

# Andreas Oschlies

## List of Publications by Year in descending order

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252  
papers

18,181  
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23219

57  
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16162

122  
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361  
all docs

361  
docs citations

361  
times ranked

17400  
citing authors

#	ARTICLE	IF	CITATIONS
1	Misconceptions of the marine biological carbon pump in a changing climate: Thinking outside the box. <i>Global Change Biology</i> , 2024, 30, .	9.6	2
2	Mechanisms Underpinning the Net Removal Rates of Dissolved Organic Carbon in the Global Ocean. <i>Global Biogeochemical Cycles</i> , 2024, 38, .	4.7	1
3	Earth system responses to carbon dioxide removal as exemplified by ocean alkalinity enhancement: tradeoffs and lags. <i>Environmental Research Letters</i> , 2024, 19, 054054.	5.2	0
4	A Comprehensive Assessment of Carbon Dioxide Removal Options for Germany. <i>Earth's Future</i> , 2024, 12, .	6.2	1
5	Southern Ocean phytoplankton under climate change: a shifting balance of bottom-up and top-down control. <i>Biogeosciences</i> , 2024, 21, 2473-2491.	3.4	0
6	Global impact of benthic denitrification on marine N <sub>2</sub> fixation and primary production simulated by a variable-stoichiometry Earth system model. <i>Biogeosciences</i> , 2024, 21, 4361-4380.	3.4	0
7	Recovery from microplastic-induced marine deoxygenation may take centuries. <i>Nature Geoscience</i> , 2023, 16, 10-12.	11.7	23
8	Carbon dioxide removal via macroalgae open-ocean mariculture and sinking: an Earth system modeling study. <i>Earth System Dynamics</i> , 2023, 14, 185-221.	7.0	15
9	Artificial Upwelling – A Refined Narrative. <i>Geophysical Research Letters</i> , 2023, 50, .	3.9	7
10	Exploring the role of different data types and timescales in the quality of marine biogeochemical model calibration. <i>Biogeosciences</i> , 2023, 20, 2645-2669.	3.4	1
11	Can Oxygen Utilization Rate Be Used to Track the Long-Term Changes of Aerobic Respiration in the Mesopelagic Atlantic Ocean?. <i>Geophysical Research Letters</i> , 2023, 50, .	3.9	1
12	Effects of phytoplankton physiology on global ocean biogeochemistry and climate. <i>Science Advances</i> , 2023, 9, .	10.8	7
13	Resistance of blended alkali-activated fly ash-OPC mortar to mild-concentration sulfuric and acetic acid attack. <i>Environmental Science and Pollution Research</i> , 2022, 29, 25694-25708.	5.2	9
14	Net-Zero CO <sub>2</sub> Germany – A Retrospect From the Year 2050. <i>Earth's Future</i> , 2022, 10, .	6.2	19
15	Mixed layer depth dominates over upwelling in regulating the seasonality of ecosystem functioning in the Peruvian upwelling system. <i>Biogeosciences</i> , 2022, 19, 455-475.	3.4	11
16	Simulated Future Trends in Marine Nitrogen Fixation Are Sensitive to Model Iron Implementation. <i>Global Biogeochemical Cycles</i> , 2022, 36, .	4.7	3
17	Biogeochemical feedbacks may amplify ongoing and future ocean deoxygenation: a case study from the Peruvian oxygen minimum zone. <i>Biogeochemistry</i> , 2022, 159, 45-67.	3.6	8
18	The Reconstruction of Seonunsa Temple by Monk Haengho and Prince Deokwon-gun in the Early Joseon Dynasty.. <i>JEONBUK SAHAK the Jeonbuk Historical Journal</i> , 2022, 64, 101-124.	0.0	0

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19	Organic Phosphorus Scavenging Supports Efficient Growth of Diazotrophic Cyanobacteria Under Phosphate Depletion. <i>Frontiers in Microbiology</i> , 2022, 13, 848647.	3.5	3
20	Mixed Layer Depth Promotes Trophic Amplification on a Seasonal Scale. <i>Geophysical Research Letters</i> , 2022, 49, .	3.9	3
21	FOCI-MOPS v1 – integration of marine biogeochemistry within the Flexible Ocean and Climate Infrastructure version 1 (FOCI 1) Earth system model. <i>Geoscientific Model Development</i> , 2022, 15, 5987-6024.	3.7	8
22	Causes of uncertainties in the representation of the Arabian Sea oxygen minimum zone in CMIP5 models. , 2021, , .		1
23	Zooplankton grazing of microplastic can accelerate global loss of ocean oxygen. <i>Nature Communications</i> , 2021, 12, 2358.	13.0	91
24	A committed fourfold increase in ocean oxygen loss. <i>Nature Communications</i> , 2021, 12, 2307.	13.0	48
25	Zooplankton mortality effects on the plankton community of the northern Humboldt Current System: sensitivity of a regional biogeochemical model. <i>Biogeosciences</i> , 2021, 18, 2891-2916.	3.4	6
26	The fate of upwelled nitrate off Peru shaped by submesoscale filaments and fronts. <i>Biogeosciences</i> , 2021, 18, 3605-3629.	3.4	8
27	Constraining Global Marine Iron Sources and Ligand-Mediated Scavenging Fluxes With GEOTRACES Dissolved Iron Measurements in an Ocean Biogeochemical Model. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2021GB006948.	4.7	14
28	The Influence of Cesarean Section on the Composition and Development of Gut Microbiota During the First 3 Months of Life. <i>Frontiers in Microbiology</i> , 2021, 12, 691312.	3.5	12
29	Can Top-Down Controls Expand the Ecological Niche of Marine N <sub>2</sub> Fixers?. <i>Frontiers in Microbiology</i> , 2021, 12, 690200.	3.5	12
30	Novel Circulating and Tissue Monocytes as Well as Macrophages in Pancreatitis and Recovery. <i>Gastroenterology</i> , 2021, 161, 2014-2029.e14.	1.4	34
31	Causes of uncertainties in the representation of the Arabian Sea oxygen minimum zone in CMIP5 models. <i>Ocean Science</i> , 2021, 17, 1303-1320.	3.4	5
32	Riverine nitrogen supply to the global ocean and its limited impact on global marine primary production: a feedback study using an Earth system model. <i>Biogeosciences</i> , 2021, 18, 5327-5350.	3.4	4
33	Description of a global marine particulate organic carbon-13 isotope data set. <i>Earth System Science Data</i> , 2021, 13, 4861-4880.	8.8	11
34	Independence of a Marine Unicellular Diazotroph to the Presence of NO <sub>3</sub> <sup>-</sup> . <i>Microorganisms</i> , 2021, 9, 2073.	3.6	3
35	Explicit silicate cycling in the Kiel Marine Biogeochemistry Model version 3 (KMBM3) embedded in the UVic ESCM version 2.9. <i>Geoscientific Model Development</i> , 2021, 14, 7255-7285.	3.7	4
36	A Global Ocean Oxygen Database and Atlas for Assessing and Predicting Deoxygenation and Ocean Health in the Open and Coastal Ocean. <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	37

