Jian-He Xu

List of Publications by Citations

153 papers	2,916 citations	30 h-index	44 g-index
165 ext. papers	3,537 ext. citations	5.6 avg, IF	5.54 L-index

#	Paper	IF	Citations
153	Biocatalytic ketone reduction: a green and efficient access to enantiopure alcohols. *Biotechnology Advances*, **2012**, 30, 1279-88	17.8	175
152	New opportunities for biocatalysis: driving the synthesis of chiral chemicals. *Current Opinion in Biotechnology*, **2011**, 22, 784-92	11.4	138
151	Asymmetric Amination of Secondary Alcohols by using a Redox-Neutral Two-Enzyme Cascade. *ChemCatChem*, **2015**, 7, 3838-3841	5.2	87
150	Reshaping an enzyme binding pocket for enhanced and inverted stereoselectivity: use of smallest amino acid alphabets in directed evolution. *Angewandte Chemie - International Edition*, **2015**, 54, 12410-5	16.4	77
149	Whole-Cell-Catalyzed Multiple Regio- and Stereoselective Functionalizations in Cascade Reactions Enabled by Directed Evolution. *Angewandte Chemie - International Edition*, **2016**, 55, 12026-9	16.4	68
148	Reshaping the Active Pocket of Amine Dehydrogenases for Asymmetric Synthesis of Bulky Aliphatic Amines. *ACS Catalysis*, **2018**, 8, 2622-2628	13.1	63
147	Efficient synthesis of a chiral precursor for angiotensin-converting enzyme (ACE) inhibitors in high space-time yield by a new reductase without external cofactors. *Organic Letters*, **2012**, 14, 1982-5	6.2	62
146	Engineering of an epoxide hydrolase for efficient bioresolution of bulky pharmaco substrates. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 15717-22	11.5	54
145	Efficient Synthesis of Chiral Indolines using an Imine Reductase from Paenibacillus lactis. *Advanced Synthesis and Catalysis*, **2015**, 357, 1692-1696	5.6	54
144	Development of an Engineered Ketoreductase with Simultaneously Improved Thermostability and Activity for Making a Bulky Atorvastatin Precursor. *ACS Catalysis*, **2019**, 9, 147-153	13.1	54
143	Newly identified thermostable esterase from Sulfobacillus acidophilus: properties and performance in phthalate ester degradation. *Applied and Environmental Microbiology*, **2014**, 80, 6870-8	4.8	53
142	Stereospecific Reduction of Methyl o-Chlorobenzoylformate at 300 g?L□ without Additional Cofactor using a Carbonyl Reductase Mined from Candida glabrata. *Advanced Synthesis and Catalysis*, **2012**, 354, 1765-1772	5.6	53
141	Preparation of Structurally Diverse Chiral Alcohols by Engineering Ketoreductase CgKR1. *ACS Catalysis*, **2017**, 7, 7174-7181	13.1	52
140	Enhanced limonene production by optimizing the expression of limonene biosynthesis and MEP pathway genes in E. coli. *Bioresources and Bioprocessing*, **2014**, 1,	5.2	51
139	Enzymatic Production of l-Menthol by a High Substrate Concentration Tolerable Esterase from Newly Isolated Bacillus subtilis ECU0554. *Advanced Synthesis and Catalysis*, **2009**, 351, 405-414	5.6	48
138	Efficient Reduction of Ethyl 2-Oxo-4-phenylbutyrate at 620 g?L□ by a Bacterial Reductase with Broad Substrate Spectrum. *Advanced Synthesis and Catalysis*, **2011**, 353, 1213-1217	5.6	46
137	A smart library of epoxide hydrolase variants and the top hits for synthesis of (S)-□blocker precursors. *Angewandte Chemie - International Edition*, **2014**, 53, 6641-4	16.4	45

136	Isolation of Rhodococcus sp. strain ECU0066, a new sulfide monooxygenase-producing strain for asymmetric sulfoxidation. *Applied and Environmental Microbiology*, **2009**, 75, 551-6	4.8	44
