Jin-Byung Park

List of Publications by Year
in descending order

82 papers	2,484 citations	172457 29 h-index	223800 46 g-index
86 all docs	86 docs citations	86 times ranked	1787 citing authors

#	Article	IF	Citations
1	Multistep Enzymatic Synthesis of Longâ€Chain Î±,Ï‰â€Dicarboxylic and Ï‰â€Hydroxycarboxylic Acids from Renewable Fatty Acids and Plant Oils. Angewandte Chemie - International Edition, 2013, 52, 2534-2537.	13.8	186
2	Microbial Synthesis of Mediumâ€Chain Î±,Ï‰â€Dicarboxylic Acids and Ï‰â€Aminocarboxylic Acids from Renewable Longâ€Chain Fatty Acids. Advanced Synthesis and Catalysis, 2014, 356, 1782-1788.	4.3	108
3	The efficiency of recombinantEscherichia coli as biocatalyst for stereospecific epoxidation. Biotechnology and Bioengineering, 2006, 95, 501-512.	3.3	102
4	Enhanced production of É›-caprolactone by overexpression of NADPH-regenerating glucose 6-phosphate dehydrogenase in recombinant Escherichia coli harboring cyclohexanone monooxygenase gene. Applied Microbiology and Biotechnology, 2007, 76, 329-338.	3.6	82
5	Production of 10-hydroxystearic acid from oleic acid by whole cells of recombinant Escherichia coli containing oleate hydratase from Stenotrophomonas maltophilia. Journal of Biotechnology, 2012, 158, 17-23.	3.8	80
6	NADH Availability Limits Asymmetric Biocatalytic Epoxidation in a Growing Recombinant <i>Escherichia coli</i> Strain. Applied and Environmental Microbiology, 2008, 74, 1436-1446.	3.1	74
7	Carbon metabolism and product inhibition determine the epoxidation efficiency of solvent-tolerantPseudomonas sp. strain VLB120Î”C. Biotechnology and Bioengineering, 2007, 98, 1219-1229.	3.3	66
8	Adding value to plant oils and fatty acids: Biological transformation of fatty acids into Ï‰-hydroxycarboxylic, Î±,Ï‰-dicarboxylic, and Ï‰-aminocarboxylic acids. Journal of Biotechnology, 2015, 216, 158-166.	3.8	63
9	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
10	Biotransformation of Linoleic Acid into Hydroxy Fatty Acids and Carboxylic Acids Using a Linoleate Double Bond Hydratase as Key Enzyme. Advanced Synthesis and Catalysis, 2015, 357, 408-416.	4.3	58
11	Photobiocatalytic synthesis of chiral secondary fatty alcohols from renewable unsaturated fatty acids. Nature Communications, 2020, 11, 2258.	12.8	58
12	A biosynthetic pathway for hexanoic acid production in Kluyveromyces marxianus. Journal of Biotechnology, 2014, 182-183, 30-36.	3.8	56
13	Enzyme/whole-cell biotransformation of plant oils, yeast derived oils, and microalgae fatty acid methyl esters into n-nonanoic acid, 9-hydroxynonanoic acid, and 1,9-nonanedioic acid. Bioresource Technology, 2018, 251, 288-294.	9.6	55
14	Ethanol reduces mitochondrial membrane integrity and thereby impacts carbon metabolism of Saccharomyces cerevisiae. FEMS Yeast Research, 2012, 12, 675-684.	2.3	53
15	Simultaneous Enzyme/Whole-Cell Biotransformation of Plant Oils into C9 Carboxylic Acids. ACS Catalysis, 2016, 6, 7547-7553.	11.2	53
16	Bioprocess engineering to produce 10-hydroxystearic acid from oleic acid by recombinant Escherichia coli expressing the oleate hydratase gene of Stenotrophomonas maltophilia. Process Biochemistry, 2012, 47, 941-947.	3.7	50
17	Recent progress in development of synthetic biology platforms and metabolic engineering of Corynebacterium glutamicum. Journal of Biotechnology, 2014, 180, 43-51.	3.8	49
18	Production of Ï‰-hydroxyundec-9-enoic acid and n-heptanoic acid from ricinoleic acid by recombinant Escherichia coli-based biocatalyst. Process Biochemistry, 2014, 49, 617-622.	3.7	45

