Xian Zhang

List of Publications by Citations

92 papers	1,523 citations	23 h-index	35 g-index
110 ext. papers	1,883 ext. citations	5 avg, IF	4.71 L-index

#	Paper	IF	Citations
92	Highly Sensitive Determination of microRNA Using Target-Primed and Branched Rolling-Circle Amplification. *Angewandte Chemie*, **2009**, 121, 3318-3322	3.6	93
91	Phosphate chemical conversion coatings on metallic substrates for biomedical application: a review. *Materials Science and Engineering C*, **2015**, 47, 97-104	8.3	82
90	The rebalanced pathway significantly enhances acetoin production by disruption of acetoin reductase gene and moderate-expression of a new water-forming NADH oxidase in Bacillus subtilis. *Metabolic Engineering*, **2014**, 23, 34-41	9.7	81
89	The role of H3PO4 in the preparation of activated carbon from NaOH-treated rice husk residue. *RSC Advances*, **2015**, 5, 32626-32636	3.7	75
88	Metabolic engineering strategies for acetoin and 2,3-butanediol production: advances and prospects. *Critical Reviews in Biotechnology*, **2017**, 37, 990-1005	9.4	51
87	Isolation and identification of an acetoin high production bacterium that can reverse transform 2,3-butanediol to acetoin at the decline phase of fermentation. *World Journal of Microbiology and Biotechnology*, **2011**, 27, 2785-2790	4.4	44
86	Preparation of Fe/activated carbon directly from rice husk pyrolytic carbon and its application in catalytic hydroxylation of phenol. *RSC Advances*, **2015**, 5, 4984-4992	3.7	42
85	Systems pathway engineering of Corynebacterium crenatum for improved L-arginine production. *Scientific Reports*, **2016**, 6, 28629	4.9	40
84	Efficient testosterone production by engineered Pichia pastoris co-expressing human 17β-hydroxysteroid dehydrogenase type 3 and Saccharomyces cerevisiae glucose 6-phosphate dehydrogenase with NADPH regeneration. *Green Chemistry*, **2016**, 18, 1774-1784	10	40
83	Ultrasonic Induced Rapid Formation and Crystal Refinement of Chemical Conversed Hopeite Coating on Titanium. *Journal of Physical Chemistry C*, **2014**, 118, 1910-1918	3.8	40
82	Enhanced 2,3-butanediol production from biodiesel-derived glycerol by engineering of cofactor regeneration and manipulating carbon flux in Bacillus amyloliquefaciens. *Microbial Cell Factories*, **2015**, 14, 122	6.4	39
81	Efficient whole-cell biocatalyst for acetoin production with NAD+ regeneration system through homologous co-expression of 2,3-butanediol dehydrogenase and NADH oxidase in engineered Bacillus subtilis. *PLoS ONE*, **2014**, 9, e102951	3.7	37
80	Improvement of the intracellular environment for enhancing l-arginine production of Corynebacterium glutamicum by inactivation of HO-forming flavin reductases and optimization of ATP supply. *Metabolic Engineering*, **2016**, 38, 310-321	9.7	35
79	Moderate expression of the transcriptional regulator ALsR enhances acetoin production by Bacillus subtilis. *Journal of Industrial Microbiology and Biotechnology*, **2013**, 40, 1067-76	4.2	31
78	Regulation of the NADH pool and NADH/NADPH ratio redistributes acetoin and 2,3-butanediol proportion in Bacillus subtilis. *Biotechnology Journal*, **2015**, 10, 1298-306	5.6	31
77	Mutation breeding of acetoin high producing Bacillus subtilis blocked in 2,3-butanediol dehydrogenase. *World Journal of Microbiology and Biotechnology*, **2013**, 29, 1783-9	4.4	28
76	Elimination of a Free Cysteine by Creation of a Disulfide Bond Increases the Activity and Stability of Candida boidinii Formate Dehydrogenase. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	27

75	Enhanced Production of Androst-1,4-Diene-3,17-Dione by Mycobacterium neoaurum JC-12 Using Three-Stage Fermentation Strategy. *PLoS ONE*, **2015**, 10, e0137658	3.7	26
