

Guang Zhao

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

109
papers

3,286
citations

34
h-index

53
g-index

112
ext. papers

4,004
ext. citations

6.6
avg, IF

5.34
L-index

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 109 | Biosynthetic Pathway and Metabolic Engineering of Succinic Acid.. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022 , 10, 843887 | 5.8 | 1 |
| 108 | Highly efficient biosynthesis of E Caryophyllene with a new sesquiterpene synthase from tobacco. 2022 , 15, 39 | | 0 |
| 107 | Self-sufficient whole-cell biocatalysis for 3-(aminomethyl) pyridine synthesis. <i>Biochemical Engineering Journal</i> , 2022 , 183, 108457 | 4.2 | 1 |
| 106 | Bacterial protein acetylation and its role in cellular physiology and metabolic regulation. <i>Biotechnology Advances</i> , 2021 , 53, 107842 | 17.8 | 2 |
| 105 | Hop bitter acids: resources, biosynthesis, and applications. <i>Applied Microbiology and Biotechnology</i> , 2021 , 105, 4343-4356 | 5.7 | 0 |
| 104 | A fast and robust iterative genome-editing method based on a Rock-Paper-Scissors strategy. <i>Nucleic Acids Research</i> , 2021 , 49, e12 | 20.1 | 1 |
| 103 | Efficient recovery of bio-based 1,2,4-butanetriol by using boronic acid anionic reactive extraction. <i>Separation and Purification Technology</i> , 2021 , 255, 117728 | 8.3 | 2 |
| 102 | Study on the isoprene-producing co-culture system of Synechococcus elongates-Escherichia coli through omics analysis. <i>Microbial Cell Factories</i> , 2021 , 20, 6 | 6.4 | 4 |
| 101 | Metabolic Engineering of for Xylose Production from Glucose as the Sole Carbon Source. <i>ACS Synthetic Biology</i> , 2021 , 10, 2266-2275 | 5.7 | 0 |
| 100 | Biosynthesis of acetylacetone inspired by its biodegradation. <i>Biotechnology for Biofuels</i> , 2020 , 13, 88 | 7.8 | 4 |
| 99 | An acid-tolerance response system protecting exponentially growing Escherichia coli. <i>Nature Communications</i> , 2020 , 11, 1496 | 17.4 | 36 |
| 98 | Efficient and Low-Cost Error Removal in DNA Synthesis by a High-Durability MutS. <i>ACS Synthetic Biology</i> , 2020 , 9, 940-952 | 5.7 | 2 |
| 97 | Highly Efficient Biosynthesis of Hypoxanthine in and Transcriptome-Based Analysis of the Purine Metabolism. <i>ACS Synthetic Biology</i> , 2020 , 9, 525-535 | 5.7 | 6 |
| 96 | Metabolic engineering of for the utilization of ethanol. <i>Journal of Biological Research</i> , 2020 , 27, 1 | 2.4 | 12 |
| 95 | Biochemical routes for uptake and conversion of xylose by microorganisms. <i>Biotechnology for Biofuels</i> , 2020 , 13, 21 | 7.8 | 39 |
| 94 | Common problems associated with the microbial productions of aromatic compounds and corresponding metabolic engineering strategies. <i>Biotechnology Advances</i> , 2020 , 41, 107548 | 17.8 | 21 |
| 93 | Characterization and directed evolution of propionyl-CoA carboxylase and its application in succinate biosynthetic pathway with two CO fixation reactions. <i>Metabolic Engineering</i> , 2020 , 62, 42-50 | 9.7 | 6 |

