James P Shapleigh

List of Publications by Year
in descending order

64 papers	2,642 citations	159585 30 h-index	206112 48 g-index
68 all docs	68 docs citations	68 times ranked	2311 citing authors

#	Article	IF	Citations
1	Insight into the active-site structure and function of cytochrome oxidase by analysis of site-directed mutants of bacterial cytochromeaa 3 and cytochromebo. Journal of Bioenergetics and Biomembranes, 1993, 25, 121-136.	2.3	266
2	A Novel Cytochrome c Oxidase from Rhodobacter sphaeroides That Lacks CuA. Biochemistry, 1994, 33, 3113-3119.	2.5	147
3	The home stretch, a first analysis of the nearly completed genome of Rhodobacter sphaeroides 2.4.1. Photosynthesis Research, 2001, 70, 19-41.	2.9	129
4	Spectroscopic, Kinetic, and Electrochemical Characterization of Heterologously Expressed Wild-Type and Mutant Forms of Copper-Containing Nitrite Reductase fromRhodobacter sphaeroides2.4.3â€. Biochemistry, 1998, 37, 6086-6094.	2.5	107
5	Transcription and activities of NO_x reductases in <i>Agrobacterium tumefaciens</i>: the influence of nitrate, nitrite and oxygen availability. Environmental Microbiology, 2008, 10, 3070-3081.	3.8	95
6	Cloning, sequencing and deletion from the chromosome of the gene encoding subunit I of the aa3-type cytochrome c oxidase of Rhodobacter sphaeroides. Molecular Microbiology, 1992, 6, 635-642.	2.5	78
7	Requirement of Nitric Oxide for Induction of Genes Whose Products Are Involved in Nitric Oxide Metabolism in Rhodobacter sphaeroides 2.4.3. Journal of Biological Chemistry, 1996, 271, 24382-24388.	3.4	78
8	The Denitrifying Prokaryotes. , 2006, , 769-792.		69
9	Modularity of nitrogenâ€oxide reducing soil bacteria: linking phenotype to genotype. Environmental Microbiology, 2017, 19, 2507-2519.	3.8	69
10	Electronic Structural Information from Q-Band ENDOR on the Type 1 and Type 2 Copper Liganding Environment in Wild-Type and Mutant Forms of Copper-Containing Nitrite Reductaseâ€. Biochemistry, 1998, 37, 6095-6105.	2.5	66
11	Selenite-reducing capacity of the copper-containing nitrite reductase ofRhizobium sullae. FEMS Microbiology Letters, 2007, 269, 124-130.	1.8	65
12	Salinity-Aided Selection of Progressive Onset Denitrifiers as a Means of Providing Nitrite for Anammox. Environmental Science & Technology, 2018, 52, 10665-10672.	10.0	64
13	Metagenomics reveals microbial community differences lead to differential nitrate production in anammox reactors with differing nitrogen loading rates. Water Research, 2020, 169, 115279.	11.3	62
14	Plant-Microbe Interactions Drive Denitrification Rates, Dissolved Nitrogen Removal, and the Abundance of Denitrification Genes in Stormwater Control Measures. Environmental Science & Technology, 2018, 52, 9320-9329.	10.0	57
15	Spectroscopic Studies of the Met182Thr Mutant of Nitrite Reductase:Â Role of the Axial Ligand in the Geometric and Electronic Structure of Blue and Green Copper Sites. Journal of the American Chemical Society, 2003, 125, 14784-14792.	13.7	55
16	Denitrifying Prokaryotes. , 2013, , 405-425.		54
17	The Role of Denitrification in Stormwater Detention Basin Treatment of Nitrogen. Environmental Science & Technology, 2017, 51, 7928-7935.	10.0	52
18	The anammox coupled partial-denitrification process in an integrated granular sludge and fixed-biofilm reactor developed for mainstream wastewater treatment: Performance and community structure. Water Research, 2022, 210, 117964.	11.3	52

