Dirk Tischler

List of Publications by Year
in descending order

96 papers	2,558 citations	186265 28 h-index	223800 46 g-index
105 all docs	105 docs citations	105 times ranked	2167 citing authors

#	Article	IF	Citations
1	Flavin dependent monooxygenases. Archives of Biochemistry and Biophysics, 2014, 544, 2-17.	3.0	430
2	Identification of a Novel Self-Sufficient Styrene Monooxygenase from <i>Rhodococcus opacus</i> 1CP. Journal of Bacteriology, 2009, 191, 4996-5009.	2.2	114
3	Catalytic and Structural Features of Flavoprotein Hydroxylases and Epoxidases. Advanced Synthesis and Catalysis, 2011, 353, 2301-2319.	4.3	89
4	Old Yellow Enzyme-Catalysed Asymmetric Hydrogenation: Linking Family Roots with Improved Catalysis. Catalysts, 2017, 7, 130.	3.5	89
5	Flavoprotein monooxygenases: Versatile biocatalysts. Biotechnology Advances, 2021, 51, 107712.	11.7	78
6	Nonenzymatic Regeneration of Styrene Monooxygenase for Catalysis. ACS Catalysis, 2015, 5, 2961-2965.	11.2	73
7	StyA1 and StyA2B from <i>Rhodococcus opacus</i> 1CP: a Multifunctional Styrene Monooxygenase System. Journal of Bacteriology, 2010, 192, 5220-5227.	2.2	72
8	Two-Component FAD-Dependent Monooxygenases: Current Knowledge and Biotechnological Opportunities. Biology, 2018, 7, 42.	2.8	68
9	Toward Biorecycling: Isolation of a Soil Bacterium That Grows on a Polyurethane Oligomer and Monomer. Frontiers in Microbiology, 2020, 11, 404.	3.5	64
10	Leloir Glycosyltransferases in Applied Biocatalysis: A Multidisciplinary Approach. International Journal of Molecular Sciences, 2019, 20, 5263.	4.1	63
11	A Review: The Styrene Metabolizing Cascade of Side-Chain Oxygenation as Biotechnological Basis to Gain Various Valuable Compounds. Frontiers in Microbiology, 2018, 9, 490.	3.5	54
12	Metal binding ability of microbial natural metal chelators and potential applications. Natural Product Reports, 2020, 37, 1262-1283.	10.3	51
13	Detection of arsenic-binding siderophores in arsenic-tolerating Actinobacteria by a modified CAS assay. Ecotoxicology and Environmental Safety, 2018, 157, 176-181.	6.0	48
14	Styrene Oxide Isomerase of Rhodococcus opacus 1CP, a Highly Stable and Considerably Active Enzyme. Applied and Environmental Microbiology, 2012, 78, 4330-4337.	3.1	44
15	Microbial Degradation of Azo Dyes: Approaches and Prospects for a Hazard-Free Conversion by Microorganisms. International Journal of Environmental Research and Public Health, 2022, 19, 4740.	2.6	43
16	Biochemical characterization of an azoreductase from Rhodococcus opacus 1CP possessing methyl red degradation ability. Journal of Molecular Catalysis B: Enzymatic, 2016, 130, 9-17.	1.8	41
17	Styrene oxide isomerase of Sphingopyxis sp. Kp5.2. Microbiology (United Kingdom), 2014, 160, 2481-2491.	1.8	39
18	On the Enigma of Glutathione-Dependent Styrene Degradation in Gordonia rubripertincta CWB2. Applied and Environmental Microbiology, 2018, 84, .	3.1	38

