

Boris Koch

List of Publications by Year in descending order

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89
papers

9,014
citations

76326

40
h-index

49909

87
g-index

108
all docs

108
docs citations

108
times ranked

7285
citing authors

#	ARTICLE	IF	CITATIONS
1	In contrast to diatoms, cryptophytes are susceptible to iron limitation, but not to ocean acidification. <i>Physiologia Plantarum</i> , 2022, 174, e13614.	5.2	3
2	Dissolved organic matter characterization in soils and streams in a small coastal low-Arctic catchment. <i>Biogeosciences</i> , 2022, 19, 3073-3097.	3.3	9
3	Permafrost Carbon and CO ₂ Pathways Differ at Contrasting Coastal Erosion Sites in the Canadian Arctic. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	21
4	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
5	Reef communities associated with “dead” cold-water coral framework drive resource retention and recycling in the deep sea. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2021, 175, 103574.	1.4	18
6	Solid-Phase Extraction of Aquatic Organic Matter: Loading-Dependent Chemical Fractionation and Self-Assembly. <i>Environmental Science & Technology</i> , 2021, 55, 15495-15504.	10.0	15
7	Analytical and Computational Advances, Opportunities, and Challenges in Marine Organic Biogeochemistry in an Era of “Omics”. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	24
8	Siderophore purification with titanium dioxide nanoparticle solid phase extraction. <i>Analyst</i> , The, 2020, 145, 7303-7311.	3.5	5
9	Particulate Organic Carbon Deconstructed: Molecular and Chemical Composition of Particulate Organic Carbon in the Ocean. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	72
10	Dissolved Domoic Acid Does Not Improve Growth Rates and Iron Content in Iron-Stressed Pseudo-Nitzschia subcurvata. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	4
11	Vibrio and Bacterial Communities Across a Pollution Gradient in the Bay of Bengal: Unraveling Their Biogeochemical Drivers. <i>Frontiers in Microbiology</i> , 2020, 11, 594.	3.5	31
12	Interlaboratory comparison of humic substances compositional space as measured by Fourier transform ion cyclotron resonance mass spectrometry (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2020, 92, 1447-1467.	1.9	15
13	The influence of dissolved organic matter on the marine production of carbonyl sulfide (OCS) and carbon disulfide (CS ₂) in the Peruvian upwelling. <i>Ocean Science</i> , 2019, 15, 1071-1090.	3.4	21
14	Influence of Glacial Meltwater on Summer Biogeochemical Cycles in Scoresby Sund, East Greenland. <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	19
15	Organic matter from Arctic sea-ice loss alters bacterial community structure and function. <i>Nature Climate Change</i> , 2019, 9, 170-176.	18.8	48
16	Quantification, extractability and stability of dissolved domoic acid within marine dissolved organic matter. <i>Marine Chemistry</i> , 2019, 215, 103669.	2.3	13
17	The Weddell Gyre, Southern Ocean: Present Knowledge and Future Challenges. <i>Reviews of Geophysics</i> , 2019, 57, 623-708.	23.0	105
18	Interactions of trace elements and organic ligands in seawater and implications for quantifying biogeochemical dynamics: A review. <i>Earth-Science Reviews</i> , 2019, 192, 631-649.	9.1	23

