

Chao Gao

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Characterization of the Trimethylamine N-Oxide Transporter From <i>Pelagibacter</i> Strain HTCC1062 Reveals Its Oligotrophic Niche Adaption. <i>Frontiers in Microbiology</i> , 2022, 13, 838608.	3.5	1
2	Enhanced <i>l</i> -Serine Production from Glycerol by Integration with Thermodynamically Favorable <i>d</i> -Glycerate Oxidation. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 2587-2592.	6.7	5
3	Biotechnological production of chiral acetoin. <i>Trends in Biotechnology</i> , 2022, 40, 958-973.	9.3	7
4	Insights into methionine S-methylation in diverse organisms. <i>Nature Communications</i> , 2022, 13, .	12.8	9
5	A <i>d,l</i> -lactate biosensor based on allosteric transcription factor LldR and amplified luminescent proximity homogeneous assay. <i>Biosensors and Bioelectronics</i> , 2022, 211, 114378.	10.1	6
6	Crystal structures of β -glutamylmethylamide synthetase provide insight into bacterial metabolism of oceanic monomethylamine. <i>Journal of Biological Chemistry</i> , 2021, 296, 100081.	3.4	3
7	Production of Ethylene Glycol from Glycerol Using an In Vitro Enzymatic Cascade. <i>Catalysts</i> , 2021, 11, 214.	3.5	6
8	A novel ATP dependent dimethylsulfoniopropionate lyase in bacteria that releases dimethyl sulfide and acryloyl-CoA. <i>ELife</i> , 2021, 10, .	6.0	38
9	2,3-Butanediol synthesis from glucose supplies NADH for elimination of toxic acetate produced during overflow metabolism. <i>Cell Discovery</i> , 2021, 7, 43.	6.7	12
10	An <i>l</i> -2-hydroxyglutarate biosensor based on specific transcriptional regulator LhgR. <i>Nature Communications</i> , 2021, 12, 3619.	12.8	21
11	Coculture of <i>Gluconobacter oxydans</i> and <i>Escherichia coli</i> for 3,4-Dihydroxybutyric Acid Production from Xylose. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 10809-10817.	6.7	8
12	Dehydrogenation Mechanism of Three Stereoisomers of Butane-2,3-Diol in <i>Pseudomonas putida</i> KT2440. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 728767.	4.1	2
13	Enhanced In Vitro Cascade Catalysis of Glycerol into Pyruvate and Acetoin by Integration with Dihydroxy Acid Dehydratase from <i>Paracaligenes ureilyticus</i> . <i>Catalysts</i> , 2021, 11, 1282.	3.5	5
14	A <i>d</i> -2-hydroxyglutarate biosensor based on specific transcriptional regulator Dh dR. <i>Nature Communications</i> , 2021, 12, 7108.	12.8	14
15	Efficient 2,3-butanediol production from whey powder using metabolically engineered <i>Klebsiella oxytoca</i> . <i>Microbial Cell Factories</i> , 2020, 19, 162.	4.0	27
16	Pyruvate Production from Whey Powder by Metabolic Engineered <i>Klebsiella oxytoca</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 15275-15283.	5.2	6
17	Metabolic Engineering of <i>Bacillus licheniformis</i> for Production of Acetoin. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 125.	4.1	21
18	Regulation of Glutarate Catabolism by GntR Family Regulator CsiR and LysR Family Regulator GcdR in <i>Pseudomonas putida</i> KT2440. <i>MBio</i> , 2019, 10, .	4.1	15

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19	Production of <i>d</i> -Xylonate from Corn Cob Hydrolysate by a Metabolically Engineered <i>Escherichia coli</i> Strain. ACS Sustainable Chemistry and Engineering, 2019, 7, 2160-2168.	6.7	20