74	eTrain: Making Wasted Energy Useful by Utilizing Heartbeats for Mobile Data Transmissions **2015**,		25
73	Two-stage pH control strategy based on the pH preference of acetoin reductase regulates acetoin and 2,3-butanediol distribution in Bacillus subtilis. *PLoS ONE*, **2014**, 9, e91187	3.7	25
72	Metabolic engineering of Bacillus subtilis for redistributing the carbon flux to 2,3-butanediol by manipulating NADH levels. *Biotechnology for Biofuels*, **2015**, 8, 129	7.8	24
71	Effect of Polyhydroxybutyrate (PHB) storage on L-arginine production in recombinant Corynebacterium crenatum using coenzyme regulation. *Microbial Cell Factories*, **2016**, 15, 15	6.4	23
70	Discovery of the programmed cell death-1/programmed cell death-ligand 1 interaction inhibitors bearing an indoline scaffold. *European Journal of Medicinal Chemistry*, **2020**, 186, 111856	6.8	23
69	Amino acid residues adjacent to the catalytic cavity of tetramer L-asparaginase II contribute significantly to its catalytic efficiency and thermostability. *Enzyme and Microbial Technology*, **2016**, 82, 15-22	3.8	22
68	Formation and corrosion resistance of a phosphate chemical conversion coating on medium carbon low alloy steel. *New Journal of Chemistry*, **2016**, 40, 1347-1353	3.6	22
67	Efficient one-step preparation of □aminobutyric acid from glucose without an exogenous cofactor by the designed Corynebacterium glutamicum. *Green Chemistry*, **2014**, 16, 4190-4197	10	22
66	Designing of a Cofactor Self-Sufficient Whole-Cell Biocatalyst System for Production of 1,2-Amino Alcohols from Epoxides. *ACS Synthetic Biology*, **2019**, 8, 734-743	5.7	21
65	A mutant form of 3-ketosteroid-□(1)-dehydrogenase gives altered androst-1,4-diene-3, 17-dione/androst-4-ene-3,17-dione molar ratios in steroid biotransformations by Mycobacterium neoaurum ST-095. *Journal of Industrial Microbiology and Biotechnology*, **2016**, 43, 691-701	4.2	20
64	Simultaneous cell disruption and semi-quantitative activity assays for high-throughput screening of thermostable L-asparaginases. *Scientific Reports*, **2018**, 8, 7915	4.9	20
63	Removal of dyes from aqueous solutions using activated carbon prepared from rice husk residue. *Water Science and Technology*, **2016**, 73, 1122-8	2.2	19
62	LysR-Type Transcriptional Regulator MetR Controls Prodigiosin Production, Methionine Biosynthesis, Cell Motility, HO Tolerance, Heat Tolerance, and Exopolysaccharide Synthesis in Serratia marcescens. *Applied and Environmental Microbiology*, **2020**, 86,	4.8	18
61	Efficient biosynthesis of L-phenylglycine by an engineered Escherichia coli with a tunable multi-enzyme-coordinate expression system. *Applied Microbiology and Biotechnology*, **2018**, 102, 2129-2141	5.7	17
60	Enhancement of the thermostability of Streptomyces kathirae SC-1 tyrosinase by rational design and empirical mutation. *Enzyme and Microbial Technology*, **2015**, 77, 54-60	3.8	16
59	Significantly enhancing production of -4-hydroxy-l-proline by integrated system engineering in. *Science Advances*, **2020**, 6, eaba2383	14.3	15
58	Improvement of the ammonia assimilation for enhancing L-arginine production of Corynebacterium crenatum. *Journal of Industrial Microbiology and Biotechnology*, **2017**, 44, 443-451	4.2	14

57	Cloning and identification of a novel tyrosinase and its overexpression in Streptomyces kathirae SC-1 for enhancing melanin production. *FEMS Microbiology Letters*, **2015**, 362, fnv041	2.9	14
56	Construction of a highly efficient Bacillus subtilis 168 whole-cell biocatalyst and its application in the production of L-ornithine. *Journal of Industrial Microbiology and Biotechnology*, **2015**, 42, 1427-37	4.2	14
