Matthew R Mcilvin

List of Publications by Year
in descending order

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48	3,933	159585 30	206112 48
papers	citations	h-index	g-index

51	51	51	4578
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chemical Conversion of Nitrate and Nitrite to Nitrous Oxide for Nitrogen and Oxygen Isotopic Analysis in Freshwater and Seawater. Analytical Chemistry, 2005, 77, 5589-5595.	6.5	553
2	Isotopic Signature of N ₂ O Produced by Marine Ammonia-Oxidizing Archaea. Science, 2011, 333, 1282-1285.	12.6	369
3	Genomic and proteomic characterization of â€œ Candidatus Nitrosopelagicus brevisâ€• An ammonia-oxidizing archaeon from the open ocean. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1173-1178.	7.1	278
4	Technical Updates to the Bacterial Method for Nitrate Isotopic Analyses. Analytical Chemistry, 2011, 83, 1850-1856.	6.5	219
5	Oxygen Isotopes in Nitrite:Â Analysis, Calibration, and Equilibration. Analytical Chemistry, 2007, 79, 2427-2436.	6.5	211
6	Siderophore-based microbial adaptations to iron scarcity across the eastern Pacific Ocean. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14237-14242.	7.1	179
7	Multiple nutrient stresses at intersecting Pacific Ocean biomes detected by protein biomarkers. Science, 2014, 345, 1173-1177.	12.6	174
8	Multiple sulfur isotope constraints on the modern sulfur cycle. Earth and Planetary Science Letters, 2014, 396, 14-21.	4.4	152
9	Irreversibly increased nitrogen fixation in Trichodesmium experimentally adapted to elevated carbon dioxide. Nature Communications, 2015, 6, 8155.	12.8	131
10	Oxygen isotopic composition of nitrate and nitrite produced by nitrifying cocultures and natural marine assemblages. Limnology and Oceanography, 2012, 57, 1361-1375.	3.1	116
11	Effect of Temperature on Photosynthesis and Growth in Marine Synechococcus spp.. Plant Physiology, 2013, 163, 815-829.	4.8	113
12	Oxygen isotopic exchange and fractionation during bacterial ammonia oxidation. Limnology and Oceanography, 2010, 55, 753-762.	3.1	91
13	Implications of nitrate and nitrite isotopic measurements for the mechanisms of nitrogen cycling in the Peru oxygen deficient zone. Deep-Sea Research Part I: Oceanographic Research Papers, 2013, 80, 78-93.	1.4	90
14	Denitrification likely catalyzed by endobionts in an allogromiid foraminifer. ISME Journal, 2012, 6, 951-960.	9.8	75
15	Potential importance of physiologically diverse benthic foraminifera in sedimentary nitrate storage and respiration. Journal of Geophysical Research, 2012, 117, .	3.3	74
16	Progress and Challenges in Ocean Metaproteomics and Proposed Best Practices for Data Sharing. Journal of Proteome Research, 2019, 18, 1461-1476.	3.7	73
17	A Manganese-rich Environment Supports Superoxide Dismutase Activity in a Lyme Disease Pathogen, Borrelia burgdorferi. Journal of Biological Chemistry, 2013, 288, 8468-8478.	3.4	65
18	Methionine synthase interreplacement in diatom cultures and communities: Implications for the persistence of B₁₂ use by eukaryotic phytoplankton. Limnology and Oceanography, 2013, 58, 1431-1450.	3.1	63