#	Article	IF	Citations
19	Sphingopyxis fribergensis sp. nov., a soil bacterium with the ability to degrade styrene and phenylacetic acid. International Journal of Systematic and Evolutionary Microbiology, 2015, 65, 3008-3015.	1.7	37
20	Changing the electron donor improves azoreductase dye degrading activity at neutral pH. Enzyme and Microbial Technology, 2017, 100, 17-19.	3.2	37
21	Effects of citric acid and the siderophore desferrioxamine B (DFO-B) on the mobility of germanium and rare earth elements in soil and uptake in <i>Phalaris arundinacea</i>. International Journal of Phytoremediation, 2017, 19, 746-754.	3.1	36
22	One-Component Styrene Monooxygenases: An Evolutionary View on a Rare Class of Flavoproteins. Applied Biochemistry and Biotechnology, 2012, 167, 931-944.	2.9	35
23	Flavin-dependent N-hydroxylating enzymes: distribution and application. Applied Microbiology and Biotechnology, 2020, 104, 6481-6499.	3.6	34
24	Gene redundancy of two-component (chloro)phenol hydroxylases in<i>Rhodococcus opacus</i>1CP. FEMS Microbiology Letters, 2014, 361, 68-75.	1.8	33
25	Catalytic and hydrodynamic properties of styrene monooxygenases from Rhodococcus opacus 1CP are modulated by cofactor binding. AMB Express, 2015, 5, 112.	3.0	32
26	Co-metabolic formation of substituted phenylacetic acids by styrene-degrading bacteria. Biotechnology Reports (Amsterdam, Netherlands), 2015, 6, 20-26.	4.4	31
27	Engineering Styrene Monooxygenase for Biocatalysis: Reductase-Epoxidase Fusion Proteins. Applied Biochemistry and Biotechnology, 2017, 181, 1590-1610.	2.9	30
28	Functional characterization and stability improvement of a â€˜thermophilic-likeâ€™ ene-reductase from Rhodococcus opacus 1CP. Frontiers in Microbiology, 2015, 6, 1073.	3.5	29
29	Accessing Enantiopure Epoxides and Sulfoxides: Related Flavinâ€Dependent Monooxygenases Provide Reversed Enantioselectivity. ChemCatChem, 2020, 12, 199-209.	3.7	29
30	Indigoid dyes by group E monooxygenases: mechanism and biocatalysis. Biological Chemistry, 2019, 400, 939-950.	2.5	28
31	Identification and characterization of a FAD-dependent putrescine N-hydroxylase (GorA) from Gordonia rubripertincta CWB2. Journal of Molecular Catalysis B: Enzymatic, 2016, 134, 378-389.	1.8	26
32	Immobilization of Rhodococcus opacus 1CP azoreductase to obtain azo dye degrading biocatalysts operative at acidic pH. International Biodeterioration and Biodegradation, 2017, 118, 89-94.	3.9	24
33	Secondary metabolites released by the rhizosphere bacteria Arthrobacter oxydans and Kocuria rosea enhance plant availability and soilâ€“plant transfer of germanium (Ge) and rare earth elements (REEs). Chemosphere, 2021, 285, 131466.	8.2	23
34	Trehalose phosphate synthases OtsA1 and OtsA2 of<i>Rhodococcus opacus</i>1CP. FEMS Microbiology Letters, 2013, 342, 113-122.	1.8	22
35	A thermophilic-like ene-reductase originating from an acidophilic iron oxidizer. Applied Microbiology and Biotechnology, 2017, 101, 609-619.	3.6	22
36	VpStyA1/VpStyA2B of Variovorax paradoxus EPS: An Aryl Alkyl Sulfoxidase Rather than a Styrene Epoxidizing Monooxygenase. Molecules, 2018, 23, 809.	3.8	21

#	Article	IF	Citations
37	FAD C(4a)â€hydroxide stabilized in a naturally fused styrene monooxygenase. FEBS Letters, 2013, 587, 3848-3852.	2.8	20
38	A mechanistic study on SMOB-ADP1: an NADH:flavin oxidoreductase of the two-component styrene monooxygenase of Acinetobacter baylyi ADP1. Archives of Microbiology, 2014, 196, 829-845.	2.2	20
39	Draft genome sequence of Rhodococcus erythropolis B7g, a biosurfactant producing actinobacterium. Journal of Biotechnology, 2018, 280, 38-41.	3.8	20
40	Immobilization of an integral membrane protein for biotechnological phenylacetaldehyde production. Journal of Biotechnology, 2014, 174, 7-13.	3.8	19
41	Bacterial Metabolites Produced Under Iron Limitation Kill Pinewood Nematode and Attract Caenorhabditis elegans. Frontiers in Microbiology, 2019, 10, 2166.	3.5	19
42	Production of a recombinant membrane protein in an Escherichia coli strain for the whole cell biosynthesis of phenylacetic acids. Biotechnology Reports (Amsterdam, Netherlands), 2015, 7, 38-43.	4.4	18
43	Analysis of desferrioxamine-like siderophores and their capability to selectively bind metals and metalloids: development of a robust analytical RP-HPLC method. Research in Microbiology, 2018, 169, 598-607.	2.1	18
44	Natural diversity of FAD-dependent 4-hydroxybenzoate hydroxylases. Archives of Biochemistry and Biophysics, 2021, 702, 108820.	3.0	18
45	Pyridine Nucleotide Coenzyme Specificity of p-Hydroxybenzoate Hydroxylase and Related Flavoprotein Monooxygenases. Frontiers in Microbiology, 2018, 9, 3050.	3.5	17
46	Microbial Styrene Degradation: From Basics to Biotechnology. Environmental Science and Engineering, 2012, , 67-99.	0.2	16
47	Screening for Microbial Metal-Chelating Siderophores for the Removal of Metal Ions from Solutions. Microorganisms, 2021, 9, 111.	3.6	15
48	Cultivation dependent formation of siderophores by Gordonia rubripertincta CWB2. Microbiological Research, 2020, 238, 126481.	5.3	15
49	Revisiting the Chrome Azurol S Assay for Various Metal Ions. Solid State Phenomena, 0, 262, 509-512.	0.3	14
50	Chemoenzymatic Cascade Synthesis of Optically Pure Alkanoic Acids by Using Engineered Arylmalonate Decarboxylase Variants. Chemistry - A European Journal, 2019, 25, 5071-5076.	3.3	14
51	Asymmetric Reduction of (<i>R</i>)â€Carvone through a Thermostable and Organicâ€Solventâ€Tolerant Eneâ€Reductase. ChemBioChem, 2020, 21, 1217-1225.	2.6	14
52	Asymmetric azidohydroxylation of styrene derivatives mediated by a biomimetic styrene monooxygenase enzymatic cascade. Catalysis Science and Technology, 2021, 11, 5077-5085.	4.1	14
53	Biodegradation of High Concentrations of Aliphatic Hydrocarbons in Soil from a Petroleum Refinery: Implications for Applicability of New Actinobacterial Strains. Applied Sciences (Switzerland), 2018, 8, 1855.	2.5	13
54	Glutathione: A powerful but rare cofactor among Actinobacteria. Advances in Applied Microbiology, 2020, 110, 181-217.	2.4	13

