John D Coates

List of Publications by Year
in descending order

92 papers	8,760 citations	57758 44 h-index	56724 83 g-index
141 all docs	141 docs citations	141 times ranked	7005 citing authors

#	Article	IF	Citations
1	Microorganisms pumping iron: anaerobic microbial iron oxidation and reduction. Nature Reviews Microbiology, 2006, 4, 752-764.	28.6	1,371
2	Microbial perchlorate reduction: rocket-fuelled metabolism. Nature Reviews Microbiology, 2004, 2, 569-580.	28.6	481
3	Anaerobic benzene oxidation coupled to nitrate reduction in pure culture by two strains of Dechloromonas. Nature, 2001, 411, 1039-1043.	27.8	474
4	Ubiquity and Diversity of Dissimilatory (Per)chlorate-Reducing Bacteria. Applied and Environmental Microbiology, 1999, 65, 5234-5241.	3.1	434
5	Review: Direct and Indirect Electrical Stimulation of Microbial Metabolism. Environmental Science & Technology, 2008, 42, 3921-3931.	10.0	308
6	A novel ecological role of the Firmicutes identified in thermophilic microbial fuel cells. ISME Journal, 2008, 2, 1146-1156.	9.8	299
7	Humics as an electron donor for anaerobic respiration. Environmental Microbiology, 1999, 1, 89-98.	3.8	290
8	Dissimilatory arsenate and sulfate reduction in Desulfotomaculum auripigmentum sp. nov.. Archives of Microbiology, 1997, 168, 380-388.	2.2	264
9	Reduction of (per)chlorate by a novel organism isolated from paper mill waste. Environmental Microbiology, 1999, 1, 319-329.	3.8	237
10	Biogenic Magnetite Formation through Anaerobic Biooxidation of Fe(II). Applied and Environmental Microbiology, 2001, 67, 2844-2848.	3.1	227
11	Electrochemical Stimulation of Microbial Perchlorate Reduction. Environmental Science & Technology, 2007, 41, 1740-1746.	10.0	216
12	Diversity and Ubiquity of Bacteria Capable of Utilizing Humic Substances as Electron Donors for Anaerobic Respiration. Applied and Environmental Microbiology, 2002, 68, 2445-2452.	3.1	191
13	Anaerobic Degradation of Benzene, Toluene, Ethylbenzene, and Xylene Compounds by <i>Dechloromonas</i> Strain RCB. Applied and Environmental Microbiology, 2005, 71, 8649-8655.	3.1	191
14	Surface multiheme <i>c</i> -type cytochromes from <i>Thermincola potens</i> 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
15	Environmental Factors That Control Microbial Perchlorate Reduction. Applied and Environmental Microbiology, 2002, 68, 4425-4430.	3.1	176
16	Desulfuromonas palmitatis sp. nov., a marine dissimilatory Fe(III) reducer that can oxidize long-chain fatty acids. Archives of Microbiology, 1995, 164, 406-413.	2.2	157
17	Anaerobic Hydrocarbon Degradation in Petroleum-Contaminated Harbor Sediments under Sulfate-Reducing and Artificially Imposed Iron-Reducing Conditions. Environmental Science & Technology, 1996, 30, 2784-2789.	10.0	150
18	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