#	Article	IF	Citations
19	Enzyme fusion for whole-cell biotransformation of long-chain sec-alcohols into esters. Applied Microbiology and Biotechnology, 2015, 99, 6267-6275.	3.6	44
20	High temperature stimulates acetic acid accumulation and enhances the growth inhibition and ethanol production by Saccharomyces cerevisiae under fermenting conditions. Applied Microbiology and Biotechnology, 2014, 98, 6085-6094.	3.6	43
21	Chemo-enzymatic synthesis of 11-hydroxyundecanoic acid and 1,11-undecanedioic acid from ricinoleic acid. Green Chemistry, 2016, 18, 1089-1095.	9.0	40
22	Design and engineering of whole-cell biocatalytic cascades for the valorization of fatty acids. Catalysis Science and Technology, 2020, 10, 46-64.	4.1	38
23	Engineering of Baeyer-Villiger monooxygenase-based Escherichia coli biocatalyst for large scale biotransformation of ricinoleic acid into (Z)-11-(heptanoyloxy)undec-9-enoic acid. Scientific Reports, 2016, 6, 28223.	3.3	37
24	Combined Biocatalytic and Chemical Transformations of Oleic Acid to Ï‰â€Hydroxynonanoic Acid and Î±,Ï‰â€Nonanedioic Acid. Advanced Synthesis and Catalysis, 2016, 358, 3084-3092.	4.3	35
25	Multilayer Engineering of Enzyme Cascade Catalysis for One-Pot Preparation of Nylon Monomers from Renewable Fatty Acids. ACS Catalysis, 2020, 10, 4871-4878.	11.2	35
26	Production of xylitol from d-xylose and glucose with recombinant Corynebacterium glutamicum. Enzyme and Microbial Technology, 2010, 46, 366-371.	3.2	33
27	Simultaneous Enzyme/Wholeâ€Cell Biotransformation of C18 Ricinoleic Acid into (<i>R</i>)â€3â€Hydroxynonanoic Acid, 9â€Hydroxynonanoic Acid, and 1,9â€Nonanedioic Acid. Advanced Synthesis and Catalysis, 2018, 360, 696-703.	4.3	33
28	Multi-level engineering of Baeyer-Villiger monooxygenase-based Escherichia coli biocatalysts for the production of C9 chemicals from oleic acid. Metabolic Engineering, 2019, 54, 137-144.	7.0	30
29	Microbial Synthesis of Plant Oxylipins from Î³-Linolenic Acid through Designed Biotransformation Pathways. Journal of Agricultural and Food Chemistry, 2015, 63, 2773-2781.	5.2	29
30	Production of 13S-hydroxy-9(Z)-octadecenoic acid from linoleic acid by whole recombinant cells expressing linoleate 13-hydratase from Lactobacillus acidophilus. Journal of Biotechnology, 2015, 208, 1-10.	3.8	29
31	Intracellular transformation rates of fatty acids are influenced by expression of the fatty acid transporter FadL in Escherichia coli cell membrane. Journal of Biotechnology, 2018, 281, 161-167.	3.8	28
32	Esterification of Secondary Alcohols and Multi-hydroxyl Compounds by Candida antarctica Lipase B and Subtilisin. Biotechnology and Bioprocess Engineering, 2019, 24, 41-47.	2.6	27
33	Oxygenase-based whole-cell biocatalysis in organic synthesis. Journal of Microbiology and Biotechnology, 2007, 17, 379-92.	2.1	26
34	Productivity of cyclohexanone oxidation of the recombinant Corynebacterium glutamicum expressing chnB of Acinetobacter calcoaceticus. Journal of Biotechnology, 2009, 142, 164-169.	3.8	25
35	Improving catalytic activity of the Baeyerâ€“Villiger monooxygenase-based Escherichia coli biocatalysts for the overproduction of (Z)-11-(heptanoyloxy)undec-9-enoic acid from ricinoleic acid. Scientific Reports, 2018, 8, 10280.	3.3	25
36	Enzyme Cascade Reactions for the Biosynthesis of Long Chain Aliphatic Amines from Renewable Fatty Acids. Advanced Synthesis and Catalysis, 2019, 361, 1359-1367.	4.3	25

