

Jim C Spain

List of Publications by Year in descending order

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35
papers

962
citations

567281

15
h-index

434195

31
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35
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35
docs citations

35
times ranked

1096
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular Characterization and Substrate Specificity of Nitrobenzene Dioxygenase from <i>Comamonas</i> sp. Strain JS765. <i>Applied and Environmental Microbiology</i> , 2002, 68, 634-641.	3.1	140
2	Origins of the 2,4-Dinitrotoluene Pathway. <i>Journal of Bacteriology</i> , 2002, 184, 4219-4232.	2.2	94
3	Identifying Competing Aerobic Nitrobenzene Biodegradation Pathways by Compound-Specific Isotope Analysis. <i>Environmental Science & Technology</i> , 2008, 42, 4764-4770.	10.0	74
4	Microbial Community Degradation of Widely Used Quaternary Ammonium Disinfectants. <i>Applied and Environmental Microbiology</i> , 2014, 80, 5892-5900.	3.1	60
5	Quantifying the Importance of the Rare Biosphere for Microbial Community Response to Organic Pollutants in a Freshwater Ecosystem. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	60
6	Aerobic Biodegradation of 2,4-Dinitroanisole by <i>Nocardioides</i> sp. Strain JS1661. <i>Applied and Environmental Microbiology</i> , 2014, 80, 7725-7731.	3.1	50
7	Using Compound-Specific Isotope Analysis to Assess Biodegradation of Nitroaromatic Explosives in the Subsurface. <i>Environmental Science & Technology</i> , 2013, 47, 6872-6883.	10.0	46
8	â€œ <i>Candidatus</i> <i>Macondimonas diazotrophica</i> â€, a novel gammaproteobacterial genus dominating crude-oil-contaminated coastal sediments. <i>ISME Journal</i> , 2019, 13, 2129-2134.	9.8	46
9	Comparative genomic analysis of isotopuronâ€mineralizing sphingomonads reveals the isotopuron catabolic mechanism. <i>Environmental Microbiology</i> , 2016, 18, 4888-4906.	3.8	39
10	Properties of the trihydroxytoluene oxygenase from <i>Burkholderia cepacia</i> R34: an extradiol dioxygenase from the 2,4-dinitrotoluene pathway. <i>Archives of Microbiology</i> , 2000, 173, 86-90.	2.2	36
11	The Combined Structural and Kinetic Characterization of a Bacterial Nitronate Monooxygenase from <i>Pseudomonas aeruginosa</i> PAO1 Establishes NMO Class I and II. <i>Journal of Biological Chemistry</i> , 2014, 289, 23764-23775.	3.4	32
12	Biodegradation of 2,4-dinitroanisole (DNAN) by <i>Nocardioides</i> sp. JS1661 in water, soil and bioreactors. <i>Journal of Hazardous Materials</i> , 2016, 312, 37-44.	12.4	29
13	Isotope Fractionation Associated with the Biodegradation of 2- and 4-Nitrophenols via Monooxygenation Pathways. <i>Environmental Science & Technology</i> , 2013, 47, 14185-14193.	10.0	26
14	Modeling Aerobic Biodegradation in the Capillary Fringe. <i>Environmental Science & Technology</i> , 2015, 49, 1501-1510.	10.0	25
15	Microbial Enrichment Culture Responsible for the Complete Oxidative Biodegradation of 3-Amino-1,2,4-triazol-5-one (ATO), the Reduced Daughter Product of the Insensitive Munitions Compound 3-Nitro-1,2,4-triazol-5-one (NTO). <i>Environmental Science & Technology</i> , 2019, 53, 12648-12656.	10.0	18
16	Aerobic biodegradation of 2,3- and 3,4-dichloronitrobenzene. <i>Journal of Hazardous Materials</i> , 2019, 378, 120717.	12.4	17
17	Biodegradation of the Allelopathic Chemical Pterostilbene by a <i>Sphingobium</i> sp. Strain from the Peanut Rhizosphere. <i>Applied and Environmental Microbiology</i> , 2019, 85, .	3.1	13
18	Enzymatic hydrolysis by transition-metal-dependent nucleophilic aromatic substitution. <i>Nature Chemical Biology</i> , 2016, 12, 1031-1036.	8.0	12

