Andreas Stolz

List of Publications by Year
in descending order

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50 papers	2,380 citations	172457 29 h-index	206112 48 g-index
51 all docs	51 docs citations	51 times ranked	1910 citing authors

#	Article	IF	Citations
1	Molecular characteristics of xenobiotic-degrading sphingomonads. Applied Microbiology and Biotechnology, 2009, 81, 793-811.	3.6	209
2	Synthesis of enantiomerically pure (S)-mandelic acid using an oxynitrilaseâ€“nitrilase bienzymatic cascade: a nitrilase surprisingly shows nitrile hydratase activity. Tetrahedron: Asymmetry, 2006, 17, 320-323.	1.8	144
3	Molecular Cloning and Characterization of the Gene Coding for the Aerobic Azoreductase from Xenophilus azovorans KF46F. Applied and Environmental Microbiology, 2002, 68, 3948-3955.	3.1	142
4	Autoxidation Reactions of Different Aromatico-Aminohydroxynaphthalenes That Are Formed during the Anaerobic Reduction of Sulfonated Azo Dyes. Environmental Science & Technology, 1999, 33, 896-901.	10.0	134
5	Detection and Characterization of Conjugative Degradative Plasmids in Xenobiotic-Degrading Sphingomonas Strains. Journal of Bacteriology, 2004, 186, 3862-3872.	2.2	114
6	Nitrilase from Pseudomonas fluorescens EBC191: cloning and heterologous expression of the gene and biochemical characterization of the recombinant enzyme. Microbiology (United Kingdom), 2005, 151, 3639-3648.	1.8	114
7	Nitrile Hydratase Activity of a Recombinant Nitrilase. Advanced Synthesis and Catalysis, 2006, 348, 2597-2603.	4.3	92
8	Direct Ring Fission of Salicylate by a Salicylate 1,2-Dioxygenase Activity from Pseudaminobacter salicylatoxidans. Journal of Bacteriology, 2001, 183, 6936-6942.	2.2	73
9	Identification of Quinoide Redox Mediators That Are Formed during the Degradation of Naphthalene-2-Sulfonate by Sphingomonas xenophaga BN6. Applied and Environmental Microbiology, 2002, 68, 4341-4349.	3.1	71
10	Structural and replicative diversity of large plasmids from sphingomonads that degrade polycyclic aromatic compounds and xenobiotics. Microbiology (United Kingdom), 2005, 151, 2025-2037.	1.8	67
11	Cloning of a Nitrilase Gene from the Cyanobacterium Synechocystis sp. Strain PCC6803 and Heterologous Expression and Characterization of the Encoded Protein. Applied and Environmental Microbiology, 2003, 69, 4359-4366.	3.1	66
12	Degradative plasmids from sphingomonads. FEMS Microbiology Letters, 2014, 350, 9-19.	1.8	59
13	The combi-CLEA approach: enzymatic cascade synthesis of enantiomerically pure (S)-mandelic acid. Tetrahedron: Asymmetry, 2013, 24, 1225-1232.	1.8	58
14	Metabolism of naphthalene by the biphenyl-degrading bacterium Pseudomonas paucimobilis Q1. Biodegradation, 1991, 2, 115-120.	3.0	57
15	Enantioselective hydrolysis of O-acetylmandelonitrile to O-acetylmandelic acid by bacterial nitrilases. Archives of Microbiology, 1992, 158, 405.	2.2	57
16	Purification and characterization of the enantioselective nitrile hydratase from Rhodococcus equi A4. Applied Microbiology and Biotechnology, 2001, 55, 150-156.	3.6	56
17	Identification of Amino Acid Residues Responsible for the Enantioselectivity and Amide Formation Capacity of the Arylacetonitrilase from Pseudomonas fluorescens EBC191. Applied and Environmental Microbiology, 2009, 75, 5592-5599.	3.1	56
18	Hydrogenophaga intermedia sp. nov., a 4-aminobenzene-sulfonate Degrading Organism. Systematic and Applied Microbiology, 2000, 23, 487-493.	2.8	53

