Frank Hollmann

List of Publications by Year
in descending order

263 papers	14,817 citations	15504 65 h-index	27406 106 g-index
300 all docs	300 docs citations	300 times ranked	8824 citing authors

#	Article	IF	Citations
1	Are Natural Deep Eutectic Solvents the Missing Link in Understanding Cellular Metabolism and Physiology?. Plant Physiology, 2011, 156, 1701-1705.	4.8	887
2	Enzyme-mediated oxidations for the chemist. Green Chemistry, 2011, 13, 226-265.	9.0	395
3	Biocatalytic Oxidation Reactions: A Chemist's Perspective. Angewandte Chemie - International Edition, 2018, 57, 9238-9261.	13.8	342
4	Enzymatic reductions for the chemist. Green Chemistry, 2011, 13, 2285.	9.0	332
5	Synthetic cascades are enabled by combining biocatalysts with artificial metalloenzymes. Nature Chemistry, 2013, 5, 93-99.	13.6	314
6	Selective aerobic oxidation reactions using a combination of photocatalytic water oxidation and enzymatic oxyfunctionalizations. Nature Catalysis, 2018, 1, 55-62.	34.4	272
7	Biocatalytic Redox Reactions for Organic Synthesis: Nonconventional Regeneration Methods. ChemCatChem, 2010, 2, 762-782.	3.7	235
8	Oxidoreductases on their way to industrial biotransformations. Biotechnology Advances, 2017, 35, 815-831.	11.7	205
9	Peroxygenases en route to becoming dream catalysts. What are the opportunities and challenges?. Current Opinion in Chemical Biology, 2017, 37, 1-9.	6.1	198
10	[Cpâ^—Rh(bpy)(H2O)]2+: a versatile tool for efficient and non-enzymatic regeneration of nicotinamide and flavin coenzymes. Journal of Molecular Catalysis B: Enzymatic, 2002, 19-20, 167-176.	1.8	190
11	Enzyme Initiated Radical Polymerizations. Polymers, 2012, 4, 759-793.	4.5	185
12	The use of enzymes in the chemical industry in Europe. Current Opinion in Biotechnology, 2002, 13, 359-366.	6.6	175
13	How Green is Biocatalysis? To Calculate is To Know. ChemCatChem, 2014, 6, 930-943.	3.7	165
14	Better than Nature: Nicotinamide Biomimetics That Outperform Natural Coenzymes. Journal of the American Chemical Society, 2016, 138, 1033-1039.	13.7	164
15	Stereospecific Biocatalytic Epoxidation:â€‰ The First Example of Direct Regeneration of a FAD-Dependent Monooxygenase for Catalysis. Journal of the American Chemical Society, 2003, 125, 8209-8217.	13.7	158
16	Mimicking Nature: Synthetic Nicotinamide Cofactors for Câ•C Bioreduction Using Enoate Reductases. Organic Letters, 2013, 15, 180-183.	4.6	155
17	The First Synthetic Application of a Monooxygenase Employing Indirect Electrochemical NADH Regeneration. Angewandte Chemie - International Edition, 2001, 40, 169-171.	13.8	145
18	Non-enzymatic regeneration of nicotinamide and flavin cofactors for monooxygenase catalysis. Trends in Biotechnology, 2006, 24, 163-171.	9.3	142

#	Article	IF	Citations
19	Photobiocatalytic chemistry of oxidoreductases using water as the electron donor. Nature Communications, 2014, 5, 3145.	12.8	135
20	Lightâ€Driven Enzymatic Decarboxylation of Fatty Acids. Angewandte Chemie - International Edition, 2018, 57, 13648-13651.	13.8	133
21	Hydrogen peroxide driven biocatalysis. Green Chemistry, 2019, 21, 3232-3249.	9.0	133
22	Peroxygenaseâ€Catalyzed Oxyfunctionalization Reactions Promoted by the Complete Oxidation of Methanol. Angewandte Chemie - International Edition, 2016, 55, 798-801.	13.8	128
23	Is Simpler Better? Synthetic Nicotinamide Cofactor Analogues for Redox Chemistry. ACS Catalysis, 2014, 4, 788-797.	11.2	127
24	The Oxygen Dilemma: A Severe Challenge for the Application of Monooxygenases?. ChemBioChem, 2016, 17, 1391-1398.	2.6	125
25	Specific Photobiocatalytic Oxyfunctionalization Reactions. Angewandte Chemie - International Edition, 2011, 50, 10716-10719.	13.8	124
26	Bioorganometallic chemistry: biocatalytic oxidation reactions with biomimetic NAD+/NADH co-factors and [Cp*Rh(bpy)H]+ for selective organic synthesis. Journal of Organometallic Chemistry, 2004, 689, 4783-4790.	1.8	123
27	Recent trends and novel concepts in cofactor-dependent biotransformations. Applied Microbiology and Biotechnology, 2014, 98, 1517-1529.	3.6	123
28	Hydrocarbon Synthesis via Photoenzymatic Decarboxylation of Carboxylic Acids. Journal of the American Chemical Society, 2019, 141, 3116-3120.	13.7	123
29	Integrated Biocatalytic Synthesis on Gram Scale: The Highly Enantioselective Preparation of Chiral Oxiranes with Styrene Monooxygenase. Advanced Synthesis and Catalysis, 2001, 343, 732-737.	4.3	121
30	A Light-Driven Stereoselective Biocatalytic Oxidation. Angewandte Chemie - International Edition, 2007, 46, 2903-2906.	13.8	121
31	Biocatalytic Reduction Reactions from a Chemist's Perspective. Angewandte Chemie - International Edition, 2021, 60, 5644-5665.	13.8	118
32	Specific oxyfunctionalisations catalysed by peroxygenases: opportunities, challenges and solutions. Catalysis Science and Technology, 2015, 5, 2038-2052.	4.1	116
33	Visible light-driven and chloroperoxidase-catalyzed oxygenation reactions. Chemical Communications, 2009, , 6848.	4.1	115
34	Enzyme engineering for enantioselectivity: from trial-and-error to rational design?. Trends in Biotechnology, 2010, 28, 46-54.	9.3	115
35	Improved esterification activity of Candida rugosa lipase in organic solvent by immobilization as Cross-linked enzyme aggregates (CLEAs). Journal of Molecular Catalysis B: Enzymatic, 2011, 71, 85-89.	1.8	115
36	Electrochemical Regeneration of Oxidoreductases for Cell-free Biocatalytic Redox Reactions. Biocatalysis and Biotransformation, 2004, 22, 63-88.	2.0	109

