Fuzhong Zhang

List of Publications by Year
in descending order

69 papers	6,335 citations	126708 33 h-index	98622 67 g-index
73 all docs	73 docs citations	73 times ranked	6300 citing authors

#	Article	IF	Citations
1	Transient Antibiotic Tolerance Triggered by Nutrient Shifts From Gluconeogenic Carbon Sources to Fatty Acid. Frontiers in Microbiology, 2022, 13, 854272.	1.5	2
2	Trade-Offs in Biosensor Optimization for Dynamic Pathway Engineering. ACS Synthetic Biology, 2022, 11, 228-240.	1.9	13
3	The Growth Dependent Design Constraints of Transcription-Factor-Based Metabolite Biosensors. ACS Synthetic Biology, 2022, 11, 2247-2258.	1.9	11
4	Dynamic control in metabolic engineering: Theories, tools, and applications. Metabolic Engineering, 2021, 63, 126-140.	3.6	93
5	Massively parallel gene expression variation measurement of a synonymous codon library. BMC Genomics, 2021, 22, 149.	1.2	13
6	Enhanced limonene production in a fast-growing cyanobacterium through combinatorial metabolic engineering. Metabolic Engineering Communications, 2021, 12, e00164.	1.9	47
7	Microbially Synthesized Polymeric Amyloid Fiber Promotes Î²-Nanocrystal Formation and Displays Gigapascal Tensile Strength. ACS Nano, 2021, 15, 11843-11853.	7.3	34
8	Microbial production of megadalton titin yields fibers with advantageous mechanical properties. Nature Communications, 2021, 12, 5182.	5.8	21
9	Enhanced microalgae cultivation using wastewater nutrients extracted by a microbial electrochemical system. Water Research, 2021, 206, 117722.	5.3	8
10	A Biosynthetic Hybrid Spidroin-Amyloid-Mussel Foot Protein for Underwater Adhesion on Diverse Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 48457-48468.	4.0	24
11	Amyloids as Building Blocks for Macroscopic Functional Materials: Designs, Applications and Challenges. International Journal of Molecular Sciences, 2021, 22, 10698.	1.8	21
12	Graphene oxide/mussel foot protein composites for high-strength and ultra-tough thin films. Scientific Reports, 2020, 10, 19082.	1.6	5
13	Control strategies to manage trade-offs during microbial production. Current Opinion in Biotechnology, 2020, 66, 158-164.	3.3	15
14	Bacterial metabolic heterogeneity: origins and applications in engineering and infectious disease. Current Opinion in Biotechnology, 2020, 64, 183-189.	3.3	19
15	Metabolite Sequestration Enables Rapid Recovery from Fatty Acid Depletion in Escherichia coli. MBio, 2020, 11, .	1.8	13
16	Enhanced production of sucrose in the fast-growing cyanobacterium Synechococcus elongatus UTEX 2973. Scientific Reports, 2020, 10, 390.	1.6	71
17	Heterogeneity coordinates bacterial multi-gene expression in single cells. PLoS Computational Biology, 2020, 16, e1007643.	1.5	13
18	Heterogeneity coordinates bacterial multi-gene expression in single cells. , 2020, 16, e1007643.		0

