Gerben J Zylstra

List of Publications by Year
in descending order

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89 papers	5,258 citations	71097 41 h-index	91872 69 g-index
91 all docs	91 docs citations	91 times ranked	4946 citing authors

#	Article	IF	Citations
1	Agromyces and Arthrobacter isolates from surficial sediments of the Passaic River degrade dibenzofuran, dibenzo-p-dioxin and 2-monochlorodibenzo-p-dioxin. Bioremediation Journal, 2021, 25, 204-224.	2.0	1
2	Separate Upper Pathway Ring Cleavage Dioxygenases Are Required for Growth of Sphingomonas wittichii Strain RW1 on Dibenzofuran and Dibenzo- p -Dioxin. Applied and Environmental Microbiology, 2021, 87, .	3.1	3
3	The lowâ€nanomolar 4â€nitrobenzoateâ€responsive repressor <scp>PnbX</scp> negatively regulates the actinomyceteâ€derived 4â€nitrobenzoateâ€degrading pnb locus. Environmental Microbiology, 2021, 23, 7028-7041.	3.8	2
4	Differential Roles of Three Different Upper Pathway meta Ring Cleavage Product Hydrolases in the Degradation of Dibenzo- p -Dioxin and Dibenzofuran by Sphingomonas wittichii Strain RW1. Applied and Environmental Microbiology, 2021, 87, e0106721.	3.1	1
5	Bioavailability of clay-adsorbed dioxin to Sphingomonas wittichii RW1 and its associated genome-wide shifts in gene expression. Science of the Total Environment, 2020, 712, 135525.	8.0	6
6	Biotechnological Potential of Rhodococcus Biodegradative Pathways. Journal of Microbiology and Biotechnology, 2018, 28, 1037-1051.	2.1	75
7	Isothermal assay targeting class 1 integrase gene for environmental surveillance of antibiotic resistance markers. Journal of Environmental Management, 2017, 198, 213-220.	7.8	17
8	Salicylate degradation by a cold-adapted Pseudomonas sp.. Annals of Microbiology, 2017, 67, 417-424.	2.6	10
9	Sphingomonas wittichii Strain RW1 Genome-Wide Gene Expression Shifts in Response to Dioxins and Clay. PLoS ONE, 2016, 11, e0157008.	2.5	24
10	Functional characterization of salicylate hydroxylase from the fungal endophyte EpichloÃ« festucae. Scientific Reports, 2015, 5, 10939.	3.3	60
11	Draft Genome Sequence of the Versatile Alkane-Degrading Bacterium Aquabacterium sp. Strain NJ1. Genome Announcements, 2014, 2, .	0.8	16
12	Genetic Evidence for a Molybdopterin-Containing Tellurate Reductase. Applied and Environmental Microbiology, 2013, 79, 3171-3175.	3.1	19
13	Genome Sequence ofn-Alkane-Degrading Hydrocarboniphaga effusa Strain AP103T(ATCC BAA-332T). Journal of Bacteriology, 2012, 194, 5120-5120.	2.2	6
14	Biodegradation of Tetrahydrofuran and 1,4-Dioxane by Soluble Diiron Monooxygenase in <i>Pseudonocardia</i> sp. Strain ENV478. Journal of Molecular Microbiology and Biotechnology, 2012, 22, 312-316.	1.0	52
15	Draft Genome Sequence and Comparative Analysis of the Superb Aromatic-Hydrocarbon Degrader Rhodococcus sp. Strain DK17. Journal of Bacteriology, 2012, 194, 4440-4440.	2.2	16
16	Characterization of three propane-inducible oxygenases in Mycobacterium sp. strain ENV421. Letters in Applied Microbiology, 2012, 55, 175-181.	2.2	22
17	The genome sequence of Desulfatibacillum alkenivorans AKâ€01: a blueprint for anaerobic alkane oxidation. Environmental Microbiology, 2012, 14, 101-113.	3.8	137
18	Biphenyl hydroxylation enhanced by an engineered o-xylene dioxygenase from Rhodococcus sp. strain DK17. Research in Microbiology, 2011, 162, 724-728.	2.1	7

