Mario Hoppema

List of Publications by Year
in descending order

90 papers	9,561 citations	94433 37 h-index	43889 91 g-index
107 all docs	107 docs citations	107 times ranked	11014 citing authors

#	Article	IF	Citations
1	Abruptly attenuated carbon sequestration with Weddell Sea dense waters by 2100. Nature Communications, 2022, 13, .	12.8	12
2	A vision for FAIR ocean data products. Communications Earth & Environment, 2021, 2, .	6.8	11
3	Calcium carbonate saturation states along the West Antarctic Peninsula. Antarctic Science, 2021, 33, 575-595.	0.9	1
4	An updated version of the global interior ocean biogeochemical data product, GLODAPv2.2021. Earth System Science Data, 2021, 13, 5565-5589.	9.9	54
5	Sea-ice derived meltwater stratification slows the biological carbon pump: results from continuous observations. Nature Communications, 2021, 12, 7309.	12.8	31
6	Multidecadal Warming and Density Loss in the Deep Weddell Sea, Antarctica. Journal of Climate, 2020, 33, 9863-9881.	3.2	19
7	A global monthly climatology of oceanic total dissolved inorganic carbon: a neural network approach. Earth System Science Data, 2020, 12, 1725-1743.	9.9	22
8	An updated version of the global interior ocean biogeochemical data product, GLODAPv2.2020. Earth System Science Data, 2020, 12, 3653-3678.	9.9	76
9	Review of Ostracoda (Crustacea) living below the Carbonate Compensation Depth and the deepest record of a calcified ostracod. Progress in Oceanography, 2019, 178, 102144.	3.2	9
10	Reframing the carbon cycle of the subpolar Southern Ocean. Science Advances, 2019, 5, eaav6410.	10.3	25
11	The Weddell Gyre, Southern Ocean: Present Knowledge and Future Challenges. Reviews of Geophysics, 2019, 57, 623-708.	23.0	105
12	The oceanic sink for anthropogenic CO ₂ from 1994 to 2007. Science, 2019, 363, 1193-1199.	12.6	505
13	Winter weather controls net influx of atmospheric CO2 on the north-west European shelf. Scientific Reports, 2019, 9, 20153.	3.3	25
14	A global monthly climatology of total alkalinity: a neural network approach. Earth System Science Data, 2019, 11, 1109-1127.	9.9	31
15	GLODAPv2.2019 â€“ an update of GLODAPv2. Earth System Science Data, 2019, 11, 1437-1461.	9.9	102
16	Variability of nutrients and carbon dioxide in the Antarctic Intermediate Water between 1990 and 2014. Ocean Dynamics, 2018, 68, 295-308.	2.2	13
17	Arctic Ocean CO₂ uptake: an improved multiyear estimate of the airâ€“sea CO₂ flux incorporating chlorophyllÂ<i>a</i> concentrations. Biogeosciences, 2018, 15, 1643-1661.	3.3	56
18	Global Carbon Budget 2018. Earth System Science Data, 2018, 10, 2141-2194.	9.9	1,167

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19	Importance of deep mixing and silicic acid in regulating phytoplankton biomass and community in the iron-limited Antarctic Polar Front region in summer. Deep-Sea Research Part II: Topical Studies in Oceanography, 2017, 138, 74-85.	1.4	12
20	Mesoscale features create hotspots of carbon uptake in the Antarctic Circumpolar Current. Deep-Sea Research Part II: Topical Studies in Oceanography, 2017, 138, 39-51.	1.4	20
21	Particulate organic carbon export across the Antarctic Circumpolar Current at 10Â°E: Differences between north and south of the Antarctic Polar Front. Deep-Sea Research Part II: Topical Studies in Oceanography, 2017, 138, 86-101.	1.4	20
22	Controls of primary production in two phytoplankton blooms in the Antarctic Circumpolar Current. Deep-Sea Research Part II: Topical Studies in Oceanography, 2017, 138, 63-73.	1.4	42
23	Temporal changes in ventilation and the carbonate system in the Atlantic sector of the Southern Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2017, 138, 26-38.	1.4	13
24	Mercury and methylmercury in the Atlantic sector of the Southern Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2017, 138, 52-62.	1.4	18
25	Transient tracer distributions in the Fram Strait in 2012 and inferred anthropogenic carbon content and transport. Ocean Science, 2016, 12, 319-333.	3.4	28
26	Mapping of the airâ€“sea CO2 flux in the Arctic Ocean and its adjacent seas: Basin-wide distribution and seasonal to interannual variability. Polar Science, 2016, 10, 323-334.	1.2	67
27	Meteorology and oceanography of the Atlantic sector of the Southern Oceanâ€”a review of German achievements from the last decade. Ocean Dynamics, 2016, 66, 1379-1413.	2.2	12
28	Estimating the recharge properties of the deep ocean using noble gases and helium isotopes. Journal of Geophysical Research: Oceans, 2016, 121, 5959-5979.	2.6	21
29	The Global Ocean Data Analysis Project version 2 (GLODAPv2) â€“ an internally consistent data product for the world ocean. Earth System Science Data, 2016, 8, 297-323.	9.9	424
30	A new global interior ocean mapped climatology: the 1Â°â€¯Ã—â€‰â€¯1Â° GLODAP version 2. Earth System Science Data, 2016, 8, 325-340.	9.9	284
31	A multi-decade record of high-quality <i>f</i>CO₂ data in version 3 of the Surface Ocean CO₂ Atlas (SOCAT). Earth System Science Data, 2016, 8, 383-413.	9.9	413
32	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	9.9	905
33	Biological and physical controls on N₂, O₂, and CO₂ distributions in contrasting Southern Ocean surface waters. Global Biogeochemical Cycles, 2015, 29, 994-1013.	4.9	22
34	Carbon dynamics of the Weddell Gyre, Southern Ocean. Global Biogeochemical Cycles, 2015, 29, 288-306.	4.9	24
35	The reinvigoration of the Southern Ocean carbon sink. Science, 2015, 349, 1221-1224.	12.6	331
36	Distributions, trends and inter-annual variability of nutrients along a repeat section through the Weddell Sea (1996â€“2011). Marine Chemistry, 2015, 177, 545-553.	2.3	20

