

# Kwon-Young Choi

## List of Publications by Year in descending order

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88  
papers

2,137  
citations

218677

26  
h-index

276875

41  
g-index

88  
all docs

88  
docs citations

88  
times ranked

1906  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioconversion of plant biomass hydrolysate into bioplastic (polyhydroxyalkanoates) using <i>Ralstonia eutropha</i> 5119. <i>Bioresource Technology</i> , 2019, 271, 306-315.	9.6	148
2	Biowaste-to-bioplastic (polyhydroxyalkanoates): Conversion technologies, strategies, challenges, and perspective. <i>Bioresource Technology</i> , 2021, 326, 124733.	9.6	134
3	Development of High Performance Polyurethane Elastomers Using Vanillin-Based Green Polyol Chain Extender Originating from Lignocellulosic Biomass. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 4582-4588.	6.7	92
4	Consolidated conversion of protein waste into biofuels and ammonia using <i>Bacillus subtilis</i> . <i>Metabolic Engineering</i> , 2014, 23, 53-61.	7.0	83
5	Bioconversion of p-coumaric acid to p-hydroxystyrene using phenolic acid decarboxylase from <i>B. amyloliquefaciens</i> in biphasic reaction system. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 1501-1511.	3.6	62
6	Production of blue-colored polyhydroxybutyrate (PHB) by one-pot production and coextraction of indigo and PHB from recombinant <i>Escherichia coli</i> . <i>Dyes and Pigments</i> , 2020, 173, 107889.	3.7	61
7	Enhanced isobutanol production from acetate by combinatorial overexpression of acetyl-CoA synthetase and anaplerotic enzymes in engineered <i>Escherichia coli</i> . <i>Biotechnology and Bioengineering</i> , 2018, 115, 1971-1978.	3.3	58
8	Bioconversion of barley straw lignin into biodiesel using <i>Rhodococcus</i> sp. YHY01. <i>Bioresource Technology</i> , 2019, 289, 121704.	9.6	58
9	Adsorptive removal of crude petroleum oil from water using floating pinewood biochar decorated with coconut oil-derived fatty acids. <i>Science of the Total Environment</i> , 2021, 781, 146636.	8.0	53
10	Whole-cell biocatalysis using cytochrome P450 monooxygenases for biotransformation of sustainable bioresources (fatty acids, fatty alkanes, and aromatic amino acids). <i>Biotechnology Advances</i> , 2020, 40, 107504.	11.7	50
11	Cloning, expression and characterization of CYP102D1, a self-sufficient P450 monooxygenase from <i>Streptomyces avermitilis</i> . <i>FEBS Journal</i> , 2012, 279, 1650-1662.	4.7	40
12	Ecofriendly one-pot biosynthesis of indigo derivative dyes using CYP102G4 and PrnA halogenase. <i>Dyes and Pigments</i> , 2019, 162, 80-88.	3.7	40
13	Production of 3-hydroxybenzoic acid from coumaric acid by <i>Burkholderia glumae</i> BGR1. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1493-1503.	3.3	38
14	Biosynthesis of indigo in <i>Escherichia coli</i> expressing self-sufficient CYP102A from <i>Streptomyces cattleya</i> . <i>Dyes and Pigments</i> , 2017, 140, 29-35.	3.7	36
15	Pyrolysis of Polyethylene Terephthalate over Carbon-Supported Pd Catalyst. <i>Catalysts</i> , 2020, 10, 496.	3.5	36
16	Chitin biomass powered microbial fuel cell for electricity production using halophilic <i>Bacillus circulans</i> BBL03 isolated from sea salt harvesting area. <i>Bioelectrochemistry</i> , 2019, 130, 107329.	4.6	35
17	Enhanced isobutanol production from acetate by combinatorial overexpression of acetyl-CoA synthetase and anaplerotic enzymes in engineered <i>Escherichia coli</i> . <i>Biotechnology and Bioengineering</i> , 2018, 115, 1971.	3.3	34
18	Fructose-Based Production of Short-Chain-Length and Medium-Chain-Length Polyhydroxyalkanoate Copolymer by Arctic <i>Pseudomonas</i> sp. B14-6. <i>Polymers</i> , 2021, 13, 1398.	4.5	33

