## Hyungdon Yun

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6762450/publications.pdf

Version: 2024-02-01

		126708	155451
112	3,727	33	55
papers	citations	h-index	g-index
116	116	116	3111
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	ï‰-Transaminases for the Production of Optically Pure Amines and Unnatural Amino Acids. ACS Catalysis, 2012, 2, 993-1001.	5.5	264
2	Apple Flavonoid Phloretin Inhibits Escherichia coli O157:H7 Biofilm Formation and Ameliorates Colon Inflammation in Rats. Infection and Immunity, 2011, 79, 4819-4827.	1.0	180
3	Oxidoreductase-Catalyzed Synthesis of Chiral Amines. ACS Catalysis, 2018, 8, 10985-11015.	5.5	150
4	Recent Advances in I‰-Transaminase-Mediated Biocatalysis for the Enantioselective Synthesis of Chiral Amines. Catalysts, 2018, 8, 254.	1.6	139
5	Versatile biocatalysis of fungal cytochrome P450 monooxygenases. Microbial Cell Factories, 2016, 15, 125.	1.9	132
6	Revisit of aminotransferase in the genomic era and its application to biocatalysis. Journal of Molecular Catalysis B: Enzymatic, 2005, 37, 47-55.	1.8	122
7	ï‰-Amino Acid:Pyruvate Transaminase from Alcaligenes denitrificans Y2k-2: a New Catalyst for Kinetic Resolution of β-Amino Acids and Amines. Applied and Environmental Microbiology, 2004, 70, 2529-2534.	1.4	92
8	In Vivo Residueâ€Specific Dopaâ€Incorporated Engineered Mussel Bioglue with Enhanced Adhesion and Water Resistance. Angewandte Chemie - International Edition, 2014, 53, 13360-13364.	7.2	88
9	Kinetic resolution of (R,S)-sec-butylamine using omega-transaminase fromVibrio fluvialis JS17 under reduced pressure. Biotechnology and Bioengineering, 2004, 87, 772-778.	1.7	75
10	Cloning and Characterization of a Novel $\hat{I}^2$ -Transaminase from Mesorhizobium sp. Strain LUK: a New Biocatalyst for the Synthesis of Enantiomerically Pure $\hat{I}^2$ -Amino Acids. Applied and Environmental Microbiology, 2007, 73, 1772-1782.	1.4	70
11	Unnatural amino acid mutagenesis-based enzyme engineering. Trends in Biotechnology, 2015, 33, 462-470.	4.9	66
12	Use of Enrichment Culture for Directed Evolution of the Vibrio fluvialis JS17 i‰-Transaminase, Which Is Resistant to Product Inhibition by Aliphatic Ketones. Applied and Environmental Microbiology, 2005, 71, 4220-4224.	1.4	64
13	Biochemical characterization of thermostable $\ddot{l}$ %-transaminase from Sphaerobacter thermophilus and its application for producing aromatic $\hat{l}^2$ - and $\hat{l}^3$ -amino acids. Enzyme and Microbial Technology, 2016, 87-88, 52-60.	1.6	64
14	Bioconversion of p-coumaric acid to p-hydroxystyrene using phenolic acid decarboxylase from B. amyloliquefaciens in biphasic reaction system. Applied Microbiology and Biotechnology, 2013, 97, 1501-1511.	1.7	62
15	Recent Advances in Biocatalysis with Chemical Modification and Expanded Amino Acid Alphabet. Chemical Reviews, 2021, 121, 6173-6245.	23.0	62
16	Kinetic resolution of aromatic $\hat{l}^2$ -amino acids by $\ddot{l}$ %-transaminase. Chemical Communications, 2011, 47, 5894.	2.2	59
17	Fungal cytochrome P450 monooxygenases of Fusarium oxysporum for the synthesis of i‰-hydroxy fatty acids in engineered Saccharomyces cerevisiae. Microbial Cell Factories, 2015, 14, 45.	1.9	56
18	Development of a Selective, Sensitive, and Reversible Biosensor by the Genetic Incorporation of a Metalâ€Binding Site into Green Fluorescent Protein. Angewandte Chemie - International Edition, 2011, 50, 6534-6537.	7.2	55

