Gregory Stephanopoulos

List of Publications by Year
in descending order

354 papers	37,692 citations	3149 92 h-index	3714 179 g-index
435 all docs	435 docs citations	435 times ranked	32986 citing authors

#	Article	IF	Citations
1	Reductive glutamine metabolism by IDH1 mediates lipogenesis under hypoxia. Nature, 2012, 481, 380-384.	13.7	1,470
2	Isoprenoid Pathway Optimization for Taxol Precursor Overproduction in <i>Escherichia coli</i>. Science, 2010, 330, 70-74.	6.0	1,426
3	Phosphoglycerate dehydrogenase diverts glycolytic flux and contributes to oncogenesis. Nature Genetics, 2011, 43, 869-874.	9.4	945
4	Tuning genetic control through promoter engineering. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12678-12683.	3.3	775
5	Engineering Yeast Transcription Machinery for Improved Ethanol Tolerance and Production. Science, 2006, 314, 1565-1568.	6.0	730
6	Challenges in Engineering Microbes for Biofuels Production. Science, 2007, 315, 801-804.	6.0	655
7	Transcriptional control of autophagyâ€“lysosome function drives pancreatic cancer metabolism. Nature, 2015, 524, 361-365.	13.7	624
8	Pyruvate kinase M2 activators promote tetramer formation and suppress tumorigenesis. Nature Chemical Biology, 2012, 8, 839-847.	3.9	614
9	Engineering the push and pull of lipid biosynthesis in oleaginous yeast Yarrowia lipolytica for biofuel production. Metabolic Engineering, 2013, 15, 1-9.	3.6	573
10	Distributing a metabolic pathway among a microbial consortium enhances production of natural products. Nature Biotechnology, 2015, 33, 377-383.	9.4	561
11	Metabolic Fluxes and Metabolic Engineering. Metabolic Engineering, 1999, 1, 1-11.	3.6	522
12	Elementary metabolite units (EMU): A novel framework for modeling isotopic distributions. Metabolic Engineering, 2007, 9, 68-86.	3.6	514
13	A roadmap for interpreting 13 C metabolite labeling patterns from cells. Current Opinion in Biotechnology, 2015, 34, 189-201.	3.3	513
14	The mTORC1 Pathway Stimulates Glutamine Metabolism and Cell Proliferation by Repressing SIRT4. Cell, 2013, 153, 840-854.	13.5	505
15	Metabolic flux distributions inCorynebacterium glutamicum during growth and lysine overproduction. Biotechnology and Bioengineering, 1993, 41, 633-646.	1.7	484
16	Determination of confidence intervals of metabolic fluxes estimated from stable isotope measurements. Metabolic Engineering, 2006, 8, 324-337.	3.6	423
17	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
18	Compartmentalization of metabolic pathways in yeast mitochondria improves the production of branched-chain alcohols. Nature Biotechnology, 2013, 31, 335-341.	9.4	412

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19	Construction of lycopene-overproducing E. coli strains by combining systematic and combinatorial gene knockout targets. Nature Biotechnology, 2005, 23, 612-616.	9.4	406
20	Oncogenic Kâ€Ras decouples glucose and glutamine metabolism to support cancer cell growth. Molecular Systems Biology, 2011, 7, 523.	3.2	404
21	Global transcription machinery engineering: A new approach for improving cellular phenotype. Metabolic Engineering, 2007, 9, 258-267.	3.6	398
22	Hepatic Insulin Resistance Is Sufficient to Produce Dyslipidemia and Susceptibility to Atherosclerosis. Cell Metabolism, 2008, 7, 125-134.	7.2	383
23	A compendium of gene expression in normal human tissues. Physiological Genomics, 2001, 7, 97-104.	1.0	376
24	Lipid production in Yarrowia lipolytica is maximized by engineering cytosolic redox metabolism. Nature Biotechnology, 2017, 35, 173-177.	9.4	366
25	Terpenoids: Opportunities for Biosynthesis of Natural Product Drugs Using Engineered Microorganisms. Molecular Pharmaceutics, 2008, 5, 167-190.	2.3	363
26	Engineering <i>Yarrowia lipolytica</i> 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
27	Engineering for biofuels: exploiting innate microbial capacity or importing biosynthetic potential?. Nature Reviews Microbiology, 2009, 7, 715-723.	13.6	352
28	Selection and optimization of microbial hosts for biofuels production. Metabolic Engineering, 2008, 10, 295-304.	3.6	343
29	Mapping photoautotrophic metabolism with isotopically nonstationary 13C flux analysis. Metabolic Engineering, 2011, 13, 656-665.	3.6	307
30	Combining metabolic and protein engineering of a terpenoid biosynthetic pathway for overproduction and selectivity control. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13654-13659.	3.3	304
31	Microfluidic high-throughput culturing of single cells for selection based on extracellular metabolite production or consumption. Nature Biotechnology, 2014, 32, 473-478.	9.4	298
32	Engineering lipid overproduction in the oleaginous yeast Yarrowia lipolytica. Metabolic Engineering, 2015, 29, 56-65.	3.6	291
33	Reductive glutamine metabolism is a function of the Î±-ketoglutarate to citrate ratio in cells. Nature Communications, 2013, 4, 2236.	5.8	290
34	Effects of substratum morphology on cell physiology. Biotechnology and Bioengineering, 1994, 43, 764-771.	1.7	282
35	InÂVivo HIF-Mediated Reductive Carboxylation Is Regulated by Citrate Levels and Sensitizes VHL-Deficient Cells to Glutamine Deprivation. Cell Metabolism, 2013, 17, 372-385.	7.2	280
36	The future of metabolic engineering and synthetic biology: Towards a systematic practice. Metabolic Engineering, 2012, 14, 233-241.	3.6	277

