Bruno Delille

List of Publications by Year
in descending order

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101	8,104	71102 41	58581 82
papers	citations	h-index	g-index

125	125	125	7582
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Budgeting sinks and sources of CO2in the coastal ocean: Diversity of ecosystems counts. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	515
3	Carbon Dioxide Emission from European Estuaries. , 1998, 282, 434-436.		480
4	Testing the direct effect of CO₂ concentration on a bloom of the coccolithophorid Emiliania huxleyi in mesocosm experiments. Limnology and Oceanography, 2005, 50, 493-507.	3.1	244
5	Carbon dioxide in European coastal waters. Estuarine, Coastal and Shelf Science, 2006, 70, 375-387.	2.1	239
6	Gas transfer velocities of CO₂ in three European estuaries (Randers Fjord,Scheldt, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	3.1	238
7	Response of primary production and calcification to changes ofpCO2during experimental blooms of the coccolithophoridEmiliania huxleyi. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	215
8	Variability of the gas transfer velocity of CO2 in a macrotidal estuary (the Scheldt). Estuaries and Coasts, 2004, 27, 593-603.	1.7	205
9	Role of sea ice in global biogeochemical cycles: emerging views and challenges. Quaternary Science Reviews, 2013, 79, 207-230.	3.0	202
10	Atmospheric CO2flux from mangrove surrounding waters. Geophysical Research Letters, 2003, 30, .	4.0	179
11	Transparent exopolymer particles and dissolved organic carbon production by Emiliania huxleyi exposed to different CO2 concentrations: a mesocosm experiment. Aquatic Microbial Ecology, 2004, 34, 93-104.	1.8	172
12	Iron study during a time series in the western Weddell pack ice. Marine Chemistry, 2008, 108, 85-95.	2.3	131
13	Biogas (CO₂, O₂, dimethylsulfide) dynamics in spring Antarctic fast ice. Limnology and Oceanography, 2007, 52, 1367-1379.	3.1	127
14	Massive marine methane emissions from near-shore shallow coastal areas. Scientific Reports, 2016, 6, 27908.	3.3	121
15	Carbonate dissolution in the turbid and eutrophic Loire estuary. Marine Ecology - Progress Series, 2003, 259, 129-138.	1.9	111
16	Sea ice contribution to the airâ€“sea CO₂ exchange in the Arctic and Southern Oceans. Tellus, Series B: Chemical and Physical Meteorology, 2022, 63, 823.	1.6	102
17	Effects of CO₂ on particle size distribution and phytoplankton abundance during a mesocosm bloom experiment (PeECE II). Biogeosciences, 2008, 5, 509-521.	3.3	99
18	Seasonal Variability of Carbon Dioxide in the Rivers and Lagoons of Ivory Coast (West Africa). Estuaries and Coasts, 2009, 32, 246-260.	2.2	99

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19	Crude oil bioremediation in sub-Antarctic intertidal sediments: chemistry and toxicity of oiled residues. Marine Environmental Research, 2004, 57, 311-327.	2.5	97
20	The future of Arctic sea-ice biogeochemistry and ice-associated ecosystems. Nature Climate Change, 2020, 10, 983-992.	18.8	96
21	Fronts in the Southern Indian Ocean as inferred from satellite sea surface temperature data. Journal of Marine Systems, 2004, 45, 55-73.	2.1	95
22	Whole-system metabolism and CO₂ fluxes in a Mediterranean Bay dominated by seagrass beds (Palma Bay, NW Mediterranean). Biogeosciences, 2005, 2, 43-60.	3.3	91
23	Net ecosystem metabolism in a micro-tidal estuary (Randers Fjord, Denmark): evaluation of methods. Marine Ecology - Progress Series, 2005, 301, 23-41.	1.9	86
24	Dynamics of pCO₂and related airâ€ice CO₂ fluxes in the Arctic coastal zone (Amundsen Gulf, Beaufort Sea). Journal of Geophysical Research, 2012, 117, .	3.3	85
25	Influence of giant kelp beds (Macrocystis pyrifera) on diel cycles of pCO2 and DIC in the Sub-Antarctic coastal area. Estuarine, Coastal and Shelf Science, 2009, 81, 114-122.	2.1	81
26	Seasonal variability of methane in the rivers and lagoons of Ivory Coast (West Africa). Biogeochemistry, 2010, 100, 21-37.	3.5	81
27	Temporal evolution of decaying summer first-year sea ice in the Western Weddell Sea, Antarctica. Deep-Sea Research Part II: Topical Studies in Oceanography, 2008, 55, 975-987.	1.4	75
28	Physical and biogeochemical properties in landfast sea ice (Barrow, Alaska): Insights on brine and gas dynamics across seasons. Journal of Geophysical Research: Oceans, 2013, 118, 3172-3189.	2.6	75
29	Southern Ocean CO₂ sink: The contribution of the sea ice. Journal of Geophysical Research: Oceans, 2014, 119, 6340-6355.	2.6	72
30	Global high-resolution monthly <i>p</i>CO₂ climatology for the coastal ocean derived from neural network interpolation. Biogeosciences, 2017, 14, 4545-4561.	3.3	71
31	First estimates of the contribution of CaCO₃ precipitation to the release of CO₂ to the atmosphere during young sea ice growth. Journal of Geophysical Research: Oceans, 2013, 118, 244-255.	2.6	69
32	Transfer Across the Air-Sea Interface. Springer Earth System Sciences, 2014, , 55-112.	0.2	69
33	Diffusive methane emissions to the atmosphere from Lake Kivu (Eastern Africa). Journal of Geophysical Research, 2011, 116, .	3.3	65
34	Field observations on the variability of crude oil impact on indigenous hydrocarbon-degrading bacteria from sub-Antarctic intertidal sediments. Marine Environmental Research, 2000, 49, 403-417.	2.5	60
35	Chromophoric dissolved organic matter in experimental mesocosms maintained under different pCO2 levels. Marine Ecology - Progress Series, 2004, 272, 25-31.	1.9	58
36	CO2deposition over the multi-year ice of the western Weddell Sea. Geophysical Research Letters, 2006, 33, .	4.0	57