#	Article	IF	CITATIONS
19	One-pot one-step deracemization of amines using ï‰-transaminases. Chemical Communications, 2013, 49, 8629.	2.2	52
20	Asymmetric Synthesis of ( <i>S</i> )-î±-Methylbenzylamine by Recombinant <i>Escherichia coli</i> Co-Expressing Omega-Transaminase and Acetolactate Synthase. Bioscience, Biotechnology and Biochemistry, 2008, 72, 3030-3033.	0.6	49
21	Bioconjugation of <scp>l</scp> -3,4-Dihydroxyphenylalanine Containing Protein with a Polysaccharide. Bioconjugate Chemistry, 2011, 22, 551-555.	1.8	49
22	Simultaneous synthesis of enantiomerically pure (R)-1-phenylethanol and (R)-alpha-methylbenzylamine from racemic alpha-methylbenzylamine using omega-transaminase/alcohol dehydrogenase/glucose dehydrogenase coupling reaction. Biotechnology Letters, 2003, 25, 809-814.	1.1	43
23	Deracemization of unnatural amino acid: homoalanine using d-amino acid oxidase and ï‰-transaminase. Organic and Biomolecular Chemistry, 2012, 10, 2482.	1.5	43
24	Incorporating unnatural amino acids to engineer biocatalysts for industrial bioprocess applications. Biotechnology Journal, 2015, 10, 1862-1876.	1.8	43
25	Deracemization of Racemic Amines to Enantiopure ( <i>R</i> )―and ( <i>S</i> )â€amines by Biocatalytic Cascade Employing ωâ€Transaminase and Amine Dehydrogenase. ChemCatChem, 2019, 11, 1898-1902.	1.8	42
26	Cloning, expression and characterization of CYP102D1, a selfâ€sufficient P450 monooxygenase from <i>Streptomycesâ€favermitilis</i> . FEBS Journal, 2012, 279, 1650-1662.	2.2	40
27	Enhancing Thermostability and Organic Solvent Tolerance of ωâ€Transaminase through Global Incorporation of Fluorotyrosine. Advanced Synthesis and Catalysis, 2014, 356, 993-998.	2.1	40
28	Engineering Transaminase for Stability Enhancement and Siteâ€Specific Immobilization through Multiple Noncanonical Amino Acids Incorporation. ChemCatChem, 2015, 7, 417-421.	1.8	40
29	Simultaneous synthesis of enantiomerically pure (S)-amino acids and (R)-amines using coupled transaminase reactions. Biotechnology and Bioengineering, 2003, 81, 783-789.	1.7	38
30	Parallel anti-sense two-step cascade for alcohol amination leading to low-amino fatty acids and low-diamines. Green Chemistry, 2018, 20, 4591-4595.	4.6	38
31	Stereospecific Synthesis of (R)-2-Hydroxy Carboxylic Acids Using Recombinant E. coli BL21 Overexpressing YiaE from Escherichia coli K12 and Glucose Dehydrogenase from Bacillus subtilis. Biotechnology Progress, 2008, 21, 366-371.	1.3	37
32	Synthesis of enantiomerically puretrans- $(1R,2R)$ - and cis- $(1S,2R)$ -1-amino-2-indanol by lipase and liw-transaminase. Biotechnology and Bioengineering, 2006, 93, 391-395.	1.7	36
33	Biosynthesis of Medium- to Long-Chain α,ï‰-Diols from Free Fatty Acids Using CYP153A Monooxygenase, Carboxylic Acid Reductase, and E. coli Endogenous Aldehyde Reductases. Catalysts, 2018, 8, 4.	1.6	35
34	Enzymatic synthesis of sitagliptin intermediate using a novel ï‰-transaminase. Enzyme and Microbial Technology, 2019, 120, 52-60.	1.6	34
35	Engineering Protein Sequence Composition for Folding Robustness Renders Efficient Noncanonical Amino acid Incorporations. ChemBioChem, 2010, 11, 2521-2524.	1.3	33
36	Production of chiral $\hat{l}^2$ -amino acids using $\ddot{l}$ %-transaminase from Burkholderia graminis. Journal of Biotechnology, 2015, 196-197, 1-8.	1.9	33