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19	Heterogeneity coordinates bacterial multi-gene expression in single cells. , 2020, 16, e1007643.		0
20	Heterogeneity coordinates bacterial multi-gene expression in single cells. , 2020, 16, e1007643.		0
21	Heterogeneity coordinates bacterial multi-gene expression in single cells. , 2020, 16, e1007643.		0
22	Covalently-assembled single-chain protein nanostructures with ultra-high stability. Nature Communications, 2019, 10, 3317.	5.8	34
23	A concerted systems biology analysis of phenol metabolism in Rhodococcus opacus PD630. Metabolic Engineering, 2019, 55, 120-130.	3.6	37
24	Fibril Self-Assembly of Amyloidâ€"Spider Silk Block Polypeptides. Biomacromolecules, 2019, 20, 2015-2023.	2.6	24
25	Biosynthesis, regulation, and engineering of microbially produced branched biofuels. Biotechnology for Biofuels, 2019, 12, 84.	6.2	29
26	Seeded Chain-Growth Polymerization of Proteins in Living Bacterial Cells. ACS Synthetic Biology, 2019, 8, 2651-2658.	1.9	18
27	Dynamic metabolic control: towards precision engineering of metabolism. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 535-543.	1.4	86
28	Metabolic Feedback Circuits Provide Rapid Control of Metabolite Dynamics. ACS Synthetic Biology, 2018, 7, 347-356.	1.9	42
29	Steps towards â€˜drop-inâ€™ biofuels: focusing on metabolic pathways. Current Opinion in Biotechnology, 2018, 53, 26-32.	3.3	26
30	Microbially Synthesized Repeats of Mussel Foot Protein Display Enhanced Underwater Adhesion. ACS Applied Materials & Interfaces, 2018, 10, 43003-43012.	4.0	35
31	Engineering xylose metabolism for production of polyhydroxybutyrate in the non-model bacterium Burkholderia sacchari. Microbial Cell Factories, 2018, 17, 74.	1.9	17
32	Recombinant Spidroins Fully Replicate Primary Mechanical Properties of Natural Spider Silk. Biomacromolecules, 2018, 19, 3853-3860.	2.6	159
33	Developing a Cas9â€based tool to engineer native plasmids in <i>Synechocystis</i> sp. PCC 6803. Biotechnology and Bioengineering, 2018, 115, 2305-2314.	1.7	25
34	Engineering Microbial Metabolite Dynamics and Heterogeneity. Biotechnology Journal, 2017, 12, 1700422.	1.8	35
35	Fundamental Design Principles for Transcription-Factor-Based Metabolite Biosensors. ACS Synthetic Biology, 2017, 6, 1851-1859.	1.9	152
36	Metabolic engineering of the pentose phosphate pathway for enhanced limonene production in the cyanobacterium Synechocysti s sp. PCC 6803. Scientific Reports, 2017, 7, 17503.	1.6	108

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37	Developing a Genetically Encoded, Cross-Species Biosensor for Detecting Ammonium and Regulating Biosynthesis of Cyanophycin. ACS Synthetic Biology, 2017, 6, 1807-1815.	1.9	18
38	Enhancing fatty acid production in <i>Escherichia coli</i> by <i>Vitreoscilla</i> hemoglobin overexpression. Biotechnology and Bioengineering, 2017, 114, 463-467.	1.7	32
39	Modular pathway engineering for the microbial production of branched-chain fatty alcohols. Biotechnology for Biofuels, 2017, 10, 244.	6.2	29
40	Diurnal Regulation of Cellular Processes in the Cyanobacterium <i>Synechocystis</i> sp. Strain PCC 6803: Insights from Transcriptomic, Fluxomic, and Physiological Analyses. MBio, 2016, 7, .	1.8	84
41	Engineering Escherichia coli to produce branched-chain fatty acids in high percentages. Metabolic Engineering, 2016, 38, 148-158.	3.6	42
42	Exploiting nongenetic cell-to-cell variation for enhanced biosynthesis. Nature Chemical Biology, 2016, 12, 339-344.	3.9	209
43	In Situ Photocatalytic Synthesis of Ag Nanoparticles (nAg) by Crumpled Graphene Oxide Composite Membranes for Filtration and Disinfection Applications. Environmental Science & Technology, 2016, 50, 2514-2521.	4.6	82
44	Engineering <i>Escherichia coli</i> for Conversion of Glucose to Medium-Chain Ï‰-Hydroxy Fatty Acids and Î±,Ï‰-Dicarboxylic Acids. ACS Synthetic Biology, 2016, 5, 200-206.	1.9	57
45	Enhanced production of branchedâ€chain fatty acids by replacing Î²â€ketoacylâ€(acylâ€carrierâ€protein) synthase III (FabH). Biotechnology and Bioengineering, 2015, 112, 1613-1622.	1.7	18
46	Negative Feedback Regulation of Fatty Acid Production Based on a Malonyl-CoA Sensorâ€“Actuator. ACS Synthetic Biology, 2015, 4, 132-140.	1.9	138
47	Special Issue on Circuits in Metabolic Engineering. ACS Synthetic Biology, 2015, 4, 93-94.	1.9	1
48	Applications and advances of metabolite biosensors for metabolic engineering. Metabolic Engineering, 2015, 31, 35-43.	3.6	167
49	Engineered Crumpled Graphene Oxide Nanocomposite Membrane Assemblies for Advanced Water Treatment Processes. Environmental Science & Technology, 2015, 49, 6846-6854.	4.6	108
50	Central metabolic responses to the overproduction of fatty acids in <i>Escherichia coli</i> based on ¹³Câ€metabolic flux analysis. Biotechnology and Bioengineering, 2014, 111, 575-585.	1.7	112
51	Engineering dynamic pathway regulation using stress-response promoters. Nature Biotechnology, 2013, 31, 1039-1046.	9.4	411
52	Development of Synechocystis sp. PCC 6803 as a Phototrophic Cell Factory. Marine Drugs, 2013, 11, 2894-2916.	2.2	112
53	Bridging the gap between systems biology and synthetic biology. Frontiers in Microbiology, 2013, 4, 211.	1.5	19
54	Enhancing fatty acid production by the expression of the regulatory transcription factor FadR. Metabolic Engineering, 2012, 14, 653-660.	3.6	173

