Melissa Chierici

List of Publications by Year
in descending order

57 papers	2,912 citations	218381 26 h-index	174990 52 g-index
62 all docs	62 docs citations	62 times ranked	3479 citing authors

#	Article	IF	Citations
1	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.	3.7	413
2	Leads in Arctic pack ice enable early phytoplankton blooms below snow-covered sea ice. Scientific Reports, 2017, 7, 40850.	1.6	259
3	Calcium carbonate saturation in the surface water of the Arctic Ocean: undersaturation in freshwater influenced shelves. Biogeosciences, 2009, 6, 2421-2431.	1.3	158
4	Future harvest of living resources in the Arctic Ocean north of the Nordic and Barents Seas: A review of possibilities and constraints. Fisheries Research, 2017, 188, 38-57.	0.9	130
5	The importance of shelf processes for the modification of chemical constituents in the waters of the Eurasian Arctic Ocean: implication for carbon fluxes. Continental Shelf Research, 2001, 21, 225-242.	0.9	114
6	Review article: How does glacier discharge affect marine biogeochemistry and primary production in the Arctic?. Cryosphere, 2020, 14, 1347-1383.	1.5	114
7	A carbon budget for the Arctic Ocean. Global Biogeochemical Cycles, 1998, 12, 455-465.	1.9	98
8	The future of Arctic sea-ice biogeochemistry and ice-associated ecosystems. Nature Climate Change, 2020, 10, 983-992.	8.1	96
9	New insights into the spatial variability of the surface water carbon dioxide in varying sea ice conditions in the Arctic Ocean. Continental Shelf Research, 2009, 29, 1317-1328.	0.9	81
10	Seasonal variability of the inorganic carbon system in the Amundsen Gulf region of the southeastern Beaufort Sea. Limnology and Oceanography, 2011, 56, 303-322.	1.6	78
11	Shelled pteropods in peril: Assessing vulnerability in a high CO2 ocean. Earth-Science Reviews, 2017, 169, 132-145.	4.0	78
12	The influence of increased temperature and carbon dioxide levels on the benthic/sea ice diatom Navicula directa. Polar Biology, 2012, 35, 205-214.	0.5	74
13	Effect of glacial drainage water on the <scp>CO</scp>₂ system and ocean acidification state in an <scp>A</scp>rctic tidewaterâ€glacier fjord during two contrasting years. Journal of Geophysical Research: Oceans, 2015, 120, 2413-2429.	1.0	67
14	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.	0.5	67
15	Antarctic sea ice carbon dioxide system and controls. Journal of Geophysical Research, 2011, 116, .	3.3	64
16	Influence of m-cresol purple indicator additions on the pH of seawater samples: correction factors evaluated from a chemical speciation model. Marine Chemistry, 1999, 65, 281-290.	0.9	61
17	Biogeochemical processes as drivers of surfacefCO2in contrasting provinces in the subarctic North Pacific Ocean. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	57
18	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.	1.3	56

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19	Impact of seaâ€ice processes on the carbonate system and ocean acidification at the iceâ€water interface of the Amundsen Gulf, Arctic Ocean. Journal of Geophysical Research: Oceans, 2013, 118, 7001-7023.	1.0	55
20	Impact of biogeochemical processes and environmental factors on the calcium carbonate saturation state in the Circumpolar Flaw Lead in the Amundsen Gulf, Arctic Ocean. Journal of Geophysical Research, 2011, 116, .	3.3	49
21	Physicochemical control of bacterial and protist community composition and diversity in <scp>A</scp>ntarctic sea ice. Environmental Microbiology, 2015, 17, 3869-3881.	1.8	48
22	Late winter-to-summer change in ocean acidification state in Kongsfjorden, with implications for calcifying organisms. Polar Biology, 2016, 39, 1841-1857.	0.5	42
23	Long-term acclimation to elevated <i>p</i> CO ₂ alters carbon metabolism and reduces growth in the Antarctic diatom <i>Nitzschia lecointei</i>. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151513.	1.2	40
24	Effects of seaâ€ice and biogeochemical processes and storms on underâ€ice water <i>f</i>CO₂ during the winterâ€spring transition in the high <scp>A</scp>rctic <scp>O</scp>cean: Implications for seaâ€air CO₂ fluxes. Journal of Geophysical Research: Oceans, 2017, 122, 5566-5587.	1.0	38
25	Ocean acidification state in western Antarctic surface waters: controls and interannual variability. Biogeosciences, 2014, 11, 57-73.	1.3	37
26	Longâ€Term and Seasonal Trends in Estuarine and Coastal Carbonate Systems. Global Biogeochemical Cycles, 2018, 32, 497-513.	1.9	37
27	Variability in pH, fCO2, oxygen and flux of CO2 in the surface water along a transect in the Atlantic sector of the Southern Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2004, 51, 2773-2787.	0.6	31
28	Increased net CO2outgassing in the upwelling region of the southern Bering Sea in a period of variable marine climate between 1995 and 2001. Journal of Geophysical Research, 2006, 111, .	3.3	31
29	Fish embryo vulnerability to combined acidification and warming coincides with low capacity for homeostatic regulation. Journal of Experimental Biology, 2020, 223, .	0.8	26
30	Climate change impacts on sea-ice ecosystems and associated ecosystem services. Elementa, 2021, 9, .	1.1	26
31	Surface water fCO2 algorithms for the high-latitude Pacific sector of the Southern Ocean. Remote Sensing of Environment, 2012, 119, 184-196.	4.6	25
32	Episodic Arctic CO2 Limitation in the West Svalbard Shelf. Frontiers in Marine Science, 2018, 5, .	1.2	25
33	CO₂ flux over young and snow-covered Arctic pack ice in winter and spring. Biogeosciences, 2018, 15, 3331-3343.	1.3	24
34	Time dependence of organic matter decay and mixing processes in Framvaren, a permanently anoxic fjord in South Norway. Aquatic Geochemistry, 1996, 2, 111-129.	1.5	21
35	Barium and carbon fluxes in the Canadian Arctic Archipelago. Journal of Geophysical Research, 2011, 116, .	3.3	21
36	Acidification of the Nordic Seas. Biogeosciences, 2022, 19, 979-1012.	1.3	21

