Qiaqing Wu

List of Publications by Year
in descending order

69 papers	1,272 citations	361413 20 h-index	434195 31 g-index
74 all docs	74 docs citations	74 times ranked	1221 citing authors

#	Article	IF	Citations
1	Simultaneous engineering of an enzyme's entrance tunnel and active site: the case of monoamine oxidase MAO-N. Chemical Science, 2017, 8, 4093-4099.	7.4	88
2	Efficient reductive desymmetrization of bulky 1,3-cyclodiketones enabled by structure-guided directed evolution of a carbonyl reductase. Nature Catalysis, 2019, 2, 931-941.	34.4	68
3	Deracemization of 2-Methyl-1,2,3,4-Tetrahydroquinoline Using Mutant Cyclohexylamine Oxidase Obtained by Iterative Saturation Mutagenesis. ACS Catalysis, 2014, 4, 903-908.	11.2	51
4	Semiâ€œRational Engineering a Carbonyl Reductase for the Enantioselective Reduction of Î²-Amino Ketones. ACS Catalysis, 2015, 5, 2452-2457.	11.2	46
5	Exploring the synthetic applicability of a new carboxylic acid reductase from Segniliparus rotundus DSM 44985. Journal of Molecular Catalysis B: Enzymatic, 2015, 115, 1-7.	1.8	42
6	An Unprecedented Effective Enzymatic Carboxylation of Phenols. ACS Catalysis, 2016, 6, 564-567.	11.2	42
7	Biocatalytic Access to 1,4-Diazepanes via Imine Reductase-Catalyzed Intramolecular Asymmetric Reductive Amination. ACS Catalysis, 2020, 10, 8780-8787.	11.2	42
8	A Novel <i>meso</i> -Diaminopimelate Dehydrogenase from Symbiobacterium thermophilum: Overexpression, Characterization, and Potential for <scp>d</scp> -Amino Acid Synthesis. Applied and Environmental Microbiology, 2012, 78, 8595-8600.	3.1	40
9	Characterization of new recombinant 3-ketosteroid-Î”1-dehydrogenases for the biotransformation of steroids. Applied Microbiology and Biotechnology, 2017, 101, 6049-6060.	3.6	37
10	Substrate profiling of cyclohexylamine oxidase and its mutants reveals new biocatalytic potential in deracemization of racemic amines. Applied Microbiology and Biotechnology, 2014, 98, 1681-1689.	3.6	32
11	Development of Î²-Amino Acid Dehydrogenase for the Synthesis of Î²-Amino Acids via Reductive Amination of Î²-Keto Acids. ACS Catalysis, 2015, 5, 2220-2224.	11.2	30
12	Engineering the <i>meso</i> -Diaminopimelate Dehydrogenase from Symbiobacterium thermophilum by Site Saturation Mutagenesis for <scp>d</scp> -Phenylalanine Synthesis. Applied and Environmental Microbiology, 2013, 79, 5078-5081.	3.1	29
13	Structural and Mutational Studies on the Unusual Substrate Specificity of <i>meso</i>â€Diaminopimelate Dehydrogenase from <i>Symbiobacterium thermophilum</i>. ChemBioChem, 2014, 15, 217-222.	2.6	29
14	Biocatalytic Route to Chiral 2-Substituted-1,2,3,4-Tetrahydroquinolines Using Cyclohexylamine Oxidase Muteins. ACS Catalysis, 2018, 8, 1648-1652.	11.2	28
15	Imine Reductaseâ€Catalyzed Enantioselective Reduction of Bulky Î±,Î²â€Unsaturated Imines en Route to a Pharmaceutically Important Morphinan Skeleton. Advanced Synthesis and Catalysis, 2019, 361, 556-561.	4.3	28
16	Biocatalytic desymmetrization of 3-substituted glutaronitriles by nitrilases. A convenient chemoenzymatic access to optically active (S)-Pregabalin and (R)-Baclofen. Science China Chemistry, 2014, 57, 1164-1171.	8.2	27
17	Distinct Regioselectivity of Fungal P450 Enzymes for Steroidal Hydroxylation. Applied and Environmental Microbiology, 2019, 85, .	3.1	27
18	Biochemical characterization and substrate profiling of a reversible 2,3-dihydroxybenzoic acid decarboxylase for biocatalytic Kolbe-Schmitt reaction. Enzyme and Microbial Technology, 2018, 113, 37-43.	3.2	26