55	Rational Engineering of Bacillus cereus Leucine Dehydrogenase Towards Eketo Acid Reduction for Improving Unnatural Amino Acid Production. *Biotechnology Journal*, **2019**, 14, e1800253	5.6	14
54	Influence of processing time on the phase, microstructure and electrochemical properties of hopeite coating on stainless steel by chemical conversion method. *New Journal of Chemistry*, **2015**, 39, 5813-5822	3.6	14
53	Bioconversion of cholesterol to 4-cholesten-3-one by recombinant Bacillus subtilis expressing choM gene encoding cholesterol oxidase from Mycobacterium neoaurum JC-12. *Journal of Chemical Technology and Biotechnology*, **2015**, 90, 1811-1820	3.5	13
52	Joint resource allocation and caching placement for network slicing in fog radio access networks **2017**,		13
51	Enhanced extracellular gamma glutamyl transpeptidase production by overexpressing of PrsA lipoproteins and improving its mRNA stability in Bacillus subtilis and application in biosynthesis of L-theanine. *Journal of Biotechnology*, **2019**, 302, 85-91	3.7	12
50	Optimized whole cell biocatalyst from acetoin to 2,3-butanediol through coexpression of acetoin reductase with NADH regeneration systems in engineered Bacillus subtilis. *Journal of Chemical Technology and Biotechnology*, **2017**, 92, 2477-2487	3.5	11
49	Reengineering of the feedback-inhibition enzyme N-acetyl-L-glutamate kinase to enhance L-arginine production in Corynebacterium crenatum. *Journal of Industrial Microbiology and Biotechnology*, **2017**, 44, 271-283	4.2	11
48	Improved L-ornithine production in Corynebacterium crenatum by introducing an artificial linear transacetylation pathway. *Journal of Industrial Microbiology and Biotechnology*, **2018**, 45, 393-404	4.2	11
47	Asp305Gly mutation improved the activity and stability of the styrene monooxygenase for efficient epoxide production in Pseudomonas putida KT2440. *Microbial Cell Factories*, **2019**, 18, 12	6.4	10
46	N,N,N-trimethylchitosan modified with well defined multifunctional polymer modules used as pDNA delivery vector. *Carbohydrate Polymers*, **2016**, 137, 222-230	10.3	10
45	Development of a multi-enzymatic desymmetrization and its application for the biosynthesis of l-norvaline from dl-norvaline. *Process Biochemistry*, **2017**, 55, 104-109	4.8	9
44	Design, synthesis and biological evaluation of novel thieno[3,2-d]pyrimidine and quinazoline derivatives as potent antitumor agents. *Bioorganic Chemistry*, **2019**, 90, 103086	5.1	9
43	Directed Evolution of Ornithine Cyclodeaminase Using an EvolvR-Based Growth-Coupling Strategy for Efficient Biosynthesis of l-Proline. *ACS Synthetic Biology*, **2020**, 9, 1855-1863	5.7	9
42	Controlling the transcription levels of argGH redistributed L-arginine metabolic flux in N-acetylglutamate kinase and ArgR-deregulated Corynebacterium crenatum. *Journal of Industrial Microbiology and Biotechnology*, **2016**, 43, 55-66	4.2	9
41	Insight into the thermostability of thermophilic L-asparaginase and non-thermophilic L-asparaginase II through bioinformatics and structural analysis. *Applied Microbiology and Biotechnology*, **2019**, 103, 7055-7070	5.7	9
40	Enhanced intracellular soluble production of 3-ketosteroid-1-dehydrogenase from Mycobacterium neoaurum in Escherichia coli and its application in the androst-1,4-diene-3,17-dione production. *Journal of Chemical Technology and Biotechnology*, **2017**, 92, 350-357	3.5	8

39	Identification of steroid C27 monooxygenase isoenzymes involved in sterol catabolism and stepwise pathway engineering of Mycobacterium neoaurum for improved androst-1,4-diene-3,17-dione production. *Journal of Industrial Microbiology and Biotechnology*, **2019** 46, 635-647	4.2	8
