Alex Baker

List of Publications by Year
in descending order

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115 papers	14,698 citations	25034 57 h-index	22832 112 g-index
149 all docs	149 docs citations	149 times ranked	12132 citing authors

#	Article	IF	Citations
1	Microplastics and nanoplastics in the marine-atmosphere environment. Nature Reviews Earth & Environment, 2022, 3, 393-405.	29.7	121
2	Soluble trace metals associated with atmospheric fine particulate matter in the two most populous cities in Vietnam. Atmospheric Environment: X, 2022, 15, 100178.	1.4	7
3	Trace Element Biogeochemistry in the Highâ€Latitude North Atlantic Ocean: Seasonal Variations and Volcanic Inputs. Global Biogeochemical Cycles, 2021, 35, e2020GB006674.	4.9	13
4	Spatial and Temporal Variability of Iodine in Aerosol. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034410.	3.3	9
5	Changing atmospheric acidity as a modulator of nutrient deposition and ocean biogeochemistry. Science Advances, 2021, 7, .	10.3	39
6	Measurement report: Indirect evidence for the controlling influence of acidity on the speciation of iodine in Atlantic aerosols. Atmospheric Chemistry and Physics, 2021, 21, 13067-13076.	4.9	5
7	Soluble Iodine Speciation in Marine Aerosols Across the Indian and Pacific Ocean Basins. Frontiers in Marine Science, 2021, 8, .	2.5	2
8	Trace Metal Fractional Solubility in Sizeâ€Segregated Aerosols From the Tropical Eastern Atlantic Ocean. Global Biogeochemical Cycles, 2020, 34, e2019GB006510.	4.9	30
9	High Production of Soluble Iron Promoted by Aerosol Acidification in Fog. Geophysical Research Letters, 2020, 47, e2019GL086124.	4.0	22
10	Atmospheric Transport and Deposition of Particulate Matter to the Oceans. , 2019, , 21-25.		1
11	Ship-Based Contributions to Global Ocean, Weather, and Climate Observing Systems. Frontiers in Marine Science, 2019, 6, .	2.5	34
12	Importance of reactive halogens in the tropical marine atmosphere: aÂregional modelling study using WRF-Chem. Atmospheric Chemistry and Physics, 2019, 19, 3161-3189.	4.9	36
13	Influence of collection substrate and extraction method on the speciation of soluble iodine in atmospheric aerosols. Atmospheric Environment: X, 2019, 1, 100009.	1.4	8
14	Pyrogenic iron: The missing link to high iron solubility in aerosols. Science Advances, 2019, 5, eaau7671.	10.3	128
15	Phosphorus solubility in aerosol particles related to particle sources and atmospheric acidification in Asian continental outflow. Atmospheric Chemistry and Physics, 2019, 19, 847-860.	4.9	38
16	Global sea-surface iodide observations, 1967â€“2018. Scientific Data, 2019, 6, 286.	5.3	25
17	Iron Biogeochemistry in the High Latitude North Atlantic Ocean. Scientific Reports, 2018, 8, 1283.	3.3	47
18	Insights Into the Biogeochemical Cycling of Iron, Nitrate, and Phosphate Across a 5,300Âkm South Pacific Zonal Section (153Â°Eâ€“150Â°W). Global Biogeochemical Cycles, 2018, 32, 187-207.	4.9	31