135	Unusually broad substrate profile of self-sufficient cytochrome P450 monooxygenase CYP116B4 from Labrenzia aggregata. *ChemBioChem*, **2014**, 15, 2443-9	3.8	43
134	An Unusual (R)-Selective Epoxide Hydrolase with High Activity for Facile Preparation of Enantiopure Glycidyl Ethers. *Advanced Synthesis and Catalysis*, **2011**, 353, 1510-1518	5.6	42
133	Highly stereoselective reduction of prochiral ketones by a bacterial reductase coupled with cofactor regeneration. *Organic and Biomolecular Chemistry*, **2011**, 9, 5463-8	3.9	41
132	Sequence analysis and heterologous expression of a new cytochrome P450 monooxygenase from Rhodococcus sp. for asymmetric sulfoxidation. *Applied Microbiology and Biotechnology*, **2010**, 85, 615-24	5.7	41
131	Identification of an Imine Reductase for Asymmetric Reduction of Bulky Dihydroisoquinolines. *Organic Letters*, **2017**, 19, 3151-3154	6.2	39
130	Highly efficient synthesis of ethyl (S)-4-chloro-3-hydroxybutanoate and its derivatives by a robust NADH-dependent reductase from E. coli CCZU-K14. *Bioresource Technology*, **2014**, 161, 461-4	11	38
129	A novel D-mandelate dehydrogenase used in three-enzyme cascade reaction for highly efficient synthesis of non-natural chiral amino acids. *Journal of Biotechnology*, **2015**, 195, 67-71	3.7	34
128	Efficient Synthesis of (R)-2-Chloro-1-(2,4-dichlorophenyl)ethanol with a Ketoreductase from Scheffersomyces stipitis CBS 6045. *Advanced Synthesis and Catalysis*, **2017**, 359, 426-431	5.6	33
127	Increased Catalyst Productivity in □-Hydroxy Acids Resolution by Esterase Mutation and Substrate Modification. *ACS Catalysis*, **2014**, 4, 1026-1031	13.1	33
126	Efficient preparation of (R)-alpha-monobenzoyl glycerol by lipase catalyzed asymmetric esterification: optimization and operation in packed bed reactor. *Biotechnology and Bioengineering*, **2001**, 73, 493-9	4.9	32
125	Significant enhancement of lipase enantioselectivity toward (S)- Ketoprofen ester at pH 2. *Biotechnology Letters*, **1999**, 21, 143-146	3	31
124	Asymmetric ring opening of racemic epoxides for enantioselective synthesis of (S)-□amino alcohols by a cofactor self-sufficient cascade biocatalysis system. *Catalysis Science and Technology*, **2019**, 9, 70-74	5.5	30
123	Bioamination of alkane with ammonium by an artificially designed multienzyme cascade. *Metabolic Engineering*, **2018**, 47, 184-189	9.7	27
122	Altering the Substrate Specificity of Reductase CgKR1 from Candida glabrata by Protein Engineering for Bioreduction of Aromatic □-Keto Esters. *Advanced Synthesis and Catalysis*, **2014**, 356, 1943-1948	5.6	26
121	Enantioselective Synthesis of Chiral Vicinal Amino Alcohols Using Amine Dehydrogenases. *ACS Catalysis*, **2019**, 9, 11813-11818	13.1	26
120	Efficient synthesis of a statin precursor in high space-time yield by a new aldehyde-tolerant aldolase identified from Lactobacillus brevis. *Catalysis Science and Technology*, **2015**, 5, 4048-4054	5.5	25
119	A Novel (R)-Imine Reductase from Paenibacillus lactis for Asymmetric Reduction of 3 H-Indoles. *ChemCatChem*, **2016**, 8, 724-727	5.2	25

118	Switching Cofactor Dependence of 7-Hydroxysteroid Dehydrogenase for Cost-Effective Production of Ursodeoxycholic Acid. *ACS Catalysis*, **2019**, 9, 466-473	13.1	25
117	Engineering 7-Hydroxysteroid Dehydrogenase for Enhanced Ursodeoxycholic Acid Production by Multiobjective Directed Evolution. *Journal of Agricultural and Food Chemistry*, **2017**, 65, 1178-1185	5.7	24