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37	Global carbon budget 2014. Earth System Science Data, 2015, 7, 47-85.	9.9	463
38	Perspectives of transient tracer applications and limiting cases. Ocean Science, 2015, 11, 699-718.	3.4	28
39	The contribution of the Weddell Gyre to the lower limb of the Global Overturning Circulation. Journal of Geophysical Research: Oceans, 2014, 119, 3357-3377.	2.6	61
40	Rapid invasion of anthropogenic CO₂into the deep circulation of the Weddell Gyre. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130056.	3.4	26
41	Late summer net community production in the central Arctic Ocean using multiple approaches. Global Biogeochemical Cycles, 2014, 28, 1129-1148.	4.9	39
42	An update to the Surface Ocean CO₂ Atlas (SOCAT version 2). Earth System Science Data, 2014, 6, 69-90.	9.9	158
43	Decline of deep and bottom water ventilation and slowing down of anthropogenic carbon storage in the Weddell Sea, 1984â€“2011. Deep-Sea Research Part I: Oceanographic Research Papers, 2013, 76, 66-84.	1.4	45
44	Insignificant buffering capacity of Antarctic shelf carbonates. Global Biogeochemical Cycles, 2013, 27, 11-20.	4.9	6
45	Seasonally different carbon flux changes in the Southern Ocean inâ€‰response to the southern annular mode. Global Biogeochemical Cycles, 2013, 27, 1236-1245.	4.9	107
46	Seaâ€“air CO₂ fluxes in the Southern Ocean for the period 1990â€“2009. Biogeosciences, 2013, 10, 4037-4054.	3.3	162
47	A uniform, quality controlled Surface Ocean CO₂ Atlas (SOCAT). Earth System Science Data, 2013, 5, 125-143.	9.9	158
48	Surface Ocean CO₂ Atlas (SOCAT) gridded data products. Earth System Science Data, 2013, 5, 145-153.	9.9	101
49	Distribution and mineralogy of carbonate sediments on Antarctic shelves. Journal of Marine Systems, 2012, 90, 77-87.	2.1	36
50	An update of anthropogenic CO2 storage rates in the western South Atlantic basin and the role of Antarctic Bottom Water. Journal of Marine Systems, 2012, 94, 197-203.	2.1	39
51	Warming of deep and abyssal water masses along the Greenwich meridian on decadal time scales: The Weddell gyre as a heat buffer. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 2509-2523.	1.4	83
52	Variations of Winter Water properties and sea ice along the Greenwich meridian on decadal time scales. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 2524-2532.	1.4	13
53	Direct observation of increasing CO2 in the Weddell Gyre along the Prime Meridian during 1973â€“2008. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 2613-2635.	1.4	48
54	Distribution of barium in the Weddell Gyre: Impact of circulation and biogeochemical processes. Marine Chemistry, 2010, 122, 118-129.	2.3	31

