

Peter R Girguis

List of Publications by Year in descending order

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106
papers

6,224
citations

53794

45
h-index

76900

74
g-index

112
all docs

112
docs citations

112
times ranked

7197
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence for Horizontal and Vertical Transmission of Mtr-Mediated Extracellular Electron Transfer among the <i>Bacteria</i> . <i>MBio</i> , 2022, 13, e0290421.	4.1	23
2	CRISPR/Cas9-induced disruption of <i>Bodo saltans</i> paraflagellar rod gene reveals its importance for cell survival. <i>Environmental Microbiology</i> , 2022, 24, 3051-3062.	3.8	2
3	Novel Insights on Obligate Symbiont Lifestyle and Adaptation to Chemosynthetic Environment as Revealed by the Giant Tubeworm Genome. <i>Molecular Biology and Evolution</i> , 2022, 39, .	8.9	11
4	Differentiated Evolutionary Strategies of Genetic Diversification in Atlantic and Pacific Thaumarchaeal Populations. <i>MSystems</i> , 2022, 7, .	3.8	3
5	Sulfur bacteria promote dissolution of authigenic carbonates at marine methane seeps. <i>ISME Journal</i> , 2021, 15, 2043-2056.	9.8	9
6	Multiple carbon incorporation strategies support microbial survival in cold subseafloor crustal fluids. <i>Science Advances</i> , 2021, 7, .	10.3	14
7	The Grayness of the Origin of Life. <i>Life</i> , 2021, 11, 498.	2.4	10
8	Interactions Between Iron Sulfide Minerals and Organic Carbon: Implications for Biosignature Preservation and Detection. <i>Astrobiology</i> , 2021, 21, 587-604.	3.0	5
9	Carbonate-hosted microbial communities are prolific and pervasive methane oxidizers at geologically diverse marine methane seep sites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	8
10	Spatially resolved correlative microscopy and microbial identification reveal dynamic depth- and mineral-dependent anabolic activity in salt marsh sediment. <i>Environmental Microbiology</i> , 2021, 23, 4756-4777.	3.8	8
11	Cooccurring Activities of Two Autotrophic Pathways in Symbionts of the Hydrothermal Vent Tubeworm <i>Riftia pachyptila</i> . <i>Applied and Environmental Microbiology</i> , 2021, 87, e0079421.	3.1	3
12	Physiological dynamics of chemosynthetic symbionts in hydrothermal vent snails. <i>ISME Journal</i> , 2020, 14, 2568-2579.	9.8	17
13	Roadmap for naming uncultivated Archaea and Bacteria. <i>Nature Microbiology</i> , 2020, 5, 987-994.	13.3	115
14	Genetic tool development in marine protists: emerging model organisms for experimental cell biology. <i>Nature Methods</i> , 2020, 17, 481-494.	19.0	97
15	Vortex fluidics-mediated DNA rescue from formalin-fixed museum specimens. <i>PLoS ONE</i> , 2020, 15, e0225807.	2.5	12
16	Vortex fluidics-mediated DNA rescue from formalin-fixed museum specimens. , 2020, 15, e0225807.		0
17	Vortex fluidics-mediated DNA rescue from formalin-fixed museum specimens. , 2020, 15, e0225807.		0
18	Authigenic metastable iron sulfide minerals preserve microbial organic carbon in anoxic environments. <i>Chemical Geology</i> , 2019, 530, 119343.	3.3	28

