SelÄºn Kara

List of Publications by Year
in descending order

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72 papers	2,292 citations	201575 27 h-index	233338 45 g-index
89 all docs	89 docs citations	89 times ranked	1646 citing authors

#	Article	IF	Citations
1	Deep Eutectic Solvents as Efficient Solvents in Biocatalysis. Trends in Biotechnology, 2019, 37, 943-959.	4.9	262
2	Recent trends and novel concepts in cofactor-dependent biotransformations. Applied Microbiology and Biotechnology, 2014, 98, 1517-1529.	1.7	123
3	The rise of continuous flow biocatalysis â€“ fundamentals, very recent developments and future perspectives. Reaction Chemistry and Engineering, 2020, 5, 2155-2184.	1.9	121
4	Recent developments in the use of peroxygenases â€“ Exploring their high potential in selective oxyfunctionalisations. Biotechnology Advances, 2021, 51, 107615.	6.0	101
5	One-pot combination of enzyme and Pd nanoparticle catalysis for the synthesis of enantiomerically pure 1,2-amino alcohols. Green Chemistry, 2013, 15, 3318.	4.6	75
6	Enantioselective Oxidation of Aldehydes Catalyzed by Alcohol Dehydrogenase. Angewandte Chemie - International Edition, 2012, 51, 9914-9917.	7.2	74
7	Access to Lactone Building Blocks via Horse Liver Alcohol Dehydrogenase-Catalyzed Oxidative Lactonization. ACS Catalysis, 2013, 3, 2436-2439.	5.5	71
8	Synthesis of (-)-menthol fatty acid esters in and from (-)-menthol and fatty acids â€“ novel concept for lipase catalyzed esterification based on eutectic solvents. Molecular Catalysis, 2018, 458, 67-72.	1.0	57
9	More efficient redox biocatalysis by utilising 1,4-butanediol as a â€˜smart cosubstrateâ€™. Green Chemistry, 2013, 15, 330.	4.6	56
10	A Biâ€enzymatic Convergent Cascade for Îµâ€Caprolactone Synthesis Employing 1,6â€Hexanediol as a â€˜Doubleâ€Smart Cosubstrateâ€™. ChemCatChem, 2015, 7, 2442-2445.	1.8	55
11	Chromoselective Photocatalysis Enables Stereocomplementary Biocatalytic Pathways**. Angewandte Chemie - International Edition, 2021, 60, 6965-6969.	7.2	52
12	A Fedâ€Batch Synthetic Strategy for a Threeâ€Step Enzymatic Synthesis of Polyâ€Ïµâ€caprolactone. ChemCatChem, 2016, 8, 3446-3452.	1.8	50
13	Kinetic insights into Ïµâ€caprolactone synthesis: Improvement of an enzymatic cascade reaction. Biotechnology and Bioengineering, 2017, 114, 1215-1221.	1.7	50
14	Bioreductions Catalyzed by an Alcohol Dehydrogenase in Nonâ€aqueous Media. ChemCatChem, 2014, 6, 973-976.	1.8	45
15	Photobiocatalytic alcohol oxidation using LED light sources. Green Chemistry, 2017, 19, 376-379.	4.6	44
16	Medium and reaction engineering for the establishment of a chemo-enzymatic dynamic kinetic resolution of rac-benzoin in batch and continuous mode. Journal of Molecular Catalysis B: Enzymatic, 2015, 114, 42-49.	1.8	43
17	Solventâ€Free Photobiocatalytic Hydroxylation of Cyclohexane. ChemCatChem, 2020, 12, 4009-4013.	1.8	39
18	Enzyme immobilization in hydrogels: A perfect liaison for efficient and sustainable biocatalysis. Engineering in Life Sciences, 2022, 22, 165-177.	2.0	39