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37	Diurnal variability in the oceanic carbon dioxide system and oxygen in the Southern Ocean surface water. Deep-Sea Research Part II: Topical Studies in Oceanography, 2004, 51, 2827-2839.	0.6	20
38	Annual and seasonal fCO2 and airâ€“sea CO2 fluxes in the Barents Sea. Journal of Marine Systems, 2013, 113-114, 62-74.	0.9	20
39	Possible future scenarios in the gateways to the Arctic for Subarctic and Arctic marine systems: II. prey resources, food webs, fish, and fisheries. ICES Journal of Marine Science, 2021, 78, 3017-3045.	1.2	19
40	Net Community Production and Carbon Exchange From Winter to Summer in the Atlantic Water Inflow to the Arctic Ocean. Frontiers in Marine Science, 2019, 6, .	1.2	18
41	Marine CO2 system variability in a high arctic tidewater-glacier fjord system, Tempelfjorden, Svalbard. Continental Shelf Research, 2019, 181, 1-13.	0.9	15
42	Nearâ€Surface Stratification Due to Ice Melt Biases Arctic Airâ€Sea CO₂ Flux Estimates. Geophysical Research Letters, 2021, 48, e2021GL095266.	1.5	14
43	CO2-system development in young sea ice and CO2 gas exchange at the ice/air interface mediated by brine and frost flowers in Kongsfjorden, Spitsbergen. Annals of Glaciology, 2015, 56, 245-257.	2.8	13
44	Possible future scenarios for two major Arctic Gateways connecting Subarctic and Arctic marine systems: I. Climate and physicalâ€“chemical oceanography. ICES Journal of Marine Science, 2021, 78, 3046-3065.	1.2	13
45	Temporal Variability in Surface Water <i>p</i>CO₂ in Adventfjorden (West Spitsbergen) With Emphasis on Physical and Biogeochemical Drivers. Journal of Geophysical Research: Oceans, 2018, 123, 4888-4905.	1.0	11
46	Valuing Blue Carbon Changes in the Arctic Ocean. Frontiers in Marine Science, 2019, 6, .	1.2	11
47	Development, Productivity, and Seasonality of Living Planktonic Foraminiferal Faunas and <i>Limacina helicina</i> in an Area of Intense Methane Seepage in the Barents Sea. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005387.	1.3	11
48	Spatiotemporal Variability of Barium in Arctic Seaâ€Ice and Seawater. Journal of Geophysical Research: Oceans, 2018, 123, 3507-3522.	1.0	9
49	Influence of glacial water and carbonate minerals on wintertime sea-ice biogeochemistry and the CO₂system in an Arctic fjord in Svalbard. Annals of Glaciology, 2020, 61, 320-340.	2.8	9
50	Early spring subglacial discharge plumes fuel under-ice primary production at a Svalbard tidewater glacier. Cryosphere, 2021, 15, 2083-2107.	1.5	9
51	Shell density of planktonic foraminifera and pteropod species Limacina helicina in the Barents Sea: Relation to ontogeny and water chemistry. PLoS ONE, 2021, 16, e0249178.	1.1	9
52	Planktic Foraminiferal and Pteropod Contributions to Carbon Dynamics in the Arctic Ocean (North) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.2	9
53	Annual carbon fluxes in the upper Greenland Sea based on measurements and a box-model approach. Tellus, Series B: Chemical and Physical Meteorology, 2000, 52, 1013-1024.	0.8	8
54	Ocean acidification state variability of the Atlantic Arctic Ocean around northern Svalbard. Progress in Oceanography, 2021, 199, 102708.	1.5	8

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55	Seasonal dynamics of carbonate chemistry, nutrients and CO2 uptake in a sub-Arctic fjord. Elementa, 2020, 8, .	1.1	7
56	Distribution and Abundances of Planktic Foraminifera and Shelled Pteropods During the Polar Night in the Sea-Ice Covered Northern Barents Sea. Frontiers in Marine Science, 2021, 8, .	1.2	6
57	Cold-Water Coral Reefs in the Langenuen Fjord, Southwestern Norwayâ€"A Window into Future Environmental Change. Oceans, 2021, 2, 583-610.	0.6	4