

# Zhe Deng

## List of Publications by Year in descending order

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93  
papers

1,557  
citations

377584

21  
h-index

466096

32  
g-index

102  
all docs

102  
docs citations

102  
times ranked

1754  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrasound assisted in situ separation of sophorolipids in multi-phase fermentation system to achieve efficient production by <i>Candida bombicola</i> . <i>Biotechnology Journal</i> , 2022, 17, e2100478.	1.8	3
2	Advances in sustainable approaches utilizing orange peel waste to produce highly value-added bioproducts. <i>Critical Reviews in Biotechnology</i> , 2022, 42, 1284-1303.	5.1	22
3	Multiscale engineering of microbial cell factories: A step forward towards sustainable natural products industry. <i>Synthetic and Systems Biotechnology</i> , 2022, 7, 586-601.	1.8	9
4	Development of a novel feeding regime for large scale production of human umbilical cord mesenchymal stem/stromal cells. <i>Cytotechnology</i> , 2022, 74, 351-369.	0.7	5
5	Urchin-like magnetic microspheres for cancer therapy through synergistic effect of mechanical force, photothermal and photodynamic effects. <i>Journal of Nanobiotechnology</i> , 2022, 20, 224.	4.2	10
6	Engineered Bacteria-Based Living Materials for Biotherapeutic Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 870675.	2.0	12
7	Role of a Two-Component Signal Transduction System RspA1/A2 in Regulating the Biosynthesis of Salinomycin in <i>Streptomyces albus</i> . <i>Applied Biochemistry and Biotechnology</i> , 2021, 193, 1296-1310.	1.4	6
8	Metabolic engineering coupled with adaptive evolution strategies for the efficient production of high-quality L-lactic acid by <i>Lactobacillus paracasei</i> . <i>Bioresource Technology</i> , 2021, 323, 124549.	4.8	36
9	Dynamic response of <i>Aspergillus niger</i> to periodical glucose pulse stimuli in chemostat cultures. <i>Biotechnology and Bioengineering</i> , 2021, 118, 2265-2282.	1.7	7
10	Integration of enzyme constraints in a genome-scale metabolic model of <i>Aspergillus niger</i> improves phenotype predictions. <i>Microbial Cell Factories</i> , 2021, 20, 125.	1.9	17
11	Development of a novel noninvasive quantitative method to monitor <i>Siraitia grosvenorii</i> cell growth and browning degree using an integrated computer-aided vision technology and machine learning. <i>Biotechnology and Bioengineering</i> , 2021, 118, 4092-4104.	1.7	6
12	A new strategy for dynamic metabolic flux estimation by integrating transient metabolome data into genome-scale metabolic models. <i>Bioprocess and Biosystems Engineering</i> , 2021, 44, 2553-2565.	1.7	1
13	Metabolic Engineering of Gas-Fermenting <i>Clostridium ljungdahlii</i> for Efficient Co-production of Isopropanol, 3-Hydroxybutyrate, and Ethanol. <i>ACS Synthetic Biology</i> , 2021, 10, 2628-2638.	1.9	28
14	Advances in engineered <i>Bacillus subtilis</i> biofilms and spores, and their applications in bioremediation, biocatalysis, and biomaterials. <i>Synthetic and Systems Biotechnology</i> , 2021, 6, 180-191.	1.8	33
15	Impact of Altered Trehalose Metabolism on Physiological Response of <i>Penicillium chrysogenum</i> Chemostat Cultures during Industrially Relevant Rapid Feast/Famine Conditions. <i>Processes</i> , 2021, 9, 118.	1.3	5
16	Sandwich-Type Near-Infrared Conjugated Polymer Nanoparticles for Revealing the Fate of Transplanted Human Umbilical Cord Mesenchymal Stem Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 3512-3520.	4.0	5
17	Evaluation of a Virus-like Nanoparticle Porcine Circovirus Type-2 (PCV2) Capsid Protein Fused with the Pig Immunoglobulin Fc Fragment as a Novel Vaccine Candidate against PCV2 in Mice. <i>Vaccines</i> , 2021, 9, 1128.	2.1	2
18	Kinetically modelled approach of xanthan production using different carbon sources: A study on molecular weight and rheological properties of xanthan. <i>International Journal of Biological Macromolecules</i> , 2021, 193, 1226-1236.	3.6	9