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19	Atmospheric processing of iron in mineral and combustion aerosols: development of an intermediate-complexity mechanism suitable for Earth system models. Atmospheric Chemistry and Physics, 2018, 18, 14175-14196.	4.9	41
20	Reviews and syntheses: the GESAMP atmospheric iron deposition model intercomparison study. Biogeosciences, 2018, 15, 6659-6684.	3.3	63
21	Seasonal and geographical variability of nitryl chloride and its precursors in Northern Europe. Atmospheric Science Letters, 2018, 19, e844.	1.9	19
22	Springâ€“summer net community production, new production, particle export and related water column biogeochemical processes in the marginal sea ice zone of the Western Antarctic Peninsula 2012â€“2014. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170177.	3.4	23
23	The GEOTRACES Intermediate Data Product 2017. Chemical Geology, 2018, 493, 210-223.	3.3	257
24	Aerosol trace metal leaching and impacts on marine microorganisms. Nature Communications, 2018, 9, 2614.	12.8	176
25	A reevaluation of the magnitude and impacts of anthropogenic atmospheric nitrogen inputs on the ocean. Global Biogeochemical Cycles, 2017, 31, 289-305.	4.9	146
26	Atmospheric deposition of soluble trace elements along the Atlantic Meridional Transect (AMT). Progress in Oceanography, 2017, 158, 41-51.	3.2	40
27	Particulate phases are key in controlling dissolved iron concentrations in the (sub)tropical North Atlantic. Geophysical Research Letters, 2017, 44, 2377-2387.	4.0	34
28	The Cd isotope composition of atmospheric aerosols from the Tropical Atlantic Ocean. Geophysical Research Letters, 2017, 44, 2932-2940.	4.0	32
29	Observation- and model-based estimates of particulate dry nitrogen deposition to the oceans. Atmospheric Chemistry and Physics, 2017, 17, 8189-8210.	4.9	26
30	Potentially bioavailable iron delivery by iceberg-hosted sediments and atmospheric dust to the polar oceans. Biogeosciences, 2016, 13, 3887-3900.	3.3	65
31	Soluble trace metals in aerosols over the tropical south-east Pacific offshore of Peru. Biogeosciences, 2016, 13, 817-825.	3.3	29
32	Bioavailable atmospheric phosphorous supply to the global ocean: a 3-D global modeling study. Biogeosciences, 2016, 13, 6519-6543.	3.3	60
33	Return of naturally sourced Pb to Atlantic surface waters. Nature Communications, 2016, 7, 12921.	12.8	47
34	Trace element and isotope deposition across the airâ€“sea interface: progress and research needs. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20160190.	3.4	37
35	Global modeling of tropospheric iodine aerosol. Geophysical Research Letters, 2016, 43, 10012-10019.	4.0	17
36	Atmospheric transport of trace elements and nutrients to the oceans. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150286.	3.4	57