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37	Optimization of a heterologous pathway for the production of flavonoids from glucose. Metabolic Engineering, 2011, 13, 392-400.	3.6	276
38	Stabilized gene duplication enables long-term selection-free heterologous pathway expression. Nature Biotechnology, 2009, 27, 760-765.	9.4	272
39	Engineering <i>Escherichia coli</i> coculture systems for the production of biochemical products. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8266-8271.	3.3	268
40	Studies on on-line bioreactor identification. I. Theory. Biotechnology and Bioengineering, 1984, 26, 1176-1188.	1.7	265
41	Quantifying Reductive Carboxylation Flux of Glutamine to Lipid in a Brown Adipocyte Cell Line. Journal of Biological Chemistry, 2008, 283, 20621-20627.	1.6	265
42	Direct evidence for cancer-cell-autonomous extracellular protein catabolism in pancreatic tumors. Nature Medicine, 2017, 23, 235-241.	15.2	263
43	Evaluation of 13C isotopic tracers for metabolic flux analysis in mammalian cells. Journal of Biotechnology, 2009, 144, 167-174.	1.9	257
44	Metabolic Engineering: Past and Future. Annual Review of Chemical and Biomolecular Engineering, 2013, 4, 259-288.	3.3	254
45	Xylose isomerase overexpression along with engineering of the pentose phosphate pathway and evolutionary engineering enable rapid xylose utilization and ethanol production by Saccharomyces cerevisiae. Metabolic Engineering, 2012, 14, 611-622.	3.6	250
46	The oxidative pentose phosphate pathway is the primary source of NADPH for lipid overproduction from glucose in Yarrowia lipolytica. Metabolic Engineering, 2015, 30, 27-39.	3.6	249
47	Accurate Assessment of Amino Acid Mass Isotopomer Distributions for Metabolic Flux Analysis. Analytical Chemistry, 2007, 79, 7554-7559.	3.2	247
48	An elementary metabolite unit (EMU) based method of isotopically nonstationary flux analysis. Biotechnology and Bioengineering, 2008, 99, 686-699.	1.7	241
49	Application of macroscopic balances to the identification of gross measurement errors. Biotechnology and Bioengineering, 1983, 25, 2177-2208.	1.7	220
50	Metabolic flux analysis in a nonstationary system: Fed-batch fermentation of a high yielding strain of E. coli producing 1,3-propanediol. Metabolic Engineering, 2007, 9, 277-292.	3.6	217
51	A linguistic model for the rational design of antimicrobial peptides. Nature, 2006, 443, 867-869.	13.7	214
52	Synthetic Biology and Metabolic Engineering. ACS Synthetic Biology, 2012, 1, 514-525.	1.9	212
53	Diffusion coefficients of glucose and ethanol in cell-free and cell-occupied calcium alginate membranes. Biotechnology and Bioengineering, 1986, 28, 829-835.	1.7	211
54	Pyruvate Kinase Isoform Expression Alters Nucleotide Synthesis to Impact Cell Proliferation. Molecular Cell, 2015, 57, 95-107.	4.5	209