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19	Differential Degradation of Bicyclics with Aromatic and Alicyclic Rings by Rhodococcus sp. Strain DK17. Applied and Environmental Microbiology, 2011, 77, 8280-8287.	3.1	16
20	Benzylic and aryl hydroxylations of m-xylene by o-xylene dioxygenase from Rhodococcus sp. strain DK17. Applied Microbiology and Biotechnology, 2010, 86, 1841-1847.	3.6	14
21	Aromatic Hydroxylation of Indan by o -Xylene-Degrading Rhodococcus sp. Strain DK17. Applied and Environmental Microbiology, 2010, 76, 375-377.	3.1	9
22	Degradation of Phenol via Phenylphosphate and Carboxylation to 4-Hydroxybenzoate by a Newly Isolated Strain of the Sulfate-Reducing BacteriumDesulfobacterium anilini. Applied and Environmental Microbiology, 2009, 75, 4248-4253.	3.1	48
23	Involvement of Two Transport Systems and a Specific Porin in the Uptake of Phthalate by Burkholderia spp. Journal of Bacteriology, 2009, 191, 4671-4673.	2.2	22
24	DNA-Stable Isotope Probing Integrated with Metagenomics for Retrieval of Biphenyl Dioxygenase Genes from Polychlorinated Biphenyl-Contaminated River Sediment. Applied and Environmental Microbiology, 2009, 75, 5501-5506.	3.1	96
25	Characterization of a ring-hydroxylating dioxygenase from phenanthrene-degrading Sphingomonas sp. strain LH128 able to oxidize benz[a]anthracene. Applied Microbiology and Biotechnology, 2009, 83, 465-475.	3.6	45
26	Identification of functionally important amino acids in a novel indigo-producing oxygenase from Rhodococcus sp. strain T104. Applied Microbiology and Biotechnology, 2008, 79, 417-422.	3.6	11
27	Identification of genes coding for hydrolytic dehalogenation in the metagenome derived from a denitrifying 4-chlorobenzoate degrading consortium. FEMS Microbiology Letters, 2008, 281, 203-209.	1.8	13
28	Anaerobic alkane-degrading strain AK-01 contains two alkylsuccinate synthase genes. Biochemical and Biophysical Research Communications, 2008, 366, 142-148.	2.1	116
29	Examination and expansion of the substrate range of m-hydroxybenzoate hydroxylase. Biochemical and Biophysical Research Communications, 2008, 371, 149-153.	2.1	14
30	Trisindoline synthesis and anticancer activity. Biochemical and Biophysical Research Communications, 2008, 376, 96-99.	2.1	30
31	Characterization of a Novel Angular Dioxygenase from Fluorene-Degrading Sphingomonas sp. Strain LB126. Applied and Environmental Microbiology, 2008, 74, 1050-1057.	3.1	40
32	Potential for Mercury Reduction by Microbes in the High Arctic. Applied and Environmental Microbiology, 2007, 73, 2230-2238.	3.1	88
33	Biogeography of Actinomycete Communities and Type II Polyketide Synthase Genes in Soils Collected in New Jersey and Central Asia. Applied and Environmental Microbiology, 2007, 73, 2982-2989.	3.1	59
34	Cloning of a Gene Cluster Involved in the Catabolism of p -Nitrophenol by Arthrobacter sp. Strain JS443 and Characterization of the p -Nitrophenol Monooxygenase. Journal of Bacteriology, 2007, 189, 7563-7572.	2.2	92
35	Benzoate Catabolite Repression of the Phthalate Degradation Pathway in Rhodococcus sp. Strain DK17. Applied and Environmental Microbiology, 2007, 73, 1370-1374.	3.1	21
36	The arsenite oxidase genes (aroAB) in novel chemoautotrophic arsenite oxidizers. Biochemical and Biophysical Research Communications, 2007, 354, 662-667.	2.1	108