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19	Two-component system AfrQ1Q2 involved in oxytetracycline biosynthesis of <i>Streptomyces rimosus</i> M4018 in a medium-dependent manner. <i>Journal of Bioscience and Bioengineering</i> , 2020, 129, 140-145.	1.1	5
20	Coupling metabolomics analysis and DOE optimization strategy towards enhanced IBDV production by chicken embryo fibroblast DF-1 cells. <i>Journal of Biotechnology</i> , 2020, 307, 114-124.	1.9	6
21	On stability analysis of cascaded linear time varying systems in dynamic isotope experiments. <i>AICHE Journal</i> , 2020, 66, e16911.	1.8	0
22	Coupled metabolic-hydrodynamic modeling enabling rational scale-up of industrial bioprocesses. <i>Biotechnology and Bioengineering</i> , 2020, 117, 844-867.	1.7	14
23	Harnessing microbial metabolomics for industrial applications. <i>World Journal of Microbiology and Biotechnology</i> , 2020, 36, 1.	1.7	112
24	Oxygen Uptake Rate Controlling Strategy Balanced with Oxygen Supply for Improving Coenzyme Q10 Production by <i>Rhodobacter sphaeroides</i> . <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 459-469.	1.4	3
25	Two-Component-System RspA1/A2-Dependent Regulation on Primary Metabolism in <i>Streptomyces albus</i> A30 Cultivated With Glutamate as the Sole Nitrogen Source. <i>Frontiers in Microbiology</i> , 2020, 11, 1658.	1.5	3
26	Target-site directed rational high-throughput screening system for high sophorolipids production by <i>Candida bombicola</i> . <i>Bioresource Technology</i> , 2020, 315, 123856.	4.8	11
27	Xanthan-Curdlan nexus for synthesizing edible food packaging films. <i>International Journal of Biological Macromolecules</i> , 2020, 162, 43-49.	3.6	42
28	Developing a Computational Framework To Advance Bioprocess Scale-Up. <i>Trends in Biotechnology</i> , 2020, 38, 846-856.	4.9	56
29	Mapping molecular pathways for embryonic Sertoli cells derivation based on differentiation model of mouse embryonic stem cells. <i>Stem Cell Research and Therapy</i> , 2020, 11, 85.	2.4	2
30	Improving cytosolic aspartate biosynthesis increases glucoamylase production in <i>Aspergillus niger</i> under oxygen limitation. <i>Microbial Cell Factories</i> , 2020, 19, 81.	1.9	8
31	Inducing Non-genetically Modified Induced Embryonic Sertoli Cells Derived From Embryonic Stem Cells With Recombinant Protein Factors. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 533543.	1.8	3
32	Enhanced Biosynthesis of Chlorogenic Acid and Its Derivatives in Methyl-Jasmonate-Treated <i>Gardenia jasminoides</i> Cells: A Study on Metabolic and Transcriptional Responses of Cells. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 604957.	2.0	8
33	Combinatorial Effect of ARTP Mutagenesis and Ribosome Engineering on an Industrial Strain of <i>Streptomyces albus</i> S12 for Enhanced Biosynthesis of Salinomycin. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 212.	2.0	24
34	Combined available nitrogen resources enhanced erythromycin production and preliminary exploration of metabolic flux analysis under nitrogen perturbations. <i>Bioprocess and Biosystems Engineering</i> , 2019, 42, 1747-1756.	1.7	6
35	A study on enhanced O-glycosylation strategy for improved production of recombinant human chorionic gonadotropin in Chinese hamster ovary cells. <i>Journal of Biotechnology</i> , 2019, 306, 159-168.	1.9	3
36	Medium optimization based on comparative metabolomic analysis of chicken embryo fibroblast DF-1 cells. <i>RSC Advances</i> , 2019, 9, 27369-27377.	1.7	4