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19	Synergistic substrate cofeeding stimulates reductive metabolism. <i>Nature Metabolism</i> , 2019, 1, 643-651.	11.9	71
20	Methane-Linked Mechanisms of Electron Uptake from Cathodes by <i>Methanosarcina barkeri</i> . <i>MBio</i> , 2019, 10, .	4.1	52
21	The Bacterial Symbionts of Closely Related Hydrothermal Vent Snails With Distinct Geochemical Habitats Show Broad Similarity in Chemoautotrophic Gene Content. <i>Frontiers in Microbiology</i> , 2019, 10, 1818.	3.5	21
22	Hydrothermal Energy Transfer and Organic Carbon Production at the Deep Seafloor. <i>Frontiers in Marine Science</i> , 2019, 5, .	2.5	27
23	Hydrogen Does Not Appear To Be a Major Electron Donor for Symbiosis with the Deep-Sea Hydrothermal Vent Tubeworm <i>Riftia pachyptila</i> . <i>Applied and Environmental Microbiology</i> , 2019, 86, .	3.1	8
24	Nitrogen Cycling of Active Bacteria within Oligotrophic Sediment of the Mid-Atlantic Ridge Flank. <i>Geomicrobiology Journal</i> , 2018, 35, 468-483.	2.0	50
25	Harnessing a methane-fueled, sediment-free mixed microbial community for utilization of distributed sources of natural gas. <i>Biotechnology and Bioengineering</i> , 2018, 115, 1450-1464.	3.3	4
26	Microbial decomposition of marine dissolved organic matter in cool oceanic crust. <i>Nature Geoscience</i> , 2018, 11, 334-339.	12.9	71
27	In situ carbon isotopic exploration of an active submarine volcano. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2018, 150, 57-66.	1.4	17
28	Sulfate-reducing bacteria influence the nucleation and growth of mackinawite and greigite. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 220, 367-384.	3.9	104
29	Proteome evolution of deep-sea hydrothermal vent alvinellid polychaetes supports the ancestry of thermophily and subsequent adaptation to cold in some lineages. <i>Genome Biology and Evolution</i> , 2017, 9, evw298.	2.5	39
30	Telepresence is a potentially transformative tool for field science. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4841-4844.	7.1	17
31	Niche partitioning of diverse sulfur-oxidizing bacteria at hydrothermal vents. <i>ISME Journal</i> , 2017, 11, 1545-1558.	9.8	168
32	Geochemically distinct carbon isotope distributions in <i>Allochromatium vinosum</i> DSM 180T grown photoautotrophically and photoheterotrophically. <i>Geobiology</i> , 2017, 15, 324-339.	2.4	14
33	Iron Sulfide Formation on Iron Substrates by Electrochemical Reaction in Anoxic Conditions. <i>Crystal Growth and Design</i> , 2017, 17, 6332-6340.	3.0	4
34	Toward establishing model organisms for marine protists: Successful transfection protocols for <i>Parabodo caudatus</i> (Kinetoplastida: Excavata). <i>Environmental Microbiology</i> , 2017, 19, 3487-3499.	3.8	11
35	Co-registered Geochemistry and Metatranscriptomics Reveal Unexpected Distributions of Microbial Activity within a Hydrothermal Vent Field. <i>Frontiers in Microbiology</i> , 2017, 8, 1042.	3.5	26
36	Microbial response to oil enrichment in Gulf of Mexico sediment measured using a novel long-term benthic lander system. <i>Elementa</i> , 2017, 5, .	3.2	19