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19	Metabolic versatility of the nitrite-oxidizing bacterium Nitrospira marina and its proteomic response to oxygen-limited conditions. ISME Journal, 2021, 15, 1025-1039.	9.8	62
20	Divergent responses of Atlantic coastal and oceanic Synechococcus to iron limitation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9944-9949.	7.1	61
21	Nitrate isotope distributions on the US GEOTRACES North Atlantic cross-basin section: Signals of polar nitrate sources and low latitude nitrogen cycling. Marine Chemistry, 2015, 177, 143-156.	2.3	55
22	Oxygen isotopic exchange and fractionation during bacterial ammonia oxidation. Limnology and Oceanography, 2010, 55, 753-762.	3.1	53
23	Copper stress in Staphylococcus aureus leads to adaptive changes in central carbon metabolism. Metallomics, 2019, 11, 183-200.	2.4	51
24	Needles in the blue sea: Subâ€species specificity in targeted protein biomarker analyses within the vast oceanic microbial metaproteome. Proteomics, 2015, 15, 3521-3531.	2.2	49
25	Dinoflagellates alter their carbon and nutrient metabolic strategies across environmental gradients in the central Pacific Ocean. Nature Microbiology, 2021, 6, 173-186.	13.3	45
26	Colony formation in <i>Phaeocystis antarctica</i>: connecting molecular mechanisms with iron biogeochemistry. Biogeosciences, 2018, 15, 4923-4942.	3.3	44
27	NADPH-dependent extracellular superoxide production is vital to photophysiology in the marine diatom Thalassiosira oceanica. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16448-16453.	7.1	43
28	Abundant nitrite-oxidizing metalloenzymes in the mesopelagic zone of the tropical Pacific Ocean. Nature Geoscience, 2020, 13, 355-362.	12.9	41
29	Fully automated system for stable isotopic analyses of dissolved nitrous oxide at natural abundance levels. Limnology and Oceanography: Methods, 2010, 8, 54-66.	2.0	40
30	Transcriptomic and proteomic responses of the oceanic diatom Pseudoâ€nitzschia granii to iron limitation. Environmental Microbiology, 2018, 20, 3109-3126.	3.8	39
31	A Method for Determining the Nitrogen Isotopic Composition of Porphyrins. Analytical Chemistry, 2009, 81, 184-192.	6.5	33
32	Fully automated system for stable isotopic analyses of dissolved nitrous oxide at natural abundance levels. Limnology and Oceanography: Methods, 2010, 8, 54-66.	2.0	30
33	The acceleration of dissolved cobalt's ecological stoichiometry due to biological uptake, remineralization, and scavenging in the Atlantic Ocean. Biogeosciences, 2017, 14, 4637-4662.	3.3	30
34	Unique Patterns and Biogeochemical Relevance of Two-Component Sensing in Marine Bacteria. MSystems, 2019, 4, .	3.8	29
35	Physiology, Fe(II) oxidation, and Fe mineral formation by a marine planktonic cyanobacterium grown under ferruginous conditions. Frontiers in Earth Science, 2015, 3, .	1.8	27
36	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

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37	Dynamic diel proteome and daytime nitrogenase activity supports buoyancy in the cyanobacterium Trichodesmium. Nature Microbiology, 2022, 7, 300-311.	13.3	21
38	Physiological and proteomic characterization of light adaptations in marine Synechococcus. Environmental Microbiology, 2017, 19, 2348-2365.	3.8	20
39	Method for the Analysis of Î´18O in Water. Analytical Chemistry, 2006, 78, 2377-2381.	6.5	19
40	Characterization of the Fe metalloproteome of a ubiquitous marine heterotroph, Pseudoalteromonas (BB2-AT2): multiple bacterioferritin copies enable significant Fe storage. Metallomics, 2020, 12, 654-667.	2.4	16
41	Revealing ocean-scale biochemical structure with a deep-diving vertical profiling autonomous vehicle. Science Robotics, 2020, 5, .	17.6	12
42	Online Nanoflow Two-Dimension Comprehensive Active Modulation Reversed Phaseâ€“Reversed Phase Liquid Chromatography High-Resolution Mass Spectrometry for Metaproteomics of Environmental and Microbiome Samples. Journal of Proteome Research, 2021, 20, 4589-4597.	3.7	11
43	Hydrothermal trace metal release and microbial metabolism in the northeastern Lau Basin of the South Pacific Ocean. Biogeosciences, 2021, 18, 5397-5422.	3.3	11
44	Adaptive responses of marine diatoms to zinc scarcity and ecological implications. Nature Communications, 2022, 13, 1995.	12.8	10
45	Mechanisms and heterogeneity of in situ mineral processing by the marine nitrogen fixer Trichodesmium revealed by single-colony metaproteomics. ISME Communications, 2021, 1, .	4.2	9
46	Major processes of the dissolved cobalt cycle in the North and equatorial Pacific Ocean. Biogeosciences, 2022, 19, 2365-2395.	3.3	9
47	Why Environmental Biomarkers Work: Transcriptomeâ€“Proteome Correlations and Modeling of Multistressor Experiments in the Marine Bacterium Trichodesmium. Journal of Proteome Research, 2022, 21, 77-89.	3.7	7
48	Characterization of the metalloproteome of Pseudoalteromonas (BB2-AT2): biogeochemical underpinnings for zinc, manganese, cobalt, and nickel cycling in a ubiquitous marine heterotroph. Metallomics, 2021, 13, .	2.4	6