116	Engineering of Cyclohexanone Monooxygenase for the Enantioselective Synthesis of (S)-Omeprazole. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 7218-7226	8.3	24
115	Continuous Production of Ursodeoxycholic Acid by Using Two Cascade Reactors with Co-immobilized Enzymes. *ChemBioChem*, **2018**, 19, 347-353	3.8	24
114	Regioselectivity Engineering of Epoxide Hydrolase: Near-Perfect Enantioconvergence through a Single Site Mutation. *ACS Catalysis*, **2018**, 8, 8314-8317	13.1	24
113	Molecular dynamics investigation of the substrate binding mechanism in carboxylesterase. *Biochemistry*, **2015**, 54, 1841-8	3.2	23
112	Enantioselective bioreductive preparation of chiral halohydrins employing two newly identified stereocomplementary reductases. *RSC Advances*, **2015**, 5, 22703-22711	3.7	23
111	Combinatorial evolution of phosphotriesterase toward a robust malathion degrader by hierarchical iteration mutagenesis. *Biotechnology and Bioengineering*, **2016**, 113, 2350-7	4.9	23
110	Engineering Streptomyces coelicolor Carbonyl Reductase for Efficient Atorvastatin Precursor Synthesis. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	22
109	Optimization and Scale-up of a Bioreduction Process for Preparation of Ethyl (S)-4-Chloro-3-hydroxybutanoate. *Organic Process Research and Development*, **2014**, 18, 739-743	3.9	22
108	Crystal structures of Pseudomonas putida esterase reveal the functional role of residues 187 and 287 in substrate binding and chiral recognition. *Biochemical and Biophysical Research Communications*, **2014**, 446, 1145-50	3.4	21
107	Efficient production of diltiazem chiral intermediate using immobilized lipase from Serratia marcescens. *Biotechnology and Bioprocess Engineering*, **2010**, 15, 199-207	3.1	21
106	Enantioselective synthesis of enantiopure -amino alcohols via kinetic resolution and asymmetric reductive amination by a robust transaminase from Mycobacterium vanbaalenii. *Journal of Biotechnology*, **2019**, 290, 24-32	3.7	21
105	Reshaping an Enzyme Binding Pocket for Enhanced and Inverted Stereoselectivity: Use of Smallest Amino Acid Alphabets in Directed Evolution. *Angewandte Chemie*, **2015**, 127, 12587-12592	3.6	19
104	Enzymatic Preparation of the Chiral (S)-Sulfoxide Drug Esomeprazole at Pilot-Scale Levels. *Organic Process Research and Development*, **2020**, 24, 1124-1130	3.9	19
103	Enhancing transglutaminase production of by iterative mutagenesis breeding with atmospheric and room-temperature plasma (ARTP). *Bioresources and Bioprocessing*, **2017**, 4, 37	5.2	19
102	Burkholderia jiangsuensis sp. nov., a methyl parathion degrading bacterium, isolated from methyl parathion contaminated soil. *International Journal of Systematic and Evolutionary Microbiology*, **2014**, 64, 3247-3253	2.2	19
101	Development of an engineered thermostable amine dehydrogenase for the synthesis of structurally diverse chiral amines. *Catalysis Science and Technology*, **2020**, 10, 2353-2358	5.5	19

100	Discovery of Two Native Baeyer-Villiger Monooxygenases for Asymmetric Synthesis of Bulky Chiral Sulfoxides. *Applied and Environmental Microbiology*, **2018**, 84,	4.8	17
99	Identification of a Robust Carbonyl Reductase for Diastereoselectively Building syn-3,5-Dihydroxy Hexanoate: a Bulky Side Chain of Atorvastatin. *Organic Process Research and Development*, **2017**, 21, 1349-1354	3.9	17