#	Article	IF	Citations
37	Identification of novel thermostable ï‰-transaminase and its application for enzymatic synthesis of chiral amines at high temperature. RSC Advances, 2016, 6, 69257-69260.	1.7	33
38	Biosynthesis of the Nylon 12 Monomer, ï‰â€Aminododecanoic Acid with Novel CYP153A, AlkJ, and ï‰â€TA Enzymes. Biotechnology Journal, 2018, 13, e1700562.	1.8	33
39	Asymmetric synthesis of aromatic βâ€amino acids using ωâ€transaminase: Optimizing the lipase concentration to obtain thermodynamically unstable βâ€keto acids. Biotechnology Journal, 2016, 11, 185-190.	1.8	32
40	Chemical modification of enzymes to improve biocatalytic performance. Biotechnology Advances, 2021, 53, 107868.	6.0	32
41	Simultaneously Enhancing the Stability and Catalytic Activity of Multimeric Lysine Decarboxylase CadA by Engineering Interface Regions for Enzymatic Production of Cadaverine at High Concentration of Lysine. Biotechnology Journal, 2017, 12, 1700278.	1.8	30
42	Biocatalyzed Câ^'C Bond Formation for the Production of Alkaloids. ChemCatChem, 2018, 10, 4783-4804.	1.8	30
43	Asymmetric synthesis of l-tert-leucine and l-3-hydroxyadamantylglycine using branched chain aminotransferase. Journal of Molecular Catalysis B: Enzymatic, 2010, 66, 228-233.	1.8	29
44	Engineering class I cytochrome P450 by gene fusion with NADPH-dependent reductase and S. avermitilis host development for daidzein biotransformation. Applied Microbiology and Biotechnology, 2014, 98, 8191-8200.	1.7	28
45	Engineering thermal properties of elastin-like polypeptides by incorporation of unnatural amino acids in a cell-free protein synthesis system. Biotechnology and Bioprocess Engineering, 2015, 20, 417-422.	1.4	28
46	Production of ï‰-hydroxy palmitic acid using CYP153A35 and comparison of cytochrome P450 electron transfer system in vivo. Applied Microbiology and Biotechnology, 2016, 100, 10375-10384.	1.7	28
47	A New-Generation Fluorescent-Based Metal Sensor – iLOV Protein. Journal of Microbiology and Biotechnology, 2015, 25, 503-510.	0.9	25
48	Improved NADPH Regeneration for Fungal Cytochrome P450 Monooxygenase by Co-Expressing Bacterial Glucose Dehydrogenase in Resting-Cell Biotransformation of Recombinant Yeast. Journal of Microbiology and Biotechnology, 2016, 26, 2076-2086.	0.9	25
49	A facile and efficient method for the incorporation of multiple unnatural amino acids into a single protein. Chemical Communications, 2011, 47, 3430.	2.2	24
50	Enzymatic synthesis of chiral $\hat{I}^3$ -amino acids using $\ddot{I}$ %-transaminase. Chemical Communications, 2014, 50, 12680-12683.	2.2	24
51	Biotransformation of $\hat{l}^2$ -keto nitriles to chiral (S)- $\hat{l}^2$ -amino acids using nitrilase and $l$ %-transaminase. Biotechnology Letters, 2017, 39, 535-543.	1.1	24
52	Simultaneous synthesis of enantiomerically pure (S)-amino acids and (R)-amines using $\hat{l}\pm\hat{l}$ %-aminotransferase coupling reactions with two-liquid phase reaction system. Journal of Molecular Catalysis B: Enzymatic, 2003, 26, 273-285.	1.8	22
53	Engineering of daidzein 3'-hydroxylase P450 enzyme into catalytically self-sufficient cytochrome P450. Microbial Cell Factories, 2012, 11, 81.	1.9	22
54	High throughput screening methods for ω-transaminases. Biotechnology and Bioprocess Engineering, 2013, 18, 1-7.	1.4	22

#	Article	IF	Citations
55	Engineering an FMN-based iLOV protein for the detection of arsenic ions. Analytical Biochemistry, 2017, 525, 38-43.	1.1	22