#	Article	IF	Citations
55	Evolutionary diverse Chlamydomonas reinhardtii Old Yellow Enzymes reveal distinctive catalytic properties and potential for whole-cell biotransformations. Algal Research, 2020, 50, 101970.	4.6	13
56	Highly Efficient Access to (S)â€Sulfoxides Utilizing a Promiscuous Flavoprotein Monooxygenase in a Wholeâ€Cell Biocatalyst Format. ChemCatChem, 2020, 12, 4664-4671.	3.7	12
57	Isolation and characterization of arsenic-binding siderophores from Rhodococcus erythropolis S43: role of heterobactin B and other heterobactin variants. Applied Microbiology and Biotechnology, 2021, 105, 1731-1744.	3.6	11
58	Microbial Styrene Degradation. SpringerBriefs in Microbiology, 2015, , .	0.1	9
59	Catalytic Performance of a Class III Old Yellow Enzyme and Its Cysteine Variants. Frontiers in Microbiology, 2018, 9, 2410.	3.5	9
60	Editorial: Actinobacteria, a Source of Biocatalytic Tools. Frontiers in Microbiology, 2019, 10, 800.	3.5	9
61	Biosynthesis of desferrioxamine siderophores initiated by decarboxylases: A functional investigation of two lysine/ornithine-decarboxylases from Gordonia rubripertincta CWB2 and Pimelobacter simplex 3E. Archives of Biochemistry and Biophysics, 2020, 689, 108429.	3.0	9
62	Draft genome sequence of Kocuria indica DP-K7, a methyl red degrading actinobacterium. 3 Biotech, 2020, 10, 175.	2.2	9
63	Pathways for the Degradation of Styrene. SpringerBriefs in Microbiology, 2015, , 7-22.	0.1	9
64	Improving Biocatalytic Properties of an Azoreductase <i>via</i> the <i>Nâ€</i>Terminal Fusion of Formate Dehydrogenase. ChemBioChem, 2022, 23, .	2.6	9
65	Characterization of Aldehyde Dehydrogenases Applying an Enzyme Assay with In Situ Formation of Phenylacetaldehydes. Applied Biochemistry and Biotechnology, 2017, 182, 1095-1107.	2.9	8
66	N -terminus determines activity and specificity of styrene monooxygenase reductases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 1770-1780.	2.3	8
67	On the Immobilization of Desferrioxamine-Like Siderophores for Selective Metal Binding. Solid State Phenomena, 2017, 262, 517-520.	0.3	8
68	Enantioselective Epoxidation by Flavoprotein Monooxygenases Supported by Organic Solvents. Catalysts, 2020, 10, 568.	3.5	8
69	Characterization of the Glutathione<i>S</i>-Transferases Involved in Styrene Degradation in Gordonia rubripertincta CWB2. Microbiology Spectrum, 2021, 9, e0047421.	3.0	8
70	Engineering of continuous bienzymatic cascade process using monolithic microreactors â€" In flow synthesis of trehalose. Chemical Engineering Journal, 2022, 427, 131439.	12.7	8
71	Draft genomes and initial characterization of siderophore producing pseudomonads isolated from mine dump and mine drainage. Biotechnology Reports (Amsterdam, Netherlands), 2020, 25, e00403.	4.4	7
72	Styrene monooxygenases, indole monooxygenases and related flavoproteins applied in bioremediation and biocatalysis. The Enzymes, 2020, 47, 399-425.	1.7	7

