James Moffett

List of Publications by Year
in descending order

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Version: 2024-02-01

104 papers	10,324 citations	22153 59 h-index	33894 99 g-index
107 all docs	107 docs citations	107 times ranked	7470 citing authors

#	Article	IF	Citations
1	Phosphonate utilization by the globally important marine diazotroph Trichodesmium. Nature, 2006, 439, 68-71.	27.8	508
2	Basin-scale transport of hydrothermal dissolved metals across the South Pacific Ocean. Nature, 2015, 523, 200-203.	27.8	397
3	Reaction kinetics of hydrogen peroxide with copper and iron in seawater. Environmental Science & Technology, 1987, 21, 804-810.	10.0	374
4	Marine ammonia-oxidizing archaeal isolates display obligate mixotrophy and wide ecotypic variation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12504-12509.	7.1	323
5	Microbially mediated cerium oxidation in sea water. Nature, 1990, 345, 421-423.	27.8	292
6	Production of strong, extracellular Cu chelators by marine cyanobacteria in response to Cu stress. Limnology and Oceanography, 1996, 41, 388-395.	3.1	274
7	The GEOTRACES Intermediate Data Product 2017. Chemical Geology, 2018, 493, 210-223.	3.3	257
8	Developing Standards for Dissolved Iron in Seawater. Eos, 2007, 88, 131.	0.1	237
9	Cobalt limitation and uptake in Prochlorococcus. Limnology and Oceanography, 2002, 47, 1629-1636.	3.1	220
10	Production of cobalt binding ligands in a Synechococcus feature at the Costa Rica upwelling dome. Limnology and Oceanography, 2005, 50, 279-290.	3.1	208
11	Preservation of iron(II) by carbon-rich matrices in a hydrothermal plume. Nature Geoscience, 2009, 2, 197-201.	12.9	200
12	Copper toxicity and cyanobacteria ecology in the Sargasso Sea. Limnology and Oceanography, 2002, 47, 976-988.	3.1	195
13	Role of protozoan grazing in relieving iron limitation of phytoplankton. Nature, 1996, 380, 61-64.	27.8	194
14	Oxidation of cobalt and manganese in seawater via a common microbially catalyzed pathway. Geochimica Et Cosmochimica Acta, 1996, 60, 3415-3424.	3.9	193
15	Cu speciation and cyanobacterial distribution in harbors subject to anthropogenic Cu inputs. Limnology and Oceanography, 1997, 42, 789-799.	3.1	184
16	The production of nitric oxide by marine ammoniaâ€oxidizing archaea and inhibition of archaeal ammonia oxidation by a nitric oxide scavenger. Environmental Microbiology, 2015, 17, 2261-2274.	3.8	176
17	Complexation of cobalt by natural organic ligands in the Sargasso Sea as determined by a new high-sensitivity electrochemical cobalt speciation method suitable for open ocean work. Marine Chemistry, 2001, 75, 49-68.	2.3	175
18	Two distinct pools of B₁₂analogs reveal community interdependencies in the ocean. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 364-369.	7.1	174

