocean models. Ocean Modelling, 2002, 4, 89-120.	2.4	192
74	The NCAR Climate System Model Global Ocean Component*. Journal of Climate, 1998, 11, 1287-1306.	3.2	188
75	Biological responses to environmental heterogeneity under future ocean conditions. Global Change Biology, 2016, 22, 2633-2650.	9.5	187
76	Changes in Ocean Heat, Carbon Content, and Ventilation: A Review of the First Decade of GO-SHIP Global Repeat Hydrography. Annual Review of Marine Science, 2016, 8, 185-215.	11.6	183
77	Prediction of the Export and Fate of Global Ocean Net Primary Production: The EXPORTS Science Plan. Frontiers in Marine Science, 2016, 3, .	2.5	179
78	Iron availability limits the ocean nitrogen inventory stabilizing feedbacks between marine denitrification and nitrogen fixation. Global Biogeochemical Cycles, 2007, 21, n/a-n/a.	4.9	178
79	Mechanisms governing interannual variability in upper-ocean inorganic carbon system and airâ€“sea CO2 fluxes: Physical climate and atmospheric dust. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 640-655.	1.4	169
80	Evaluation of ocean carbon cycle models with data-based metrics. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	168
81	Twentieth-Century Oceanic Carbon Uptake and Storage in CESM1(BGC)*. Journal of Climate, 2013, 26, 6775-6800.	3.2	167
82	Seaâ€“air CO₂ fluxes in the Southern Ocean for the period 1990â€“2009. Biogeosciences, 2013, 10, 4037-4054.	3.3	162
83	A chlorofluorocarbon section in the eastern North Atlantic. Deep-sea Research Part A, Oceanographic Research Papers, 1992, 39, 1857-1883.	1.5	158
84	Inverse estimates of the oceanic sources and sinks of natural CO2 and the implied oceanic carbon transport. Global Biogeochemical Cycles, 2007, 21, .	4.9	156
85	Ocean Iron Fertilization--Moving Forward in a Sea of Uncertainty. Science, 2008, 319, 162-162.	12.6	156
86	Preindustrial-Control and Twentieth-Century Carbon Cycle Experiments with the Earth System Model CESM1(BGC). Journal of Climate, 2014, 27, 8981-9005.	3.2	156
87	Eddy-resolving simulation of plankton ecosystem dynamics in the California Current System. Deep-Sea Research Part I: Oceanographic Research Papers, 2006, 53, 1483-1516.	1.4	154
88	Spatiotemporal variability and long-term trends of ocean acidification in the California Current System. Biogeosciences, 2013, 10, 193-216.	3.3	152
89	Response of ocean phytoplankton community structure to climate change over the 21st century: partitioning the effects of nutrients, temperature and light. Biogeosciences, 2010, 7, 3941-3959.	3.3	150
90	Challenges of modeling depthâ€integrated marine primary productivity over multiple decades: A case study at BATS and HOT. Global Biogeochemical Cycles, 2010, 24, .	4.9	150

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91	Low interannual variability in recent oceanic uptake of atmospheric carbon dioxide. Nature, 1998, 396, 155-159.	27.8	149
92	MAREDAT: towards a world atlas of MARine Ecosystem DATa. Earth System Science Data, 2013, 5, 227-239.	9.9	145
93	Natural variability and anthropogenic trends in oceanic oxygen in a coupled carbon cycleâ€“climate model ensemble. Global Biogeochemical Cycles, 2009, 23, .	4.9	143
94	And on Top of All Thatâ€¦ Coping with Ocean Acidification in the Midst of Many Stressors. Oceanography, 2015, 25, 48-61.	1.0	143
95	The dynamic ocean biological pump: Insights from a global compilation of particulate organic carbon, CaCO₃, and opal concentration profiles from the mesopelagic. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	4.9	141
96	Ocean Acidificationâ€™s Potential to Alter Global Marine Ecosystem Services. Oceanography, 2009, 22, 172-181.	1.0	139
97	Biogeochemical protocols and diagnostics for the CMIP6 Ocean Model Intercomparison Project (OMIP). Geoscientific Model Development, 2017, 10, 2169-2199.	3.6	137
98	Major challenges confronting marine biogeochemical modeling. Global Biogeochemical Cycles, 1999, 13, 705-714.	4.9	135
99	The role of mesoscale variability on plankton dynamics in the North Atlantic. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 2199-2226.	1.4	135
100	The Community Climate System Model. Bulletin of the American Meteorological Society, 2001, 82, 2357-2376.	3.3	131
101	An assessment of the Atlantic and Arctic seaâ€“air CO₂ fluxes, 1990â€“2009. Biogeosciences, 2013, 10, 607-627.	3.3	131
