Hans K Carlson

List of Publications by Year
in descending order

Version: 2024-02-01

41 papers	2,184 citations	361413 20 h-index	315739 38 g-index
53 all docs	53 docs citations	53 times ranked	2678 citing authors

#	Article	IF	Citations
1	Mutant phenotypes for thousands of bacterial genes of unknown function. Nature, 2018, 557, 503-509.	27.8	433
2	Surface multiheme c -type cytochromes from Thermincola potens and implications for respiratory metal reduction by Gram-positive bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1702-1707.	7.1	178
3	Fe(II) Oxidation Is an Innate Capability of Nitrate-Reducing Bacteria That Involves Abiotic and Biotic Reactions. Journal of Bacteriology, 2013, 195, 3260-3268.	2.2	144
4	GEMM-I riboswitches from Geobacter sense the bacterial second messenger cyclic AMP-GMP. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5383-5388.	7.1	119
5	Hâ€NOX regulation of câ€diâ€GMP metabolism and biofilm formation in Legionella pneumophila. Molecular Microbiology, 2010, 77, 930-942.	2.5	108
6	Inhibition of microbial sulfate reduction in a flow-through column system by (per)chlorate treatment. Frontiers in Microbiology, 2014, 5, 315.	3.5	103
7	H-NOXâ€“mediated nitric oxide sensing modulates symbiotic colonization by Vibrio fischeri. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8375-8380.	7.1	100
8	Mechanisms of direct inhibition of the respiratory sulfate-reduction pathway by (per)chlorate and nitrate. ISME Journal, 2015, 9, 1295-1305.	9.8	87
9	Toward a Mechanistic Understanding of Anaerobic Nitrate-Dependent Iron Oxidation: Balancing Electron Uptake and Detoxification. Frontiers in Microbiology, 2012, 3, 57.	3.5	86
10	Functional genetics of human gut commensal Bacteroides thetaiotaomicron reveals metabolic requirements for growth across environments. Cell Reports, 2021, 34, 108789.	6.4	82
11	Perchlorate Reductase Is Distinguished by Active Site Aromatic Gate Residues. Journal of Biological Chemistry, 2016, 291, 9190-9202.	3.4	71
12	Monofluorophosphate Is a Selective Inhibitor of Respiratory Sulfate-Reducing Microorganisms. Environmental Science & Technology, 2015, 49, 3727-3736.	10.0	69
13	Selective carbon sources influence the end products of microbial nitrate respiration. ISME Journal, 2020, 14, 2034-2045.	9.8	61
14	Identification of a Perchlorate Reduction Genomic Island with Novel Regulatory and Metabolic Genes. Applied and Environmental Microbiology, 2011, 77, 7401-7404.	3.1	57
15	The selective pressures on the microbial community in a metal-contaminated aquifer. ISME Journal, 2019, 13, 937-949.	9.8	56
16	Novel Mechanism for Scavenging of Hypochlorite Involving a Periplasmic Methionine-Rich Peptide and Methionine Sulfoxide Reductase. MBio, 2015, 6, e00233-15.	4.1	50
17	Oxidative Pathways of Deoxyribose and Deoxyribonate Catabolism. MSystems, 2019, 4, .	3.8	34
18	Magic Pools: Parallel Assessment of Transposon Delivery Vectors in Bacteria. MSystems, 2018, 3, .	3.8	31

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19	Use of a semisynthetic epitope to probe histidine kinase activity and regulation. Analytical Biochemistry, 2010, 397, 139-143.	2.4	28
20	High-Throughput Screening To Identify Potent and Specific Inhibitors of Microbial Sulfate Reduction. Environmental Science & Technology, 2017, 51, 7278-7285.	10.0	27
21	Microbial metal resistance and metabolism across dynamic landscapes: high-throughput environmental microbiology. F1000Research, 2017, 6, 1026.	1.6	25
22	Functional Redundancy in Perchlorate and Nitrate Electron Transport Chains and Rewiring Respiratory Pathways to Alter Terminal Electron Acceptor Preference. Frontiers in Microbiology, 2018, 9, 376.	3.5	20
23	Bioelectrical redox cycling of anthraquinone-2,6-disulfonate coupled to perchlorate reduction. Energy and Environmental Science, 2012, 5, 7970.	30.8	19
24	Identification of a Novel Cobamide Remodeling Enzyme in the Beneficial Human Gut Bacterium Akkermansia muciniphila. MBio, 2020, 11, .	4.1	18
25	The diversity and evolution of microbial dissimilatory phosphite oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	17
26	System-Wide Adaptations of Desulfovibrio alaskensis G20 to Phosphate-Limited Conditions. PLoS ONE, 2016, 11, e0168719.	2.5	15
27	Dissimilatory Sulfate Reduction Under High Pressure by Desulfovibrio alaskensis G20. Frontiers in Microbiology, 2018, 9, 1465.	3.5	15
28	Identification of a parasitic symbiosis between respiratory metabolisms in the biogeochemical chlorine cycle. ISME Journal, 2020, 14, 1194-1206.	9.8	15
29	Adaptation of Desulfovibrio alaskensis G20 to perchlorate, a specific inhibitor of sulfate reduction. Environmental Microbiology, 2019, 21, 1395-1406.	3.8	14
30	Synthetic and Evolutionary Construction of a Chlorate-Reducing Shewanella oneidensis MR-1. MBio, 2015, 6, e00282-15.	4.1	13
31	Mitigating Sulfidogenesis With Simultaneous Perchlorate and Nitrate Treatments. Frontiers in Microbiology, 2018, 9, 2305.	3.5	13
32	Mechanism Across Scales: A Holistic Modeling Framework Integrating Laboratory and Field Studies for Microbial Ecology. Frontiers in Microbiology, 2021, 12, 642422.	3.5	12
33	Novel Syn Intramolecular Pathway in Base-Catalyzed 1,2-Elimination Reactions of Î²-Acetoxy Esters. Journal of Organic Chemistry, 2007, 72, 793-798.	3.2	9
34	Genome-Wide Identification of Tomato Xylem Sap Fitness Factors for Three Plant-Pathogenic Ralstonia Species. MSystems, 2021, 6, e0122921.	3.8	7
35	Native Plasmid-Encoded Mercury Resistance Genes Are Functional and Demonstrate Natural Transformation in Environmental Bacterial Isolates. MSystems, 2019, 4, .	3.8	6
36	Tungstate Control of Microbial Sulfidogenesis and Souring of the Engineered Environment. Environmental Science & Technology, 2020, 54, 16119-16127.	10.0	6

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37	Resistance and Resilience of Sulfidogenic Communities in the Face of the Specific Inhibitor Perchlorate. Frontiers in Microbiology, 2019, 10, 654.	3.5	4
38	Mechanisms and Monitoring of Oil Reservoir Souring Control by Nitrate or Perchlorate Injection. , 2019, , 1-25.		4
39	Surfaceomics and surfaceâ€enhanced <scp>R</scp>aman spectroscopy of environmental microbes: Matching cofactors with redoxâ€active surface proteins. Proteomics, 2013, 13, 2761-2765.	2.2	3
40	Editorial: Selective Controls on Microbial Energy Metabolisms: From the Microscale to the Macroscale. Frontiers in Microbiology, 2021, 12, 728705.	3.5	0
41	Sulfate adenylyl transferase kinetics and mechanisms of metabolic inhibitors of microbial sulfate respiration. ISME Communications, 2021, 1, .	4.2	0