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19	A Fungal P450 Enzyme from Thanatephorus cucumeris with Steroid Hydroxylation Capabilities. Applied and Environmental Microbiology, 2018, 84, .	3.1	26
20	Biotransformation Enables Innovations Toward Green Synthesis of Steroidal Pharmaceuticals. ChemSusChem, 2022, 15, .	6.8	24
21	Molecular Basis for the High Activity and Enantioselectivity of the Carbonyl Reductase from <i>Sporobolomyces salmonicolor</i> toward Î±-Haloacetophenones. ACS Catalysis, 2018, 8, 3525-3531.	11.2	23
22	Substrate profile of an Ï‰-transaminase from Burkholderia vietnamiensis and its potential for the production of optically pure amines and unnatural amino acids. Journal of Molecular Catalysis B: Enzymatic, 2014, 100, 32-39.	1.8	22
23	Synthesis of Î±,Î²-unsaturated esters via a chemo-enzymatic chain elongation approach by combining carboxylic acid reduction and Wittig reaction. Beilstein Journal of Organic Chemistry, 2015, 11, 2245-2251.	2.2	21
24	Flavin Oxidoreductaseâ€Mediated Regeneration of Nicotinamide Adenine Dinucleotide with Dioxygen and Catalytic Amount of Flavin Mononucleotide for Oneâ€Pot Multiâ€Enzymatic Preparation of Ursodeoxycholic Acid. Advanced Synthesis and Catalysis, 2019, 361, 2497-2504.	4.3	20
25	Biotransformations of steroids to testololactone by a multifunctional strain Penicillium simplicissimum WY134-2. Tetrahedron, 2014, 70, 41-46.	1.9	19
26	Heterologous expression of a GH3 Î²-glucosidase from Neurospora crassa in Pichia pastoris with high purity and its application in the hydrolysis of soybean isoflavone glycosides. Protein Expression and Purification, 2016, 119, 75-84.	1.3	19
27	Structure-Guided Directed Evolution of a Carbonyl Reductase Enables the Stereoselective Synthesis of (2<i>S</i>,3<i>S</i>)-2,2-Disubstituted-3-hydroxycyclopentanones via Desymmetric Reduction. Organic Letters, 2020, 22, 3444-3448.	4.6	19
28	Microbial stereospecific reduction of 3-quinuclidinone with newly isolated Nocardia sp. and Rhodococcus erythropolis. Journal of Molecular Catalysis B: Enzymatic, 2013, 88, 14-19.	1.8	18
29	Structure-guided engineering of<i>meso</i>-diaminopimelate dehydrogenase for enantioselective reductive amination of sterically bulky 2-keto acids. Catalysis Science and Technology, 2018, 8, 4994-5002.	4.1	18
30	Engineering of l-threonine aldolase for the preparation of 4-(methylsulfonyl)phenylserine, an important intermediate for the synthesis of florfenicol and thiamphenicol. Enzyme and Microbial Technology, 2020, 137, 109551.	3.2	17
31	New product identification in the sterol metabolism by an industrial strain Mycobacterium neoaurum NRRL B-3805. Steroids, 2018, 132, 40-45.	1.8	16
32	Asymmetric Synthesis of <i>N</i>â€Substituted 1,2â€Amino Alcohols from Simple Aldehydes and Amines by Oneâ€Pot Sequential Enzymatic Hydroxymethylation and Asymmetric Reductive Amination. Angewandte Chemie - International Edition, 2022, 61, .	13.8	16
33	Efficient Biosynthesis of Ethyl (<i>R</i>)â€3â€Hydroxyglutarate through a Oneâ€Pot Bienzymatic Cascade of Halohydrin Dehalogenase and Nitrilase. ChemCatChem, 2015, 7, 1438-1444.	3.7	15
34	Efficient Biosynthesis of (<i>R</i>)â€•or (<i>S</i>)â€2â€Hydroxybutyrate from <scp>l</scp>â€Threonine through a Synthetic Biology Approach. Advanced Synthesis and Catalysis, 2016, 358, 2923-2928.	4.3	15
35	New recombinant cyclohexylamine oxidase variants for deracemization of secondary amines by orthogonally assaying designed mutants with structurally diverse substrates. Scientific Reports, 2016, 6, 24973.	3.3	15
