Peng Xu

List of Publications by Year
in descending order

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65 papers	5,047 citations	87723 38 h-index	114278 63 g-index
81 all docs	81 docs citations	81 times ranked	3553 citing authors

#	Article	IF	Citations
1	Quantitative and analytical tools to analyze the spatiotemporal population dynamics of microbial consortia. Current Opinion in Biotechnology, 2022, 76, 102754.	3.3	4
2	Synthetic yeast brews neuroactive compounds. Nature Chemical Biology, 2021, 17, 8-9.	3.9	7
3	Dynamics of microbial competition, commensalism, and cooperation and its implications for coculture and microbiome engineering. Biotechnology and Bioengineering, 2021, 118, 199-209.	1.7	25
4	Engineering Yarrowia lipolytica for Production of Fatty Alcohols with YaliBrick Vectors. Methods in Molecular Biology, 2021, 2307, 159-173.	0.4	2
5	Implementing CRISPR-Cas12a for Efficient Genome Editing in Yarrowia lipolytica. Methods in Molecular Biology, 2021, 2307, 111-121.	0.4	4
6	Conferring thermotolerant phenotype to wildâ€type Yarrowia lipolytica improves cell growth and erythritol production. Biotechnology and Bioengineering, 2021, 118, 3117-3127.	1.7	14
7	Cysteine-Mediated Cyclic Metabolism Drives the Microbial Degradation of Keratin. ACS Sustainable Chemistry and Engineering, 2021, 9, 9861-9870.	3.2	8
8	A Golden-Gate Based Cloning Toolkit to Build Violacein Pathway Libraries in Yarrowia lipolytica. ACS Synthetic Biology, 2021, 10, 115-124.	1.9	28
9	Analytical solution for a hybrid Logisticâ€Monod cell growth model in batch and continuous stirred tank reactor culture. Biotechnology and Bioengineering, 2020, 117, 873-878.	1.7	39
10	Debottlenecking mevalonate pathway for antimalarial drug precursor amorphadiene biosynthesis in Yarrowia lipolytica. Metabolic Engineering Communications, 2020, 10, e00121.	1.9	66
11	CRISPR-Cas12a/Cpf1-assisted precise, efficient and multiplexed genome-editing in Yarrowia lipolytica. Metabolic Engineering Communications, 2020, 10, e00112.	1.9	79
12	Unstructured kinetic models to simulate an arabinose switch that decouples cell growth from metabolite production. Synthetic and Systems Biotechnology, 2020, 5, 222-229.	1.8	4
13	Editorial overview: Tissue, cell and pathway engineering: programming biology for smart therapeutics, microbial cell factory and intelligent biomanufacturing. Current Opinion in Biotechnology, 2020, 66, iii-vi.	3.3	0
14	Genetic and bioprocess engineering to improve squalene production in Yarrowia lipolytica. Bioresource Technology, 2020, 317, 123991.	4.8	65
15	A roadmap to engineering antiviral natural products synthesis in microbes. Current Opinion in Biotechnology, 2020, 66, 140-149.	3.3	22
16	Towards next-generation model microorganism chassis for biomanufacturing. Applied Microbiology and Biotechnology, 2020, 104, 9095-9108.	1.7	9
17	Characterization of Met25 as a color associated genetic marker in Yarrowia lipolytica. Metabolic Engineering Communications, 2020, 11, e00147.	1.9	6
18	Coupling metabolic addiction with negative autoregulation to improve strain stability and pathway yield. Metabolic Engineering, 2020, 61, 79-88.	3.6	70