56	Recent Advances in Enzyme Engineering through Incorporation of Unnatural Amino Acids. Biotechnology and Bioprocess Engineering, 2019, 24, 592-604.	1.4	21
57	FMN-Based Fluorescent Proteins as Heavy Metal Sensors Against Mercury Ions. Journal of Microbiology and Biotechnology, 2016, 26, 530-539.	0.9	21
58	Kinetic resolution of α-methylbenzylamine by recombinant Pichia pastoris expressing ω-transaminase. Biotechnology and Bioprocess Engineering, 2010, 15, 429-434.	1.4	20
59	Asymmetric synthesis of (R)-3-fluoroalanine from 3-fluoropyruvate using omega-transaminase. Biotechnology and Bioprocess Engineering, 2011, 16, 291-296.	1.4	20
60	Construction of a high efficiency copper adsorption bacterial system via peptide display and its application on copper dye polluted wastewater. Bioprocess and Biosystems Engineering, 2015, 38, 2077-2084.	1.7	20
61	An Integrated Cofactor/Coâ€Product Recycling Cascade for the Biosynthesis of Nylon Monomers from Cycloalkylamines. Angewandte Chemie - International Edition, 2021, 60, 3481-3486.	7.2	19
62	One-pot biocatalytic synthesis of nylon monomers from cyclohexanol using <i>Escherichia coli </i> li>-based concurrent cascade consortia. Green Chemistry, 2021, 23, 9447-9453.	4.6	19
63	Enhancing the biophysical properties of mRFP1 through incorporation of fluoroproline. Biochemical and Biophysical Research Communications, 2013, 440, 509-514.	1.0	18
64	Biosynthesis of Nylon 12 Monomer, ω-Aminododecanoic Acid Using Artificial Self-Sufficient P450, AlkJ and ω-TA. Catalysts, 2018, 8, 400.	1.6	18
65	Biosynthetic substitution of tyrosine in green fluorescent protein with its surrogate fluorotyrosine in Escherichia coli. Biotechnology Letters, 2011, 33, 2201-2207.	1.1	17
66	Comparative functional characterization of a novel benzoate hydroxylase cytochrome P450 of Fusarium oxysporum. Enzyme and Microbial Technology, 2015, 70, 58-65.	1.6	17
67	Temperature sensing using red fluorescent protein. Biotechnology and Bioprocess Engineering, 2015, 20, 67-72.	1.4	17
68	The Kinetic Resolution of Racemic Amines Using a Whole-Cell Biocatalyst Co-Expressing Amine Dehydrogenase and NADH Oxidase. Catalysts, 2017, 7, 251.	1.6	17
69	Enzymatic Synthesis of L-tert-Leucine with Branched Chain Aminotransferase. Journal of Microbiology and Biotechnology, 2011, 21, 1049-1052.	0.9	17
70	Multi-enzymatic cascade reactions with <i>Escherichia coli</i> based modules for synthesizing various bioplastic monomers from fatty acid methyl esters. Green Chemistry, 2022, 24, 2222-2231.	4.6	17
71	Comparison of P aprE , P amyE , and P P43 promoter strength for $\hat{l}^2$ -galactosidase and staphylokinase expression in Bacillus subtilis. Biotechnology and Bioprocess Engineering, 2008, 13, 313-318.	1.4	16
72	Manganese and cobalt recovery by surface display of metal binding peptide on various loops of OmpC in <i>Escherichia coli</i> . Journal of Industrial Microbiology and Biotechnology, 2018, 45, 31-41.	1.4	16

#	Article	IF	Citations
73	Production of 12-hydroxy dodecanoic acid methyl ester using a signal peptide sequence-optimized transporter AlkL and a novel monooxygenase. Bioresource Technology, 2019, 291, 121812.	4.8	16
74	Glutamate as an Efficient Amine Donor for the Synthesis of Chiral β―and γâ€Amino Acids Using Transaminase. ChemCatChem, 2019, 11, 1437-1440.	1.8	16
75	Kinetic Resolution of Racemic Amines to Enantiopure (S)-amines by a Biocatalytic Cascade Employing Amine Dehydrogenase and Alanine Dehydrogenase. Catalysts, 2019, 9, 600.	1.6	15