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19	Crossâ€Linked Amorphous Nitrilase Aggregates for Enantioselective Nitrile Hydrolysis. Advanced Synthesis and Catalysis, 2007, 349, 2167-2176.	4.3	47
20	Influence of different carboxy-terminal mutations on the substrate-, reaction- and enantiospecificity of the arylacetonitrilase from Pseudomonas fluorescens EBC191. Protein Engineering, Design and Selection, 2007, 20, 385-396.	2.1	46
21	Construction and Application of Variants of the Pseudomonas fluorescens EBC191 Arylacetonitrilase for Increased Production of Acids or Amides. Applied and Environmental Microbiology, 2010, 76, 3668-3674.	3.1	42
22	Biochemical and Molecular Characterization of a Ring Fission Dioxygenase with the Ability to Oxidize (Substituted) Salicylate(s) from Pseudaminobacter salicylatoxidans. Journal of Biological Chemistry, 2004, 279, 37250-37260.	3.4	41
23	Salicylate 1,2-Dioxygenase from Pseudaminobacter salicylatoxidans: Crystal Structure of a Peculiar Ring-cleaving Dioxygenase. Journal of Molecular Biology, 2008, 380, 856-868.	4.2	39
24	Construction of Recombinant Escherichia coli Catalysts which Simultaneously Express an (S)â€Oxynitrilase and Different Nitrilase Variants for the Synthesis of (S)â€Mandelic Acid and (S)â€Mandelic Amide from Benzaldehyde and Cyanide. Advanced Synthesis and Catalysis, 2009, 351, 1531-1538.	4.3	39
25	Characterisation of the flavin-free oxygen-tolerant azoreductase from Xenophilus azovorans KF46F in comparison to flavin-containing azoreductases. Applied Microbiology and Biotechnology, 2010, 87, 2067-2076.	3.6	36
26	Application of a Recombinant Escherichia coli Wholeâ€Cell Catalyst Expressing Hydroxynitrile Lyase and Nitrilase Activities in Ionic Liquids for the Production of (S)â€Mandelic Acid and (S)â€Mandeloamide. Advanced Synthesis and Catalysis, 2012, 354, 113-122.	4.3	36
27	Isolation and characterization of a nitrile hydrolysing acidotolerant black yeastâ€"Exophiala oligosperma R1. Applied Microbiology and Biotechnology, 2007, 75, 899-908.	3.6	33
28	Cloning and Heterologous Expression of an Enantioselective Amidase from Rhodococcus erythropolis Strain MP50. Applied and Environmental Microbiology, 2002, 68, 3279-3286.	3.1	32
29	Random mutagenesis of the arylacetonitrilase from Pseudomonas fluorescens EBC191 and identification of variants, which form increased amounts of mandeloamide from mandelonitrile. Applied Microbiology and Biotechnology, 2014, 98, 1595-1607.	3.6	30
30	Crystal structures of salicylate 1,2-dioxygenase-substrates adducts: A step towards the comprehension of the structural basis for substrate selection in class III ring cleaving dioxygenases. Journal of Structural Biology, 2012, 177, 431-438.	2.8	29
31	Simultaneous expression of an arylacetonitrilase from Pseudomonas fluorescens and a (S)-oxynitrilase from Manihot esculenta in Pichia pastoris for the synthesis of (S)-mandelic acid. Applied Microbiology and Biotechnology, 2008, 80, 87-97.	3.6	27
32	Identification and functional analysis of the genes for naphthalenesulfonate catabolism by Sphingomonas xenophaga BN6. Microbiology (United Kingdom), 2006, 152, 1929-1940.	1.8	26
33	Improvement of the amides forming capacity of the arylacetonitrilase from Pseudomonas fluorescens EBC191 by site-directed mutagenesis. Applied Microbiology and Biotechnology, 2015, 99, 2623-2635.	3.6	26
34	The salicylate 1,2â€dioxygenase as a model for a conventional gentisate 1,2â€dioxygenase: crystal structures of the G106A mutant and its adducts with gentisate and salicylate. FEBS Journal, 2013, 280, 1643-1652.	4.7	25
35	Enantioselectivitiy of the nitrile hydratase from Rhodococcus equi A4 towards substituted (R,S)-2-arylpropionitriles. Biotechnology Letters, 1996, 18, 1073-1076.	2.2	24
36	Influence of point mutations near the active site on the catalytic properties of fungal arylacetonitrilases from Aspergillus niger and Neurospora crassa. Journal of Molecular Catalysis B: Enzymatic, 2012, 77, 74-80.	1.8	24

