

Dorothea Bauch

List of Publications by Year in descending order

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63
papers

3,078
citations

172457

29
h-index

161849

54
g-index

70
all docs

70
docs citations

70
times ranked

3088
citing authors

#	ARTICLE	IF	CITATIONS
1	The GEOTRACES Intermediate Data Product 2017. <i>Chemical Geology</i> , 2018, 493, 210-223.	3.3	257
2	Freshwater balance and the sources of deep and bottom waters in the Arctic Ocean inferred from the distribution of H ₂ 18O. <i>Progress in Oceanography</i> , 1995, 35, 53-80.	3.2	240
3	Dissolved organic matter sources in large Arctic rivers. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 94, 217-237.	3.9	207
4	The potential transport of pollutants by Arctic sea ice. <i>Science of the Total Environment</i> , 1995, 159, 129-146.	8.0	163
5	Arctic river-runoff: mean residence time on the shelves and in the halocline. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 1994, 41, 1053-1068.	1.4	145
6	Oxygen isotope composition of living <i>Neogloboquadrina pachyderma</i> (sin.) in the Arctic Ocean. <i>Earth and Planetary Science Letters</i> , 1997, 146, 47-58.	4.4	126
7	Dissolved iron in the Arctic shelf seas and surface waters of the central Arctic Ocean: Impact of Arctic river water and ice melt. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	95
8	Atlantic Water advection versus sea ice advances in the eastern Fram Strait during the last 9 ka: Multiproxy evidence for a two-phase Holocene. <i>Paleoceanography</i> , 2013, 28, 283-295.	3.0	95
9	Origin of freshwater and polynya water in the Arctic Ocean halocline in summer 2007. <i>Progress in Oceanography</i> , 2011, 91, 482-495.	3.2	87
10	The Transpolar Drift as a Source of Riverine and Shelf-Derived Trace Elements to the Central Arctic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015920.	2.6	80
11	The Northern Barents Sea: Water Mass Distribution and Modification. <i>Geophysical Monograph Series</i> , 0, , 77-94.	0.1	73
12	Palaeoceanographic implications of genetic variation in living North Atlantic <i>Neogloboquadrina pachyderma</i> . <i>Nature</i> , 2003, 424, 299-302.	27.8	71
13	²²⁸ Ra as a tracer for shelf water in the arctic ocean. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 1995, 42, 1533-1553.	1.4	68
14	First ²³⁶ U data from the Arctic Ocean and use of ²³⁶ U/ ²³⁸ U and ¹²⁹ I/ ²³⁶ U as a new dual tracer. <i>Earth and Planetary Science Letters</i> , 2016, 440, 127-134.	4.4	66
15	Water mass processes on Arctic shelves as revealed from O of HO. <i>Global and Planetary Change</i> , 2005, 48, 165-174.	3.5	61
16	Exchange of Laptev Sea and Arctic Ocean halocline waters in response to atmospheric forcing. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	60
17	Atlantic Water advection to the eastern Fram Strait – Multiproxy evidence for late Holocene variability. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2011, 308, 264-276.	2.3	56
18	Overview of the MOSAiC expedition: Physical oceanography. <i>Elementa</i> , 2022, 10, .	3.2	54

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19	Impact of the Arctic Ocean Atlantic water layer on Siberian shelf hydrography. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	51
20	The imprint of anthropogenic CO ₂ in the Arctic Ocean: evidence from planktic $\delta^{13}\text{C}$ data from watercolumn and sediment surfaces. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2000, 47, 1791-1808.	1.4	49
21	Carbon isotopes and habitat of polar planktic foraminifera in the Okhotsk Sea: the $\delta^{13}\text{C}$ carbonate ion effect TM under natural conditions. <i>Marine Micropaleontology</i> , 2002, 45, 83-99.	1.2	49
22	Correlation of river water and local sea ice melting on the Laptev Sea shelf (Siberian Arctic). <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 550-561.	2.6	48
23	Drifting Arctic sea ice archives changes in ocean surface conditions. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	41
24	Ocean circulation and freshwater pathways in the Arctic Mediterranean based on a combined Nd isotope, REE and oxygen isotope section across Fram Strait. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 202, 285-309.	3.9	40
25	Atmospheric controlled freshwater release at the Laptev Sea continental margin. <i>Polar Research</i> , 2011, 30, 5858.	1.6	39
26	Radium Isotopes Across the Arctic Ocean Show Time Scales of Water Mass Ventilation and Increasing Shelf Inputs. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 4853-4873.	2.6	39
27	Seasonal modification of the Arctic Ocean intermediate water layer off the eastern Laptev Sea continental shelf break. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	36
28	Episodic warming of near-bottom waters under the Arctic sea ice on the central Laptev Sea shelf. <i>Geophysical Research Letters</i> , 2016, 43, 264-272.	4.0	36
29	Halocline water modification and along-slope advection at the Laptev Sea continental margin. <i>Ocean Science</i> , 2014, 10, 141-154.	3.4	35
30	Stable oxygen and carbon isotopes in modern benthic foraminifera from the Laptev Sea shelf: implications for reconstructing proglacial and profluvial environments in the Arctic. <i>Marine Micropaleontology</i> , 2004, 51, 285-300.	1.2	32
31	Impact of Siberian coastal polynyas on shelf-derived Arctic Ocean halocline waters. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	30
32	Holocene variability of bottom water hydrography on the Kara Sea shelf (Siberia) depicted in multiple single-valve analyses of stable isotopes in ostracods. <i>Marine Geology</i> , 2004, 206, 147-164.	2.1	29
33	Interannual variability of surface and bottom sediment transport on the Laptev Sea shelf during summer. <i>Biogeosciences</i> , 2013, 10, 1117-1129.	3.3	29
34	Shelf basin exchange along the Siberian continental margin: Modification of Atlantic Water and Lower Halocline Water. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2016, 115, 188-198.	1.4	29
35	Sea ice production over the Laptev Sea shelf inferred from historical summer to winter hydrographic observations of 1960s to 1990s. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	28
36	Shelf basin exchange times of Arctic surface waters estimated from $^{228}\text{Th}/^{228}\text{Ra}$ disequilibrium. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	28

