Cong T Trinh

List of Publications by Year
in descending order

57 papers	2,363 citations	218381 26 h-index	233125 45 g-index
82 all docs	82 docs citations	82 times ranked	1878 citing authors

#	Article	IF	Citations
1	Controlling selectivity of modular microbial biosynthesis of butyryl-CoA-derived designer esters. Metabolic Engineering, 2022, 69, 262-274.	3.6	11
2	Toward low-cost biological and hybrid biological/catalytic conversion of cellulosic biomass to fuels. Energy and Environmental Science, 2022, 15, 938-990.	15.6	93
3	Proteome reallocation enables the selective de novo biosynthesis of non-linear, branched-chain acetate esters. Metabolic Engineering, 2022, 73, 38-49.	3.6	6
4	CASPER: An Integrated Software Platform for Rapid Development of CRISPR Tools. CRISPR Journal, 2022, 5, 609-617.	1.4	3
5	Gene Coexpression Connectivity Predicts Gene Targets Underlying High Ionic-Liquid Tolerance in Yarrowia lipolytica. MSystems, 2022, 7, .	1.7	1
6	Methods to Activate and Elucidate Complex Endogenous Sugar Metabolism in Yarrowia lipolytica. Methods in Molecular Biology, 2021, 2307, 175-189.	0.4	1
7	Identification and characterization of proteins of unknown function (PUFs) in Clostridium thermocellum DSM 1313 strains as potential genetic engineering targets. Biotechnology for Biofuels, 2021, 14, 116.	6.2	2
8	Engineering promiscuity of chloramphenicol acetyltransferase for microbial designer ester biosynthesis. Metabolic Engineering, 2021, 66, 179-190.	3.6	26
9	Exploring Proteomes of Robust Yarrowia lipolytica Isolates Cultivated in Biomass Hydrolysate Reveals Key Processes Impacting Mixed Sugar Utilization, Lipid Accumulation, and Degradation. MSystems, 2021, 6, e0044321.	1.7	12
10	Computational design and analysis of modular cells for large libraries of exchangeable product synthesis modules. Metabolic Engineering, 2021, 67, 453-463.	3.6	2
11	Probing specificities of alcohol acyltransferases for designer ester biosynthesis with a highâ€throughput microbial screening platform. Biotechnology and Bioengineering, 2021, 118, 4655-4667.	1.7	4
12	Understanding and Eliminating the Detrimental Effect of Thiamine Deficiency on the Oleaginous Yeast Yarrowia lipolytica. Applied and Environmental Microbiology, 2020, 86, .	1.4	23
13	Development of a Genome-Scale Metabolic Model of Clostridium thermocellum and Its Applications for Integration of Multi-Omics Datasets and Computational Strain Design. Frontiers in Bioengineering and Biotechnology, 2020, 8, 772.	2.0	20
14	Endogenous carbohydrate esterases of <i>Clostridium thermocellum</i> are identified and disrupted for enhanced isobutyl acetate production from cellulose. Biotechnology and Bioengineering, 2020, 117, 2223-2236.	1.7	18
15	Draft Genome Assemblies of Ionic Liquid-Resistant Yarrowia lipolytica PO1f and Its Superior Evolved Strain, YlCW001. Microbiology Resource Announcements, 2020, 9, .	0.3	11
16	Harnessing Natural Modularity of Metabolism with Goal Attainment Optimization to Design a Modular Chassis Cell for Production of Diverse Chemicals. ACS Synthetic Biology, 2020, 9, 1665-1681.	1.9	14
17	Towards renewable flavors, fragrances, and beyond. Current Opinion in Biotechnology, 2020, 61, 168-180.	3.3	43
18	Plant Biosystems Design Research Roadmap 1.0. Biodesign Research, 2020, 2020, .	0.8	16