102	Changes in the North Atlantic Oscillation influence CO₂ uptake in the North Atlantic over the past 2 decades. Global Biogeochemical Cycles, 2008, 22, .	4.9	127
103	Carbon source/sink information provided by column CO₂ measurements from the Orbiting Carbon Observatory. Atmospheric Chemistry and Physics, 2010, 10, 4145-4165.	4.9	127
104	Impacts of increasing anthropogenic soluble iron and nitrogen deposition on ocean biogeochemistry. Global Biogeochemical Cycles, 2009, 23, .	4.9	123
105	Annual cycles of ecological disturbance and recovery underlying the subarctic Atlantic spring plankton bloom. Global Biogeochemical Cycles, 2013, 27, 526-540.	4.9	119
106	Foodâ€“energyâ€“water implications of negative emissions technologies in a +1.5â€‰Â°C future. Nature Climate Change, 2020, 10, 920-927.	18.8	117
107	Seasonal variations in the atmospheric O2/N2ratio in relation to the kinetics of air-sea gas exchange. Global Biogeochemical Cycles, 1998, 12, 141-163.	4.9	116
108	An evaluation of neutral and convective planetary boundary-layer parameterizations relative to large eddy simulations. Boundary-Layer Meteorology, 1996, 79, 131-175.	2.3	115

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109	Nitrogen fixation amplifies the ocean biogeochemical response to decadal timescale variations in mineral dust deposition. Tellus, Series B: Chemical and Physical Meteorology, 2006, 58, 560-572.	1.6	114
110	Variational data assimilation for atmospheric CO2. Tellus, Series B: Chemical and Physical Meteorology, 2006, 58, 359-365.	1.6	113
111	The North Atlantic Aerosol and Marine Ecosystem Study (NAAMES): Science Motive and Mission Overview. Frontiers in Marine Science, 2019, 6, .	2.5	111
112	Global satellite-observed daily vertical migrations of ocean animals. Nature, 2019, 576, 257-261.	27.8	111
113	Modeling the Impact of Zooplankton Diel Vertical Migration on the Carbon Export Flux of the Biological Pump. Global Biogeochemical Cycles, 2019, 33, 181-199.	4.9	107
114	Projected decreases in future marine export production: the role of the carbon flux through the upper ocean ecosystem. Biogeosciences, 2016, 13, 4023-4047.	3.3	106
115	Analyses and simulations of the upper ocean's response to Hurricane Felix at the Bermuda Testbed Mooring site: 13-23 August 1995. Journal of Geophysical Research, 2002, 107, 25-1-25-29.	3.3	105
116	Contributions of Long-Term Research and Time-Series Observations to Marine Ecology and Biogeochemistry. Annual Review of Marine Science, 2009, 1, 279-302.	11.6	105
117	Carbon and Climate System Coupling on Timescales from the Precambrian to the Anthropocene. Annual Review of Environment and Resources, 2007, 32, 31-66.	13.4	104
118	Climate-induced interannual variability of marine primary and export production in three global coupled climate carbon cycle models. Biogeosciences, 2008, 5, 597-614.	3.3	104
119	Seascapes as a new vernacular for pelagic ocean monitoring, management and conservation. ICES Journal of Marine Science, 2016, 73, 1839-1850.	2.5	100
120	The Dangers of Ocean Acidification. Scientific American, 2006, 294, 58-65.	1.0	99
121	Noble gas constraints on airâ€sea gas exchange and bubble fluxes. Journal of Geophysical Research, 2009, 114, .	3.3	99
122	Rapid decline of the CO₂ buffering capacity in the North Sea and implications for the North Atlantic Ocean. Global Biogeochemical Cycles, 2007, 21, .	4.9	97
123	What Is the Metabolic State of the Oligotrophic Ocean? A Debate. Annual Review of Marine Science, 2013, 5, 525-533.	11.6	97
124	Mesoscale variability of Sea-viewing Wide Field-of-view Sensor (SeaWiFS) satellite ocean color: Global patterns and spatial scales. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	96
125	Global oceanic emission of ammonia: Constraints from seawater and atmospheric observations. Global Biogeochemical Cycles, 2015, 29, 1165-1178.	4.9	96
126	The subtropical nutrient spiral. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	93

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127	Securing ocean benefits for society in the face of climate change. Marine Policy, 2013, 40, 154-159.	3.2	91
128	Response of the North Atlantic Thermohaline Circulation and Ventilation to Increasing Carbon Dioxide in CCSM3. Journal of Climate, 2006, 19, 2382-2397.	3.2	89