20	Engineering of glycerol utilization in <i>Gluconobacter oxydans</i> 621H for biocatalyst preparation in a low-cost way. Microbial Cell Factories, 2018, 17, 158.	4.0	10
21	Production of value-added chemicals from glycerol using in vitro enzymatic cascades. Communications Chemistry, 2018, 1, .	4.5	37
22	Numerical analysis and experimental research on load carrying capacity of water-lubricated tilting-pad thrust bearings. Mechanics and Industry, 2018, 19, 201.	1.3	5
23	<i>d</i> -2-Hydroxyglutarate dehydrogenase plays a dual role in <i>l</i> -serine biosynthesis and <i>d</i> -malate utilization in the bacterium <i>Pseudomonas stutzeri</i> . Journal of Biological Chemistry, 2018, 293, 15513-15523.	3.4	13
24	Increased glutarate production by blocking the glutaryl-CoA dehydrogenation pathway and a catabolic pathway involving <i>l</i> -2-hydroxyglutarate. Nature Communications, 2018, 9, 2114.	12.8	48
25	2,3-Butanediol catabolism in <i>Pseudomonas aeruginosa</i> PAO1. Environmental Microbiology, 2018, 20, 3927-3940.	3.8	22
26	Two NAD ⁺ -independent <i>l</i> -lactate dehydrogenases drive <i>l</i> -lactate utilization in <i>Pseudomonas aeruginosa</i> PAO1. Environmental Microbiology Reports, 2018, 10, 569-575.	2.4	7
27	Enzymatic Cascades for Efficient Biotransformation of Racemic Lactate Derived from Corn Steep Water. ACS Sustainable Chemistry and Engineering, 2017, 5, 3456-3464.	6.7	22
28	Coupling between <i>d</i> -3-phosphoglycerate dehydrogenase and <i>d</i> -2-hydroxyglutarate dehydrogenase drives bacterial <i>l</i> -serine synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7574-E7582.	7.1	41
29	A Bacterial Multidomain NAD-Independent <i>d</i> -Lactate Dehydrogenase Utilizes Flavin Adenine Dinucleotide and Fe-S Clusters as Cofactors and Quinone as an Electron Acceptor for <i>d</i> -Lactate Oxidization. Journal of Bacteriology, 2017, 199, .	2.2	12
30	Efficient secretory expression of recombinant proteins in <i>Escherichia coli</i> with a novel actinomycete signal peptide. Protein Expression and Purification, 2017, 129, 69-74.	1.3	11
31	Functional and cooperative stabilization of a two-metal (Ca, Zn) center in α -amylase derived from Flavobacteriaceae species. Scientific Reports, 2017, 7, 17933.	3.3	16
32	Coexistence of two <i>d</i> -lactate-utilizing systems in <i>Pseudomonas putida</i> KT2440. Environmental Microbiology Reports, 2016, 8, 699-707.	2.4	8
33	Efficient production of propionic acid through high density culture with recycling cells of <i>Propionibacterium acidipropionici</i> . Bioresource Technology, 2016, 216, 856-861.	9.6	23
34	Sequence similarity network analysis, crystallization, and X-ray crystallographic analysis of the lactate metabolism regulator LldR from <i>Pseudomonas aeruginosa</i> . Bioresources and Bioprocessing, 2016, 3, .	4.2	0
35	Contracted but effective: production of enantiopure 2,3-butanediol by thermophilic and GRAS <i>Bacillus licheniformis</i> . Green Chemistry, 2016, 18, 4693-4703.	9.0	66
36	Enzymatic Resolution by a <i>d</i> -Lactate Oxidase Catalyzed Reaction for (<i>S</i>)-2-Hydroxycarboxylic Acids. ChemCatChem, 2016, 8, 2630-2633.	3.7	13

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37	Overexpression of transport proteins improves the production of 5-aminovalerate from L-lysine in <i>Escherichia coli</i> . <i>Scientific Reports</i> , 2016, 6, 30884.	3.3	24