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55	Engineering of Promoter Replacement Cassettes for Fine-Tuning of Gene Expression in Saccharomyces cerevisiae. Applied and Environmental Microbiology, 2006, 72, 5266-5273.	1.4	200
56	Engineering alcohol tolerance in yeast. Science, 2014, 346, 71-75.	6.0	193
57	Overcoming heterologous protein interdependency to optimize P450-mediated Taxol precursor synthesis in <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3209-3214.	3.3	193
58	Metformin Decreases Glucose Oxidation and Increases the Dependency of Prostate Cancer Cells on Reductive Glutamine Metabolism. Cancer Research, 2013, 73, 4429-4438.	0.4	178
59	Intracellular flux analysis in hybridomas using mass balances and in vitro13C nmr. Biotechnology and Bioengineering, 1995, 45, 292-303.	1.7	174
60	L-Tyrosine production by deregulated strains of Escherichia coli. Applied Microbiology and Biotechnology, 2007, 75, 103-110.	1.7	172
61	Exploiting biological complexity for strain improvement through systems biology. Nature Biotechnology, 2004, 22, 1261-1267.	9.4	166
62	Combinatorial engineering of microbes for optimizing cellular phenotype. Current Opinion in Chemical Biology, 2008, 12, 168-176.	2.8	162
63	Erk regulation of pyruvate dehydrogenase flux through PDK4 modulates cell proliferation. Genes and Development, 2011, 25, 1716-1733.	2.7	162
64	Engineering oxidative stress defense pathways to build a robust lipid production platform in <i>Yarrowia lipolytica</i>. Biotechnology and Bioengineering, 2017, 114, 1521-1530.	1.7	162
65	Two-step pathway for isoprenoid synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 506-511.	3.3	160
66	Relative potential of biosynthetic pathways for biofuels and bio-based products. Nature Biotechnology, 2011, 29, 1074-1078.	9.4	158
67	Metabolic engineering in the host Yarrowia lipolytica. Metabolic Engineering, 2018, 50, 192-208.	3.6	157
68	Integrated bioprocess for conversion of gaseous substrates to liquids. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3773-3778.	3.3	156
69	Linking high-resolution metabolic flux phenotypes and transcriptional regulation in yeast modulated by the global regulator Gcn4p. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6477-6482.	3.3	154
70	Metabolic engineering of Escherichia coli for biosynthesis of hyaluronic acid. Metabolic Engineering, 2008, 10, 24-32.	3.6	150
71	High-throughput metabolic state analysis: the missing link in integrated functional genomics of yeasts. Biochemical Journal, 2005, 388, 669-677.	1.7	147
72	The Phosphoinositide 3-Kinase Regulatory Subunit p85Î± Can Exert Tumor Suppressor Properties through Negative Regulation of Growth Factor Signaling. Cancer Research, 2010, 70, 5305-5315.	0.4	140

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73	Molecular signature of late-stage human ALS revealed by expression profiling of postmortem spinal cord gray matter. Physiological Genomics, 2004, 16, 229-239.	1.0	137
74	Computer-aided synthesis of biochemical pathways. Biotechnology and Bioengineering, 1990, 36, 1119-1132.	1.7	134
75	Multi-dimensional gene target search for improving lycopene biosynthesis in Escherichia coli. Metabolic Engineering, 2007, 9, 337-347.	3.6	134
76	Metabolic flux analysis of hybridoma continuous culture steady state multiplicity. , 1999, 63, 675-683.		133
77	Improvement of Xylose Uptake and Ethanol Production in Recombinant Saccharomyces cerevisiae through an Inverse Metabolic Engineering Approach. Applied and Environmental Microbiology, 2005, 71, 8249-8256.	1.4	133
78	Rational, combinatorial, and genomic approaches for engineering L-tyrosine production in <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13538-13543.	3.3	133
79	Interactive Exploration of Microarray Gene Expression Patterns in a Reduced Dimensional Space. Genome Research, 2002, 12, 1112-1120.	2.4	131
80	Engineering of a high lipid producing Yarrowia lipolytica strain. Biotechnology for Biofuels, 2016, 9, 77.	6.2	126
81	Metabolic engineering of microbial competitive advantage for industrial fermentation processes. Science, 2016, 353, 583-586.	6.0	119
82	Metabolism of peptide amino acids by Chinese hamster ovary cells grown in a complex medium. , 1999, 62, 324-335.		115
83	Determination of minimum sample size and discriminatory expression patterns in microarray data. Bioinformatics, 2002, 18, 1184-1193.	1.8	114
84	Metabolic engineering â€" methodologies and future prospects. Trends in Biotechnology, 1993, 11, 392-396.	4.9	113
85	Metabolic effects on recombinant interferon-? glycosylation in continuous culture of Chinese hamster ovary cells. , 1999, 62, 336-347.		111
86	Nontargeted Elucidation of Metabolic Pathways Using Stable-Isotope Tracers and Mass Spectrometry. Analytical Chemistry, 2010, 82, 6621-6628.	3.2	111
87	Measuring Deuterium Enrichment of Glucose Hydrogen Atoms by Gas Chromatography/Mass Spectrometry. Analytical Chemistry, 2011, 83, 3211-3216.	3.2	111
88	Optimization of fed-batch penicillin fermentation: A case of singular optimal control with state constraints. Biotechnology and Bioengineering, 1989, 34, 72-78.	1.7	107
89	Engineering microbial cell factories for biosynthesis of isoprenoid molecules: beyond lycopene. Trends in Biotechnology, 2007, 25, 417-424.	4.9	107
90	Holistic Approaches in Lipid Production by Yarrowia lipolytica. Trends in Biotechnology, 2018, 36, 1157-1170.	4.9	104