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37	The global biological microplastic particle sink. <i>Scientific Reports</i> , 2020, 10, 16670.	3.4	84
38	Geoengineered Ocean Vertical Water Exchange Can Accelerate Global Deoxygenation. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088263.	3.9	4
39	Global variability in seawater Mg:Ca and Sr:Ca ratios in the modern ocean. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 22281-22292.	7.5	72
40	Does Export Production Measure Transient Changes of the Biological Carbon Pump's Feedback to the Atmosphere Under Global Warming?. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089928.	3.9	14
41	Comparative Assessment of Climate Engineering Scenarios in the Presence of Parametric Uncertainty. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001787.	3.7	1
42	A Critical Examination of the Role of Marine Snow and Zooplankton Fecal Pellets in Removing Ocean Surface Microplastic. <i>Frontiers in Marine Science</i> , 2020, 6, .	2.5	58
43	One size fits all? Calibrating an ocean biogeochemistry model for different circulations. <i>Biogeosciences</i> , 2020, 17, 3057-3082.	3.4	19
44	Megafauna community assessment of polymetallic-nodule fields with cameras: platform and methodology comparison. <i>Biogeosciences</i> , 2020, 17, 3115-3133.	3.4	26
45	Evaluation of the University of Victoria Earth System Climate Model version 2.10 (UVic ESCM 2.10). <i>Geoscientific Model Development</i> , 2020, 13, 4183-4204.	3.7	26
46	Optimality-based non-Redfield plankton ecosystem model (OPEM v1.1) in UVic-ESCM 2.9 Part 1: Implementation and model behaviour. <i>Geoscientific Model Development</i> , 2020, 13, 4663-4690.	3.7	17
47	Optimality-based non-Redfield plankton ecosystem model (OPEM v1.1) in UVic-ESCM 2.9 Part 2: Sensitivity analysis and model calibration. <i>Geoscientific Model Development</i> , 2020, 13, 4691-4712.	3.7	10
48	Reanalysis of vertical mixing in mesocosm experiments: PeECE III and KOSMOS 2013. <i>Earth System Science Data</i> , 2020, 12, 1775-1787.	8.8	1
49	(Mis)conceptions about modeling of negative emissions technologies. <i>Environmental Research Letters</i> , 2019, 14, 104004.	5.2	42
50	Common and distinct transcriptional signatures of mammalian embryonic lethality. <i>Nature Communications</i> , 2019, 10, 2792.	13.0	17
51	Hierarchy of calibrated global models reveals improved distributions and fluxes of biogeochemical tracers in models with explicit representation of iron. <i>Environmental Research Letters</i> , 2019, 14, 114009.	5.2	9
52	Farmer adaptation to reduced groundwater availability. <i>Environmental Research Letters</i> , 2019, 14, 115010.	5.2	15
53	Observed changes in Brewer-Dobson circulation for 1980-2018. <i>Environmental Research Letters</i> , 2019, 14, 114026.	5.2	25
54	Ocean phosphorus inventory: large uncertainties in future projections on millennial timescales and their consequences for ocean deoxygenation. <i>Earth System Dynamics</i> , 2019, 10, 539-553.	7.0	11