38	Biotechnological production of acetoin, a bio-based platform chemical, from a lignocellulosic resource by metabolically engineered <i>Enterobacter cloacae</i> . <i>Green Chemistry</i> , 2016, 18, 1560-1570.	9.0	45
39	A novel biocatalyst for efficient production of 2-oxo-carboxylates using glycerol as the cost-effective carbon source. <i>Biotechnology for Biofuels</i> , 2015, 8, 186.	6.2	12
40	Metabolic engineering of <i>Escherichia coli</i> for production of (2S,3S)-butane-2,3-diol from glucose. <i>Biotechnology for Biofuels</i> , 2015, 8, 143.	6.2	41
41	NAD-Independent L-Lactate Dehydrogenase Required for L-Lactate Utilization in <i>Pseudomonas stutzeri</i> A1501. <i>Journal of Bacteriology</i> , 2015, 197, 2239-2247.	2.2	27
42	Utilization of α -Lactate as an Energy Source Supports the Growth of <i>Gluconobacter oxydans</i> . <i>Applied and Environmental Microbiology</i> , 2015, 81, 4098-4110.	3.1	21
43	Production of diacetyl by metabolically engineered <i>Enterobacter cloacae</i> . <i>Scientific Reports</i> , 2015, 5, 9033.	3.3	24
44	Metabolic engineering of <i>Enterobacter cloacae</i> for high-yield production of enantiopure (2R,3R)-Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4	7.0	117
45	An artificial enzymatic reaction cascade for a cell-free bio-system based on glycerol. <i>Green Chemistry</i> , 2015, 17, 804-807.	9.0	51
46	Draft Genome Sequence of the <i>Gluconobacter oxydans</i> Strain DSM 2003, an Important Biocatalyst for Industrial Use. <i>Genome Announcements</i> , 2014, 2, .	0.8	2
47	Efficient production of 2,3-butanediol from corn stover hydrolysate by using a thermophilic <i>Bacillus licheniformis</i> strain. <i>Bioresource Technology</i> , 2014, 170, 256-261.	9.6	60
48	Efficient Simultaneous Saccharification and Fermentation of Inulin to 2,3-Butanediol by Thermophilic <i>Bacillus licheniformis</i> ATCC 14580. <i>Applied and Environmental Microbiology</i> , 2014, 80, 6458-6464.	3.1	48
49	Systematic metabolic engineering of <i>Escherichia coli</i> for high-yield production of fuel bio-chemical 2,3-butanediol. <i>Metabolic Engineering</i> , 2014, 23, 22-33.	7.0	132
50	Microbial lactate utilization: enzymes, pathogenesis, and regulation. <i>Trends in Microbiology</i> , 2014, 22, 589-599.	7.7	59
51	Genome Sequence of the Nonpathogenic <i>Pseudomonas aeruginosa</i> Strain ATCC 15442. <i>Genome Announcements</i> , 2014, 2, .	0.8	10
52	Reconstruction of lactate utilization system in <i>Pseudomonas putida</i> KT2440: a novel biocatalyst for L-2-hydroxy-carboxylate production. <i>Scientific Reports</i> , 2014, 4, 6939.	3.3	9
53	Enzymatic production of 5-aminovalerate from L-lysine using L-lysine monooxygenase and 5-aminovaleramide amidohydrolase. <i>Scientific Reports</i> , 2014, 4, 5657.	3.3	48
54	Efficient Production of (R)-2-Hydroxy-4-Phenylbutyric Acid by Using a Coupled Reconstructed d-Lactate Dehydrogenase and Formate Dehydrogenase System. <i>PLoS ONE</i> , 2014, 9, e104204.	2.5	9

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55	Production of hydroxypyruvate from glycerate by a novel biotechnological route. <i>Bioresource Technology</i> , 2013, 131, 552-554.	9.6	1