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19	Co-occurring Synechococcus ecotypes occupy four major oceanic regimes defined by temperature, macronutrients and iron. ISME Journal, 2016, 10, 333-345.	9.8	169
20	Production of extracellular Cu complexing ligands by eucaryotic phytoplankton in response to Cu stress. Limnology and Oceanography, 2000, 45, 619-627.	3.1	168
21	Nitrosopumilus maritimus gen. nov., sp. nov., Nitrosopumilus cobalaminigenes sp. nov., Nitrosopumilus oxyclinae sp. nov., and Nitrosopumilus ureiphilus sp. nov., four marine ammonia-oxidizing archaea of the phylum Thaumarchaeota. International Journal of Systematic and Evolutionary Microbiology, 2017, 67, 5067-5079.	1.7	159
22	Oxidation kinetics of Cu(I) in seawater: implications for its existence in the marine environment. Marine Chemistry, 1983, 13, 239-251.	2.3	158
23	Spatial and temporal variations of hydrogen peroxide in Gulf of Mexico waters. Geochimica Et Cosmochimica Acta, 1985, 49, 1173-1184.	3.9	157
24	Intercomparison of voltammetric techniques to determine the chemical speciation of dissolved copper in a coastal seawater sample. Analytica Chimica Acta, 2000, 405, 99-113.	5.4	146
25	Iron Stress in Open-Ocean Cyanobacteria (Synechococcus , Trichodesmium , and Crocosphaera spp.): Identification of the IdiA Protein. Applied and Environmental Microbiology, 2001, 67, 5444-5452.	3.1	144
26	Confounding effects of oxygen and temperature on the TEX ₈₆ signature of marine Thaumarchaeota. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10979-10984.	7.1	133
27	Ammonia oxidation kinetics and temperature sensitivity of a natural marine community dominated by Archaea. ISME Journal, 2013, 7, 2023-2033.	9.8	132
28	A radiotracer study of cerium and manganese uptake onto suspended particles in Chesapeake Bay. Geochimica Et Cosmochimica Acta, 1994, 58, 695-703.	3.9	129
29	Temporal and spatial variability of copper complexation by strong chelators in the Sargasso Sea. Deep-Sea Research Part I: Oceanographic Research Papers, 1995, 42, 1273-1295.	1.4	125
30	Temporal and spatial variability of cobalt in the Atlantic Ocean. Geochimica Et Cosmochimica Acta, 2002, 66, 1943-1953.	3.9	120
31	Thermodynamic characterization of the partitioning of iron between soluble and colloidal species in the Atlantic Ocean. Marine Chemistry, 2006, 98, 295-303.	2.3	120
32	Cu complexation by organic ligands in the sub-arctic NW Pacific and Bering Sea. Deep-Sea Research Part I: Oceanographic Research Papers, 2007, 54, 586-595.	1.4	120
33	Cobalt and nickel in the Peru upwelling region: A major flux of labile cobalt utilized as a micronutrient. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	119
34	An investigation ofhydrogen peroxide chemistry in surface waters of Vineyard Sound with H218O2 and 18O2. Limnology and Oceanography, 1990, 35, 1221-1229.	3.1	115
35	Cellâ€specific detection of phosphorus stress in Trichodesmium from the Western North Atlantic. Limnology and Oceanography, 2002, 47, 1832-1836.	3.1	115
36	Organic carbon, and not copper, controls denitrification in oxygen minimum zones of the ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2008, 55, 1672-1683.	1.4	105

