# Marion Gehlen

List of Publications by Year
in descending order



| 99 | 12,503 | 46744 | 34107 |
|---|---|---|---|
| papers | citations | 46 h-index | 97 g-index |

| 172 | 172 | 172 | 16416 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | CMEMS-LSCE: a global, 0.25Â°, monthly reconstruction of the surface ocean carbonate system. Earth System Science Data, 2024, 16, 121-160. | 8.8 | 0 |
| 2 | A Synthesis of Global Coastal Ocean Greenhouse Gas Fluxes. Global Biogeochemical Cycles, 2024, 38, . | 4.7 | 10 |
| 3 | A Synthesis of Global Coastal Ocean Greenhouse Gas Fluxes. Global Biogeochemical Cycles, 2024, 38, . | 4.7 | 0 |
| 4 | An Assessment of CO<sub>2</sub> Storage and Seaâ€Air Fluxes for the Atlantic Ocean and Mediterranean Sea Between 1985 and 2018. Global Biogeochemical Cycles, 2024, 38, . | 4.7 | 0 |
| 5 | Global Analysis of Surface Ocean CO<sub>2</sub> Fugacity and Airâ€Sea Fluxes With Low Latency. Geophysical Research Letters, 2024, 51, . | 3.9 | 0 |
| 6 | Indian Ocean Acidification and Its Driving Mechanisms Over the Last Four Decades (1980â€“2019). Global Biogeochemical Cycles, 2024, 38, . | 4.7 | 0 |
| 7 | Integrating human dimensions in decadal-scale prediction for marine socialâ€“ecological systems: lighting the grey zone. ICES Journal of Marine Science, 2023, 80, 16-30. | 2.5 | 2 |
| 8 | How does the phytoplanktonâ€“light feedback affect the marine N<sub>2</sub>O inventory?. Earth System Dynamics, 2023, 14, 399-412. | 7.0 | 6 |
| 9 | Ocean-wide comparisons of mesopelagic planktonic community structures. ISME Communications, 2023, 3, . | 4.2 | 3 |
| 10 | Seasonal Variability of the Surface Ocean Carbon Cycle: A Synthesis. Global Biogeochemical Cycles, 2023, 37, . | 4.7 | 9 |
| 11 | Climate genomicsâ€”Geoscientists, ecologists, and geneticists must reinforce their collaborations to confront climate change. Global Change Biology, 2023, 29, 5999-6001. | 9.6 | 0 |
| 12 | Magnitude, Trends, and Variability of the Global Ocean Carbon Sink From 1985 to 2018. Global Biogeochemical Cycles, 2023, 37, . | 4.7 | 22 |
| 13 | Century-scale carbon sequestration flux throughout the ocean by the biological pump. Nature Geoscience, 2023, 16, 1105-1113. | 11.7 | 4 |
| 14 | Variability of the ocean carbon cycle in response to the North Atlantic Oscillation. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 18738. | 1.6 | 27 |
| 15 | A seamless ensemble-based reconstruction of surface ocean <i>p</i>CO<sub>2</sub> and airâ€“sea CO<sub>2</sub> fluxes over the global coastal and open oceans. Biogeosciences, 2022, 19, 1087-1109. | 3.4 | 59 |
| 16 | The impact of the South-East Madagascar Bloom on the oceanic CO<sub>2</sub> sink. Biogeosciences, 2022, 19, 1451-1468. | 3.4 | 6 |
| 17 | Restructuring of plankton genomic biogeography in the surface ocean under climate change. Nature Climate Change, 2022, 12, 393-401. | 14.2 | 29 |
| 18 | Patients with gastric volvulus recurrence have high incidence of wandering spleen requiring laparoscopic gastropexy and splenopexy. Pediatric Surgery International, 2022, 38, 875-881. | 1.3 | 2 |