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| 92 | Gene coexpression network analysis reveals a novel metabolic mechanism of responding to phenolic inhibitors from lignocellulosic hydrolysates. <i>Biotechnology for Biofuels</i> , 2020 , 13, 163 | 7.8 | 9 |
| 91 | Improved cis-Abienol production through increasing precursor supply in <i>Escherichia coli</i> . <i>Scientific Reports</i> , 2020 , 10, 16791 | 4.9 | 4 |
| 90 | Comparison of Glucose, Acetate and Ethanol as Carbon Resource for Production of Poly(3-Hydroxybutyrate) and Other Acetyl-CoA Derivatives. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 833 | 5.8 | 7 |
| 89 | Recent advances of metabolic engineering strategies in natural isoprenoid production using cell factories. <i>Natural Product Reports</i> , 2020 , 37, 80-99 | 15.1 | 46 |
| 88 | Improvement of isoprene production in <i>Escherichia coli</i> by rational optimization of RBSs and key enzymes screening. <i>Microbial Cell Factories</i> , 2019 , 18, 4 | 6.4 | 13 |
| 87 | Improving the production of isoprene and 1,3-propanediol by metabolically engineered <i>Escherichia coli</i> through recycling redox cofactor between the dual pathways. <i>Applied Microbiology and Biotechnology</i> , 2019 , 103, 2597-2608 | 5.7 | 12 |
| 86 | Omics-based analyses revealed metabolic responses of to lignocellulose-derived inhibitors furfural, formic acid and phenol stress for butanol fermentation. <i>Biotechnology for Biofuels</i> , 2019 , 12, 101 | 7.8 | 29 |
| 85 | Electricigens in the anode of microbial fuel cells: pure cultures versus mixed communities. <i>Microbial Cell Factories</i> , 2019 , 18, 39 | 6.4 | 117 |
| 84 | Generation of <i>Streptomyces hygroscopicus</i> cell factories with enhanced ascomycin production by combined elicitation and pathway-engineering strategies. <i>Biotechnology and Bioengineering</i> , 2019 , 116, 3382-3395 | 4.9 | 8 |
| 83 | Coupled biosynthesis and esterification of 1,2,4-butanetriol to simplify its separation from fermentation broth. <i>Engineering in Life Sciences</i> , 2019 , 19, 444-451 | 3.4 | 2 |
| 82 | Biochemical characterization of isoprene synthase from <i>Ipomoea batatas</i> . <i>Journal of Bioscience and Bioengineering</i> , 2019 , 127, 138-144 | 3.3 | 2 |
| 81 | Manipulation of the precursor supply for high-level production of longifolene by metabolically engineered <i>Escherichia coli</i> . <i>Scientific Reports</i> , 2019 , 9, 95 | 4.9 | 15 |
| 80 | Efficient production of 3-hydroxypropionate from fatty acids feedstock in <i>Escherichia coli</i> . <i>Metabolic Engineering</i> , 2019 , 51, 121-130 | 9.7 | 33 |
| 79 | Directed evolution of mevalonate kinase in by random mutagenesis for improved lycopene.. <i>RSC Advances</i> , 2018 , 8, 15021-15028 | 3.7 | 11 |
| 78 | Biosynthesis and production of sabinene: current state and perspectives. <i>Applied Microbiology and Biotechnology</i> , 2018 , 102, 1535-1544 | 5.7 | 21 |
| 77 | Enhancement of the catalytic activity of Isopentenyl diphosphate isomerase (IDI) from <i>Saccharomyces cerevisiae</i> through random and site-directed mutagenesis. <i>Microbial Cell Factories</i> , 2018 , 17, 65 | 6.4 | 21 |
| 76 | Microbial production of mevalonate by recombinant <i>Escherichia coli</i> using acetic acid as a carbon source. <i>Bioengineered</i> , 2018 , 9, 116-123 | 5.7 | 14 |
| 75 | Metabolic engineering for the production of isoprene and isopentenol by <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2018 , 102, 7725-7738 | 5.7 | 31 |