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55	Loss of fixed nitrogen causes net oxygen gain in a warmer future ocean. Nature Communications, 2019, 10, 2805.	13.0	27
56	Structural defects on converted bismuth oxide nanotubes enable highly active electrocatalysis of carbon dioxide reduction. Nature Communications, 2019, 10, 2807.	13.0	508
57	Multiobjective Calibration of a Global Biogeochemical Ocean Model Against Nutrients, Oxygen, and Oxygen Minimum Zones. Journal of Advances in Modeling Earth Systems, 2019, 11, 1285-1308.	3.7	12
58	Climate engineeringâ€“induced changes in correlations between Earth system variablesâ€”implications for appropriate indicator selection. Climatic Change, 2019, 153, 305-322.	3.7	8
59	The effect of marine aggregate parameterisations on nutrients and oxygen minimum zones in a global biogeochemical model. Biogeosciences, 2019, 16, 3095-3111.	3.4	14
60	Sinking of Gelatinous Zooplankton Biomass Increases Deep Carbon Transfer Efficiency Globally. Global Biogeochemical Cycles, 2019, 33, 1764-1783.	4.7	49
61	Quantification of ocean heat uptake from changes in atmospheric O2 and CO2 composition. Scientific Reports, 2019, 9, 20244.	3.4	27
62	Considering the Role of Adaptive Evolution in Models of the Ocean and Climate System. Journal of Advances in Modeling Earth Systems, 2019, 11, 3343-3361.	3.7	26
63	Welche Rolle spielen negative Emissionen fÃ¼r die zukÃ¼nftige Klimapolitik?. Perspektiven Der Wirtschaftspolitik, 2019, 20, 145-158.	0.4	2
64	Dem Ozean geht die Luft aus. , 2019, , 257-274.		0
65	Biogeochemical Role of Subsurface Coherent Eddies in the Ocean: Tracer Cannonballs, Hypoxic Storms, and Microbial Stewpots?. Global Biogeochemical Cycles, 2018, 32, 226-249.	4.7	57
66	Declining oxygen in the global ocean and coastal waters. Science, 2018, 359, .	19.8	1,872
67	Integrated Assessment of Carbon Dioxide Removal. Earth's Future, 2018, 6, 565-582.	6.2	19
68	Atmospheric feedbacks in North Africa from an irrigated, afforested Sahara. Climate Dynamics, 2018, 50, 4561-4581.	3.8	14
69	Pacific Decadal Oscillation and recent oxygen decline in the eastern tropical Pacific Ocean. Biogeosciences, 2018, 15, 7111-7126.	3.4	26
70	Global Marine N2 Fixation Estimates: From Observations to Models. Frontiers in Microbiology, 2018, 9, 2112.	3.5	40
71	Quantification of ocean heat uptake from changes in atmospheric O2 and CO2 composition. Nature, 2018, 563, 105-108.	35.8	51
72	Evaluating climate geoengineering proposals in the context of the Paris Agreement temperature goals. Nature Communications, 2018, 9, 3734.	13.0	185

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73	Ocean Solutions to Address Climate Change and Its Effects on Marine Ecosystems. <i>Frontiers in Marine Science</i> , 2018, 5, .	2.5	274
74	Systematic Correlation Matrix Evaluation (SCoMaE) – a bottom-up, science-led approach to identifying indicators. <i>Earth System Dynamics</i> , 2018, 9, 15-31.	7.0	3
75	Error assessment of biogeochemical models by lower bound methods (NOMMA-1.0). <i>Geoscientific Model Development</i> , 2018, 11, 1181-1198.	3.7	8
76	Immediate action is the best strategy when facing uncertain climate change. <i>Nature Communications</i> , 2018, 9, 2566.	13.0	30
77	Diel light cycle as a key factor for modelling phytoplankton biogeography and diversity. <i>Ecological Modelling</i> , 2018, 384, 241-248.	2.5	13
78	Modulation of the vertical particle transfer efficiency in the oxygen minimum zone off Peru. <i>Biogeosciences</i> , 2018, 15, 5093-5111.	3.4	13
79	The Effects of Carbon Dioxide Removal on the Carbon Cycle. <i>Current Climate Change Reports</i> , 2018, 4, 250-265.	9.2	67
80	Drivers and mechanisms of ocean deoxygenation. <i>Nature Geoscience</i> , 2018, 11, 467-473.	11.7	298
81	Solar geoengineering must take temperature debt into account. <i>Nature</i> , 2018, 554, 423-423.	35.8	1
82	A reevaluation of the magnitude and impacts of anthropogenic atmospheric nitrogen inputs on the ocean. <i>Global Biogeochemical Cycles</i> , 2017, 31, 289-305.	4.7	170
83	SPRAT: A spatially-explicit marine ecosystem model based on population balance equations. <i>Ecological Modelling</i> , 2017, 349, 11-25.	2.5	4
84	Research for assessment, not deployment, of Climate Engineering: The German Research Foundation's Priority Program <sc>SPP</sc> 1689. <i>Earth's Future</i> , 2017, 5, 128-134.	6.2	16
85	Biological and physical influences on marine snowfall at the equator. <i>Nature Geoscience</i> , 2017, 10, 852-858.	11.7	65
86	Pilot Study on Potential Impacts of Fisheries-Induced Changes in Zooplankton Mortality on Marine Biogeochemistry. <i>Global Biogeochemical Cycles</i> , 2017, 31, 1656-1673.	4.7	14
87	Patterns of deoxygenation: sensitivity to natural and anthropogenic drivers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160325.	3.5	69
88	Ocean ventilation and deoxygenation in a warming world: introduction and overview. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20170240.	3.5	36
89	Towards a comprehensive climate impacts assessment of solar geoengineering. <i>Earth's Future</i> , 2017, 5, 93-106.	6.2	46
90	Indicators and metrics for the assessment of climate engineering. <i>Earth's Future</i> , 2017, 5, 49-58.	6.2	19