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55	Spatiotemporal variations of <i>f</i>CO₂ in the North Sea. Ocean Science, 2010, 6, 77-89.	3.4	44
56	High productivity in an ice melting hot spot at the eastern boundary of the Weddell Gyre. Global Biogeochemical Cycles, 2010, 24, .	4.9	21
57	Dataâ€based estimation of anthropogenic carbon and acidification in the Weddell Sea on a decadal timescale. Journal of Geophysical Research, 2010, 115, .	3.3	29
58	Expanding Carbon Data Collection From the Ocean's Interior. Eos, 2010, 91, 457-458.	0.1	6
59	The CARINA data synthesis project: introduction and overview. Earth System Science Data, 2010, 2, 105-121.	9.9	116
60	Assessing the internal consistency of the CARINA database in the Indian sector of the Southern Ocean. Earth System Science Data, 2010, 2, 51-70.	9.9	14
61	Climatological mean and decadal change in surface ocean pCO2, and net seaâ€“air CO2 flux over the global oceans. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 554-577.	1.4	1,540
62	Consistency of cruise data of the CARINA database in the Atlantic sector of the Southern Ocean. Earth System Science Data, 2009, 1, 63-75.	9.9	17
63	A rapid transition from ice covered CO₂â€“rich waters to a biologically mediated CO₂ sink in the eastern Weddell Gyre. Biogeosciences, 2008, 5, 1373-1386.	3.3	50
64	Chapter 6 Biogeochemistry of Polynyas and Their Role in Sequestration of Anthropogenic Constituents. Elsevier Oceanography Series, 2007, 74, 193-221.	0.1	15
65	Whole season net community production in the Weddell Sea. Polar Biology, 2007, 31, 101-111.	1.2	32
66	Causes of deep-water variation: Comment on the paper by L.H. Smedsrud â€œWarming of the deep water in the Weddell Sea along the Greenwich meridian: 1977â€“2001â€. Deep-Sea Research Part I: Oceanographic Research Papers, 2006, 53, 574-577.	1.4	6
67	The transport of the Weddell Gyre across the Prime Meridian. Deep-Sea Research Part II: Topical Studies in Oceanography, 2005, 52, 513-528.	1.4	88
68	Decadal-scale variations of water mass properties in the deep Weddell Sea. Ocean Dynamics, 2004, 54, 77-91.	2.2	113
69	Weddell Sea turned from source to sink for atmospheric CO2 between pre-industrial time and present. Global and Planetary Change, 2004, 40, 219-231.	3.5	24
70	Interannual controls on Weddell Sea surface water fCO2 during the autumnâ€“winter transition phase. Deep-Sea Research Part I: Oceanographic Research Papers, 2004, 51, 793-808.	1.4	16
71	Weddell Sea is a globally significant contributor to deep-sea sequestration of natural carbon dioxide. Deep-Sea Research Part I: Oceanographic Research Papers, 2004, 51, 1169-1177.	1.4	30
72	Substantial advective iron loss diminishes phytoplankton production in the Antarctic Zone. Global Biogeochemical Cycles, 2003, 17, .	4.9	40

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73	Repeated CFC sections at the Greenwich Meridian in the Weddell Sea. Journal of Geophysical Research, 2002, 107, 5-1.	3.3	40
74	Annual export production in the interior Weddell Gyre estimated from a chemical mass balance of nutrients. Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 1675-1689.	1.4	28
75	Renewal time and transport of unventilated Central Intermediate Water of the Weddell Sea derived from biogeochemical properties. Journal of Marine Research, 2002, 60, 677-697.	0.3	8
76	Direct measurements reveal insignificant storage of anthropogenic CO2in the Abyssal Weddell Sea. Geophysical Research Letters, 2001, 28, 1747-1750.	4.0	26
77	Prominent renewal of Weddell Sea Deep Water from a remote source. Journal of Marine Research, 2001, 59, 257-279.	0.3	44
78	Interannual variations of the Antarctic Ocean CO2 uptake from 1986 to 1994. Marine Chemistry, 2000, 72, 103-114.	2.3	21
79	CO2 in the Weddell Gyre and Antarctic Circumpolar Current: austral autumn and early winter. Marine Chemistry, 2000, 72, 203-220.	2.3	31
80	Intense nutrient removal in the remote area off Larsen Ice Shelf (Weddell Sea). Polar Biology, 2000, 23, 85-94.	1.2	22
81	Redfield behavior of carbon, nitrogen, and phosphorus depletions in Antarctic surface water. Limnology and Oceanography, 1999, 44, 220-224.	3.1	47
82	Annual uptake of atmospheric CO2 by the Weddell Sea derived from a surface layer balance, including estimations of entrainment and new production. Journal of Marine Systems, 1999, 19, 219-233.	2.1	52
83	On the relation between organic and inorganic carbon in the Weddell Sea. Journal of Marine Systems, 1998, 17, 59-76.	2.1	42
84	Increase of carbon dioxide in the bottom water of the Weddell Sea, Antarctica. Marine Chemistry, 1998, 59, 201-210.	2.3	22
85	Enrichment of silicate and CO2 and circulation of the bottom water in the Weddell Sea. Deep-Sea Research Part I: Oceanographic Research Papers, 1998, 45, 1797-1817.	1.4	15
86	Winter-summer differences of carbon dioxide and oxygen in the Weddell Sea surface layer. Marine Chemistry, 1995, 51, 177-192.	2.3	69
87	Carbon dioxide and oxygen disequilibrium in a tidal basin (Dutch wadden sea). Journal of Sea Research, 1993, 31, 221-229.	1.0	12
88	The oxygen budget of the western Wadden Sea, The Netherlands. Estuarine, Coastal and Shelf Science, 1991, 32, 483-502.	2.1	24
89	The seasonal behaviour of carbon dioxide and oxygen in the coastal North Sea along The Netherlands. Journal of Sea Research, 1991, 28, 167-179.	1.0	31
90	The distribution and seasonal variation of alkalinity in the Southern Bight of the North Sea and in the Western Wadden Sea. Journal of Sea Research, 1990, 26, 11-23.	1.0	25