Jong-Shik Shin

List of Publications by Year
in descending order

63 papers	2,849 citations	218677 26 h-index	168389 53 g-index
65 all docs	65 docs citations	65 times ranked	2140 citing authors

#	Article	IF	Citations
1	One-pot biosynthesis of aromatic D-amino acids and neuroactive monoamines via enantioselective decarboxylation under in situ product removal using ion exchange resin. Biochemical Engineering Journal, 2022, 185, 108466.	3.6	1
2	Aromatic L-amino acid decarboxylases: mechanistic features and microbial applications. Applied Microbiology and Biotechnology, 2022, 106, 4445-4458.	3.6	7
3	Biocatalytic Decarboxylation of Aromatic l-Amino Acids with In Situ Removal of Both Products for Enhanced Production of Biogenic Amines. Catalysis Letters, 2021, 151, 2996-3003.	2.6	5
4	Biochemical characterization and synthetic application of aromatic l-amino acid decarboxylase from Bacillus atrophaeus. Applied Microbiology and Biotechnology, 2021, 105, 2775-2785.	3.6	10
5	In situ removal of inhibitory products with ion exchange resins for enhanced synthesis of chiral amines using Ï‰-transaminase. Biochemical Engineering Journal, 2020, 162, 107718.	3.6	5
6	The Catalytic Role of RuBisCO for in situ CO2 Recycling in Escherichia coli. Frontiers in Bioengineering and Biotechnology, 2020, 8, 543807.	4.1	9
7	Kinetic Analysis of R-Selective Ï‰-Transaminases for Determination of Intrinsic Kinetic Parameters and Computational Modeling of Kinetic Resolution of Chiral Amine. Applied Biochemistry and Biotechnology, 2020, 191, 92-103.	2.9	2
8	In Vitro and In Vivo One-Pot Deracemization of Chiral Amines by Reaction Pathway Control of Enantiocomplementary Ï‰-Transaminases. ACS Catalysis, 2019, 9, 6945-6954.	11.2	15
9	Rapid and Quantitative Profiling of Substrate Specificity of Ï‰â€Transaminases for Ketones. ChemCatChem, 2019, 11, 3287-3295.	3.7	3
10	Activity Improvements of an Engineered Ï‰-transaminase for Ketones Are Positively Correlated with Those for Cognate Amines. Biotechnology and Bioprocess Engineering, 2019, 24, 176-182.	2.6	3
11	Combinatorial Mutation Analysis of Ï‰â€Transaminase to Create an Engineered Variant Capable of Asymmetric Amination of Isobutyrophenone. Advanced Synthesis and Catalysis, 2019, 361, 2594-2606.	4.3	10
12	One-Pot Preparation of d-Amino Acids Through Biocatalytic Deracemization Using Alanine Dehydrogenase and Ï‰-Transaminase. Catalysis Letters, 2018, 148, 3678-3684.	2.6	15
13	Spectrophotometric assay for sensitive detection of glycerol dehydratase activity using aldehyde dehydrogenase. Journal of Bioscience and Bioengineering, 2017, 123, 528-533.	2.2	2
14	Active Site Engineering of Ï‰-Transaminase Guided by Docking Orientation Analysis and Virtual Activity Screening. ACS Catalysis, 2017, 7, 3752-3762.	11.2	47
15	A facile method to determine intrinsic kinetic parameters of Ï‰-transaminase displaying substrate inhibition. Journal of Molecular Catalysis B: Enzymatic, 2016, 133, S500-S507.	1.8	4
16	Mechanismâ€Guided Engineering of Ï‰â€Transaminase to Accelerate Reductive Amination of Ketones. Advanced Synthesis and Catalysis, 2015, 357, 1732-1740.	4.3	52
17	Expanding Substrate Specificity of Ï‰â€Transaminase by Rational Remodeling of a Large Substrateâ€Binding Pocket. Advanced Synthesis and Catalysis, 2015, 357, 2712-2720.	4.3	35
18	Biocatalytic cascade reactions for asymmetric synthesis of aliphatic amino acids in a biphasic reaction system. Journal of Molecular Catalysis B: Enzymatic, 2015, 121, 9-14.	1.8	23