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19	Production of Tyrian purple indigoid dye from tryptophan in <i>Escherichia coli</i> . <i>Nature Chemical Biology</i> , 2021, 17, 104-112.	8.0	32
20	The production of ̳-hydroxy palmitic acid using fatty acid metabolism and cofactor optimization in <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 6667-6676.	3.6	31
21	Microbial synthesis of violacein pigment and its potential applications. <i>Critical Reviews in Biotechnology</i> , 2021, 41, 879-901.	9.0	31
22	A review of recent progress in the synthesis of bio-indigoids and their biologically assisted end-use applications. <i>Dyes and Pigments</i> , 2020, 181, 108570.	3.7	31
23	Biosynthesis of (̂)-5-Hydroxy-equol and 5-Hydroxy-dehydroequol from Soy Isoflavone, Genistein Using Microbial Whole Cell Bioconversion. <i>ACS Chemical Biology</i> , 2017, 12, 2883-2890.	3.4	31
24	Screening of bacterial cytochrome P450s responsible for regiospecific hydroxylation of (iso)flavonoids. <i>Enzyme and Microbial Technology</i> , 2011, 48, 386-392.	3.2	30
25	Production of itaconate by whole-cell bioconversion of citrate mediated by expression of multiple cis-aconitate decarboxylase ( <i>cadA</i> ) genes in <i>Escherichia coli</i> . <i>Scientific Reports</i> , 2017, 7, 39768.	3.3	30
26	Discoloration of indigo dyes by eco-friendly biocatalysts. <i>Dyes and Pigments</i> , 2021, 184, 108749.	3.7	29
27	Finding of novel lactate utilizing <i>Bacillus</i> sp. YHY22 and its evaluation for polyhydroxybutyrate (PHB) production. <i>International Journal of Biological Macromolecules</i> , 2022, 201, 653-661.	7.5	29
28	Engineering class I cytochrome P450 by gene fusion with NADPH-dependent reductase and <i>S. avermitilis</i> host development for daidzein biotransformation. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 8191-8200.	3.6	28
29	Production of ̳-hydroxy palmitic acid using CYP153A35 and comparison of cytochrome P450 electron transfer system in vivo. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 10375-10384.	3.6	28
30	Isobutanol production from an engineered <i>Shewanella oneidensis</i> MR-1. <i>Bioprocess and Biosystems Engineering</i> , 2015, 38, 2147-2154.	3.4	27
31	Semi-rational engineering of CYP153A35 to enhance ̳-hydroxylation activity toward palmitic acid. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 269-277.	3.6	27
32	<i>Bacillus subtilis</i> as a robust host for biochemical production utilizing biomass. <i>Critical Reviews in Biotechnology</i> , 2021, 41, 827-848.	9.0	26
33	Combinatorial application of two aldehyde oxidoreductases on isobutanol production in the presence of furfural. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2016, 43, 37-44.	3.0	25
34	Engineering of <i>Shewanella marisflavi</i> BBL25 for biomass-based polyhydroxybutyrate production and evaluation of its performance in electricity production. <i>International Journal of Biological Macromolecules</i> , 2021, 183, 1669-1675.	7.5	25
35	Hydrolytic activities of hydrolase enzymes from halophilic microorganisms. <i>Biotechnology and Bioprocess Engineering</i> , 2017, 22, 450-461.	2.6	24
36	Engineering of daidzein 3̂-hydroxylase P450 enzyme into catalytically self-sufficient cytochrome P450. <i>Microbial Cell Factories</i> , 2012, 11, 81.	4.0	22

