

Matthew R Mcilvin

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

3,933
citations

159585

30
h-index

206112

48
g-index

51
all docs

51
docs citations

51
times ranked

4578
citing authors

#	ARTICLE	IF	CITATIONS
1	Why Environmental Biomarkers Work: Transcriptome-Proteome Correlations and Modeling of Multistressor Experiments in the Marine Bacterium <i>Trichodesmium</i> . <i>Journal of Proteome Research</i> , 2022, 21, 77-89.	3.7	7
2	Dynamic diel proteome and daytime nitrogenase activity supports buoyancy in the cyanobacterium <i>Trichodesmium</i> . <i>Nature Microbiology</i> , 2022, 7, 300-311.	13.3	21
3	Adaptive responses of marine diatoms to zinc scarcity and ecological implications. <i>Nature Communications</i> , 2022, 13, 1995.	12.8	10
4	Major processes of the dissolved cobalt cycle in the North and equatorial Pacific Ocean. <i>Biogeosciences</i> , 2022, 19, 2365-2395.	3.3	9
5	Metabolic versatility of the nitrite-oxidizing bacterium <i>Nitrospira marina</i> and its proteomic response to oxygen-limited conditions. <i>ISME Journal</i> , 2021, 15, 1025-1039.	9.8	62
6	Mechanisms and heterogeneity of in situ mineral processing by the marine nitrogen fixer <i>Trichodesmium</i> revealed by single-colony metaproteomics. <i>ISME Communications</i> , 2021, 1, .	4.2	9
7	Online Nanoflow Two-Dimension Comprehensive Active Modulation Reversed Phase-Reversed Phase Liquid Chromatography High-Resolution Mass Spectrometry for Metaproteomics of Environmental and Microbiome Samples. <i>Journal of Proteome Research</i> , 2021, 20, 4589-4597.	3.7	11
8	Dinoflagellates alter their carbon and nutrient metabolic strategies across environmental gradients in the central Pacific Ocean. <i>Nature Microbiology</i> , 2021, 6, 173-186.	13.3	45
9	Hydrothermal trace metal release and microbial metabolism in the northeastern Lau Basin of the South Pacific Ocean. <i>Biogeosciences</i> , 2021, 18, 5397-5422.	3.3	11
10	Characterization of the metalloproteome of <i>Pseudoalteromonas</i> (BB2-AT2): biogeochemical underpinnings for zinc, manganese, cobalt, and nickel cycling in a ubiquitous marine heterotroph. <i>Metallomics</i> , 2021, 13, .	2.4	6
11	Revealing ocean-scale biochemical structure with a deep-diving vertical profiling autonomous vehicle. <i>Science Robotics</i> , 2020, 5, .	17.6	12
12	Abundant nitrite-oxidizing metalloenzymes in the mesopelagic zone of the tropical Pacific Ocean. <i>Nature Geoscience</i> , 2020, 13, 355-362.	12.9	41
13	Characterization of the Fe metalloproteome of a ubiquitous marine heterotroph, <i>Pseudoalteromonas</i> (BB2-AT2): multiple bacterioferritin copies enable significant Fe storage. <i>Metallomics</i> , 2020, 12, 654-667.	2.4	16
14	Efficient zinc/cobalt interreplacement in northeast Pacific diatoms and relationship to high surface dissolved Co : Zn ratios. <i>Limnology and Oceanography</i> , 2020, 65, 2557-2582.	3.1	22
15	Copper stress in <i>Staphylococcus aureus</i> leads to adaptive changes in central carbon metabolism. <i>Metallomics</i> , 2019, 11, 183-200.	2.4	51
16	Progress and Challenges in Ocean Metaproteomics and Proposed Best Practices for Data Sharing. <i>Journal of Proteome Research</i> , 2019, 18, 1461-1476.	3.7	73
17	Unique Patterns and Biogeochemical Relevance of Two-Component Sensing in Marine Bacteria. <i>MSystems</i> , 2019, 4, .	3.8	29
18	NADPH-dependent extracellular superoxide production is vital to photophysiology in the marine diatom <i>Thalassiosira oceanica</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 16448-16453.	7.1	43