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|----|---|-----|----|
| 74 | Metabolic engineering of a xylose pathway for biotechnological production of glycolate in <i>Escherichia coli</i> . <i>Microbial Cell Factories</i> , 2018 , 17, 51 | 6.4 | 13 |
| 73 | A systematic optimization of styrene biosynthesis in BL21(DE3). <i>Biotechnology for Biofuels</i> , 2018 , 11, 14 | 7.8 | 27 |
| 72 | Biosynthesis of ethylene glycol from d-xylose in recombinant <i>Escherichia coli</i> . <i>Bioengineered</i> , 2018 , 9, 233-241 | 5.7 | 18 |
| 71 | Biosynthesis of Natural Rubber: Current State and Perspectives. <i>International Journal of Molecular Sciences</i> , 2018 , 20, | 6.3 | 35 |
| 70 | Malonyl-CoA pathway: a promising route for 3-hydroxypropionate biosynthesis. <i>Critical Reviews in Biotechnology</i> , 2017 , 37, 933-941 | 9.4 | 22 |
| 69 | Enzymatic process optimization for the in vitro production of isoprene from mevalonate. <i>Microbial Cell Factories</i> , 2017 , 16, 8 | 6.4 | 14 |
| 68 | A novel autolysis system controlled by magnesium and its application to poly (3-hydroxypropionate) production in engineered <i>Escherichia coli</i> . <i>Bioengineered</i> , 2017 , 8, 594-599 | 5.7 | 20 |
| 67 | Imidazolium-based ionic liquids for cellulose pretreatment: recent progresses and future perspectives. <i>Applied Microbiology and Biotechnology</i> , 2017 , 101, 521-532 | 5.7 | 80 |
| 66 | Production of D-lactate from glucose using <i>Klebsiella pneumoniae</i> mutants. <i>Microbial Cell Factories</i> , 2017 , 16, 209 | 6.4 | 6 |
| 65 | Production of isoprene, one of the high-density fuel precursors, from peanut hull using the high-efficient lignin-removal pretreatment method. <i>Biotechnology for Biofuels</i> , 2017 , 10, 297 | 7.8 | 7 |
| 64 | Natural and engineered polyhydroxyalkanoate (PHA) synthase: key enzyme in biopolyester production. <i>Applied Microbiology and Biotechnology</i> , 2017 , 101, 7417-7426 | 5.7 | 33 |
| 63 | High titer mevalonate fermentation and its feeding as a building block for isoprenoids (isoprene and sabinene) production in engineered <i>Escherichia coli</i> . <i>Process Biochemistry</i> , 2017 , 62, 1-9 | 4.8 | 12 |
| 62 | Efficient conversion of acetate into phloroglucinol by recombinant <i>Escherichia coli</i> . <i>RSC Advances</i> , 2017 , 7, 50942-50948 | 3.7 | 10 |
| 61 | Improving the production of acetyl-CoA-derived chemicals in <i>Escherichia coli</i> BL21(DE3) through <i>iclR</i> and <i>arcA</i> deletion. <i>BMC Microbiology</i> , 2017 , 17, 10 | 4.5 | 20 |
| 60 | An in vitro synthetic biosystem based on acetate for production of phloroglucinol. <i>BMC Biotechnology</i> , 2017 , 17, 66 | 3.5 | 4 |
| 59 | Enhanced poly(3-hydroxypropionate) production via Alanine pathway in recombinant <i>Escherichia coli</i> . <i>PLoS ONE</i> , 2017 , 12, e0173150 | 3.7 | 7 |
| 58 | Deletion of <i>arcA</i> increased the production of acetyl-CoA-derived chemicals in recombinant <i>Escherichia coli</i> . <i>Biotechnology Letters</i> , 2016 , 38, 97-101 | 3 | 10 |
| 57 | High-specificity synthesis of novel monomers by remodeled alcohol hydroxylase. <i>BMC Biotechnology</i> , 2016 , 16, 61 | 3.5 | 4 |

