Metabolic engineering of Escherichia coli for 1-butanol

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Citation Report

#	Article	IF	Citations
2	Production of 2-methyl-1-butanol in engineered Escherichia coli. Applied Microbiology and Biotechnology, 2008, 81, 89-98.	1.7	143
3	Fermentative butanol production by clostridia. Biotechnology and Bioengineering, 2008, 101, 209-228.	1.7	909
4	Butanol, â€˜a superior biofuelâ€™ production from agricultural residues (renewable biomass): recent progress in technology. Biofuels, Bioproducts and Biorefining, 2008, 2, 319-330.	1.9	293
5	Secondâ€generation biofuels and local bioenergy systems. Biofuels, Bioproducts and Biorefining, 2008, 2, 455-469.	1.9	201
6	Metabolic engineering for advanced biofuels production from Escherichia coli. Current Opinion in Biotechnology, 2008, 19, 414-419.	3.3	275
7	Metabolic engineering of microorganisms for biofuels production: from bugs to synthetic biology to fuels. Current Opinion in Biotechnology, 2008, 19, 556-563.	3.3	535
8	Biomass to fuels via microbial transformations. Current Opinion in Chemical Biology, 2008, 12, 187-193.	2.8	102
9	Selection and optimization of microbial hosts for biofuels production. Metabolic Engineering, 2008, 10, 295-304.	3.6	343
10	Metabolic engineering of Saccharomyces cerevisiae for the production of n-butanol. Microbial Cell Factories, 2008, 7, 36.	1.9	417
11	Defossiling Fuel: How Synthetic Biology Can Transform Biofuel Production. ACS Chemical Biology, 2008, 3, 13-16.	1.6	91
12	Engineering of an Escherichia coli Strain for the Production of 3-Methyl-1-Butanol. Applied and Environmental Microbiology, 2008, 74, 5769-5775.	1.4	149
13	Directed Evolution of Methanococcus jannaschii Citramalate Synthase for Biosynthesis of 1-Propanol and 1-Butanol by Escherichia coli. Applied and Environmental Microbiology, 2008, 74, 7802-7808.	1.4	226
14	Mutagenesis of the Bacterial RNA Polymerase Alpha Subunit for Improvement of Complex Phenotypes. Applied and Environmental Microbiology, 2009, 75, 2705-2711.	1.4	77
15	Acetolactate Synthase from Bacillus subtilis Serves as a 2-Ketoisovalerate Decarboxylase for Isobutanol Biosynthesis in Escherichia coli. Applied and Environmental Microbiology, 2009, 75, 6306-6311.	1.4	92
16	Strain Improvement and Process Development for Biobutanol Production. Recent Patents on Biotechnology, 2009, 3, 202-210.	0.4	27
17	Synthetic biology and biomass conversion: a match made in heaven?. Journal of the Royal Society Interface, 2009, 6, S547-58.	1.5	39
18	Selected Pseudomonas putida Strains Able To Grow in the Presence of High Butanol Concentrations. Applied and Environmental Microbiology, 2009, 75, 4653-4656.	1.4	126
19	Metabolic pathways of clostridia for producing butanol. Biotechnology Advances, 2009, 27, 764-781.	6.0	200

#	Article	IF	Citations
20	Growth and solvent production by Clostridium pasteurianum ATCCÂ® 6013â„¢ utilizing biodieselâ€derived crude glycerol as the sole carbon source. Environmental Progress and Sustainable Energy, 2009, 28, 100-110.	1.3	115
21	Engineering metabolic systems for production of advanced fuels. Journal of Industrial Microbiology and Biotechnology, 2009, 36, 471-479.	1.4	93
22	Problems with the microbial production of butanol. Journal of Industrial Microbiology and Biotechnology, 2009, 36, 1127-1138.	1.4	244
23	Toward systematic metabolic engineering based on the analysis of metabolic regulation by the integration of different levels of information. Biochemical Engineering Journal, 2009, 46, 235-251.	1.8	44
24	Energy biotechnology with cyanobacteria. Current Opinion in Biotechnology, 2009, 20, 257-263.	3.3	231
25	Butanol Tolerance in a Selection of Microorganisms. Applied Biochemistry and Biotechnology, 2009, 153, 13-20.	1.4	205
26	The economics of current and future biofuels. In Vitro Cellular and Developmental Biology - Plant, 2009, 45, 199-217.	0.9	123
27	Engineering for biofuels: exploiting innate microbial capacity or importing biosynthetic potential?. Nature Reviews Microbiology, 2009, 7, 715-723.	13.6	352
28	How microbes tolerate ethanol and butanol. New Biotechnology, 2009, 26, 117-121.	2.4	172
29	Engineering alternative butanol production platforms in heterologous bacteria. Metabolic Engineering, 2009, 11, 262-273.	3.6	350
30	Disruption of the acetoacetate decarboxylase gene in solvent-producing Clostridium acetobutylicum increases the butanol ratio. Metabolic Engineering, 2009, 11, 284-291.	3.6	221
31	Metabolic engineering of Geobacillus thermoglucosidasius for high yield ethanol production. Metabolic Engineering, 2009, 11, 398-408.	3.6	232
32	Microbial production of advanced transportation fuels in non-natural hosts. Current Opinion in Biotechnology, 2009, 20, 307-315.	3.3	182
33	Modular model-based design for heterologous bioproduction in bacteria. Current Opinion in Biotechnology, 2009, 20, 272-279.	3.3	14
34	Protein engineering in designing tailored enzymes and microorganisms for biofuels production. Current Opinion in Biotechnology, 2009, 20, 412-419.	3.3	108
35	Industrial biotechnology: Tools and applications. Biotechnology Journal, 2009, 4, 1725-1739.	1.8	85
36	Practical application of synthetic biology principles. Biotechnology Journal, 2009, 4, 1406-1419.	1.8	16
37	Increased Malonyl Coenzyme A Biosynthesis by Tuning the Escherichia coli Metabolic Network and Its Application to Flavanone Production. Applied and Environmental Microbiology, 2009, 75, 5831-5839.	1.4	185

#	Article	IF	Citations
38	Enantioselective synthesis of pure (R,R)-2,3-butanediol in Escherichia coli with stereospecific secondary alcohol dehydrogenases. Organic and Biomolecular Chemistry, 2009, 7, 3914.	1.5	113
39	Advanced biofuel production in microbes. Biotechnology Journal, 2010, 5, 147-162.	1.8	331
40	Systems metabolic engineering: Genomeâ€scale models and beyond. Biotechnology Journal, 2010, 5, 647-659.	1.8	122
41	Biofuel production improvement with genomeâ€scale models: The role of cell composition. Biotechnology Journal, 2010, 5, 671-685.	1.8	29
42	Microbial 1â€butanol production: Identification of nonâ€native production routes and in silico engineering interventions. Biotechnology Journal, 2010, 5, 716-725.	1.8	41
43	Bioengineering of microorganisms for C₃ to C₅ alcohols production. Biotechnology Journal, 2010, 5, 1297-1308.	1.8	35
44	Engineering the isobutanol biosynthetic pathway in Escherichia coli by comparison of three aldehyde reductase/alcohol dehydrogenase genes. Applied Microbiology and Biotechnology, 2010, 85, 651-657.	1.7	270
45	Pentanol isomer synthesis in engineered microorganisms. Applied Microbiology and Biotechnology, 2010, 85, 893-899.	1.7	125
46	Achievements and perspectives to overcome the poor solvent resistance in acetone and butanol-producing microorganisms. Applied Microbiology and Biotechnology, 2010, 85, 1697-1712.	1.7	249
47	3-Methyl-1-butanol production in Escherichia coli: random mutagenesis and two-phase fermentation. Applied Microbiology and Biotechnology, 2010, 86, 1155-1164.	1.7	146
48	Biofuel production in Escherichia coli: the role of metabolic engineering and synthetic biology. Applied Microbiology and Biotechnology, 2010, 86, 419-434.	1.7	220
49	Reconstructing the clostridial n-butanol metabolic pathway in Lactobacillus brevis. Applied Microbiology and Biotechnology, 2010, 87, 635-646.	1.7	156
50	Engineering Corynebacterium glutamicum for isobutanol production. Applied Microbiology and Biotechnology, 2010, 87, 1045-1055.	1.7	304
51	Production of polyhydroxyalkanoates by Escherichia coli mutants with defected mixed acid fermentation pathways. Applied Microbiology and Biotechnology, 2010, 87, 2247-2256.	1.7	44
52	Trends and challenges in the microbial production of lignocellulosic bioalcohol fuels. Applied Microbiology and Biotechnology, 2010, 87, 1303-1315.	1.7	296
53	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
54	Algal Photosynthesis as the Primary Driver for a Sustainable Development in Energy, Feed, and Food Production. Marine Biotechnology, 2010, 12, 619-629.	1.1	39
55	DNA technologies: whatâ€™s next applied to microbiology research?. Antonie Van Leeuwenhoek, 2010, 98, 249-262.	0.7	11