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55	Microbial engineering for the production of advanced biofuels. Nature, 2012, 488, 320-328.	13.7	951
56	Design of a dynamic sensor-regulator system for production of chemicals and fuels derived from fatty acids. Nature Biotechnology, 2012, 30, 354-359.	9.4	721
57	Light-Controlled Gene Switches in Mammalian Cells. Methods in Molecular Biology, 2012, 813, 195-210.	0.4	4
58	Biosensors and their applications in microbial metabolic engineering. Trends in Microbiology, 2011, 19, 323-329.	3.5	184
59	Metabolic engineering of microbial pathways for advanced biofuels production. Current Opinion in Biotechnology, 2011, 22, 775-783.	3.3	313
60	BglBrick vectors and datasheets: A synthetic biology platform for gene expression. Journal of Biological Engineering, 2011, 5, 12.	2.0	391
61	Photocontrol of Coiledâ€Coil Proteins in Living Cells. Angewandte Chemie - International Edition, 2010, 49, 3943-3946.	7.2	108
62	Structure-Based Approach to the Photocontrol of Protein Folding. Journal of the American Chemical Society, 2009, 131, 2283-2289.	6.6	98
63	Spectral Tuning of Azobenzene Photoswitches for Biological Applications. Angewandte Chemie - International Edition, 2009, 48, 1484-1486.	7.2	204
64	Evidence of Kinetic Control of Ligand Binding and Staged Product Release in MurA (Enolpyruvyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38	1.2	19
65	Synthesis and Characterization of a Long, Rigid Photoswitchable Crossâ€Linker for Promoting Peptide and Protein Conformational Change. ChemBioChem, 2008, 9, 2147-2154.	1.3	33
66	Stabilization of Folded Peptide and Protein Structures via Distance Matching with a Long, Rigid Cross-Linker. Journal of the American Chemical Society, 2007, 129, 14154-14155.	6.6	87
67	Synthesis of 3,3â€²-bis(sulfonato)-4,4â€²-bis(chloroacetamido)azobenzene and cysteine cross-linking for photo-control of protein conformation and activity. Nature Protocols, 2007, 2, 251-258.	5.5	63
68	Phosphate Analogues as Probes of the Catalytic Mechanisms of MurA and AroA, Two Carboxyvinyl Transferasesâ€. Biochemistry, 2006, 45, 6027-6037.	1.2	13
69	sGAL: a computational method for finding surface exposed sites in proteins suitable for Cys-mediated cross-linking. Bioinformatics, 2006, 22, 3101-3102.	1.8	11