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37	Quantum dot synthesis from waste biomass and its applications in energy and bioremediation. <i>Chemosphere</i> , 2022, 293, 133564.	8.2	22
38	Screening, expression, and characterization of Baeyer-Villiger monooxygenases for the production of 9-(nonanoyloxy)nonanoic acid from oleic acid. <i>Biotechnology and Bioprocess Engineering</i> , 2017, 22, 717-724.	2.6	21
39	Synthesis and chemical composition analysis of protocatechualdehyde-based novel melanin dye by 15T FT-ICR: High dyeing performance on soft contact lens. <i>Dyes and Pigments</i> , 2019, 160, 546-554.	3.7	21
40	Finding of novel polyhydroxybutyrate producer <i>Loktanella</i> sp. SM43 capable of balanced utilization of glucose and xylose from lignocellulosic biomass. <i>International Journal of Biological Macromolecules</i> , 2022, 208, 809-818.	7.5	21
41	Bioprocess of Microbial Melanin Production and Isolation. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 765110.	4.1	20
42	Ortho-specific monohydroxylation of daidzein by cytochrome P450s of <i>Nocardia farcinica</i> IFM10152. <i>Biotechnology Journal</i> , 2009, 4, 1586-1595.	3.5	19
43	Bioconversion of Plant Hydrolysate Biomass into Biofuels Using an Engineered <i>Bacillus subtilis</i> and <i>Escherichia coli</i> Mixed-whole Cell Biotransformation. <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 477-484.	2.6	19
44	Heterologous production of pyromelanin biopolymer using 4-hydroxyphenylpyruvate dioxygenase isolated from <i>Ralstonia pickettii</i> in <i>Escherichia coli</i> . <i>Biochemical Engineering Journal</i> , 2020, 157, 107548.	3.6	19
45	Polymeric solvent engineering for gram/liter scale production of a water-insoluble isoflavone derivative, (S)-equol. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 6915-6921.	3.6	18
46	Microbial Production of Melanin Pigments from Caffeic Acid and L-Tyrosine Using <i>Streptomyces glaucescens</i> and FCS-ECH-Expressing <i>Escherichia coli</i> . <i>International Journal of Molecular Sciences</i> , 2021, 22, 2413.	4.1	18
47	Temperature sensing using red fluorescent protein. <i>Biotechnology and Bioprocess Engineering</i> , 2015, 20, 67-72.	2.6	17
48	Enhanced ammonium removal efficiency by ion exchange process of synthetic zeolite after Na <sup>+</sup> and heat pretreatment. <i>Water Science and Technology</i> , 2018, 78, 1417-1425.	2.5	17
49	Production of (Z)-11-(heptanoyloxy)undec-9-enoic acid from ricinoleic acid by utilizing crude glycerol as sole carbon source in engineered <i>Escherichia coli</i> expressing BVMO-ADH-FadL. <i>Enzyme and Microbial Technology</i> , 2018, 119, 45-51.	3.2	17
50	Bioalcohol production from spent coffee grounds and okara waste biomass by engineered <i>Bacillus subtilis</i> . <i>Biomass Conversion and Biorefinery</i> , 2020, 10, 167-173.	4.6	16
51	±, %Oxyfunctionalization of C12 alkanes via whole-cell biocatalysis of CYP153A from <i>Marinobacter aquaeolei</i> and a new CYP from <i>Nocardia farcinica</i> IFM10152. <i>Biochemical Engineering Journal</i> , 2020, 156, 107524.	3.6	16
52	Gamma aminobutyric acid (GABA) production in <i>Escherichia coli</i> with pyridoxal kinase (pdxY) based regeneration system. <i>Enzyme and Microbial Technology</i> , 2022, 155, 109994.	3.2	16
53	Tung Oil-Based Production of High 3-Hydroxyhexanoate-Containing Terpolymer Poly(3-Hydroxybutyrate-co-3-Hydroxyvalerate-co-3-Hydroxyhexanoate) Using Engineered <i>Ralstonia eutropha</i> . <i>Polymers</i> , 2021, 13, 1084.	4.5	15
54	FCS and ECH dependent production of phenolic aldehyde and melanin pigment from l-tyrosine in <i>Escherichia coli</i> . <i>Enzyme and Microbial Technology</i> , 2018, 112, 59-64.	3.2	14

