Gregory Stephanopoulos

List of Publications by Year
in descending order

354 papers	37,692 citations	3151 92 h-index	3725 179 g-index
435 all docs	435 docs citations	435 times ranked	32986 citing authors

#	Article	IF	Citations
1	Proton export alkalinizes intracellular pH and reprograms carbon metabolism to drive normal and malignant cell growth. Blood, 2022, 139, 502-522.	0.6	23
2	Removal of lycopene substrate inhibition enables high carotenoid productivity in Yarrowia lipolytica. Nature Communications, 2022, 13, 572.	5.8	70
3	Optimization of the Isopentenol Utilization Pathway for Isoprenoid Synthesis in <i>Escherichia coli</i>. Journal of Agricultural and Food Chemistry, 2022, 70, 3512-3520.	2.4	11
4	Isotope tracing in health and disease. Current Opinion in Biotechnology, 2022, 76, 102739.	3.3	13
5	Constructing an ethanol utilization pathway in Escherichia coli to produce acetyl-CoA derived compounds. Metabolic Engineering, 2021, 65, 223-231.	3.6	31
6	Monoterpenoid biosynthesis by engineered microbes. Journal of Industrial Microbiology and Biotechnology, 2021, 48, .	1.4	9
7	Partitioning metabolism between growth and product synthesis for coordinated production of wax esters in <i>Acinetobacter baylyi</i> ADP1. Biotechnology and Bioengineering, 2021, 118, 2283-2292.	1.7	9
8	Differential Substrate Use in EGFâ€•and Oncogenic KRASâ€Stimulated Human Mammary Epithelial Cells. FEBS Journal, 2021, 288, 5629-5649.	2.2	4
9	Deep learning classification of lipid droplets in quantitative phase images. PLoS ONE, 2021, 16, e0249196.	1.1	12
10	Enzymes in biotechnology: Critical platform technologies for bioprocess development. Current Opinion in Biotechnology, 2021, 69, 91-102.	3.3	34
11	Engineered yeast tolerance enables efficient production from toxified lignocellulosic feedstocks. Science Advances, 2021, 7, .	4.7	21
12	Heterologous production of Î±-Carotene in Corynebacterium glutamicum using a multi-copy chromosomal integration method. Bioresource Technology, 2021, 341, 125782.	4.8	17
13	Targeting pathway expression to subcellular organelles improves astaxanthin synthesis in Yarrowia lipolytica. Metabolic Engineering, 2021, 68, 152-161.	3.6	63
14	Insulin resistance rewires the metabolic gene program and glucose utilization in human white adipocytes. International Journal of Obesity, 2021, , .	1.6	3
15	Enabling commercial success of industrial biotechnology. Science, 2021, 374, 1563-1565.	6.0	10
16	Mixed carbon substrates: a necessary nuisance or a missed opportunity?. Current Opinion in Biotechnology, 2020, 62, 15-21.	3.3	63
17	Engineering Yarrowia lipolytica for the utilization of acid whey. Metabolic Engineering, 2020, 57, 43-50.	3.6	33
18	Dissecting Mammalian Cell Metabolism through ¹³C- and ²H-Isotope Tracing: Interpretations at the Molecular and Systems Levels. Industrial & Engineering Chemistry Research, 2020, 59, 2593-2610.	1.8	10