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| 56 | In depth understanding the molecular response to the enhanced secretion of fatty acids in <i>Saccharomyces cerevisiae</i> due to one-step gene deletion of acyl-CoA synthetases. <i>Process Biochemistry</i> , 2016 , 51, 1162-1174 | 4.8 | 5 |
| 55 | A novel MVA-mediated pathway for isoprene production in engineered <i>E. coli</i> . <i>BMC Biotechnology</i> , 2016 , 16, 5 | 3.5 | 44 |
| 54 | Engineering <i>Escherichia coli</i> for high-yield geraniol production with biotransformation of geranyl acetate to geraniol under fed-batch culture. <i>Biotechnology for Biofuels</i> , 2016 , 9, 58 | 7.8 | 39 |
| 53 | Bulk Chemical Production: Chemo- and Bio-integrated Strategies 2016 , 1-18 | | |
| 52 | Development of a 3-hydroxypropionate resistant <i>Escherichia coli</i> strain. <i>Bioengineered</i> , 2016 , 7, 21-7 | 5.7 | 7 |
| 51 | Functional balance between enzymes in malonyl-CoA pathway for 3-hydroxypropionate biosynthesis. <i>Metabolic Engineering</i> , 2016 , 34, 104-111 | 9.7 | 51 |
| 50 | The metabolism and biotechnological application of betaine in microorganism. <i>Applied Microbiology and Biotechnology</i> , 2016 , 100, 3865-76 | 5.7 | 40 |
| 49 | Biosynthetic pathway for acrylic acid from glycerol in recombinant <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2016 , 100, 4901-7 | 5.7 | 12 |
| 48 | Sustainable utilization of lignocellulose: Preparation of furan derivatives from carbohydrate biomass by bifunctional lignosulfonate-based catalysts. <i>Catalysis Communications</i> , 2016 , 84, 159-162 | 3.2 | 10 |
| 47 | Microbial Production of Isoprene: Opportunities and Challenges 2016 , 473-504 | | 2 |
| 46 | Metabolic engineering of <i>Escherichia coli</i> for the production of hydroxy fatty acids from glucose. <i>BMC Biotechnology</i> , 2016 , 16, 26 | 3.5 | 16 |
| 45 | Biosynthesis of poly(3-hydroxypropionate) from glycerol using engineered <i>Klebsiella pneumoniae</i> strain without vitamin B12. <i>Bioengineered</i> , 2015 , 6, 77-81 | 5.7 | 8 |
| 44 | Metabolic engineering of <i>Escherichia coli</i> to improve recombinant protein production. <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 10367-77 | 5.7 | 26 |
| 43 | Biotechnological production of 1,2,4-butanetriol: An efficient process to synthesize energetic material precursor from renewable biomass. <i>Scientific Reports</i> , 2015 , 5, 18149 | 4.9 | 32 |
| 42 | Fatty acid from the renewable sources: a promising feedstock for the production of biofuels and biobased chemicals. <i>Biotechnology Advances</i> , 2014 , 32, 382-9 | 17.8 | 35 |
| 41 | Microbial production of sabinene—a new terpene-based precursor of advanced biofuel. <i>Microbial Cell Factories</i> , 2014 , 13, 20 | 6.4 | 88 |
| 40 | Production of free monounsaturated fatty acids by metabolically engineered <i>Escherichia coli</i> . <i>Biotechnology for Biofuels</i> , 2014 , 7, 59 | 7.8 | 52 |
| 39 | Production of optically pure d-lactate from glycerol by engineered <i>Klebsiella pneumoniae</i> strain. <i>Bioresource Technology</i> , 2014 , 172, 269-275 | 11 | 25 |