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37	Comparative Fluxome and Metabolome Analysis of Formate as an Auxiliary Substrate for Penicillin Production in Glucose-limited Cultivation of <i>Penicillium chrysogenum</i> . <i>Biotechnology Journal</i> , 2019, 14, 1900009.	1.8	5
38	Novel Piperazino-Enaminones Decrease Pro-inflammatory Cytokines Following Hemarthrosis in a Hemophilia Mouse Model. <i>Inflammation</i> , 2019, 42, 1719-1729.	1.7	2
39	Dynamic changes of metabolomics and expression of candidin biosynthesis gene cluster caused by the presence of a pleiotropic regulator AdpA in <i>Streptomyces ZYJ-6</i> . <i>Bioprocess and Biosystems Engineering</i> , 2019, 42, 1353-1365.	1.7	13
40	A dynamic model-based preparation of uniformly- <sup>13</sup> C-labeled internal standards facilitates quantitative metabolomics analysis of <i>Penicillium chrysogenum</i> . <i>Journal of Biotechnology</i> , 2019, 299, 21-31.	1.9	14
41	Biochemical engineering in China. <i>Reviews in Chemical Engineering</i> , 2019, 35, 929-993.	2.3	1
42	Differentiation roadmap of embryonic Sertoli cells derived from mouse embryonic stem cells. <i>Stem Cell Research and Therapy</i> , 2019, 10, 81.	2.4	10
43	Efficient generation of male germ-like cells derived during co-culturing of adipose-derived mesenchymal stem cells with Sertoli cells under retinoic acid and testosterone induction. <i>Stem Cell Research and Therapy</i> , 2019, 10, 91.	2.4	20
44	Sustainable biosynthesis of curdlan from orange waste by using <i>Alcaligenes faecalis</i> : A systematically modeled approach. <i>Carbohydrate Polymers</i> , 2019, 205, 626-635.	5.1	35
45	Optimized biosynthesis of xanthan via effective valorization of orange peels using response surface methodology: A kinetic model approach. <i>Carbohydrate Polymers</i> , 2018, 181, 793-800.	5.1	58
46	Comparative performance of different scale-down simulators of substrate gradients in <i>Penicillium chrysogenum</i> cultures: the need of a biological systems response analysis. <i>Microbial Biotechnology</i> , 2018, 11, 486-497.	2.0	27
47	Kinetic analysis of curdlan production by <i>Alcaligenes faecalis</i> with maltose, sucrose, glucose and fructose as carbon sources. <i>Bioresource Technology</i> , 2018, 259, 319-324.	4.8	34
48	Power input effects on degeneration in prolonged penicillin chemostat cultures: A systems analysis at flux, residual glucose, metabolite, and transcript levels. <i>Biotechnology and Bioengineering</i> , 2018, 115, 114-125.	1.7	17
49	Gas-liquid mass transfer studies: The influence of single- and double-impeller configurations in stirred tanks. <i>Korean Journal of Chemical Engineering</i> , 2018, 35, 61-72.	1.2	6
50	Multi-omics integrative analysis with genome-scale metabolic model simulation reveals global cellular adaptation of <i>Aspergillus niger</i> under industrial enzyme production condition. <i>Scientific Reports</i> , 2018, 8, 14404.	1.6	36
51	Exploring cellular fatty acid composition and intracellular metabolites of osmotic-tolerant mutant <i>Lactobacillus paracasei</i> NCBI0-M2 for highly efficient lactic acid production with high initial glucose concentration. <i>Journal of Biotechnology</i> , 2018, 286, 27-35.	1.9	19
52	Co-culture with TM4 cells enhances the proliferation and migration of rat adipose-derived mesenchymal stem cells with high stemness. <i>Cytotechnology</i> , 2018, 70, 1409-1422.	0.7	8
53	Enhancing candidin biosynthesis by medium optimization and pH stepwise control strategy with process metabolomics analysis of <i>Streptomyces ZYJ-6</i> . <i>Bioprocess and Biosystems Engineering</i> , 2018, 41, 1743-1755.	1.7	9
54	Kinetic analysis of sodium gluconate production by <i>Aspergillus niger</i> with different inlet oxygen concentrations. <i>Bioprocess and Biosystems Engineering</i> , 2018, 41, 1697-1706.	1.7	16