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19	Preparation of d -threonine by biocatalytic kinetic resolution. Journal of Molecular Catalysis B: Enzymatic, 2015, 122, 227-232.	1.8	10
20	Active-Site Engineering of Ï‰-Transaminase for Production of Unnatural Amino Acids Carrying a Side Chain Bulkier than an Ethyl Substituent. Applied and Environmental Microbiology, 2015, 81, 6994-7002.	3.1	33
21	Deracemization of Amino Acids by Coupling Transaminases of Opposite Stereoselectivity. Advanced Synthesis and Catalysis, 2014, 356, 3505-3509.	4.3	22
22	Active site model of (R)-selective Ï‰-transaminase and its application to the production of d-amino acids. Applied Microbiology and Biotechnology, 2014, 98, 651-660.	3.6	32
23	Structural Determinants for the Nonâ€Canonical Substrate Specificity of the Ï‰â€Transaminase from <i>Paracoccus denitrificans</i>. Advanced Synthesis and Catalysis, 2014, 356, 212-220.	4.3	30
24	Metabolically driven equilibrium shift of asymmetric amination of ketones by Ï‰-transaminase using alanine as an amino donor. Bioscience, Biotechnology and Biochemistry, 2014, 78, 1788-1790.	1.3	7
25	Ï‰-Transaminase from Ochrobactrum anthropi Is Devoid of Substrate and Product Inhibitions. Applied and Environmental Microbiology, 2013, 79, 4141-4144.	3.1	28
26	Ï‰-Transaminase-catalyzed asymmetric synthesis of unnatural amino acids using isopropylamine as an amino donor. Organic and Biomolecular Chemistry, 2013, 11, 6929.	2.8	68
27	Oneâ€Pot Production of Enantiopure Alkylamines and Arylalkylamines of Opposite Chirality Catalyzed by Ï‰â€Transaminase. ChemCatChem, 2013, 5, 1734-1738.	3.7	27
28	Biocatalytic Asymmetric Synthesis of Unnatural Amino Acids through the Cascade Transfer of Amino Groups from Primary Amines onto Keto Acids. ChemCatChem, 2013, 5, 3538-3542.	3.7	34
29	Probing Translation Initiation through Ligand Binding to the 5â€² mRNA Coding Region. ChemBioChem, 2012, 13, 2048-2051.	2.6	0
30	Facile fabrication of vertically aligned TiO2 nanorods with high density and rutile/anatase phases on transparent conducting glasses: high efficiency dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 6131.	6.7	55
31	Graft copolymer templated synthesis of mesoporous MgO/TiO2 mixed oxide nanoparticles and their CO2 adsorption capacities. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 414, 75-81.	4.7	45
32	Ï‰-Transaminase-catalyzed kinetic resolution of chiral amines using l-threonine as an amino acceptor precursor. Green Chemistry, 2012, 14, 2137.	9.0	43
33	Features and technical applications of Ï‰-transaminases. Applied Microbiology and Biotechnology, 2012, 94, 1163-1171.	3.6	179
34	Molecular determinants for substrate selectivity of Ï‰-transaminases. Applied Microbiology and Biotechnology, 2012, 93, 2425-2435.	3.6	63
35	Fabrication of 3D interconnected porous TiO2nanotubes templated by poly(vinyl chloride-g-4-vinyl) Tj ETQq1 1 0.784314 rgBT /Overlo	2.6	10
36	Highly efficient I2-free solid-state dye-sensitized solar cells fabricated with polymerized ionic liquid and graft copolymer-directed mesoporous film. Electrochemistry Communications, 2011, 13, 1349-1352.	4.7	67