#	Article	IF	Citations
56	Synthetic biology for biofuels: Building designer microbes from the scratch. Biotechnology and Bioprocess Engineering, 2010, 15, 11-21.	1.4	29
57	Novel Escherichia coli hybrids with enhanced butanol tolerance. Biotechnology Letters, 2010, 32, 915-920.	1.1	24
58	The path to next generation biofuels: successes and challenges in the era of synthetic biology. Microbial Cell Factories, 2010, 9, 3.	1.9	154
59	Genetic modification of critical enzymes and involved genes in butanol biosynthesis from biomass. Biotechnology Advances, 2010, 28, 651-657.	6.0	110
60	Improvement of isopropanol production by metabolically engineered Escherichia coli using gas stripping. Journal of Bioscience and Bioengineering, 2010, 110, 696-701.	1.1	159
61	Functional expression of the thiolase gene thl from Clostridium beijerinckii P260 in Lactococcus lactis and Lactobacillus buchneri. New Biotechnology, 2010, 27, 283-288.	2.4	33
62	Lignocellulose pretreatment severity â€“ relating pH to biomatrix opening. New Biotechnology, 2010, 27, 739-750.	2.4	299
63	Potential of light-harvesting proton pumps for bioenergy applications. Current Opinion in Biotechnology, 2010, 21, 265-270.	3.3	38
64	Biofuel production by in vitro synthetic enzymatic pathway biotransformation. Current Opinion in Biotechnology, 2010, 21, 663-669.	3.3	76
65	Optimizing pentose utilization in yeast: the need for novel tools and approaches. Biotechnology for Biofuels, 2010, 3, 24.	6.2	146
66	Screening and characterization of butanol-tolerant micro-organisms. Letters in Applied Microbiology, 2010, 50, 373-379.	1.0	47
67	Construction of a butyrate-producing E. coli strain without the use of heterologous genes. Applied Biochemistry and Microbiology, 2010, 46, 745-754.	0.3	15
68	Biobutanol Production from Agri-Residues. , 2010, , 457-477.		0
69	Evolution, genomic analysis, and reconstruction of isobutanol tolerance in Escherichia coli. Molecular Systems Biology, 2010, 6, 449.	3.2	252
70	Engineered Respiro-Fermentative Metabolism for the Production of Biofuels and Biochemicals from Fatty Acid-Rich Feedstocks. Applied and Environmental Microbiology, 2010, 76, 5067-5078.	1.4	59
71	Synthetic Biology Guides Biofuel Production. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-9.	3.0	59
72	Synthetic Biology: Tools to Design, Build, and Optimize Cellular Processes. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-12.	3.0	54
73	The Role of Proteomics in the Development of Cellulosic Biofuels. Current Proteomics, 2010, 7, 121-134.	0.1	5

#	Article	IF	Citations
74	Production of longer-chain alcohols from lignocellulosic biomass: butanol, isopropanol and 2,3-butanediol. , 2010, , 415-460.		16
75	Extremophiles in biofuel synthesis. Environmental Technology (United Kingdom), 2010, 31, 871-888.	1.2	130
78	Biofuels: Biomolecular Engineering Fundamentals and Advances. Annual Review of Chemical and Biomolecular Engineering, 2010, 1, 19-36.	3.3	61
79	Genetic Engineering of Escherichia coli for Biofuel Production. Annual Review of Genetics, 2010, 44, 53-69.	3.2	119
80	Construction and optimization of synthetic pathways in metabolic engineering. Current Opinion in Microbiology, 2010, 13, 363-370.	2.3	97
81	Systems biology approaches for the microbial production of biofuels. Biofuels, 2010, 1, 291-310.	1.4	21
82	Genetic Engineering of Algae for Enhanced Biofuel Production. Eukaryotic Cell, 2010, 9, 486-501.	3.4	969
83	Metabolic engineering ofEscherichia colifor biofuel production. Biofuels, 2010, 1, 493-504.	1.4	33
84	WinBEST-KIT for analyzing multilayer and multicellular systems. , 2011, , .		1
85	Redesigning Escherichia coli Metabolism for Anaerobic Production of Isobutanol. Applied and Environmental Microbiology, 2011, 77, 4894-4904.	1.4	96
86	Development of an Automated Platform for High-Throughput P1-Phage Transduction of Escherichia Coli. Journal of the Association for Laboratory Automation, 2011, 16, 141-147.	2.8	6
87	Extending Carbon Chain Length of 1-Butanol Pathway for 1-Hexanol Synthesis from Glucose by Engineered Escherichia coli. Journal of the American Chemical Society, 2011, 133, 11399-11401.	6.6	131
88	Engineering microorganisms for biofuel production. Biofuels, 2011, 2, 153-166.	1.4	20
89	Constructing de Novo Biosynthetic Pathways for Chemical Synthesis inside Living Cells. Biochemistry, 2011, 50, 5404-5418.	1.2	35
90	Engineered reversal of the Î²-oxidation cycle for the synthesis of fuels and chemicals. Nature, 2011, 476, 355-359.	13.7	519
91	Deconstruction of Lignocellulosic Biomass to Fuels and Chemicals. Annual Review of Chemical and Biomolecular Engineering, 2011, 2, 121-145.	3.3	804
92	Applications of systems biology towards microbial fuel production. Trends in Microbiology, 2011, 19, 516-524.	3.5	23
93	Analysis of biofuels production from sugar based on three criteria: Thermodynamics, bioenergetics, and product separation. Energy and Environmental Science, 2011, 4, 784-792.	15.6	97