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|---|---|---|---|
| 19 | Alternate Histories: Synthetic Large Ensembles of Seaâ€Air CO<sub>2</sub> Flux. Global Biogeochemical Cycles, 2022, 36, . | 4.7 | 3 |
| 20 | The quiet crossing of ocean tipping points. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.5 | 75 |
| 21 | Distribution and long-term change of the sea surface carbonate system in the Mozambique Channel (1963â€“2019). Deep-Sea Research Part II: Topical Studies in Oceanography, 2021, 186-188, 104936. | 1.5 | 10 |
| 22 | Pathways to sustaining tuna-dependent Pacific Island economies during climate change. Nature Sustainability, 2021, 4, 900-910. | 20.6 | 52 |
| 23 | Observation system simulation experiments in the Atlantic Ocean for enhanced surface ocean <i>p</i>CO<sub>2</sub> reconstructions. Ocean Science, 2021, 17, 1011-1030. | 3.4 | 11 |
| 24 | SeaFlux: harmonization of airâ€“sea CO<sub>2</sub> fluxes from surface <i>p</i>CO<sub>2</sub> data products using a standardized approach. Earth System Science Data, 2021, 13, 4693-4710. | 8.8 | 62 |
| 25 | The Global Pandemic Has Shown We Need an Action Plan for the Ocean. Frontiers in Marine Science, 2021, 8, . | 2.5 | 5 |
| 26 | Copernicus Marine Service Ocean State Report, Issue 4. Journal of Operational Oceanography, 2020, 13, S1-S172. | 1.3 | 47 |
| 27 | Tracking Improvement in Simulated Marine Biogeochemistry Between CMIP5 and CMIP6. Current Climate Change Reports, 2020, 6, 95-119. | 9.2 | 179 |
| 28 | Quantification of Chaotic Intrinsic Variability of Seaâ€Air CO<sub>2</sub> Fluxes at Interannual Timescales. Geophysical Research Letters, 2020, 47, e2020GL088304. | 3.9 | 4 |
| 29 | The impacts of ocean acidification on marine trace gases and the implications forÂatmospheric chemistry andÂclimate. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190769. | 2.1 | 32 |
| 30 | Twenty-first century ocean warming, acidification, deoxygenation, and upper-ocean nutrient and primary production decline from CMIP6 model projections. Biogeosciences, 2020, 17, 3439-3470. | 3.4 | 407 |
| 31 | On the Future of Argo: A Global, Full-Depth, Multi-Disciplinary Array. Frontiers in Marine Science, 2019, 6, . | 2.5 | 261 |
| 32 | Model constraints on the anthropogenic carbon budget of the Arctic Ocean. Biogeosciences, 2019, 16, 2343-2367. | 3.4 | 20 |
| 33 | Editorial: Biogeochemistry and Genomics of Silicification and Silicifiers. Frontiers in Marine Science, 2019, 6, . | 2.5 | 7 |
| 34 | From Observation to Information and Users: The Copernicus Marine Service Perspective. Frontiers in Marine Science, 2019, 6, . | 2.5 | 147 |
| 35 | LSCE-FFNN-v1: a two-step neural network model for the reconstruction of surface ocean <i>p</i>CO<sub>2</sub> over the global ocean. Geoscientific Model Development, 2019, 12, 2091-2105. | 3.7 | 86 |
| 36 | Advancing Marine Biogeochemical and Ecosystem Reanalyses and Forecasts as Tools for Monitoring and Managing Ecosystem Health. Frontiers in Marine Science, 2019, 6, . | 2.5 | 65 |

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| 37 | Experimental strategies to assess the biological ramifications of multiple drivers of global ocean changeâ€"A review. Global Change Biology, 2018, 24, 2239-2261. | 9.6 | 307 |
| 38 | Influence of diatom diversity on the ocean biological carbon pump. Nature Geoscience, 2018, 11, 27-37. | 11.7 | 495 |
| 39 | Transport and storage of anthropogenic C in the North Atlantic Subpolar Ocean. Biogeosciences, 2018, 15, 4661-4682. | 3.4 | 7 |
| 40 | The potential of <sup>230</sup>Th for detection of ocean acidification impacts on pelagic carbonate production. Biogeosciences, 2018, 15, 3521-3539. | 3.4 | 5 |
| 41 | Competition between Silicifiers and Non-silicifiers in the Past and Present Ocean and Its Evolutionary Impacts. Frontiers in Marine Science, 2018, 5, . | 2.5 | 33 |
| 42 | Managing living marine resources in a dynamic environment: The role of seasonal to decadal climate forecasts. Progress in Oceanography, 2017, 152, 15-49. | 3.2 | 174 |
| 43 | Slowâ€sinking particulate organic carbon in the Atlantic Ocean: Magnitude, flux, and potential controls. Global Biogeochemical Cycles, 2017, 31, 1051-1065. | 4.7 | 49 |
| 44 | Manganese in the west Atlantic Ocean in the context of the first global ocean circulation model of manganese. Biogeosciences, 2017, 14, 1123-1152. | 3.4 | 81 |
| 45 | Variable reactivity of particulate organic matter in a global ocean biogeochemical model. Biogeosciences, 2017, 14, 2321-2341. | 3.4 | 47 |
| 46 | Coastal-ocean uptake of anthropogenic carbon. Biogeosciences, 2016, 13, 4167-4185. | 3.4 | 79 |
| 47 | Inconsistent strategies to spin up models in CMIP5: implications for ocean biogeochemical model performance assessment. Geoscientific Model Development, 2016, 9, 1827-1851. | 3.7 | 71 |
| 48 | Net primary productivity estimates and environmental variables in the Arctic Ocean: An assessment of coupled physical-biogeochemical models. Journal of Geophysical Research: Oceans, 2016, 121, 8635-8669. | 2.6 | 37 |
| 49 | Evaluation of an operational ocean model configuration at 1/12Â° spatial resolution for the Indonesian seas (NEMO2.3/INDO12) â€" Part 2: Biogeochemistry. Geoscientific Model Development, 2016, 9, 1523-1543. | 3.7 | 14 |
| 50 | Influence of anthropogenic aerosol deposition on the relationship between oceanic productivity and warming. Geophysical Research Letters, 2015, 42, 10745-10754. | 3.9 | 40 |
| 51 | Projections of oceanic N<sub>2</sub>O emissions in the 21st century using the IPSL Earth system model. Biogeosciences, 2015, 12, 4133-4148. | 3.4 | 52 |
| 52 | PISCES-v2: an ocean biogeochemical model for carbon and ecosystem studies. Geoscientific Model Development, 2015, 8, 2465-2513. | 3.7 | 447 |
| 53 | Projected impacts of climate change and ocean acidification on the global biogeography of planktonic Foraminifera. Biogeosciences, 2015, 12, 2873-2889. | 3.4 | 21 |
| 54 | Building the capacity for forecasting marine biogeochemistry and ecosystems: recent advances and future developments. Journal of Operational Oceanography, 2015, 8, s168-s187. | 1.3 | 64 |