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19	Engineering E.Âcoli to Grow on Methanol. Joule, 2020, 4, 2070-2072.	11.7	0
20	Metabolic engineering strategies to overcome precursor limitations in isoprenoid biosynthesis. Current Opinion in Biotechnology, 2020, 66, 171-178.	3.3	21
21	Synthesis of high-titer alka(e)nes in Yarrowia lipolytica is enabled by a discovered mechanism. Nature Communications, 2020, 11, 6198.	5.8	32
22	Improving CRISPR/Cas9-mediated genome editing efficiency in Yarrowia lipolytica using direct tRNA-sgRNA fusions. Metabolic Engineering, 2020, 62, 106-115.	3.6	31
23	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
24	Aldehyde dehydrogenase 3a2 protects AML cells from oxidative death and the synthetic lethality of ferroptosis inducers. Blood, 2020, 136, 1303-1316.	0.6	68
25	Protein engineering strategies for microbial production of isoprenoids. Metabolic Engineering Communications, 2020, 11, e00129.	1.9	10
26	Novel Strategies and Platforms for Industrial Isoprenoid Engineering. Trends in Biotechnology, 2020, 38, 811-822.	4.9	48
27	Using biopolymer bodies for encapsulation of hydrophobic products in bacterium. Metabolic Engineering, 2020, 61, 206-214.	3.6	13
28	Cell free biosynthesis of isoprenoids from isopentenol. Biotechnology and Bioengineering, 2019, 116, 3269-3281.	1.7	30
29	Engineering Corynebacterium glutamicum for high-titer biosynthesis of hyaluronic acid. Metabolic Engineering, 2019, 55, 276-289.	3.6	71
30	Critical Roles of the Pentose Phosphate Pathway and GLN3 in Isobutanol-Specific Tolerance in Yeast. Cell Systems, 2019, 9, 534-547.e5.	2.9	28
31	Synergistic substrate cofeeding stimulates reductive metabolism. Nature Metabolism, 2019, 1, 643-651.	5.1	71
32	Limitations in converting waste gases to fuels and chemicals. Current Opinion in Biotechnology, 2019, 59, 39-45.	3.3	34
33	Phage-Assisted Evolution of <i>Bacillus methanolicus</i> Methanol Dehydrogenase 2. ACS Synthetic Biology, 2019, 8, 796-806.	1.9	61
34	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
35	Biosynthesis of monoethylene glycol in Saccharomyces cerevisiae utilizing native glycolytic enzymes. Metabolic Engineering, 2019, 51, 20-31.	3.6	22
36	Enhancing hydrogenâ€dependent growth of and carbon dioxide fixation by <i>Clostridium ljungdahlii</i> through nitrate supplementation. Biotechnology and Bioengineering, 2019, 116, 294-306.	1.7	46

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37	Epigenetic Activation of the pH Regulator MCT4 in Acute Myeloid Leukemia Exploits a Fundamental Metabolic Process of Enhancing Cell Growth through Proton Shifting. Blood, 2019, 134, 3765-3765.	0.6	1
38	Harnessing a methaneâ€fueled, sedimentâ€free mixed microbial community for utilization of distributed sources of natural gas. Biotechnology and Bioengineering, 2018, 115, 1450-1464.	1.7	4
39	Simple glycolipids of microbes: Chemistry, biological activity and metabolic engineering. Synthetic and Systems Biotechnology, 2018, 3, 3-19.	1.8	65
40	Metabolic engineering of Escherichia coli for the production of isoprenoids. FEMS Microbiology Letters, 2018, 365, .	0.7	63
41	Development of a formaldehyde biosensor with application to synthetic methylotrophy. Biotechnology and Bioengineering, 2018, 115, 206-215.	1.7	44
42	Glyceraldehyde 3â€phosphate dehydrogenase modulates nonoxidative pentose phosphate pathway to provide anabolic precursors in hypoxic tumor cells. AIChE Journal, 2018, 64, 4289-4296.	1.8	12
43	Metabolic engineering of Escherichia coli for the production of L-malate from xylose. Metabolic Engineering, 2018, 48, 25-32.	3.6	40
44	Metabolic engineering in the host Yarrowia lipolytica. Metabolic Engineering, 2018, 50, 192-208.	3.6	157
45	Holistic Approaches in Lipid Production by Yarrowia lipolytica. Trends in Biotechnology, 2018, 36, 1157-1170.	4.9	104
46	Rediverting carbon flux in Clostridium ljungdahlii using CRISPR interference (CRISPRi). Metabolic Engineering, 2018, 48, 243-253.	3.6	80
47	Improving formaldehyde consumption drives methanol assimilation in engineered E. coli. Nature Communications, 2018, 9, 2387.	5.8	76
48	Lipid production in Yarrowia lipolytica is maximized by engineering cytosolic redox metabolism. Nature Biotechnology, 2017, 35, 173-177.	9.4	366
49	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
50	Key Role of the Carboxyl Terminus of Hyaluronan Synthase in Processive Synthesis and Size Control of Hyaluronic Acid Polymers. Biomacromolecules, 2017, 18, 1064-1073.	2.6	16
51	Exploring biochemical pathways for mono-ethylene glycol (MEG) synthesis from synthesis gas. Metabolic Engineering, 2017, 41, 173-181.	3.6	26
52	<i>In Vitro</i> Metabolic Engineering of Amorpha-4,11-diene Biosynthesis at Enhanced Rate and Specific Yield of Production. ACS Synthetic Biology, 2017, 6, 1691-1700.	1.9	23
53	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
54	Designing a New Entry Point into Isoprenoid Metabolism by Exploiting Fructose-6-Phosphate Aldolase Side Reactivity ofEscherichia coli. ACS Synthetic Biology, 2017, 6, 1416-1426.	1.9	33