56	Production of (3S)-acetoin from diacetyl by using stereoselective NADPH-dependent carbonyl reductase and glucose dehydrogenase. <i>Bioresource Technology</i> , 2013, 137, 111-115.	9.6	46
57	A newly isolated <i>Bacillus licheniformis</i> strain thermophilically produces 2,3-butanediol, a platform and fuel bio-chemical. <i>Biotechnology for Biofuels</i> , 2013, 6, 123.	6.2	87
58	Engineering of cofactor regeneration enhances (2S,3S)-2,3-butanediol production from diacetyl. <i>Scientific Reports</i> , 2013, 3, 2643.	3.3	63
59	Highly stereoselective biosynthesis of (R)- β -hydroxy carboxylic acids through rationally re-designed mutation of d-lactate dehydrogenase. <i>Scientific Reports</i> , 2013, 3, 3401.	3.3	28
60	Genome Sequence of <i>Clostridium butyricum</i> Strain DSM 10702, a Promising Producer of Biofuels and Biochemicals. <i>Genome Announcements</i> , 2013, 1, .	0.8	9
61	Efficient bioconversion of 2,3-butanediol into acetoin using <i>Gluconobacter oxydans</i> DSM 2003. <i>Biotechnology for Biofuels</i> , 2013, 6, 155.	6.2	39
62	<i>Escherichia coli</i> transcription termination factor NusA: heat-induced oligomerization and chaperone activity. <i>Scientific Reports</i> , 2013, 3, 2347.	3.3	29
63	Genome Sequence of <i>Pseudomonas stutzeri</i> SDM-LAC, a Typical Strain for Studying the Molecular Mechanism of Lactate Utilization. <i>Journal of Bacteriology</i> , 2012, 194, 894-895.	2.2	21
64	Relative Catalytic Efficiency of <i>ldhL</i> - and <i>ldhD</i> -Encoded Products Is Crucial for Optical Purity of Lactic Acid Produced by <i>Lactobacillus</i> Strains. <i>Applied and Environmental Microbiology</i> , 2012, 78, 3480-3483.	3.1	29
65	Genome Sequence of the Lactate-Utilizing <i>Pseudomonas aeruginosa</i> Strain XMG. <i>Journal of Bacteriology</i> , 2012, 194, 4751-4752.	2.2	16
66	Genome Sequence of <i>Klebsiella pneumoniae</i> LZ, a Potential Platform Strain for 1,3-Propanediol Production. <i>Journal of Bacteriology</i> , 2012, 194, 4457-4458.	2.2	7
67	Lactate Utilization Is Regulated by the FadR-Type Regulator LldR in <i>Pseudomonas aeruginosa</i> . <i>Journal of Bacteriology</i> , 2012, 194, 2687-2692.	2.2	50
68	Rationally re-designed mutation of NAD-independent l-lactate dehydrogenase: high optical resolution of racemic mandelic acid by the engineered <i>Escherichia coli</i> . <i>Microbial Cell Factories</i> , 2012, 11, 151.	4.0	17
69	NAD-Independent L-Lactate Dehydrogenase Is Required for L-Lactate Utilization in <i>Pseudomonas stutzeri</i> SDM. <i>PLoS ONE</i> , 2012, 7, e36519.	2.5	30
70	Efficient Production of Pyruvate from DL-Lactate by the Lactate-Utilizing Strain <i>Pseudomonas stutzeri</i> SDM. <i>PLoS ONE</i> , 2012, 7, e40755.	2.5	8
71	Efficient conversion of 1,2-butanediol to (R)-2-hydroxybutyric acid using whole cells of <i>Gluconobacter oxydans</i> . <i>Bioresource Technology</i> , 2012, 115, 75-78.	9.6	16
72	Efficient bioconversion of l-threonine to 2-oxobutyrate using whole cells of <i>Pseudomonas stutzeri</i> SDM. <i>Bioresource Technology</i> , 2012, 110, 719-722.	9.6	11

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73	Efficient utilization of hemicellulose hydrolysate for propionic acid production using <i>Propionibacterium acidipropionici</i> . <i>Bioresource Technology</i> , 2012, 114, 711-714.	9.6	61