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| 55 | Synthesis of new scientific challenges for GODAE OceanView. Journal of Operational Oceanography, 2015, 8, s259-s271. | 1.3 | 9 |
| 56 | Spatial and bodyâ€size dependent response of marine pelagic communities to projected global climate change. Global Change Biology, 2015, 21, 154-164. | 9.6 | 117 |
| 57 | On the effects of circulation, sediment resuspension and biological incorporation by diatoms in an ocean model of aluminium*. Biogeosciences, 2014, 11, 3757-3779. | 3.4 | 30 |
| 58 | Projected pH reductions by 2100 might put deep North Atlantic biodiversity at risk. Biogeosciences, 2014, 11, 6955-6967. | 3.4 | 50 |
| 59 | Multiyear predictability of tropical marine productivity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11646-11651. | 7.5 | 62 |
| 60 | Global reductions in seafloor biomass in response to climate change. Global Change Biology, 2014, 20, 1861-1872. | 9.6 | 159 |
| 61 | Skill assessment of three earth system models with common marine biogeochemistry. Climate Dynamics, 2013, 40, 2549-2573. | 3.8 | 109 |
| 62 | Aluminium in an ocean general circulation model compared with the West Atlantic Geotraces cruises. Journal of Marine Systems, 2013, 126, 3-23. | 2.1 | 50 |
| 63 | Eddy compensation and controls of the enhanced seaâ€toâ€air CO<sub>2</sub> flux during positive phases of the Southern Annular Mode. Global Biogeochemical Cycles, 2013, 27, 950-961. | 4.7 | 44 |
| 64 | Oxygen and indicators of stress for marine life in multi-model global warming projections. Biogeosciences, 2013, 10, 1849-1868. | 3.4 | 143 |
| 65 | Dissolved inorganic carbon and alkalinity fluxes from coastal marine sediments: model estimates for different shelf environments and sensitivity to global change. Biogeosciences, 2013, 10, 371-398. | 3.4 | 155 |
| 66 | Modeling Ocean Biogeochemical Processes and the Resulting Tracer Distributions. International Geophysics, 2013, , 667-694. | 0.3 | 4 |
| 67 | Multiple stressors of ocean ecosystems in the 21st century: projections with CMIP5 models. Biogeosciences, 2013, 10, 6225-6245. | 3.4 | 1,252 |
| 68 | 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. | 4.7 | 54 |
| 69 | Deep ocean ventilation, carbon isotopes, marine sedimentation and the deglacial CO<sub>2</sub> rise. Climate of the Past, 2011, 7, 771-800. | 3.3 | 113 |
| 70 | Sensitivity of pelagic calcification to ocean acidification. Biogeosciences, 2011, 8, 433-458. | 3.4 | 48 |
| 71 | Biogeochemical Consequences of Ocean Acidification and Feedbacks to the Earth System. , 2011, , . | | 17 |
| 72 | Hydrothermal contribution to the oceanic dissolved iron inventory. Nature Geoscience, 2010, 3, 252-256. | 11.7 | 366 |