#	Article	IF	Citations
19	Identification, Characterization, and Classification of Genes Encoding Perchlorate Reductase. Journal of Bacteriology, 2005, 187, 5090-5096.	2.2	136
20	Anaerobic benzene biodegradationâ€"a new era. Research in Microbiology, 2002, 153, 621-628.	2.1	128
21	Metagenomics-guided analysis of microbial chemolithoautotrophic phosphite oxidation yields evidence of a seventh natural CO ₂ fixation pathway. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E92-E101.	7.1	115
22	Inhibition of microbial sulfate reduction in a flow-through column system by (per)chlorate treatment. Frontiers in Microbiology, 2014, 5, 315.	3.5	103
23	Perchlorate on Mars: a chemical hazard and a resource for humans. International Journal of Astrobiology, 2013, 12, 321-325.	1.6	97
24	Mechanisms of direct inhibition of the respiratory sulfate-reduction pathway by (per)chlorate and nitrate. ISME Journal, 2015, 9, 1295-1305.	9.8	87
25	Toward a Mechanistic Understanding of Anaerobic Nitrate-Dependent Iron Oxidation: Balancing Electron Uptake and Detoxification. Frontiers in Microbiology, 2012, 3, 57.	3.5	86
26	Metabolic Primers for Detection of (Per)chlorate-Reducing Bacteria in the Environment and Phylogenetic Analysis of cld Gene Sequences. Applied and Environmental Microbiology, 2004, 70, 5651-5658.	3.1	84
27	Sequencing and Transcriptional Analysis of the Chlorite Dismutase Gene of Dechloromonas agitata and Its Use as a Metabolic Probe. Applied and Environmental Microbiology, 2002, 68, 4820-4826.	3.1	82
28	Genome-resolved metagenomics identifies genetic mobility, metabolic interactions, and unexpected diversity in perchlorate-reducing communities. ISME Journal, 2018, 12, 1568-1581.	9.8	82
29	(Per)chlorate in Biology on Earth and Beyond. Annual Review of Microbiology, 2016, 70, 435-457.	7.3	78
30	Physiological and taxonomic description of the novel autotrophic, metal oxidizing bacterium, Pseudogulbenkiania sp. strain 2002. Applied Microbiology and Biotechnology, 2009, 83, 555-565.	3.6	76
31	Perchlorate Reductase Is Distinguished by Active Site Aromatic Gate Residues. Journal of Biological Chemistry, 2016, 291, 9190-9202.	3.4	71
32	Control of sulfidogenesis through bioâ€oxidation of <scp><scp>H₂S</scp></scp> coupled to (per)chlorate reduction. Environmental Microbiology Reports, 2014, 6, 558-564.	2.4	69
33	Monofluorophosphate Is a Selective Inhibitor of Respiratory Sulfate-Reducing Microorganisms. Environmental Science & Technology, 2015, 49, 3727-3736.	10.0	69
34	Mechanism of H ₂ S Oxidation by the Dissimilatory Perchlorate-Reducing Microorganism <i>Azospira suillum</i> PS. MBio, 2017, 8, .	4.1	66
35	Physiological and Genetic Description of Dissimilatory Perchlorate Reduction by the Novel Marine Bacterium <i>Arcobacter</i> sp. Strain CAB. MBio, 2013, 4, e00217-13.	4.1	64
36	Structure and Evolution of Chlorate Reduction Composite Transposons. MBio, 2013, 4, .	4.1	64