74	Purification and characterization of a flavin reductase from the biodesulfurizing bacterium <i>Mycobacterium goodii</i> X7B. <i>Process Biochemistry</i> , 2012, 47, 1144-1149.	3.7	7
75	Efficient 2,3-Butanediol Production from Cassava Powder by a Crop-Biomass-Utilizer, <i>Enterobacter cloacae</i> subsp. <i>dissolvens</i> SDM. <i>PLoS ONE</i> , 2012, 7, e40442.	2.5	42
76	Transcription Elongation Factor GreA Has Functional Chaperone Activity. <i>PLoS ONE</i> , 2012, 7, e47521.	2.5	35
77	Production of (2S,3S)-2,3-butanediol and (3S)-acetoin from glucose using resting cells of <i>Klebsiella pneumonia</i> and <i>Bacillus subtilis</i> . <i>Bioresource Technology</i> , 2011, 102, 10741-10744.	9.6	63
78	Biotechnological routes based on lactic acid production from biomass. <i>Biotechnology Advances</i> , 2011, 29, 930-939.	11.7	248
79	Kinetic resolution of 2-hydroxybutanoate racemic mixtures by NAD-independent L-lactate dehydrogenase. <i>Bioresource Technology</i> , 2011, 102, 4595-4599.	9.6	32
80	Production of (S)-Acetyl-Neuraminic Acid by Use of an Efficient Spore Surface Display System. <i>Applied and Environmental Microbiology</i> , 2011, 77, 3197-3201.	3.1	46
81	Chemoenzymatic Synthesis of (S)-Acetyl-Neuraminic Acid from (S)-Acetyl-Glucosamine by Using the Spore Surface-Displayed (S)-Acetyl-Neuraminic Acid Aldolase. <i>Applied and Environmental Microbiology</i> , 2011, 77, 7080-7083.	3.1	17
82	Efficient Conversion of Phenylpyruvic Acid to Phenyllactic Acid by Using Whole Cells of <i>Bacillus coagulans</i> SDM. <i>PLoS ONE</i> , 2011, 6, e19030.	2.5	71
83	Pyruvate producing biocatalyst with constitutive NAD-independent lactate dehydrogenases. <i>Process Biochemistry</i> , 2010, 45, 1912-1915.	3.7	16
84	A Novel Whole-Cell Biocatalyst with NAD ⁺ Regeneration for Production of Chiral Chemicals. <i>PLoS ONE</i> , 2010, 5, e8860.	2.5	124
85	Efficient Production of 2-Oxobutyrate from 2-Hydroxybutyrate by Using Whole Cells of <i>Pseudomonas stutzeri</i> Strain SDM. <i>Applied and Environmental Microbiology</i> , 2010, 76, 1679-1682.	3.1	24
86	Enantioselective oxidation of racemic lactic acid to d-lactic acid and pyruvic acid by <i>Pseudomonas stutzeri</i> SDM. <i>Bioresource Technology</i> , 2009, 100, 1878-1880.	9.6	35
87	Both FMNH ₂ and FADH ₂ can be utilized by the dibenzothiophene monooxygenase from a desulfurizing bacterium <i>Mycobacterium goodii</i> X7B. <i>Bioresource Technology</i> , 2009, 100, 2594-2599.	9.6	16
88	Biotechnological routes to pyruvate production. <i>Journal of Bioscience and Bioengineering</i> , 2008, 105, 169-175.	2.2	86
89	Membrane-bound L- and D-lactate dehydrogenase activities of a newly isolated <i>Pseudomonas stutzeri</i> strain. <i>Applied Microbiology and Biotechnology</i> , 2007, 77, 91-98.	3.6	46
90	<i>Pseudomonas stutzeri</i> as a novel biocatalyst for pyruvate production from DL-lactate. <i>Biotechnology Letters</i> , 2006, 29, 105-110.	2.2	29

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91	Growing Multihydroxyl Hyperbranched Polymers on the Surfaces of Carbon Nanotubes by in Situ Ring-Opening Polymerization. <i>Macromolecules</i> , 2004, 37, 8846-8853.	4.8	159
92	Non-Sterilized Fermentation of 2,3-Butanediol with Seawater by Metabolic Engineered Fast-Growing <i>Vibrio natriegens</i> . <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	4.1	16