Tim DeVries

List of Publications by Year in descending order

51 papers	3,185 citations	201674 27 h-index	189892 50 g-index
53 all docs	53 docs citations	53 times ranked	3683 citing authors

#	Article	IF	Citations
1	Quantifying the Carbon Export and Sequestration Pathways of the Ocean's Biological Carbon Pump. Global Biogeochemical Cycles, 2022, 36, .	4.9	63
2	Atmospheric CO₂ and Sea Surface Temperature Variability Cannot Explain Recent Decadal Variability of the Ocean CO₂ Sink. Geophysical Research Letters, 2022, 49, .	4.0	19
3	Decline in the Nutrient Inventories of the Upper Subtropical Northwest Pacific Ocean. Geophysical Research Letters, 2022, 49, .	4.0	3
4	Data-based estimates of interannual seaâ€“air CO₂ flux variations 1957â€“2020 and their relation to environmental drivers. Biogeosciences, 2022, 19, 2627-2652.	3.3	21
5	Preformed Properties for Marine Organic Matter and Carbonate Mineral Cycling Quantification. Global Biogeochemical Cycles, 2021, 35, e2020GB006623.	4.9	25
6	Reviews and syntheses: The biogeochemical cycle of silicon in the modern ocean. Biogeosciences, 2021, 18, 1269-1289.	3.3	124
7	CYCLOCIM: A 4-D variational assimilation system for the climatological mean seasonal cycle of the ocean circulation. Ocean Modelling, 2021, 159, 101762.	2.4	3
8	On the effects of the ocean on atmospheric CFC-11 lifetimes and emissions. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2021528118.	7.1	5
9	Stable Carbon Isotopes Suggest Large Terrestrial Carbon Inputs to the Global Ocean. Global Biogeochemical Cycles, 2021, 35, e2020GB006684.	4.9	18
10	Global Contrasts Between Oceanic Cycling of Cadmium and Phosphate. Global Biogeochemical Cycles, 2021, 35, e2021GB006952.	4.9	14
11	Diffusion controls the ventilation of a Pacific Shadow Zone above abyssal overturning. Nature Communications, 2021, 12, 4348.	12.8	29
12	20th century cooling of the deep ocean contributed to delayed acceleration of Earthâ€™s energy imbalance. Nature Communications, 2021, 12, 4604.	12.8	27
13	Assessing the sequestration time scales of some ocean-based carbon dioxide reduction strategies. Environmental Research Letters, 2021, 16, 104003.	5.2	61
14	Estimating global biomass and biogeochemical cycling of marine fish with and without fishing. Science Advances, 2021, 7, eabd7554.	10.3	54
15	AWESOME OCIM: A simple, flexible, and powerful tool for modeling elemental cycling in the oceans. Chemical Geology, 2020, 533, 119403.	3.3	15
16	Diagnosing Mechanisms of Ocean Carbon Export in a Satellite-Based Food Web Model. Frontiers in Marine Science, 2020, 7, .	2.5	30
17	Constraining the Global Ocean Cu Cycle With a Dataâ€Assimilated Diagnostic Model. Global Biogeochemical Cycles, 2020, 34, e2020GB006741.	4.9	7
18	Reversible scavenging traps hydrothermal iron in the deep ocean. Earth and Planetary Science Letters, 2020, 542, 116297.	4.4	21