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19	Linking optical and chemical signatures of dissolved organic matter in the southern Argentine shelf: Distribution and bioavailability. <i>Journal of Marine Systems</i> , 2019, 195, 74-82.	2.1	10
20	UltraMassExplorer: a browser-based application for the evaluation of high-resolution mass spectrometric data. <i>Rapid Communications in Mass Spectrometry</i> , 2019, 33, 193-202.	1.5	41
21	Stoichiometry, polarity, and organometallics in solid-phase extracted dissolved organic matter of the Elbe-Weser estuary. <i>PLoS ONE</i> , 2018, 13, e0203260.	2.5	12
22	The Molecular Fingerprint of Fluorescent Natural Organic Matter Offers Insight into Biogeochemical Sources and Diagenetic State. <i>Analytical Chemistry</i> , 2018, 90, 14188-14197.	6.5	45
23	Quantifying the impact of solid-phase extraction on chromophoric dissolved organic matter composition. <i>Marine Chemistry</i> , 2018, 207, 33-41.	2.3	48
24	Aging and Molecular Changes of Dissolved Organic Matter Between Two Deep Oceanic End-Members. <i>Global Biogeochemical Cycles</i> , 2018, 32, 1449-1456.	4.9	15
25	Bacterioplankton drawdown of coral mass-spawned organic matter. <i>ISME Journal</i> , 2018, 12, 2238-2251.	9.8	8
26	Molecular diversity patterns among various phytoplankton size-fractions in West Greenland in late summer. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2017, 121, 54-69.	1.4	30
27	Response to Comment on "Dissolved organic sulfur in the ocean: Biogeochemistry of a petagram inventory". <i>Science</i> , 2017, 356, 813-813.	12.6	10
28	Near-surface Heating of Young Rift Sediment Causes Mass Production and Discharge of Reactive Dissolved Organic Matter. <i>Scientific Reports</i> , 2017, 7, 44864.	3.3	36
29	How representative are dissolved organic matter (DOM) extracts? A comprehensive study of sorbent selectivity for DOM isolation. <i>Water Research</i> , 2017, 116, 316-323.	11.3	98
30	Unraveling signatures of biogeochemical processes and the depositional setting in the molecular composition of pore water DOM across different marine environments. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 207, 57-80.	3.9	103
31	Factors influencing the characteristics and distribution of surface organic matter in the Pacific-Atlantic connection. <i>Journal of Marine Systems</i> , 2017, 175, 36-45.	2.1	22
32	Leads in Arctic pack ice enable early phytoplankton blooms below snow-covered sea ice. <i>Scientific Reports</i> , 2017, 7, 40850.	3.3	259
33	Identification of organic compounds in ocean basement fluids. <i>Organic Geochemistry</i> , 2017, 113, 124-127.	1.8	13
34	Biogeochemical and hydrological drivers of the dynamics of <i>Vibrio</i> species in two Patagonian estuaries. <i>Science of the Total Environment</i> , 2017, 579, 646-656.	8.0	35
35	Mercury and methylmercury in the Atlantic sector of the Southern Ocean. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2017, 138, 52-62.	1.4	18
36	Proposed Guidelines for Solid Phase Extraction of Suwannee River Dissolved Organic Matter. <i>Analytical Chemistry</i> , 2016, 88, 6680-6688.	6.5	118