#	Article	IF	Citations
19	Metagenomic analysis reveals distinct patterns of denitrification gene abundance across soil moisture, nitrate gradients. Environmental Microbiology, 2019, 21, 1255-1266.	3.8	49
20	EPRâ^'ENDOR of the Cu(I)NO Complex of Nitrite Reductase. Journal of the American Chemical Society, 2006, 128, 13102-13111.	13.7	48
21	A pH-Dependent Polarity Change at the Binuclear Center of Reduced CytochromecOxidase Detected by FTIR Difference Spectroscopy of the CO Adductâ€. Biochemistry, 1996, 35, 9446-9450.	2.5	47
22	Metatranscriptomic Analyses of Plankton Communities Inhabiting Surface and Subpycnocline Waters of the Chesapeake Bay during Oxic-Anoxic-Oxic Transitions. Applied and Environmental Microbiology, 2014, 80, 328-338.	3.1	47
23	A Novel Protein Protects Bacterial Iron-Dependent Metabolism from Nitric Oxide. Journal of Bacteriology, 2013, 195, 4702-4708.	2.2	46
24	Involvement of the PrrB/PrrA Two-Component System in Nitrite Respiration in Rhodobacter sphaeroides 2.4.3: Evidence for Transcriptional Regulation. Journal of Bacteriology, 2002, 184, 3521-3529.	2.2	45
25	Denitrification Genes Regulate Brucella Virulence in Mice. Journal of Bacteriology, 2004, 186, 6025-6031.	2.2	44
26	Assessing the Impact of Denitrifier-Produced Nitric Oxide on Other Bacteria. Applied and Environmental Microbiology, 2006, 72, 2200-2205.	3.1	40
27	Linking meta-omics to the kinetics of denitrification intermediates reveals pH-dependent causes of N2O emissions and nitrite accumulation in soil. ISME Journal, 2022, 16, 26-37.	9.8	40
28	Reduction of nitrate to nitrite by microbes under oxic conditions. Soil Biology and Biochemistry, 2016, 100, 1-8.	8.8	39
29	Characterization of a member of the NnrR regulon in Rhodobacter sphaeroides 2.4.3 encoding a haemâ€“copper protein The GenBank accession number for nnrS is U62403.. Microbiology (United) Tj ETQq1 1 0.784314 rgBT /Overlo	1.8	39
30	Taxis Response of Various Denitrifying Bacteria to Nitrate and Nitrite. Applied and Environmental Microbiology, 2002, 68, 2140-2147.	3.1	38
31	Characterization of nirV and a gene encoding a novel pseudoazurin in Rhodobacter sphaeroides 2.4.3 The GenBank accession number for the sequence determined in this work is AF339883.. Microbiology (United Kingdom), 2001, 147, 2505-2515.	1.8	38
32	Expression of Nitrite and Nitric Oxide Reductases in Free-Living and Plant-Associated Agrobacterium tumefaciens C58 Cells. Applied and Environmental Microbiology, 2005, 71, 4427-4436.	3.1	36
33	Physiological Roles for Two Periplasmic Nitrate Reductases in Rhodobacter sphaeroides 2.4.3 (ATCC) Tj ETQq1 1 0.784314 rgBT /Overlo	2.2	30
34	Oxygen control of nitrogen oxide respiration, focusing on Î±-proteobacteria. Biochemical Society Transactions, 2011, 39, 179-183.	3.4	28
35	Regulation and Function of Cytochrome <i>c</i> â€² in <i>Rhodobacter sphaeroides</i> 2.4.3. Journal of Bacteriology, 2005, 187, 4077-4085.	2.2	27
36	<i>Agrobacterium tumefaciens</i> C58 Uses ActR and FnrN To Control <i>nirK</i> and <i>nor</i> Expression. Journal of Bacteriology, 2008, 190, 78-86.	2.2	25