#	Article	IF	Citations
37	Activation of the Glutamic Acid-Dependent Acid Resistance System in Escherichia coli BL21(DE3) Leads to Increase of the Fatty Acid Biotransformation Activity. PLoS ONE, 2016, 11, e0163265.	2.5	25
38	Ï‰-Hydroxyundec-9-enoic acid induces apoptosis through ROS-mediated endoplasmic reticulum stress in non-small cell lung cancer cells. Biochemical and Biophysical Research Communications, 2014, 448, 267-273.	2.1	24
39	Comparison of Biochemical Properties of the Original and Newly Identified Oleate Hydratases from Stenotrophomonas maltophilia. Applied and Environmental Microbiology, 2017, 83, .	3.1	24
40	Development of a recombinant Escherichia coli-based biocatalyst to enable high styrene epoxidation activity with high product yield on energy source. Process Biochemistry, 2010, 45, 147-152.	3.7	23
41	Expression levels of chaperones influence biotransformation activity of recombinant <i>Escherichia coli</i> expressing <i>Micrococcus luteus</i> alcohol dehydrogenase and <i>Pseudomonas putida</i> Baeyerâ€“Villiger monooxygenase. Biotechnology and Bioengineering, 2015, 112, 889-895.	3.3	23
42	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
43	In situ recovery of lycopene during biosynthesis with recombinant Escherichia coli. Journal of Biotechnology, 2008, 135, 291-294.	3.8	20
44	Glyoxylate carboligase-based whole-cell biotransformation of formaldehyde into ethylene glycol <i>via</i> glycolaldehyde. Green Chemistry, 2022, 24, 218-226.	9.0	20
45	3â€²-UTR engineering to improve soluble expression and fine-tuning of activity of cascade enzymes in Escherichia coli. Scientific Reports, 2016, 6, 29406.	3.3	18
46	Discovery and Engineering of a Microbial Double-Oxygenating Lipoxygenase for Synthesis of Dihydroxy Fatty Acids as Specialized Proresolving Mediators. ACS Sustainable Chemistry and Engineering, 2020, 8, 16172-16183.	6.7	18
47	Genome-scale metabolic network reconstruction and in silico flux analysis of the thermophilic bacterium Thermus thermophilus HB27. Microbial Cell Factories, 2014, 13, 61.	4.0	17
48	Cofactor specificity engineering of a long-chain secondary alcohol dehydrogenase from<i>Micrococcus luteus</i>for redox-neutral biotransformation of fatty acids. Chemical Communications, 2019, 55, 14462-14465.	4.1	17
49	Production of nonâ€proteinogenic amino acids from Î±â€keto acid precursors with recombinant <i>Corynebacterium glutamicum</i>. Biotechnology and Bioengineering, 2013, 110, 2846-2855.	3.3	16
50	Engineering Escherichia coli BL21 genome to improve the heptanoic acid tolerance by using CRISPR-Cas9 system. Biotechnology and Bioprocess Engineering, 2017, 22, 231-238.	2.6	16
51	Improving ethanol tolerance of Saccharomyces cerevisiae by overexpressing an ATP-binding cassette efflux pump. Chemical Engineering Science, 2013, 103, 74-78.	3.8	15
52	Display of membrane proteins on the heterologous caveolae carved by caveolin-1 in the Escherichia coli cytoplasm. Enzyme and Microbial Technology, 2015, 79-80, 55-62.	3.2	15
53	Gene cloning of an efficiency oleate hydratase from <i>Stenotrophomonas nitritireducens</i> for polyunsaturated fatty acids and its application in the conversion of plant oils to 10â€hydroxy fatty acids. Biotechnology and Bioengineering, 2017, 114, 74-82.	3.3	15
54	Genome-Scale Metabolic Network Reconstruction and In Silico Analysis of Hexanoic acid Producing Megasphaera elsdenii. Microorganisms, 2020, 8, 539.	3.6	15