76	Evaluation and biosynthetic incorporation of chlorotyrosine into recombinant proteins. Biotechnology and Bioprocess Engineering, 2012, 17, 679-686.	1.4	14
77	Kinetic resolution of amines by (R)-selective omega-transaminase from Mycobacterium vanbaalenii. Journal of Industrial and Engineering Chemistry, 2015, 23, 128-133.	2.9	14
78	Protein engineering for covalent immobilization and enhanced stability through incorporation of multiple noncanonical amino acids. Biotechnology and Bioprocess Engineering, 2017, 22, 248-255.	1.4	14
79	Structural dynamics of the transaminase active site revealed by the crystal structure of a co-factor free omega-transaminase from Vibrio fluvialis JS17. Scientific Reports, 2018, 8, 11454.	1.6	14
80	Engineering lead-sensing GFP through rational designing. Chemical Communications, 2014, 50, 15979-15982.	2.2	13
81	Translational incorporation of multiple unnatural amino acids in a cell-free protein synthesis system. Biotechnology and Bioprocess Engineering, 2014, 19, 426-432.	1.4	13
82	Enzymatic production of (R)-phenylacetylcarbinol by pyruvate decarboxylase from Zymomonas mobilis. Biotechnology and Bioprocess Engineering, 2008, 13, 372-376.	1.4	12
83	Lightâ€Triggered In Situ Biosynthesis of Artificial Melanin for Skin Protection. Advanced Science, 2022, 9, e2103503.	5.6	12
84	Crystallization and preliminary X-ray crystallographic studies of omega-transaminase from <i>Vibrio fluvialis</i> S17. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 923-925.	0.7	11
85	Discovery of Novel Pseudomonas putida Flavin-Binding Fluorescent Protein Variants with Significantly Improved Quantum Yield. Journal of Agricultural and Food Chemistry, 2020, 68, 5873-5879.	2.4	11
86	Promoter engineeringâ€mediated Tuning of esterase and transaminase expression for the chemoenzymatic synthesis of sitagliptin phosphate at the kilogramâ€scale. Biotechnology and Bioengineering, 2021, 118, 3263-3268.	1.7	11
87	Development of Colorimetric HTS Assay of Cytochrome P450 for ⟨i⟩ortho⟨ i⟩â€6pecific Hydroxylation, and Engineering of CYP102D1 with Enhanced Catalytic Activity and Regioselectivity. ChemBioChem, 2013, 14, 1231-1238.	1.3	9
88	Evaluating the role of puckering and fluorine atom in stability and folding of fluoroproline containing proteins. Biotechnology and Bioprocess Engineering, 2017, 22, 504-511.	1.4	9
89	<i>In vivo</i> biosynthesis of tyrosine analogs and their concurrent incorporation into a residue-specific manner for enzyme engineering. Chemical Communications, 2019, 55, 15133-15136.	2.2	9
90	Synthesis of Sitagliptin Intermediate by a Multi-Enzymatic Cascade System Using Lipase and Transaminase With Benzylamine as an Amino Donor. Frontiers in Bioengineering and Biotechnology, 2021, 9, 757062.	2.0	9

#	Article	IF	Citations
91	Non-Canonical Amino Acid-Based Engineering of (R)-Amine Transaminase. Frontiers in Chemistry, 2022, 10, 839636.	1.8	9
92	Synthesis of Enantiopure (S)-2-Hydroxyphenylbutanoic Acid Using Novel Hydroxy Acid Dehydrogenase from Enterobacter sp. BK2K. Biotechnology Progress, 2008, 23, 606-612.	1.3	8
93	Novel iron–sulfur containing NADPHâ€Reductase from <i>Nocardia farcinica</i> IFM10152 and fusion construction with CYP51 lanosterol demethylase. Biotechnology and Bioengineering, 2012, 109, 630-636.	1.7	8