36	Structural Analysis Reveals the Substrateâ€Binding Mechanism for the Expanded Substrate Specificity of Mutant <i>meso</i>â€Diaminopimelate Dehydrogenase. ChemBioChem, 2015, 16, 924-929.	2.6	14

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37	Enzymatic synthesis of 3-hydroxypropionic acid at high productivity by using free or immobilized cells of recombinant Escherichia coli. Journal of Molecular Catalysis B: Enzymatic, 2016, 129, 37-42.	1.8	14
38	Oneâ€Pot Enzymatic Synthesis of Cyclic Vicinal Diols from Aliphatic Dialdehydes via Intramolecular Câˆ’C Bond Formation and Carbonyl Reduction Using Pyruvate Decarboxylases and Alcohol Dehydrogenases. Advanced Synthesis and Catalysis, 2018, 360, 4191-4196.	4.3	14
39	Inverting the Enantiopreference of Nitrilaseâ€Catalyzed Desymmetric Hydrolysis of Prochiral Dinitriles by Reshaping the Binding Pocket with a Mirrorâ€Image Strategy. Angewandte Chemie - International Edition, 2021, 60, 3679-3684.	13.8	14
40	Improving the catalytic efficiency and stereoselectivity of a nitrilase from <i>Synechocystis</i> sp. PCC6803 by semi-rational engineering en route to chiral Î³-amino acids. Catalysis Science and Technology, 2019, 9, 1504-1510.	4.1	13
41	Synthesis of single stereoisomers of 2,2-disubstituted 3-hydroxycyclohexane-1-ones via enzymatic desymmetric reduction of the 1,3-cyclohexanediones. Green Synthesis and Catalysis, 2021, 2, 320-323.	6.8	12
42	Enzymatic Synthesis of a Key Intermediate for Rosuvastatin by Nitrilaseâ€Catalyzed Hydrolysis of Ethyl (<i>R</i>)â€4â€Cyanoâ€3â€hydroxybutyate at High Substrate Concentration. ChemCatChem, 2015, 7, 271-275.	3.7	11
43	Efficient microbial synthesis of key steroidal intermediates from bio-renewable phytosterols by genetically modified <i>Mycobacterium fortuitum</i> strains. Green Chemistry, 2019, 21, 4076-4083.	9.0	11
44	Highly Efficient Synthesis of Optically Pure (<i>S</i>)â€1â€phenylâ€1,2â€ethanediol by a Selfâ€Sufficient Whole Cell Biocatalyst. ChemistryOpen, 2015, 4, 483-488.	1.9	10
45	Highly Atom Economic Synthesis of <scp>d</scp>â€2â€Aminobutyric Acid through an Inâ€…Vitro Triâ€enzymatic Catalytic System. ChemistryOpen, 2017, 6, 534-540.	1.9	10
46	2,3â€Dihydroxybenzoic Acid Decarboxylase from Fusarium oxysporum : Crystal Structures and Substrate Recognition Mechanism. ChemBioChem, 2020, 21, 2950-2956.	2.6	10
47	Asymmetric Synthesis of <i>N</i>â€Substituted Î³â€Amino Esters and Î³â€Lactams Containing Î±,Î³â€Stereogenic Centers via a Stereoselective Enzymatic Cascade. Advanced Synthesis and Catalysis, 2022, 364, 372-379.	4.3	10
48	Regio- and stereoselective reduction of 17-oxosteroids to 17Î²-hydroxysteroids by a yeast strain Zygowilliopsis sp. WY7905. Steroids, 2017, 118, 17-24.	1.8	9
49	Manipulating the stereoselectivity of a thermostable alcohol dehydrogenase by directed evolution for efficient asymmetric synthesis of arylpropanols. Biological Chemistry, 2019, 400, 313-321.	2.5	9
50	Crystal Structures and Catalytic Mechanism of <scp>l</scp>â€<i>erythro</i>â€3,5â€Diaminohexanoate Dehydrogenase and Rational Engineering for Asymmetric Synthesis of Î²â€Amino Acids. Angewandte Chemie - International Edition, 2021, 60, 10203-10210.	13.8	9
51	Accessing <scp>d</scp>â€Valine Synthesis by Improved Variants of Bacterial Cyclohexylamine Oxidase. ChemCatChem, 2018, 10, 387-390.	3.7	7
52	A sialic acid aldolase from Peptoclostridium difficile NAP08 with 4-hydroxy-2-oxo-pentanoate aldolase activity. Enzyme and Microbial Technology, 2016, 92, 99-106.	3.2	6