#	Article	IF	Citations
37	Selective Activation of Câˆ’H Bonds in a Cascade Process Combining Photochemistry and Biocatalysis. Angewandte Chemie - International Edition, 2017, 56, 15451-15455.	13.8	108
38	Biokatalytische Oxidationsreaktionen â€“ aus der Sicht eines Chemikers. Angewandte Chemie, 2018, 130, 9380-9404.	2.0	106
39	Lightâ€Driven Biocatalytic Oxidation and Reduction Reactions: Scope and Limitations. ChemBioChem, 2008, 9, 565-572.	2.6	102
40	Recent developments in the use of peroxygenases â€“ Exploring their high potential in selective oxyfunctionalisations. Biotechnology Advances, 2021, 51, 107615.	11.7	101
41	Recombinant Cyanobacteria for the Asymmetric Reduction of C=C Bonds Fueled by the Biocatalytic Oxidation of Water. Angewandte Chemie - International Edition, 2016, 55, 5582-5585.	13.8	100
42	The taming of oxygen: biocatalytic oxyfunctionalisations. Chemical Communications, 2014, 50, 13180-13200.	4.1	99
43	Biocatalysis making waves in organic chemistry. Chemical Society Reviews, 2022, 51, 594-627.	38.1	98
44	Photobiocatalytic decarboxylation for olefin synthesis. Chemical Communications, 2015, 51, 1918-1921.	4.1	97
45	On the nature of mutual inactivation between [Cp*Rh(bpy)(H2O)]2+ and enzymes â€“ analysis and potential remedies. Journal of Molecular Catalysis B: Enzymatic, 2010, 63, 149-156.	1.8	96
46	Direct Electrochemical Regeneration of Monooxygenase Subunits for Biocatalytic Asymmetric Epoxidation. Journal of the American Chemical Society, 2005, 127, 6540-6541.	13.7	93
47	Efficient <i>In Situ</i> Regeneration of NADH Mimics by an Artificial Metalloenzyme. ACS Catalysis, 2016, 6, 3553-3557.	11.2	93
48	Immobilisation of laccase on Eupergit supports and its application for the removal of endocrine disrupting chemicals in a packed-bed reactor. Biodegradation, 2012, 23, 373-386.	3.0	89
49	Biocatalytic C=C Bond Reduction through Carbon Nanodotâ€Sensitized Regeneration of NADH Analogues. Angewandte Chemie - International Edition, 2018, 57, 13825-13828.	13.8	87
50	Environmentally benign solid catalysts for sustainable biodiesel production: A critical review. Science of the Total Environment, 2021, 768, 144856.	8.0	87
51	Photoenzymatic Reduction of Cï£¾C Double Bonds. Advanced Synthesis and Catalysis, 2009, 351, 3279-3286.	4.3	80
52	Directed evolution of enantioselective hybrid catalysts: a novel concept in asymmetric catalysis. Tetrahedron, 2007, 63, 6404-6414.	1.9	79
53	Immobilized redox mediators for electrochemical NAD(P)+ regeneration. Applied Microbiology and Biotechnology, 2012, 93, 2251-2264.	3.6	75
54	One-pot combination of enzyme and Pd nanoparticle catalysis for the synthesis of enantiomerically pure 1,2-amino alcohols. Green Chemistry, 2013, 15, 3318.	9.0	75

#	Article	IF	Citations
55	Enantioselective Oxidation of Aldehydes Catalyzed by Alcohol Dehydrogenase. Angewandte Chemie - International Edition, 2012, 51, 9914-9917.	13.8	74
56	Cofactorâ€Free, Direct Photoactivation of Enoate Reductases for the Asymmetric Reduction of C=C Bonds. Angewandte Chemie - International Edition, 2017, 56, 8681-8685.	13.8	74
57	Nonenzymatic Regeneration of Styrene Monooxygenase for Catalysis. ACS Catalysis, 2015, 5, 2961-2965.	11.2	73
58	Access to Lactone Building Blocks via Horse Liver Alcohol Dehydrogenase-Catalyzed Oxidative Lactonization. ACS Catalysis, 2013, 3, 2436-2439.	11.2	71
59	Selective Synthesis of the Human Drug Metabolite 5â€²-Hydroxypropranolol by an Evolved Self-Sufficient Peroxygenase. ACS Catalysis, 2018, 8, 4789-4799.	11.2	70
60	FADH2-Dependence of Tryptophan 7-Halogenase. Advanced Synthesis and Catalysis, 2005, 347, 1163-1167.	4.3	69
61	Enzymatic halogenation of the phenolic monoterpenes thymol and carvacrol with chloroperoxidase. Green Chemistry, 2014, 16, 1104-1108.	9.0	69
62	TADH, the thermostable alcohol dehydrogenase from Thermus sp. ATN1: a versatile new biocatalyst for organic synthesis. Applied Microbiology and Biotechnology, 2008, 81, 263-273.	3.6	68
63	On the (Un)greenness of Biocatalysis: Some Challenging Figures and Some Promising Options. Frontiers in Microbiology, 2015, 6, 1257.	3.5	68
64	A Robust Protein Host for Anchoring Chelating Ligands and Organocatalysts. ChemBioChem, 2008, 9, 552-564.	2.6	67
65	A New Regeneration System for Oxidized Nicotinamide Cofactors. Advanced Synthesis and Catalysis, 2009, 351, 1211-1216.	4.3	67
66	Formate Oxidase (FOx) from <i>Aspergillus oryzae</i>: One Catalyst Enables Diverse H₂O₂â€Dependent Biocatalytic Oxidation Reactions. Angewandte Chemie - International Edition, 2019, 58, 7873-7877.	13.8	67
67	A biocatalytic hydrogenation of carboxylic acids. Chemical Communications, 2012, 48, 12056.	4.1	65
68	A survey of synthetic nicotinamide cofactors in enzymatic processes. Applied Microbiology and Biotechnology, 2016, 100, 4773-4778.	3.6	65
69	Carbon Nanotubeâ€"Graphitic Carbon Nitride Hybrid Films for Flavoenzymeâ€Catalyzed Photoelectrochemical Cells. Advanced Functional Materials, 2018, 28, 1705232.	14.9	64
70	Cascading g-C₃N₄ and Peroxygenases for Selective Oxyfunctionalization Reactions. ACS Catalysis, 2019, 9, 7409-7417.	11.2	64
71	Energising the E-factor: The E+-factor. Tetrahedron, 2019, 75, 1311-1314.	1.9	64
72	Biocatalysis. Catalysis Letters, 2015, 145, 309-345.	2.6	62