#	Article	IF	Citations
94	Metabolic engineering of algae for fourth generation biofuels production. Energy and Environmental Science, 2011, 4, 2451.	15.6	286
95	Biobutanol. Advances in Biochemical Engineering/Biotechnology, 2011, 128, 85-100.	0.6	13
96	Biorefinery Engineering. , 2011, , 815-828.		3
97	Innovative Biological Solutions to Challenges in Sustainable Biofuels Production. , 0, , .		1
98	Genomic Library Screens for Genes Involved in n-Butanol Tolerance in Escherichia coli. PLoS ONE, 2011, 6, e17678.	1.1	118
99	Transcriptional Analysis of Lactobacillus brevis to N-Butanol and Ferulic Acid Stress Responses. PLoS ONE, 2011, 6, e21438.	1.1	48
100	Enzyme mechanism as a kinetic control element for designing synthetic biofuel pathways. Nature Chemical Biology, 2011, 7, 222-227.	3.9	319
101	Chimeric synthetic pathways. Nature Chemical Biology, 2011, 7, 195-196.	3.9	9
102	Metabolic engineering of Escherichia coli for direct production of 1,4-butanediol. Nature Chemical Biology, 2011, 7, 445-452.	3.9	984
103	Systems metabolic engineering for chemicals and materials. Trends in Biotechnology, 2011, 29, 370-378.	4.9	173
104	An evolutionary strategy for isobutanol production strain development in Escherichia coli. Metabolic Engineering, 2011, 13, 674-681.	3.6	105
105	Metabolic engineering of Clostridium acetobutylicum: recent advances to improve butanol production. Current Opinion in Biotechnology, 2011, 22, 634-647.	3.3	326
106	Metabolic engineering of microbial pathways for advanced biofuels production. Current Opinion in Biotechnology, 2011, 22, 775-783.	3.3	313
107	Synthesis of three advanced biofuels from ionic liquid-pretreated switchgrass using engineered Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19949-19954.	3.3	333
108	Economical challenges to microbial producers of butanol: Feedstock, butanol ratio and titer. Biotechnology Journal, 2011, 6, 1348-1357.	1.8	108
109	Driving Forces Enable High-Titer Anaerobic 1-Butanol Synthesis in Escherichia coli. Applied and Environmental Microbiology, 2011, 77, 2905-2915.	1.4	572
110	Improving the Clostridium acetobutylicum butanol fermentation by engineering the strain for co-production of riboflavin. Journal of Industrial Microbiology and Biotechnology, 2011, 38, 1013-1025.	1.4	35
111	Engineering microbial factories for synthesis of value-added products. Journal of Industrial Microbiology and Biotechnology, 2011, 38, 873-890.	1.4	210

#	Article	IF	Citations
112	Production of recombinant proteins and metabolites in yeasts. Applied Microbiology and Biotechnology, 2011, 89, 939-948.	1.7	90
113	High-flux isobutanol production using engineered Escherichia coli: a bioreactor study with in situ product removal. Applied Microbiology and Biotechnology, 2011, 90, 1681-1690.	1.7	214
114	Engineering Escherichia coli for efficient cellobiose utilization. Applied Microbiology and Biotechnology, 2011, 92, 125-132.	1.7	37
115	Development of biocatalysts for production of commodity chemicals from lignocellulosic biomass. Bioresource Technology, 2011, 102, 4304-4312.	4.8	173
116	Engineering strategy of yeast metabolism for higher alcohol production. Microbial Cell Factories, 2011, 10, 70.	1.9	42
117	In silico characterization of microbial electrosynthesis for metabolic engineering of biochemicals. Microbial Cell Factories, 2011, 10, 76.	1.9	46
118	Dehydratase mediated 1-propanol production in metabolically engineered Escherichia coli. Microbial Cell Factories, 2011, 10, 97.	1.9	39
119	Development of butanol-tolerant Bacillus subtilis strain GRSW2-B1 as a potential bioproduction host. AMB Express, 2011, 1, 10.	1.4	37
120	The role of butanol in the development of sustainable fuel technologies. Journal of Chemical Technology and Biotechnology, 2011, 86, 2-9.	1.6	246
121	Advances and opportunities at the interface between microbial bioenergy and nanotechnology. Canadian Journal of Chemical Engineering, 2011, 89, 2-12.	0.9	16
122	Engineering butanolâ€tolerance in escherichia coli with artificial transcription factor libraries. Biotechnology and Bioengineering, 2011, 108, 742-749.	1.7	63
123	Evaluating Factors That Influence Microbial Synthesis Yields by Linear Regression with Numerical and Ordinal Variables. Biotechnology and Bioengineering, 2011, 108, 893-901.	1.7	29
124	Fermentative production of butanolâ€"the academic perspective. Current Opinion in Biotechnology, 2011, 22, 331-336.	3.3	144
125	Industrial fermentation of renewable diesel fuels. Current Opinion in Biotechnology, 2011, 22, 344-350.	3.3	56
126	Developments in biobutanol production: New insights. Applied Energy, 2011, 88, 1999-2012.	5.1	421
127	Challenges in biobutanol production: How to improve the efficiency?. Renewable and Sustainable Energy Reviews, 2011, 15, 964-980.	8.2	391
128	Reducing the allowable kinetic space by constructing ensemble of dynamic models with the same steady-state flux. Metabolic Engineering, 2011, 13, 60-75.	3.6	52
129	Engineering the robustness of Clostridium acetobutylicum by introducing glutathione biosynthetic capability. Metabolic Engineering, 2011, 13, 426-434.	3.6	71

#	Article	IF	Citations
130	Engineered ketol-acid reductoisomerase and alcohol dehydrogenase enable anaerobic 2-methylpropan-1-ol production at theoretical yield in Escherichia coli. Metabolic Engineering, 2011, 13, 345-352.	3.6	257
131	Metabolic engineering of Clostridium tyrobutyricum for n-butanol production. Metabolic Engineering, 2011, 13, 373-382.	3.6	190
132	Metabolic engineering of cyanobacteria for 1-butanol production from carbon dioxide. Metabolic Engineering, 2011, 13, 353-363.	3.6	352
133	A Synthetic Iterative Pathway for Ketoacid Elongation. Methods in Enzymology, 2011, 497, 469-481.	0.4	13
134	Microbiological processes for waste conversion to bioenergy products: Approaches and directions. Environmental Reviews, 2011, 19, 214-237.	2.1	8
135	Biochemical production of biobutanol. , 2011, , 221-257.		11
136	Chemicals from Metabolic Pathways. , 2011, , 7-62.		5
137	Metabolic Regulation Analysis and Metabolic Engineering. , 2011, , 407-420.		1
138	MRSD: a web server for Metabolic Route Search and Design. Bioinformatics, 2011, 27, 1581-1582.	1.8	21
139	Molecular Breeding of Advanced Microorganisms for Biofuel Production. Journal of Biomedicine and Biotechnology, 2011, 2011, 1-11.	3.0	30
140	Controlled biosynthesis of odd-chain fuels and chemicals via engineered modular metabolic pathways. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17925-17930.	3.3	105
141	Novel Strategies for Production of Medium and High Chain Length Alcohols. , 2012, , 183-211.		3
142	Recent progress in synthetic biology for microbial production of C3â€“C10 alcohols. Frontiers in Microbiology, 2012, 3, 196.	1.5	51
143	Substrate Specificity of Thiamine Pyrophosphate-Dependent 2-Oxo-Acid Decarboxylases in Saccharomyces cerevisiae. Applied and Environmental Microbiology, 2012, 78, 7538-7548.	1.4	81
144	Synthetic Biology Approaches to Produce C3-C6 Alcohols from Microorganisms. Current Chemical Biology, 2012, 6, 32-41.	0.2	2
145	Application of synthetic biology in cyanobacteria and algae. Frontiers in Microbiology, 2012, 3, 344.	1.5	149
146	Production of Bioethanol from Food Industry Waste: Microbiology, Biochemistry and Technology. , 2012, , 251-311.		5
147	Bridging Omics Technologies with Synthetic Biology in Yeast Industrial Biotechnology. , 2012, , 271-327.		2