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91	Genome-Wide Dynamic Transcriptional Profiling of the Light-to-Dark Transition in Synechocystis sp. Strain PCC 6803. Journal of Bacteriology, 2002, 184, 3671-3681.	1.0	101
92	Cofactor Balance by Nicotinamide Nucleotide Transhydrogenase (NNT) Coordinates Reductive Carboxylation and Glucose Catabolism in the Tricarboxylic Acid (TCA) Cycle. Journal of Biological Chemistry, 2013, 288, 12967-12977.	1.6	101
93	Improving Metabolic Pathway Efficiency by Statistical Model-Based Multivariate Regulatory Metabolic Engineering. ACS Synthetic Biology, 2017, 6, 148-158.	1.9	101
94	Metabolic requirements for cancer cell proliferation. Cancer & Metabolism, 2016, 4, 16.	2.4	99
95	Elucidation of Gene Interaction Networks Through Time-Lagged Correlation Analysis of Transcriptional Data. Genome Research, 2004, 14, 1654-1663.	2.4	96
96	Metabolic engineering by genome shuffling. Nature Biotechnology, 2002, 20, 666-668.	9.4	95
97	Engineering metabolism and product formation in Corynebacterium glutamicum by coordinated gene overexpression. Metabolic Engineering, 2003, 5, 32-41.	3.6	94
98	Strain improvement by metabolic engineering: lysine production as a case study for systems biology. Current Opinion in Biotechnology, 2005, 16, 361-366.	3.3	92
99	Combinatorial pathway analysis for improved L-tyrosine production in Escherichia coli: Identification of enzymatic bottlenecks by systematic gene overexpression. Metabolic Engineering, 2008, 10, 69-77.	3.6	92
100	Perspectives of biotechnological production of l-tyrosine and its applications. Applied Microbiology and Biotechnology, 2007, 77, 751-762.	1.7	91
101	Feedback Inhibition of Chorismate Mutase/Prephenate Dehydrogenase (TyrA) of Escherichia coli : Generation and Characterization of Tyrosine-Insensitive Mutants. Applied and Environmental Microbiology, 2005, 71, 7224-7228.	1.4	89
102	Carboxyl-Terminated Dendrimer-Coated Bioactive Interface for Protein Microarray:Â High-Sensitivity Detection of Antigen in Complex Biological Samples. Langmuir, 2007, 23, 5670-5677.	1.6	89
103	Systematic quantification of complex metabolic flux networks using stable isotopes and mass spectrometry. FEBS Journal, 2003, 270, 3525-3542.	0.2	88
104	Melanin-Based High-Throughput Screen for <scp>l</scp> -Tyrosine Production in <i>Escherichia coli</i>. Applied and Environmental Microbiology, 2008, 74, 1190-1197.	1.4	86
105	Flux amplification in complex metabolic networks. Chemical Engineering Science, 1997, 52, 2607-2627.	1.9	85
106	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
107	Coâ€culture engineering for microbial biosynthesis of 3â€aminoâ€benzoic acid in <i>Escherichia coli</i>. Biotechnology Journal, 2016, 11, 981-987.	1.8	84
108	Assessing the potential of mutational strategies to elicit new phenotypes in industrial strains. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2319-2324.	3.3	83