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37	Influence of oxygen availability on the activities of ammoniaâ€oxidizing archaea. Environmental Microbiology Reports, 2017, 9, 250-256.	2.4	102
38	The organic complexation of iron and copper: an intercomparison of competitive ligand exchangeâ€adsorptive cathodic stripping voltammetry (CLEâ€ACSV) techniques. Limnology and Oceanography: Methods, 2012, 10, 496-515.	2.0	100
39	Evaluation of bathocuproine for the spectro-photometric determination of copper(I) in copper redox studies with applications in studies of natural waters. Analytica Chimica Acta, 1985, 175, 171-179.	5.4	99
40	Reduced iron associated with secondary nitrite maxima in the Arabian Sea. Deep-Sea Research Part I: Oceanographic Research Papers, 2007, 54, 1341-1349.	1.4	98
41	Solvent extraction of copper acetylacetonate in studies of copper(II) speciation in seawater. Marine Chemistry, 1987, 21, 301-313.	2.3	95
42	Real-Time Determination of Picomolar Free Cu(II) in Seawater Using a Fluorescence-Based Fiber Optic Biosensor. Analytical Chemistry, 2003, 75, 6807-6812.	6.5	95
43	Molecular evidence of iron limitation and availability in the global diazotroph Trichodesmium. ISME Journal, 2012, 6, 1728-1739.	9.8	93
44	The Arabian Sea as a high-nutrient, low-chlorophyll region during the late Southwest Monsoon. Biogeosciences, 2010, 7, 2091-2100.	3.3	91
45	Comparison of Copper Speciation in Coastal Marine Waters Measured Using Analytical Voltammetry and Diffusion Gradient in Thin-Film Techniques. Environmental Science & Technology, 2002, 36, 1061-1068.	10.0	89
46	Measurement and Implications of Nonphotochemically Generated Superoxide in the Equatorial Pacific Ocean. Environmental Science & Technology, 2008, 42, 2387-2393.	10.0	86
47	Measurement of copper(I) in surface waters of the subtropical Atlantic and Gulf of Mexico. Geochimica Et Cosmochimica Acta, 1988, 52, 1849-1857.	3.9	83
48	Polarographic determination of half-wave potentials for copper-organic complexes in seawater. Marine Chemistry, 1999, 67, 219-232.	2.3	83
49	Determination of Superoxide in Seawater Using 2-Methyl-6-(4-methoxyphenyl)-3,7-dihydroimidazo[1,2-a]pyrazin-3(7H)-one Chemiluminescence. Analytical Chemistry, 2008, 80, 1215-1227.	6.5	82
50	Stress response of a marine ammonia-oxidizing archaeon informs physiological status of environmental populations. ISME Journal, 2018, 12, 508-519.	9.8	82
51	The flux of iron and iron isotopes from San Pedro Basin sediments. Geochimica Et Cosmochimica Acta, 2012, 93, 14-29.	3.9	79
52	Novel copperâ€binding and nitrogenâ€rich thiols produced and exuded by Emiliania huxleyi. Limnology and Oceanography, 2004, 49, 1754-1762.	3.1	78
53	Laboratory and field studies of colloidal iron oxide dissolution as mediated by phagotrophy and photolysis. Limnology and Oceanography, 2000, 45, 827-835.	3.1	77
54	Distribution of dissolved species and suspended particulate copper in an intertidal ecosystem affected by copper mine tailings in Northern Chile. Marine Chemistry, 2006, 101, 203-212.	2.3	73

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55	Distributions of dissolved and particulate biogenic thiols in the subartic Pacific Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2006, 53, 1961-1974.	1.4	72
56	Copper requirements of the ammoniaâ€oxidizing archaeon Nitrosopumilus maritimus SCM1 and implications for nitrification in the marine environment. Limnology and Oceanography, 2013, 58, 2037-2045.	3.1	69
57	Determination of four forms of vitamin B₁₂ and other B vitamins in seawater by liquid chromatography/tandem mass spectrometry. Rapid Communications in Mass Spectrometry, 2014, 28, 2398-2404.	1.5	67
58	Accumulation of Fe oxyhydroxides in the Peruvian oxygen deficient zone implies non-oxygen dependent Fe oxidation. Geochimica Et Cosmochimica Acta, 2017, 211, 174-193.	3.9	64
59	A community-wide intercomparison exercise for the determination of dissolved iron in seawater. Marine Chemistry, 2006, 98, 81-99.	2.3	60
60	Multiple oxidation state trace elements in suboxic waters off Peru: In situ redox processes and advective/diffusive horizontal transport. Marine Chemistry, 2018, 201, 77-89.	2.3	60
61	Meta-omic signatures of microbial metal and nitrogen cycling in marine oxygen minimum zones. Frontiers in Microbiology, 2015, 6, 998.	3.5	58
62	Copper distribution and speciation across the International GEOTRACES Section GA03. Deep-Sea Research Part II: Topical Studies in Oceanography, 2015, 116, 187-207.	1.4	57
63	Molecular assessment of phosphorus and iron physiology in Trichodesmium populations from the western Central and western South Atlantic. Limnology and Oceanography, 2007, 52, 2221-2232.	3.1	56
64	Trace metal control of phytochelatin production in coastal waters. Limnology and Oceanography, 1997, 42, 601-608.	3.1	55
65	Evidence for the linked biogeochemical cycling of zinc, cobalt, and phosphorus in the western North Atlantic Ocean. Global Biogeochemical Cycles, 2008, 22, .	4.9	53
66	Evidence for grazing-mediated production of dissolved surface-active material by marine protists. Marine Chemistry, 2002, 77, 133-142.	2.3	49
67	The speciation of copper across active gradients in nitrogen-cycle processes in the eastern tropical South Pacific. Limnology and Oceanography, 2013, 58, 1387-1394.	3.1	46
68	Kinetics of copper accumulation in Lessonia nigrescens (Phaeophyceae) under conditions of environmental oxidative stress. Aquatic Toxicology, 2006, 78, 398-401.	4.0	45
69	Dissolved zinc in the subarctic North Pacific and Bering Sea: Its distribution, speciation, and importance to primary producers. Global Biogeochemical Cycles, 2012, 26, .	4.9	44
70	Iron redox cycling and subsurface offshore transport in the eastern tropical South Pacific oxygen minimum zone. Marine Chemistry, 2015, 168, 95-103.	2.3	43
71	The importance of microbial Mn oxidation in the upper ocean: a comparison of the Sargasso Sea and equatorial Pacific. Deep-Sea Research Part I: Oceanographic Research Papers, 1997, 44, 1277-1291.	1.4	40
72	Iron speciation in the eastern tropical South Pacific oxygen minimum zone off Peru. Limnology and Oceanography, 2014, 59, 1945-1957.	3.1	39