129	Nutrition and income from molluscs today imply vulnerability to ocean acidification tomorrow. Fish and Fisheries, 2012, 13, 182-215.	5.3	88
130	Data-based assessment of environmental controls on global marine nitrogen fixation. Biogeosciences, 2014, 11, 691-708.	3.3	87
131	The Climode Field Campaign: Observing the Cycle of Convection and Restratification over the Gulf Stream. Bulletin of the American Meteorological Society, 2009, 90, 1337-1350.	3.3	86
132	On the Southern Ocean CO₂ uptake and the role of the biological carbon pump in the 21st century. Global Biogeochemical Cycles, 2015, 29, 1451-1470.	4.9	85
133	Mechanisms Governing Interannual Variability of Upper-Ocean Temperature in a Global Ocean Hindcast Simulation. Journal of Physical Oceanography, 2007, 37, 1918-1938.	1.7	83
134	A comparison of ocean tracer dating techniques on a meridional section in the eastern North Atlantic. Deep-Sea Research Part I: Oceanographic Research Papers, 1997, 44, 603-626.	1.4	82
135	North Pacific carbon cycle response to climate variability on seasonal to decadal timescales. Journal of Geophysical Research, 2006, 111, .	3.3	81
136	Carbon fluxes and pelagic ecosystem dynamics near two western Antarctic Peninsula AdÃ©lie penguin colonies: an inverse model approach. Marine Ecology - Progress Series, 2013, 492, 253-272.	1.9	81
137	Does eddyâ€eddy interaction control surface phytoplankton distribution and carbon export in the North Pacific Subtropical Gyre?. Journal of Geophysical Research, 2012, 117, .	3.3	80
138	Ocean and Coastal Acidification off New England and Nova Scotia. Oceanography, 2015, 25, 182-197.	1.0	80
139	Skill assessment in ocean biological data assimilation. Journal of Marine Systems, 2009, 76, 16-33.	2.1	79
140	Developing integrated models of Southern Ocean food webs: Including ecological complexity, accounting for uncertainty and the importance of scale. Progress in Oceanography, 2012, 102, 74-92.	3.2	79
141	Factors challenging our ability to detect long-term trends in ocean chlorophyll. Biogeosciences, 2013, 10, 2711-2724.	3.3	79
142	A model function of the global bomb tritium distribution in precipitation, 1960â€“1986. Journal of Geophysical Research, 1992, 97, 5481-5492.	3.3	78
143	Photochemistry, mixing and diurnal cycles in the upper ocean. Journal of Marine Research, 1995, 53, 341-369.	0.3	78
144	Biological response to frontal dynamics and mesoscale variability in oligotrophic environments: Biological production and community structure. Journal of Geophysical Research, 2002, 107, 25-1.	3.3	78

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145	Climate-mediated changes to mixed-layer properties in the Southern Ocean: assessing the phytoplankton response. Biogeosciences, 2008, 5, 847-864.	3.3	78
146	The multiple fates of sinking particles in the North Atlantic Ocean. Global Biogeochemical Cycles, 2015, 29, 1471-1494.	4.9	76
147	Variability of global net sea–air CO₂ fluxes over the last three decades using empirical relationships. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 352.	1.6	73
148	Detecting anthropogenic CO₂ changes in the interior Atlantic Ocean between 1989 and 2005. Journal of Geophysical Research, 2010, 115, .	3.3	72
149	Ventilation of the Deep Western Boundary Current and Abyssal Western North Atlantic: Estimates from Tritium and3He Distributions. Journal of Physical Oceanography, 1994, 24, 638-659.	1.7	71
150	Surface Ocean Fluxes and Water-Mass Transformation Rates in the Coupled NCAR Climate System Model*. Journal of Climate, 1998, 11, 1420-1441.	3.2	71
151	Comparing food web structures and dynamics across a suite of global marine ecosystem models. Ecological Modelling, 2013, 261-262, 43-57.	2.5	71
152	Microbial metabolites in the marine carbon cycle. Nature Microbiology, 2022, 7, 508-523.	13.3	71
153	Geochemical estimates of denitrification in the Arabian Sea and the Bay of Bengal during WOCE. Geophysical Research Letters, 1997, 24, 2549-2552.	4.0	70
154	Contribution of ocean, fossil fuel, land biosphere, and biomass burning carbon fluxes to seasonal and interannual variability in atmospheric CO₂. Journal of Geophysical Research, 2008, 113, .	3.3	70