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37	Enzymatic cascade synthesis of (S)-2-hydroxycarboxylic amides and acids: Cascade reactions employing a hydroxynitrile lyase, nitrile-converting enzymes and an amidase. Journal of Molecular Catalysis B: Enzymatic, 2015, 114, 25-30.	1.8	24
38	Conversion of aliphatic nitriles by the arylacetonitrilase from Pseudomonas fluorescens EBC191. World Journal of Microbiology and Biotechnology, 2018, 34, 91.	3.6	16
39	2-Hydroxychromene-2-carboxylate isomerase from bacteria that degrade naphthalenesulfonates. Biodegradation, 1993, 4, 155-162.	3.0	15
40	Conversion of Sterically Demanding Î±,Î±-Disubstituted Phenylacetonitriles by the Arylacetonitrilase from Pseudomonas fluorescens EBC191. Applied and Environmental Microbiology, 2012, 78, 48-57.	3.1	15
41	Function of different amino acid residues in the reaction mechanism of gentisate 1,2-dioxygenases deduced from the analysis of mutants of the salicylate 1,2-dioxygenase from Pseudaminobacter salicylatoxidans. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1425-1437.	2.3	14
42	Aerobic Hydrocarbon-Degrading Alphaproteobacteria: Sphingomonadales. , 2019, , 105-124.		14
43	The generation of a 1-hydroxy-2-naphthoate 1,2-dioxygenase by single point mutations of salicylate 1,2-dioxygenase â€“ Rational design of mutants and the crystal structures of the A85H and W104Y variants. Journal of Structural Biology, 2012, 180, 563-571.	2.8	13
44	Comparative Analysis of the Conversion of Mandelonitrile and 2-Phenylpropionitrile by a Large Set of Variants Generated from a Nitrilase Originating from Pseudomonas fluorescens EBC191. Molecules, 2019, 24, 4232.	3.8	11
45	Synthesis of (R)-mandelic acid and (R)-mandelic acid amide by recombinant E. coli strains expressing a (R)-specific oxynitrilase and an arylacetonitrilase. Biotechnology Letters, 2021, 43, 287-296.	2.2	8
46	Expansion of the substrate range of the gentisate 1,2-dioxygenase from Corynebacterium glutamicum for the conversion of monohydroxylated benzoates. Protein Engineering, Design and Selection, 2016, 30, 57-65.	2.1	6
47	Conversion of phenylglycinonitrile by recombinant Escherichia coli cells synthesizing variants of the arylacetonitrilase from Pseudomonas fluorescens EBC191. Applied Microbiology and Biotechnology, 2019, 103, 6737-6746.	3.6	6
48	Spontaneous release of fluoride during the dioxygenolytic cleavage of 5-fluorosalicylate by the salicylate 1,2-dioxygenase fromPseudaminobacter salicylatoxidansBN12. FEMS Microbiology Letters, 2016, 363, fnv211.	1.8	4
49	Aerobic Hydrocarbon-Degrading Alphaproteobacteria: Sphingomonadales. , 2018, , 1-21.		4
50	Substrate promiscuity and active site differences in gentisate 1,2-dioxygenases: electron paramagnetic resonance study. Journal of Biological Inorganic Chemistry, 2019, 24, 287-296.	2.6	3