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37	Past, Present, and Future Atmospheric Nitrogen Deposition. Journals of the Atmospheric Sciences, 2016, 73, 2039-2047.	1.7	222
38	Global oceanic emission of ammonia: Constraints from seawater and atmospheric observations. Global Biogeochemical Cycles, 2015, 29, 1165-1178.	4.9	96
39	Estimation of the Atmospheric Flux of Nutrients and Trace Metals to the Eastern Tropical North Atlantic Ocean*. Journals of the Atmospheric Sciences, 2015, 72, 4029-4045.	1.7	49
40	Atmospheric water-soluble organic nitrogen (WSON) over marine environments: a global perspective. Biogeosciences, 2015, 12, 3131-3140.	3.3	26
41	Changes in dissolved iron deposition to the oceans driven by human activity: a 3-D global modelling study. Biogeosciences, 2015, 12, 3973-3992.	3.3	69
42	Atmospheric trace metal concentrations, solubility and deposition fluxes in remote marine air over the south-east Atlantic. Marine Chemistry, 2015, 177, 45-56.	2.3	93
43	An assessment of the vertical diffusive flux of iron and other nutrients to the surface waters of the subpolar North Atlantic Ocean. Biogeosciences, 2014, 11, 2113-2130.	3.3	21
44	A global assessment of precipitation chemistry and deposition of sulfur, nitrogen, sea salt, base cations, organic acids, acidity and pH, and phosphorus. Atmospheric Environment, 2014, 93, 3-100.	4.1	650
45	The distribution of iodide at the sea surface. Environmental Sciences: Processes and Impacts, 2014, 16, 1841-1859.	3.5	98
46	Western Pacific atmospheric nutrient deposition fluxes, their impact on surface ocean productivity. Global Biogeochemical Cycles, 2014, 28, 712-728.	4.9	63
47	Perspectives and Integration in SOLAS Science. Springer Earth System Sciences, 2014, , 247-306.	0.2	2
48	Processing and Ageing in the Atmosphere. , 2014, , 75-92.		14
49	Stable isotope ratio measurements of Cu and Zn in mineral dust (bulk and size fractions) from the Taklimakan Desert and the Sahel and in aerosols from the eastern tropical North Atlantic Ocean. Talanta, 2013, 114, 103-109.	5.5	45
50	The cycling of organic nitrogen through the atmosphere. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130115.	4.0	119
51	Methods for the sampling and analysis of marine aerosols: results from the 2008 GEOTRACES aerosol intercalibration experiment. Limnology and Oceanography: Methods, 2013, 11, 62-78.	2.0	100
52	Estimation of atmospheric nutrient inputs to the Atlantic Ocean from 50Â°N to 50Â°S based on largeâ€scale field sampling: Iron and other dustâ€associated elements. Global Biogeochemical Cycles, 2013, 27, 755-767.	4.9	88
53	Impact of atmospheric deposition on the contrasting iron biogeochemistry of the North and South Atlantic Ocean. Global Biogeochemical Cycles, 2013, 27, 1096-1107.	4.9	45
54	Fluxes and distribution of dissolved iron in the eastern (subâ€) tropical North Atlantic Ocean. Global Biogeochemical Cycles, 2012, 26, .	4.9	48

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55	Chemical controls on ozone deposition to water. Geophysical Research Letters, 2012, 39, .	4.0	19
56	Iron organic speciation determination in rainwater using cathodic stripping voltammetry. Analytica Chimica Acta, 2012, 736, 45-54.	5.4	41
57	Impacts on iron solubility in the mineral dust by processes in the source region and the atmosphere: A review. Aeolian Research, 2012, 5, 21-42.	2.7	228
58	Fractional solubility of aerosol iron: Synthesis of a global-scale data set. Geochimica Et Cosmochimica Acta, 2012, 89, 173-189.	3.9	206
59	Atmospheric Chemistry of Iodine. Chemical Reviews, 2012, 112, 1773-1804.	47.7	482
60	Atmospheric fluxes of organic N and P to the global ocean. Global Biogeochemical Cycles, 2012, 26, .	4.9	179
61	Atmospheric Transport and Deposition of Mineral Dust to the Ocean: Implications for Research Needs. Environmental Science & Technology, 2012, 46, 10390-10404.	10.0	187
62	Distributions of dissolved trace metals (Cd, Cu, Mn, Pb, Ag) in the southeastern Atlantic and the Southern Ocean. Biogeosciences, 2012, 9, 3231-3246.	3.3	51
63	Influence of chemical weathering and aging of iron oxides on the potential iron solubility of Saharan dust during simulated atmospheric processing. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	4.9	90
64	Impacts of atmospheric nutrient deposition on marine productivity: Roles of nitrogen, phosphorus, and iron. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	4.9	177
65	Nitrogen processes in coastal and marine ecosystems. , 2011, , 147-176.		22
66	Minor effect of physical size sorting on iron solubility of transported mineral dust. Atmospheric Chemistry and Physics, 2011, 11, 8459-8469.	4.9	44
67	Iron dissolution kinetics of mineral dust at low pH during simulated atmospheric processing. Atmospheric Chemistry and Physics, 2011, 11, 995-1007.	4.9	122
68	The biogeochemical cycle of dissolved cobalt in the Atlantic and the Southern Ocean south off the coast of South Africa. Marine Chemistry, 2011, 126, 193-206.	2.3	62
69	Reactive Halogens in the Marine Boundary Layer (RHaMBLe): the tropical North Atlantic experiments. Atmospheric Chemistry and Physics, 2010, 10, 1031-1055.	4.9	66
70	Determination of total and non-water soluble iodine in atmospheric aerosols by thermal extraction and spectrometric detection (TESI). Analytical and Bioanalytical Chemistry, 2010, 398, 519-526.	3.7	17
71	Seasonal and interannual variation of dissolved iodine speciation at a coastal Antarctic site. Marine Chemistry, 2010, 118, 171-181.	2.3	49
72	Atmospheric trace metals over the south-west Indian Ocean: Total gaseous mercury, aerosol trace metal concentrations and lead isotope ratios. Marine Chemistry, 2010, 121, 2-16.	2.3	57