#	Article	IF	Citations
55	Ï‰â€hydroxyundecâ€9â€enoic acid induces apoptosis by ROS mediated JNK and p38 phosphorylation in breast cancer cell lines. Journal of Cellular Biochemistry, 2018, 119, 998-1007.	2.6	14
56	Enzymatic synthesis of new hepoxilins and trioxilins from polyunsaturated fatty acids. Green Chemistry, 2019, 21, 3172-3181.	9.0	13
57	Chemoenzymatic Cascade Conversion of Linoleic Acid into a Secondary Fatty Alcohol Using a Combination of 13<i>S</i>-Lipoxygenase, Chemical Reduction, and a Photo-Activated Decarboxylase. ACS Sustainable Chemistry and Engineering, 2021, 9, 10837-10845.	6.7	12
58	Ethambutol-mediated cell wall modification in recombinant Corynebacterium glutamicum increases the biotransformation rates of cyclohexanone derivatives. Bioprocess and Biosystems Engineering, 2012, 35, 211-216.	3.4	11
59	Fatty acid hydration activity of a recombinant <i>Escherichia coli</i>â€based biocatalyst is improved through targeting the oleate hydratase into the periplasm. Biotechnology Journal, 2015, 10, 1887-1893.	3.5	11
60	Structural and Biochemical Characterization of the Curcumin-Reducing Activity of CurA from <i>Vibrio vulnificus</i>. Journal of Agricultural and Food Chemistry, 2018, 66, 10608-10616.	5.2	11
61	Endocytosing <i>Escherichia coli</i> as a Whole-Cell Biocatalyst of Fatty Acids. ACS Synthetic Biology, 2019, 8, 1055-1066.	3.8	11
62	Enzyme Access Tunnel Engineering in Baeyerâ€Villiger Monooxygenases to Improve Oxidative Stability and Biocatalyst Performance. Advanced Synthesis and Catalysis, 2022, 364, 555-564.	4.3	11
63	Effect of lipopolysaccharide mutation on oxygenation of linoleic acid by recombinant Escherichia coli expressing CYP102A2 of Bacillus subtilis. Biotechnology and Bioprocess Engineering, 2011, 16, 7-12.	2.6	10
64	Engineering the substrate-binding domain of an esterase enhances its hydrolytic activity toward fatty acid esters. Process Biochemistry, 2014, 49, 2101-2106.	3.7	10
65	Increased Production of Ï‰-Hydroxynonanoic Acid and Î±,Ï‰-Nonanedioic Acid from Olive Oil by a Constructed Biocatalytic System. Journal of Agricultural and Food Chemistry, 2020, 68, 9488-9495.	5.2	10
66	Tripletâ€"triplet annihilation-based photon-upconversion to broaden the wavelength spectrum for photobiocatalysis. Scientific Reports, 2022, 12, .	3.3	10
67	Bacterial Outer Membrane Vesicles as Nanoâ€Scale Bioreactors: A Fatty Acid Conversion Case Study. ChemCatChem, 2021, 13, 4080-4086.	3.7	9
68	Enhancing acid tolerance of Escherichia coli via viroporin-mediated export of protons and its application for efficient whole-cell biotransformation. Metabolic Engineering, 2021, 67, 277-284.	7.0	8
69	Stereospecific production of 9R-hydroxy-10E,12Z-octadecadienoic acid from linoleic acid by recombinant Escherichia coli cells expressing 9R-lipoxygenase from Nostoc sp. SAG 25.82. Journal of Molecular Catalysis B: Enzymatic, 2014, 104, 56-63.	1.8	7
70	Understanding the molecular properties of the E1 subunit (SucA) of Î±-ketoglutarate dehydrogenase complex from <i>Vibrio vulnificus</i> for the enantioselective ligation of acetaldehydes into (<i>R</i>)-acetoin. Catalysis Science and Technology, 2020, 10, 79-85.	4.1	7
71	Construction of an engineered biocatalyst system for the production of mediumâ€chain Î±,Ï‰â€dicarboxylic acids from mediumâ€chain Ï‰â€hydroxycarboxylic acids. Biotechnology and Bioengineering, 2020, 117, 2648-2657.	3.3	7
72	Engineering of a Microbial Cell Factory for the Extracellular Production of Catalytically Active Phospholipase A2 of Streptomyces violaceoruber. Journal of Microbiology and Biotechnology, 2020, 30, 1244-1251.	2.1	7

#	Article	IF	Citations
73	Substrate-binding Site Engineering of Candida antarctica Lipase B to Improve Selectivity for Synthesis of 1-monoacyl-sn-glycerols. Biotechnology and Bioprocess Engineering, 2022, 27, 234-243.	2.6	6
74	Improving the catalytic activity of cyclohexanone monooxygenase-based whole-cell biocatalysts under substrate toxic conditions. Journal of the Korean Society for Applied Biological Chemistry, 2011, 54, 986-992.	0.9	5
75	Cyclohexanone-induced stress metabolism of Escherichia coli and Corynebacterium glutamicum. Biotechnology and Bioprocess Engineering, 2015, 20, 1088-1098.	2.6	5
76	Multi-Step Enzymatic Synthesis of 1,9-Nonanedioic Acid from a Renewable Fatty Acid and Its Application for the Enzymatic Production of Biopolyesters. Polymers, 2019, 11, 1690.	4.5	5
77	Cloning, expression, and characterization of P450 monooxygenase CYP102H1 from Nocardia farcinica. Journal of the Korean Society for Applied Biological Chemistry, 2012, 55, 259-264.	0.9	4
78	Structural basis for the selective addition of an oxygen atom to cyclic ketones by Baeyer-Villiger monooxygenase from Parvibaculum lavamentivorans. Biochemical and Biophysical Research Communications, 2019, 512, 564-570.	2.1	4
79	Characterization and application of chemical-resistant polyurethane-based enzyme and whole cell compartments. Journal of Biotechnology, 2019, 289, 31-38.	3.8	4
80	Regiospecific Conversion of Lipids and Fatty Acids through Enzymatic Cascade Reactions. , 2018, , 139-155.		3
81	Highly efficient oxidation of plant oils to C18 trihydroxy fatty acids by <i>Escherichia coli</i> co-expressing lipoxygenase and epoxide hydrolase. Green Chemistry, 2022, 24, 2062-2072.	9.0	3
82	Cloning, expression, and characterization of P450 monooxygenase CYP102H1 from Nocardia farcinica. Journal of the Korean Society for Applied Biological Chemistry, 0, , .	0.9	0