#	Article	IF	Citations
37	Universal Immunoprobe for (Per)Chlorate-Reducing Bacteria. Applied and Environmental Microbiology, 2002, 68, 3108-3113.	3.1	62
38	Description of the novel perchlorate-reducing bacteria Dechlorobacter hydrogenophilus gen. nov., sp. nov. and Propionivibrio militaris, sp. nov.. Applied Microbiology and Biotechnology, 2010, 86, 335-343.	3.6	61
39	Phenotypic and Genotypic Description of Sedimenticola selenatireducens Strain CUZ, a Marine (Per)Chlorate-Respiring Gammaproteobacterium, and Its Close Relative the Chlorate-Respiring Sedimenticola Strain NSS. Applied and Environmental Microbiology, 2015, 81, 2717-2726.	3.1	61
40	Anoxic bioremediation of hydrocarbons. Nature, 1998, 396, 730-730.	27.8	59
41	Identification of a Perchlorate Reduction Genomic Island with Novel Regulatory and Metabolic Genes. Applied and Environmental Microbiology, 2011, 77, 7401-7404.	3.1	57
42	<i>Magnetospirillum bellicus</i> sp. nov., a Novel Dissimilatory Perchlorate-Reducing Alphaproteobacterium Isolated from a Bioelectrical Reactor. Applied and Environmental Microbiology, 2010, 76, 4730-4737.	3.1	56
43	Biological Control of Hog Waste Odor through Stimulated Microbial Fe(III) Reduction. Applied and Environmental Microbiology, 2005, 71, 4728-4735.	3.1	50
44	Novel Mechanism for Scavenging of Hypochlorite Involving a Periplasmic Methionine-Rich Peptide and Methionine Sulfoxide Reductase. MBio, 2015, 6, e00233-15.	4.1	50
45	Complete Genome Sequence of the Anaerobic Perchlorate-Reducing Bacterium Azospira suillum Strain PS. Journal of Bacteriology, 2012, 194, 2767-2768.	2.2	46
46	Characterization of an anaerobic marine microbial community exposed to combined fluxes of perchlorate and salinity. Applied Microbiology and Biotechnology, 2016, 100, 9719-9732.	3.6	46
47	Reactive Transport Model of Sulfur Cycling as Impacted by Perchlorate and Nitrate Treatments. Environmental Science & Technology, 2016, 50, 7010-7018.	10.0	45
48	Hydrocarbon Bioremediative Potential of (Per)Chlorate-Reducing Bacteria. Bioremediation Journal, 1999, 3, 323-334.	2.0	44
49	Widespread occurrence of (per)chlorate in the Solar System. Earth and Planetary Science Letters, 2015, 430, 470-476.	4.4	42
50	The Perchlorate Reduction Genomic Island: Mechanisms and Pathways of Evolution by Horizontal Gene Transfer. BMC Genomics, 2015, 16, 862.	2.8	39
51	Isolation and Characterization of Two Novel (Per)Chlorate-Reducing Bacteria from Swine Waste Lagoons. , 2000, , 271-283.		38
52	Biotechnological Applications of Microbial (Per)chlorate Reduction. Microorganisms, 2017, 5, 76.	3.6	36
53	Transposon and Deletion Mutagenesis of Genes Involved in Perchlorate Reduction in <i>Azospira suillum</i> PS. MBio, 2014, 5, e00769-13.	4.1	32
54	Attenuating Sulfidogenesis in a Soured Continuous Flow Column System With Perchlorate Treatment. Frontiers in Microbiology, 2018, 9, 1575.	3.5	32

#	Article	IF	Citations
55	Behavioral response of dissimilatory perchlorate-reducing bacteria to different electron acceptors. Applied Microbiology and Biotechnology, 2009, 84, 955-963.	3.6	31
56	Perchlorate and chlorate biogeochemistry in ice-covered lakes of the McMurdo Dry Valleys, Antarctica. Geochimica Et Cosmochimica Acta, 2012, 98, 19-30.	3.9	31
57	Genetic dissection of chlorate respiration in <scp><i>P</i></scp><i>seudomonas stutzeri</i>â€…<scp>PDA</scp> reveals syntrophic (per)chlorate reduction. Environmental Microbiology, 2016, 18, 3342-3354.	3.8	31
58	Chlorate reduction in <scp><i>S</i></scp><i>hewanella algae</i>â€…<scp>ACDC</scp> is a recently acquired metabolism characterized by gene loss, suboptimal regulation and oxidative stress. Molecular Microbiology, 2014, 94, 107-125.	2.5	30
59	Localized Sulfate-Reducing Zones in a Coastal Plain Aquifer. Ground Water, 1999, 37, 505-516.	1.3	29
60	Isotopic insights into microbial sulfur cycling in oil reservoirs. Frontiers in Microbiology, 2014, 5, 480.	3.5	29
61	A Bioassay for the Detection of Perchlorate in the ppb Range. Environmental Science & Technology, 2011, 45, 2958-2964.	10.0	28
62	High-Throughput Screening To Identify Potent and Specific Inhibitors of Microbial Sulfate Reduction. Environmental Science & Technology, 2017, 51, 7278-7285.	10.0	27
63	Microbial metal resistance and metabolism across dynamic landscapes: high-throughput environmental microbiology. F1000Research, 2017, 6, 1026.	1.6	25
64	Specific inhibitors of respiratory sulfate reduction: towards a mechanistic understanding. Microbiology (United Kingdom), 2019, 165, 254-269.	1.8	23
65	(Per)Chlorate-Reducing Bacteria Can Utilize Aerobic and Anaerobic Pathways of Aromatic Degradation with (Per)Chlorate as an Electron Acceptor. MBio, 2015, 6, .	4.1	22
66	Genetic and phylogenetic analysis of dissimilatory iodate-reducing bacteria identifies potential niches across the worldâ€™s oceans. ISME Journal, 2022, 16, 38-49.	9.8	21
67	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
68	Bioelectrical redox cycling of anthraquinone-2,6-disulfonate coupled to perchlorate reduction. Energy and Environmental Science, 2012, 5, 7970.	30.8	19
69	The Microbiology of Perchlorate Reduction and its Bioremediative Application. , 2006, , 279-295.		18
70	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
71	Methane oxidation linked to chlorite dismutation. Frontiers in Microbiology, 2014, 5, 275.	3.5	15
72	Comprehensive Analysis of Changes in Crude Oil Chemical Composition during Biosouring and Treatments. Environmental Science & Technology, 2018, 52, 1290-1300.	10.0	15