#	Article	IF	Citations
73	A Perspective on Enzyme Inhibitors from Marine Organisms. Marine Drugs, 2020, 18, 431.	4.6	7
74	Genomic Characterization of the Arsenic-Tolerant Actinobacterium, <i>Rhodococcus erythropolis</i> S43. Solid State Phenomena, 2017, 262, 660-663.	0.3	6
75	Thermochelin, a Hydroxamate Siderophore from <i>Thermocrispum</i> <i>agreste</i> DSM 44070. Solid State Phenomena, 2017, 262, 501-504.	0.3	6
76	Gallium Mobilization in Soil by Bacterial Metallophores. Solid State Phenomena, 0, 262, 513-516.	0.3	5
77	Two Homologous Enzymes of the GalU Family in Rhodococcus opacus 1CPâ€"RoGalU1 and RoGalU2. International Journal of Molecular Sciences, 2019, 20, 5809.	4.1	5
78	Immobilization of the Highly Active UDP-Glucose Pyrophosphorylase From Thermocrispum agreste Provides a Highly Efficient Biocatalyst for the Production of UDP-Glucose. Frontiers in Bioengineering and Biotechnology, 2020, 8, 740.	4.1	5
79	Data on metal-chelating, -immobilisation and biosorption properties by Gordonia rubripertincta CWB2 in dependency on rare earth adaptation. Data in Brief, 2020, 31, 105739.	1.0	5
80	Identification of molecular basis that underlie enzymatic specificity of AzoRo from Rhodococcus opacus 1CP: A potential NADH:quinone oxidoreductase. Archives of Biochemistry and Biophysics, 2022, 717, 109123.	3.0	5
81	Optimization of a genomeâ€walking method to suit GCâ€rich template DNA from biotechnological relevant Actinobacteria. Journal of Basic Microbiology, 2010, 50, 499-502.	3.3	4
82	Enzymgesteuerte Indigoproduktion. BioSpektrum, 2018, 24, 446-448.	0.0	4
83	In vitro and in silico analysis of Brilliant Black degradation by Actinobacteria and a Paraburkholderia sp.. Genomics, 2022, 114, 110266.	2.9	4
84	Cellâ€Free Protein Synthesis for the Screening of Novel Azoreductases and Their Preferred Electron Donor. ChemBioChem, 2022, 23, .	2.6	4
85	Siderophore Purification via Immobilized Metal Affinity Chromatography. Solid State Phenomena, 0, 262, 505-508.	0.3	3
86	Biochemical Characterization of Phenylacetaldehyde Dehydrogenases from Styrene-degrading Soil Bacteria. Applied Biochemistry and Biotechnology, 2021, 193, 650-667.	2.9	3
87	Characterization of Two Hydrogen Peroxide Resistant Peroxidases from Rhodococcus opacus 1CP. Applied Sciences (Switzerland), 2021, 11, 7941.	2.5	2
88	Styrene: An Introduction. SpringerBriefs in Microbiology, 2015, , 1-6.	0.1	2
89	Evolution der Styrol-Monooxygenase StyA1/StyA2B ausVariovorax paradoxusEPS und seine biotechnologische Anwendung. Chemie-Ingenieur-Technik, 2014, 86, 1406-1407.	0.8	1
90	Horticultural crops development: the importance of fine chemicals production from microbial enzymes. Acta Horticulturae, 2016, , 7-12.	0.2	1

#	Article	IF	Citations
91	Conclusions and Future Perspectives. SpringerBriefs in Microbiology, 2015, , 89-108.	0.1	0
92	Molecular Genetics of Styrene Degrading Routes. SpringerBriefs in Microbiology, 2015, , 23-42.	0.1	0
93	Biotechnological Applications of Styrene-Degrading Microorganisms or Involved Enzymes. SpringerBriefs in Microbiology, 2015, , 65-88.	0.1	0
94	Selected Enzymes of Styrene Catabolism. SpringerBriefs in Microbiology, 2015, , 43-63.	0.1	0
95	Microbial Degradation of Azo Dyes. Advances in Environmental Engineering and Green Technologies Book Series, 2018, , 341-371.	0.4	0
96	Microbial Degradation of Azo Dyes. , 2019, , 1867-1897.		0