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55	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
56	Direct evidence for cancer-cell-autonomous extracellular protein catabolism in pancreatic tumors. Nature Medicine, 2017, 23, 235-241.	15.2	263
57	Metabolic engineering of Escherichia coli for the synthesis of the quadripolymer poly(glycolate-co-lactate-co-3-hydroxybutyrate-co-4-hydroxybutyrate) from glucose. Metabolic Engineering, 2017, 44, 38-44.	3.6	20
58	Enhanced Biosynthesis of Hyaluronic Acid Using Engineered <i>Corynebacterium glutamicum</i> Via Metabolic Pathway Regulation. Biotechnology Journal, 2017, 12, 1700191.	1.8	42
59	Theoretical analysis of natural gas recovery from marginal wells with a deep well reactor. AIChE Journal, 2017, 63, 3642-3650.	1.8	1
60	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
61	Engineering <i>Yarrowia lipolytica</i> for poly-3-hydroxybutyrate production. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 605-612.	1.4	31
62	Improving Metabolic Pathway Efficiency by Statistical Model-Based Multivariate Regulatory Metabolic Engineering. ACS Synthetic Biology, 2017, 6, 148-158.	1.9	101
63	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
64	Exploiting Bioprocessing Fluctuations to Elicit the Mechanistics of De Novo Lipogenesis in Yarrowia lipolytica. PLoS ONE, 2017, 12, e0168889.	1.1	5
65	Akt regulation of glycolysis mediates bioenergetic stability in epithelial cells. ELife, 2017, 6, .	2.8	55
66	Merkel Cell Polyomavirus Small T Antigen Promotes Pro-Glycolytic Metabolic Perturbations Required for Transformation. PLoS Pathogens, 2016, 12, e1006020.	2.1	60
67	13C Metabolic Flux Analysis of acetate conversion to lipids by Yarrowia lipolytica. Metabolic Engineering, 2016, 38, 86-97.	3.6	68
68	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
69	Engineering of a high lipid producing Yarrowia lipolytica strain. Biotechnology for Biofuels, 2016, 9, 77.	6.2	126
70	Metabolic engineering of microbial competitive advantage for industrial fermentation processes. Science, 2016, 353, 583-586.	6.0	119
71	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
72	Letter from AIChE President. Bioengineering and Translational Medicine, 2016, 1, 3-3.	3.9	1

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73	Metabolic requirements for cancer cell proliferation. Cancer & Metabolism, 2016, 4, 16.	2.4	99
74	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
75	Engineering Microbes to Synthesize Plant Isoprenoids. Methods in Enzymology, 2016, 575, 225-245.	0.4	4
76	Highâ€titer biosynthesis of hyaluronic acid by recombinant <i>Corynebacterium glutamicum</i>. Biotechnology Journal, 2016, 11, 574-584.	1.8	63
77	Efflux transporter engineering markedly improves amorphadiene production in <i>Escherichia coli</i>. Biotechnology and Bioengineering, 2016, 113, 1755-1763.	1.7	71
78	Biosynthesis of poly(glycolate-co-lactate-co-3-hydroxybutyrate) from glucose by metabolically engineered Escherichia coli. Metabolic Engineering, 2016, 35, 1-8.	3.6	37
79	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
80	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
81	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
82	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
83	Mechanistic Insights into Taxadiene Epoxidation by Taxadiene-5Î±-Hydroxylase. ACS Chemical Biology, 2016, 11, 460-469.	1.6	45
84	Accessing Natureâ€™s diversity through metabolic engineering and synthetic biology. F1000Research, 2016, 5, 397.	0.8	39
85	Improved Gene Targeting through Cell Cycle Synchronization. PLoS ONE, 2015, 10, e0133434.	1.1	59
86	Distributing a metabolic pathway among a microbial consortium enhances production of natural products. Nature Biotechnology, 2015, 33, 377-383.	9.4	561
87	A roadmap for interpreting 13 C metabolite labeling patterns from cells. Current Opinion in Biotechnology, 2015, 34, 189-201.	3.3	513
88	Engineering lipid overproduction in the oleaginous yeast Yarrowia lipolytica. Metabolic Engineering, 2015, 29, 56-65.	3.6	291
89	Transcriptional control of autophagyâ€“lysosome function drives pancreatic cancer metabolism. Nature, 2015, 524, 361-365.	13.7	624
90	Investigating Moorella thermoacetica metabolism with a genome-scale constraint-based metabolic model. Integrative Biology (United Kingdom), 2015, 7, 869-882.	0.6	33