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91	Oceanic nitrogen cycling and N <sub>2</sub> O flux perturbations in the Anthropocene. <i>Global Biogeochemical Cycles</i> , 2017, 31, 1236-1255.	4.7	40
92	Model-Based Assessment of the CO <sub>2</sub> Sequestration Potential of Coastal Ocean Alkalinization. <i>Earth's Future</i> , 2017, 5, 1252-1266.	6.2	45
93	Calibrating a global three-dimensional biogeochemical ocean model (MOPS-1.0). <i>Geoscientific Model Development</i> , 2017, 10, 127-154.	3.7	40
94	A model study of warming-induced phosphorus-oxygen feedbacks in open-ocean oxygen minimum zones on millennial timescales. <i>Earth System Dynamics</i> , 2017, 8, 357-367.	7.0	19
95	Biogeochemical protocols and diagnostics for the CMIP6 Ocean Model Intercomparison Project (OMIP). <i>Geoscientific Model Development</i> , 2017, 10, 2169-2199.	3.7	144
96	Reviews and syntheses: parameter identification in marine planktonic ecosystem modelling. <i>Biogeosciences</i> , 2017, 14, 1647-1701.	3.4	57
97	Linking diverse nutrient patterns to different water masses within anticyclonic eddies in the upwelling system off Peru. <i>Biogeosciences</i> , 2017, 14, 1349-1364.	3.4	9
98	Evaluation of the transport matrix method for simulation of ocean biogeochemical tracers. <i>Geoscientific Model Development</i> , 2017, 10, 2425-2445.	3.7	19
99	Revisiting ocean carbon sequestration by direct injection: a global carbon budget perspective. <i>Earth System Dynamics</i> , 2016, 7, 797-812.	7.0	13
100	Box-modelling of the impacts of atmospheric nitrogen deposition and benthic remineralisation on the nitrogen cycle of the eastern tropical South Pacific. <i>Biogeosciences</i> , 2016, 13, 4985-5001.	3.4	2
101	Benthic marine calcifiers coexist with CaCO <sub>3</sub> -undersaturated seawater worldwide. <i>Global Biogeochemical Cycles</i> , 2016, 30, 1038-1053.	4.7	42
102	Limited impact of atmospheric nitrogen deposition on marine productivity due to biogeochemical feedbacks in a global ocean model. <i>Geophysical Research Letters</i> , 2016, 43, 4500-4509.	3.9	35
103	Currents and associated electron scattering and bouncing near the diffusion region at Earth's magnetopause. <i>Geophysical Research Letters</i> , 2016, 43, 3042-3050.	3.9	83
104	Southern Ocean biological impacts on global ocean oxygen. <i>Geophysical Research Letters</i> , 2016, 43, 6469-6477.	3.9	26
105	Optimality-based <i>Trichodesmium</i> diazotrophy in the North Atlantic subtropical gyre. <i>Journal of Plankton Research</i> , 2016, 38, 946-963.	1.8	21
106	Modeled Chl:C ratio and derived estimates of phytoplankton carbon biomass and its contribution to total particulate organic carbon in the global surface ocean. <i>Global Biogeochemical Cycles</i> , 2016, 30, 1791-1810.	4.7	44
107	Could artificial ocean alkalinization protect tropical coral ecosystems from ocean acidification?. <i>Environmental Research Letters</i> , 2016, 11, 074008.	5.2	30
108	Assessing climate impacts and risks of ocean albedo modification in the Arctic. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3044-3057.	2.6	11

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109	Simulated effects of southern hemispheric wind changes on the Pacific oxygen minimum zone. <i>Geophysical Research Letters</i> , 2016, 43, 728-734.	3.9	20
110	Phenotypic Variability in the Coccolithophore <i>Emiliana huxleyi</i> . <i>PLoS ONE</i> , 2016, 11, e0157697.	2.5	46
111	A revised global estimate of dissolved iron fluxes from marine sediments. <i>Global Biogeochemical Cycles</i> , 2015, 29, 691-707.	4.7	134
112	On the influence of "non-Redfield" dissolved organic nutrient dynamics on the spatial distribution of $N_2$ fixation and the size of the marine fixed nitrogen inventory. <i>Global Biogeochemical Cycles</i> , 2015, 29, 973-993.	4.7	33
113	$\delta^{14}C$ -age tracers in global ocean circulation models. <i>Geoscientific Model Development</i> , 2015, 8, 2079-2094.	3.7	21
114	What prevents nitrogen depletion in the oxygen minimum zone of the eastern tropical South Pacific?. <i>Biogeosciences</i> , 2015, 12, 1113-1130.	3.4	8
115	Fossil fuels in a trillion tonne world. <i>Nature Climate Change</i> , 2015, 5, 419-423.	14.2	93
116	A dynamic marine iron cycle module coupled to the University of Victoria Earth System Model: the Kiel Marine Biogeochemical Model 2 for UVic 2.9. <i>Geoscientific Model Development</i> , 2015, 8, 1357-1381.	3.7	22
117	A new perspective on environmental controls of marine nitrogen fixation. <i>Geophysical Research Letters</i> , 2015, 42, 4482-4489.	3.9	65
118	Uncertainty in the response of transpiration to $CO_2$ and implications for climate change. <i>Environmental Research Letters</i> , 2015, 10, 094001.	5.2	21
119	Disturbance characteristics determine the timescale of competitive exclusion in a phytoplankton model. <i>Ecological Modelling</i> , 2015, 296, 126-135.	2.5	6
120	Global monthly sea surface nitrate fields estimated from remotely sensed sea surface temperature, chlorophyll, and modeled mixed layer depth. <i>Geophysical Research Letters</i> , 2015, 42, 1130-1138.	3.9	17
121	Enhanced sensitivity of oceanic $CO_2$ uptake to dust deposition by iron-light colimitation. <i>Geophysical Research Letters</i> , 2015, 42, 492-499.	3.9	8
122	MOPS-1.0: towards a model for the regulation of the global oceanic nitrogen budget by marine biogeochemical processes. <i>Geoscientific Model Development</i> , 2015, 8, 2929-2957.	3.7	40
123	How important is diversity for capturing environmental-change responses in ecosystem models?. <i>Biogeosciences</i> , 2014, 11, 3397-3407.	3.4	8
124	Potential climate engineering effectiveness and side effects during a high carbon dioxide-emission scenario. <i>Nature Communications</i> , 2014, 5, 3304.	13.0	190
125	Methods to evaluate $CaCO_3$ cycle modules in coupled global biogeochemical ocean models. <i>Geoscientific Model Development</i> , 2014, 7, 2393-2408.	3.7	13
126	Major role of the equatorial current system in setting oxygen levels in the eastern tropical Atlantic Ocean: A high-resolution model study. <i>Geophysical Research Letters</i> , 2014, 41, 2033-2040.	3.9	54