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19	Colony formation in <i>Phaeocystis antarctica</i> ; connecting molecular mechanisms with iron biogeochemistry. <i>Biogeosciences</i> , 2018, 15, 4923-4942.	3.3	44
20	Transcriptomic and proteomic responses of the oceanic diatom <i>Pseudo-nitzschia granii</i> to iron limitation. <i>Environmental Microbiology</i> , 2018, 20, 3109-3126.	3.8	39
21	Physiological and proteomic characterization of light adaptations in marine <i>Synechococcus</i> . <i>Environmental Microbiology</i> , 2017, 19, 2348-2365.	3.8	20
22	The acceleration of dissolved cobalt's ecological stoichiometry due to biological uptake, remineralization, and scavenging in the Atlantic Ocean. <i>Biogeosciences</i> , 2017, 14, 4637-4662.	3.3	30
23	Siderophore-based microbial adaptations to iron scarcity across the eastern Pacific Ocean. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14237-14242.	7.1	179
24	Needles in the blue sea: Sub-species specificity in targeted protein biomarker analyses within the vast oceanic microbial metaproteome. <i>Proteomics</i> , 2015, 15, 3521-3531.	2.2	49
25	Physiology, Fe(II) oxidation, and Fe mineral formation by a marine planktonic cyanobacterium grown under ferruginous conditions. <i>Frontiers in Earth Science</i> , 2015, 3, .	1.8	27
26	Genomic and proteomic characterization of <i>Candidatus Nitrosopelagicus brevis</i> : An ammonia-oxidizing archaeon from the open ocean. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 1173-1178.	7.1	278
27	Nitrate isotope distributions on the US GEOTRACES North Atlantic cross-basin section: Signals of polar nitrate sources and low latitude nitrogen cycling. <i>Marine Chemistry</i> , 2015, 177, 143-156.	2.3	55
28	Divergent responses of Atlantic coastal and oceanic <i>Synechococcus</i> to iron limitation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9944-9949.	7.1	61
29	Irreversibly increased nitrogen fixation in <i>Trichodesmium</i> experimentally adapted to elevated carbon dioxide. <i>Nature Communications</i> , 2015, 6, 8155.	12.8	131
30	Multiple nutrient stresses at intersecting Pacific Ocean biomes detected by protein biomarkers. <i>Science</i> , 2014, 345, 1173-1177.	12.6	174
31	Multiple sulfur isotope constraints on the modern sulfur cycle. <i>Earth and Planetary Science Letters</i> , 2014, 396, 14-21.	4.4	152
32	Effect of Temperature on Photosynthesis and Growth in Marine <i>Synechococcus</i> spp.. <i>Plant Physiology</i> , 2013, 163, 815-829.	4.8	113
33	A Manganese-rich Environment Supports Superoxide Dismutase Activity in a Lyme Disease Pathogen, <i>Borrelia burgdorferi</i> . <i>Journal of Biological Chemistry</i> , 2013, 288, 8468-8478.	3.4	65
34	Methionine synthase interreplacement in diatom cultures and communities: Implications for the persistence of B ₁₂ use by eukaryotic phytoplankton. <i>Limnology and Oceanography</i> , 2013, 58, 1431-1450.	3.1	63
35	Implications of nitrate and nitrite isotopic measurements for the mechanisms of nitrogen cycling in the Peru oxygen deficient zone. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2013, 80, 78-93.	1.4	90
36	Denitrification likely catalyzed by endobionts in an allogromiid foraminifer. <i>ISME Journal</i> , 2012, 6, 951-960.	9.8	75

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37	Oxygen isotopic composition of nitrate and nitrite produced by nitrifying cocultures and natural marine assemblages. <i>Limnology and Oceanography</i> , 2012, 57, 1361-1375.	3.1	116
38	Potential importance of physiologically diverse benthic foraminifera in sedimentary nitrate storage and respiration. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	74
39	Isotopic Signature of N ₂ O Produced by Marine Ammonia-Oxidizing Archaea. <i>Science</i> , 2011, 333, 1282-1285.	12.6	369
40	Technical Updates to the Bacterial Method for Nitrate Isotopic Analyses. <i>Analytical Chemistry</i> , 2011, 83, 1850-1856.	6.5	219
41	Oxygen isotopic exchange and fractionation during bacterial ammonia oxidation. <i>Limnology and Oceanography</i> , 2010, 55, 753-762.	3.1	91
42	Fully automated system for stable isotopic analyses of dissolved nitrous oxide at natural abundance levels. <i>Limnology and Oceanography: Methods</i> , 2010, 8, 54-66.	2.0	30
43	Oxygen isotopic exchange and fractionation during bacterial ammonia oxidation. <i>Limnology and Oceanography</i> , 2010, 55, 753-762.	3.1	53
44	Fully automated system for stable isotopic analyses of dissolved nitrous oxide at natural abundance levels. <i>Limnology and Oceanography: Methods</i> , 2010, 8, 54-66.	2.0	40
45	A Method for Determining the Nitrogen Isotopic Composition of Porphyrins. <i>Analytical Chemistry</i> , 2009, 81, 184-192.	6.5	33
46	Oxygen Isotopes in Nitrite: Analysis, Calibration, and Equilibration. <i>Analytical Chemistry</i> , 2007, 79, 2427-2436.	6.5	211
47	Method for the Analysis of ¹⁸ O in Water. <i>Analytical Chemistry</i> , 2006, 78, 2377-2381.	6.5	19
48	Chemical Conversion of Nitrate and Nitrite to Nitrous Oxide for Nitrogen and Oxygen Isotopic Analysis in Freshwater and Seawater. <i>Analytical Chemistry</i> , 2005, 77, 5589-5595.	6.5	553