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37	Effectiveness of Bioremediation of Crude Oil Contaminated Subantarctic Intertidal Sediment: The Microbial Response. Microbial Ecology, 2002, 44, 118-126.	2.8	53
38	Seasonal changes of pCO 2 over a subantarctic Macrocystis kelp bed. Polar Biology, 2000, 23, 706-716.	1.2	52
39	Net ecosystem production and carbon dioxide fluxes in the Scheldt estuarine plume. BMC Ecology, 2008, 8, 15.	3.0	49
40	Barium distribution across the Southern Ocean frontal system in the Crozetâ€“Kerguelen Basin. Marine Chemistry, 2005, 95, 149-162.	2.3	44
41	Biogeochemical study of a coccolithophore bloom in the northern Bay of Biscay (NE Atlantic Ocean) in June 2004. Progress in Oceanography, 2010, 86, 317-336.	3.2	44
42	Polar Ocean Observations: A Critical Gap in the Observing System and Its Effect on Environmental Predictions From Hours to a Season. Frontiers in Marine Science, 2019, 6, .	2.5	43
43	Inter-annual variability of the carbon dioxide oceanic sink south of Tasmania. Biogeosciences, 2008, 5, 141-155.	3.3	42
44	Sea ice and snow cover characteristics during the winterâ€“spring transition in the Bellingshausen Sea: An overview of SIMBA 2007. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 1019-1038.	1.4	42
45	Spatial and temporal CO₂ exchanges measured by Eddy Covariance over a temperate intertidal flat and their relationships to net ecosystem production. Biogeosciences, 2012, 9, 249-268.	3.3	39
46	Macro-nutrient concentrations in Antarctic pack ice: Overall patterns and overlooked processes. Elementa, 2017, 5, .	3.2	39
47	Chlorophyllâ€‹a in Antarctic Landfast Sea Ice: A First Synthesis of Historical Ice Core Data. Journal of Geophysical Research: Oceans, 2018, 123, 8444-8459.	2.6	34
48	Imaging air volume fraction in sea ice using non-destructive X-ray tomography. Cryosphere, 2016, 10, 1125-1145.	3.9	33
49	Constraining Southern Ocean Air-Sea-Ice Fluxes Through Enhanced Observations. Frontiers in Marine Science, 2019, 6, .	2.5	31
50	Sea-ice production and air/ice/ocean/biogeochemistry interactions in the Ross Sea during the PIPERS 2017 autumn field campaign. Annals of Glaciology, 2020, 61, 181-195.	1.4	31
51	Variability of the net airâ€“sea CO2flux inferred from shipboard and satellite measurements in the Southern Ocean south of Tasmania and New Zealand. Journal of Geophysical Research, 2005, 110, .	3.3	30
52	Sea ice contribution to the airâ€“sea CO₂ exchange in the Arctic and Southern Oceans. Tellus, Series B: Chemical and Physical Meteorology, 2011, 63, .	1.6	30
53	Effect of melting Antarctic sea ice on the fate of microbial communities studied in microcosms. Polar Biology, 2013, 36, 1483-1497.	1.2	29
54	First â€œin situâ€•determination of gas transport coefficients (, , and) from bulk gas concentration measurements (O₂, N₂, Ar) in natural sea ice. Journal of Geophysical Research: Oceans, 2014, 119, 6655-6668.	2.6	29