#	Article	IF	Citations
19	Correcting Biases in Historical Bathythermograph Data Using Artificial Neural Networks. Journal of Atmospheric and Oceanic Technology, 2020, 37, 1781-1800.	1.3	3
20	Global trends in marine nitrate N isotopes from observations and a neural network-based climatology. Biogeosciences, 2019, 16, 2617-2633.	3.3	22
21	Ventilation of the Deep Ocean Carbon Reservoir During the Last Deglaciation: Results From the Southeast Pacific. Paleoceanography and Paleoclimatology, 2019, 34, 2080-2097.	2.9	4
22	The interplay between regeneration and scavenging fluxes drives ocean iron cycling. Nature Communications, 2019, 10, 4960.	12.8	41
23	The Ocean's Global 39 Ar Distribution Estimated With an Ocean Circulation Inverse Model. Geophysical Research Letters, 2019, 46, 7491-7499.	4.0	4
24	Decadal trends in the ocean carbon sink. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11646-11651.	7.1	94
25	Radiocarbon and Helium Isotope Constraints on Deep Ocean Ventilation and Mantleâ€³He Sources. Journal of Geophysical Research: Oceans, 2019, 124, 3036-3057.	2.6	54
26	Diatom Physiology Controls Silicic Acid Leakage in Response to Iron Fertilization. Global Biogeochemical Cycles, 2019, 33, 1631-1653.	4.9	0
27	New directions for ocean nutrients. Nature Geoscience, 2018, 11, 15-16.	12.9	4
28	Biogeochemical cycling of Fe and Fe stable isotopes in the Eastern Tropical South Pacific. Marine Chemistry, 2018, 201, 66-76.	2.3	42
29	The Internal Cycling of Zinc in the Ocean. Global Biogeochemical Cycles, 2018, 32, 1833-1849.	4.9	31
30	Biological uptake and reversible scavenging of zinc in the global ocean. Science, 2018, 361, 72-76.	12.6	112
31	How Data Set Characteristics Influence Ocean Carbon Export Models. Global Biogeochemical Cycles, 2018, 32, 1312-1328.	4.9	33
32	Objective estimates of mantle 3He in the ocean and implications for constraining the deep ocean circulation. Earth and Planetary Science Letters, 2017, 458, 305-314.	4.4	23
33	The export and fate of organic matter in the ocean: New constraints from combining satellite and oceanographic tracer observations. Global Biogeochemical Cycles, 2017, 31, 535-555.	4.9	165
34	Recent increase in oceanic carbon uptake driven by weaker upper-ocean overturning. Nature, 2017, 542, 215-218.	27.8	242
35	Controls on the Cadmiumâ€Phosphate Relationship in the Tropical South Pacific. Global Biogeochemical Cycles, 2017, 31, 1516-1527.	4.9	16
36	Efficient dissolved organic carbon production and export in the oligotrophic ocean. Nature Communications, 2017, 8, 2036.	12.8	106

#	Article	IF	Citations
37	Constraints on the global marine iron cycle from a simple inverse model. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 28-51.	3.0	14
38	Deep ocean nutrients imply large latitudinal variation in particle transfer efficiency. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8606-8611.	7.1	118
39	A mechanistic particle flux model applied to the oceanic phosphorus cycle. Biogeosciences, 2014, 11, 5381-5398.	3.3	36
40	Large-scale variations in the stoichiometry of marine organic matter respiration. Nature Geoscience, 2014, 7, 890-894.	12.9	94
41	The oceanic anthropogenic CO₂ sink: Storage, airâ€sea fluxes, and transports over the industrial era. Global Biogeochemical Cycles, 2014, 28, 631-647.	4.9	207
42	The Southern Ocean silicon trap: Dataâ€constrained estimates of regenerated silicic acid, trapping efficiencies, and global transport paths. Journal of Geophysical Research: Oceans, 2014, 119, 313-331.	2.6	56
43	Global estimate of submarine groundwater discharge based on an observationally constrained radium isotope model. Geophysical Research Letters, 2014, 41, 8438-8444.	4.0	236
44	Carbon isotope records reveal precise timing of enhanced Southern Ocean upwelling during the last deglaciation. Nature Communications, 2013, 4, 2758.	12.8	112
45	Recent Changes in the Ventilation of the Southern Oceans. Science, 2013, 339, 568-570.	12.6	129
46	Southern Ocean nutrient trapping and the efficiency of the biological pump. Journal of Geophysical Research: Oceans, 2013, 118, 2547-2564.	2.6	73
47	Marine denitrification rates determined from a global 3-D inverse model. Biogeosciences, 2013, 10, 2481-2496.	3.3	121
48	Global rates of water-column denitrification derived from nitrogen gas measurements. Nature Geoscience, 2012, 5, 547-550.	12.9	132
49	The sequestration efficiency of the biological pump. Geophysical Research Letters, 2012, 39, .	4.0	122
50	Dynamically and Observationally Constrained Estimates of Water-Mass Distributions and Ages in the Global Ocean. Journal of Physical Oceanography, 2011, 41, 2381-2401.	1.7	168
51	An improved method for estimating water-mass ventilation age from radiocarbon data. Earth and Planetary Science Letters, 2010, 295, 367-378.	4.4	27