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| 38 | Genetic analysis of riboswitch-mediated transcriptional regulation responding to Mn ²⁺ in Salmonella. <i>Journal of Biological Chemistry</i> , 2014 , 289, 11353-11366 | 5.4 | 19 |
| 37 | Metabolic engineering of Escherichia coli for poly(3-hydroxypropionate) production from glycerol and glucose. <i>Biotechnology Letters</i> , 2014 , 36, 2257-62 | 3 | 17 |
| 36 | Development of genetically stable Escherichia coli strains for poly(3-hydroxypropionate) production. <i>PLoS ONE</i> , 2014 , 9, e97845 | 3.7 | 27 |
| 35 | Metabolic engineering of Escherichia coli for the biosynthesis of alpha-pinene. <i>Biotechnology for Biofuels</i> , 2013 , 6, 60 | 7.8 | 107 |
| 34 | Metabolic engineering of Escherichia coli for high-specificity production of isoprenol and prenol as next generation of biofuels. <i>Biotechnology for Biofuels</i> , 2013 , 6, 57 | 7.8 | 92 |
| 33 | Inducible cell lysis systems in microbial production of bio-based chemicals. <i>Applied Microbiology and Biotechnology</i> , 2013 , 97, 7121-9 | 5.7 | 31 |
| 32 | Not only osmoprotectant: betaine increased lactate dehydrogenase activity and L-lactate production in lactobacilli. <i>Bioresource Technology</i> , 2013 , 148, 591-5 | 11 | 18 |
| 31 | Biosynthesis of poly(3-hydroxypropionate-co-3-hydroxybutyrate) with fully controllable structures from glycerol. <i>Bioresource Technology</i> , 2013 , 142, 741-4 | 11 | 18 |
| 30 | Induction of gene expression in bacteria at optimal growth temperatures. <i>Applied Microbiology and Biotechnology</i> , 2013 , 97, 5423-31 | 5.7 | 9 |
| 29 | Biosynthesis of poly(3-hydroxypropionate) from glycerol by recombinant Escherichia coli. <i>Bioresource Technology</i> , 2013 , 131, 548-51 | 11 | 52 |
| 28 | Production of Block Copolymer Poly(3-hydroxybutyrate)-poly(3-hydroxypropionate) with Adjustable Structure from an Inexpensive Carbon Source.. <i>ACS Macro Letters</i> , 2013 , 2, 996-1000 | 6.6 | 34 |
| 27 | Fermentative succinate production: an emerging technology to replace the traditional petrochemical processes. <i>BioMed Research International</i> , 2013 , 2013, 723412 | 3 | 36 |
| 26 | Biodegradation-inspired bioproduction of methylacetoin and 2-methyl-2,3-butanediol. <i>Scientific Reports</i> , 2013 , 3, 2445 | 4.9 | 9 |
| 25 | Metabolic engineering of Escherichia coli for the production of xylonate. <i>PLoS ONE</i> , 2013 , 8, e67305 | 3.7 | 28 |
| 24 | Dissection of malonyl-coenzyme A reductase of Chloroflexus aurantiacus results in enzyme activity improvement. <i>PLoS ONE</i> , 2013 , 8, e75554 | 3.7 | 22 |
| 23 | Bio-isoprene production using exogenous MVA pathway and isoprene synthase in Escherichia coli. <i>Bioresource Technology</i> , 2012 , 104, 642-7 | 11 | 67 |
| 22 | Biosynthesis of long chain hydroxyfatty acids from glucose by engineered Escherichia coli. <i>Bioresource Technology</i> , 2012 , 114, 561-6 | 11 | 15 |
| 21 | Production of extracellular fatty acid using engineered Escherichia coli. <i>Microbial Cell Factories</i> , 2012 , 11, 41 | 6.4 | 59 |