38	Relieving Allosteric Inhibition by Designing Active Inclusion Bodies and Coating of the Inclusion Bodies with Fe3O4 Nanomaterials for Sustainable 2-Oxobutyric Acid Production. *ACS Catalysis*, **2018**, 8, 8889-8901	13.1	7
37	Development of a Novel Biosensor-Driven Mutation and Selection System via Growth of for the Production of L-Arginine. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 175	5.8	6
36	PII Signal Transduction Protein GlnK Alleviates Feedback Inhibition of -Acetyl-l-Glutamate Kinase by l-Arginine in Corynebacterium glutamicum. *Applied and Environmental Microbiology*, **2020**, 86,	4.8	6
35	Improving the acidic stability of Staphylococcus aureus acetolactate decarboxylase in Bacillus subtilis by changing basic residues to acidic residues. *Amino Acids*, **2015**, 47, 707-17	3.5	6
34	Intracellular Environment Improvement of for Enhancing Androst-1,4-Diene-3,17-Dione Production by Manipulating NADH and Reactive Oxygen Species Levels. *Molecules*, **2019**, 24,	4.8	6
33	Engineered disulfide bonds improve thermostability and activity of L-isoleucine hydroxylase for efficient 4-HIL production in 168. *Engineering in Life Sciences*, **2020**, 20, 7-16	3.4	6
32	Enhancement of L-arginine production by increasing ammonium uptake in an AmtR-deficient Corynebacterium crenatum mutant. *Journal of Industrial Microbiology and Biotechnology*, **2019**, 46, 1155-1166	4.2	5
31	Improving the Production of Salt-Tolerant Glutaminase by Integrating Multiple Copies of into the Protease and Genes of 168. *Molecules*, **2019**, 24,	4.8	5
30	Sesame flavour baijiu: a review. *Journal of the Institute of Brewing*, **2020**, 126, 224-232	2	5
29	Palladium-Catalyzed Cyclization Reaction of Oxime Acetates and Aryl Iodides: Syntheses of 2-Imidazolines. *Organic Letters*, **2018**, 20, 2116-2119	6.2	5
28	Efficient 9hydroxy-4-androstene-3,17-dione production by engineered Bacillus subtilis co-expressing Mycobacterium neoaurum 3-ketosteroid 9hydroxylase and B. subtilis glucose 1-dehydrogenase with NADH regeneration. *SpringerPlus*, **2016**, 5, 1207		5
27	Improved thermostability and catalytic efficiency of overexpressed catalase from B. pumilus ML 413 (KatX2) by introducing disulfide bond C286-C289. *Enzyme and Microbial Technology*, **2018**, 119, 10-16	3.8	5
26	Lys-Arg mutation improved the thermostability of Bacillus cereus neutral protease through increased residue interactions. *World Journal of Microbiology and Biotechnology*, **2019**, 35, 173	4.4	5
25	Surface charge-based rational design of aspartase modifies the optimal pH for efficient aminobutyric acid production. *International Journal of Biological Macromolecules*, **2020**, 164, 4165-4172	7.9	5
24	Multifunctional oligomer immobilized on quartz crystal microbalance: a facile and stabilized molecular imprinting strategy for glycoprotein detection. *Analytical and Bioanalytical Chemistry*, **2019**, 411, 3941-3949	4.4	4
23	Rapid early formation and crystal refinement of chemical conversion hopeite coatings induced by substrate sandblasting. *New Journal of Chemistry*, **2015**, 39, 7942-7947	3.6	4
22	Synthetic engineering of Corynebacterium crenatum to selectively produce acetoin or 2,3-butanediol by one step bioconversion method. *Microbial Cell Factories*, **2019**, 18, 128	6.4	3

21	A Novel 3-Phytosterone-9α-Hydroxylase Oxygenation Component and Its Application in Bioconversion of 4-Androstene-3,17-Dione to 9α-Hydroxy-4-Androstene-3,17-Dione Coupling with A NADH Regeneration Formate Dehydrogenase. *Molecules*, **2019**, 24,	4.8	3