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91	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
92	Experimental design-aided systematic pathway optimization of glucose uptake and deoxyxylulose phosphate pathway for improved amorphadiene production. Applied Microbiology and Biotechnology, 2015, 99, 3825-3837.	1.7	38
93	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
94	Engineering E. coliâ€“E. coli cocultures for production of muconic acid from glycerol. Microbial Cell Factories, 2015, 14, 134.	1.9	78
95	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
96	Pyruvate Kinase Isoform Expression Alters Nucleotide Synthesis to Impact Cell Proliferation. Molecular Cell, 2015, 57, 95-107.	4.5	209
97	Review of methods to probe single cell metabolism and bioenergetics. Metabolic Engineering, 2015, 27, 115-135.	3.6	82
98	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
99	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
100	Fragment Formula Calculator (FFC): Determination of Chemical Formulas for Fragment Ions in Mass Spectrometric Data. Analytical Chemistry, 2014, 86, 2221-2228.	3.2	26
101	Engineering alcohol tolerance in yeast. Science, 2014, 346, 71-75.	6.0	193
102	Metabolic Engineering: The Ultimate Paradigm for Continuous Pharmaceutical Manufacturing. ChemSusChem, 2014, 7, 1847-1853.	3.6	14
103	13C Isotope-Assisted Methods for Quantifying Glutamine Metabolism in Cancer Cells. Methods in Enzymology, 2014, 542, 369-389.	0.4	41
104	Reductive glutamine metabolism is a function of the Î±-ketoglutarate to citrate ratio in cells. Nature Communications, 2013, 4, 2236.	5.8	290
105	Heterologous expression and characterization of bacterial 2-C-methyl-d-erythritol-4-phosphate pathway in Saccharomyces cerevisiae. Applied Microbiology and Biotechnology, 2013, 97, 5753-5769.	1.7	45
106	Anaerobic CO₂ fixation by the acetogenic bacterium <i>Moorella thermoacetica</i>. AIChE Journal, 2013, 59, 3176-3183.	1.8	53
107	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
108	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

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109	Compartmentalization of metabolic pathways in yeast mitochondria improves the production of branched-chain alcohols. Nature Biotechnology, 2013, 31, 335-341.	9.4	412
110	Metabolic Engineering: Past and Future. Annual Review of Chemical and Biomolecular Engineering, 2013, 4, 259-288.	3.3	254
111	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
112	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
113	A review of cellulosic microbial fuel cells: Performance and challenges. Biomass and Bioenergy, 2013, 56, 179-188.	2.9	61
114	Engineering E. coli for caffeic acid biosynthesis from renewable sugars. Applied Microbiology and Biotechnology, 2013, 97, 3333-3341.	1.7	77
115	The mTORC1 Pathway Stimulates Glutamine Metabolism and Cell Proliferation by Repressing SIRT4. Cell, 2013, 153, 840-854.	13.5	505
116	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
117	Kinetic isotope effects significantly influence intracellular metabolite ¹³C labeling patterns and flux determination. Biotechnology Journal, 2013, 8, 1080-1089.	1.8	26
118	Loss of RBF1 changes glutamine catabolism. Genes and Development, 2013, 27, 182-196.	2.7	81
119	Statistical Experimental Design Guided Optimization of a One-Pot Biphasic Multienzyme Total Synthesis of Amorpha-4,11-diene. PLoS ONE, 2013, 8, e79650.	1.1	37
120	Insight out: Advances in understanding metabolism achieved by high-throughput mass spectrometry. Biomedical Spectroscopy and Imaging, 2013, 2, 1-8.	1.2	0
121	Combining Genotype Improvement and Statistical Media Optimization for Isoprenoid Production in E. coli. PLoS ONE, 2013, 8, e75164.	1.1	47
122	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
123	Rational enzyme redesign for enhancing activity and selectivity of heterologous taxane oxidation in engineered E. coli. FASEB Journal, 2013, 27, 998.3.	0.2	0
124	Toward Biosynthetic Design and Implementation of Escherichia coli-Derived Paclitaxel and Other Heterologous Polyisoprene Compounds. Applied and Environmental Microbiology, 2012, 78, 2497-2504.	1.4	30
125	Synthetic Biology and Metabolic Engineering. ACS Synthetic Biology, 2012, 1, 514-525.	1.9	212
126	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

