

Helmuth Thomas

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

2,230
citations

279798

23
h-index

254184

43
g-index

82
all docs

82
docs citations

82
times ranked

2832
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced Open Ocean Storage of CO ₂ from Shelf Sea Pumping. <i>Science</i> , 2004, 304, 1005-1008.	12.6	471
2	Mechanisms of microbial carbon sequestration in the ocean – future research directions. <i>Biogeosciences</i> , 2014, 11, 5285-5306.	3.3	177
3	The seasonal cycle of carbon dioxide in Baltic Sea surface waters. <i>Journal of Marine Systems</i> , 1999, 22, 53-67.	2.1	134
4	Changes in the North Atlantic Oscillation influence CO ₂ uptake in the North Atlantic over the past 2 decades. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	4.9	127
5	The North Sea – A shelf sea in the Anthropocene. <i>Journal of Marine Systems</i> , 2015, 141, 18-33.	2.1	99
6	Rapid decline of the CO ₂ buffering capacity in the North Sea and implications for the North Atlantic Ocean. <i>Global Biogeochemical Cycles</i> , 2007, 21, .	4.9	97
7	The continental shelf pump for CO ₂ in the North Sea – evidence from summer observation. <i>Marine Chemistry</i> , 2005, 93, 131-147.	2.3	91
8	Surface ocean CO ₂ seasonality and sea-air CO ₂ flux estimates for the North American east coast. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 5439-5460.	2.6	87
9	The carbonate system in the North Sea: Sensitivity and model validation. <i>Journal of Marine Systems</i> , 2012, 102-104, 1-13.	2.1	85
10	Ocean and Coastal Acidification off New England and Nova Scotia. <i>Oceanography</i> , 2015, 25, 182-197.	1.0	80
11	Assessment of the processes controlling the seasonal variations of dissolved inorganic carbon in the North Sea. <i>Limnology and Oceanography</i> , 2006, 51, 2746-2762.	3.1	72
12	Coastal ocean and shelf-sea biogeochemical cycling of trace elements and isotopes: lessons learned from GEOTRACES. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20160076.	3.4	56
13	Impact of sea-ice processes on the carbonate system and ocean acidification at the ice-water interface of the Amundsen Gulf, Arctic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 7001-7023.	2.6	55
14	Impact of biogeochemical processes and environmental factors on the calcium carbonate saturation state in the Circumpolar Flaw Lead in the Amundsen Gulf, Arctic Ocean. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	49
15	Mechanisms controlling the air-sea flux in the North Sea. <i>Continental Shelf Research</i> , 2009, 29, 1801-1808.	1.8	46
16	The isotopic signature of particulate organic C and N in bottom ice: Key influencing factors and applications for tracing the fate of ice-algae in the Arctic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 287-300.	2.6	44
17	Nitrogen and carbon cycling in the North Sea and exchange with the North Atlantic – A model study, Part II: Carbon budget and fluxes. <i>Continental Shelf Research</i> , 2010, 30, 1701-1716.	1.8	43
18	Looking beyond stratification: a model-based analysis of the biological drivers of oxygen deficiency in the North Sea. <i>Biogeosciences</i> , 2016, 13, 2511-2535.	3.3	43