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55	Characterization of a Tryptophan 6-Halogenase from <i>Streptomyces albus</i> and Its Regioselectivity Determinants. <i>ChemBioChem</i> , 2020, 21, 1446-1452.	2.6	14
56	Functional Study of Lysine Decarboxylases from <i>Klebsiella pneumoniae</i> in <i>Escherichia coli</i> and Application of Whole Cell Bioconversion for Cadaverine Production. <i>Journal of Microbiology and Biotechnology</i> , 2016, 26, 1586-1592.	2.1	14
57	Effects of osmolytes on salt resistance of <i>Halomonas socia</i> CKY01 and identification of osmolytes-related genes by genome sequencing. <i>Journal of Biotechnology</i> , 2020, 322, 21-28.	3.8	13
58	Recent advances in the microbial hydroxylation and reduction of soy isoflavones. <i>FEMS Microbiology Letters</i> , 2018, 365, .	1.8	12
59	Applications of Natural and Synthetic Melanins as Biosorbents and Adhesive Coatings. <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 646-654.	2.6	12
60	Enhanced isobutanol production by co-production of polyhydroxybutyrate and cofactor engineering. <i>Journal of Biotechnology</i> , 2020, 320, 66-73.	3.8	12
61	Nitrogen-Neutral Amino Acids Refinery: Deamination of Amino Acids for Bio-Alcohol and Ammonia Production. <i>ChemBioEng Reviews</i> , 2021, 8, 213-226.	4.4	12
62	Multi-omics characterization of the osmotic stress resistance and protease activities of the halophilic bacterium <i>Pseudoalteromonas phenolica</i> in response to salt stress. <i>RSC Advances</i> , 2020, 10, 23792-23800.	3.6	11
63	Engineering of melanin biopolymer by co-expression of MelC tyrosinase with CYP102G4 monooxygenase: Structural composition understanding by 15 tesla FT-ICR MS analysis. <i>Biochemical Engineering Journal</i> , 2020, 157, 107530.	3.6	10
64	Development of Colorimetric HTS Assay of Cytochrome P450 for <i>ortho</i> -Specific Hydroxylation, and Engineering of CYP102D1 with Enhanced Catalytic Activity and Regioselectivity. <i>ChemBioChem</i> , 2013, 14, 1231-1238.	2.6	9
65	Novel iron-sulfur containing NADPH-Reductase from <i>Nocardia farcinica</i> IFM10152 and fusion construction with CYP51 lanosterol demethylase. <i>Biotechnology and Bioengineering</i> , 2012, 109, 630-636.	3.3	8
66	Production of a novel <i>ortho</i> -methyl-isoflavone by regioselective sequential hydroxylation and <i>ortho</i> -methylation reactions in <i>Streptomyces avermitilis</i> host system. <i>Biotechnology and Bioengineering</i> , 2013, 110, 2591-2599.	3.3	8
67	Expression, purification and characterization of halophilic protease Pph_Pro1 cloned from <i>Pseudoalteromonas phenolica</i> . <i>Protein Expression and Purification</i> , 2018, 152, 46-55.	1.3	8
68	Numerical modelling for effect of water curtain in mitigating toxic gas release. <i>Journal of Loss Prevention in the Process Industries</i> , 2020, 63, 103972.	3.3	8
69	Functional Microbial Pigments Isolated from <i>Chryseobacterium</i> and <i>Deinococcus</i> species for Bio-paint Application. <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 394-402.	2.6	8
70	Whole Cell Biotransformation of 1-dodecanol by <i>Escherichia coli</i> by Soluble Expression of ADH Enzyme from <i>Yarrowia lipolytica</i> . <i>Biotechnology and Bioprocess Engineering</i> , 2021, 26, 247-255.	2.6	7
71	Non-enzymatic PLP-dependent oxidative deamination of amino acids induces higher alcohol synthesis. <i>Biotechnology and Bioprocess Engineering</i> , 2015, 20, 988-994.	2.6	5
72	Regioselective Biotransformation of Phloretin Using <i>Streptomyces avermitilis</i> MA4680. <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 272-278.	2.6	5

