DÃ¶rte Rother

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Selective aerobic oxidation reactions using a combination of photocatalytic water oxidation and enzymatic oxyfunctionalizations. Nature Catalysis, 2018, 1, 55-62.	34.4	272
2	Recent advances in whole cell biocatalysis techniques bridging from investigative to industrial scale. Current Opinion in Biotechnology, 2016, 42, 169-177.	6.6	252
3	Two Steps in One Pot: Enzyme Cascade for the Synthesis of Nor(pseudo)ephedrine from Inexpensive Starting Materials. Angewandte Chemie - International Edition, 2013, 52, 6772-6775.	13.8	157
4	Enzymatic and Chemoenzymatic Threeâ€Step Cascades for the Synthesis of Stereochemically Complementary Trisubstituted Tetrahydroisoquinolines. Angewandte Chemie - International Edition, 2017, 56, 12503-12507.	13.8	85
5	Applied biocatalysis beyond just buffers â€" from aqueous to unconventional media. Options and guidelines. Green Chemistry, 2021, 23, 3191-3206.	9.0	81
6	Engineering stereoselectivity of ThDP-dependent enzymes. FEBS Journal, 2013, 280, 6374-6394.	4.7	72
7	A two-step biocatalytic cascade in micro-aqueous medium: using whole cells to obtain high concentrations of a vicinal diol. Green Chemistry, 2014, 16, 3472-3482.	9.0	67
8	Multi-step synthesis strategies towards 1,2-amino alcohols with special emphasis on phenylpropanolamines. Journal of Molecular Catalysis B: Enzymatic, 2015, 114, 65-71.	1.8	67
9	Efficient 2-step biocatalytic strategies for the synthesis of all nor(pseudo)ephedrine isomers. Green Chemistry, 2014, 16, 3341-3348.	9.0	66
10	(Chemo)enzymatic cascadesâ€"Nature's synthetic strategy transferred to the laboratory. Journal of Molecular Catalysis B: Enzymatic, 2015, 114, 1-6.	1.8	61
11	Stereoselective synthesis of bulky 1,2-diols with alcohol dehydrogenases. Catalysis Science and Technology, 2012, 2, 1580.	4.1	56
12	Stimulusâ€Responsive Regulation of Enzyme Activity for Oneâ€Step and Multiâ€Step Syntheses. Advanced Synthesis and Catalysis, 2019, 361, 2387-2401.	4.3	54
13	Structures of Alcohol Dehydrogenases from Ralstonia and Sphingobium spp. Reveal the Molecular Basis for Their Recognition of â€˜Bulkyâ€"Bulkyâ€™ Ketones. Topics in Catalysis, 2014, 57, 356-365.	2.8	48
14	Influence of Organic Solvents on Enzymatic Asymmetric Carboligations. Advanced Synthesis and Catalysis, 2012, 354, 2805-2820.	4.3	47
15	<i>S</i>â€Selective Mixed Carboligation by Structureâ€Based Design of the Pyruvate Decarboxylase from <i>Acetobacter pasteurianus</i>. ChemCatChem, 2011, 3, 1587-1596.	3.7	44
16	Getting the Most Out of Enzyme Cascades: Strategies to Optimize In Vitro Multi-Enzymatic Reactions. Catalysts, 2021, 11, 1183.	3.5	43
17	Biochemical characterization of an alcohol dehydrogenase from <i>Ralstonia</i> sp.. Biotechnology and Bioengineering, 2013, 110, 1838-1848.	3.3	41
18	Application of Imine Reductases (IREDs) in Microâ€Aqueous Reaction Systems. Advanced Synthesis and Catalysis, 2016, 358, 2745-2750.	4.3	36