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127	Reductive glutamine metabolism by IDH1 mediates lipogenesis under hypoxia. Nature, 2012, 481, 380-384.	13.7	1,470
128	Expanding the concepts and tools of metabolic engineering to elucidate cancer metabolism. Biotechnology Progress, 2012, 28, 1409-1418.	1.3	18
129	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
130	Pyruvate kinase M2 activators promote tetramer formation and suppress tumorigenesis. Nature Chemical Biology, 2012, 8, 839-847.	3.9	614
131	Metabolic engineering: enabling technology of a bio-based economy. Current Opinion in Chemical Engineering, 2012, 1, 355-362.	3.8	19
132	Metabolic engineering: enabling technology for biofuels production. Wiley Interdisciplinary Reviews: Energy and Environment, 2012, 1, 165-172.	1.9	3
133	Ensemble Kinetic Modeling of Metabolic Networks from Dynamic Metabolic Profiles. Metabolites, 2012, 2, 891-912.	1.3	32
134	Systems-Level Analysis of Cancer Metabolism. , 2012, , 349-381.		1
135	Stimulation of MC38 tumor growth by insulin analog X10 involves the serine synthesis pathway. Endocrine-Related Cancer, 2012, 19, 557-574.	1.6	10
136	Downstream reactions and engineering in the microbially reconstituted pathway for Taxol. Applied Microbiology and Biotechnology, 2012, 94, 841-849.	1.7	44
137	Optimization of 13C isotopic tracers for metabolic flux analysis in mammalian cells. Metabolic Engineering, 2012, 14, 162-171.	3.6	72
138	The future of metabolic engineering and synthetic biology: Towards a systematic practice. Metabolic Engineering, 2012, 14, 233-241.	3.6	277
139	Analysis of heterologous taxadiene production in K- and B-derived Escherichia coli. Applied Microbiology and Biotechnology, 2012, 93, 1651-1661.	1.7	56
140	Metabolite Profiling Identified Methylerythritol Cyclodiphosphate Efflux as a Limiting Step in Microbial Isoprenoid Production. PLoS ONE, 2012, 7, e47513.	1.1	83
141	Tracking cellular metabolomics in lipoapoptosis- and steatosis-developing liver cells. Molecular BioSystems, 2011, 7, 1409.	2.9	12
142	Measuring Deuterium Enrichment of Glucose Hydrogen Atoms by Gas Chromatography/Mass Spectrometry. Analytical Chemistry, 2011, 83, 3211-3216.	3.2	111
143	Relative potential of biosynthetic pathways for biofuels and bio-based products. Nature Biotechnology, 2011, 29, 1074-1078.	9.4	158
144	Erk regulation of pyruvate dehydrogenase flux through PDK4 modulates cell proliferation. Genes and Development, 2011, 25, 1716-1733.	2.7	162