#	Article	IF	Citations
73	Expanding the Spectrum of Light-Driven Peroxygenase Reactions. ACS Catalysis, 2019, 9, 890-894.	11.2	62
74	Deazaflavins as mediators in light-driven cytochrome P450 catalyzed hydroxylations. Chemical Communications, 2009, , 7152.	4.1	61
75	Chemoenzymatic epoxidation of alkenes with Candida antarctica lipase B and hydrogen peroxide in deep eutectic solvents. RSC Advances, 2017, 7, 12518-12523.	3.6	61
76	Wholeâ€Cell Photoenzymatic Cascades to Synthesize Longâ€Chain Aliphatic Amines and Esters from Renewable Fatty Acids. Angewandte Chemie - International Edition, 2020, 59, 7024-7028.	13.8	60
77	Engineering of Candida antarctica lipase B for hydrolysis of bulky carboxylic acid esters. Journal of Biotechnology, 2010, 150, 474-480.	3.8	59
78	Immobilization of laccase by encapsulation in a solâ€“gel matrix and its characterization and use for the removal of estrogens. Biotechnology Progress, 2011, 27, 1570-1579.	2.6	59
79	Selective Photooxidation Reactions using Waterâ€Soluble Anthraquinone Photocatalysts. ChemCatChem, 2017, 9, 3821-3826.	3.7	59
80	In situ formation of H2O2 for P450 peroxygenases. Bioorganic and Medicinal Chemistry, 2014, 22, 5692-5696.	3.0	58
81	Combining Photoâ€Organo Redoxâ€•and Enzyme Catalysis Facilitates Asymmetric Câ€H Bond Functionalization. European Journal of Organic Chemistry, 2019, 2019, 80-84.	2.4	58
82	Photobiocatalytic synthesis of chiral secondary fatty alcohols from renewable unsaturated fatty acids. Nature Communications, 2020, 11, 2258.	12.8	58
83	Towards practical biocatalytic Baeyer-Villiger reactions: applying a thermostable enzyme in the gram-scale synthesis of optically-active lactones in a two-liquid-phase system. Beilstein Journal of Organic Chemistry, 2005, 1, 10.	2.2	56
84	More efficient redox biocatalysis by utilising 1,4-butanediol as a â€˜smart cosubstrateâ€™. Green Chemistry, 2013, 15, 330.	9.0	56
85	A Biâ€enzymatic Convergent Cascade for Îµâ€Caprolactone Synthesis Employing 1,6â€Hexanediol as a â€˜Doubleâ€Smart Cosubstrateâ€™. ChemCatChem, 2015, 7, 2442-2445.	3.7	55
86	Photoelectroenzymatic Oxyfunctionalization on Flavin-Hybridized Carbon Nanotube Electrode Platform. ACS Catalysis, 2017, 7, 1563-1567.	11.2	55
87	Nicotinamide adenine dinucleotide as a photocatalyst. Science Advances, 2019, 5, eaax0501.	10.3	54
88	A Photoenzymatic System for Alcohol Oxidation. ChemCatChem, 2011, 3, 338-342.	3.7	53
89	Ferritin-supported palladium nanoclusters: selective catalysts for aerobic oxidations in water. Chemical Communications, 2012, 48, 5745.	4.1	53
90	Evaluation of the Laccase from Myceliophthora thermophila as Industrial Biocatalyst for Polymerization Reactions. Macromolecules, 2008, 41, 8520-8524.	4.8	52