98	Hydroxynitrile Lyase Isozymes from Prunus communis: Identification, Characterization and Synthetic Applications. *Advanced Synthesis and Catalysis*, **2017**, 359, 1185-1193	5.6	16
97	Significantly improved thermostability of a reductase CgKR1 from Candida glabrata with a key mutation at Asp 138 for enhancing bioreduction of aromatic □-keto esters. *Journal of Biotechnology* , **2015**, 203, 54-61	3.7	16
96	Identification of an □Keto Ester Reductase for the Efficient Synthesis of an (R)-□-Lipoic Acid Precursor. *Advanced Synthesis and Catalysis*, **2015**, 357, 1697-1702	5.6	16
95	Improved expression of recombinant cytochrome P450 monooxygenase in Escherichia coli for asymmetric oxidation of sulfides. *Bioprocess and Biosystems Engineering*, **2010**, 33, 1043-9	3.7	15
94	Catalytic conversion of corncob to furfuryl alcohol in tandem reaction with tin-loaded sulfonated zeolite and NADPH-dependent reductase biocatalyst. *Bioresource Technology*, **2021**, 320, 124267	11	15
93	Evolution of a Catalytic Mechanism. *Molecular Biology and Evolution*, **2016**, 33, 971-9	8.3	14
92	An ene reductase from Clavispora lusitaniae for asymmetric reduction of activated alkenes. *Enzyme and Microbial Technology*, **2014**, 56, 40-5	3.8	14
91	Efficient production of l-menthol in a two-phase system with SDS using an immobilized Bacillus subtilis esterase. *Bioresources and Bioprocessing*, **2014**, 1,	5.2	14
90	One-Pot Synthesis of Phenylglyoxylic Acid from Racemic Mandelic Acids via Cascade Biocatalysis. *Journal of Agricultural and Food Chemistry*, **2019**, 67, 2946-2953	5.7	14
89	Synthetic Biomimetic Coenzymes and Alcohol Dehydrogenases for Asymmetric Catalysis. *Catalysts*, **2019**, 9, 207	4	13
88	Effective biosynthesis of ethyl (R)-4-chloro-3-hydroxybutanoate by supplementation of l-glutamine, d-xylose and □yclodextrin in n-butyl acetate-water media. *Journal of Biotechnology*, **2015**, 203, 62-7	3.7	13
87	Biosynthesis of Phenylglyoxylic Acid by LhDMDH, a Novel d-Mandelate Dehydrogenase with High Catalytic Activity. *Journal of Agricultural and Food Chemistry*, **2018**, 66, 2805-2811	5.7	13
86	An Ammonium-Formate-Driven Trienzymatic Cascade for □Transaminase-Catalyzed ()-Selective Amination. *Journal of Organic Chemistry*, **2019**, 84, 14987-14993	4.2	13
85	Substrate channel evolution of an esterase for the synthesis of cilastatin. *Catalysis Science and Technology*, **2015**, 5, 2622-2629	5.5	13
84	Cloning and Characterization of a Novel Esterase from Rhodococcus sp. for Highly Enantioselective Synthesis of a Chiral Cilastatin Precursor. *Applied and Environmental Microbiology*, **2014**, 80, 7348-55	4.8	13
83	Facile Synthesis of Enantiopure 4-Substituted 2-Hydroxy-4- butyrolactones using a Robust Fusarium Lactonase. *Advanced Synthesis and Catalysis*, **2009**, 351, 2959-2966	5.6	13

82	Efficient Degradation of Malathion in the Presence of Detergents Using an Engineered Organophosphorus Hydrolase Highly Expressed by Pichia pastoris without Methanol Induction. *Journal of Agricultural and Food Chemistry*, **2017**, 65, 9094-9100	5.7	12
81	Stereocomplementary Synthesis of Pharmaceutically Relevant Chiral 2-Aryl-Substituted Pyrrolidines Using Imine Reductases. *Organic Letters*, **2020**, 22, 3367-3372	6.2	12
80	Efficient Synthesis of 12-Oxochenodeoxycholic Acid Using a 12□-Hydroxysteroid Dehydrogenase from Rhodococcus ruber. *Advanced Synthesis and Catalysis*, **2019**, 361, 4661-4668	5.6	12