#	Article	IF	Citations
148	Mathematical optimization applications in metabolic networks. Metabolic Engineering, 2012, 14, 672-686.	3.6	123
149	Expanding the chemical palate of cells by combining systems biology and metabolic engineering. Metabolic Engineering, 2012, 14, 289-297.	3.6	131
150	Cyanobacterial biofuel production. Journal of Biotechnology, 2012, 162, 50-56.	1.9	243
151	From Fields to Fuels: Recent Advances in the Microbial Production of Biofuels. ACS Synthetic Biology, 2012, 1, 498-513.	1.9	77
152	Engineering of microorganisms for the production of biofuels and perspectives based on systems metabolic engineering approaches. Biotechnology Advances, 2012, 30, 989-1000.	6.0	143
153	Engineering a homobutanol fermentation pathway in Escherichia coli EG03. Journal of Industrial Microbiology and Biotechnology, 2012, 39, 1101-1107.	1.4	11
154	A transcriptional study of acidogenic chemostat cells of Clostridium acetobutylicumâ€"Solvent stress caused by a transient n-butanol pulse. Journal of Biotechnology, 2012, 161, 354-365.	1.9	57
155	Enzymatic hydrolysis of lignocellulosic biomass in ionic liquid media for fermentable sugar production. Journal of the Taiwan Institute of Chemical Engineers, 2012, 43, 573-577.	2.7	23
156	Visualizing evolution in real time to determine the molecular mechanisms of n-butanol tolerance in Escherichia coli. Metabolic Engineering, 2012, 14, 579-590.	3.6	104
157	A selection platform for carbon chain elongation using the CoA-dependent pathway to produce linear higher alcohols. Metabolic Engineering, 2012, 14, 504-511.	3.6	126
158	ATP drives direct photosynthetic production of 1-butanol in cyanobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6018-6023.	3.3	327
159	Kinetic Modeling and Isotopic Investigation of Isobutanol Fermentation by Two Engineered Escherichia coli Strains. Industrial & Engineering Chemistry Research, 2012, 51, 15855-15863.	1.8	15
160	IMPORTANCE OF UNDERSTANDING THE MAIN METABOLIC REGULATION IN RESPONSE TO THE SPECIFIC PATHWAY MUTATION FOR METABOLIC ENGINEERING OF ESCHERICHIA COLI. Computational and Structural Biotechnology Journal, 2012, 3, e201210018.	1.9	12
161	Engineering the robustness of industrial microbes through synthetic biology. Trends in Microbiology, 2012, 20, 94-101.	3.5	65
162	Butanol production from lignocellulosics. Biotechnology Letters, 2012, 34, 1415-1434.	1.1	98
163	Metabolic engineering: enabling technology for biofuels production. Wiley Interdisciplinary Reviews: Energy and Environment, 2012, 1, 165-172.	1.9	3
164	Microbial producers of butanol. Applied Biochemistry and Microbiology, 2012, 48, 625-638.	0.3	27
165	MetRxn: a knowledgebase of metabolites and reactions spanning metabolic models and databases. BMC Bioinformatics, 2012, 13, 6.	1.2	120

#	Article	IF	Citations
166	Manipulation of the carbon storage regulator system for metabolite remodeling and biofuel production in Escherichia coli. Microbial Cell Factories, 2012, 11, 79.	1.9	53
167	Isobutyraldehyde production from Escherichia coli by removing aldehyde reductase activity. Microbial Cell Factories, 2012, 11, 90.	1.9	103
168	Uncertainty in techno-economic estimates of cellulosic ethanol production due to experimental measurement uncertainty. Biotechnology for Biofuels, 2012, 5, 23.	6.2	41
169	Microbial engineering for the production of advanced biofuels. Nature, 2012, 488, 320-328.	13.7	951
170	Towards sustainable production of clean energy carriers from biomass resources. Applied Energy, 2012, 100, 172-186.	5.1	383
171	Bio-based production of chemicals, materials and fuels â€“ Corynebacterium glutamicum as versatile cell factory. Current Opinion in Biotechnology, 2012, 23, 631-640.	3.3	329
172	Alternative biofuel production in non-natural hosts. Current Opinion in Biotechnology, 2012, 23, 744-750.	3.3	31
173	Control of Stress Tolerance in Bacterial Host Organisms for Bioproduction of Fuels. Microbiology Monographs, 2012, , 209-238.	0.3	1
174	Microbial Technologies in Advanced Biofuels Production. , 2012, , .		20
175	Screened Butanol-Tolerant Enterococcus faecium Capable of Butanol Production. Applied Biochemistry and Biotechnology, 2012, 168, 1672-1680.	1.4	23
176	Screening and characteristics of a butanol-tolerant strain and butanol production from enzymatic hydrolysate of NaOH-pretreated corn stover. World Journal of Microbiology and Biotechnology, 2012, 28, 2963-2971.	1.7	31
177	The Science of Algal Fuels. Cellular Origin and Life in Extreme Habitats, 2012, , .	0.3	19
178	Microbial Stress Tolerance for Biofuels. Microbiology Monographs, 2012, , .	0.3	8
179	Systems Metabolic Engineering. , 2012, , .		11
180	Nanotechnology for Algal Biofuels. Cellular Origin and Life in Extreme Habitats, 2012, , 147-163.	0.3	19
181	Synthetic Biology Approaches to Produce C3-C6 Alcohols from Microorganisms. Current Chemical Biology, 2012, 6, 32-41.	0.2	6
182	Systems Metabolic Engineering of Escherichia coli for Chemicals, Materials, Biofuels, and Pharmaceuticals. , 2012, , 117-149.		4
183	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

#	Article	IF	Citations
184	Systems metabolic engineering of microorganisms for natural and non-natural chemicals. Nature Chemical Biology, 2012, 8, 536-546.	3.9	639
185	Butanol production from renewable biomass: Rediscovery of metabolic pathways and metabolic engineering. Biotechnology Journal, 2012, 7, 186-198.	1.8	138
186	Reaction engineering studies of acetoneâ€butanolâ€ethanol fermentation with Clostridium acetobutylicum. Biotechnology Journal, 2012, 7, 656-661.	1.8	16
187	Bioâ€based production of C2â€“C6 platform chemicals. Biotechnology and Bioengineering, 2012, 109, 2437-2459.	1.7	329
188	Modifying the product pattern of Clostridium acetobutylicum. Applied Microbiology and Biotechnology, 2012, 94, 743-754.	1.7	75
189	Adaptation of lactic acid bacteria to butanol. Biocatalysis and Agricultural Biotechnology, 2012, 1, 57-61.	1.5	18
190	Identification of Escherichia coli biomarkers responsive to various lignin-hydrolysate compounds. Bioresource Technology, 2012, 114, 450-456.	4.8	23
191	Genome-wide analysis of mutagenesis bias and context sensitivity of N-methyl-Nâ€²-nitro-N-nitrosoguanidine (NTG). Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2012, 731, 64-67.	0.4	28
192	1-Butanol synthesis by Escherichia coli cells through butyryl-CoA formation by heterologous enzymes of clostridia and native enzymes of fatty acid Î²-oxidation. Applied Biochemistry and Microbiology, 2012, 48, 344-349.	0.3	10
193	Engineering Saccharomyces cerevisiae for efficient anaerobic xylose fermentation: Reflections and perspectives. Biotechnology Journal, 2012, 7, 34-46.	1.8	79
194	Impact of impurities in biodiesel-derived crude glycerol on the fermentation by Clostridium pasteurianum ATCC 6013. Applied Microbiology and Biotechnology, 2012, 93, 1325-1335.	1.7	97
195	Metabolic engineering of Escherichia coli for 1-butanol biosynthesis through the inverted aerobic fatty acid Î²-oxidation pathway. Biotechnology Letters, 2012, 34, 463-469.	1.1	35
196	Examining the feasibility of bulk commodity production in Escherichia coli. Biotechnology Letters, 2012, 34, 585-596.	1.1	43
197	Integrated OMICS guided engineering of biofuel butanol-tolerance in photosynthetic Synechocystissp. PCC 6803. Biotechnology for Biofuels, 2013, 6, 106.	6.2	68
198	A novel pathway to produce butanol and isobutanol in Saccharomyces cerevisiae. Biotechnology for Biofuels, 2013, 6, 68.	6.2	85
199	Genome-scale analyses of butanol tolerance in Saccharomyces cerevisiae reveal an essential role of protein degradation. Biotechnology for Biofuels, 2013, 6, 48.	6.2	68
200	Catalytic Conversion of Ethanol into an Advanced Biofuel: Unprecedented Selectivity for nâ€Butanol. Angewandte Chemie - International Edition, 2013, 52, 9005-9008.	7.2	182
201	Synthetic Biology of Microbial Biofuel Production. , 2013, , 207-223.		1