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37	What Do We Really Know about the Role of Microorganisms in Iron Sulfide Mineral Formation?. <i>Frontiers in Earth Science</i> , 2016, 4, .	1.8	51
38	Metatranscriptional Response of Chemoautotrophic <i>Ifremeria nautili</i> Endosymbionts to Differing Sulfur Regimes. <i>Frontiers in Microbiology</i> , 2016, 7, 1074.	3.5	11
39	A distinct and active bacterial community in cold oxygenated fluids circulating beneath the western flank of the Mid-Atlantic ridge. <i>Scientific Reports</i> , 2016, 6, 22541.	3.3	62
40	Independent Benthic Microbial Fuel Cells Powering Sensors and Acoustic Communications with the MARS Underwater Observatory. <i>Journal of Atmospheric and Oceanic Technology</i> , 2016, 33, 607-617.	1.3	28
41	Microbial ecology: Here, there and everywhere. <i>Nature Microbiology</i> , 2016, 1, 16123.	13.3	9
42	Heterotrophic <i>Proteobacteria</i> in the vicinity of diffuse hydrothermal venting. <i>Environmental Microbiology</i> , 2016, 18, 4348-4368.	3.8	63
43	Patterns of sulfur isotope fractionation during microbial sulfate reduction. <i>Geobiology</i> , 2016, 14, 91-101.	2.4	136
44	NC10 bacteria in marine oxygen minimum zones. <i>ISME Journal</i> , 2016, 10, 2067-2071.	9.8	112
45	Nanoporous microscale microbial incubators. <i>Lab on A Chip</i> , 2016, 16, 480-488.	6.0	29
46	Carbon fixation by basalt-hosted microbial communities. <i>Frontiers in Microbiology</i> , 2015, 6, 904.	3.5	55
47	Ubiquitous Presence and Novel Diversity of Anaerobic Alkane Degraders in Cold Marine Sediments. <i>Frontiers in Microbiology</i> , 2015, 6, 1414.	3.5	30
48	Key Factors Influencing Rates of Heterotrophic Sulfate Reduction in Active Seafloor Hydrothermal Massive Sulfide Deposits. <i>Frontiers in Microbiology</i> , 2015, 6, 1449.	3.5	20
49	The uptake and excretion of partially oxidized sulfur expands the repertoire of energy resources metabolized by hydrothermal vent symbioses. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20142811.	2.6	41
50	Biological capacitance studies of anodes in microbial fuel cells using electrochemical impedance spectroscopy. <i>Bioprocess and Biosystems Engineering</i> , 2015, 38, 1325-1333.	3.4	35
51	Enhancing the response of microbial fuel cell based toxicity sensors to Cu(II) with the applying of flow-through electrodes and controlled anode potentials. <i>Bioresource Technology</i> , 2015, 190, 367-372.	9.6	105
52	The Ecological Physiology of Earth's Second Oxygen Revolution. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2015, 46, 215-235.	8.3	106
53	Baleen whales host a unique gut microbiome with similarities to both carnivores and herbivores. <i>Nature Communications</i> , 2015, 6, 8285.	12.8	184
54	Advancing a Deep Sea Near-Infrared Laser Spectrometer for Dual Isotope Measurements. , 2015, , .		1

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55	Intracellular <i>Oceanospirillales</i> inhabit the gills of the hydrothermal vent snail <i>Aviniconcha</i> with chemosynthetic, $\delta^{13}\text{C}$ -proteobacterial symbionts. <i>Environmental Microbiology Reports</i> , 2014, 6, 656-664.	2.4	25
56	Characterizing the plasticity of nitrogen metabolism by the host and symbionts of the hydrothermal vent chemoautotrophic symbioses <i>Ridgeia piscesae</i> . <i>Molecular Ecology</i> , 2014, 23, 1544-1557.	3.9	20
57	Autonomous Application of Quantitative PCR in the Deep Sea: In Situ Surveys of Aerobic Methanotrophs Using the Deep-Sea Environmental Sample Processor. <i>Environmental Science & Technology</i> , 2013, 47, 9339-9346.	10.0	47
58	Characterizing Microbial Community and Geochemical Dynamics at Hydrothermal Vents Using Osmotically Driven Continuous Fluid Samplers. <i>Environmental Science & Technology</i> , 2013, 47, 4399-4407.	10.0	27
59	Redox effects on the microbial degradation of refractory organic matter in marine sediments. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 121, 582-598.	3.9	49
60	Assessing the influence of physical, geochemical and biological factors on anaerobic microbial primary productivity within hydrothermal vent chimneys. <i>Geobiology</i> , 2013, 11, 279-293.	2.4	23
61	In situ chemistry and microbial community compositions in five deep-sea hydrothermal fluid samples from <i>Alvin</i> in the <i>Logatchev</i> field. <i>Environmental Microbiology</i> , 2013, 15, 1551-1560.	3.8	47
62	Characterizing the Distribution of Methane Sources and Cycling in the Deep Sea via in Situ Stable Isotope Analysis. <i>Environmental Science & Technology</i> , 2013, 47, 1478-1486.	10.0	43
63	Geomicrobiological linkages between short-chain alkane consumption and sulfate reduction rates in seep sediments. <i>Frontiers in Microbiology</i> , 2013, 4, 386.	3.5	29
64	Anaerobic oxidation of short-chain alkanes in hydrothermal sediments: potential influences on sulfur cycling and microbial diversity. <i>Frontiers in Microbiology</i> , 2013, 4, 110.	3.5	44
65	Characterizing the distribution and rates of microbial sulfate reduction at Middle Valley hydrothermal vents. <i>ISME Journal</i> , 2013, 7, 1391-1401.	9.8	72
66	Metatranscriptomics reveal differences in in situ energy and nitrogen metabolism among hydrothermal vent snail symbionts. <i>ISME Journal</i> , 2013, 7, 1556-1567.	9.8	73
67	Respiration control of multicellularity in <i>Bacillus subtilis</i> by a complex of the cytochrome chain with a membrane-embedded histidine kinase. <i>Genes and Development</i> , 2013, 27, 887-899.	5.9	124
68	Oxygen, ecology, and the Cambrian radiation of animals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13446-13451.	7.1	277
69	Low Temperature Geomicrobiology Follows Host Rock Composition Along a Geochemical Gradient in Lau Basin. <i>Frontiers in Microbiology</i> , 2013, 4, 61.	3.5	45
70	Exploring the limit of metazoan thermal tolerance via comparative proteomics: thermally induced changes in protein abundance by two hydrothermal vent polychaetes. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 3347-3356.	2.6	61
71	Evidence for the role of endosymbionts in regional-scale habitat partitioning by hydrothermal vent symbioses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E3241-50.	7.1	94
72	Duty Cycling Influences Current Generation in Multi-Anode Environmental Microbial Fuel Cells. <i>Environmental Science & Technology</i> , 2012, 46, 5222-5229.	10.0	50