79	One Pot Asymmetric Synthesis of (R)-Phenylglycinol from Racemic Styrene Oxide via Cascade Biocatalysis. *ChemCatChem*, **2019**, 11, 3802-3807	5.2	12
78	A new high-energy density hydrogen carrier□arbohydrate□ight be better than methanol. *International Journal of Energy Research*, **2013**, 37, 769-779	4.5	12
77	Enzymatic production of Cilastatin intermediate via highly enantioselective hydrolysis of methyl (□)-2,2-dimethylcyclopropane carboxylate using newly isolated Rhodococcus sp. ECU1013. *Applied Microbiology and Biotechnology*, **2013**, 97, 7659-67	5.7	12
76	Identification of key residues in Debaryomyces hansenii carbonyl reductase for highly productive preparation of (S)-aryl halohydrins. *Chemical Communications*, **2015**, 51, 15728-31	5.8	11
75	Rational Engineering of Formate Dehydrogenase Substrate/Cofactor Affinity for Better Performance in NADPH Regeneration. *Applied Biochemistry and Biotechnology*, **2020**, 192, 530-543	3.2	11
74	Structure-Guided Tuning of a Hydroxynitrile Lyase to Accept Rigid Pharmaco Aldehydes. *ACS Catalysis*, **2020**, 10, 5757-5763	13.1	11
73	Efficient biosynthesis of rare natural product scopolamine using E. coli cells expressing a S14P/K97A mutant of hyoscyamine 6□hydroxylase AaH6H. *Journal of Biotechnology*, **2015**, 211, 123-9	3.7	10
72	High level and enantioselective production of L-phenylglycine from racemic mandelic acid by engineered Escherichia coli using response surface methodology. *Enzyme and Microbial Technology*, **2020**, 136, 109513	3.8	10
71	Engineering P450LaMO stereospecificity and product selectivity for selective C□H oxidation of tetralin-like alkylbenzenes. *Catalysis Science and Technology*, **2018**, 8, 4638-4644	5.5	10
70	Efficient synthesis of an □hydroxy ester in a space□ime yield of 1580gL□1d□1 by a newly identified reductase RhCR. *Tetrahedron: Asymmetry*, **2014**, 25, 1501-1504		10
69	Thermodynamic Equilibrium Control of the Enzymatic Hydrolysis of Penicillin G in a Cloud Point System without pH Control. *Industrial & Engineering Chemistry Research*, **2006**, 45, 8049-8055	3.9	10
68	A PRACTICAL ENZYMATIC METHOD FOR PREPARATION OF (S)-KETOPROFEN WITH A CRUDE CANDIDA RUGOSA LIPASE. *Synthetic Communications*, **2001**, 31, 3491-3496	1.7	10
67	Efficient expression of novel glutamate decarboxylases and high level production of □aminobutyric acid catalyzed by engineered Escherichia coli. *International Journal of Biological Macromolecules*, **2020**, 160, 372-379	7.9	10
66	Cross-linked enzyme-polymer conjugates with excellent stability and detergent-enhanced activity for efficient organophosphate degradation. *Bioresources and Bioprocessing*, **2018**, 5,	5.2	10
65	Rapid probing of the reactivity of P450 monooxygenases from the CYP116B subfamily using a substrate-based method. *New Journal of Chemistry*, **2016**, 40, 8928-8934	3.6	9

64	Dramatically Improved Performance of an Esterase for Cilastatin Synthesis by Cap Domain Engineering. *Industrial & Engineering Chemistry Research*, **2016**, 55, 12167-12172	3.9	9
63	Characterization of a new nitrilase from Hoeflea phototrophica DFL-43 for a two-step one-pot synthesis of (S)-amino acids. *Applied Microbiology and Biotechnology*, **2018**, 102, 6047-6056	5.7	9
62	Green access to chiral Vince lactam in a buffer-free aqueous system using a newly identified substrate-tolerant () lactamase. *Catalysis Science and Technology*, **2016**, 6, 6305-6310	5.5	9