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55	Air-Sea Interactions of Natural Long-Lived Greenhouse Gases (CO2, N2O, CH4) in a Changing Climate. Springer Earth System Sciences, 2014, , 113-169.	0.2	29
56	Modelling argon dynamics in first-year sea ice. Ocean Modelling, 2014, 73, 1-18.	2.4	29
57	Short-term variability in bacterial abundance, cell properties, and incorporation of leucine and thymidine in subarctic sea ice. Aquatic Microbial Ecology, 2013, 71, 57-73.	1.8	29
58	Drivers of inorganic carbon dynamics in firstâ€year sea ice: A model study. Journal of Geophysical Research: Oceans, 2015, 120, 471-495.	2.6	28
59	CO₂ flux over young and snow-covered Arctic pack ice in winter and spring. Biogeosciences, 2018, 15, 3331-3343.	3.3	24
60	EPOCA/EUR-OCEANS data compilation on the biological and biogeochemical responses to ocean acidification. Earth System Science Data, 2010, 2, 167-175.	9.9	23
61	Investigations on physical and textural properties of Arctic first-year sea ice in the Amundsen Gulf, Canada, November 2007â€“June 2008 (IPY-CFL system study). Journal of Glaciology, 2013, 59, 819-837.	2.2	22
62	Physical and biological controls on DMS,P dynamics in ice shelf-influenced fast ice during a winter-spring and a spring-summer transitions. Journal of Geophysical Research: Oceans, 2014, 119, 2882-2905.	2.6	22
63	Physical and bacterial controls on inorganic nutrients and dissolved organic carbon during a sea ice growth and decay experiment. Marine Chemistry, 2014, 166, 59-69.	2.3	21
64	Incorporation of iron and organic matter into young Antarctic sea ice during its initial growth stages. Elementa, 2016, 4, .	3.2	21
65	Carbon and nitrogen flows during a bloom of the coccolithophore Emiliania huxleyi: Modelling a mesocosm experiment. Journal of Marine Systems, 2011, 85, 71-85.	2.1	20
66	Physical controls on the storage of methane in landfast sea ice. Cryosphere, 2014, 8, 1019-1029.	3.9	20
67	Sea ice <i>p</i>CO₂ dynamics and airâ€“ice CO₂ fluxes during the Sea Ice Mass Balance in the Antarctic (SIMBA) experiment â€“ Bellingshausen Sea, Antarctica. Cryosphere, 2014, 8, 2395-2407.	3.9	20
68	Estimates of ikaite export from sea ice to the underlying seawater inÂaÂsea iceâ€“seawater mesocosm. Cryosphere, 2016, 10, 2173-2189.	3.9	20
69	The first known virus isolates from Antarctic sea ice have complex infection patterns. FEMS Microbiology Ecology, 2018, 94, .	2.7	20
70	Assessment of the sea-ice carbon pump: Insights from a three-dimensional ocean-sea-ice biogeochemical model (NEMO-LIM-PISCES). Elementa, 2016, 4, .	3.2	20
71	Dissolved inorganic carbon dynamics and airâ€sea carbon dioxide fluxes during coccolithophore blooms in the northwest European continental margin (northern Bay of Biscay). Global Biogeochemical Cycles, 2010, 24, .	4.9	19
72	Carbonate system in the water masses of the Southeast Atlantic sector of the Southern Ocean during February and March 2008. Biogeosciences, 2011, 8, 1401-1413.	3.3	19