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73	Biosynthesis of C12 Fatty Alcohols by Whole Cell Biotransformation of C12 Derivatives Using Escherichia coli Two-cell Systems Expressing CAR and ADH. <i>Biotechnology and Bioprocess Engineering</i> , 2021, 26, 392-401.	2.6	5
74	Ortho-hydroxylation of mammalian lignan enterodiol by cytochrome P450s from Actinomycetes sp.. <i>Korean Journal of Chemical Engineering</i> , 2015, 32, 471-477.	2.7	4
75	Regioselectivity-driven evolution of CYP102D1 for improved synthesis of 3-ortho-dihydroxyisoflavone. <i>Enzyme and Microbial Technology</i> , 2015, 71, 20-27.	3.2	3
76	rational design and directed evolution of CYP102A1 (BM3) for regio-specific hydroxylation of isoflavone. <i>Biotechnology and Bioprocess Engineering</i> , 2015, 20, 225-233.	2.6	3
77	Quantitative targeted metabolomics for 15d-deoxy- <sup>12</sup> , 14-PGJ2 (15d-PGJ2) by MALDI-MS. <i>Biotechnology and Bioprocess Engineering</i> , 2017, 22, 100-106.	2.6	3
78	Stepwise Evolution of Crease Patterns on Stimuli-Responsive Hydrogels for the Production of Long-Range Ordered Structures. <i>Advanced Materials Interfaces</i> , 2020, 7, 2001551.	3.7	3
79	Indigo derivatives-incorporated functional polyhydroxybutyrate polymer with controlled biodegradability. <i>Dyes and Pigments</i> , 2022, 198, 110017.	3.7	3
80	One-pot production of thermostable PHB biodegradable polymer by co-producing bio-melanin pigment in engineered Escherichia coli. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	4.6	3
81	Engineering of CYP153A33 With Enhanced Ratio of Hydroxylation to Overoxidation Activity in Whole-Cell Biotransformation of Medium-Chain 1-Alkanols. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 817455.	4.1	3
82	<sc>CFD</sc>/<sc>FEA</sc> connected modeling and analysis of vapor cloud explosion at a wastewater storage pond of a chemical plant in Korea. <i>Energy Science and Engineering</i> , 2019, 7, 272-287.	4.0	2
83	Biohydrogen Machinery: Recent Insights, Genetic Fabrication, and Future Prospects. <i>Chemical Engineering and Technology</i> , 2023, 46, 179-190.	1.5	2
84	Monoxygenase-mediated cascade oxidation of fatty acids for the production of biopolymer building blocks. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 12319-12331.	4.6	2
85	One-Step RT-qPCR for Viral RNA Detection Using Digital Analysis. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 837838.	4.1	2
86	Enzymatic utilization of oil and lignocellulosic biomass using halophilic marine bacteria <i>Micrococcus luteus</i> and <i>Pseudoalteromonas peptidolytica</i> . <i>3 Biotech</i> , 2021, 11, 360.	2.2	0
87	Expression, purification, and characterization of halophilic Pph_Pro1 protease isolated from <i>Pseudoalteromonas phenolica</i> . <i>FASEB Journal</i> , 2018, 32, 796.33.	0.5	0
88	Long-Range Ordered Structures: Stepwise Evolution of Crease Patterns on Stimuli-Responsive Hydrogels for the Production of Long-Range Ordered Structures ( <i>Adv. Mater. Interfaces</i> 24/2020). <i>Advanced Materials Interfaces</i> , 2020, 7, 2070136.	3.7	0