61	Improved efficiency of a novel methyl parathion hydrolase using consensus approach. *Enzyme and Microbial Technology*, **2016**, 93-94, 11-17	3.8	9
60	One pot simultaneous preparation of both enantiomer of amino alcohol and vicinal diol via cascade biocatalysis. *Biotechnology Letters*, **2018**, 40, 349-358	3	9
59	Accelerated directed evolution of dye-decolorizing peroxidase using a bacterial extracellular protein secretion system (BENNY). *Bioresources and Bioprocessing*, **2019**, 6, 20	5.2	8
58	Rational design of a carboxylic esterase RhEst1 based on computational analysis of substrate binding. *Journal of Molecular Graphics and Modelling*, **2015**, 62, 319-324	2.8	8
57	Exploitation of cold-active cephalosporin C acylase by computer-aided directed evolution and its potential application in low-temperature biosynthesis of 7-aminocephalosporanic acid. *Journal of Chemical Technology and Biotechnology*, **2018**, 93, 2925-2930	3.5	8
56	Enzymatic resolution of a chiral chlorohydrin precursor for (R)-lipoic acid synthesis via lipase catalyzed enantioselective transacylation with vinyl acetate. *Journal of Molecular Catalysis B: Enzymatic*, **2014**, 99, 102-107		8
55	Draft Genome Sequence of Burkholderia sp. Strain MP-1, a Methyl Parathion (MP)-Degrading Bacterium from MP-Contaminated Soil. *Genome Announcements*, **2014**, 2,		8
54	Strain improvement of Serratia marcescens ECU1010 and medium cost reduction for economic production of lipase. *World Journal of Microbiology and Biotechnology*, **2010**, 26, 537-543	4.4	8
53	Comparison of differently modified Pseudomonascepacia lipases in enantioselective preparation of a chiral alcohol for agrochemical use. *Biocatalysis and Biotransformation*, **2005**, 23, 415-422	2.5	8
52	ASYMMETRIC REDUCTION OF AROMATIC KETONES BY THE BAKER'S YEAST IN ORGANIC SOLVENT SYSTEMS. *Synthetic Communications*, **2001**, 31, 1521-1526	1.7	8
51	A green-by-design system for efficient bio-oxidation of an unnatural hexapyranose into chiral lactone for building statin side-chains. *Catalysis Science and Technology*, **2016**, 6, 7094-7100	5.5	8
50	Enzymatic synthesis of 10-oxostearic acid in high space-time yield via cascade reaction of a new oleate hydratase and an alcohol dehydrogenase. *Journal of Biotechnology*, **2019**, 306S, 100008	3.7	7
49	Reductive Amination of Biobased Levulinic Acid to Unnatural Chiral Amino Acid Using an Engineered Amine Dehydrogenase. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 17054-17061	8.3	7
48	Enhancing the Catalytic Performance of a CYP116B Monooxygenase by Transdomain Combination Mutagenesis. *ChemCatChem*, **2018**, 10, 2962-2968	5.2	7
47	Iterative multitarget evolution dramatically enhances the enantioselectivity and catalytic efficiency of Bacillus subtilis esterase towards bulky benzoate esters of DL-menthol. *Catalysis Science and Technology*, **2016**, 6, 2370-2376	5.5	7

46	Stepwise and combinatorial optimization of enantioselectivity for the asymmetric hydrolysis of 1-(3,4-methylenedioxyphenyl)ethyl acetate under use of a cold-adapted Bacillus amyloliquefaciens esterase. *Biotechnology and Bioprocess Engineering*, **2014**, 19, 442-448	3.1	7
45	Enantioselective Bioamination of Aromatic Alkanes Using Ammonia: A Multienzymatic Cascade Approach. *ChemCatChem*, **2020**, 12, 2077-2082	5.2	6