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127	High-resolution modeling of the Eastern Tropical Pacific oxygen minimum zone: Sensitivity to the tropical oceanic circulation. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 5515-5532.	2.6	73
128	Surface nitrification: A major uncertainty in marine N <sub>2</sub> O emissions. <i>Geophysical Research Letters</i> , 2014, 41, 4247-4253.	3.9	27
129	The viscosity effect on marine particle flux: A climate relevant feedback mechanism. <i>Global Biogeochemical Cycles</i> , 2014, 28, 415-422.	4.7	31
130	Global patterns of phytoplankton nutrient and light colimitation inferred from an optimality-based model. <i>Global Biogeochemical Cycles</i> , 2014, 28, 648-661.	4.7	42
131	Variability in subtropical-tropical cells drives oxygen levels in the tropical Pacific Ocean. <i>Geophysical Research Letters</i> , 2014, 41, 8926-8934.	3.9	35
132	Future ocean acidification will be amplified by hypoxia in coastal habitats. <i>Marine Biology</i> , 2013, 160, 1875-1888.	1.5	429
133	Taking Action Against Ocean Acidification: A Review of Management and Policy Options. <i>Environmental Management</i> , 2013, 52, 761-779.	2.7	76
134	When is a biogeochemical model too complex? Objective model reduction and selection for North Atlantic time-series sites. <i>Progress in Oceanography</i> , 2013, 116, 49-65.	3.2	52
135	Accelerated parameter identification in a 3D marine biogeochemical model using surrogate-based optimization. <i>Ocean Modelling</i> , 2013, 68, 22-36.	2.4	16
136	Optimal allocation backs Droop's cell-quota model. <i>Marine Ecology - Progress Series</i> , 2013, 473, 1-5.	1.9	51
137	Nitrogen cycling driven by organic matter export in the South Pacific oxygen minimum zone. <i>Nature Geoscience</i> , 2013, 6, 228-234.	11.7	305
138	Jelly biomass sinking speed reveals a fast carbon export mechanism. <i>Limnology and Oceanography</i> , 2013, 58, 1113-1122.	3.5	76
139	Processes and patterns of oceanic nutrient limitation. <i>Nature Geoscience</i> , 2013, 6, 701-710.	11.7	1,724
140	Oxygen and indicators of stress for marine life in multi-model global warming projections. <i>Biogeosciences</i> , 2013, 10, 1849-1868.	3.4	143
141	Overlooked runaway feedback in the marine nitrogen cycle: the vicious cycle. <i>Biogeosciences</i> , 2013, 10, 1351-1363.	3.4	63
142	Swept under the carpet: organic matter burial decreases global ocean biogeochemical model sensitivity to remineralization length scale. <i>Biogeosciences</i> , 2013, 10, 8401-8422.	3.4	26
143	Isotopic constraints on the pre-industrial oceanic nitrogen budget. <i>Biogeosciences</i> , 2013, 10, 5889-5910.	3.4	60
144	A novel estimate of ocean oxygen utilisation points to a reduced rate of respiration in the ocean interior. <i>Biogeosciences</i> , 2013, 10, 7723-7738.	3.4	47

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145	Reducing the model-data misfit in a marine ecosystem model using periodic parameters and linear quadratic optimal control. <i>Biogeosciences</i> , 2013, 10, 1169-1182.	3.4	5
146	Optimality-based model of phytoplankton growth and diazotrophy. <i>Marine Ecology - Progress Series</i> , 2013, 489, 1-16.	1.9	58
147	Introducing Periodic Parameters in a Marine Ecosystem Model Using Discrete Linear Quadratic Control. <i>International Federation for Information Processing</i> , 2013, , 481-490.	0.0	0
148	A new marine ecosystem model for the University of Victoria Earth System Climate Model. <i>Geoscientific Model Development</i> , 2012, 5, 1195-1220.	3.7	101
149	Economic prospects of ocean iron fertilization in an international carbon market. <i>Resources and Energy Economics</i> , 2012, 34, 129-150.	2.6	16
150	Diagnostics of diapycnal diffusion in z-level ocean models. Part II: 3-Dimensional OGCM. <i>Ocean Modelling</i> , 2012, 45-46, 27-36.	2.4	10
151	Mechanisms of subantarctic mode water upwelling in a hybrid-coordinate global GCM. <i>Ocean Modelling</i> , 2012, 45-46, 59-80.	2.4	1
152	Removal of organic magnesium in coccolithophore calcite. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 89, 226-239.	3.9	29
153	Enhanced carbon overconsumption in response to increasing temperatures during a mesocosm experiment. <i>Biogeosciences</i> , 2012, 9, 3531-3545.	3.4	44
154	Modeling the effects of abiotic and biotic factors on the depth distribution of <i>Fucus vesiculosus</i> in the Baltic Sea. <i>Marine Ecology - Progress Series</i> , 2012, 463, 59-72.	1.9	11
155	Phytoplankton niche generation by interspecific stoichiometric variation. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	4.7	16
156	Sensitivity analysis of simple global marine biogeochemical models. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	4.7	56
157	High sensitivity of ultra-oligotrophic marine ecosystems to atmospheric nitrogen deposition. <i>Geophysical Research Letters</i> , 2012, 39, .	3.9	10
158	Mismatch between observed and modeled trends in dissolved upper-ocean oxygen over the last 50 yr. <i>Biogeosciences</i> , 2012, 9, 4045-4057.	3.4	98
159	Preformed and regenerated phosphate in ocean general circulation models: can right total concentrations be wrong?. <i>Biogeosciences</i> , 2012, 9, 1797-1807.	3.4	50
160	Potential impact of DOM accumulation on $\text{CO}_2$ and carbonate ion computations in ocean acidification experiments. <i>Biogeosciences</i> , 2012, 9, 3787-3798.	3.4	41
161	Nitrous oxide dynamics in low oxygen regions of the Pacific: insights from the MEMENTO database. <i>Biogeosciences</i> , 2012, 9, 5007-5022.	3.4	37
162	Jelly-falls historic and recent observations: a review to drive future research directions. <i>Hydrobiologia</i> , 2012, 690, 227-245.	2.0	85