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37	The Transpolar Drift conveys methane from the Siberian Shelf to the central Arctic Ocean. <i>Scientific Reports</i> , 2018, 8, 4515.	3.3	28
38	Transport and transformation of riverine neodymium isotope and rare earth element signatures in high latitude estuaries: A case study from the Laptev Sea. <i>Earth and Planetary Science Letters</i> , 2017, 477, 205-217.	4.4	27
39	Eurasian Arctic shelf hydrography: Exchange and residence time of southern Laptev Sea waters. <i>Continental Shelf Research</i> , 2009, 29, 1815-1820.	1.8	24
40	Properties of the Atlantic derived halocline waters over the Laptev Sea continental margin: Evidence from 2002 to 2009. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	23
41	Nitrogen dynamic in Eurasian coastal Arctic ecosystem: Insight from nitrogen isotope. <i>Global Biogeochemical Cycles</i> , 2017, 31, 836-849.	4.9	23
42	Changes in distribution of brine waters on the Laptev Sea shelf in 2007. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	22
43	Water Mass Classification on a Highly Variable Arctic Shelf Region: Origin of Laptev Sea Water Masses and Implications for the Nutrient Budget. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 1896-1906.	2.6	21
44	Utility of dissolved barium in distinguishing North American from Eurasian runoff in the Arctic Ocean. <i>Marine Chemistry</i> , 2012, 132-133, 1-14.	2.3	20
45	Oxygen and carbon isotope composition of modern planktic foraminifera and near-surface waters in the Fram Strait (Arctic Ocean) – a case study. <i>Biogeosciences</i> , 2015, 12, 1733-1752.	3.3	20
46	Barents Sea upstream events impact the properties of Atlantic water inflow into the Arctic Ocean: Evidence from 2005 to 2006 downstream observations. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2009, 56, 513-527.	1.4	19
47	Separating individual contributions of major Siberian rivers in the Transpolar Drift of the Arctic Ocean. <i>Scientific Reports</i> , 2021, 11, 8216.	3.3	19
48	Recent freshening in the Kara Sea (Siberia) recorded by stable isotopes in Arctic bivalve shells. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	18
49	Interannual variations in river water content and distribution over the Laptev Sea between 2007 and 2011: The Arctic Dipole connection. <i>Geophysical Research Letters</i> , 2014, 41, 7237-7244.	4.0	18
50	On the Variability of Stratification in the Freshwater-Influenced Laptev Sea Region. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	17
51	Water mass transformation in the Barents Sea inferred from radiogenic neodymium isotopes, rare earth elements and stable oxygen isotopes. <i>Chemical Geology</i> , 2019, 511, 416-430.	3.3	16
52	A baseline for the vertical distribution of the stable carbon isotopes of dissolved inorganic carbon ($\delta^{13}\text{CDIC}$) in the Arctic Ocean. <i>Arktos</i> , 2015, 1, 1.	1.0	15
53	Insights into the origins, molecular characteristics and distribution of iron-binding ligands in the Arctic Ocean. <i>Marine Chemistry</i> , 2021, 231, 103936.	2.3	12
54	Dissolved Cd, Co, Cu, Fe, Mn, Ni, and Zn in the Arctic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2021JC017323.	2.6	11

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55	Effects of atmospheric vorticity on the seasonal hydrographic cycle over the eastern Siberian shelf. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	9
56	Insights Into Water Mass Origins in the Central Arctic Ocean From In-situ Dissolved Organic Matter Fluorescence. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2021JC017407.	2.6	9
57	High-resolution Mg/Ca and $\delta^{18}O$ Patterns in Modern <i>Neogloboquadrina pachyderma</i> From the Fram Strait and Irminger Sea. <i>Paleoceanography and Paleoclimatology</i> , 2020, 35, e2020PA003969.	2.9	7
58	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
59	The impact of climatic and atmospheric teleconnections on the brine inventory over the Laptev Sea shelf between 2007 and 2011. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 56-64.	2.5	4
60	The impact of the freeze-melt cycle of land-fast ice on the distribution of dissolved organic matter in the Laptev and East Siberian seas (Siberian Arctic). <i>Biogeosciences</i> , 2021, 18, 3637-3655.	3.3	4
61	RUSSIAN-GERMAN COLLABORATION IN THE ARCTIC ENVIRONMENTAL RESEARCH. <i>Geography, Environment, Sustainability</i> , 2011, 4, 85-113.	1.3	3
62	A Refinement of the Processes Controlling Dissolved Copper and Nickel Biogeochemistry: Insights From the Pan-Arctic. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	2.6	3
63	Impacts of glacier and sea ice melt on methane pathways on the Northeast Greenland shelf. <i>Continental Shelf Research</i> , 2022, 243, 104752.	1.8	2