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19	Genetically-encoded biosensors for analyzing and controlling cellular process in yeast. Current Opinion in Biotechnology, 2020, 64, 175-182.	3.3	23
20	Refactoring Ehrlich Pathway for High-Yield 2-Phenylethanol Production in Yarrowia lipolytica. ACS Synthetic Biology, 2020, 9, 623-633.	1.9	55
21	Engineering Yarrowia lipolytica as a Chassis for De Novo Synthesis of Five Aromatic-Derived Natural Products and Chemicals. ACS Synthetic Biology, 2020, 9, 2096-2106.	1.9	59
22	Synthetic biology, systems biology, and metabolic engineering of Yarrowia lipolytica toward a sustainable biorefinery platform. Journal of Industrial Microbiology and Biotechnology, 2020, 47, 845-862.	1.4	53
23	Microbial Coculture for Flavonoid Synthesis. Trends in Biotechnology, 2020, 38, 686-688.	4.9	43
24	Biotechnological Production of Flavonoids: An Update on Plant Metabolic Engineering, Microbial Host Selection, and Genetically Encoded Biosensors. Biotechnology Journal, 2020, 15, e1900432.	1.8	35
25	Combining genetically-encoded biosensors with high throughput strain screening to maximize erythritol production in Yarrowia lipolytica. Metabolic Engineering, 2020, 60, 66-76.	3.6	57
26	Branch point control at malonyl-CoA node: A computational framework to uncover the design principles of an ideal genetic-metabolic switch. Metabolic Engineering Communications, 2020, 10, e00127.	1.9	8
27	Genetic Circuit-Assisted Smart Microbial Engineering. Trends in Microbiology, 2019, 27, 1011-1024.	3.5	45
28	Programmable biomolecular switches for rewiring flux in Escherichia coli. Nature Communications, 2019, 10, 3751.	5.8	84
29	Isolation and Characterization of Three Antihypertension Peptides from the Mycelia of Ganoderma Lucidum (Agaricomycetes). Journal of Agricultural and Food Chemistry, 2019, 67, 8149-8159.	2.4	49
30	Optimizing Oleaginous Yeast Cell Factories for Flavonoids and Hydroxylated Flavonoids Biosynthesis. ACS Synthetic Biology, 2019, 8, 2514-2523.	1.9	125
31	Engineering acetyl-CoA metabolic shortcut for eco-friendly production of polyketides triacetic acid lactone in Yarrowia lipolytica. Metabolic Engineering, 2019, 56, 60-68.	3.6	100
32	Combining 26s rDNA and the Cre-loxP System for Iterative Gene Integration and Efficient Marker Curation in Yarrowia lipolytica. ACS Synthetic Biology, 2019, 8, 568-576.	1.9	89
33	Engineering metabolite-responsive transcriptional factors to sense small molecules in eukaryotes: current state and perspectives. Microbial Cell Factories, 2019, 18, 61.	1.9	52
34	Coupling feedback genetic circuits with growth phenotype for dynamic population control and intelligent bioproduction. Metabolic Engineering, 2019, 54, 109-116.	3.6	79
35	Genetic Tools for Streamlined and Accelerated Pathway Engineering in Yarrowia lipolytica. Methods in Molecular Biology, 2019, 1927, 155-177.	0.4	15
36	Understanding lipogenesis by dynamically profiling transcriptional activity of lipogenic promoters in Yarrowia lipolytica. Applied Microbiology and Biotechnology, 2019, 103, 3167-3179.	1.7	62