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55	Development of a method for efficient cost-effective screening of <i>Aspergillus niger</i> mutants having increased production of glucoamylase. <i>Biotechnology Letters</i> , 2017, 39, 739-744.	1.1	11
56	Chaperone-substrate interactions monitored via a robust TEM-1 $\beta$ -lactamase fragment complementation assay. <i>Biotechnology Letters</i> , 2017, 39, 1191-1199.	1.1	4
57	Enhanced alcohol titre and ratio in carbon monoxide-rich off-gas fermentation of <i>Clostridium carboxidivorans</i> through combination of trace metals optimization with variable-temperature cultivation. <i>Bioresource Technology</i> , 2017, 239, 236-243.	4.8	49
58	Mutation breeding of high avermectin B1a-producing strain by the combination of high energy carbon heavy ion irradiation and sodium nitrite mutagenesis based on high throughput screening. <i>Biotechnology and Bioprocess Engineering</i> , 2017, 22, 539-548.	1.4	13
59	Comprehensive reconstruction and evaluation of <i>Pichia pastoris</i> genome-scale metabolic model that accounts for 1243 ORFs. <i>Bioresources and Bioprocessing</i> , 2017, 4, 22.	2.0	24
60	Blocking the flow of propionate into TCA cycle through a <i>mutB</i> knockout leads to a significant increase of erythromycin production by an industrial strain of <i>Saccharopolyspora erythraea</i> . <i>Bioprocess and Biosystems Engineering</i> , 2017, 40, 201-209.	1.7	11
61	Comprehensive reconstruction and in silico analysis of <i>Aspergillus niger</i> genome-scale metabolic network model that accounts for 1210 ORFs. <i>Biotechnology and Bioengineering</i> , 2017, 114, 685-695.	1.7	33
62	Enhanced protein production by sorbitol co-feeding with methanol in recombinant <i>Pichia pastoris</i> strains. <i>Biotechnology and Bioprocess Engineering</i> , 2017, 22, 767-773.	1.4	14
63	CFD Simulation of Average and Local Gas-Liquid Flow Properties in Stirred Tank Reactors with Multiple Rushton Impellers. <i>Journal of Chemical Engineering of Japan</i> , 2017, 50, 878-891.	0.3	8
64	Mixomics analysis of <i>Bacillus subtilis</i> : effect of oxygen availability on riboflavin production. <i>Microbial Cell Factories</i> , 2017, 16, 150.	1.9	22
65	Improvement of L-lactic acid production with a two-step OUR control strategy. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 2496-2502.	1.6	5
66	Stable over-expression of the human malate-aspartate NADH shuttle member Aralar I in PK15 cells improves energy metabolism and enhances proliferation of porcine circovirus-2. <i>RSC Advances</i> , 2016, 6, 61268-61277.	1.7	3
67	Salt stress induced lipid accumulation in heterotrophic culture cells of <i>Chlorella protothecoides</i> : Mechanisms based on the multi-level analysis of oxidative response, key enzyme activity and biochemical alteration. <i>Journal of Biotechnology</i> , 2016, 228, 18-27.	1.9	78
68	High efficiency cell-recycle continuous sodium gluconate production by <i>Aspergillus niger</i> using on-line physiological parameters association analysis to regulate feed rate rationally. <i>Bioresource Technology</i> , 2016, 220, 433-441.	4.8	14
69	High-throughput system for screening of high L-lactic acid-productivity strains in deep-well microtiter plates. <i>Bioprocess and Biosystems Engineering</i> , 2016, 39, 1737-1747.	1.7	24
70	Combined $^{13}\text{C}$ -assisted metabolomics and metabolic flux analysis reveals the impacts of glutamate on the central metabolism of high $\beta$ -galactosidase-producing <i>Pichia pastoris</i> . <i>Bioresources and Bioprocessing</i> , 2016, 3, 47.	2.0	11
71	Controlling the feed rate of propanol to optimize erythromycin fermentation by on-line capacitance and oxygen uptake rate measurement. <i>Bioprocess and Biosystems Engineering</i> , 2016, 39, 255-265.	1.7	8
72	Impacts of proline on the central metabolism of an industrial erythromycin-producing strain <i>Saccharopolyspora erythraea</i> via $^{13}\text{C}$ labeling experiments. <i>Journal of Biotechnology</i> , 2016, 231, 1-8.	1.9	15

