Jin-Byung Park

List of Publications by Year
in descending order

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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	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
2	Glyoxylate carboligase-based whole-cell biotransformation of formaldehyde into ethylene glycol <i>via</i> glycolaldehyde. Green Chemistry, 2022, 24, 218-226.	9.0	20
3	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
4	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
5	Tripletâ€“triplet annihilation-based photon-upconversion to broaden the wavelength spectrum for photobiocatalysis. Scientific Reports, 2022, 12, .	3.3	10
6	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
7	Bacterial Outer Membrane Vesicles as Nanoâ€Scale Bioreactors: A Fatty Acid Conversion Case Study. ChemCatChem, 2021, 13, 4080-4086.	3.7	9
8	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
9	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
10	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
11	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
12	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
13	Photobiocatalytic synthesis of chiral secondary fatty alcohols from renewable unsaturated fatty acids. Nature Communications, 2020, 11, 2258.	12.8	58
14	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
15	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
16	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
17	Genome-Scale Metabolic Network Reconstruction and In Silico Analysis of Hexanoic acid Producing Megasphaera elsdenii. Microorganisms, 2020, 8, 539.	3.6	15
18	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

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19	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
20	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
21	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
22	Enzymatic synthesis of new hepoxilins and trioxilins from polyunsaturated fatty acids. Green Chemistry, 2019, 21, 3172-3181.	9.0	13
23	Endocytosing <i>Escherichia coli</i> as a Whole-Cell Biocatalyst of Fatty Acids. ACS Synthetic Biology, 2019, 8, 1055-1066.	3.8	11
24	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
25	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
26	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
27	Characterization and application of chemical-resistant polyurethane-based enzyme and whole cell compartments. Journal of Biotechnology, 2019, 289, 31-38.	3.8	4
28	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
29	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
30	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
31	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
32	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
33	Regiospecific Conversion of Lipids and Fatty Acids through Enzymatic Cascade Reactions. , 2018, , 139-155.		3
34	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
35	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
36	Comparison of Biochemical Properties of the Original and Newly Identified Oleate Hydratases from Stenotrophomonas maltophilia. Applied and Environmental Microbiology, 2017, 83, .	3.1	24

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37	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
38	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
39	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
40	Simultaneous Enzyme/Whole-Cell Biotransformation of Plant Oils into C9 Carboxylic Acids. ACS Catalysis, 2016, 6, 7547-7553.	11.2	53
41	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
42	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
43	Chemo-enzymatic synthesis of 11-hydroxyundecanoic acid and 1,11-undecanedioic acid from ricinoleic acid. Green Chemistry, 2016, 18, 1089-1095.	9.0	40
44	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
45	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
46	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
47	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
48	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
49	Cyclohexanone-induced stress metabolism of Escherichia coli and Corynebacterium glutamicum. Biotechnology and Bioprocess Engineering, 2015, 20, 1088-1098.	2.6	5
50	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
51	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
52	Enzyme fusion for whole-cell biotransformation of long-chain sec-alcohols into esters. Applied Microbiology and Biotechnology, 2015, 99, 6267-6275.	3.6	44
53	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
54	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

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55	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
56	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
57	A biosynthetic pathway for hexanoic acid production in Kluyveromyces marxianus. Journal of Biotechnology, 2014, 182-183, 30-36.	3.8	56
58	Recent progress in development of synthetic biology platforms and metabolic engineering of Corynebacterium glutamicum. Journal of Biotechnology, 2014, 180, 43-51.	3.8	49
59	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
60	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
61	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
62	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
63	Improving ethanol tolerance of Saccharomyces cerevisiae by overexpressing an ATP-binding cassette efflux pump. Chemical Engineering Science, 2013, 103, 74-78.	3.8	15
64	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
65	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
66	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
67	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
68	Ethanol reduces mitochondrial membrane integrity and thereby impacts carbon metabolism of Saccharomyces cerevisiae. FEMS Yeast Research, 2012, 12, 675-684.	2.3	53
69	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
70	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
71	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
72	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

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73	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
74	Production of xylitol from d-xylose and glucose with recombinant Corynebacterium glutamicum. Enzyme and Microbial Technology, 2010, 46, 366-371.	3.2	33
75	Productivity of cyclohexanone oxidation of the recombinant Corynebacterium glutamicum expressing chnB of Acinetobacter calcoaceticus. Journal of Biotechnology, 2009, 142, 164-169.	3.8	25
76	In situ recovery of lycopene during biosynthesis with recombinant Escherichia coli. Journal of Biotechnology, 2008, 135, 291-294.	3.8	20
77	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
78	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
79	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
80	Oxygenase-based whole-cell biocatalysis in organic synthesis. Journal of Microbiology and Biotechnology, 2007, 17, 379-92.	2.1	26
81	The efficiency of recombinantEscherichia coli as biocatalyst for stereospecific epoxidation. Biotechnology and Bioengineering, 2006, 95, 501-512.	3.3	102
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