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73	Effect of nutrient enrichments on the bacterial assemblage of Antarctic soils contaminated by diesel or crude oil. Polar Record, 2003, 39, 309-318.	0.8	18
74	Benthic remineralization in the northwest European continental margin (northern Bay of Biscay). Continental Shelf Research, 2011, 31, 644-658.	1.8	18
75	Towards a method for high vertical resolution measurements of the partial pressure of CO₂ within bulk sea ice. Journal of Glaciology, 2012, 58, 287-300.	2.2	17
76	CO₂ and CH₄ in sea ice from a subarctic fjord under influence of riverine input. Biogeosciences, 2014, 11, 6525-6538.	3.3	17
77	Biogeochemical Impact of Snow Cover and Cyclonic Intrusions on the Winter Weddell Sea Ice Pack. Journal of Geophysical Research: Oceans, 2017, 122, 9548-9571.	2.6	17
78	Biogeochemistry and carbon mass balance of a coccolithophore bloom in the northern Bay of Biscay (June 2006). Deep-Sea Research Part I: Oceanographic Research Papers, 2011, 58, 111-127.	1.4	16
79	An active bacterial community linked to high chl-a concentrations in Antarctic winter-pack ice and evidence for the development of an anaerobic sea-ice bacterial community. ISME Journal, 2017, 11, 2345-2355.	9.8	16
80	Insights into oxygen transport and net community production in sea ice from oxygen, nitrogen and argon concentrations. Biogeosciences, 2014, 11, 5007-5020.	3.3	15
81	Dynamics of the deep chlorophyll maximum in the Black Sea as depicted by BGC-Argo floats. Biogeosciences, 2021, 18, 755-774.	3.3	15
82	Biogenic silica recycling in sea ice inferred from Si-isotopes: constraints from Arctic winter first-year sea ice. Biogeochemistry, 2014, 119, 25-33.	3.5	14
83	Sea Ice CO₂ Dynamics Across Seasons: Impact of Processes at the Interfaces. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015807.	2.6	14
84	Water column distribution and carbon isotopic signal of cholesterol, brassicasterol and particulate organic carbon in the Atlantic sector of the Southern Ocean. Biogeosciences, 2013, 10, 2787-2801.	3.3	13
85	The biogeochemical role of a microbial biofilm in sea ice. Elementa, 2021, 9, .	3.2	13
86	Particle export during a bloom of Emiliania huxleyi in the North-West European continental margin. Journal of Marine Systems, 2013, 109-110, S182-S190.	2.1	12
87	Air-ice carbon pathways inferred from a sea ice tank experiment. Elementa, 2016, 4, .	3.2	11
88	Influence of short-term synoptic events and snow depth on DMS, DMSP, and DMSO dynamics in Antarctic spring sea ice. Elementa, 2016, 4, .	3.2	10
89	Mesoscale surface distribution of biogeochemical characteristics in the Crozet Basin frontal zones (South Indian Ocean). Marine Ecology - Progress Series, 2003, 249, 1-14.	1.9	10
90	Physical and biological properties of early winter Antarctic sea ice in the Ross Sea. Annals of Glaciology, 2020, 61, 241-259.	1.4	9

#	Article	IF	Citations
91	Spatial and temporal variation of bacterioplankton in a sub-Antarctic coastal area (Kerguelen) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.1	8
92	Evidence of Freezing Pressure in Sea Ice Discrete Brine Inclusions and Its Impact on Aqueousâ€Gaseous Equilibrium. Journal of Geophysical Research: Oceans, 2019, 124, 1660-1678.	2.6	8
93	Variability of Carbon Dioxide and Methane in the Epilimnion of Lake Kivu. , 2012, , 47-66.		8
94	Fostering multidisciplinary research on interactions between chemistry, biology, and physics within the coupled cryosphere-atmosphere system. Elementa, 2019, 7, .	3.2	6
95	Sources and sinks of methane in sea ice. Elementa, 2021, 9, .	3.2	5
96	Assessing the O2 budget under sea ice: An experimental and modelling approach. Elementa, 2015, 3, .	3.2	3
97	Oceanic fronts in the southern Indian Ocean as inferred from the NOAA SST, TOPEX/Poseidon and ERS-2 altimetry data. Gayana, 2004, 68, .	0.1	3
98	Dimethylsulfoniopropionate (DMSP) and dimethylsulfoxide (DMSO) cell quotas variations arising from sea ice shifts of salinity and temperature in the Prymnesiophyceae Phaeocystis antarctica. Environmental Chemistry, 2020, 17, 509.	1.5	3
99	Landfast sea ice in the Bothnian Bay (Baltic Sea) as a temporary storage compartment for greenhouse gases. Elementa, 2021, 9, .	3.2	2
100	The impact of dissolved organic carbon and bacterial respiration on pCO2 in experimental sea ice. Progress in Oceanography, 2016, 141, 153-167.	3.2	1
101	Tracers of physical and biogeochemical processes, past changes and ongoing anthropogenic impacts: The 43rd International Liege Colloquium on Ocean Dynamics, Liege, Belgium, May 2â€“6, 2011. Journal of Marine Systems, 2013, 126, 1-2.	2.1	0