94	Enzymatic Synthesis of Aliphatic Primary ω-Amino Alcohols from ω-Amino Fatty Acids by Carboxylic Acid Reductase. Catalysis Letters, 2020, 150, 3079-3085.	1.4	8
95	Deletional Protein Engineering Based on Stable Fold. PLoS ONE, 2012, 7, e51510.	1.1	8
96	Kinetic Resolution of 3-Fluoroalanine Using a Fusion Protein of <scp>D &lt; /scp&gt;-Amino Acid Oxidase with <i>Vitroscilla &lt; /i&gt;Hemoglobin. Bioscience, Biotechnology and Biochemistry, 2011, 75, 820-822.</i></scp>	0.6	7
97	Structural basis of substrate recognition by a novel thermostable (S)-enantioselective ï‰-transaminase from Thermomicrobium roseum. Scientific Reports, 2019, 9, 6958.	1.6	7
98	Reassignment of sense codons: Designing and docking of proline analogs for Escherichia coli prolyl-tRNA synthetase to expand the genetic code. Journal of Molecular Catalysis B: Enzymatic, 2012, 78, 57-64.	1.8	6
99	An in silico approach to evaluate the polyspecificity of methionyl-tRNA synthetases. Journal of Molecular Graphics and Modelling, 2013, 39, 79-86.	1.3	6
100	Enzymatic Synthesis of i‰-Hydroxydodecanoic Acid By Employing a Cytochrome P450 from Limnobacter sp. 105 MED. Catalysts, 2019, 9, 54.	1.6	6
101	An Integrated Cofactor/Coâ€Product Recycling Cascade for the Biosynthesis of Nylon Monomers from Cycloalkylamines. Angewandte Chemie, 2021, 133, 3523-3528.	1.6	6
102	A multi-enzyme cascade reaction for the production of $\hat{l}\pm, \hat{l}\%$ -dicarboxylic acids from free fatty acids. Journal of Industrial and Engineering Chemistry, 2021, 98, 358-365.	2.9	6
103	The Reductive Amination of Carbonyl Compounds Using Native Amine Dehydrogenase from Laribacter hongkongensis. Biotechnology and Bioprocess Engineering, 2021, 26, 384-391.	1.4	6
104	To the Final Goal: Can We Predict and Suggest Mutations for Protein to Develop Desired Phenotype?. Biotechnology and Bioprocess Engineering, 2018, 23, 134-143.	1.4	5
105	Crystallization and preliminary X-ray crystallographic studies of $\hat{l}^2$ -transaminase from <i>Mesorhizobium </i> sp. strain LUK. Acta Crystallographica Section F: Structural Biology Communications, 2011, 67, 231-233.	0.7	4
106	Ortho-hydroxylation of mammalian lignan enterodiol by cytochrome P450s from Actinomycetes sp Korean Journal of Chemical Engineering, 2015, 32, 471-477.	1.2	4
107	Characterization of ELP-fused lemma 1%-Transaminase and Its Application for the Biosynthesis of $\hat{l}^2$ -Amino Acid. Biotechnology and Bioprocess Engineering, 2018, 23, 481-489.	1.4	4
108	Asymmetric synthesis of <scp>I</scp> -6-hydroxynorleucine from 2-keto-6-hydroxyhexanoic acid using a branched-chain aminotransferase. Biocatalysis and Biotransformation, 2012, 30, 171-176.	1.1	2

#	Article	IF	CITATIONS
109	Improving the Stability and Activity of Arginine Decarboxylase at Alkaline pH for the Production of Agmatine. Frontiers in Catalysis, 2021, $1$ , .	1.8	2
110	Comparative analysis of polyspecificity of the endogenous tRNA synthetase of different expression host towards photocrosslinking amino acids using an in silico approach. Journal of Molecular Graphics and Modelling, 2017, 75, 375-382.	1.3	1
111	Frontispiece: In Vivo Residue-Specific Dopa-Incorporated Engineered Mussel Bioglue with Enhanced Adhesion and Water Resistance. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a.	7.2	O
112	Frontispiz: In Vivo Residue-Specific Dopa-Incorporated Engineered Mussel Bioglue with Enhanced Adhesion and Water Resistance. Angewandte Chemie, 2014, 126, n/a-n/a.	1.6	0