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19	Expanding the Scope of Laccaseâ€Mediator Systems. ChemCatChem, 2013, 5, 3027-3032.	1.8	37
20	Enhancing the productivity of the bi-enzymatic convergent cascade for É›-caprolactone synthesis through design of experiments and a biphasic system. Tetrahedron, 2016, 72, 7222-7228.	1.0	37
21	Impact of deep eutectic solvents (DESs) and individual DES components on alcohol dehydrogenase catalysis: connecting experimental data and molecular dynamics simulations. Green Chemistry, 2022, 24, 1120-1131.	4.6	37
22	Development and Scaling-Up of the Fragrance Compound 4-Ethylguaiacol Synthesis via a Two-Step Chemo-Enzymatic Reaction Sequence. Organic Process Research and Development, 2017, 21, 85-93.	1.3	36
23	Horse Liver Alcohol Dehydrogenase-Catalyzed Oxidative Lactamization of Amino Alcohols. ACS Catalysis, 2018, 8, 8680-8684.	5.5	35
24	Biocatalytic synthesis of lactones and lactams. Chemistry - an Asian Journal, 2018, 13, 3601-3610.	1.7	34
25	Exploring the Substrate Specificity and Enantioselectivity of a Baeyerâ€“Villiger Monooxygenase from Dietzia sp. D5: Oxidation of Sulfides and Aldehydes. Topics in Catalysis, 2014, 57, 366-375.	1.3	30
26	Enzymatic Ringâ€Opening Polymerization of Lactones: Traditional Approaches and Alternative Strategies. ChemCatChem, 2019, 11, 4983-4997.	1.8	30
27	Scaling-Up of â€œSmart Cosubstrateâ€•1,4-Butanediol Promoted Asymmetric Reduction of Ethyl-4,4,4-trifluoroacetoacetate in Organic Media. Organic Process Research and Development, 2015, 19, 369-372.	1.3	29
28	Biocatalyst Immobilization by Anchor Peptides on an Additively Manufacturable Material. Organic Process Research and Development, 2019, 23, 1852-1859.	1.3	28
29	Modeling Alcohol Dehydrogenase Catalysis in Deep Eutectic Solvent/Water Mixtures. ChemBioChem, 2020, 21, 811-817.	1.3	28
30	Nicotinamide Adenine Dinucleotideâ€Dependent Redoxâ€Neutral Convergent Cascade for Lactonizations with Type II Flavinâ€Containing Monooxygenase. Advanced Synthesis and Catalysis, 2017, 359, 2142-2148.	2.1	27
31	Complete Enzymatic Oxidation of Methanol to Carbon Dioxide: Towards More Ecoâ€Efficient Regeneration Systems for Reduced Nicotinamide Cofactors. Advanced Synthesis and Catalysis, 2015, 357, 1687-1691.	2.1	26
32	Internal Illumination to Overcome the Cell Density Limitation in the Scaleâ€up of Wholeâ€Cell Photobiocatalysis. ChemSusChem, 2021, 14, 3219-3225.	3.6	22
33	Alcohol dehydrogenase stabilization by additives under industrially relevant reaction conditions. Journal of Molecular Catalysis B: Enzymatic, 2014, 103, 24-28.	1.8	21
34	Photobioreactors for cultivation and synthesis: Specifications, challenges, and perspectives. Engineering in Life Sciences, 2022, 22, 712-724.	2.0	21
35	Characterization of new Baeyer-Villiger monooxygenases for lactonizations in redox-neutral cascades. Molecular Catalysis, 2019, 468, 44-51.	1.0	20
36	Convergent Cascade Catalyzed by Monooxygenaseâ€“Alcohol Dehydrogenase Fusion Applied in Organic Media. ChemBioChem, 2019, 20, 1653-1658.	1.3	20

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37	Influence of reaction conditions on the enantioselectivity of biocatalyzed Câ€“C bond formations under high pressure conditions. Journal of Biotechnology, 2011, 152, 87-92.	1.9	19
38	Lightâ€Accelerated Biocatalytic Oxidation Reactions. ChemPlusChem, 2014, 79, 1554-1557.	1.3	19
39	A Deep Eutectic Solvent Thermomorphic Multiphasic System for Biocatalytic Applications. Angewandte Chemie - International Edition, 2022, 61, .	7.2	19
40	Fungal BVMOs as alternatives to cyclohexanone monooxygenase. Enzyme and Microbial Technology, 2017, 106, 11-17.	1.6	18
41	Improvement of the Process Stability of Arylmalonate Decarboxylase by Immobilization for Biocatalytic Profen Synthesis. Frontiers in Microbiology, 2017, 8, 448.	1.5	18
42	A whole-cell process for the production of Îµ-caprolactone in aqueous media. Process Biochemistry, 2020, 88, 22-30.	1.8	18
43	Coupling light with biocatalysis for sustainable synthesisâ€”very recent developments and future perspectives. Current Opinion in Green and Sustainable Chemistry, 2021, 31, 100496.	3.2	18
44	Photobiocatalysis in Continuous Flow. Frontiers in Catalysis, 2022, 1, .	1.8	18
45	Enzymatic Cascade for the Synthesis of 2,5â€Furandicarboxylic Acid in Biphasic and Microaqueous Conditions: â€˜Mediaâ€Agnosticâ€™ Biocatalysts for Biorefineries. ChemSusChem, 2022, 15, e202102704.	3.6	18
46	Comparison and Validation of Force Fields for Deep Eutectic Solvents in Combination with Water and Alcohol Dehydrogenase. Journal of Chemical Theory and Computation, 2021, 17, 5322-5341.	2.3	17
47	Influence of the hydrostatic pressure and pH on the asymmetric 2â€hydroxyketone formation catalyzed by Pseudomonas putida benzoylformate decarboxylase and variants thereof. Biotechnology and Bioengineering, 2010, 106, 18-26.	1.7	15
48	Amineâ€Mediated Enzymatic Carboxylation of Phenols Using CO₂ as Substrate Increases Equilibrium Conversions and Reaction Rates. Biotechnology Journal, 2017, 12, 1700332.	1.8	14
49	Extending the Library of Lightâ€Dependent Protochlorophyllide Oxidoreductases and their Solvent Tolerance, Stability in Light and Cofactor Flexibility. ChemCatChem, 2020, 12, 4044-4051.	1.8	13
50	Deep Eutectic Solvents as Smart Cosubstrate in Alcohol Dehydrogenase-Catalyzed Reductions. Catalysts, 2020, 10, 1013.	1.6	13
51	Optimization and Engineering of Fatty Acid Photodecarboxylase for Substrate Specificity. ChemCatChem, 2021, 13, 4038-4046.	1.8	13
52	Reaction engineering of biocatalytic (S)-naproxen synthesis integrating in-line process monitoring by Raman spectroscopy. Reaction Chemistry and Engineering, 2017, 2, 531-540.	1.9	12
53	Chromoselective Photocatalysis Enables Stereocomplementary Biocatalytic Pathways**. Angewandte Chemie, 2021, 133, 7041-7045.	1.6	12
54	Can Deep Eutectic Solvents Sustain Oxygen-Dependent Bioprocesses?â€”Measurements of Oxygen Transfer Rates. ACS Sustainable Chemistry and Engineering, 2021, 9, 8347-8353.	3.2	12