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| 73 | Projected 21st century decrease in marine productivity: a multi-model analysis. Biogeosciences, 2010, 7, 979-1005. | 3.4 | 529 |
| 74 | Assessing the sensitivity of modeled airâ€sea CO<sub>2</sub> exchange to the remineralization depth of particulate organic and inorganic carbon. Global Biogeochemical Cycles, 2008, 22, . | 4.7 | 23 |
| 75 | Shortâ€term dissolution response of pelagic carbonate sediments to the invasion of anthropogenic CO<sub>2</sub>: A model study. Geochemistry, Geophysics, Geosystems, 2008, 9, . | 2.5 | 12 |
| 76 | Climate-induced interannual variability of marine primary and export production in three global coupled climate carbon cycle models. Biogeosciences, 2008, 5, 597-614. | 3.4 | 104 |
| 77 | Modeling the marine aragonite cycle: changes under rising carbon dioxide and its role in shallow water CaCO<sub>3</sub> dissolution. Biogeosciences, 2008, 5, 1057-1072. | 3.4 | 69 |
| 78 | The fate of pelagic CaCO<sub>3</sub> production in a high CO<sub>2</sub> ocean: a model study. Biogeosciences, 2007, 4, 505-519. | 3.4 | 118 |
| 79 | Rapid post-mortem incorporation of aluminum in diatom frustules: Evidence from chemical and structural analyses. Marine Chemistry, 2007, 106, 208-222. | 2.3 | 79 |
| 80 | On the potential of230Th,231Pa, and10Be for marine rain ratio determinations: A modeling study. Global Biogeochemical Cycles, 2006, 20, n/a-n/a. | 4.7 | 14 |
| 81 | Reconciling surface ocean productivity, export fluxes and sediment composition in a global biogeochemical ocean model. Biogeosciences, 2006, 3, 521-537. | 3.4 | 169 |
| 82 | Reassessing the dissolution of marine carbonates: I. Solubility. Deep-Sea Research Part I: Oceanographic Research Papers, 2005, 52, 1445-1460. | 1.5 | 23 |
| 83 | Reassessing the dissolution of marine carbonates: II. Reaction kinetics. Deep-Sea Research Part I: Oceanographic Research Papers, 2005, 52, 1461-1476. | 1.5 | 24 |
| 84 | Response of diatoms distribution to global warming and potential implications: A global model study. Geophysical Research Letters, 2005, 32, n/a-n/a. | 3.9 | 341 |
| 85 | Crystallinity of foraminifera shells: A proxy to reconstruct past bottom water CO3=changes?. Geochemistry, Geophysics, Geosystems, 2004, 5, . | 2.5 | 31 |
| 86 | Trace element cartography ofGlobigerinoides rubershells using particle-induced X-ray emission. Geochemistry, Geophysics, Geosystems, 2004, 5, n/a-n/a. | 2.5 | 15 |
| 87 | 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, . | 4.7 | 54 |
| 88 | 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. | 3.9 | 152 |
| 89 | The role of adsorptionâ€“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. | 1.9 | 32 |
| 90 | 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. | 1.4 | 24 |

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| 91 | 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. | 1.4 | 13 |
| 92 | 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. | 1.5 | 86 |
| 93 | Modelling the distribution of stable carbon isotopes in porewaters of deep-sea sediments. Geochimica Et Cosmochimica Acta, 1999, 63, 2763-2773. | 3.9 | 23 |
| 94 | Drastic changes in deep-sea sediment porewater composition induced by episodic input of organic matter. Limnology and Oceanography, 1997, 42, 980-986. | 3.5 | 42 |
| 95 | Spatial and temporal variability of benthic silica fluxes in the southeastern North Sea. Continental Shelf Research, 1995, 15, 1675-1696. | 1.9 | 54 |
| 96 | Early diagenesis of silica in sandy North sea sediments: quantification of the solid phase. Marine Chemistry, 1993, 42, 71-83. | 2.3 | 34 |
| 97 | Kinetics of silica sorption on North Sea sediments. Chemical Geology, 1993, 107, 359-361. | 3.3 | 8 |
| 98 | Marine Biogeochemical Modelling and Data Assimilation for Operational Forecasting, Reanalysis, and Climate Research. , 0, , . | | 10 |
| 99 | The state of the ocean in the northeastern Atlantic and adjacent seas. , 0, 4-osr8, 1-32. | | 0 |