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73	Enhanced L-lactic acid production in <i>Lactobacillus paracasei</i> by exogenous proline addition based on comparative metabolite profiling analysis. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 2301-2310.	1.7	15
74	A rapid and accurate quantification method for real-time dynamic analysis of cellular lipids during microalgal fermentation processes in <i>Chlorella protothecoides</i> with low field nuclear magnetic resonance. <i>Journal of Microbiological Methods</i> , 2016, 124, 13-20.	0.7	22
75	A scale-down cross-flow filtration technology for biopharmaceuticals and the associated theory. <i>Journal of Biotechnology</i> , 2016, 221, 25-31.	1.9	4
76	A simple novel approach for real-time monitoring of sodium gluconate production by on-line physiological parameters in batch fermentation by <i>Aspergillus niger</i> . <i>Bioresource Technology</i> , 2016, 202, 133-141.	4.8	15
77	Integrated isotope-assisted metabolomics and <sup>13</sup> C metabolic flux analysis reveals metabolic flux redistribution for high glucoamylase production by <i>Aspergillus niger</i> . <i>Microbial Cell Factories</i> , 2015, 14, 147.	1.9	34
78	Limitations in the process of transcription and translation inhibit recombinant human chorionic gonadotropin expression in CHO cells. <i>Journal of Biotechnology</i> , 2015, 204, 63-69.	1.9	7
79	Advances and Practices of Bioprocess Scale-up. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2015, 152, 137-151.	0.6	17
80	Enhancing gluconic acid production by controlling the morphology of <i>Aspergillus niger</i> in submerged fermentation. <i>Process Biochemistry</i> , 2015, 50, 1342-1348.	1.8	43
81	Interactions of <sup>13</sup> C-aminobutyric acid and whey proteins/caseins during fortified milk production. <i>RSC Advances</i> , 2015, 5, 91235-91245.	1.7	10
82	Optimization and validation of an extraction method and HPAEC-PAD for determination of residual sugar composition in <i>SCP</i> -lactic acid industrial fermentation broth with a high salt content. <i>Analytical Methods</i> , 2015, 7, 9076-9083.	1.3	4
83	A qualitative and quantitative high-throughput assay for screening of gluconate high-yield strains by <i>Aspergillus niger</i> . <i>Journal of Microbiological Methods</i> , 2015, 109, 134-139.	0.7	25
84	An alkaline pH control strategy for methionine adenosyltransferase production in <i>Pichia pastoris</i> fermentation. <i>Biotechnology and Bioprocess Engineering</i> , 2014, 19, 900-907.	1.4	5
85	Impacts of high <sup>12</sup> C-galactosidase expression on central metabolism of recombinant <i>Pichia pastoris</i> GS115 using glucose as sole carbon source via <sup>13</sup> C metabolic flux analysis. <i>Journal of Biotechnology</i> , 2014, 187, 124-134.	1.9	29
86	Comparative performance of S-adenosyl-L-methionine biosynthesis and degradation in <i>Pichia pastoris</i> using different promoters and novel consumption inhibitors. <i>Enzyme and Microbial Technology</i> , 2014, 55, 94-99.	1.6	10
87	Ex vivo expansion of bone marrow mesenchymal stem cells using microcarrier beads in a stirred bioreactor. <i>Biotechnology and Bioprocess Engineering</i> , 2013, 18, 173-184.	1.4	16
88	Optimization of Enzymatic Hydrolysis of Channel Catfish Bones for Preparing Antimicrobial Agents. <i>Journal of Aquatic Food Product Technology</i> , 2012, 21, 99-110.	0.6	17
89	High-throughput screening strategy used for enhanced production of pigment by <i>Monascus purpureus</i> D39-4. <i>Food Science and Biotechnology</i> , 2012, 21, 1603-1610.	1.2	7
90	Industrial bioprocess control and optimization in the context of systems biotechnology. <i>Biotechnology Advances</i> , 2009, 27, 989-995.	6.0	43

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91	High-expression of recombinant human consensus interferon- $\lambda_2$ by <i>Pichia pastoris</i> . <i>Frontiers of Chemical Engineering in China</i> , 2007, 1, 399-403.	0.6	1
92	High cell density and high expression of recombinant human ApoA-IMilano in <i>Escherichia coli</i> by twice temperature-shifted induction. <i>Frontiers of Biology in China: Selected Publications From Chinese Universities</i> , 2006, 1, 345-348.	0.2	1
93	From multi-scale methodology to systems biology: to integrate strain improvement and fermentation optimization. <i>Journal of Chemical Technology and Biotechnology</i> , 2006, 81, 734-745.	1.6	28