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37	Modeling transcriptional factor cross-talk to understand parabolic kinetics, bimodal gene expression and retroactivity in biosensor design. Biochemical Engineering Journal, 2019, 144, 209-216.	1.8	8
38	Engineering Escherichia coli for malate production by integrating modular pathway characterization with CRISPRiâ€guided multiplexed metabolic tuning. Biotechnology and Bioengineering, 2018, 115, 661-672.	1.7	77
39	Production of chemicals using dynamic control of metabolic fluxes. Current Opinion in Biotechnology, 2018, 53, 12-19.	3.3	104
40	Engineering synergetic CO2-fixing pathways for malate production. Metabolic Engineering, 2018, 47, 496-504.	3.6	55
41	Lipid production in Yarrowia lipolytica is maximized by engineering cytosolic redox metabolism. Nature Biotechnology, 2017, 35, 173-177.	9.4	366
42	Engineering oxidative stress defense pathways to build a robust lipid production platform in Yarrowia lipolytica. Biotechnology and Bioengineering, 2017, 114, 1521-1530.	1.7	162
43	Rapid evolution of regulatory element libraries for tunable transcriptional and translational control of gene expression. Synthetic and Systems Biotechnology, 2017, 2, 295-301.	1.8	11
44	YaliBricks, a versatile genetic toolkit for streamlined and rapid pathway engineering in Yarrowia lipolytica. Metabolic Engineering Communications, 2017, 5, 68-77.	1.9	110
45	Design and application of genetically-encoded malonyl-CoA biosensors for metabolic engineering of microbial cell factories. Metabolic Engineering, 2017, 44, 253-264.	3.6	82
46	Improving Metabolic Pathway Efficiency by Statistical Model-Based Multivariate Regulatory Metabolic Engineering. ACS Synthetic Biology, 2017, 6, 148-158.	1.9	101
47	Engineering Yarrowia lipolytica as a platform for synthesis of drop-in transportation fuels and oleochemicals. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10848-10853.	3.3	362
48	Functional overexpression and characterization of lipogenesis-related genes in the oleaginous yeast Yarrowia lipolytica. Applied Microbiology and Biotechnology, 2016, 100, 3781-3798.	1.7	85
49	When plants produce not enough or at all: metabolic engineering of flavonoids in microbial hosts. Frontiers in Plant Science, 2015, 6, 7.	1.7	92
50	Development of a Recombinant Escherichia coli Strain for Overproduction of the Plant Pigment Anthocyanin. Applied and Environmental Microbiology, 2015, 81, 6276-6284.	1.4	78
51	Enzymatic formation of a resorcylic acid by creating a structureâ€guided singleâ€point mutation in stilbene synthase. Protein Science, 2015, 24, 167-173.	3.1	25
52	Design and Kinetic Analysis of a Hybrid Promoterâ€“Regulator System for Malonyl-CoA Sensing in Escherichia coli. ACS Chemical Biology, 2014, 9, 451-458.	1.6	123
53	Improving fatty acids production by engineering dynamic pathway regulation and metabolic control. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11299-11304.	3.3	423
54	Redirecting carbon flux into malonyl-CoA to improve resveratrol titers: Proof of concept for genetic interventions predicted by OptForce computational framework. Chemical Engineering Science, 2013, 103, 109-114.	1.9	54

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55	Pathway and protein engineering approaches to produce novel and commodity small molecules. Current Opinion in Biotechnology, 2013, 24, 1137-1143.	3.3	59
56	Engineering plant metabolism into microbes: from systems biology to synthetic biology. Current Opinion in Biotechnology, 2013, 24, 291-299.	3.3	100
57	Modular optimization of multi-gene pathways for fatty acids production in E. coli. Nature Communications, 2013, 4, 1409.	5.8	405
58	Assembly of Multi-gene Pathways and Combinatorial Pathway Libraries Through ePathBrick Vectors. Methods in Molecular Biology, 2013, 1073, 107-129.	0.4	14
59	ePathBrick: A Synthetic Biology Platform for Engineering Metabolic Pathways in E. coli. ACS Synthetic Biology, 2012, 1, 256-266.	1.9	230
60	Genome-scale metabolic network modeling results in minimal interventions that cooperatively force carbon flux towards malonyl-CoA. Metabolic Engineering, 2011, 13, 578-587.	3.6	300
61	Methyl lucidenate F isolated from the ethanol-soluble-acidic components of Ganoderma lucidum is a novel tyrosinase inhibitor. Biotechnology and Bioprocess Engineering, 2011, 16, 457-461.	1.4	14
62	An integrated computational and experimental study to increase the intra-cellular malonyl-CoA: Application to flavanone synthesis. , 2011, , .		1
63	Metabolic engineering ofEscherichia colifor biofuel production. Biofuels, 2010, 1, 493-504.	1.4	33
64	Identification of Biological Wort Turbidity Caused by Microbial Contamination of Gairdner Barley. Journal of the American Society of Brewing Chemists, 2009, 67, 33-37.	0.8	1
65	Improved production of mycelial biomass and ganoderic acid by submerged culture of Ganoderma lucidum SB97 using complex media. Enzyme and Microbial Technology, 2008, 42, 325-331.	1.6	68