#	ARTICLE	IF	CITATIONS
163	Controls on the diversity-productivity relationship in a marine ecosystem model. Ecological Modelling, 2012, 225, 167-176.	2.5	25
164	Top-down control of marine phytoplankton diversity in a global ecosystem model. Progress in Oceanography, 2012, 101, 1-13.	3.2	120
165	Jelly-falls historic and recent observations: a review to drive future research directions. , 2012, , 227-245.		2
166	Can we predict the direction of marine primary production change under global warming?. Geophysical Research Letters, 2011, 38, n/a-n/a.	3.9	202
167	Sensitivity of simulated extent and future evolution of marine suboxia to mixing intensity. Geophysical Research Letters, 2011, 38, n/a-n/a.	3.9	56
168	Simulating the biogeochemical effects of volcanic CO2 degassing on the oxygen-state of the deep ocean during the Cenomanian/Turonian Anoxic Event (OAE2). Earth and Planetary Science Letters, 2011, 305, 371-384.	4.4	57
169	Numerical effects on organic-matter sedimentation and remineralization in biogeochemical ocean models. Ocean Modelling, 2011, 39, 275-283.	2.4	25
170	Simulated reduction in upwelling of tropical oxygen minimum waters in a warmer climate. Environmental Research Letters, 2011, 6, 045001.	5.2	3
171	Depth attenuation of organic matter export associated with jelly falls. Limnology and Oceanography, 2011, 56, 1917-1928.	3.5	36
172	Parameter optimisation techniques and the problem of underdetermination in marine biogeochemical models. Journal of Marine Systems, 2010, 81, 34-43.	2.1	119
173	Towards an assessment of simple global marine biogeochemical models of different complexity. Progress in Oceanography, 2010, 86, 337-360.	3.2	99
174	Methods for greenhouse gas offset accounting: A case study of ocean iron fertilization. Ecological Economics, 2010, 69, 2495-2509.	5.9	22
175	Ocean iron fertilization: Why further research is needed. Marine Policy, 2010, 34, 911-918.	3.2	35
176	A model-based assessment of the TrOCA approach for estimating anthropogenic carbon in the ocean. Biogeosciences, 2010, 7, 723-751.	3.4	47
177	Estimating mixed layer nitrate in the North Atlantic Ocean. Biogeosciences, 2010, 7, 795-807.	3.4	36
178	Atmospheric deposition of nutrients and excess N formation in the North Atlantic. Biogeosciences, 2010, 7, 777-793.	3.4	40
179	Side effects and accounting aspects of hypothetical large-scale Southern Ocean iron fertilization. Biogeosciences, 2010, 7, 4017-4035.	3.4	56
180	Climate engineering by artificial ocean upwelling: Channelling the sorcerer's apprentice. Geophysical Research Letters, 2010, 37, .	3.9	88