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73	On the Potential for Bioenergy and Biofuels from Hydrothermal Vent Microbes. <i>Oceanography</i> , 2012, 25, 213-217.	1.0	15
74	Links from Mantle to Microbe at the Lau Integrated Study Site: Insights from a Back-Arc Spreading Center. <i>Oceanography</i> , 2012, 25, 62-77.	1.0	24
75	Anaerobic methane oxidation in metalliferous hydrothermal sediments: influence on carbon flux and decoupling from sulfate reduction. <i>Environmental Microbiology</i> , 2012, 14, 2726-2740.	3.8	98
76	Expression and Putative Function of Innate Immunity Genes under in situ Conditions in the Symbiotic Hydrothermal Vent Tubeworm <i>Ridgeia piscesae</i> . <i>PLoS ONE</i> , 2012, 7, e38267.	2.5	19
77	Benthic Microbial Fuel Cell as Direct Power Source for an Acoustic Modem and Seawater Oxygen/Temperature Sensor System. <i>Environmental Science & Technology</i> , 2011, 45, 5047-5053.	10.0	98
78	Thermodynamics and Kinetics of Sulfide Oxidation by Oxygen: A Look at Inorganically Controlled Reactions and Biologically Mediated Processes in the Environment. <i>Frontiers in Microbiology</i> , 2011, 2, 62.	3.5	173
79	Hydrogen is an energy source for hydrothermal vent symbioses. <i>Nature</i> , 2011, 476, 176-180.	27.8	251
80	Influence of subsurface biosphere on geochemical fluxes from diffuse hydrothermal fluids. <i>Nature Geoscience</i> , 2011, 4, 461-468.	12.9	100
81	Sulfide Oxidation across Diffuse Flow Zones of Hydrothermal Vents. <i>Aquatic Geochemistry</i> , 2011, 17, 583-601.	1.3	37
82	Metabolic and practical considerations on microbial electrosynthesis. <i>Current Opinion in Biotechnology</i> , 2011, 22, 371-377.	6.6	207
83	Measuring Isotope Fractionation by Autotrophic Microorganisms and Enzymes. <i>Methods in Enzymology</i> , 2011, 494, 281-299.	1.0	7
84	The metabolic demands of endosymbiotic chemoautotrophic metabolism on host physiological capacities. <i>Journal of Experimental Biology</i> , 2011, 214, 312-325.	1.7	91
85	Linking Hydrothermal Geochemistry to Organismal Physiology: Physiological Versatility in <i>Riftia pachyptila</i> from Sedimented and Basalt-hosted Vents. <i>PLoS ONE</i> , 2011, 6, e21692.	2.5	26
86	Harnessing energy from marine productivity using bioelectrochemical systems. <i>Current Opinion in Biotechnology</i> , 2010, 21, 252-258.	6.6	29
87	Benthic microbial fuel cells: long-term power sources for wireless marine sensor networks. <i>Proceedings of SPIE</i> , 2010, , .	0.8	14
88	New constraints on methane fluxes and rates of anaerobic methane oxidation in a Gulf of Mexico brine pool via in situ mass spectrometry. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2010, 57, 2022-2029.	1.4	60
89	Thiouracine and hypotaourine contents in hydrothermal vent polychaetes without thiotrophic endosymbionts: correlation With sulfide exposure. <i>Journal of Experimental Zoology</i> , 2009, 311A, 439-447.	1.2	18
90	Quantitative population dynamics of microbial communities in plankton-fed microbial fuel cells. <i>ISME Journal</i> , 2009, 3, 635-646.	9.8	56