#	Article	IF	Citations
91	Chemoenzymatic Halogenation of Phenols by using the Haloperoxidase from <i>Curvularia inaequalis</i>. ChemCatChem, 2015, 7, 4035-4038.	3.7	52
92	Fueling biomass-degrading oxidative enzymes by light-driven water oxidation. Green Chemistry, 2016, 18, 5357-5366.	9.0	52
93	Piezobiocatalysis: Ultrasound-Driven Enzymatic Oxyfunctionalization of Câ€“H Bonds. ACS Catalysis, 2020, 10, 5236-5242.	11.2	50
94	A biocatalytic redox isomerisation. Chemical Communications, 2012, 48, 6630.	4.1	49
95	Visible-light-driven photooxidation of alcohols using surface-doped graphitic carbon nitride. Green Chemistry, 2017, 19, 2096-2100.	9.0	49
96	Nonconventional regeneration of redox enzymes â€“ a practical approach for organic synthesis?. Chemical Communications, 2018, 54, 7281-7289.	4.1	49
97	Halofunctionalization of alkenes by vanadium chloroperoxidase from Curvularia inaequalis. Chemical Communications, 2017, 53, 6207-6210.	4.1	47
98	Coupled chemoenzymatic transfer hydrogenation catalysis for enantioselective reduction and oxidation reactions. Tetrahedron: Asymmetry, 2005, 16, 3512-3519.	1.8	45
99	Bioreductions Catalyzed by an Alcohol Dehydrogenase in Nonâ€aqueous Media. ChemCatChem, 2014, 6, 973-976.	3.7	45
100	Measurements of Ohmic Losses of Metallic Reflectors at 140 GHz Using a 3-Mirror Resonator Technique. Journal of Infrared, Millimeter and Terahertz Waves, 2001, 22, 1695-1707.	0.6	44
101	On the inactivity of Candida antartica lipase B towards strong acids. Journal of Molecular Catalysis B: Enzymatic, 2009, 57, 257-261.	1.8	44
102	Photobiocatalytic alcohol oxidation using LED light sources. Green Chemistry, 2017, 19, 376-379.	9.0	44
103	Preparation of Enantiomerically Pure [3]Ferrocenophane-Based Chelate Bis-Phosphane Ligands and Their Use in Asymmetric Alternating Carbon Monoxide/Propene Copolymerization. European Journal of Organic Chemistry, 2005, 2005, 1909-1918.	2.4	43
104	Haloperoxidases as catalysts in organic synthesis. Organic and Biomolecular Chemistry, 2019, 17, 9267-9274.	2.8	43
105	Synthesis of enantiomerically pure alcohols and amines <i>via</i> biocatalytic deracemisation methods. Catalysis Science and Technology, 2019, 9, 5487-5503.	4.1	43
106	Increasing the Productivity of Peroxidaseâ€Catalyzed Oxyfunctionalization: A Case Study on the Potential of Twoâ€Liquidâ€Phase Systems. ChemCatChem, 2013, 5, 565-568.	3.7	42
107	A Biocatalytic Aza-Achmatowicz Reaction. ACS Catalysis, 2016, 6, 5904-5907.	11.2	42
108	Oneâ€pot Conversion of Cycloalkanes to Lactones. ChemCatChem, 2015, 7, 236-239.	3.7	41

#	ARTICLE	IF	CITATIONS
109	Photoenzymatic Production of Next Generation Biofuels from Natural Triglycerides Combining a Hydrolase and a Photodecarboxylase. ChemPhotoChem, 2020, 4, 39-44.	3.0	41
110	Water-Soluble Anthraquinone Photocatalysts Enable Methanol-Driven Enzymatic Halogenation and Hydroxylation Reactions. ACS Catalysis, 2020, 10, 8277-8284.	11.2	41
111	Bias-Free In Situ H₂O₂ Generation in a Photovoltaic-Photoelectrochemical Tandem Cell for Biocatalytic Oxyfunctionalization. ACS Catalysis, 2019, 9, 10562-10566.	11.2	40
112	Lignin as a multifunctional photocatalyst for solar-powered biocatalytic oxyfunctionalization of Câ€“H bonds. , 2022, 1, 217-226.		40
113	Deep Eutectic Solvents Enable More Robust Chemoenzymatic Epoxidation Reactions. ChemCatChem, 2017, 9, 934-936.	3.7	39
114	Solventâ€Free Photobiocatalytic Hydroxylation of Cyclohexane. ChemCatChem, 2020, 12, 4009-4013.	3.7	39
115	Electrochemical regeneration of oxidised nicotinamide cofactors in a scalable reactor. Journal of Molecular Catalysis B: Enzymatic, 2014, 103, 94-99.	1.8	38
116	Donorâ€“Acceptor Distance Sampling Enhances the Performance of â€œBetter than Natureâ€•Nicotinamide Coenzyme Biomimetics. Journal of the American Chemical Society, 2016, 138, 11089-11092.	13.7	38
117	Towards preparative peroxygenase-catalyzed oxyfunctionalization reactions in organic media. Journal of Molecular Catalysis B: Enzymatic, 2016, 134, 347-352.	1.8	38
118	Peroxygenaseâ€Catalysed Epoxidation of Styrene Derivatives in Neat Reaction Media. ChemCatChem, 2019, 11, 4519-4523.	3.7	38
119	H₂O₂ Production at Low Overpotentials for Electroenzymatic Halogenation Reactions. ChemSusChem, 2019, 12, 4759-4763.	6.8	38
120	Light-Harvesting Dyeâ€“Alginate Hydrogel for Solar-Driven, Sustainable Biocatalysis of Asymmetric Hydrogenation. ACS Sustainable Chemistry and Engineering, 2019, 7, 5632-5637.	6.7	38
121	Expanding the Scope of Laccaseâ€Mediator Systems. ChemCatChem, 2013, 5, 3027-3032.	3.7	37
122	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.	1.9	37
123	Changing the electron donor improves azoreductase dye degrading activity at neutral pH. Enzyme and Microbial Technology, 2017, 100, 17-19.	3.2	37
124	Natural Deep Eutectic Solvents as Multifunctional Media for the Valorization of Agricultural Wastes. ChemSusChem, 2019, 12, 1310-1315.	6.8	37
125	Production of Bio-alkanes from Biomass and CO2. Trends in Biotechnology, 2021, 39, 370-380.	9.3	37
126	Ionic Liquids: Green Solvents for Chemical Processing. Journal of Chemistry, 2013, 2013, 1-2.	1.9	35