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37	Free energy analysis of Ï‰-transaminase reactions to dissect how the enzyme controls the substrate selectivity. Enzyme and Microbial Technology, 2011, 49, 380-387.	3.2	26
38	Oneâ€Pot Conversion of <scp>L</scp>â€Threonine into <scp>L</scp>â€Homoalanine: Biocatalytic Production of an Unnatural Amino Acid from a Natural One. Advanced Synthesis and Catalysis, 2010, 352, 3391-3398.	4.3	63
39	Self-Assembled Nucleic Acid Nanoparticles Capable of Controlled Disassembly in Response to a Single Nucleotide Mismatch. Biomacromolecules, 2010, 11, 1705-1709.	5.4	4
40	Probing the Transition State for Nucleic Acid Hybridization Using Î¦-Value Analysis. Biochemistry, 2010, 49, 3420-3426.	2.5	7
41	Transaminase-catalyzed asymmetric synthesis of l-2-aminobutyric acid from achiral reactants. Biotechnology Letters, 2009, 31, 1595-1599.	2.2	43
42	Construction of intragenic synthetic riboswitches for detection of a small molecule. Biotechnology Letters, 2009, 31, 1577-1581.	2.2	12
43	Single-fluorophore monitoring of DNA hybridization for investigating the effect of secondary structure on the nucleation step. Biochemical and Biophysical Research Communications, 2009, 385, 88-93.	2.1	7
44	Viscous Drag as the Source of Active Site Perturbation during Protease Translocation: Insights into how Inhibitory Processes are Controlled by Serpin Metastability. Journal of Molecular Biology, 2006, 359, 378-389.	4.2	5
45	Misfolding-assisted Selection of Stable Protein Variants Using Phage Displays. BMB Reports, 2006, 39, 55-60.	2.4	2
46	A Synthetic DNA Walker for Molecular Transport. Journal of the American Chemical Society, 2004, 126, 10834-10835.	13.7	720
47	Rewritable Memory by Controllable Nanopatterning of DNA. Nano Letters, 2004, 4, 905-909.	9.1	47
48	Kinetic Dissection of Î±1-Antitrypsin Inhibition Mechanism. Journal of Biological Chemistry, 2002, 277, 11629-11635.	3.4	18
49	Exploring the Active Site of Amine:Pyruvate Aminotransferase on the Basis of the Substrate Structureâˆ'Reactivity Relationship:Â How the Enzyme Controls Substrate Specificity and Stereoselectivity. Journal of Organic Chemistry, 2002, 67, 2848-2853.	3.2	147
50	Substrate inhibition mode of ?-transaminase fromVibrio fluvialis JS17 is dependent on the chirality of substrate. Biotechnology and Bioengineering, 2002, 77, 832-837.	3.3	49
51	Revisiting the effect of water content on enzymatic peptide synthesis in non-aqueous medium. Biotechnology Letters, 2002, 24, 1903-1905.	2.2	1
52	Comparison of the Ï‰-Transaminases from Different Microorganisms and Application to Production of Chiral Amines. Bioscience, Biotechnology and Biochemistry, 2001, 65, 1782-1788.	1.3	101
53	Kinetic resolution of chiral amines using packed-bed reactor. Enzyme and Microbial Technology, 2001, 29, 232-239.	3.2	57
54	Kinetic resolution of chiral amines with ?-transaminase using an enzyme-membrane reactor. Biotechnology and Bioengineering, 2001, 73, 179-187.	3.3	86

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55	Improving lipase enantioselectivity in organic solvents by forming substrate salts with chiral agents. Biotechnology and Bioengineering, 2000, 69, 577-583.	3.3	18
56	Protease-catalyzed tripeptide (RGD) synthesis. Enzyme and Microbial Technology, 2000, 26, 108-114.	3.2	19
57	Modeling of the kinetic resolution of Î±-methylbenzylamine with Ï‰-transaminase in a two-liquid-phase system. Enzyme and Microbial Technology, 1999, 25, 426-432.	3.2	8
58	Asymmetric synthesis of chiral amines with ?-transaminase. Biotechnology and Bioengineering, 1999, 65, 206-211.	3.3	188
59	Asymmetric synthesis of chiral amines with Ï‰-transaminase. Biotechnology and Bioengineering, 1999, 65, 206.	3.3	4
60	Kinetic modeling of Ï‰-transamination for enzymatic kinetic resolution of Î±-methylbenzylamine. Biotechnology and Bioengineering, 1998, 60, 534-540.	3.3	99
61	Kinetic modeling of Ï‰-transamination for enzymatic kinetic resolution of Î±-methylbenzylamine. , 1998, 60, 534.		1
62	Kinetic resolution of Î±-methylbenzylamine with Î¿-transaminase screened from soil microorganisms: Application of a biphasic system to overcome product inhibition. Biotechnology and Bioengineering, 1997, 55, 348-358.	3.3	111
63	Optical Resolution of Racemic 1-Phenylethylamine Catalyzed by Aminotransferase and Dehydrogenase. Annals of the New York Academy of Sciences, 1996, 799, 717-724.	3.8	5