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91	Influence of Substrate on Electron Transfer Mechanisms in Chambered Benthic Microbial Fuel Cells. <i>Environmental Science & Technology</i> , 2009, 43, 8671-8677.	10.0	52
92	Comparative genomics of vesicomid clam (<i>Bivalvia</i> : Mollusca) chemosynthetic symbionts. <i>BMC Genomics</i> , 2008, 9, 585.	2.8	47
93	Sustainable energy from deep ocean cold seeps. <i>Energy and Environmental Science</i> , 2008, 1, 584.	30.8	70
94	Coupling Metabolite Flux to Transcriptomics: Insights Into the Molecular Mechanisms Underlying Primary Productivity by the Hydrothermal Vent Tubeworm <i>Ridgeia piscesae</i> . <i>Biological Bulletin</i> , 2008, 214, 255-265.	1.8	23
95	A Proteomic Snapshot of Life at a Vent. <i>Science</i> , 2007, 315, 198-199.	12.6	8
96	Substrate Degradation Kinetics, Microbial Diversity, and Current Efficiency of Microbial Fuel Cells Supplied with Marine Plankton. <i>Applied and Environmental Microbiology</i> , 2007, 73, 7029-7040.	3.1	67
97	Microbial fuel cell energy from an ocean cold seep. <i>Geobiology</i> , 2006, 4, 123-136.	2.4	255
98	Metabolite uptake, stoichiometry and chemoautotrophic function of the hydrothermal vent tubeworm <i>Riftia pachyptila</i> : responses to environmental variations in substrate concentrations and temperature. <i>Journal of Experimental Biology</i> , 2006, 209, 3516-3528.	1.7	80
99	Thermal Preference and Tolerance of Alvinellids. <i>Science</i> , 2006, 312, 231-231.	12.6	97
100	Growth and Population Dynamics of Anaerobic Methane-Oxidizing Archaea and Sulfate-Reducing Bacteria in a Continuous-Flow Bioreactor. <i>Applied and Environmental Microbiology</i> , 2005, 71, 3725-3733.	3.1	168
101	On the edge of a deep biosphere: Real animals in extreme environments. <i>Geophysical Monograph Series</i> , 2004, , 41-49.	0.1	1
102	Growth and Methane Oxidation Rates of Anaerobic Methanotrophic Archaea in a Continuous-Flow Bioreactor. <i>Applied and Environmental Microbiology</i> , 2003, 69, 5472-5482.	3.1	133
103	Identification of Methyl Coenzyme M Reductase A (<i>mcrA</i>) Genes Associated with Methane-Oxidizing Archaea. <i>Applied and Environmental Microbiology</i> , 2003, 69, 5483-5491.	3.1	353
104	A paradox resolved: Sulfide acquisition by roots of seep tubeworms sustains net chemoautotrophy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 13408-13413.	7.1	120
105	Fate of Nitrate Acquired by the Tubeworm <i>Riftia pachyptila</i> . <i>Applied and Environmental Microbiology</i> , 2000, 66, 2783-2790.	3.1	68
106	Physiological Functioning of Carbonic Anhydrase in the Hydrothermal Vent Tubeworm <i>Riftia Pachyptila</i> . <i>Biological Bulletin</i> , 1999, 196, 257-264.	1.8	29