#	Article	IF	Citations
127	Horse Liver Alcohol Dehydrogenase-Catalyzed Oxidative Lactamization of Amino Alcohols. ACS Catalysis, 2018, 8, 8680-8684.	11.2	35
128	Straightforward Regeneration of Reduced Flavin Adenine Dinucleotide Required for Enzymatic Tryptophan Halogenation. ACS Catalysis, 2019, 9, 1389-1395.	11.2	35
129	Pilot-Scale Production of Peroxygenase from <i>Agrocybe aegerita</i>. Organic Process Research and Development, 2021, 25, 1414-1418.	2.7	35
130	Thymol Bromination â€“ A Comparison between Enzymatic and Chemical Catalysis. European Journal of Inorganic Chemistry, 2015, 2015, 3519-3525.	2.0	34
131	Selektive Câ€Hâ€Bindungsaktivierung durch eine Kaskade aus Photochemie und Biokatalyse. Angewandte Chemie, 2017, 129, 15654-15658.	2.0	34
132	Biocatalytic synthesis of lactones and lactams. Chemistry - an Asian Journal, 2018, 13, 3601-3610.	3.3	34
133	Biocatalytic synthesis of the Green Note <i>trans</i>-2-hexenal in a continuous-flow microreactor. Beilstein Journal of Organic Chemistry, 2018, 14, 697-703.	2.2	34
134	Benchmarking of laboratory evolved unspecific peroxygenases for the synthesis of human drug metabolites. Tetrahedron, 2019, 75, 1827-1831.	1.9	34
135	Chemoenzymatic Reduction of Conjugated Cï£¾C Double Bonds. ChemCatChem, 2012, 4, 196-199.	3.7	33
136	A Photoenzymatic NADH Regeneration System. ChemBioChem, 2018, 19, 2344-2347.	2.6	33
137	Biocatalytic Oxidation of Alcohols. Catalysts, 2020, 10, 952.	3.5	32
138	Evolved Peroxygenaseâ€“Aryl Alcohol Oxidase Fusions for Self-Sufficient Oxyfunctionalization Reactions. ACS Catalysis, 2020, 10, 13524-13534.	11.2	32
139	Photoenzymatic Hydroxylation of Ethylbenzene Catalyzed by Unspecific Peroxygenase: Origin of Enzyme Inactivation and the Impact of Light Intensity and Temperature. ChemCatChem, 2019, 11, 3093-3100.	3.7	31
140	Intensification of Photobiocatalytic Decarboxylation of Fatty Acids for the Production of Biodiesel. ChemSusChem, 2021, 14, 1053-1056.	6.8	31
141	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.	2.8	30
142	Plasmaâ€Driven inâ€…Situ Production of Hydrogen Peroxide for Biocatalysis. ChemSusChem, 2020, 13, 2072-2079.	6.8	30
143	Surfing the wave of oxyfunctionalization chemistry by engineering fungal unspecific peroxygenases. Current Opinion in Structural Biology, 2022, 73, 102342.	5.7	30
144	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.	2.7	29

#	Article	IF	Citations
145	Rekombinante Cyanobakterien fÃ¼r die asymmetrische Reduktion von C=Câ€Bindungen mithilfe biokatalytischer Wasseroxidation. Angewandte Chemie, 2016, 128, 5672-5675.	2.0	29
146	Cofactorâ€Free, Direct Photoactivation of Enoate Reductases for the Asymmetric Reduction of C=C Bonds. Angewandte Chemie, 2017, 129, 8807-8811.	2.0	29
147	Aqueous chemoenzymatic one-pot enantioselective synthesis of tertiary Î±-aryl cycloketones <i>via</i> Pd-catalyzed Câ€"C formation and enzymatic Cî€C asymmetric hydrogenation. Green Chemistry, 2021, 23, 1960-1964.	9.0	29
148	Stabilisation of the Fatty Acid Decarboxylase from <i>Chlorella variabilis</i> by Caprylic Acid. ChemBioChem, 2021, 22, 2420-2423.	2.6	28
149	Towards [Cpâˆ—Rh(bpy)(H2O)]2+-promoted P450 catalysis: Direct regeneration of CytC. Journal of Inorganic Biochemistry, 2009, 103, 313-315.	3.5	27
150	Towards Recyclable NAD(P)H Regeneration Catalysts. Molecules, 2012, 17, 9835-9841.	3.8	27
151	Nicotinamide Adenine Dinucleotideâ€Dependent Redoxâ€Neutral Convergent Cascade for Lactonizations with Type II Flavinâ€Containing Monooxygenase. Advanced Synthesis and Catalysis, 2017, 359, 2142-2148.	4.3	27
152	Heterologous expression and characterization of the ene-reductases from Deinococcus radiodurans and Ralstonia metallidurans. Journal of Molecular Catalysis B: Enzymatic, 2014, 99, 89-95.	1.8	26
153	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.	4.3	26
154	Natural Deep Eutectic Solvents as Performance Additives for Peroxygenase Catalysis. ChemCatChem, 2020, 12, 989-994.	3.7	26
155	Solarâ€Assisted eBiorefinery: Photoelectrochemical Pairing of Oxyfunctionalization and Hydrogenation Reactions. Angewandte Chemie - International Edition, 2020, 59, 15886-15890.	13.8	26
156	Choline Chloride-Based DES as Solvents/Catalysts/Chemical Donors in Pharmaceutical Synthesis. Molecules, 2021, 26, 6286.	3.8	26
157	Phosphiteâ€driven, [Cp*Rh(bpy)(H₂O)]²⁺â€catalyzed reduction of nicotinamide and flavin cofactors: characterization and application to promote chemoenzymatic reduction reactions. Applied Organometallic Chemistry, 2010, 24, 380-385.	3.5	25
158	Enantioselective enzymatic synthesis of the Î±-hydroxy ketone (R)-acetoin from meso-2,3-butanediol. Journal of Molecular Catalysis B: Enzymatic, 2014, 103, 61-66.	1.8	25
159	Towards environmentally acceptable synthesis of chiral Î±-hydroxy ketones via oxidase-lyase cascades. Green Chemistry, 2017, 19, 1226-1229.	9.0	24
160	Deep eutectic solvents as performance additives in biphasic reactions. RSC Advances, 2017, 7, 40367-40370.	3.6	24
161	Characterization of the Old Yellow Enzyme Homolog from <i>Bacillus subtilis</i> (YqjM). ChemistrySelect, 2017, 2, 3866-3871.	1.5	23
162	Photoenzymatic epoxidation of styrenes. Chemical Communications, 2019, 55, 1790-1792.	4.1	23