#	Article	IF	Citations
37	Competition for electrons favours <scp>N₂O</scp> reduction in denitrifying <i>Bradyrhizobium</i> isolates. Environmental Microbiology, 2021, 23, 2244-2259.	3.8	24
38	Use of a Green Fluorescent Protein-Based Reporter Fusion for Detection of Nitric Oxide Produced by Denitrifiers. Applied and Environmental Microbiology, 2003, 69, 3938-3944.	3.1	23
39	Metagenomics revealed the phase-related characteristics during rapid development of halotolerant aerobic granular sludge. Environment International, 2020, 137, 105548.	10.0	21
40	Multi-omics reveal various potential antimonate reductases from phylogenetically diverse microorganisms. Applied Microbiology and Biotechnology, 2019, 103, 9119-9129.	3.6	20
41	Application of acidic conditions and inert-gas sparging to achieve high-efficiency nitrous oxide recovery during nitrite denitrification. Water Research, 2020, 182, 116001.	11.3	20
42	Metagenomic Evidence for a Methylocystis Species Capable of Bioremediation of Diverse Heavy Metals. Frontiers in Microbiology, 2019, 9, 3297.	3.5	19
43	ENDOR Investigation of the Liganding Environment of Mixed-Spin Ferric Cytochromecâ€˜. Journal of the American Chemical Society, 2005, 127, 9485-9494.	13.7	18
44	ENDOR of NO-Ligated Cytochromecâ€˜. Journal of the American Chemical Society, 2006, 128, 5021-5032.	13.7	18
45	Site-directed mutagenesis of NnrR: a transcriptional regulator of nitrite and nitric oxide reductase inRhodobacter sphaeroides. FEMS Microbiology Letters, 2003, 229, 173-178.	1.8	17
46	Identification, Functional Studies, and Genomic Comparisons of New Members of the NnrR Regulon in <i>Rhodobacter sphaeroides</i>. Journal of Bacteriology, 2010, 192, 903-911.	2.2	17
47	Development, assessment and evaluation of a biopile for hydrocarbons soil remediation. International Biodeterioration and Biodegradation, 2015, 98, 66-72.	3.9	17
48	Phenolic acid-degrading <i>Paraburkholderia</i> prime decomposition in forest soil. ISME Communications, 2021, 1, .	4.2	17
49	Using metagenomics to reveal landscape scale patterns of denitrifiers in a montane forest ecosystem. Soil Biology and Biochemistry, 2019, 138, 107585.	8.8	16
50	Metagenomics and metatranscriptomics uncover the microbial community associated with high S0 production in a denitrifying desulfurization granular sludge reactor. Water Research, 2021, 203, 117505.	11.3	12
51	Role of <i>norEF</i> in Denitrification, Elucidated by Physiological Experiments with Rhodobacter sphaeroides. Journal of Bacteriology, 2014, 196, 2190-2200.	2.2	10
52	Community Organization and Metagenomics of Bacterial Assemblages Across Local Scale pH Gradients in Northern Forest Soils. Microbial Ecology, 2021, 81, 758-769.	2.8	10
53	Dissimilatory and Assimilatory Nitrate Reduction in the Purple Photosynthetic Bacteria. Advances in Photosynthesis and Respiration, 2009, , 623-642.	1.0	10
54	Performance characteristics and community analysis of a single-stage partial nitritation, anammox and denitratation (SPANADA) integrated process for treating low C/N ratio wastewater. Chemical Engineering Journal, 2022, 433, 134452.	12.7	10

#	Article	IF	Citations
55	Soil Organic Matter, Soil Structure, and Bacterial Community Structure in a Post-Agricultural Landscape. Frontiers in Earth Science, 2021, 9, .	1.8	9
56	Long-term effects of acetylene on denitrifying N2O production: Biomass performance and microbial community. Journal of Water Process Engineering, 2021, 42, 102137.	5.6	9
57	Respiration-linked proton flux in Wolinella succinogenes during reduction of N-oxides. Archives of Biochemistry and Biophysics, 1986, 244, 713-718.	3.0	7
58	Study of Specific Binding of Maltose Binding Protein to Pyrrole-Derived Bipyridinium Film by Quartz Crystal Microbalance. Langmuir, 2002, 18, 4892-4897.	3.5	7
59	Electron transfer to nitrite reductase of Rhodobacter sphaeroides 2.4.3: examination of cytochromes c 2 and c Y. Microbiology (United Kingdom), 2006, 152, 1479-1488.	1.8	7
60	Electrocatalytic Reduction ofS-Nitrosoglutathione at Electrodes Modified with an Electropolymerized Film of a Pyrrole-Derived Viologen System and Their Application to CellularS-Nitrosoglutathione Determinations. Analytical Biochemistry, 1998, 263, 102-112.	2.4	6
61	Mechanisms of oxygen inhibition of nirK expression in Rhodobacter sphaeroides. Microbiology (United Kingdom), 2010, 156, 3158-3165.	1.8	6
62	FT-IR analysis of membranes of Rhodobacter sphaeroides 2.4.3 grown under microaerobic and denitrifying conditions. Biochimica Et Biophysica Acta - Bioenergetics, 1998, 1409, 99-105.	1.0	5
63	Bacteriophage-mediated extracellular DNA release is important for the structural stability of aerobic granular sludge. Science of the Total Environment, 2020, 726, 138392.	8.0	5
64	Deletion of the gene encoding cytochromeb562fromRhodobacter sphaeroides. FEMS Microbiology Letters, 1994, 120, 105-110.	1.8	4