

Marion Gehlen

List of Publications by Year in descending order

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89
papers

11,010
citations

57631

44
h-index

48187

88
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134
all docs

134
docs citations

134
times ranked

13432
citing authors

#	ARTICLE	IF	CITATIONS
1	Variability of the ocean carbon cycle in response to the North Atlantic Oscillation. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 64, 18738.	0.8	27
2	A seamless ensemble-based reconstruction of surface ocean CO_2 and air-sea CO_2 fluxes over the global coastal and open oceans. <i>Biogeosciences</i> , 2022, 19, 1087-1109.	1.3	48
3	The impact of the South-East Madagascar Bloom on the oceanic CO_2 sink. <i>Biogeosciences</i> , 2022, 19, 1451-1468.	1.3	5
4	Restructuring of plankton genomic biogeography in the surface ocean under climate change. <i>Nature Climate Change</i> , 2022, 12, 393-401.	8.1	21
5	Alternate Histories: Synthetic Large Ensembles of Sea-Air CO_2 Flux. <i>Global Biogeochemical Cycles</i> , 2022, 36, .	1.9	3
6	The quiet crossing of ocean tipping points. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	64
7	Distribution and long-term change of the sea surface carbonate system in the Mozambique Channel (1963-2019). <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2021, 186-188, 104936.	0.6	8
8	Pathways to sustaining tuna-dependent Pacific Island economies during climate change. <i>Nature Sustainability</i> , 2021, 4, 900-910.	11.5	47
9	Observation system simulation experiments in the Atlantic Ocean for enhanced surface ocean CO_2 reconstructions. <i>Ocean Science</i> , 2021, 17, 1011-1030.	1.3	8
10	SeaFlux: harmonization of air-sea CO_2 fluxes from surface CO_2 data products using a standardized approach. <i>Earth System Science Data</i> , 2021, 13, 4693-4710.	3.7	51
11	The Global Pandemic Has Shown We Need an Action Plan for the Ocean. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	5
12	Copernicus Marine Service Ocean State Report, Issue 4. <i>Journal of Operational Oceanography</i> , 2020, 13, S1-S172.	0.6	47
13	Tracking Improvement in Simulated Marine Biogeochemistry Between CMIP5 and CMIP6. <i>Current Climate Change Reports</i> , 2020, 6, 95-119.	2.8	155
14	Quantification of Chaotic Intrinsic Variability of Sea-Air CO_2 Fluxes at Interannual Timescales. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088304.	1.5	4
15	The impacts of ocean acidification on marine trace gases and the implications for atmospheric chemistry and climate. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20190769.	1.0	31
16	Twenty-first century ocean warming, acidification, deoxygenation, and upper-ocean nutrient and primary production decline from CMIP6 model projections. <i>Biogeosciences</i> , 2020, 17, 3439-3470.	1.3	348
17	Global Carbon Budget 2020. <i>Earth System Science Data</i> , 2020, 12, 3269-3340.	3.7	1,477
18	On the Future of Argo: A Global, Full-Depth, Multi-Disciplinary Array. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	235

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19	Model constraints on the anthropogenic carbon budget of the Arctic Ocean. <i>Biogeosciences</i> , 2019, 16, 2343-2367.	1.3	20
20	Editorial: Biogeochemistry and Genomics of Silicification and Silicifiers. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	7
21	From Observation to Information and Users: The Copernicus Marine Service Perspective. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	135
22	LSCE-FFNN-v1: a two-step neural network model for the reconstruction of surface ocean CO_2 over the global ocean. <i>Geoscientific Model Development</i> , 2019, 12, 2091-2105.	1.3	81
23	Advancing Marine Biogeochemical and Ecosystem Reanalyses and Forecasts as Tools for Monitoring and Managing Ecosystem Health. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	62
24	Global Carbon Budget 2019. <i>Earth System Science Data</i> , 2019, 11, 1783-1838.	3.7	1,159
25	Experimental strategies to assess the biological ramifications of multiple drivers of global ocean change—A review. <i>Global Change Biology</i> , 2018, 24, 2239-2261.	4.2	285
26	Influence of diatom diversity on the ocean biological carbon pump. <i>Nature Geoscience</i> , 2018, 11, 27-37.	5.4	451
27	Transport and storage of anthropogenic C in the North Atlantic Subpolar Ocean. <i>Biogeosciences</i> , 2018, 15, 4661-4682.	1.3	7
28	The potential of Th^{230} for detection of ocean acidification impacts on pelagic carbonate production. <i>Biogeosciences</i> , 2018, 15, 3521-3539.	1.3	5
29	Competition between Silicifiers and Non-silicifiers in the Past and Present Ocean and Its Evolutionary Impacts. <i>Frontiers in Marine Science</i> , 2018, 5, .	1.2	29
30	Managing living marine resources in a dynamic environment: The role of seasonal to decadal climate forecasts. <i>Progress in Oceanography</i> , 2017, 152, 15-49.	1.5	165
31	Slow-sinking particulate organic carbon in the Atlantic Ocean: Magnitude, flux, and potential controls. <i>Global Biogeochemical Cycles</i> , 2017, 31, 1051-1065.	1.9	46
32	Manganese in the west Atlantic Ocean in the context of the first global ocean circulation model of manganese. <i>Biogeosciences</i> , 2017, 14, 1123-1152.	1.3	75
33	Variable reactivity of particulate organic matter in a global ocean biogeochemical model. <i>Biogeosciences</i> , 2017, 14, 2321-2341.	1.3	46
34	Coastal-ocean uptake of anthropogenic carbon. <i>Biogeosciences</i> , 2016, 13, 4167-4185.	1.3	74
35	Inconsistent strategies to spin up models in CMIP5: implications for ocean biogeochemical model performance assessment. <i>Geoscientific Model Development</i> , 2016, 9, 1827-1851.	1.3	68
36	Net primary productivity estimates and environmental variables in the Arctic Ocean: An assessment of coupled physical-biogeochemical models. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 8635-8669.	1.0	34