#	Article	IF	Citations
163	Efficient Aerobic Oxidation of <i>trans</i>â€2â€Hexenâ€1â€ol using the Aryl Alcohol Oxidase from <i>Pleurotus eryngii</i>. Advanced Synthesis and Catalysis, 2019, 361, 2668-2672.	4.3	23
164	Flavoenzymeâ€mediated Regioselective Aromatic Hydroxylation with Coenzyme Biomimetics. ChemCatChem, 2020, 12, 1368-1375.	3.7	23
165	Chemoenzymatic Halocyclization of Î³,Î´â€Unsaturated Carboxylic Acids and Alcohols. ChemSusChem, 2020, 13, 97-101.	6.8	22
166	Enantioselective Sulfoxidation of Thioanisole by Cascading a Choline Oxidase and a Peroxygenase in the Presence of Natural Deep Eutectic Solvents. ChemPlusChem, 2020, 85, 254-257.	2.8	22
167	Wholeâ€Cell Photoenzymatic Cascades to Synthesize Longâ€Chain Aliphatic Amines and Esters from Renewable Fatty Acids. Angewandte Chemie, 2020, 132, 7090-7094.	2.0	22
168	Directed evolution of unspecific peroxygenase in organic solvents. Biotechnology and Bioengineering, 2021, 118, 3002-3014.	3.3	22
169	Is water the best solvent for biocatalysis?. Molecular Catalysis, 2022, 517, 112035.	2.0	22
170	Alcohol dehydrogenase stabilization by additives under industrially relevant reaction conditions. Journal of Molecular Catalysis B: Enzymatic, 2014, 103, 24-28.	1.8	21
171	Lichtgetriebene enzymatische Decarboxylierung von FettsÃuren. Angewandte Chemie, 2018, 130, 13836-13839.	2.0	21
172	A Photo-Enzymatic Cascade to Transform Racemic Alcohols into Enantiomerically Pure Amines. Catalysts, 2019, 9, 305.	3.5	21
173	Alcohol Dehydrogenases as Catalysts in Organic Synthesis. Frontiers in Catalysis, 2022, 2, .	3.9	21
174	Expression and characterization of the nitrile reductase queF from E. coli. Enzyme and Microbial Technology, 2013, 52, 129-133.	3.2	20
175	Engineering an enzymatic regeneration system for NAD(P)H oxidation. Journal of Molecular Catalysis B: Enzymatic, 2015, 120, 38-46.	1.8	20
176	Biocatalytic C=C Bond Reduction through Carbon Nanodotâ€Sensitized Regeneration of NADH Analogues. Angewandte Chemie, 2018, 130, 14021-14024.	2.0	20
177	Nuclear Waste and Biocatalysis: A Sustainable Liaison?. ACS Catalysis, 2020, 10, 14195-14200.	11.2	20
178	Lightâ€Accelerated Biocatalytic Oxidation Reactions. ChemPlusChem, 2014, 79, 1554-1557.	2.8	19
179	A Pioneering Career in Catalysis: Manfred T. Reetz. ACS Catalysis, 2020, 10, 15123-15139.	11.2	19
180	Process Intensification as Game Changer in Enzyme Catalysis. Frontiers in Catalysis, 2022, 2, .	3.9	19

#	Article	IF	Citations
181	Engineering a lipase B from Candida antactica with efficient perhydrolysis performance by eliminating its hydrolase activity. Scientific Reports, 2017, 7, 44599.	3.3	18
182	How To Break the Janus Effect of H₂O₂ in Biocatalysis? Understanding Inactivation Mechanisms To Generate more Robust Enzymes. ACS Catalysis, 2019, 9, 2916-2921.	11.2	18
183	Production of fatty alcohols from non-edible oils by enzymatic cascade reactions. Sustainable Energy and Fuels, 2020, 4, 4232-4237.	4.9	18
184	Power Combination of Two 140-GHz Gyrotrons and Fast Switching of the Combined Beam. Fusion Science and Technology, 2009, 55, 23-30.	1.1	17
185	Production and immobilization of lipase PCL and its application in synthesis of Î±-linolenic acid-rich diacylglycerol. Journal of Food Biochemistry, 2018, 42, e12574.	2.9	17
186	Formiatâ€Oxidase (FOx) aus Aspergillus oryzae : ein Katalysator fÃ¼r verschiedene H 2 O 2 â€abhÃngige biokatalytische Oxidationen. Angewandte Chemie, 2019, 131, 7955-7959.	2.0	17
187	Multienzymatic in situ hydrogen peroxide generation cascade for peroxygenase-catalysed oxyfunctionalisation reactions. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2019, 74, 101-104.	1.4	17
188	Heat-fueled enzymatic cascade for selective oxyfunctionalization of hydrocarbons. Nature Communications, 2022, 13, .	12.8	17
189	Synthetic Biomimetic Coenzymes and Alcohol Dehydrogenases for Asymmetric Catalysis. Catalysts, 2019, 9, 207.	3.5	16
190	Unbiased Photoelectrode Interfaces for Solar Coupling of Lignin Oxidation with Biocatalytic Câ•C Bond Hydrogenation. ACS Applied Materials & Interfaces, 2022, 14, 11465-11473.	8.0	16
191	Deazaflavins as photocatalysts for the direct reductive regeneration of flavoenzymes. Molecular Catalysis, 2018, 452, 277-283.	2.0	15
192	FOx News: Towards Methanolâ€driven Biocatalytic Oxyfunctionalisation Reactions. ChemCatChem, 2020, 12, 2713-2716.	3.7	15
193	Part I. On the physical characterization of ethene/propene/CO terpolymers: effect of composition. Polymer, 2001, 42, 93-101.	3.8	14
194	Chemoenzymatic Halocyclization of 4-Pentenoic Acid at Preparative Scale. ACS Sustainable Chemistry and Engineering, 2020, 8, 2602-2607.	6.7	14
195	Asymmetric azidohydroxylation of styrene derivatives mediated by a biomimetic styrene monooxygenase enzymatic cascade. Catalysis Science and Technology, 2021, 11, 5077-5085.	4.1	14
196	Biocatalytic Aromaticity-Breaking Epoxidation of Naphthalene and Nucleophilic Ring-Opening Reactions. ACS Catalysis, 2021, 11, 2644-2649.	11.2	14
197	Hydrophobic Formic Acid Esters for Cofactor Regeneration in Aqueous/Organic Two-Liquid Phase Systems. Topics in Catalysis, 2014, 57, 385-391.	2.8	13
198	Lipase-catalyzed transesterification of ethyl formate to octyl formate. Journal of Molecular Catalysis B: Enzymatic, 2014, 105, 7-10.	1.8	13