53	Chemoenzymatic Stereoselective Synthesis of Substituted Î³â€•or Î´â€lactams with Two Chiral Centers via Transaminaseâ€catalysed Dynamic Kinetic Resolution. ChemCatChem, 2020, 12, 6311-6316.	3.7	6
54	Improving Catalytic Activity and Reversing Enantioâ€Specificity of Ï‰â€Transaminase by Semiâ€Rational Engineering en Route to Chiral Bulky Î²â€Amino Esters. ChemCatChem, 2021, 13, 3396-3400.	3.7	6

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55	A New 3-Ketosteroid-Î”1â€“Dehydrogenase with High Activity and Broad Substrate Scope for Efficient Transformation of Hydrocortisone at High Substrate Concentration. Microorganisms, 2022, 10, 508.	3.6	6
56	Find_tfSBP: find thermodynamics-feasible and smallest balanced pathways with high yield from large-scale metabolic networks. Scientific Reports, 2017, 7, 17334.	3.3	5
57	Stereocomplementary Synthesis of a Key Intermediate for Tofacitinib via Enzymatic Dynamic Kinetic Resolutionâ€Reductive Amination. Advanced Synthesis and Catalysis, 2022, 364, 2380-2386.	4.3	5
58	N-terminal truncation of a maleate cisâ€“trans isomerase from Rhodococcus jostii RHA1 results in a highly active enzyme for the biocatalytic production of fumaric acid. Journal of Molecular Catalysis B: Enzymatic, 2013, 93, 44-50.	1.8	4
59	Enzymatic synthesis of d-alanine from a renewable starting material by co-immobilized dehydrogenases. Process Biochemistry, 2018, 66, 126-132.	3.7	4
60	Highly Diastereoselective Synthesis of 2,2-Disubstituted Cyclopentane-1,3-diols via Stepwise Ketone Reduction Enabling Concise Chirality Construction. Journal of Organic Chemistry, 2020, 85, 9599-9606.	3.2	4
61	Modulating the active site lid of an alcohol dehydrogenase from Ralstonia sp. enabled efficient stereospecific synthesis of 17Î²-hydroxysteroids. Enzyme and Microbial Technology, 2021, 149, 109837.	3.2	4
62	Efficient selective hydrolysis of terephthalonitrile to 4-cyanobenzoic acid catalyzed by a novel nitrilase from Pantoea sp. Process Biochemistry, 2018, 75, 152-156.	3.7	2
63	Asymmetric Synthesis of <i>N</i> â€Substituted 1,2â€Amino Alcohols from Simple Aldehydes and Amines by Oneâ€Pot Sequential Enzymatic Hydroxymethylation and Asymmetric Reductive Amination. Angewandte Chemie, 2022, 134, .	2.0	2
64	Efficient Biosynthesis of Ethyl (R)-3-Hydroxyglutarate through a One-Pot Bienzymatic Cascade of Halohydrin Dehalogenase and Nitrilase. ChemCatChem, 2015, 7, 1389-1389.	3.7	1
65	Inverting the Enantiopreference of Nitrilaseâ€Catalyzed Desymmetric Hydrolysis of Prochiral Dinitriles by Reshaping the Binding Pocket with a Mirrorâ€Image Strategy. Angewandte Chemie, 2021, 133, 3723-3728.	2.0	1
66	Engineering a Carbonyl Reductase for Scalable Preparation of (<i>S</i>)â€3â€Cyclopentylâ€3â€hydroxypropanenitrile, the Key Building Block of Ruxolitinib. ChemBioChem, 2022, 23, .	2.6	1
67	Efficient enzymatic synthesis of (S)-1-(3â€²-bromo-2â€²-methoxyphenyl)ethanol, the key building block of lusutrombopag. Green Synthesis and Catalysis, 2022, , .	6.8	1
68	Crystal Structures and Catalytic Mechanism of l â€•erythro â€3,5â€Diaminohexanoate Dehydrogenase and Rational Engineering for Asymmetric Synthesis of Î²â€Amino Acids. Angewandte Chemie, 2021, 133, 10291-10298.	2.0	0
69	Simultaneous Preparation of (<i>S</i>)-2-Aminobutane and <scp>d</scp>-Alanine or <scp>d</scp>-Homoalanine via Biocatalytic Transamination at High Substrate Concentration. Organic Process Research and Development, 2022, 26, 2013-2020.	2.7	0