#	Article	IF	Citations
202	Synthetic Biology for Biomass Conversion. , 2013, , 115-140.		2
203	Biofuels of the Present and the Future. , 2013, , 325-370.		2
204	Processing Issues in Biofuels Production. , 2013, , 271-296.		0
205	A reverse glyoxylate shunt to build a non-native route from C4 to C2 in Escherichia coli. Metabolic Engineering, 2013, 19, 116-127.	3.6	53
206	Characterization of novel mutants with an altered gibberellin spectrum in comparison to different wild-type strains of Fusarium fujikuroi. Applied Microbiology and Biotechnology, 2013, 97, 7779-7790.	1.7	26
207	Utilization of Saccharomyces cerevisiae recombinant strain incapable of both ethanol and glycerol biosynthesis for anaerobic bioproduction. Applied Microbiology and Biotechnology, 2013, 97, 4811-4819.	1.7	27
208	Protein-based biorefining: metabolic engineering for production of chemicals and fuel with regeneration of nitrogen fertilizers. Applied Microbiology and Biotechnology, 2013, 97, 1397-1406.	1.7	31
209	Prospective and development of butanol as an advanced biofuel. Biotechnology Advances, 2013, 31, 1575-1584.	6.0	225
210	Toward the production of flavone-7-O-Î²-d-glucopyranosides using Arabidopsis glycosyltransferase in Escherichia coli. Process Biochemistry, 2013, 48, 1744-1748.	1.8	19
211	Butanol fermentation. Environmental Technology (United Kingdom), 2013, 34, 1691-1710.	1.2	78
212	Microbial production of lactateâ€containing polyesters. Microbial Biotechnology, 2013, 6, 621-636.	2.0	29
213	Fermentation approach for enhancing 1-butanol production using engineered butanologenic Escherichia coli. Bioresource Technology, 2013, 145, 204-209.	4.8	32
214	Metabolic engineering of Escherichia coli for the production of 5-aminovalerate and glutarate as C5 platform chemicals. Metabolic Engineering, 2013, 16, 42-47.	3.6	140
215	Comparative Proteomic and Metabolomic Analysis of Staphylococcus warneri SG1 Cultured in the Presence and Absence of Butanol. Journal of Proteome Research, 2013, 12, 4478-4489.	1.8	29
216	In vitro production of n-butanol from glucose. Metabolic Engineering, 2013, 20, 84-91.	3.6	89
218	Global Metabolomic and Network analysis of Escherichia coli Responses to Exogenous Biofuels. Journal of Proteome Research, 2013, 12, 5302-5312.	1.8	53
219	Dissecting the assays to assess microbial tolerance to toxic chemicals in bioprocessing. Trends in Biotechnology, 2013, 31, 643-653.	4.9	36
220	Construction of an in vitro bypassed pyruvate decarboxylation pathway using thermostable enzyme modules and its application to N-acetylglutamate production. Microbial Cell Factories, 2013, 12, 91.	1.9	8

#	Article	IF	Citations
221	Pathway and protein engineering approaches to produce novel and commodity small molecules. Current Opinion in Biotechnology, 2013, 24, 1137-1143.	3.3	59
223	Manipulating the sleeping beauty mutase operon for the production of 1-propanol in engineered Escherichia coli. Biotechnology for Biofuels, 2013, 6, 139.	6.2	34
224	Engineering E. coli strain for conversion of short chain fatty acids to bioalcohols. Biotechnology for Biofuels, 2013, 6, 128.	6.2	14
225	Physiological adaptations of Saccharomyces cerevisiae evolved for improved butanol tolerance. Biotechnology for Biofuels, 2013, 6, 101.	6.2	48
226	Metabolic flux distribution and thermodynamic analysis of green fluorescent protein production in recombinant Escherichia coli: The effect of carbon source and CO 2 partial pressure. Biotechnology and Bioprocess Engineering, 2013, 18, 1049-1061.	1.4	3
227	Biobutanol as an alternative type of fuel. Cytology and Genetics, 2013, 47, 366-382.	0.2	22
228	Biobutanol: the outlook of an academic and industrialist. RSC Advances, 2013, 3, 24734.	1.7	153
229	Model-driven rebalancing of the intracellular redox state for optimization of a heterologous n-butanol pathway in Escherichia coli. Metabolic Engineering, 2013, 20, 56-62.	3.6	60
230	Refactoring redox cofactor regeneration for high-yield biocatalysis of glucose to butyric acid in Escherichia coli. Bioresource Technology, 2013, 135, 568-573.	4.8	36
232	Synthetic non-oxidative glycolysis enables complete carbon conservation. Nature, 2013, 502, 693-697.	13.7	329
233	Challenges and opportunities in synthetic biology for chemical engineers. Chemical Engineering Science, 2013, 103, 115-119.	1.9	14
234	Quantitative proteomics reveals dynamic responses of Synechocystis sp. PCC 6803 to next-generation biofuel butanol. Journal of Proteomics, 2013, 78, 326-345.	1.2	108
235	Oxygen-tolerant coenzyme A-acylating aldehyde dehydrogenase facilitates efficient photosynthetic n-butanol biosynthesis in cyanobacteria. Energy and Environmental Science, 2013, 6, 2672.	15.6	143
236	The challenges and strategies of butanol application in conventional engines: The sensitivity study of ignition and valve timing. Applied Energy, 2013, 108, 248-260.	5.1	79
237	Efficient extracellular secretion of an endoglucanase and a Î²-glucosidase in E. coli. Protein Expression and Purification, 2013, 88, 20-25.	0.6	23
238	Cellulosic Butanol Production from Agricultural Biomass and Residues: Recent Advances in Technology. , 2013, , 247-265.		26
239	Metabolic engineering of Escherichia coli: A sustainable industrial platform for bio-based chemical production. Biotechnology Advances, 2013, 31, 1200-1223.	6.0	181
240	Synthetic Biology and Metabolic Engineering Approaches To Produce Biofuels. Chemical Reviews, 2013, 113, 4611-4632.	23.0	155