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145	Oncogenic Kâ€Ras decouples glucose and glutamine metabolism to support cancer cell growth. Molecular Systems Biology, 2011, 7, 523.	3.2	404
146	Elucidation of Cellular Metabolism Via Metabolomics and Stable-Isotope Assisted Metabolomics. Current Pharmaceutical Biotechnology, 2011, 12, 1075-1086.	0.9	43
147	Mapping photoautotrophic metabolism with isotopically nonstationary 13C flux analysis. Metabolic Engineering, 2011, 13, 656-665.	3.6	307
148	Phosphoglycerate dehydrogenase diverts glycolytic flux and contributes to oncogenesis. Nature Genetics, 2011, 43, 869-874.	9.4	945
149	Optimization of a heterologous pathway for the production of flavonoids from glucose. Metabolic Engineering, 2011, 13, 392-400.	3.6	276
150	Directed Evolution of Promoters and Tandem Gene Arrays for Customizing RNA Synthesis Rates and Regulation. Methods in Enzymology, 2011, 497, 135-155.	0.4	19
151	Assessment of heterologous butyrate and butanol pathway activity by measurement of intracellular pathway intermediates in recombinant Escherichia coli. Applied Microbiology and Biotechnology, 2010, 88, 265-275.	1.7	36
152	Analysis of polyhydroxybutyrate flux limitations by systematic genetic and metabolic perturbations. Metabolic Engineering, 2010, 12, 187-195.	3.6	52
153	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
154	Restoration of Growth Phenotypes of <i>Escherichia coli</i> DH5Î± in Minimal Media through Reversal of a Point Mutation in <i>purB</i>. Applied and Environmental Microbiology, 2010, 76, 6307-6309.	1.4	10
155	Method for Designing and Optimizing Random-Search Libraries for Strain Improvement. Applied and Environmental Microbiology, 2010, 76, 5541-5546.	1.4	9
156	Nontargeted Elucidation of Metabolic Pathways Using Stable-Isotope Tracers and Mass Spectrometry. Analytical Chemistry, 2010, 82, 6621-6628.	3.2	111
157	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
158	Isoprenoid Pathway Optimization for Taxol Precursor Overproduction in <i>Escherichia coli</i>. Science, 2010, 330, 70-74.	6.0	1,426
159	Reevaluating synthesis by biology. Current Opinion in Microbiology, 2010, 13, 371-376.	2.3	19
160	Enhancing Stress Resistance and Production Phenotypes Through Transcriptome Engineering. Methods in Enzymology, 2010, 470, 509-532.	0.4	14
161	Ketogenic Essential Amino Acids Modulate Lipid Synthetic Pathways and Prevent Hepatic Steatosis in Mice. PLoS ONE, 2010, 5, e12057.	1.1	48
162	Mutagenesis of the Bacterial RNA Polymerase Alpha Subunit for Improvement of Complex Phenotypes. Applied and Environmental Microbiology, 2009, 75, 2705-2711.	1.4	77

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163	Effect of Anaplerotic Fluxes and Amino Acid Availability on Hepatic Lipoapoptosis. Journal of Biological Chemistry, 2009, 284, 33425-33436.	1.6	60
164	Induction of mammalian cell death by simple shear and extensional flows. Biotechnology and Bioengineering, 2009, 104, 360-370.	1.7	83
165	Identification of gene disruptions for increased polyâ€3â€hydroxybutyrate accumulation in <i>Synechocystis</i> PCC 6803. Biotechnology Progress, 2009, 25, 1236-1243.	1.3	44
166	Stabilized gene duplication enables long-term selection-free heterologous pathway expression. Nature Biotechnology, 2009, 27, 760-765.	9.4	272
167	Engineering for biofuels: exploiting innate microbial capacity or importing biosynthetic potential?. Nature Reviews Microbiology, 2009, 7, 715-723.	13.6	352
168	Evaluation of 13C isotopic tracers for metabolic flux analysis in mammalian cells. Journal of Biotechnology, 2009, 144, 167-174.	1.9	257
169	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
170	Uncovering the gene knockout landscape for improved lycopene production in E. coli. Applied Microbiology and Biotechnology, 2008, 78, 801-810.	1.7	54
171	An elementary metabolite unit (EMU) based method of isotopically nonstationary flux analysis. Biotechnology and Bioengineering, 2008, 99, 686-699.	1.7	241
172	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
173	Combinatorial engineering of microbes for optimizing cellular phenotype. Current Opinion in Chemical Biology, 2008, 12, 168-176.	2.8	162
174	Metabolic engineering of Escherichia coli for biosynthesis of hyaluronic acid. Metabolic Engineering, 2008, 10, 24-32.	3.6	150
175	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
176	Selection and optimization of microbial hosts for biofuels production. Metabolic Engineering, 2008, 10, 295-304.	3.6	343
177	Metabolic engineering: Enabling technology for biofuels production. Metabolic Engineering, 2008, 10, 293-294.	3.6	26
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