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37	Requirement of duplicated operons for maximal metabolism of phthalate by Rhodococcus sp. strain DK17. Biochemical and Biophysical Research Communications, 2007, 357, 766-771.	2.1	14
38	Comparative analysis of the catechol 2,3-dioxygenase gene locus in thermoacidophilic archaeon Sulfolobus solfataricus strain 98/2. Biochemical and Biophysical Research Communications, 2007, 357, 815-819.	2.1	20
39	Complete Sequence Determination Combined with Analysis of Transposition/Site-specific Recombination Events to Explain Genetic Organization of IncP-7 TOL Plasmid pWW53 and Related Mobile Genetic Elements. Journal of Molecular Biology, 2007, 369, 11-26.	4.2	50
40	Profiling Mechanisms of Alkane Hydroxylase Activity In Vivo Using the Diagnostic Substrate Norcarane. Chemistry and Biology, 2007, 14, 165-172.	6.0	31
41	Effect of functional groups on the regioselectivity of a novel o-xylene dioxygenase from Rhodococcus sp. strain DK17. Enzyme and Microbial Technology, 2007, 41, 221-225.	3.2	20
42	Functional identification ofp-cumate operons in the terpene-degradingRhodococcussp. strain T104. FEMS Microbiology Letters, 2007, 266, 54-59.	1.8	3
43	Purification, characterization, and crystallization of the components of a biphenyl dioxygenase system from Sphingobium yanoikuyae B1. Journal of Industrial Microbiology and Biotechnology, 2007, 34, 311-324.	3.0	31
44	Identification, cloning, and characterization of a multicomponent biphenyl dioxygenase from Sphingobium yanoikuyae B1. Journal of Industrial Microbiology and Biotechnology, 2007, 34, 605-613.	3.0	43
45	Biodegradation of Ether Pollutants by Pseudonocardia sp. Strain ENV478. Applied and Environmental Microbiology, 2006, 72, 5218-5224.	3.1	145
46	Microbial Dioxygenase Gene Population Shifts during Polycyclic Aromatic Hydrocarbon Biodegradation. Applied and Environmental Microbiology, 2006, 72, 4078-4087.	3.1	107
47	Analysis of mercuric reductase (merA) gene diversity in an anaerobic mercury-contaminated sediment enrichment. Environmental Microbiology, 2006, 8, 1746-1752.	3.8	55
48	Evidence for the role of 2-hydroxychromene-2-carboxylate isomerase in the degradation of anthracene by Sphingomonas yanoikuyae B1. FEMS Microbiology Letters, 2006, 153, 479-484.	1.8	25
49	4-Chlorobenzoate Uptake in Comamonas sp. Strain DJ-12 Is Mediated by a Tripartite ATP-Independent Periplasmic Transporter. Journal of Bacteriology, 2006, 188, 8407-8412.	2.2	25
50	Molecular and biochemical analysis of phthalate and terephthalate degradation byRhodococcussp. strain DK17. FEMS Microbiology Letters, 2005, 252, 207-213.	1.8	74
51	What is environmental biotechnology?. Current Opinion in Biotechnology, 2005, 16, 243-245.	6.6	9
52	Effect of Different Carbon Sources on Community Composition of Bacterial Enrichments from Soil. Applied and Environmental Microbiology, 2005, 71, 6776-6783.	3.1	69
53	Identification of Unique Type II Polyketide Synthase Genes in Soil. Applied and Environmental Microbiology, 2005, 71, 2232-2238.	3.1	99
54	Assimilation of Nitrogen from Nitrite and Trinitrotoluene in Pseudomonas putida JLR11. Journal of Bacteriology, 2005, 187, 396-399.	2.2	59

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55	Functional characterization and molecular modeling of methylcatechol 2,3-dioxygenase from o-xylene-degrading Rhodococcus sp. strain DK17. Biochemical and Biophysical Research Communications, 2005, 326, 880-886.	2.1	15
56	Catabolic role of a three-component salicylate oxygenase from Sphingomonas yanoikuyae B1 in polycyclic aromatic hydrocarbon degradation. Biochemical and Biophysical Research Communications, 2005, 327, 656-662.	2.1	48
57	Characterization of two small cryptic plasmids from Pseudomonas sp. strain S-47. Biochemical and Biophysical Research Communications, 2005, 338, 1600-1606.	2.1	6
58	Identification of two-component regulatory genes involved in o-xylene degradation by Rhodococcus sp. strain DK17. Journal of Microbiology, 2005, 43, 49-53.	2.8	11
59	Identification of a Novel Dioxygenase Involved in Metabolism of o -Xylene, Toluene, and Ethylbenzene by Rhodococcus sp. Strain DK17. Applied and Environmental Microbiology, 2004, 70, 7086-7092.	3.1	60
60	Hydrocarboniphaga effusa gen. nov., sp. nov., a novel member of the Î³-Proteobacteria active in alkane and aromatic hydrocarbon degradation. International Journal of Systematic and Evolutionary Microbiology, 2004, 54, 1203-1207.	1.7	56
61	Complete Sequence and Genetic Organization of pDTG1, the 83 Kilobase Naphthalene Degradation Plasmid from Pseudomonas putida strain NCIB 9816-4. Journal of Molecular Biology, 2004, 341, 753-768.	4.2	135
62	Implication of two glutathione S-transferases in the optimal metabolism of m-toluate by Sphingomonas yanoikuyae B1. Antonie Van Leeuwenhoek, 2003, 84, 25-30.	1.7	13
63	Xylene monooxygenase, a membrane-spanning non-heme diiron enzyme that hydroxylates hydrocarbons via a substrate radical intermediate. Journal of Biological Inorganic Chemistry, 2003, 8, 733-740.	2.6	35
64	Regioselective oxidation of xylene isomers by Rhodococcus sp. strain DK17. FEMS Microbiology Letters, 2003, 223, 211-214.	1.8	12
65	Taxonomic positioning of two biological control agents for plant diseases as Lysobacter enzymogenes based on phylogenetic analysis of 16S rDNA, fatty acid composition and phenotypic characteristics. Journal of Applied Microbiology, 2003, 94, 1079-1086.	3.1	109
66	Degradation of phenanthrene and naphthalene by aBurkholderiaspecies strain. Canadian Journal of Microbiology, 2003, 49, 139-144.	1.7	42
67	Identification and Characterization of the Conjugal Transfer Region of the pCg1 plasmid from Naphthalene-Degrading Pseudomonas putida Cg1. Applied and Environmental Microbiology, 2003, 69, 3263-3271.	3.1	22
68	Characterization and Regulation of the Genes for a Novel Anthranilate 1,2-Dioxygenase from Burkholderia cepacia DBO1. Journal of Bacteriology, 2003, 185, 5871-5881.	2.2	63
69	Monocyclic Aromatic Hydrocarbon Degradation by Rhodococcus sp. Strain DK17. Applied and Environmental Microbiology, 2002, 68, 3270-3278.	3.1	121
70	nahR, encoding a LysR-type transcriptional regulator, is highly conserved among naphthalene-degrading bacteria isolated from a coal tar waste-contaminated site and in extracted community DNA b bThe GenBank accession number for the sequences of the tnpA-like gene, nahG and nahR of P. putida NCIB 9816-4 is AF491307. The GenBank accession numbers for the sequences of the nahRâ€“nahG intergenic region and the nahR homologue genes of strains Cg1, Cg2, Cg5, Cg7, Cg9, Cg11, Hg8 and N1 are AF491308â€“AF491315, respecti. Microbiology (United Kingdom), 2002, 148, 2319-2329.	1.8	34
71	Isolation and Characterization of Polycyclic Aromatic Hydrocarbon-Degrading Bacteria Associated with the Rhizosphere of Salt Marsh Plants. Applied and Environmental Microbiology, 2001, 67, 2683-2691.	3.1	262
72	Genetic structure and functional implication of the fcb gene cluster for hydrolytic dechlorination of 4-chlorobenzoate from Pseudomonas sp. DJ-12. Gene, 2000, 258, 109-116.	2.2	28