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19	Comparison of Multi-Objective Evolutionary Algorithms to Solve the Modular Cell Design Problem for Novel Biocatalysis. Processes, 2019, 7, 361.	1.3	27
20	CRISPR/Cas9-mediated targeted mutagenesis for functional genomics research of crassulacean acid metabolism plants. Journal of Experimental Botany, 2019, 70, 6621-6629.	2.4	33
21	Microbial biosynthesis of lactate esters. Biotechnology for Biofuels, 2019, 12, 226.	6.2	40
22	Modular design: Implementing proven engineering principles in biotechnology. Biotechnology Advances, 2019, 37, 107403.	6.0	44
23	Exceptional solvent tolerance in Yarrowia lipolytica is enhanced by sterols. Metabolic Engineering, 2019, 54, 83-95.	3.6	50
24	Single mutation at a highly conserved region of chloramphenicol acetyltransferase enables isobutyl acetate production directly from cellulose by Clostridium thermocellum at elevated temperatures. Biotechnology for Biofuels, 2019, 12, 245.	6.2	26
25	Multiobjective strain design: A framework for modular cell engineering. Metabolic Engineering, 2019, 51, 110-120.	3.6	35
26	Enhanced guide-RNA design and targeting analysis for precise CRISPR genome editing of single and consortia of industrially relevant and non-model organisms. Bioinformatics, 2018, 34, 16-23.	1.8	36
27	A Prototype for Modular Cell Engineering. ACS Synthetic Biology, 2018, 7, 187-199.	1.9	14
28	Understanding Functional Roles of Native Pentose-Specific Transporters for Activating Dormant Pentose Metabolism in Yarrowia lipolytica. Applied and Environmental Microbiology, 2018, 84, .	1.4	41
29	Draft Genome Assemblies of Five Robust Yarrowia lipolytica Strains Exhibiting High Lipid Production, Pentose Sugar Utilization, and Sugar Alcohol Secretion from Undetoxified Lignocellulosic Biomass Hydrolysates. Microbiology Resource Announcements, 2018, 7, .	0.3	11
30	In Silico Processing of the Complete CRISPRâ€Cas Spacer Space for Identification of PAM Sequences. Biotechnology Journal, 2018, 13, e1700595.	1.8	16
31	Harnessing a P450 fatty acid decarboxylase from Macrococcus caseolyticus for microbial biosynthesis of odd chain terminal alkenes. Metabolic Engineering Communications, 2018, 7, e00076.	1.9	21
32	Overflow metabolism and growth cessation in Clostridium thermocellum DSM1313 during high cellulose loading fermentations. Biotechnology and Bioengineering, 2017, 114, 2592-2604.	1.7	29
33	Comprehensive characterization of toxicity of fermentative metabolites on microbial growth. Biotechnology for Biofuels, 2017, 10, 262.	6.2	79
34	Exploring complex cellular phenotypes and model-guided strain design with a novel genome-scale metabolic model of Clostridium thermocellum DSM 1313 implementing an adjustable cellulosome. Biotechnology for Biofuels, 2016, 9, 194.	6.2	32
35	Expanding the modular ester fermentative pathways for combinatorial biosynthesis of esters from volatile organic acids. Biotechnology and Bioengineering, 2016, 113, 1764-1776.	1.7	51
36	Modular cell design for rapid, efficient strain engineering toward industrialization of biology. Current Opinion in Chemical Engineering, 2016, 14, 18-25.	3.8	25

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37	Microbial synthesis of a branched-chain ester platform from organic waste carboxylates. Metabolic Engineering Communications, 2016, 3, 245-251.	1.9	40
38	Engineering an Escherichia coli platform to synthesize designer biodiesels. Journal of Biotechnology, 2016, 224, 27-34.	1.9	17
39	Activating and Elucidating Metabolism of Complex Sugars in Yarrowia lipolytica. Applied and Environmental Microbiology, 2016, 82, 1334-1345.	1.4	74
40	Simultaneous saccharification and fermentation of cellulose in ionic liquid for efficient production of Î±-ketoglutaric acid by Yarrowia lipolytica. Applied Microbiology and Biotechnology, 2015, 99, 4237-4244.	1.7	45
41	Rational design of efficient modular cells. Metabolic Engineering, 2015, 32, 220-231.	3.6	37
42	Elucidating central metabolic redox obstacles hindering ethanol production in Clostridium thermocellum. Metabolic Engineering, 2015, 32, 207-219.	3.6	38
43	Engineering modular ester fermentative pathways in Escherichia coli. Metabolic Engineering, 2014, 26, 77-88.	3.6	87
44	Enhancing fatty acid ethyl ester production in <i>Saccharomyces cerevisiae</i> through metabolic engineering and medium optimization. Biotechnology and Bioengineering, 2014, 111, 2200-2208.	1.7	43
45	SMET: Systematic multiple enzyme targeting â€“ a method to rationally design optimal strains for target chemical overproduction. Biotechnology Journal, 2013, 8, 605-618.	1.8	18
46	Elementary Mode Analysis: A Useful Metabolic Pathway Analysis Tool for Reprograming Microbial Metabolic Pathways. Sub-Cellular Biochemistry, 2012, 64, 21-42.	1.0	8
47	Elucidating and reprogramming Escherichia coli metabolisms for obligate anaerobic n-butanol and isobutanol production. Applied Microbiology and Biotechnology, 2012, 95, 1083-1094.	1.7	42
48	Redesigning Escherichia coli Metabolism for Anaerobic Production of Isobutanol. Applied and Environmental Microbiology, 2011, 77, 4894-4904.	1.4	96
49	Parallelization of Nullspace Algorithm for the computation of metabolic pathways. Parallel Computing, 2011, 37, 261-278.	1.3	20
50	Elucidating mechanisms of solvent toxicity in ethanologenic <i>Escherichia coli</i>. Biotechnology and Bioengineering, 2010, 106, 721-730.	1.7	16
51	Rational design and construction of an efficient E. coli for production of diapolycopendioic acid. Metabolic Engineering, 2010, 12, 112-122.	3.6	39
52	On Algebraic Properties of Extreme Pathways in Metabolic Networks. Journal of Computational Biology, 2010, 17, 107-119.	0.8	19
53	Elementary mode analysis: a useful metabolic pathway analysis tool for characterizing cellular metabolism. Applied Microbiology and Biotechnology, 2009, 81, 813-826.	1.7	258
54	Metabolic Engineering of <i>Escherichia coli</i> for Efficient Conversion of Glycerol to Ethanol. Applied and Environmental Microbiology, 2009, 75, 6696-6705.	1.4	135

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55	Minimal <i>Escherichia coli</i> Cell for the Most Efficient Production of Ethanol from Hexoses and Pentoses. Applied and Environmental Microbiology, 2008, 74, 3634-3643.	1.4	257
56	The fractional contributions of elementary modes to the metabolism of Escherichia coli and their estimation from reaction entropies. Metabolic Engineering, 2006, 8, 338-352.	3.6	46
57	Design, construction and performance of the most efficient biomass producing E. coli bacterium. Metabolic Engineering, 2006, 8, 628-638.	3.6	85