#	Article	IF	Citations
199	Towards electroenzymatic processes involving old yellow enzymes and mediated cofactor regeneration. Engineering in Life Sciences, 2017, 17, 71-76.	3.6	13
200	H₂as a fuel for flavin- and H₂O₂-dependent biocatalytic reactions. Chemical Communications, 2020, 56, 9667-9670.	4.1	13
201	Enzymatic Oxidation of Butane to 2â€Butanol in a Bubble Column. ChemCatChem, 2020, 12, 3666-3669.	3.7	13
202	Optimization and Engineering of Fatty Acid Photodecarboxylase for Substrate Specificity. ChemCatChem, 2021, 13, 4038-4046.	3.7	13
203	Pyrococcus furiosus-mediated reduction of conjugated carboxylic acids: Towards using syngas as reductant. Journal of Molecular Catalysis B: Enzymatic, 2014, 103, 52-55.	1.8	12
204	Biokatalytische Reduktionen aus der Sicht eines Chemikers. Angewandte Chemie, 2021, 133, 5706-5727.	2.0	12
205	Natural deep eutectic solvents as performance additives for biocatalysis. Advances in Botanical Research, 2021, , 95-132.	1.1	12
206	Immobilization of the Peroxygenase from Agrocybe aegerita. The Effect of the Immobilization pH on the Features of an Ionically Exchanged Dimeric Peroxygenase. Catalysts, 2021, 11, 560.	3.5	12
207	Safe-by-Design in Engineering: An Overview and Comparative Analysis of Engineering Disciplines. International Journal of Environmental Research and Public Health, 2021, 18, 6329.	2.6	12
208	A Peroxygenaseâ€Alcohol Dehydrogenase Cascade Reaction to Transform Ethylbenzene Derivatives into Enantioenriched Phenylethanols. ChemBioChem, 2022, 23, .	2.6	12
209	Assessing Peroxygenase-Mediated Oxidations in the Presence of High Concentrations of Water-Miscible Co-Solvents. Frontiers in Catalysis, 2022, 2, .	3.9	12
210	Photochemical regeneration of flavoenzymes â€“ An Old Yellow Enzyme case-study. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140303.	2.3	11
211	Towards Preparative Chemoenzymatic Oxidative Decarboxylation of Glutamic Acid. ChemCatChem, 2020, 12, 2180-2183.	3.7	11
212	Microscale Atmospheric Pressure Plasma Jet as a Source for Plasmaâ€Driven Biocatalysis. ChemCatChem, 2020, 12, 5893-5897.	3.7	11
213	Structure of the NADH-dependent thermostable alcohol dehydrogenase TADH from Thermus sp. ATN1 provides a platform for engineering specificity and improved compatibility with inorganic cofactor-regeneration catalysts. Journal of Molecular Catalysis B: Enzymatic, 2014, 105, 1-6.	1.8	10
214	P450BM3-Catalyzed Oxidations Employing Dual Functional Small Molecules. Catalysts, 2019, 9, 567.	3.5	10
215	Bienzymatic Cascade for the Synthesis of an Optically Active O-benzoyl Cyanohydrin. Catalysts, 2019, 9, 522.	3.5	10
216	A Minimized Chemoenzymatic Cascade for Bacterial Luciferase in Bioreporter Applications. ChemBioChem, 2020, 21, 2073-2079.	2.6	10

#	Article	IF	Citations
217	Selective Oxyfunctionalisation Reactions Driven by Sulfite Oxidaseâ€Catalysed <i>In Situ</i> Generation of H₂O₂. ChemCatChem, 2020, 12, 3186-3189.	3.7	10
218	Tripletâ€“triplet annihilation-based photon-upconversion to broaden the wavelength spectrum for photobiocatalysis. Scientific Reports, 2022, 12, .	3.3	10
219	Dielectric relaxation of the alternating terpolymers of ethylene, propylene, and carbon monoxide. Journal of Macromolecular Science - Physics, 2002, 41, 99-116.	1.0	9
220	Functional expression of porcine aminoacylase 1 in E. coli using a codon optimized synthetic gene and molecular chaperones. Applied Microbiology and Biotechnology, 2008, 81, 721-729.	3.6	9
221	ECRH for W7-X: Transmission Losses of High-Power 140-GHz Wave Beams. Fusion Science and Technology, 2009, 55, 16-22.	1.1	9
222	Alcohol Dehydrogenases Catalyze the Reduction of Thioesters. ChemCatChem, 2017, 9, 1389-1392.	3.7	9
223	An Ultrasensitive Fluorescence Assay for the Detection of Halides and Enzymatic Dehalogenation. ChemCatChem, 2020, 12, 2032-2039.	3.7	9
224	An alginate-confined peroxygenase-CLEA for styrene epoxidation. Chemical Communications, 2021, 57, 5766-5769.	4.1	9
225	Bacterial Outer Membrane Vesicles as Nanoâ€Scale Bioreactors: A Fatty Acid Conversion Case Study. ChemCatChem, 2021, 13, 4080-4086.	3.7	9
226	Novel oleate hydratases and potential biotechnological applications. Applied Microbiology and Biotechnology, 2021, 105, 6159-6172.	3.6	9
227	Valorization of Small Alkanes by Biocatalytic Oxyfunctionalization. ChemSusChem, 2022, 15, .	6.8	9
228	Molecular Catalysis for the Chemistry of the future: a perspective. Molecular Catalysis, 2022, 522, 112233.	2.0	9
229	A Biocatalytic Platform for the Synthesis of Enantiopure Propargylic Alcohols and Amines. Organic Letters, 2022, 24, 4252-4257.	4.6	9
230	Increasing the synthesis/hydrolysis ratio of aminoacylase 1 by site-directed mutagenesis. Biochimie, 2010, 92, 102-109.	2.6	8
231	Stereoselective Double Reduction of 3-Methyl-2-cyclohexenone, by Use of Palladium and Platinum Nanoparticles, in Tandem with Alcohol Dehydrogenase. Nanomaterials, 2018, 8, 853.	4.1	8
232	More efficient enzymatic cascade reactions by spatially confining enzymes via the SpyTag/SpyCatcher technology. Molecular Catalysis, 2022, 521, 112188.	2.0	8
233	Chemoenzymatic Hunsdiecker-Type Decarboxylative Bromination of Cinnamic Acids. ACS Catalysis, 2022, 12, 4554-4559.	11.2	8
234	Effects of the chain microstructure on the properties of polyketones terpolymers characterized by scanning force microscopy. European Polymer Journal, 2004, 40, 905-916.	5.4	7