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19	Resveratrol as a Growth Substrate for Bacteria from the Rhizosphere. <i>Applied and Environmental Microbiology</i> , 2018, 84, .	3.1	12
20	Different Mechanisms of Alkaline and Enzymatic Hydrolysis of the Insensitive Munition Component 2,4-Dinitroanisole Lead to Identical Products. <i>Environmental Science and Technology Letters</i> , 2018, 5, 456-461.	8.7	12
21	Bacteria Make a Living Breathing the Nitroheterocyclic Insensitive Munitions Compound 3-Nitro-1,2,4-triazol-5-one (NTO). <i>Environmental Science & Technology</i> , 2021, 55, 5806-5814.	10.0	12
22	A Recently Assembled Degradation Pathway for 2,3-Dichloronitrobenzene in <i>Diaphorobacter</i> sp. Strain JS3051. <i>MBio</i> , 2021, 12, e0223121.	4.1	12
23	Iron-Dependent Enzyme Catalyzes the Initial Step in Biodegradation of <i>N</i> -Nitroglycine by <i>Variovorax</i> sp. Strain JS1663. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	11
24	Integrated Omics Elucidate the Mechanisms Driving the Rapid Biodegradation of Deepwater Horizon Oil in Intertidal Sediments Undergoing Oxidic-Anoxic Cycles. <i>Environmental Science & Technology</i> , 2020, 54, 10088-10099.	10.0	11
25	Natural Attenuation of Nonvolatile Contaminants in the Capillary Fringe. <i>Environmental Science & Technology</i> , 2016, 50, 10172-10178.	10.0	10
26	Immobilized Biocatalyst for Detection and Destruction of the Insensitive Explosive, 2,4-Dinitroanisole (DNAN). <i>Environmental Science & Technology</i> , 2016, 50, 11193-11199.	10.0	10
27	A Nagalike dioxygenase initiates 3,4-dichloronitrobenzene degradation via 4-dichlorocatechol in <i>Diaphorobacter</i> sp. strain JS3050. <i>Environmental Microbiology</i> , 2021, 23, 1053-1065.	3.8	10
28	<i>Pseudomonas aeruginosa</i> LysR PA4203 Regulator NmoR Acts as a Repressor of the PA4202 <i>nmoA</i> Gene, Encoding a Nitronate Monooxygenase. <i>Journal of Bacteriology</i> , 2015, 197, 1026-1039.	2.2	9
29	A novel, divergent alkane monooxygenase (<i>alkB</i>) clade involved in crude oil biodegradation. <i>Environmental Microbiology Reports</i> , 2021, 13, 830-840.	2.4	9
30	Branched pathways in the degradation of cDCE by cytochrome P450 in <i>Polaromonas</i> sp. JS666. <i>Science of the Total Environment</i> , 2017, 605-606, 99-105.	8.0	8
31	Designing bacterial consortia for the complete biodegradation of insensitive munitions compounds in waste streams. <i>Biotechnology and Bioengineering</i> , 2022, 119, 2437-2446.	3.3	7
32	Quinone Moieties Link the Microbial Respiration of Natural Organic Matter to the Chemical Reduction of Diverse Nitroaromatic Compounds. <i>Environmental Science & Technology</i> , 2022, 56, 9387-9397.	10.0	7
33	Biodegradation of 3-Chloronitrobenzene and 3-Bromonitrobenzene by <i>Diaphorobacter</i> sp. Strain JS3051. <i>Applied and Environmental Microbiology</i> , 2022, 88, e0243721.	3.1	3
34	Liquid-Phase Biochemical Sensing with Disk-Type Resonant Microsensor. , 2007, , .		2
35	Continuous-Flow Applications of Silica-Encapsulated Enzymes. <i>ACS Symposium Series</i> , 2008, , 243-253.	0.5	0