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109	Induction of mammalian cell death by simple shear and extensional flows. Biotechnology and Bioengineering, 2009, 104, 360-370.	1.7	83
110	Metabolite Profiling Identified Methylerythritol Cyclodiphosphate Efflux as a Limiting Step in Microbial Isoprenoid Production. PLoS ONE, 2012, 7, e47513.	1.1	83
111	Review of methods to probe single cell metabolism and bioenergetics. Metabolic Engineering, 2015, 27, 115-135.	3.6	82
112	Efficient utilization of pentoses for bioproduction of the renewable two-carbon compounds ethylene glycol and glycolate. Metabolic Engineering, 2016, 34, 80-87.	3.6	82
113	Studies on on-line bioreactor identification. II. Numerical and experimental results. Biotechnology and Bioengineering, 1984, 26, 1189-1197.	1.7	81
114	Loss of RBF1 changes glutamine catabolism. Genes and Development, 2013, 27, 182-196.	2.7	81
115	Rediverting carbon flux in Clostridium ljungdahlii using CRISPR interference (CRISPRi). Metabolic Engineering, 2018, 48, 243-253.	3.6	80
116	BLOSUM62 miscalculations improve search performance. Nature Biotechnology, 2008, 26, 274-275.	9.4	79
117	Identification and Analysis of the Polyhydroxyalkanoate-Specific Î²-Ketothiolase and Acetoacetyl Coenzyme A Reductase Genes in the Cyanobacterium Synechocystis sp. Strain PCC6803. Applied and Environmental Microbiology, 2000, 66, 4440-4448.	1.4	78
118	Engineering E. coliâ€“E. coli cocultures for production of muconic acid from glycerol. Microbial Cell Factories, 2015, 14, 134.	1.9	78
119	Mutagenesis of the Bacterial RNA Polymerase Alpha Subunit for Improvement of Complex Phenotypes. Applied and Environmental Microbiology, 2009, 75, 2705-2711.	1.4	77
120	Optimization of amorphadiene synthesis in <i>bacillus subtilis</i> via transcriptional, translational, and media modulation. Biotechnology and Bioengineering, 2013, 110, 2556-2561.	1.7	77
121	Engineering E. coli for caffeic acid biosynthesis from renewable sugars. Applied Microbiology and Biotechnology, 2013, 97, 3333-3341.	1.7	77
122	Metabolite and isotopomer balancing in the analysis of metabolic cycles: I. Theory. , 1999, 62, 375-391.		76
123	Improving formaldehyde consumption drives methanol assimilation in engineered E. coli. Nature Communications, 2018, 9, 2387.	5.8	76
124	Enhancing isoprenoid synthesis in Yarrowia lipolytica by expressing the isopentenol utilization pathway and modulating intracellular hydrophobicity. Metabolic Engineering, 2020, 61, 344-351.	3.6	75
125	Characterization of lycopene-overproducing E. coli strains in high cell density fermentations. Applied Microbiology and Biotechnology, 2006, 72, 968-974.	1.7	74
126	The p85Î± Regulatory Subunit of Phosphoinositide 3-Kinase Potentiates c-Jun N-Terminal Kinase-Mediated Insulin Resistance. Molecular and Cellular Biology, 2007, 27, 2830-2840.	1.1	74