#	Article	IF	Citations
235	Surface-Doped Graphitic Carbon Nitride Catalyzed Photooxidation of Olefins and Dienes: Chemical Evidence for Electron Transfer and Singlet Oxygen Mechanisms. Catalysts, 2019, 9, 639.	3.5	7
236	Continuous-flow CvFAP photodecarboxylation of palmitic acid under environmentally friendly conditions. Molecular Catalysis, 2022, 528, 112469.	2.0	7
237	Solarâ€Assisted eBiorefinery: Photoelectrochemical Pairing of Oxyfunctionalization and Hydrogenation Reactions. Angewandte Chemie, 2020, 132, 16020-16024.	2.0	6
238	Spectra of highly ionized xenon (6â€"30Ânm) excited in W7-AS plasmas. Applied Physics B: Lasers and Optics, 2001, 73, 59-64.	2.2	5
239	Status of Resonant Diplexer Development for high-power ECRH Applications. EPJ Web of Conferences, 2012, 32, 04008.	0.3	5
240	Substrate and cofactor binding to nitrile reductase: a mass spectrometry based study. Catalysis Science and Technology, 2016, 6, 7391-7397.	4.1	5
241	An Efficient Strategy for the Production of Epoxidized Oils: Natural Deep Eutectic Solventâ€Based Enzymatic Epoxidation. JAOCS, Journal of the American Oil Chemists' Society, 2019, 96, 671-679.	1.9	5
242	Chemoenzymatic Halocyclization of Î³,Î´â€Unsaturated Carboxylic Acids and Alcohols. ChemSusChem, 2020, 13, 5-5.	6.8	5
243	Protection strategies for biocatalytic proteins under plasma treatment. Journal Physics D: Applied Physics, 2021, 54, 035204.	2.8	5
244	Enzymatic Bromocyclization of Î±â€•and Î³â€Allenols by Chloroperoxidase from Curvularia inaequalis. ChemistryOpen, 2022, 11, e202100236.	1.9	5
245	Light-driven Enzymatic Decarboxylation. Journal of Visualized Experiments, 2016, , .	0.3	4
246	Two (Chemo)-Enzymatic Cascades for the Production of Opposite Enantiomers of Chiral Azidoalcohols. Catalysts, 2021, 11, 982.	3.5	4
247	Study on green extraction of limonene from orange peel and cascade catalysis to produce carvol and carvone in deep eutectic solvents. Flavour and Fragrance Journal, 2022, 37, 254-261.	2.6	4
248	Towards Biocatalytic Oxidation of Secondary Alcohols to Carbonyl Products of Relevance for Flavors and Fragrances. Frontiers in Catalysis, 0, 2, .	3.9	4
249	Artificial Photosynthesis: Hybrid Systems. Advances in Biochemical Engineering/Biotechnology, 2016, 158, 137-158.	1.1	3
250	Biocatalytically induced surface modification of the tobacco mosaic virus and the bacteriophage M13. Chemical Communications, 2019, 55, 51-54.	4.1	3
251	Metals in Biotechnology: Crâ€Driven Stereoselective Reduction of Conjugated C=C Double Bonds. ChemBioChem, 2020, 21, 1112-1115.	2.6	3
252	Chemoenzymatic intermolecular haloether synthesis. Molecular Catalysis, 2022, 517, 112061.	2.0	3

#	Article	IF	Citations
253	Multi-Catalytic Route for the Synthesis of (S)-Tembamide. Catalysts, 2019, 9, 822.	3.5	2
254	Differences in barriers for controlled learning about safety between biotechnology and chemistry. Nature Communications, 2022, 13, .	12.8	2
255	J. Tao, R. J. Kazlauskas: Biocatalysis for Green Chemistry and Chemical Process Development. Catalysis Letters, 2013, 143, 982-982.	2.6	1
256	Photoelectrochemical Cells: Carbon Nanotubeâ€"Graphitic Carbon Nitride Hybrid Films for Flavoenzymeâ€Catalyzed Photoelectrochemical Cells (Adv. Funct. Mater. 24/2018). Advanced Functional Materials, 2018, 28, 1870164.	14.9	1
257	Synthesis of Vinyl Polymers via Enzymatic Oxidative Polymerisation. Green Chemistry and Sustainable Technology, 2019, , 343-356.	0.7	1
258	Integrated Biocatalytic Synthesis on Gram Scale: The Highly Enantioselective Preparation of Chiral Oxiranes with Styrene Monooxygenase. Advanced Synthesis and Catalysis, 2001, 343, 732-737.	4.3	1
259	Enoatreduktasen - Vielversprechende Enzyme auf neuen Wegen. Chemie-Ingenieur-Technik, 2012, 84, 1215-1216.	0.8	0
260	Special issue OxiZymes 2016. Journal of Molecular Catalysis B: Enzymatic, 2016, 134, 273.	1.8	0
261	â€˜Cleanâ€™ hydrolase reactions using commercial washing powder. RSC Advances, 2019, 9, 24039-24042.	3.6	0
262	Titelbild: Solarâ€Assisted eBiorefinery: Photoelectrochemical Pairing of Oxyfunctionalization and Hydrogenation Reactions (Angew. Chem. 37/2020). Angewandte Chemie, 2020, 132, 15897-15897.	2.0	0
263	Biocatalytic oxyfunctionalization of butane in a bubbleâ€column reactor. Chemie-Ingenieur-Technik, 2020, 92, 1211-1211.	0.8	0