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37	Evaluation of an operational ocean model configuration at 1/12° spatial resolution for the Indonesian seas (NEMO2.3/INDO12) – Part 2: Biogeochemistry. <i>Geoscientific Model Development</i> , 2016, 9, 1523-1543.	1.3	12
38	Influence of anthropogenic aerosol deposition on the relationship between oceanic productivity and warming. <i>Geophysical Research Letters</i> , 2015, 42, 10745-10754.	1.5	40
39	Projections of oceanic N&O emissions in the 21st century using the IPSL Earth system model. <i>Biogeosciences</i> , 2015, 12, 4133-4148.	1.3	48
40	PISCES-v2: an ocean biogeochemical model for carbon and ecosystem studies. <i>Geoscientific Model Development</i> , 2015, 8, 2465-2513.	1.3	422
41	Projected impacts of climate change and ocean acidification on the global biogeography of planktonic Foraminifera. <i>Biogeosciences</i> , 2015, 12, 2873-2889.	1.3	21
42	Building the capacity for forecasting marine biogeochemistry and ecosystems: recent advances and future developments. <i>Journal of Operational Oceanography</i> , 2015, 8, s168-s187.	0.6	63
43	Synthesis of new scientific challenges for GODAE OceanView. <i>Journal of Operational Oceanography</i> , 2015, 8, s259-s271.	0.6	9
44	Spatial and body size dependent response of marine pelagic communities to projected global climate change. <i>Global Change Biology</i> , 2015, 21, 154-164.	4.2	114
45	On the effects of circulation, sediment resuspension and biological incorporation by diatoms in an ocean model of aluminium*. <i>Biogeosciences</i> , 2014, 11, 3757-3779.	1.3	29
46	Projected pH reductions by 2100 might put deep North Atlantic biodiversity at risk. <i>Biogeosciences</i> , 2014, 11, 6955-6967.	1.3	49
47	Nonlinearity of Ocean Carbon Cycle Feedbacks in CMIP5 Earth System Models. <i>Journal of Climate</i> , 2014, 27, 3869-3888.	1.2	62
48	Multiyear predictability of tropical marine productivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 11646-11651.	3.3	61
49	Global reductions in seafloor biomass in response to climate change. <i>Global Change Biology</i> , 2014, 20, 1861-1872.	4.2	155
50	Skill assessment of three earth system models with common marine biogeochemistry. <i>Climate Dynamics</i> , 2013, 40, 2549-2573.	1.7	108
51	Aluminium in an ocean general circulation model compared with the West Atlantic Geotraces cruises. <i>Journal of Marine Systems</i> , 2013, 126, 3-23.	0.9	48
52	Eddy compensation and controls of the enhanced sea-air CO ₂ flux during positive phases of the Southern Annular Mode. <i>Global Biogeochemical Cycles</i> , 2013, 27, 950-961.	1.9	43
53	Oxygen and indicators of stress for marine life in multi-model global warming projections. <i>Biogeosciences</i> , 2013, 10, 1849-1868.	1.3	140
54	Dissolved inorganic carbon and alkalinity fluxes from coastal marine sediments: model estimates for different shelf environments and sensitivity to global change. <i>Biogeosciences</i> , 2013, 10, 371-398.	1.3	142