44	Direct Access to Medium-Chain ω,ω-Dicarboxylic Acids by Using a Baeyer-Villiger Monooxygenase of Abnormal Regioselectivity. *ChemBioChem*, **2018**, 19, 2049-2054	3.8	6
43	Protein engineering for bioreduction of carboxylic acids. *Journal of Biotechnology*, **2019**, 303, 53-64	3.7	6
42	Protein Engineering and Homologous Expression of Serratia marcescens Lipase for Efficient Synthesis of a Pharmaceutically Relevant Chiral Epoxyester. *Applied Biochemistry and Biotechnology* , **2017**, 183, 543-554	3.2	6
41	Efficient Biocatalytic Synthesis of Chiral Chemicals. *Advances in Biochemical Engineering/Biotechnology*, **2016**, 155, 55-106	1.7	6
40	Coevolution of the Activity and Thermostability of an ?-Keto Ester Reductase for Better Synthesis of an (R)-α-Lipoic Acid Precursor. *ChemBioChem*, **2020**, 21, 1341-1346	3.8	6
39	Evolution of Glucose Dehydrogenase for Cofactor Regeneration in Bioredox Processes with Denaturing Agents. *ChemBioChem*, **2020**, 21, 2680-2688	3.8	5
38	Protein engineering of aldolase LbDERA for enhanced activity toward real substrates with a high-throughput screening method coupled with an aldehyde dehydrogenase. *Biochemical and Biophysical Research Communications*, **2017**, 482, 159-163	3.4	5
37	A Smart Library of Epoxide Hydrolase Variants and the Top Hits for Synthesis of (S)-β-Blocker Precursors. *Angewandte Chemie*, **2014**, 126, 6759-6762	3.6	5
36	Separation of enantiopure m-substituted 1-phenylethanols in high space-time yield using Bacillus subtilis esterase. *RSC Advances*, **2013**, 3, 20446	3.7	5
35	Enantioselective Esterification of Racemic Acid Catalyzed by Lipase in a Mixed Solvent Systema. *Annals of the New York Academy of Sciences*, **1998**, 864, 405-408	6.5	5
34	Structural investigation of the enantioselectivity and thermostability mechanisms of esterase RhEst1. *Journal of Molecular Graphics and Modelling*, **2018**, 85, 182-189	2.8	5
33	Efficient Synthesis of Methyl 3-Acetoxypropionate by a Newly Identified Baeyer-Villiger Monooxygenase. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	4
32	Engineering of an oleate hydratase for efficient C10-Functionalization of oleic acid. *Biochemical and Biophysical Research Communications*, **2021**, 537, 64-70	3.4	4
31	Continuous-Flow Microreactor-Enhanced Clean NAD+ Regeneration for Biosynthesis of 7-Oxo-lithocholic Acid. *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 456-463	8.3	4
30	Efficient Transformation of Linoleic Acid into 13(S)-Hydroxy-9,11-(Z,E)-octadecadienoic Acid Using Putative Lipoxygenases from Cyanobacteria. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 5558-5565	8.3	3
29	NADH-dependent lactate dehydrogenase from Alcaligenes eutrophus H16 reduces 2-oxoadipate to 2-hydroxyadipate. *Biotechnology and Bioprocess Engineering*, **2014**, 19, 1048-1057	3.1	3

28	Modified ferric hydroxamate spectrophotometry for assaying glycolic acid from the hydrolysis of glycolonitrile by Rhodococcus sp. CCZU10-1. *Biotechnology and Bioprocess Engineering*, **2011**, 16, 901-907	2.1	3
27	Asymmetric Reductive Amination of Structurally Diverse Ketones with Ammonia Using a Spectrum-Extended Amine Dehydrogenase. *ACS Catalysis*, **2021**, 11, 14274-14283	13.1	3
26	Attenuated substrate inhibition of a haloketone reductase via structure-guided loop engineering. *Journal of Biotechnology*, **2020**, 308, 141-147	3.7	3
25	Reprogramming Epoxide Hydrolase to Improve Enantioconvergence in Hydrolysis of Styrene Oxide Scaffolds. *Advanced Synthesis and Catalysis*, **2020**, 362, 4699-4706	5.6	3