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37	The 13th International Estuarine Biogeochemistry Symposium: "Estuaries and bays under anthropogenic pressure: past-present-future". <i>Marine Chemistry</i> , 2016, 185, 1-2.	2.3	1
38	Dissolved organic sulfur in the ocean: Biogeochemistry of a petagram inventory. <i>Science</i> , 2016, 354, 456-459.	12.6	152
39	Meteorology and oceanography of the Atlantic sector of the Southern Ocean—a review of German achievements from the last decade. <i>Ocean Dynamics</i> , 2016, 66, 1379-1413.	2.2	12
40	The Pacific-Atlantic connection: Biogeochemical signals in the southern end of the Argentine shelf. <i>Journal of Marine Systems</i> , 2016, 163, 95-101.	2.1	28
41	Comprehensive structure-selective characterization of dissolved organic matter by reducing molecular complexity and increasing analytical dimensions. <i>Water Research</i> , 2016, 106, 477-487.	11.3	24
42	Depth-dependent photodegradation of marine dissolved organic matter. <i>Frontiers in Marine Science</i> , 2015, 2, .	2.5	59
43	Analysis of the hydrographic conditions and cyst beds in the San Jorge Gulf, Argentina, that favor dinoflagellate population development including toxigenic species and their toxins. <i>Journal of Marine Systems</i> , 2015, 148, 86-100.	2.1	47
44	Dynamics of dissolved organic matter in fjord ecosystems: Contributions of terrestrial dissolved organic matter in the deep layer. <i>Estuarine, Coastal and Shelf Science</i> , 2015, 159, 37-49.	2.1	18
45	Origin-specific molecular signatures of dissolved organic matter in the Lena Delta. <i>Biogeochemistry</i> , 2015, 123, 1-14.	3.5	38
46	Molecular insights into the microbial formation of marine dissolved organic matter: recalcitrant or labile?. <i>Biogeosciences</i> , 2014, 11, 4173-4190.	3.3	128
47	Mechanisms of microbial carbon sequestration in the ocean — future research directions. <i>Biogeosciences</i> , 2014, 11, 5285-5306.	3.3	177
48	Corrigendum to "Mechanisms of microbial carbon sequestration in the ocean — future research directions" published in <i>Biogeosciences</i> , 11, 5285–5306, 2014. <i>Biogeosciences</i> , 2014, 11, 5565-5565.	3.3	1
49	Factors influencing particulate lipid production in the East Atlantic Ocean. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2014, 89, 56-67.	1.4	25
50	Molecular transformation and degradation of refractory dissolved organic matter in the Atlantic and Southern Ocean. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 126, 321-337.	3.9	247
51	Extending the analytical window for water-soluble organic matter in sediments by aqueous Soxhlet extraction. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 141, 83-96.	3.9	41
52	The influence of salinity on the molecular and optical properties of surface microlayers in a karstic estuary. <i>Marine Chemistry</i> , 2013, 150, 25-38.	2.3	43
53	Elucidating the Biogeochemical Memory of the Oceans by Means of High-Resolution Organic Structural Spectroscopy. , 2013, , 13-17.		1
54	High-field NMR spectroscopy and FTICR mass spectrometry: powerful discovery tools for the molecular level characterization of marine dissolved organic matter. <i>Biogeosciences</i> , 2013, 10, 1583-1624.	3.3	276

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55	Nutrient pulse induces dynamic changes in cellular C:N:P, amino acids, and paralytic shellfish poisoning toxins in <i>Alexandrium tamarense</i> . <i>Marine Ecology - Progress Series</i> , 2013, 493, 57-69.	1.9	24
56	A molecular perspective on the ageing of marine dissolved organic matter. <i>Biogeosciences</i> , 2012, 9, 1935-1955.	3.3	200
57	New azaspiracids in Amphidomataceae (Dinophyceae). <i>Toxicon</i> , 2012, 60, 830-839.	1.6	97
58	Preface "Sources and rapid biogeochemical transformation of dissolved organic matter in the Atlantic surface ocean". <i>Biogeosciences</i> , 2012, 9, 2597-2602.	3.3	13
59	Dissolved organic matter in sea spray: a transfer study from marine surface water to aerosols. <i>Biogeosciences</i> , 2012, 9, 1571-1582.	3.3	117
60	Spectroscopic detection of a ubiquitous dissolved pigment degradation product in subsurface waters of the global ocean. <i>Biogeosciences</i> , 2012, 9, 2585-2596.	3.3	35
61	Diagenetic Transformation of Dissolved Organic Nitrogen Compounds under Contrasting Sedimentary Redox Conditions in the Black Sea. <i>Environmental Science & Technology</i> , 2011, 45, 5223-5229.	10.0	106
62	Inorganics in Organics: Quantification of Organic Phosphorus and Sulfur and Trace Element Speciation in Natural Organic Matter Using HPLC-ICPMS. <i>Analytical Chemistry</i> , 2011, 83, 8968-8974.	6.5	27
63	Triterpenols in mangrove sediments as a proxy for organic matter derived from the red mangrove (<i>Rhizophora mangle</i>). <i>Organic Geochemistry</i> , 2011, 42, 62-73.	1.8	45
64	Transport and fate of hexachlorocyclohexanes in the oceanic air and surface seawater. <i>Biogeosciences</i> , 2011, 8, 2621-2633.	3.3	38
65	Biogeochemical controls on the bacterial populations in the eastern Atlantic Ocean. <i>Biogeosciences</i> , 2011, 8, 3747-3759.	3.3	21
66	Molecular level investigation of reactions between dissolved organic matter and extraction solvents using FT-ICR MS. <i>Marine Chemistry</i> , 2011, 124, 100-107.	2.3	47
67	Comprehensive characterization of marine dissolved organic matter by Fourier transform ion cyclotron resonance mass spectrometry with electrospray and atmospheric pressure photoionization. <i>Rapid Communications in Mass Spectrometry</i> , 2010, 24, 643-650.	1.5	104
68	Selective preservation of organic matter in marine environments; processes and impact on the sedimentary record. <i>Biogeosciences</i> , 2010, 7, 483-511.	3.3	331
69	The Biogeochemistry of the Caet� Mangrove-Shelf System. <i>Ecological Studies</i> , 2010, , 45-67.	1.2	1
70	The Mangrove Information System MAIS: Managing and Integrating Interdisciplinary Research Data. <i>Ecological Studies</i> , 2010, , 355-364.	1.2	1
71	Fragmentation Studies of Fulvic Acids Using Collision Induced Dissociation Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. <i>Analytical Chemistry</i> , 2009, 81, 2688-2694.	6.5	114
72	Molecular characterization of dissolved organic matter in pore water of continental shelf sediments. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 3337-3358.	3.9	184