#	ARTICLE	IF	CITATIONS
181	Diagnostics of diapycnal diffusivity in z-level ocean models part I: 1-Dimensional case studies. Ocean Modelling, 2010, 35, 173-186.	2.4	17
182	Oxygen, carbon, and nutrients in the oligotrophic eastern subtropical North Atlantic. Biogeosciences, 2010, 7, 1143-1156.	3.4	21
183	Impact of atmospheric and terrestrial CO <sub>2</sub> feedbacks on fertilization-induced marine carbon uptake. Biogeosciences, 2009, 6, 1603-1613.	3.4	24
184	Stoichiometries of remineralisation and denitrification in global biogeochemical ocean models. Biogeosciences, 2009, 6, 923-935.	3.4	96
185	Sensitivities of marine carbon fluxes to ocean change. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20602-20609.	7.5	255
186	Contribution of oxygen minimum zone waters to the coastal upwelling off Mauritania. Progress in Oceanography, 2009, 83, 143-150.	3.2	24
187	Neural network-based estimates of North Atlantic surface pCO <sub>2</sub> from satellite data: A methodological study. Journal of Geophysical Research, 2009, 114, .	3.2	90
188	Basin-scale pCO <sub>2</sub> maps estimated from ARGO float data: A model study. Journal of Geophysical Research, 2009, 114, .	3.2	22
189	Low efficiency of nutrient translocation for enhancing oceanic uptake of carbon dioxide. Journal of Geophysical Research, 2009, 114, .	3.2	42
190	Correction to "Future changes in climate, ocean circulation, ecosystems, and biogeochemical cycling simulated for a business-as-usual CO <sub>2</sub> emission scenario until year 4000 AD". Global Biogeochemical Cycles, 2009, 23, .	4.7	14
191	Chain model of phytoplankton P, N and light colimitation. Marine Ecology - Progress Series, 2009, 376, 69-83.	1.9	81
192	Optimal uptake kinetics: physiological acclimation explains the pattern of nitrate uptake by phytoplankton in the ocean. Marine Ecology - Progress Series, 2009, 384, 1-12.	1.9	128
193	Estimating the storage of anthropogenic carbon in the subtropical Indian Ocean: a comparison of five different approaches. Biogeosciences, 2009, 6, 681-703.	3.4	47
194	Eddies and upper-ocean nutrient supply. Geophysical Monograph Series, 2008, , 115-130.	0.0	11
195	Impacts of Atmospheric Anthropogenic Nitrogen on the Open Ocean. Science, 2008, 320, 893-897.	19.8	986
196	Future changes in climate, ocean circulation, ecosystems, and biogeochemical cycling simulated for a business-as-usual CO <sub>2</sub> emission scenario until year 4000 AD. Global Biogeochemical Cycles, 2008, 22, .	4.7	339
197	Simulated 21st century's increase in oceanic suboxia by CO <sub>2</sub> -enhanced biotic carbon export. Global Biogeochemical Cycles, 2008, 22, .	4.7	242
198	Simulated impact of double-diffusive mixing on physical and biogeochemical upper ocean properties. Journal of Geophysical Research, 2008, 113, .	3.2	14

#	ARTICLE	IF	CITATIONS
199	Influence of nutrient utilization and remineralization stoichiometry on phytoplankton species and carbon export: A modeling study at BATS. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2008, 55, 73-107.	1.5	42
200	On the treatment of particulate organic matter sinking in large-scale models of marine biogeochemical cycles. <i>Biogeosciences</i> , 2008, 5, 55-72.	3.4	92
201	Organic nutrients and excess nitrogen in the North Atlantic subtropical gyre. <i>Biogeosciences</i> , 2008, 5, 1199-1213.	3.4	33
202	Physiological constraints on the global distribution of <i>Trichodesmium</i> : effect of temperature on diazotrophy. <i>Biogeosciences</i> , 2007, 4, 53-61.	3.4	240
203	Modelling the effect of cell-size-dependent nutrient uptake and exudation on phytoplankton size spectra. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2007, 54, 1593-1618.	1.5	18
204	Iron profiles and speciation of the upper water column at the Bermuda Atlantic Time-series Study site: a model based sensitivity study. <i>Biogeosciences</i> , 2007, 4, 689-706.	3.4	35
205	Enhanced biological carbon consumption in a high CO <sub>2</sub> ocean. <i>Nature</i> , 2007, 450, 545-548.	35.8	757
206	Adiabatic reduction of circulation-related CO <sub>2</sub> air-sea flux biases in a North Atlantic carbon-cycle model. <i>Global Biogeochemical Cycles</i> , 2006, 20, n/a-n/a.	4.7	25
207	Role of wind stress and heat fluxes in interannual-to-decadal variability of air-sea CO <sub>2</sub> and O <sub>2</sub> fluxes in the North Atlantic. <i>Geophysical Research Letters</i> , 2006, 33, .	3.9	8
208	On the Use of Data Assimilation in Biogeochemical Modelling. , 2006, , 525-547.		2
209	Modeling abiotic production of apparent oxygen utilisation in the oligotrophic subtropical North Atlantic. <i>Ocean Dynamics</i> , 2005, 55, 28-33.	2.1	12
210	Global Patterns of Predator Diversity in the Open Oceans. <i>Science</i> , 2005, 309, 1365-1369.	19.8	330
211	Basin-scale performance of a locally optimized marine ecosystem model. <i>Journal of Marine Research</i> , 2005, 63, 335-358.	0.3	38
212	Interannual variability of deep water particle flux in relation to production and lateral sources in the northeast Atlantic. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2005, 52, 33-50.	1.5	45
213	Phytoplankton distribution in the Agulhas system from a coupled physical-biological model. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2005, 52, 1300-1318.	1.5	26
214	Model-based evaluation of methods to determine C:N and N:P regeneration ratios from dissolved nutrients. <i>Global Biogeochemical Cycles</i> , 2005, 19, n/a-n/a.	4.7	12
215	A global model of the marine ecosystem for long-term simulations: Sensitivity to ocean mixing, buoyancy forcing, particle sinking, and dissolved organic matter cycling. <i>Global Biogeochemical Cycles</i> , 2005, 19, .	4.7	113
216	On the correlation between air-sea heat flux and abiotically induced oxygen gas exchange in a circulation model of the North Atlantic. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.2	11