#	Article	IF	Citations
241	Metabolic engineering of 2â€pentanone synthesis in Escherichia coli. AIChE Journal, 2013, 59, 3167-3175.	1.8	25
242	Recent progress in metabolic engineering for the production of biofuels and biochemicals from renewable sources with particular emphasis on catabolite regulation and its modulation. Process Biochemistry, 2013, 48, 1409-1417.	1.8	30
243	Toward a Biological Replacement of Petroleum. ACS Symposium Series, 2013, , 1-17.	0.5	0
245	Development of microbial cell factories for bio-refinery through synthetic bioengineering. Journal of Biotechnology, 2013, 163, 204-216.	1.9	55
246	Engineering Escherichia coli with acrylate pathway genes for propionic acid synthesis and its impact on mixed-acid fermentation. Applied Microbiology and Biotechnology, 2013, 97, 1191-1200.	1.7	45
247	Biofuels: The Environment-Friendly Energy Carriers. , 2013, , 125-148.		0
248	A modified pathway for the production of acetone in Escherichia coli. Metabolic Engineering, 2013, 15, 218-225.	3.6	24
249	Biobutanol Production from Biomass. , 2013, , 443-470.		8
250	Activating transhydrogenase and NAD kinase in combination for improving isobutanol production. Metabolic Engineering, 2013, 16, 1-10.	3.6	107
251	Production of advanced biofuels in engineered E. coli. Current Opinion in Chemical Biology, 2013, 17, 472-479.	2.8	49
252	Improvement of (R)-1,3-butanediol production by engineered Escherichia coli. Journal of Bioscience and Bioengineering, 2013, 115, 475-480.	1.1	63
253	In silico screening of triple reaction knockout Escherichia coli strains for overproduction of useful metabolites. Journal of Bioscience and Bioengineering, 2013, 115, 221-228.	1.1	23
254	Microbial synthesis of n-butanol, isobutanol, and other higher alcohols from diverse resources. Bioresource Technology, 2013, 135, 339-349.	4.8	171
256	An economic evaluation of biological conversion of wheat straw to butanol: A biofuel. Energy Conversion and Management, 2013, 65, 456-462.	4.4	133
257	Transcription Factor-Based Screens and Synthetic Selections for Microbial Small-Molecule Biosynthesis. ACS Synthetic Biology, 2013, 2, 47-58.	1.9	176
258	Synergy as design principle for metabolic engineering of 1-propanol production in Escherichia coli. Metabolic Engineering, 2013, 17, 12-22.	3.6	59
259	Promoter engineering: Recent advances in controlling transcription at the most fundamental level. Biotechnology Journal, 2013, 8, 46-58.	1.8	277
260	Effect of an Oxygen-Tolerant Bifurcating Butyryl Coenzyme A Dehydrogenase/Electron-Transferring Flavoprotein Complex from Clostridium difficile on Butyrate Production in Escherichia coli. Journal of Bacteriology, 2013, 195, 3704-3713.	1.0	66

#	Article	IF	Citations
261	Biofuel Context. SpringerBriefs in Systems Biology, 2013, , 7-13.	0.1	0
262	General approach to reversing ketol-acid reductoisomerase cofactor dependence from NADPH to NADH. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10946-10951.	3.3	102
263	Genetic Determinants for n -Butanol Tolerance in Evolved Escherichia coli Mutants: Cross Adaptation and Antagonistic Pleiotropy between n -Butanol and Other Stressors. Applied and Environmental Microbiology, 2013, 79, 5313-5320.	1.4	53
264	Metabolic potential of the organicâ€solvent tolerant P seudomonas putida â€... DOT â€T1E deduced from its annotated genome. Microbial Biotechnology, 2013, 6, 598-611.	2.0	37
265	Strain optimization for efficient isobutanol production using Corynebacterium glutamicum under oxygen deprivation. Biotechnology and Bioengineering, 2013, 110, 2938-2948.	1.7	96
267	COFACTOR MODIFICATION ANALYSIS: A COMPUTATIONAL FRAMEWORK TO IDENTIFY COFACTOR SPECIFICITY ENGINEERING TARGETS FOR STRAIN IMPROVEMENT. Journal of Bioinformatics and Computational Biology, 2013, 11, 1343006.	0.3	16
268	A Novel Muconic Acid Biosynthesis Approach by Shunting Tryptophan Biosynthesis via Anthranilate. Applied and Environmental Microbiology, 2013, 79, 4024-4030.	1.4	88
269	Molecular Cloning and Expression of Cellulase and Polygalacturonase Genes in E. coli as a Promising Application for Biofuel Production. Journal of Petroleum & Environmental Biotechnology, 2013, 04, .	0.3	11
270	Metabolic engineering: Use of system-level approaches and application to fuel production in Escherichia coli. Electronic Journal of Biotechnology, 2013, 16, .	1.2	4
271	Bioconversion of Hemicellulose from Sugarcane Biomass Into Sustainable Products. , 2013, , .		19
272	Lignocellulosic Biomass Utilization Toward Biorefinery Using Meshophilic Clostridial Species. , 0, , .		0
274	Determining the effectiveness of Candida guilliermondii in the biological control of Rhizopus stolonifer in postharvest tomatoes. Universitas Scientiarum, 2013, 19, .	0.2	4
275	Generating Phenotypic Diversity in a Fungal Biocatalyst to Investigate Alcohol Stress Tolerance Encountered during Microbial Cellulosic Biofuel Production. PLoS ONE, 2013, 8, e77501.	1.1	9
277	Biochemical Processes for Generating Fuels and Commodity Chemicals from Lignocellulosic Biomass. , 0, , .		14
278	Comprehensive Detection of Genes Causing a Phenotype Using Phenotype Sequencing and Pathway Analysis. PLoS ONE, 2014, 9, e88072.	1.1	4
279	Integrated Production of Butanol from Glycerol. , 2014, , 225-233.		3
281	Near-Real-Time Analysis of the Phenotypic Responses of Escherichia coli to 1-Butanol Exposure Using Raman Spectroscopy. Journal of Bacteriology, 2014, 196, 3983-3991.	1.0	33
282	Metabolic engineering of Methylobacterium extorquens AM1 for 1-butanol production. Biotechnology for Biofuels, 2014, 7, 156.	6.2	61