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55	Evaluation of the Substrate Scope of Benzoic Acid (De)carboxylases According to Chemical and Biochemical Parameters. ChemBioChem, 2016, 17, 1845-1850.	1.3	11
56	Unraveling Alcohol Dehydrogenase Catalysis in Organicâ€“Aqueous Biphasic Systems Combining Experiments and Molecular Dynamics Simulations. ACS Catalysis, 2022, 12, 9171-9180.	5.5	11
57	Expression and activity of heterologous hydroxyisocaproate dehydrogenases in Synechocystis sp. PCC 6803 Î”hoxYH. Engineering Microbiology, 2022, 2, 100008.	2.2	9
58	Divorce in the two-component BVMO family: the single oxygenase for enantioselective chemo-enzymatic Baeyerâ€“Villiger oxidations. Organic and Biomolecular Chemistry, 2021, 19, 3441-3450.	1.5	8
59	Fluorescence spectroscopy as a novel method for on-line analysis of biocatalytic Câ€“C bond formations. Journal of Molecular Catalysis B: Enzymatic, 2010, 66, 124-129.	1.8	7
60	Exploring the in Vitro Operating Window of Glycosyltransferase PtUGT1 from Polygonum tinctorium for a Biocatalytic Route to Indigo Dye. ACS Sustainable Chemistry and Engineering, 2021, 9, 8497-8506.	3.2	7
61	Immobilization and characterization of benzoylformate decarboxylase from Pseudomonas putida on spherical silica carrier. Bioprocess and Biosystems Engineering, 2011, 34, 671-680.	1.7	6
62	Development of a Thioredoxinâ€Based Cofactor Regeneration System for NADPHâ€Dependent Oxidoreductases. ChemCatChem, 2022, 14, .	1.8	5
63	Kinetics Modeling of a Convergent Cascade Catalyzed by Monooxygenaseâ€“Alcohol Dehydrogenase Coupled Enzymes. Organic Process Research and Development, 2021, 25, 411-420.	1.3	4
64	Reversibility of asymmetric catalyzed Câ€“C bond formation by benzoylformate decarboxylase. Catalysis Science and Technology, 2015, 5, 2418-2426.	2.1	3
65	Berichtigung: Oxidation von Aldehyden mit Alkoholdehydrogenasen. Angewandte Chemie, 2012, 124, 12094-12094.	1.6	1
66	Enzyme Cascade Reaction Engineering. , 2021, , 109-124.		1
67	Prinzipien der angewandten Biokatalyse. , 2018, , 225-242.		1
68	Fluoreszenzspektroskopie als neue Methode fÃ¼r die Online-Analyse biokatalytischer C-C-KnÃ¼pfungsreaktionen. Chemie-Ingenieur-Technik, 2010, 82, 1528-1529.	0.4	0
69	Chemo-enzymatische heterogenkatalysierte Eintopfsynthese von enantiomerenreinem Benzoin. Chemie-Ingenieur-Technik, 2014, 86, 1488-1488.	0.4	0
70	Enzymatische Umsetzung von Catechol zu 2,3-DihydroxybenzoesÃure mit Amin-postfunktionalisierten Silicagelen. Chemie-Ingenieur-Technik, 2018, 90, 1276-1276.	0.4	0
71	Deep eutectic solvents in biocatalysis. Chemie-Ingenieur-Technik, 2018, 90, 1259-1259.	0.4	0
72	A Deep Eutectic Solvent Thermomorphic Multiphasic System for Biocatalytic Applications. Angewandte Chemie, 0, , .	1.6	0