

Tanja Knaus

List of Publications by Year in descending order

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Version: 2024-02-01

33
papers

1,627
citations

331670

21
h-index

395702

33
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all docs

37
docs citations

37
times ranked

1403
citing authors

#	ARTICLE	IF	CITATIONS
1	Conversion of alcohols to enantiopure amines through dual-enzyme hydrogen-borrowing cascades. <i>Science</i> , 2015, 349, 1525-1529.	12.6	339
2	Orchestration of Concurrent Oxidation and Reduction Cycles for Stereoinversion and Deracemisation of <i>sec</i> -Alcohols. <i>Journal of the American Chemical Society</i> , 2008, 130, 13969-13972.	13.7	183
3	Better than Nature: Nicotinamide Biomimetics That Outperform Natural Coenzymes. <i>Journal of the American Chemical Society</i> , 2016, 138, 1033-1039.	13.7	164
4	Amine dehydrogenases: efficient biocatalysts for the reductive amination of carbonyl compounds. <i>Green Chemistry</i> , 2017, 19, 453-463.	9.0	113
5	Generation of amine dehydrogenases with increased catalytic performance and substrate scope from μ -deaminating L-Lysine dehydrogenase. <i>Nature Communications</i> , 2019, 10, 3717.	12.8	66
6	Asymmetric Amination of Tetralone and Chromanone Derivatives Employing γ -Transaminases. <i>ACS Catalysis</i> , 2013, 3, 555-559.	11.2	60
7	Hydrogen-Borrowing Alcohol Bioamination with Coimmobilized Dehydrogenases. <i>ChemCatChem</i> , 2018, 10, 731-735.	3.7	56
8	Systematic methodology for the development of biocatalytic hydrogen-borrowing cascades: application to the synthesis of chiral β -substituted carboxylic acids from β -substituted α,β -unsaturated aldehydes. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 223-233.	2.8	51
9	A Chimeric Styrene Monooxygenase with Increased Efficiency in Asymmetric Biocatalytic Epoxidation. <i>ChemBioChem</i> , 2018, 19, 679-686.	2.6	43
10	Catalytic Promiscuity of Galactose Oxidase: A Mild Synthesis of Nitriles from Alcohols, Air, and Ammonia. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 14240-14244.	13.8	39
11	Alternative Hydride Sources for Ene-Reductases: Current Trends. <i>ChemCatChem</i> , 2014, 6, 951-954.	3.7	38
12	A biocatalytic method for the chemoselective aerobic oxidation of aldehydes to carboxylic acids. <i>Green Chemistry</i> , 2018, 20, 3931-3943.	9.0	36
13	A Stereoselective Inverting <i>sec</i> -Alkylsulfatase for the Deracemization of <i>sec</i> -Alcohols. <i>Organic Letters</i> , 2011, 13, 4296-4299.	4.6	33
14	The Flavoenzyme Azobenzene Reductase AzorR from <i>Escherichia coli</i> Binds Roseoflavin Mononucleotide (RoFMN) with High Affinity and Is Less Active in Its RoFMN Form. <i>Biochemistry</i> , 2013, 52, 4288-4295.	2.5	33
15	In vitro biocatalytic pathway design: orthogonal network for the quantitative and stereospecific amination of alcohols. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 8313-8325.	2.8	33
16	Regio- and stereoselective multi-enzymatic aminohydroxylation of β -methylstyrene using dioxygen, ammonia and formate. <i>Green Chemistry</i> , 2019, 21, 6246-6251.	9.0	33
17	Highly efficient production of chiral amines in batch and continuous flow by immobilized γ -transaminases on controlled porosity glass metal-ion affinity carrier. <i>Journal of Biotechnology</i> , 2019, 291, 52-60.	3.8	32
18	Efficient synthesis of enantiopure amines from alcohols using resting <i>E. coli</i> cells and ammonia. <i>Green Chemistry</i> , 2019, 21, 3846-3857.	9.0	29

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19	Mechanistic Insight into the Catalytic Promiscuity of Amine Dehydrogenases: Asymmetric Synthesis of Secondary and Primary Amines. <i>ChemBioChem</i> , 2019, 20, 800-812.	2.6	29
20	One-Pot Deracemization of <i>sec</i> -Alcohols: Enantioconvergent Enzymatic Hydrolysis of Alkyl Sulfates Using Stereocomplementary Sulfatases. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 3277-3279.	13.8	27
21	Structure and mechanism of an inverting alkylsulfatase from <i>Pseudomonas</i> <i>sp.</i> DSM 6611 specific for secondary alkyl sulfates. <i>FEBS Journal</i> , 2012, 279, 4374-4384.	4.7	22
22	A Photo-Enzymatic Cascade to Transform Racemic Alcohols into Enantiomerically Pure Amines. <i>Catalysts</i> , 2019, 9, 305.	3.5	21
23	Determination of free and bound riboflavin in cow's milk using a novel flavin-binding protein. <i>Food Chemistry</i> , 2014, 146, 94-97.	8.2	19
24	High Regio- and Stereoselective Multi-enzymatic Synthesis of All Phenylpropanolamine Stereoisomers from <i>p</i> -Methylstyrene. <i>ChemBioChem</i> , 2021, 22, 2345-2350.	2.6	17
25	The Substrate Spectrum of the Inverting <i>sec</i> -Alkylsulfatase Pisa1. <i>Advanced Synthesis and Catalysis</i> , 2012, 354, 1737-1742.	4.3	16
26	Generation of Oxidoreductases with Dual Alcohol Dehydrogenase and Amine Dehydrogenase Activity. <i>Chemistry - A European Journal</i> , 2021, 27, 3315-3325.	3.3	15
27	High-Yield Synthesis of Enantiopure 1,2-Amino Alcohols from <i>L</i> -Phenylalanine via Linear and Divergent Enzymatic Cascades. <i>Organic Process Research and Development</i> , 2022, 26, 2085-2095.	2.7	15
28	Catalytic Promiscuity of Galactose Oxidase: A Mild Synthesis of Nitriles from Alcohols, Air, and Ammonia. <i>Angewandte Chemie</i> , 2018, 130, 14436-14440.	2.0	13
29	Kinetic Resolution of Racemic Primary Amines Using <i>Geobacillus stearothermophilus</i> Amine Dehydrogenase Variant. <i>ChemCatChem</i> , 2020, 12, 2184-2188.	3.7	13
30	One-Pot Deracemization of <i>sec</i> -Alcohols: Enantioconvergent Enzymatic Hydrolysis of Alkyl Sulfates Using Stereocomplementary Sulfatases. <i>Angewandte Chemie</i> , 2013, 125, 3359-3361.	2.0	6
31	Reverse Structural Genomics. <i>Journal of Biological Chemistry</i> , 2012, 287, 27490-27498.	3.4	3
32	Structure and stability of an unusual zinc-binding protein from <i>Bacteroides thetaiotaomicron</i> . <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2014, 1844, 2298-2305.	2.3	1
33	Biocatalytic hydrogen-borrowing cascades. <i>Chimica Oggi</i> , 2017, 35, .	1.7	0