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73	Tools for Studying Biogeochemical Connectivity Among Tropical Coastal Ecosystems. , 2009, , 425-455.		3
74	Release of fixed N ₂ and C as dissolved compounds by <i>Trichodesmium erythreum</i> and <i>Nodularia spumigena</i> under the influence of high light and high nutrient (P). <i>Aquatic Microbial Ecology</i> , 2009, 57, 175-189.	1.8	42
75	Advanced characterization of marine dissolved organic matter by combining reversed-phase liquid chromatography and FT-ICR-MS. <i>Marine Chemistry</i> , 2008, 111, 233-241.	2.3	154
76	Natural Organic Matter and the Event Horizon of Mass Spectrometry. <i>Analytical Chemistry</i> , 2008, 80, 8908-8919.	6.5	394
77	Spectroscopic characterization of fulvic acids extracted from the rock exudate Shilajit. <i>Organic Geochemistry</i> , 2008, 39, 1719-1724.	1.8	35
78	Stratification and the distribution of phytoplankton, nutrients, inorganic carbon, and sulfur in the surface waters of Weddell Sea leads. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2008, 55, 988-999.	1.4	14
79	A simple and efficient method for the solid-phase extraction of dissolved organic matter (SPE- DOM) from seawater. <i>Limnology and Oceanography: Methods</i> , 2008, 6, 230-235.	2.0	1,329
80	Rapid biotic molecular transformation of fulvic acids in a karst aquifer. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 5474-5482.	3.9	66
81	Fundamentals of Molecular Formula Assignment to Ultrahigh Resolution Mass Data of Natural Organic Matter. <i>Analytical Chemistry</i> , 2007, 79, 1758-1763.	6.5	414
82	Tracing suspended organic nitrogen from the Yangtze River catchment into the East China Sea. <i>Marine Chemistry</i> , 2007, 107, 367-377.	2.3	97
83	Tracing terrigenous dissolved organic matter and its photochemical decay in the ocean by using liquid chromatography/mass spectrometry. <i>Marine Chemistry</i> , 2007, 107, 378-387.	2.3	63
84	From mass to structure: an aromaticity index for high-resolution mass data of natural organic matter. <i>Rapid Communications in Mass Spectrometry</i> , 2006, 20, 926-932.	1.5	1,058
85	Thermogenic organic matter dissolved in the abyssal ocean. <i>Marine Chemistry</i> , 2006, 102, 208-217.	2.3	196
86	Molecular formulae of marine and terrigenous dissolved organic matter detected by electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 3299-3308.	3.9	445
87	The effect of selective microbial degradation on the composition of mangrove derived pentacyclic triterpenols in surface sediments. <i>Organic Geochemistry</i> , 2005, 36, 273-285.	1.8	51
88	Title is missing!. <i>Wetlands Ecology and Management</i> , 2003, 11, 257-263.	1.5	65
89	An integrated approach to mangrove dynamics and management. <i>Journal of Coastal Conservation</i> , 1999, 5, 125-134.	1.6	26