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127	Metabolic characterization of aL-lysine-producing strain by continuous culture. Biotechnology and Bioengineering, 1992, 39, 565-574.	1.7	73
128	Metabolomic and ¹³Câ€metabolic flux analysis of a xyloseâ€consuming <i>Saccharomyces cerevisiae</i> strain expressing xylose isomerase. Biotechnology and Bioengineering, 2015, 112, 470-483.	1.7	73
129	Optimization of 13C isotopic tracers for metabolic flux analysis in mammalian cells. Metabolic Engineering, 2012, 14, 162-171.	3.6	72
130	Application of metabolic controls for the maximization of lipid production in semicontinuous fermentation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5308-E5316.	3.3	72
131	Glutaminase and poly(ADP-ribose) polymerase inhibitors suppress pyrimidine synthesis and VHL-deficient renal cancers. Journal of Clinical Investigation, 2017, 127, 1631-1645.	3.9	72
132	The effect of intraparticle convection on nutrient transport in porous biological pellets. Chemical Engineering Science, 1989, 44, 2031-2039.	1.9	71
133	Carbon Flux Distributions at the Glucose 6-Phosphate Branch Point in Corynebacterium glutamicum during Lysine Overproduction. Biotechnology Progress, 1994, 10, 327-334.	1.3	71
134	Efflux transporter engineering markedly improves amorphadiene production in <i>Escherichia coli</i>. Biotechnology and Bioengineering, 2016, 113, 1755-1763.	1.7	71
135	Engineering Corynebacterium glutamicum for high-titer biosynthesis of hyaluronic acid. Metabolic Engineering, 2019, 55, 276-289.	3.6	71
136	Synergistic substrate cofeeding stimulates reductive metabolism. Nature Metabolism, 2019, 1, 643-651.	5.1	71
137	Removal of lycopene substrate inhibition enables high carotenoid productivity in Yarrowia lipolytica. Nature Communications, 2022, 13, 572.	5.8	70
138	The growth of competing microbial populations in a CSTR with periodically varying inputs. AICHE Journal, 1979, 25, 863-872.	1.8	69
139	A Functional Protein Chip for Pathway Optimization and in Vitro Metabolic Engineering. Science, 2004, 304, 428-431.	6.0	68
140	13C Metabolic Flux Analysis of acetate conversion to lipids by Yarrowia lipolytica. Metabolic Engineering, 2016, 38, 86-97.	3.6	68
141	Aldehyde dehydrogenase 3a2 protects AML cells from oxidative death and the synthetic lethality of ferroptosis inducers. Blood, 2020, 136, 1303-1316.	0.6	68
142	Metabolic activity control of the L-lysine fermentation by restrained growth fed-batch strategies. Biotechnology Progress, 1991, 7, 501-509.	1.3	67
143	Engineering promoter regulation. Biotechnology and Bioengineering, 2007, 96, 550-558.	1.7	67
144	Simple glycolipids of microbes: Chemistry, biological activity and metabolic engineering. Synthetic and Systems Biotechnology, 2018, 3, 3-19.	1.8	65

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145	Carbon Flux Distributions at the Pyruvate Branch Point in Corynebacterium glutamicum during Lysine Overproduction. Biotechnology Progress, 1994, 10, 320-326.	1.3	64
146	Highâ€titer biosynthesis of hyaluronic acid by recombinant <i>Corynebacterium glutamicum</i>. Biotechnology Journal, 2016, 11, 574-584.	1.8	63
147	Metabolic engineering of Escherichia coli for the production of isoprenoids. FEMS Microbiology Letters, 2018, 365, .	0.7	63
148	Mixed carbon substrates: a necessary nuisance or a missed opportunity?. Current Opinion in Biotechnology, 2020, 62, 15-21.	3.3	63
149	Targeting pathway expression to subcellular organelles improves astaxanthin synthesis in Yarrowia lipolytica. Metabolic Engineering, 2021, 68, 152-161.	3.6	63
150	Metabolic and physiological studies ofCorynebacterium glutamicum mutants. , 1997, 55, 864-879.		61
151	A review of cellulosic microbial fuel cells: Performance and challenges. Biomass and Bioenergy, 2013, 56, 179-188.	2.9	61
152	Phage-Assisted Evolution of <i>Bacillus methanolicus</i> Methanol Dehydrogenase 2. ACS Synthetic Biology, 2019, 8, 796-806.	1.9	61
153	Effect of Anaplerotic Fluxes and Amino Acid Availability on Hepatic Lipoapoptosis. Journal of Biological Chemistry, 2009, 284, 33425-33436.	1.6	60
154	Merkel Cell Polyomavirus Small T Antigen Promotes Pro-Glycolytic Metabolic Perturbations Required for Transformation. PLoS Pathogens, 2016, 12, e1006020.	2.1	60
155	A stochastic analysis of the growth of competing microbial populations in a continuous biochemical reactor. Mathematical Biosciences, 1979, 45, 99-135.	0.9	59
156	Chemostat dynamics of plasmid-bearing, plasmid-free mixed recombinant cultures. Chemical Engineering Science, 1988, 43, 49-57.	1.9	59
157	Improved Gene Targeting through Cell Cycle Synchronization. PLoS ONE, 2015, 10, e0133434.	1.1	59
158	Effect of reversible reactions on isotope label redistribution. Analysis of the pentose phosphate pathway. FEBS Journal, 1998, 252, 360-371.	0.2	58
159	Packed bed bioreactor with porous ceramic beads for animal cell culture. Biotechnology and Bioengineering, 1993, 41, 25-34.	1.7	56
160	Analysis of heterologous taxadiene production in K- and B-derived Escherichia coli. Applied Microbiology and Biotechnology, 2012, 93, 1651-1661.	1.7	56
161	Combinatorial Engineering of 1-Deoxy-D-Xylulose 5-Phosphate Pathway Using Cross-Lapping In Vitro Assembly (CLIVA) Method. PLoS ONE, 2013, 8, e79557.	1.1	56
162	Akt regulation of glycolysis mediates bioenergetic stability in epithelial cells. ELife, 2017, 6, .	2.8	55