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73	Aerosol organic nitrogen over the remote Atlantic Ocean. Atmospheric Environment, 2010, 44, 1887-1893.	4.1	60
74	Atmospheric and marine controls on aerosol iron solubility in seawater. Marine Chemistry, 2010, 120, 4-13.	2.3	330
75	Iron biogeochemistry across marine systems â€“ progress from the past decade. Biogeosciences, 2010, 7, 1075-1097.	3.3	69
76	Hafnium and neodymium isotopes in surface waters of the eastern Atlantic Ocean: Implications for sources and inputs of trace metals to the ocean. Geochimica Et Cosmochimica Acta, 2010, 74, 540-557.	3.9	97
77	Estimation of atmospheric nutrient inputs to the Atlantic Ocean from 50Â°N to 50Â°S based on largeâ€scale field sampling: Fixed nitrogen and dry deposition of phosphorus. Global Biogeochemical Cycles, 2010, 24, .	4.9	91
78	Release and transformations of inorganic iodine by marine macroalgae. Estuarine, Coastal and Shelf Science, 2009, 82, 406-414.	2.1	46
79	Southern Ocean deep-water carbon export enhanced by natural iron fertilization. Nature, 2009, 457, 577-580.	27.8	338
80	Formation of Iron Nanoparticles and Increase in Iron Reactivity in Mineral Dust during Simulated Cloud Processing. Environmental Science & Technology, 2009, 43, 6592-6596.	10.0	140
81	Composition and properties of atmospheric particles in the eastern Atlantic and impacts on gas phase uptake rates. Atmospheric Chemistry and Physics, 2009, 9, 9299-9314.	4.9	58
82	Changes in iron speciation following a Saharan dust event in the tropical North Atlantic Ocean. Marine Chemistry, 2008, 110, 56-67.	2.3	63
83	Impacts of Atmospheric Anthropogenic Nitrogen on the Open Ocean. Science, 2008, 320, 893-897.	12.6	964
84	Field observations of the oceanâ€atmosphere exchange of ammonia: Fundamental importance of temperature as revealed by a comparison of high and low latitudes. Global Biogeochemical Cycles, 2008, 22, .	4.9	83
85	Global distribution of atmospheric phosphorus sources, concentrations and deposition rates, and anthropogenic impacts. Global Biogeochemical Cycles, 2008, 22, .	4.9	617
86	Dry and wet deposition of nutrients from the tropical Atlantic atmosphere: Links to primary productivity and nitrogen fixation. Deep-Sea Research Part I: Oceanographic Research Papers, 2007, 54, 1704-1720.	1.4	168
87	Dissolved iron in the vicinity of the Crozet Islands, Southern Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2007, 54, 1999-2019.	1.4	155
88	Global dust teleconnections: aerosol iron solubility and stable isotope composition. Environmental Chemistry, 2007, 4, 233.	1.5	48
89	Reduction of iodate to iodide by cold water diatom cultures. Marine Chemistry, 2007, 105, 169-180.	2.3	77
90	Influence of atmospheric inputs on the iron distribution in the subtropical North-East Atlantic Ocean. Marine Chemistry, 2007, 104, 186-202.	2.3	37