#	Article	IF	Citations
19	Methoxamine Synthesis in a Biocatalytic 1-Pot 2-Step Cascade Approach. ACS Catalysis, 2019, 9, 7380-7388.	11.2	35
20	A Tailorâ€Made Chimeric Thiamine Diphosphate Dependent Enzyme for the Direct Asymmetric Synthesis of (<i>S</i>)â€Benzoins. Angewandte Chemie - International Edition, 2014, 53, 9376-9379.	13.8	32
21	Stereoselective Two-Step Biocatalysis in Organic Solvent: Toward All Stereoisomers of a 1,2-Diol at High Product Concentrations. Organic Process Research and Development, 2016, 20, 1744-1753.	2.7	32
22	BioCatNet: A Database System for the Integration of Enzyme Sequences and Biocatalytic Experiments. ChemBioChem, 2016, 17, 2093-2098.	2.6	32
23	Regioâ€•and Stereoselective Aliphaticâ€"Aromatic Crossâ€Benzoin Reaction: Enzymatic Divergent Catalysis. Chemistry - A European Journal, 2016, 22, 13999-14005.	3.3	31
24	Wholeâ€Cell Teabag Catalysis for the Modularisation of Synthetic Enzyme Cascades in Microâ€Aqueous Systems. ChemCatChem, 2014, 6, 1051-1058.	3.7	30
25	TTC-based screening assay for Ï‰-transaminases: A rapid method to detect reduction of 2-hydroxy ketones. Journal of Biotechnology, 2012, 159, 188-194.	3.8	29
26	(S)-Selective MenD variants from Escherichia coli provide access to new functionalized chiral Î±-hydroxy ketones. Chemical Communications, 2013, 49, 2061.	4.1	27
27	Enantioselective, continuous (R)- and (S)-2-butanol synthesis: Achieving high space-time yields with recombinant E. coli cells in a micro-aqueous, solvent-free reaction system. Journal of Biotechnology, 2014, 191, 106-112.	3.8	25
28	Chemoenzymatic Synthesis towards the Active Agent Travoprost. ChemCatChem, 2015, 7, 3125-3130.	3.7	25
29	Reductive amination of ketones catalyzed by whole cell biocatalysts containing imine reductases (IREDs). Journal of Biotechnology, 2017, 258, 167-170.	3.8	25
30	Modularized Biocatalysis: Immobilization of Whole Cells for Preparative Applications in Microaqueous Organic Solvents. ChemCatChem, 2016, 8, 607-614.	3.7	24
31	Towards environmentally acceptable synthesis of chiral Î±-hydroxy ketones via oxidase-lyase cascades. Green Chemistry, 2017, 19, 1226-1229.	9.0	24
32	Asymmetric synthesis of (S)-phenylacetylcarbinol â€" closing a gap in Câ€"C bond formation. Green Chemistry, 2017, 19, 380-384.	9.0	24
33	Four Atom Efficient Enzyme Cascades for All 4-Methoxyphenyl-1,2-propanediol Isomers Including Product Crystallization Targeting High Product Concentrations and Excellent E-Factors. ACS Sustainable Chemistry and Engineering, 2018, 6, 11819-11826.	6.7	22
34	Enzymatic and Chemoenzymatic Threeâ€Step Cascades for the Synthesis of Stereochemically Complementary Trisubstituted Tetrahydroisoquinolines. Angewandte Chemie, 2017, 129, 12677-12681.	2.0	21
35	Tailoring the <i>S</i>â€Selectivity of 2â€Succinylâ€5â€enolpyruvylâ€6â€hydroxyâ€3â€cyclohexeneâ€1â€carboxylate Synthase (MenD) from <i>Escherichia coli</i>. ChemCatChem, 2013, 5, 3587-3594.	3.7	19
36	An Enzymatic 2â€Step Cofactor and Coâ€Product Recycling Cascade towards a Chiral 1,2â€Diol. Part I: Cascade Design. Advanced Synthesis and Catalysis, 2019, 361, 2607-2615.	4.3	17

#	Article	IF	Citations
37	MenD from <i>Bacillus subtilis</i>: A Potent Catalyst for the Enantiocomplementary Asymmetric Synthesis of Functionalized Î±â€Hydroxy Ketones. ChemCatChem, 2014, 6, 1082-1088.	3.7	15
38	Citrate as Cost-Efficient NADPH Regenerating Agent. Frontiers in Bioengineering and Biotechnology, 2018, 6, 196.	4.1	12
39	Benchtop NMR for Online Reaction Monitoring of the Biocatalytic Synthesis of Aromatic Amino Alcohols. ChemCatChem, 2020, 12, 1190-1199.	3.7	12
40	Extractive<i>in situ</i>product removal for the application of naturally produced<scp>l</scp>-alanine as an amine donor in enzymatic metaraminol production. Green Chemistry, 2021, 23, 4892-4901.	9.0	12
41	Effective Production of (S)-Î±-Hydroxy ketones: An Reaction Engineering Approach. Topics in Catalysis, 2014, 57, 401-411.	2.8	10
42	The Effect of Visible Light on the Catalytic Activity of PLPâ€Dependent Enzymes. ChemCatChem, 2021, 13, 2398-2406.	3.7	9
43	<i>In situ</i>reactive extraction with oleic acid for process intensification in amine transaminase catalyzed reactions. Green Chemistry, 2022, 24, 295-304.	9.0	9
44	Enzymatic Cascade in a Simultaneous, One-Pot Approach with <i>In Situ</i> Product Separation for the Asymmetric Production of (4<i>S</i>,5<i>S</i>)-Octanediol. Organic Process Research and Development, 2022, 26, 2038-2045.	2.7	9
45	Stereoselective Reduction of Prochiral Cyclic 1,3-Diketones Using Different Biocatalysts. Catalysis Letters, 2020, 150, 1176-1185.	2.6	8
46	Computer-aided enzymatic retrosynthesis. Nature Catalysis, 2021, 4, 92-93.	34.4	8
47	Toward the Sustainable Production of the Active Pharmaceutical Ingredient Metaraminol. ACS Sustainable Chemistry and Engineering, 2022, 10, 5117-5128.	6.7	8
48	Modulation of Transaminase Activity by Encapsulation in Temperatureâ€Sensitive Poly(<i>N</i>â€acryloyl) Tj ETQq0 0 0 rgBT /Overlock	2.6	6
49	Production of the Carboxylate Reductase from <i>Nocardia otitidiscaviarum</i> in a Soluble, Active Form for <i>inâ€…vitro</i> Applications. ChemBioChem, 2021, 22, 1823-1832.	2.6	5
50	Continuous enzymatic stirred tank reactor cascade with unconventional medium yielding high concentrations of (<i>S</i>)-2-hydroxyphenyl propanone and its derivatives. Catalysis Science and Technology, 2021, 11, 7886-7897.	4.1	3
51	Photo-Regulation of Enzyme Activity: The Inactivation of a Carboligase with Genetically Encoded Photosensitizer Fusion Tags. Frontiers in Catalysis, 2022, 2, .	3.9	3