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163	Uncovering the gene knockout landscape for improved lycopene production in E. coli. Applied Microbiology and Biotechnology, 2008, 78, 801-810.	1.7	54
164	Engineering a novel biosynthetic pathway in <i>Escherichia coli</i> for production of renewable ethylene glycol. Biotechnology and Bioengineering, 2016, 113, 376-383.	1.7	54
165	Engineering of Taxadiene Synthase for Improved Selectivity and Yield of a Key Taxol Biosynthetic Intermediate. ACS Synthetic Biology, 2017, 6, 201-205.	1.9	54
166	Studies on on-line bioreactor identification. IV. Utilization of pH measurements for product estimation. Biotechnology and Bioengineering, 1984, 26, 1209-1218.	1.7	53
167	A highâ€throughput screen for hyaluronic acid accumulation in recombinant <i>Escherichia coli</i> transformed by libraries of engineered sigma factors. Biotechnology and Bioengineering, 2008, 101, 788-796.	1.7	53
168	Anaerobic CO₂ fixation by the acetogenic bacterium <i>Moorella thermoacetica</i>. AIChE Journal, 2013, 59, 3176-3183.	1.8	53
169	On physiological multiplicity and population heterogeneity of biological systems. Chemical Engineering Science, 1996, 51, 1509-1521.	1.9	52
170	Fermentation database mining by pattern recognition. , 1997, 53, 443-452.		52
171	Rapamycin reduces hybridoma cell death and enhances monoclonal antibody production. Biotechnology and Bioengineering, 2001, 76, 1-10.	1.7	52
172	Mapping physiological states from microarray expression measurements. Bioinformatics, 2002, 18, 1054-1063.	1.8	52
173	Analysis of polyhydroxybutyrate flux limitations by systematic genetic and metabolic perturbations. Metabolic Engineering, 2010, 12, 187-195.	3.6	52
174	Review of metabolic pathways activated in cancer cells as determined through isotopic labeling and network analysis. Metabolic Engineering, 2017, 43, 113-124.	3.6	52
175	Metabolite and isotopomer balancing in the analysis of metabolic cycles: II. Applications. , 1999, 62, 392-401.		51
176	Physiological, biochemical, and mathematical studies of micro-aerobic continuous ethanol fermentation bySaccharomyces cerevisiae. I: Hysteresis, oscillations, and maximum specific ethanol productivities in chemostat culture. Biotechnology and Bioengineering, 1990, 36, 1006-1019.	1.7	50
177	A modeling framework for the study of protein glycosylation. , 1996, 50, 73-90.		49
178	Metabolic engineering. , 1998, 58, 119.		49
179	Effect of pH oscillations on a competing mixed culture. Biotechnology and Bioengineering, 1986, 28, 1127-1137.	1.7	48
180	Overview of computational methods for the inference of gene regulatory networks. Computers and Chemical Engineering, 2005, 29, 519-534.	2.0	48

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181	Novel Strategies and Platforms for Industrial Isoprenoid Engineering. Trends in Biotechnology, 2020, 38, 811-822.	4.9	48
182	Ketogenic Essential Amino Acids Modulate Lipid Synthetic Pathways and Prevent Hepatic Steatosis in Mice. PLoS ONE, 2010, 5, e12057.	1.1	48
183	Effect of glutamine limitation on the death of attached Chinese hamster ovary cells. Biotechnology and Bioengineering, 1999, 64, 46-53.	1.7	47
184	Quantifying carbon sources for de novo lipogenesis in wild-type and IRS-1 knockout brown adipocytes. Journal of Lipid Research, 2004, 45, 1324-1332.	2.0	47
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