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73	Relative impacts of light, temperature, and reactive oxygen on thaumarchaeal ammonia oxidation in the North Pacific Ocean. Limnology and Oceanography, 2018, 63, 741-757.	3.1	39
74	Biogeochemistry of iron in the <scp>A</scp>rabian <scp>S</scp>ea. Limnology and Oceanography, 2015, 60, 1671-1688.	3.1	38
75	Water mass analysis of the 2013 US GEOTRACES eastern Pacific zonal transect (GP16). Marine Chemistry, 2018, 201, 6-19.	2.3	38
76	Assessment of the potential for copper limitation of ammonia oxidation by Archaea in a dynamic estuary. Marine Chemistry, 2014, 162, 37-49.	2.3	37
77	Cadmiumâ"Copper Antagonism in Seaweeds Inhabiting Coastal Areas Affected by Copper Mine Waste Disposals. Environmental Science & Technology, 2006, 40, 4382-4387.	10.0	34
78	Dissolved Fe(II) in the Arabian Sea oxygen minimum zone and western tropical Indian Ocean during the inter-monsoon period. Deep-Sea Research Part I: Oceanographic Research Papers, 2013, 73, 73-83.	1.4	33
79	The role of water masses in shaping the distribution of redox active compounds in the Eastern Tropical North Pacific oxygen deficient zone and influencing low oxygen concentrations in the eastern Pacific Ocean. Limnology and Oceanography, 2020, 65, 1688-1705.	3.1	33
80	Use of a modified, high-sensitivity, anodic stripping voltammetry method for determination of zinc speciation in the North Atlantic Ocean. Analytica Chimica Acta, 2008, 614, 143-152.	5.4	29
81	Distribution of dissolved manganese in the Peruvian Upwelling and Oxygen Minimum Zone. Geochimica Et Cosmochimica Acta, 2015, 156, 222-240.	3.9	29
82	The Distribution and Redox Speciation of Iodine in the Eastern Tropical North Pacific Ocean. Global Biogeochemical Cycles, 2020, 34, e2019GB006302.	4.9	29
83	Dissolution of Iron Oxides by Phagotrophic Protists:Â Using a Novel Method To Quantify Reaction Rates. Environmental Science & Technology, 1998, 32, 2969-2975.	10.0	27
84	Limited iodate reduction in shipboard seawater incubations from the Eastern Tropical North Pacific oxygen deficient zone. Earth and Planetary Science Letters, 2021, 554, 116676.	4.4	26
85	Plankton dynamics and biogeochemical fluxes in the Costa Rica Dome: introduction to the CRD Flux and Zinc Experiments. Journal of Plankton Research, 2016, 38, 167-182.	1.8	25
86	Preferential depletion of zinc within Costa Rica upwelling dome creates conditions for zinc co-limitation of primary production. Journal of Plankton Research, 2016, 38, 244-255.	1.8	22
87	Efficient zinc/cobalt interâ€replacement in northeast Pacific diatoms and relationship to high surface dissolved Co : Zn ratios. Limnology and Oceanography, 2020, 65, 2557-2582.	3.1	22
88	Unexpected Source and Transport of Iron from the Deep Peru Margin. ACS Earth and Space Chemistry, 2020, 4, 977-992.	2.7	20
89	Chelatorâ€induced inhibition of copper metalloenzymes in denitrifying bacteria. Limnology and Oceanography, 2012, 57, 272-280.	3.1	18
90	Distribution of iron in the Western Indian Ocean and the Eastern tropical South pacific: An inter-basin comparison. Chemical Geology, 2020, 532, 119334.	3.3	17