155	Life-cycle modification in open oceans accounts for genome variability in a cosmopolitan phytoplankton. ISME Journal, 2015, 9, 1365-1377.	9.8	70
156	Phytoplankton competition during the spring bloom in four plankton functional type models. Biogeosciences, 2013, 10, 6833-6850.	3.3	68
157	Airâ€“sea CO₂ flux in the Pacific Ocean for the period 1990â€“2009. Biogeosciences, 2014, 11, 709-734.	3.3	68
158	Inconsistent strategies to spin up models in CMIP5: implications for ocean biogeochemical model performance assessment. Geoscientific Model Development, 2016, 9, 1827-1851.	3.6	68
159	Physical and biogeochemical variability from hours to years at the Bermuda Testbed Mooring site: June 1994â€“March 1998. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 2105-2140.	1.4	67
160	Recent western South Atlantic bottom water warming. Geophysical Research Letters, 2006, 33, .	4.0	66
161	Dynamics of particulate organic carbon flux in a global ocean model. Biogeosciences, 2014, 11, 1177-1198.	3.3	66
162	COMPARISON OF CULTURED TRICHODESMIUM (CYANOPHYCEAE) WITH SPECIES CHARACTERIZED FROM THE FIELD¹. Journal of Phycology, 2012, 48, 196-210.	2.3	65

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163	Multicentury changes in ocean and land contributions to the climateâ€carbon feedback. Global Biogeochemical Cycles, 2015, 29, 744-759.	4.9	63
164	Surface-ocean CO2 variability and vulnerability. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 504-511.	1.4	62
165	Geomorphic evolution of soil texture and organic matter in eroding landscapes. Global Biogeochemical Cycles, 2001, 15, 365-381.	4.9	61
166	Assessing the sequestration time scales of some ocean-based carbon dioxide reduction strategies. Environmental Research Letters, 2021, 16, 104003.	5.2	61
167	A synoptic atmospheric surface forcing data set and physical upper ocean model for the U.S. JGOFS Bermuda Atlantic Time-Series Study site. Journal of Geophysical Research, 1996, 101, 25615-25634.	3.3	60
168	From genes to ecosystems: the ocean's new frontier. Frontiers in Ecology and the Environment, 2004, 2, 457-468.	4.0	59
169	From Zero to Hero?: Why Integrated Assessment Modeling of Negative Emissions Technologies Is Hard and How We Can Do Better. Frontiers in Climate, 2019, 1, .	2.8	59
170	Increased multidecadal variability of the North Atlantic Oscillation since 1781. Nature Geoscience, 2008, 1, 844-848.	12.9	56
171	An Integrated Assessment Model for Helping the United States Sea Scallop (Placopecten magellanicus) Fishery Plan Ahead for Ocean Acidification and Warming. PLoS ONE, 2015, 10, e0124145.	2.5	55
172	Environmental, biochemical and genetic drivers of DMSP degradation and DMS production in the Sargasso Sea. Environmental Microbiology, 2012, 14, 1210-1223.	3.8	54
173	Thirtyâ€Three Years of Ocean Benthic Warming Along the U.S. Northeast Continental Shelf and Slope: Patterns, Drivers, and Ecological Consequences. Journal of Geophysical Research: Oceans, 2017, 122, 9399-9414.	2.6	50
174	The effect of boundary conditions on tracer estimates of thermocline ventilation rates. Journal of Marine Research, 1988, 46, 947-965.	0.3	49
175	Projected pH reductions by 2100 might put deep North Atlantic biodiversity at risk. Biogeosciences, 2014, 11, 6955-6967.	3.3	49
176	Atmospheric Carbon Dioxide Variability in the Community Earth System Model: Evaluation and Transient Dynamics during the Twentieth and Twenty-First Centuries. Journal of Climate, 2013, 26, 4447-4475.	3.2	48
177	Assessing the Health of the U.S. West Coast with a Regional-Scale Application of the Ocean Health Index. PLoS ONE, 2014, 9, e98995.	2.5	48
178	Effect of continental shelf canyons on phytoplankton biomass and community composition along the western Antarctic Peninsula. Marine Ecology - Progress Series, 2015, 524, 11-26.	1.9	48
179	Carbon isotope discrimination of arctic and boreal biomes inferred from remote atmospheric measurements and a biosphere-atmosphere model. Global Biogeochemical Cycles, 2002, 16, 1-1-1-15.	4.9	47
180	Investigating the sources of synoptic variability in atmospheric CO2 measurements over the Northern Hemisphere continents: a regional model study. Tellus, Series B: Chemical and Physical Meteorology, 2004, 56, 35-50.	1.6	47

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