#	Article	IF	Citations
283	1-Butanol production from glycerol by engineered Klebsiella pneumoniae. RSC Advances, 2014, 4, 57791-57798.	1.7	25
284	An Overview of Existing Individual Unit Operations. , 2014, , 3-36.		23
285	In situ butanol recovery from Clostridium acetobutylicum fermentations by expanded bed adsorption. Biotechnology Progress, 2014, 30, 68-78.	1.3	57
286	Biooxidation of n-butane to 1-butanol by engineered P450 monooxygenase under increased pressure. Journal of Biotechnology, 2014, 191, 86-92.	1.9	15
287	Evaluating Pathway Enumeration Algorithms in Metabolic Engineering Case Studies. Advances in Intelligent Systems and Computing, 2014, , 215-223.	0.5	0
288	Comparative technoâ€economic analysis and reviews of nâ€butanol production from corn grain and corn stover. Biofuels, Bioproducts and Biorefining, 2014, 8, 342-361.	1.9	80
289	FastPros: screening of reaction knockout strategies for metabolic engineering. Bioinformatics, 2014, 30, 981-987.	1.8	43
290	Metabolic engineering of a Saccharomyces cerevisiae strain capable of simultaneously utilizing glucose and galactose to produce enantiopure (2R,3R)-butanediol. Metabolic Engineering, 2014, 23, 92-99.	3.6	91
291	Extending shikimate pathway for the production of muconic acid and its precursor salicylic acid in Escherichia coli. Metabolic Engineering, 2014, 23, 62-69.	3.6	150
292	Crystal structure and biochemical properties of the (S)-3-hydroxybutyryl-CoA dehydrogenase PaaH1 from Ralstonia eutropha. Biochemical and Biophysical Research Communications, 2014, 448, 163-168.	1.0	12
293	Butanol production from glycerol by recombinant Escherichia coli. Annals of Microbiology, 2014, 64, 219-227.	1.1	12
294	Microbial nâ€butanol production from <scp>C</scp>lostridia to nonâ€Clostridial hosts. Engineering in Life Sciences, 2014, 14, 16-26.	2.0	37
295	Optimization and Validation of a GCâ€“FID Method for the Determination of Acetone-Butanol-Ethanol Fermentation Products. Journal of Chromatographic Science, 2014, 52, 264-270.	0.7	15
296	Metabolic Engineering of Biosynthetic Pathway for Production of Renewable Biofuels. Applied Biochemistry and Biotechnology, 2014, 172, 1158-1171.	1.4	19
297	Recombinant expression and characterization of a novel endoglucanase from Bacillus subtilis in Escherichia coli. Molecular Biology Reports, 2014, 41, 3295-3302.	1.0	23
298	Acetoneâ€“butanolâ€“ethanol fermentation of corn stover by Clostridium species: present status and future perspectives. World Journal of Microbiology and Biotechnology, 2014, 30, 1145-1157.	1.7	34
299	Metabolic engineering of Thermoanaerobacterium saccharolyticum for n-butanol production. Metabolic Engineering, 2014, 21, 17-25.	3.6	62
301	Metabolic flux redirection from a central metabolic pathway toward a synthetic pathway using a metabolic toggle switch. Metabolic Engineering, 2014, 23, 175-184.	3.6	168

#	Article	IF	Citations
303	Molecular Mechanisms in Yeast Carbon Metabolism. , 2014, , .		7
304	Biotransformation of Waste Biomass into High Value Biochemicals. , 2014, , .		50
305	Separation techniques in butanol production: Challenges and developments. Biomass and Bioenergy, 2014, 60, 222-246.	2.9	239
307	Alternative Acetate Production Pathways inChlamydomonas reinhardtiiduring Dark Anoxia and the Dominant Role of Chloroplasts in Fermentative Acetate Production. Plant Cell, 2014, 26, 4499-4518.	3.1	44
308	Biochemical, genetic, and metabolic engineering strategies to enhance coproduction of 1-propanol and ethanol in engineered Escherichia coli. Applied Microbiology and Biotechnology, 2014, 98, 9499-9515.	1.7	34
309	Metabolic Engineering of Escherichia coli for Production of Butyric Acid. Journal of Agricultural and Food Chemistry, 2014, 62, 4342-4348.	2.4	46
310	Optimization of a Yeast RNA Interference System for Controlling Gene Expression and Enabling Rapid Metabolic Engineering. ACS Synthetic Biology, 2014, 3, 307-313.	1.9	67
311	Enhancement of (R)-1,3-butanediol production by engineered Escherichia coli using a bioreactor system with strict regulation of overall oxygen transfer coefficient and pH. Bioscience, Biotechnology and Biochemistry, 2014, 78, 695-700.	0.6	43
312	Glycosylation and subsequent malonylation of isoflavonoids in E. coli: strain development, production and insights into future metabolic perspectives. Journal of Industrial Microbiology and Biotechnology, 2014, 41, 1647-1658.	1.4	29
313	Metabolic engineering for higher alcohol production. Metabolic Engineering, 2014, 25, 174-182.	3.6	42
314	Optimizing enzymatic hydrolysis of inulin from Jerusalem artichoke tubers for fermentative butanol production. Biomass and Bioenergy, 2014, 69, 175-182.	2.9	50
315	Generation of an atlas for commodity chemical production in Escherichia coli and a novel pathway prediction algorithm, GEM-Path. Metabolic Engineering, 2014, 25, 140-158.	3.6	152
316	Toward aldehyde and alkane production by removing aldehyde reductase activity in Escherichia coli. Metabolic Engineering, 2014, 25, 227-237.	3.6	121
317	Retro-biosynthetic screening of a modular pathway design achieves selective route for microbial synthesis of 4-methyl-pentanol. Nature Communications, 2014, 5, 5031.	5.8	52
318	Meiothermus ruber thiolase â€“ A new process stable enzyme for improved butanol synthesis. Biochimie, 2014, 103, 16-22.	1.3	4
319	8th International Conference on Practical Applications of Computational Biology & Bioinformatics (PACBB 2014). Advances in Intelligent Systems and Computing, 2014, , .	0.5	1
320	Systematic metabolic engineering of Escherichia coli for high-yield production of fuel bio-chemical 2,3-butanediol. Metabolic Engineering, 2014, 23, 22-33.	3.6	132
321	Butanol tolerance regulated by a two-component response regulator Slr1037 in photosynthetic Synechocystis sp. PCC 6803. Biotechnology for Biofuels, 2014, 7, 89.	6.2	34

#	Article	IF	Citations
322	Uncovering rare NADH-preferring ketol-acid reductoisomerases. Metabolic Engineering, 2014, 26, 17-22.	3.6	27
323	Structural insights into substrate specificity of crotonase from the n-butanol producing bacterium Clostridium acetobutylicum. Biochemical and Biophysical Research Communications, 2014, 451, 431-435.	1.0	12
324	Utilizing an endogenous pathway for 1-butanol production in Saccharomyces cerevisiae. Metabolic Engineering, 2014, 22, 60-68.	3.6	76
325	Optimization of furfural production by acid hydrolysis of Eucalyptus globulus in two stages. Chemical Engineering Journal, 2014, 240, 195-201.	6.6	49
326	Perspective and Prospective of Pretreatment of Corn Straw for Butanol Production. Applied Biochemistry and Biotechnology, 2014, 172, 840-853.	1.4	32
327	Lignocellulosic biobutanol production: Gridlocks and potential remedies. Renewable and Sustainable Energy Reviews, 2014, 37, 21-35.	8.2	79
328	Design and construction of acetyl-CoA overproducing Saccharomyces cerevisiae strains. Metabolic Engineering, 2014, 24, 139-149.	3.6	199
330	Discovery and Characterization of Ionic Liquid-Tolerant Thermophilic Cellulases from a Switchgrass-Adapted Microbial Community. , 2015, , 207-226.		0
331	Designing overall stoichiometric conversions and intervening metabolic reactions. Scientific Reports, 2015, 5, 16009.	1.6	47
333	Development of a stress-induced mutagenesis module for autonomous adaptive evolution of Escherichia coli to improve its stress tolerance. Biotechnology for Biofuels, 2015, 8, 93.	6.2	17
334	Increased Microbial Butanol Tolerance by Exogenous Membrane Insertion Molecules. ChemSusChem, 2015, 8, 3718-3726.	3.6	19
335	Converting Sugars to Biofuels: Ethanol and Beyond. Bioengineering, 2015, 2, 184-203.	1.6	55
336	A Comparison of the Microbial Production and Combustion Characteristics of Three Alcohol Biofuels: Ethanol, 1-Butanol, and 1-Octanol. Frontiers in Bioengineering and Biotechnology, 2015, 3, 112.	2.0	25
337	Activity of Lactobacillus brevis Alcohol Dehydrogenase on Primary and Secondary Alcohol Biofuel Precursors. Fermentation, 2015, 1, 24-37.	1.4	6
338	Engineering Protocells: Prospects for Self-Assembly and Nanoscale Production-Lines. Life, 2015, 5, 1019-1053.	1.1	29
340	Mechanisms of solvent resistance mediated by interplay of cellular factors inPseudomonas putida. FEMS Microbiology Reviews, 2015, 39, 555-566.	3.9	143
341	Microbial Research in High-Value Biofuels. Microbiology Monographs, 2015, , 105-156.	0.3	3
342	Analysis of Clostridium beijerinckii NCIMB 8052â€™s transcriptional response to ferulic acid and its application to enhance the strain tolerance. Biotechnology for Biofuels, 2015, 8, 68.	6.2	26