#	Article	IF	Citations
73	Dissimilatory Sulfate Reduction Under High Pressure by Desulfovibrio alaskensis G20. Frontiers in Microbiology, 2018, 9, 1465.	3.5	15
74	Identification of a parasitic symbiosis between respiratory metabolisms in the biogeochemical chlorine cycle. ISME Journal, 2020, 14, 1194-1206.	9.8	15
75	Adaptation of <i>Desulfovibrio alaskensis</i> G20 to perchlorate, a specific inhibitor of sulfate reduction. Environmental Microbiology, 2019, 21, 1395-1406.	3.8	14
76	Synthetic and Evolutionary Construction of a Chlorate-Reducing Shewanella oneidensis MR-1. MBio, 2015, 6, e00282-15.	4.1	13
77	Mitigating Sulfidogenesis With Simultaneous Perchlorate and Nitrate Treatments. Frontiers in Microbiology, 2018, 9, 2305.	3.5	13
78	The Biochemistry and Genetics of Microbial Perchlorate Reduction. , 2006, , 297-310.		7
79	Anion transport as a target of adaption to perchlorate in sulfate-reducing communities. ISME Journal, 2020, 14, 450-462.	9.8	7
80	Tungstate Control of Microbial Sulfidogenesis and Souring of the Engineered Environment. Environmental Science & Technology, 2020, 54, 16119-16127.	10.0	6
81	Microbial Sulfate Reduction and Perchlorate Inhibition in a Novel Mesoscale Tank Experiment. Energy & Fuels, 2018, 32, 12049-12065.	5.1	5
82	Accentuate the Positive: Dissimilatory Iron Reduction by Gram-Positive Bacteria. , 0, , 173-P1.		4
83	Biofilm Feedbacks Alter Hydrological Characteristics of Fractured Rock Impacting Sulfidogenesis and Treatment. Energy & Fuels, 2019, 33, 10476-10486.	5.1	4
84	Resistance and Resilience of Sulfidogenic Communities in the Face of the Specific Inhibitor Perchlorate. Frontiers in Microbiology, 2019, 10, 654.	3.5	4
85	An uncharacterized clade in the <scp>DMSO</scp> reductase family of molybdenum oxidoreductases is a new type of chlorate reductase. Environmental Microbiology Reports, 2020, 12, 534-539.	2.4	4
86	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
87	Perchlorate and Its Application in the Oil and Gas Industry. , 2019, , 109-128.		3
88	Isolation of a Dissimilatory Iodate-Reducing Aromatoleum sp. From a Freshwater Creek in the San Francisco Bay Area. Frontiers in Microbiology, 2021, 12, 804181.	3.5	2
89	Enrichment and Isolation of Chloroxyanion-Respiring Hydrocarbon Oxidizers. Springer Protocols, 2016, , 165-176.	0.3	1
90	Anaerobic Respiratory Iron(II) Oxidation. , 0, , 157-171.		1

#	Article	IF	Citations
91	Real-time biocatalyst loading and electron transfer via microfabricated transparent electrode. , 2010, , .		0
92	Sulfate adenylyl transferase kinetics and mechanisms of metabolic inhibitors of microbial sulfate respiration. ISME Communications, 2021, 1, .	4.2	0