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55	Modeling Ocean Biogeochemical Processes and the Resulting Tracer Distributions. International Geophysics, 2013, , 667-694.	0.6	4
56	Multiple stressors of ocean ecosystems in the 21st century: projections with CMIP5 models. Biogeosciences, 2013, 10, 6225-6245.	1.3	1,191
57	Standing and Transient Eddies in the Response of the Southern Ocean Meridional Overturning to the Southern Annular Mode. Journal of Climate, 2012, 25, 6958-6974.	1.2	58
58	The response of marine carbon and nutrient cycles to ocean acidification: Large uncertainties related to phytoplankton physiological assumptions. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	1.9	53
59	Deep ocean ventilation, carbon isotopes, marine sedimentation and the deglacial CO ₂ rise. Climate of the Past, 2011, 7, 771-800.	1.3	107
60	Sensitivity of pelagic calcification to ocean acidification. Biogeosciences, 2011, 8, 433-458.	1.3	47
61	Regional Impacts of Climate Change and Atmospheric CO ₂ on Future Ocean Carbon Uptake: A Multimodel Linear Feedback Analysis. Journal of Climate, 2011, 24, 2300-2318.	1.2	95
62	Biogeochemical Consequences of Ocean Acidification and Feedbacks to the Earth System. , 2011, , .		17
63	Hydrothermal contribution to the oceanic dissolved iron inventory. Nature Geoscience, 2010, 3, 252-256.	5.4	353
64	Projected 21st century decrease in marine productivity: a multi-model analysis. Biogeosciences, 2010, 7, 979-1005.	1.3	520
65	Assessing the sensitivity of modeled air-sea CO ₂ exchange to the remineralization depth of particulate organic and inorganic carbon. Global Biogeochemical Cycles, 2008, 22, .	1.9	23
66	Short-term dissolution response of pelagic carbonate sediments to the invasion of anthropogenic CO ₂ : A model study. Geochemistry, Geophysics, Geosystems, 2008, 9, .	1.0	12
67	Climate-induced interannual variability of marine primary and export production in three global coupled climate carbon cycle models. Biogeosciences, 2008, 5, 597-614.	1.3	104
68	Modeling the marine aragonite cycle: changes under rising carbon dioxide and its role in shallow water CaCO ₃ dissolution. Biogeosciences, 2008, 5, 1057-1072.	1.3	67
69	The fate of pelagic CaCO ₃ production in a high CO ₂ ocean: a model study. Biogeosciences, 2007, 4, 505-519.	1.3	114
70	Rapid post-mortem incorporation of aluminum in diatom frustules: Evidence from chemical and structural analyses. Marine Chemistry, 2007, 106, 208-222.	0.9	77
71	On the potential of ²³⁰ Th, ²³¹ Pa, and ¹⁰ Be for marine rain ratio determinations: A modeling study. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	14
72	Reconciling surface ocean productivity, export fluxes and sediment composition in a global biogeochemical ocean model. Biogeosciences, 2006, 3, 521-537.	1.3	165

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73	Reassessing the dissolution of marine carbonates: I. Solubility. Deep-Sea Research Part I: Oceanographic Research Papers, 2005, 52, 1445-1460.	0.6	23
74	Reassessing the dissolution of marine carbonates: II. Reaction kinetics. Deep-Sea Research Part I: Oceanographic Research Papers, 2005, 52, 1461-1476.	0.6	23
75	Response of diatoms distribution to global warming and potential implications: A global model study. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	332
76	Crystallinity of foraminifera shells: A proxy to reconstruct past bottom water CO ₂ -changes?. Geochemistry, Geophysics, Geosystems, 2004, 5, .	1.0	31
77	Trace element cartography of Globigerinoides rubershells using particle-induced X-ray emission. Geochemistry, Geophysics, Geosystems, 2004, 5, n/a-n/a.	1.0	15
78	Coupled Al-Si geochemistry in an ocean general circulation model: A tool for the validation of oceanic dust deposition fields?. Global Biogeochemical Cycles, 2003, 17, .	1.9	53
79	Unraveling the atomic structure of biogenic silica: evidence of the structural association of Al and Si in diatom frustules. Geochimica Et Cosmochimica Acta, 2002, 66, 1601-1609.	1.6	149
80	The role of adsorption-desorption surface reactions in controlling interstitial Si(OH) ₄ concentrations and enhancing Si(OH) ₄ turn-over in shallow shelf seas. Continental Shelf Research, 2002, 22, 1529-1547.	0.9	32
81	The relationship between Al and Si in biogenic silica as determined by PIXE and XAS. Nuclear Instruments & Methods in Physics Research B, 2002, 189, 180-184.	0.6	24
82	Detection limit improvement for Mg in marine foraminiferal calcite by using helium induced X-ray emission. Nuclear Instruments & Methods in Physics Research B, 2002, 190, 482-487.	0.6	13
83	The fate of carbon in continental shelf sediments of eastern Canada: a case study. Deep-Sea Research Part II: Topical Studies in Oceanography, 2000, 47, 733-760.	0.6	85
84	Modelling the distribution of stable carbon isotopes in porewaters of deep-sea sediments. Geochimica Et Cosmochimica Acta, 1999, 63, 2763-2773.	1.6	23
85	Drastic changes in deep-sea sediment porewater composition induced by episodic input of organic matter. Limnology and Oceanography, 1997, 42, 980-986.	1.6	42
86	Spatial and temporal variability of benthic silica fluxes in the southeastern North Sea. Continental Shelf Research, 1995, 15, 1675-1696.	0.9	54
87	Early diagenesis of silica in sandy North sea sediments: quantification of the solid phase. Marine Chemistry, 1993, 42, 71-83.	0.9	34
88	Kinetics of silica sorption on North Sea sediments. Chemical Geology, 1993, 107, 359-361.	1.4	8
89	Marine Biogeochemical Modelling and Data Assimilation for Operational Forecasting, Reanalysis, and Climate Research. , 0, , .		8