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| 20 | Optimization of fatty alcohol biosynthesis pathway for selectively enhanced production of C12/14 and C16/18 fatty alcohols in engineered <i>Escherichia coli</i> . <i>Microbial Cell Factories</i> , 2012 , 11, 65 | 6.4 | 75 |
| 19 | Boosting the free fatty acid synthesis of <i>Escherichia coli</i> by expression of a cytosolic <i>Acinetobacter baylyi</i> thioesterase. <i>Biotechnology for Biofuels</i> , 2012 , 5, 76 | 7.8 | 40 |
| 18 | Biosynthetic pathway for poly(3-hydroxypropionate) in recombinant <i>Escherichia coli</i> . <i>Journal of Microbiology</i> , 2012 , 50, 693-7 | 3 | 32 |
| 17 | In vitro assembly of multiple DNA fragments using successive hybridization. <i>PLoS ONE</i> , 2012 , 7, e30267 | 3.7 | 17 |
| 16 | Enhancing production of bio-isoprene using hybrid MVA pathway and isoprene synthase in <i>E. coli</i> . <i>PLoS ONE</i> , 2012 , 7, e33509 | 3.7 | 110 |
| 15 | Mg ²⁺ facilitates leader peptide translation to induce riboswitch-mediated transcription termination. <i>EMBO Journal</i> , 2011 , 30, 1485-96 | 13 | 27 |
| 14 | Increasing fatty acid production in <i>E. coli</i> by simulating the lipid accumulation of oleaginous microorganisms. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2011 , 38, 919-25 | 4.2 | 47 |
| 13 | Biosynthesis of isoprene in <i>Escherichia coli</i> via methylerythritol phosphate (MEP) pathway. <i>Applied Microbiology and Biotechnology</i> , 2011 , 90, 1915-22 | 5.7 | 120 |
| 12 | Improved phloroglucinol production by metabolically engineered <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2011 , 91, 1545-52 | 5.7 | 37 |
| 11 | The CpxR/CpxA two-component system up-regulates two Tat-dependent peptidoglycan amidases to confer bacterial resistance to antimicrobial peptide. <i>Journal of Biological Chemistry</i> , 2011 , 286, 5529-39 ⁴ | 5.4 | 66 |
| 10 | Heterologous expression of stearyl-acyl carrier protein desaturase (S-ACP-DES) from <i>Arabidopsis thaliana</i> in <i>Escherichia coli</i> . <i>Protein Expression and Purification</i> , 2010 , 69, 209-14 | 2 | 18 |
| 9 | Increasing unsaturated fatty acid contents in <i>Escherichia coli</i> by coexpression of three different genes. <i>Applied Microbiology and Biotechnology</i> , 2010 , 87, 271-80 | 5.7 | 54 |
| 8 | Biosynthetic pathways for 3-hydroxypropionic acid production. <i>Applied Microbiology and Biotechnology</i> , 2009 , 82, 995-1003 | 5.7 | 111 |
| 7 | Encapsulated in silica: genome, proteome and physiology of the thermophilic bacterium <i>Anoxybacillus flavithermus</i> WK1. <i>Genome Biology</i> , 2008 , 9, R161 | 18.3 | 58 |
| 6 | A dual-signal regulatory circuit activates transcription of a set of divergent operons in <i>Salmonella typhimurium</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 20924-9 | 11.5 | 36 |
| 5 | Genome and proteome of long-chain alkane degrading <i>Geobacillus thermodenitrificans</i> NG80-2 isolated from a deep-subsurface oil reservoir. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 5602-7 | 11.5 | 269 |
| 4 | Structural relation of the antigenic polysaccharides of <i>Escherichia coli</i> O40, <i>Shigella dysenteriae</i> type 9, and <i>E. coli</i> K47. <i>Carbohydrate Research</i> , 2007 , 342, 1275-9 | 2.9 | 16 |
| 3 | Structural and genetic evidence that the <i>Escherichia coli</i> O148 O antigen is the precursor of the <i>Shigella dysenteriae</i> type 1 O antigen and identification of a glucosyltransferase gene. <i>Microbiology (United Kingdom)</i> , 2007 , 153, 139-147 | 2.9 | 34 |

- 2 Structure of a teichoic acid-like O-polysaccharide of Escherichia coli O29. *Carbohydrate Research*, **2006**, 341, 2176-80 2.9 16
- 1 Structural and genetic characterization of the Shigella boydii type 13 O antigen. *Journal of Bacteriology*, **2004**, 186, 383-92 3.5 76