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73	The Non-Heme Diiron Alkane Monooxygenase of Pseudomonas oleovorans (AlkB) Hydroxylates via a Substrate Radical Intermediate. Journal of the American Chemical Society, 2000, 122, 11747-11748.	13.7	77
74	Identification of a New Class of 5â€²-Adenylylsulfate (APS) Reductases from Sulfate-Assimilating Bacteria. Journal of Bacteriology, 2000, 182, 135-142.	2.2	118
75	Role of Quinolinate Phosphoribosyl Transferase in Degradation of Phthalate by Burkholderia cepacia DBO1. Journal of Bacteriology, 1999, 181, 3069-3075.	2.2	22
76	Characterization of the Phthalate Permease OphD from Burkholderia cepacia ATCC 17616. Journal of Bacteriology, 1999, 181, 6197-6199.	2.2	34
77	Identification and Molecular Characterization of an Efflux Pump Involved in Pseudomonas putida S12 Solvent Tolerance. Journal of Biological Chemistry, 1998, 273, 85-91.	3.4	255
78	Improved Antibiotic-Resistance Cassettes Through Restriction Site Elimination Using Pfu DNA Polymerase PCR. BioTechniques, 1998, 25, 772-776.	1.8	54
79	Plasposons: Modular Self-Cloning Minitransposon Derivatives for Rapid Genetic Analysis of Gram-Negative Bacterial Genomes. Applied and Environmental Microbiology, 1998, 64, 2710-2715.	3.1	420
80	Novel Organization of the Genes for Phthalate Degradation from Burkholderia cepacia DBO1. Journal of Bacteriology, 1998, 180, 6529-6537.	2.2	123
81	Active Efflux of Organic Solvents by Pseudomonas putida S12 Is Induced by Solvents. Journal of Bacteriology, 1998, 180, 6769-6772.	2.2	110
82	Aromatic hydrocarbon degradation by Sphingomonas yanoikuyae B1. Journal of Industrial Microbiology and Biotechnology, 1997, 19, 408-414.	3.0	113
83	Genetics of naphthalene and phenanthrene degradation by Comamonas testosteroni. Journal of Industrial Microbiology and Biotechnology, 1997, 19, 401-407.	3.0	82
84	Comparative Molecular Analysis of Genes for Polycyclic Aromatic Hydrocarbon Degradation. , 1997, 19, 257-269.		53
85	Cloning and Analysis of the Genes for Polycyclic Aromatic Hydrocarbon Degradationa. Annals of the New York Academy of Sciences, 1994, 721, 386-398.	3.8	27
86	Sequences of genes encoding naphthalene dioxygenase in Pseudomonas putida strains G7 and NCIB 9816-4. Gene, 1993, 127, 31-37.	2.2	321
87	Location and sequence of the todF gene encoding 2-hydroxy-6-oxohepta-2,4-dienoate hydrolase in Pseudomonas putida F1. Gene, 1991, 104, 91-94.	2.2	105
88	Aromatic Hydrocarbon Degradation: A Molecular Approach. , 1991, 13, 183-203.		72
89	Metabolism of Aromatic Compounds. , 0, , 586-595.		2