#	ARTICLE	IF	CITATIONS
217	Introduction to the POMME special section: Thermocline ventilation and biogeochemical tracer distribution in the northeast Atlantic Ocean and impact of mesoscale dynamics. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.2	60
218	Internal-wave-induced and double-diffusive nutrient fluxes to the nutrient-consuming surface layer in the oligotrophic subtropical North Atlantic. <i>Ocean Dynamics</i> , 2004, 54, 1-7.	2.1	39
219	Biotic contribution to air-sea fluxes of CO <sub>2</sub> and O <sub>2</sub> and its relation to new production, export production, and net community production. <i>Global Biogeochemical Cycles</i> , 2004, 18, n/a-n/a.	4.7	34
220	Simulated impact of intraseasonal variations in surface heat and momentum fluxes on the pelagic ecosystem of the Arabian Sea. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.2	2
221	Feedbacks of biotically induced radiative heating on upper-ocean heat budget, circulation, and biological production in a coupled ecosystem-circulation model. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.2	36
222	An eddy-permitting, coupled ecosystem-circulation model of the Arabian Sea: comparison with observations. <i>Journal of Marine Systems</i> , 2003, 38, 221-257.	2.1	29
223	Salt-finger driven enhancement of upper ocean nutrient supply. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	3.9	34
224	Simultaneous data-based optimization of a 1D-ecosystem model at three locations in the North Atlantic: Part I—Method and parameter estimates. <i>Journal of Marine Research</i> , 2003, 61, 765-793.	0.3	129
225	Simultaneous data-based optimization of a 1D-ecosystem model at three locations in the North Atlantic: Part II—Standing stocks and nitrogen fluxes. <i>Journal of Marine Research</i> , 2003, 61, 794-820.	0.3	18
226	Can eddies make ocean deserts bloom?. <i>Global Biogeochemical Cycles</i> , 2002, 16, 53-1-53-11.	4.7	127
227	Storm-induced convective export of organic matter during spring in the northeast Atlantic Ocean. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2002, 49, 1431-1444.	1.5	29
228	Underwater light field and its effect on a one-dimensional ecosystem model at station ESTOC, north of the Canary Islands. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2002, 49, 3529-3542.	1.5	37
229	Nutrient supply to the surface waters of the North Atlantic: A model study. <i>Journal of Geophysical Research</i> , 2002, 107, 14-1.	3.2	97
230	NAO-induced long-term changes in nutrient supply to the surface waters of the North Atlantic. <i>Geophysical Research Letters</i> , 2001, 28, 1751-1754.	3.9	60
231	Formation of a basin-scale surface chlorophyll pattern by Rossby waves. <i>Geophysical Research Letters</i> , 2001, 28, 4139-4142.	3.9	43
232	Parameter estimates of a zero-dimensional ecosystem model applying the adjoint method. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 48, 1769-1800.	1.5	73
233	The role of mesoscale variability on plankton dynamics in the North Atlantic. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 48, 2199-2226.	1.5	137
234	Model-derived estimates of new production: New results point towards lower values. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 48, 2173-2197.	1.5	98

#	ARTICLE	IF	CITATIONS
235	Assimilation of altimetric data and mean sea surface height into an eddy-permitting model of the North Atlantic. <i>Progress in Oceanography</i> , 2001, 48, 313-335.	3.2	23
236	Flow through Denmark Strait. <i>Journal of Geophysical Research</i> , 2000, 105, 28527-28546.	3.2	54
237	Equatorial nutrient trapping in biogeochemical ocean models: The role of advection numerics. <i>Global Biogeochemical Cycles</i> , 2000, 14, 655-667.	4.7	30
238	An eddy-permitting coupled physical-biological model of the North Atlantic: 2. Ecosystem dynamics and comparison with satellite and JGOFS local studies data. <i>Global Biogeochemical Cycles</i> , 2000, 14, 499-523.	4.7	72
239	Seasonal sea surface height variability in the North Atlantic Ocean. <i>Journal of Geophysical Research</i> , 2000, 105, 6307-6326.	3.2	39
240	Sensitivity of ecosystem parameters to simulated satellite ocean color data using a coupled physical-biological model of the North Atlantic. <i>Journal of Marine Research</i> , 1999, 57, 613-639.	0.3	39
241	An unrealistic high-salinity tongue simulated in the tropical Atlantic: another example illustrating the need for a more careful treatment of vertical discretizations in OGCMs. <i>Ocean Modelling</i> , 1999, 1, 101-109.	2.4	7
242	An eddy-permitting coupled physical-biological model of the North Atlantic: 1. Sensitivity to advection numerics and mixed layer physics. <i>Global Biogeochemical Cycles</i> , 1999, 13, 135-160.	4.7	204
243	Eddy-induced enhancement of primary production in a model of the North Atlantic Ocean. <i>Nature</i> , 1998, 394, 266-269.	35.8	402
244	Assimilation of Geosat altimeter data into an eddy-resolving primitive equation model of the North Atlantic Ocean. <i>Journal of Geophysical Research</i> , 1996, 101, 14175-14190.	3.2	59
245	GWself-energy calculations of carrier-induced band-gap narrowing in silicon. <i>Physical Review B</i> , 1995, 51, 1527-1535.	3.3	61
246	First-principles self-energy calculations of carrier-induced band-gap narrowing in silicon. <i>Physical Review B</i> , 1992, 45, 13741-13744.	3.3	23
247	Ocean Iron Fertilization. , 0, , 242-262.		1
248	Climate targets, carbon dioxide removal, and the potential role of ocean alkalinity enhancement. , 0, 2-0ae2023, 1-9.		1
249	Aquatic deoxygenation as a planetary boundary and key regulator of Earth system stability. <i>Nature Ecology and Evolution</i> , 0, , .	7.9	0
250	Mechanisms regulating trophic transfer in the Humboldt Upwelling System differ across time scales. <i>Environmental Research Letters</i> , 0, , .	5.2	0
251	Marine carbon sink dominated by biological pump after temperature overshoot. <i>Nature Geoscience</i> , 0, , .	11.7	0
252	The response of the ocean carbon cycle to artificial upwelling, ocean iron fertilization and the combination of both. <i>Environmental Research Letters</i> , 0, , .	5.2	0