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19	Correcting a major error in assessing organic carbon pollution in natural waters. <i>Science Advances</i> , 2021, 7, .	10.3	37
20	Variability of North Sea pH and CO ₂ in response to North Atlantic Oscillation forcing. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 1584-1592.	3.0	33
21	Comment on "Dilution limits dissolved organic carbon utilization in the deep ocean". <i>Science</i> , 2015, 350, 1483-1483.	12.6	33
22	Impact of ocean acidification on Arctic phytoplankton blooms and dimethyl sulfide concentration under simulated ice-free and under-ice conditions. <i>Biogeosciences</i> , 2017, 14, 2407-2427.	3.3	32
23	Rapid increase of observed DIC and pCO ₂ in the surface waters of the North Sea in the 2001-2011 decade ascribed to climate change superimposed by biological processes. <i>Marine Chemistry</i> , 2015, 177, 566-581.	2.3	31
24	Sediment-water column fluxes of carbon, oxygen and nutrients in Bedford Basin, Nova Scotia, inferred from $\delta^{13}C_{org}$ measurements. <i>Biogeosciences</i> , 2013, 10, 53-66.	3.3	25
25	Application and assessment of a membrane-based pCO ₂ sensor under field and laboratory conditions. <i>Limnology and Oceanography: Methods</i> , 2014, 12, 264-280.	2.0	23
26	Barium and carbon fluxes in the Canadian Arctic Archipelago. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	21
27	The effect of seasonality in phytoplankton community composition on CO ₂ uptake on the Scotian Shelf. <i>Journal of Marine Systems</i> , 2015, 147, 52-60.	2.1	16
28	Inorganic carbon cycling and biogeochemical processes in an Arctic inland sea (Hudson Bay). <i>Biogeosciences</i> , 2016, 13, 4659-4671.	3.3	16
29	Metagenomic evidence for the microbial transformation of carboxyl-rich alicyclic molecules: A long-term macrocosm experiment. <i>Water Research</i> , 2022, 216, 118281.	11.3	11
30	Spatial variations in CO ₂ fluxes in the Saguenay Fjord (Quebec, Canada). <i>Journal of Geophysical Research</i> , 2010, 115, 10D01.	3.3	10
31	Different oceanic features of anthropogenic CO ₂ and CFCs. <i>Die Naturwissenschaften</i> , 2002, 89, 399-403.	1.6	8
32	Biogeochemistry of coastal seas and continental shelves " Including biogeochemistry during the International Polar Year. <i>Estuarine, Coastal and Shelf Science</i> , 2012, 100, 1-2.	2.1	8
33	Seasonal and spatial variability in the CO ₂ system on the Scotian Shelf (Northwest Atlantic). <i>Marine Chemistry</i> , 2014, 160, 42-55.	2.3	8
34	The recent state and variability of the carbonate system of the Canadian Arctic Archipelago and adjacent basins in the context of ocean acidification. <i>Biogeosciences</i> , 2020, 17, 3923-3942.	3.3	8
35	A modelling study of temporal and spatial $\delta^{13}C_{org}$ variability on the biologically active and temperature-dominated Scotian Shelf. <i>Biogeosciences</i> , 2021, 18, 6271-6286.	3.3	8
36	Revisiting the Estimate of the North Sea Air-Sea Flux of CO ₂ in 2001/2002: The Dominant Role of Different Wind Data Products. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 1511-1525.	3.0	7

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37	Inorganic carbon fluxes on the Mackenzie Shelf of the Beaufort Sea. <i>Biogeosciences</i> , 2018, 15, 1011-1027.	3.3	7
38	Strong Margin Influence on the Arctic Ocean Barium Cycle Revealed by Pan-Arctic Synthesis. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	2.6	6
39	Using $\delta^{26}\text{Ra}$ and $\delta^{28}\text{Ra}$ isotopes to distinguish water mass distribution in the Canadian Arctic Archipelago. <i>Biogeosciences</i> , 2020, 17, 4937-4959.	3.3	5
40	Hurricane Arthur and its effect on the short-term variability of CO_2 on the Scotian Shelf, NW Atlantic. <i>Biogeosciences</i> , 2018, 15, 2111-2123.	3.3	4
41	The impact of intertidal areas on the carbonate system of the southern North Sea. <i>Biogeosciences</i> , 2020, 17, 4223-4245.	3.3	3
42	The Future of Marine Biogeochemistry, Ecosystems, and Societies. <i>Eos</i> , 2013, 94, 184-184.	0.1	2
43	High-frequency variability of CO_2 in Grand Passage, Bay of Fundy, Nova Scotia. <i>Biogeosciences</i> , 2019, 16, 605-616.	3.3	1
44	Continental Margins: Linking Ecosystems: Impacts of Global, Local and Human Forcings on Biogeochemical Cycles and Ecosystems, IMBER/LOICZ Continental Margins Open Science Conference; Shanghai, China, 17-21 September 2007. <i>Eos</i> , 2008, 89, 64.	0.1	0