20	Efficient production of d-amino acid oxidase in Escherichia coli by a trade-off between its expression and biomass using N-terminal modification. *Bioresource Technology*, **2017**, 243, 716-723	11	3
19	Semi-quantitative activity assays for high-throughput screening of higher activity gamma glutamyl transferase and enzyme immobilization to efficiently synthesize L-theanine. *Journal of Biotechnology*, **2021**, 330, 9-16	3.7	3
18	Efficient single whole-cell biotransformation for L-2-aminobutyric acid production through engineering of leucine dehydrogenase combined with expression regulation. *Bioresource Technology*, **2021**, 326, 124665	11	3
17	Integrated gene engineering synergistically improved substrate-product transport, cofactor generation and gene translation for cadaverine biosynthesis in E. coli. *International Journal of Biological Macromolecules*, **2021**, 169, 8-17	7.9	3
16	Cascade biocatalysis for production of enantiopure (S)-2-hydroxybutyric acid using recombinant Escherichia coli with a tunable multi-enzyme-coordinate expression system. *Systems Microbiology and Biomanufacturing*, **2021**, 1, 234-244		3
15	Optimization of l-arginine purification from Corynebacterium crenatum fermentation broth. *Journal of Separation Science*, **2020**, 43, 2936-2948	3.4	2
14	Hepatoprotective ability of tetramethylpyrazine produced by Bacillus amyloliquefaciens. *Systems Microbiology and Biomanufacturing*, **2021**, 1, 223-233		2
13	Engineering of microbial cells for L-valine production: challenges and opportunities. *Microbial Cell Factories*, **2021**, 20, 172	6.4	2
12	Production of d-Tagatose by Whole-Cell Conversion of Recombinant in the Absence of Antibiotics.. *Biology*, **2021**, 10,	4.9	2
11	Citrulline deiminase pathway provides ATP and boosts growth of Clostridium carboxidivorans P7. *Biotechnology for Biofuels*, **2021**, 14, 204	7.8	1
10	Isolation and Identification of an Efficient Aerobic Denitrifying Pseudomonas stutzeri Strain and Characterization of Its Nitrite Degradation. *Catalysts*, **2021**, 11, 1214	4	1
9	Enhanced production of L-arginine by improving carbamoyl phosphate supply in metabolically engineered Corynebacterium crenatum. *Applied Microbiology and Biotechnology*, **2021**, 105, 3265-3276	5.7	1
8	Rational engineering of the Plasmodium falciparuml-lactate dehydrogenase loop involved in catalytic proton transfer to improve chiral 2-hydroxybutyric acid production. *International Journal of Biological Macromolecules*, **2021**, 179, 71-79	7.9	1
7	Redistribution of Intracellular Metabolic Flow in Improves Carbon Atom Economy for High-Yield 2,5-Dimethylpyrazine Production. *Journal of Agricultural and Food Chemistry*, **2021**, 69, 2512-2521	5.7	1
6	Microbial production of riboflavin: Biotechnological advances and perspectives. *Metabolic Engineering*, **2021**, 68, 46-58	9.7	1
5	Biotechnological Innovations and Therapeutic Application of Pediococcus and Lactic Acid Bacteria: The Next-Generation Microorganism.. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 802031	5.8	1
4	Characterization of Bacillus subtilis Ab03 for efficient ammonia nitrogen removal. *Systems Microbiology and Biomanufacturing*,1		1

3	Efficient D-allulose synthesis under acidic conditions by auto-inducing expression of the tandem D-allulose 3-epimerase genes in Bacillus subtilis.. *Microbial Cell Factories*, **2022**, 21, 63	6.4	1
2	MarR-type transcription factor RosR regulates glutamate metabolism network and promotes accumulation of L-glutamate in Corynebacterium glutamicum G01. *Bioresource Technology*, **2021**, 342, 125945	11	0
1	Thallium isotopic compositions as tracers in environmental studies: A review.. *Environment International*, **2022**, 162, 107148	12.9	0