24	Identification two key residues at the intersection of domains of a thioether monooxygenase for improving its sulfoxidation performance. *Biotechnology and Bioengineering*, **2021**, 118, 737-744	4.9	3
23	Design of a self-sufficient hydride-shuttling cascade for concurrent bioproduction of 7,12-dioxolithocholate and L-tert-leucine. *Green Chemistry*, **2021**, 23, 4125-4133	10	3
22	A Single Mutation Increases the Activity and Stability of Pectobacterium carotovorum Nitrile Reductase. *ChemBioChem*, **2018**, 19, 521-526	3.8	3
21	Monoterpene hydroxylation with an artificial self-sufficient P450 utilizing a P450SMO reductase domain for the electron transfer. *Journal of Molecular Catalysis B: Enzymatic*, **2015**, 116, 78-82		2
20	Engineering Bacillus subtilis Isoleucine Dioxygenase for Efficient Synthesis of (2,3,4)-4-Hydroxyisoleucine. *Journal of Agricultural and Food Chemistry*, **2020**, 68, 14555-14563	5.7	2
19	A green-by-design bioprocess for L-carnosine production integrating enzymatic synthesis with membrane separation. *Catalysis Science and Technology*, **2019**, 9, 5971-5978	5.5	2
18	A High-Throughput Screening Method for the Directed Evolution of Hydroxynitrile Lyase towards Cyanohydrin Synthesis. *ChemBioChem*, **2021**, 22, 996-1000	3.8	2
17	Discovery and Engineering of a Novel Baeyer-Villiger Monooxygenase with High Normal Regioselectivity. *ChemBioChem*, **2021**, 22, 1190-1195	3.8	2
16	Improving the Oxygenation Performance of a Cyanobacterial Lipoxygenase by Oxygen Channel Engineering. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 12514-12519	8.3	2
15	Engineering Isopropanol Dehydrogenase for Efficient Regeneration of Nicotinamide Cofactors.. *Applied and Environmental Microbiology*, **2022**, e0034122	4.8	2
14	High throughput solid-phase screening of bacteria with cyclic amino alcohol deamination activity for enantioselective synthesis of chiral cyclic β-amino alcohols. *Biotechnology Letters*, **2020**, 42, 1501-1511	3	1
13	Biocatalytic Processes for the Synthesis of Chiral Alcohols **2016**, 219-250		1
12	Structure-guided engineering of Pseudomonas dacunhael-aspartate β-decarboxylase for l-homophenylalanine synthesis. *Chemical Communications*, **2020**, 56, 13876-13879	5.8	1
11	Random and combinatorial mutagenesis for improved total production of secretory target protein in Escherichia coli. *Scientific Reports*, **2021**, 11, 5290	4.9	1

10	Discovery and Engineering of Bacterial (D)-Isopiperitenol Dehydrogenases to Enhance (D)-Menthol Precursor Biosynthesis. *Advanced Synthesis and Catalysis*, **2021**, 363, 3973-3982	5.6	1
9	Confining Enzyme Clusters in Bacteriophage P22 Enhances Cofactor Recycling and Stereoselectivity for Chiral Alcohol Synthesis. *ACS Catalysis*, **2021**, 11, 10487-10493	13.1	1
8	Biocatalysis, Cofactor Regeneration1		1
7	Protein engineering of thioether monooxygenase to improve its thermostability for enzymatic synthesis of chiral sulfoxide. *Molecular Catalysis*, **2021**, 509, 111625	3.3	0
6	Application of High-Throughput Screening in Biocatalysis **2016**, 53-69		
5	Enhancing the Catalytic Performance of a CYP116B Monooxygenase by Transdomain Combination Mutagenesis. *ChemCatChem*, **2018**, 10, 2927-2927	5.2	
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3	Halogenation/Dehalogenation/Heteroatom Oxidation **2012**, 297-312		
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