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91	Trends in aerosol nutrient solubility along a westâ€“east transect of the Saharan dust plume. Geophysical Research Letters, 2006, 33, .	4.0	118
92	Mineral particle size as a control on aerosol iron solubility. Geophysical Research Letters, 2006, 33, .	4.0	214
93	Nutrients in atmospheric aerosol particles along the Atlantic Meridional Transect. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 1706-1719.	1.4	81
94	The Atlantic Meridional Transect (AMT) Programme: A contextual view 1995â€“2005. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 1485-1515.	1.4	90
95	Trends in the solubility of iron, aluminium, manganese and phosphorus in aerosol collected over the Atlantic Ocean. Marine Chemistry, 2006, 98, 43-58.	2.3	353
96	Atmospheric trace metals over the Atlantic and South Indian Oceans: Investigation of metal concentrations and lead isotope ratios in coastal and remote marine aerosols. Atmospheric Environment, 2006, 40, 5435-5451.	4.1	72
97	Marine Aerosol Iodine Chemistry: The Importance of Soluble Organic Iodine. Environmental Chemistry, 2005, 2, 295.	1.5	84
98	Copper and zinc removal from aqueous solution by mixed mineral systems. Journal of Colloid and Interface Science, 2005, 291, 319-325.	9.4	35
99	Copper and zinc removal from aqueous solution by mixed mineral systems. Journal of Colloid and Interface Science, 2005, 291, 326-333.	9.4	19
100	Global Iron Connections Between Desert Dust, Ocean Biogeochemistry, and Climate. Science, 2005, 308, 67-71.	12.6	2,365
101	Atmospheric global dust cycle and iron inputs to the ocean. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	930
102	Impacts of biomass burning emissions and land use change on Amazonian atmospheric phosphorus cycling and deposition. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	142
103	Estimation of iron solubility from observations and a global aerosol model. Journal of Geophysical Research, 2005, 110, .	3.3	99
104	Inorganic iodine speciation in tropical Atlantic aerosol. Geophysical Research Letters, 2004, 31, .	4.0	80
105	Short residence time for iron in surface seawater impacted by atmospheric dry deposition from Saharan dust events. Geophysical Research Letters, 2004, 31, .	4.0	106
106	Influence of the ITCZ on H2O2in near surface waters in the equatorial Atlantic Ocean. Geophysical Research Letters, 2004, 31, .	4.0	27
107	Isotopic evidence for a marine ammonia source. Geophysical Research Letters, 2003, 30, .	4.0	97
108	Atmospheric deposition of nutrients to the Atlantic Ocean. Geophysical Research Letters, 2003, 30, .	4.0	173

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109	Atmospheric iron deposition and sea-surface dissolved iron concentrations in the eastern Atlantic Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2003, 50, 1339-1352.	1.4	172
110	Iodine speciation and deposition fluxes from the marine atmosphere. Journal of Geophysical Research, 2001, 106, 28743-28749.	3.3	78
111	The distribution of iodine in the Baltic Sea during summer. Marine Chemistry, 2001, 74, 87-98.	2.3	57
112	Distribution and sea-air fluxes of biogenic trace gases in the eastern Atlantic Ocean. Global Biogeochemical Cycles, 2000, 14, 871-886.	4.9	85
113	Comparison of Bauxite and Bayer Liquor Humic Substances by 13C Nuclear Magnetic Resonance Spectroscopy. Implications for the Fate of Humic Substances in the Bayer Process. Industrial & Engineering Chemistry Research, 1998, 37, 4198-4202.	3.7	9
114	Sequential flow analysis coupled with ACSV for on-line monitoring of cobalt in the marine environment. Fresenius' Journal of Analytical Chemistry, 1997, 358, 703-710.	1.5	16
115	A microwave digestion-based determination of low molecular weight organic acids in Bayer process liquor. Talanta, 1995, 42, 1355-1360.	5.5	18