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91	The U.S.GEOTRACES Eastern Tropical Pacific Transect (GP16). Marine Chemistry, 2018, 201, 1-5.	2.3	16
92	Importance of Passive Diffusion in the Uptake of Polychlorinated Biphenyls by Phagotrophic Protozoa. Applied and Environmental Microbiology, 2000, 66, 1987-1993.	3.1	13
93	Accumulation of NO₂â€cobalamin in nutrientâ€stressed ammoniaâ€oxidizing archaea and in the oxygen deficient zone of the eastern tropical North Pacific. Environmental Microbiology Reports, 2018, 10, 453-457.	2.4	13
94	Determination of iron(II) by chemiluminescence using masking ligands to distinguish interferences. Limnology and Oceanography: Methods, 2018, 16, 750-759.	2.0	9
95	Grazing control and iron limitation of primary production in the Arabian Sea: Implications for anticipated shifts in Southwest Monsoon intensity. Deep-Sea Research Part II: Topical Studies in Oceanography, 2020, 179, 104687.	1.4	9
96	Hydrothermal Activity and Seismicity at Teahitia Seamount: Reactivation of the Society Islands Hotspot?. Frontiers in Marine Science, 2020, 7, .	2.5	9
97	Lack of redox cycling for nickel in the water column of the Eastern tropical north pacific oxygen deficient zone: Insight from dissolved and particulate nickel isotopes. Geochimica Et Cosmochimica Acta, 2021, 309, 235-250.	3.9	8
98	Organic complexation of iron by strong ligands and siderophores in the eastern tropical North Pacific oxygen deficient zone. Marine Chemistry, 2021, 236, 104021.	2.3	8
99	Determination of inert and labile copper on GEOTRACES samples using a novel solvent extraction method. Marine Chemistry, 2022, 239, 104073.	2.3	6
100	Rare earth element distributions in the Arabian Sea reveal the influence of redox processes within the oxygen deficient zone. Chemical Geology, 2021, 577, 120214.	3.3	5
101	Iron(II) in the world's oxygen deficient zones. Chemical Geology, 2021, 580, 120314.	3.3	4
102	Marine Protozoa Produce Organic Matter with a High Affinity for PCBs during Grazing. Environmental Science & Technology, 2001, 35, 4060-4065.	10.0	2
103	Chapter 15 Instrumentation for Fluorescenceâ€Based Fiber Optic Biosensors. Methods in Enzymology, 2008, 450, 311-337.	1.0	2
104	Commentary on â€œInsights into the Major Processes Driving the Global Distribution of Copper in the Ocean From a Global 3â€D Modelâ€• by Camille Richon and Alessandro Tagliabue. Global Biogeochemical Cycles, 2019, 33, 1471-1474.	4.9	1