#	Article	IF	Citations
343	Recent Advances in Biobutanol Production. Industrial Biotechnology, 2015, 11, 316-321.	0.5	15
344	Transcriptional analyses of an ethanol inducible promoter inEscherichia coliand tobacco for production of cellulase and green fluorescent protein. Biotechnology and Biotechnological Equipment, 2015, 29, 1043-1052.	0.5	2
345	Development of a plasmid addicted system that is independent of co-inducers, antibiotics and specific carbon source additions for bioproduct (1-butanol) synthesis in Escherichia coli. Metabolic Engineering Communications, 2015, 2, 6-12.	1.9	2
346	Engineering Escherichia coli for autoinducible production of n-butanol. Electronic Journal of Biotechnology, 2015, 18, 138-142.	1.2	13
347	<italic>PreProPath</italic>: An Uncertainty-Aware Algorithm for Identifying Predictable Profitable Pathways in Biochemical Networks. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2015, 12, 1405-1415.	1.9	4
348	Modification of emodin and aloe-emodin by glycosylation in engineered Escherihia coli. World Journal of Microbiology and Biotechnology, 2015, 31, 611-619.	1.7	21
349	Engineering Escherichia coli Cell Factories for n-Butanol Production. Advances in Biochemical Engineering/Biotechnology, 2015, 155, 141-163.	0.6	7
350	Dual synthetic pathway for 3-hydroxypropionic acid production in engineered Escherichia coli. Journal of Bioscience and Bioengineering, 2015, 120, 199-204.	1.1	27
351	Production of tyrosine through phenylalanine hydroxylation bypasses the intrinsic feedback inhibition in Escherichia coli. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 655-659.	1.4	6
352	Engineering lipid overproduction in the oleaginous yeast Yarrowia lipolytica. Metabolic Engineering, 2015, 29, 56-65.	3.6	291
353	Genetic improvement of n-butanol tolerance in Escherichia coli by heterologous overexpression of groESL operon from Clostridium acetobutylicum. 3 Biotech, 2015, 5, 401-410.	1.1	21
354	Outlook for the Production of Butanol from Cellulolytic Strains of Clostridia. , 2015, , 291-306.		1
355	Metabolic engineering for the high-yield production of isoprenoid-based C5 alcohols in E. coli. Scientific Reports, 2015, 5, 11128.	1.6	125
356	Precise metabolic engineering of carotenoid biosynthesis in Escherichia coli towards a low-cost biosensor. Metabolic Engineering, 2015, 31, 171-180.	3.6	28
357	Precision metabolic engineering: The design of responsive, selective, and controllable metabolic systems. Metabolic Engineering, 2015, 31, 123-131.	3.6	56
358	Improving n-butanol production in batch and semi-continuous processes through integrated product recovery. Process Biochemistry, 2015, 50, 1487-1498.	1.8	49
359	Enhanced 1-Butanol Production in EngineeredKlebsiella pneumoniaeby NADH Regeneration. Energy & Fuels, 2015, 29, 1823-1829.	2.5	17
360	Enhanced butanol production by eukaryotic Saccharomyces cerevisiae engineered to contain an improved pathway. Bioscience, Biotechnology and Biochemistry, 2015, 79, 314-320.	0.6	24

#	Article	IF	Citations
361	Construction of CoA-dependent 1-butanol synthetic pathway functions under aerobic conditions in Escherichia coli. Journal of Biotechnology, 2015, 204, 25-32.	1.9	10
362	Synthesis of chemicals by metabolic engineering of microbes. Chemical Society Reviews, 2015, 44, 3760-3785.	18.7	97
363	Biosynthesis of hydrocarbons and volatile organic compounds by fungi: bioengineering potential. Applied Microbiology and Biotechnology, 2015, 99, 4943-4951.	1.7	25
364	Improved n-butanol tolerance in Escherichia coli by controlling membrane related functions. Journal of Biotechnology, 2015, 204, 33-44.	1.9	48
365	Modular design of metabolic network for robust production of n-butanol from galactoseâ€“glucose mixtures. Biotechnology for Biofuels, 2015, 8, 137.	6.2	21
366	Highly Selective Formation of n-Butanol from Ethanol through the Guerbet Process: A Tandem Catalytic Approach. Journal of the American Chemical Society, 2015, 137, 14264-14267.	6.6	154
367	Applications of Synthetic Gene Networks. Science Progress, 2015, 98, 244-252.	1.0	10
368	Improvement of the butanol production selectivity and butanol to acetone ratio (B:A) by addition of electron carriers in the batch culture of a new local isolate of Clostridium acetobutylicum YM1. Anaerobe, 2015, 36, 65-72.	1.0	14
369	Catalytic Conversion of Ethanol to n-Butanol Using Ruthenium Pâ€“N Ligand Complexes. ACS Catalysis, 2015, 5, 5822-5826.	5.5	81
370	Development and application of a novel screening method and experimental use of the mutant bacterial strain Clostridium beijerinckii NCIMB 8052 for production of butanol via fermentation of fresh cassava. RSC Advances, 2015, 5, 12624-12637.	1.7	5
371	Genetic and nutrient modulation of acetyl-CoA levels in Synechocystis for n-butanol production. Microbial Cell Factories, 2015, 14, 167.	1.9	92
372	Escherichia coli Enoyl-Acyl Carrier Protein Reductase (FabI) Supports Efficient Operation of a Functional Reversal of the Î²-Oxidation Cycle. Applied and Environmental Microbiology, 2015, 81, 1406-1416.	1.4	32
373	Microbial acetyl-CoA metabolism and metabolic engineering. Metabolic Engineering, 2015, 28, 28-42.	3.6	237
374	Development and application of efficient pathway enumeration algorithms for metabolic engineering applications. Computer Methods and Programs in Biomedicine, 2015, 118, 134-146.	2.6	7
375	Identification and characterization of a highly thermostable crotonase from Meiothermus ruber. Journal of Molecular Catalysis B: Enzymatic, 2015, 112, 40-44.	1.8	2
376	Microorganisms in Biorefineries. Microbiology Monographs, 2015, , .	0.3	3
377	Potential production platform of n-butanol in Escherichia coli. Metabolic Engineering, 2015, 27, 76-82.	3.6	82
378	Metabolic engineering of strains: from industrial-scale to lab-scale chemical production. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 423-436.	1.4	50

#	Article	IF	Citations
379	Metabolic engineering of Saccharomyces cerevisiae to improve 1-hexadecanol production. Metabolic Engineering, 2015, 27, 10-19.	3.6	104
380	Design and Construction of a Non-Natural Malate to 1,2,4-Butanetriol Pathway Creates Possibility to Produce 1,2,4-Butanetriol from Glucose. Scientific Reports, 2014, 4, 5541.	1.6	31
381	Metabolic engineering of Saccharomyces cerevisiae for production of butanol isomers. Current Opinion in Biotechnology, 2015, 33, 1-7.	3.3	80
382	Homology-Integrated CRISPRâ€“Cas (HI-CRISPR) System for One-Step Multigene Disruption in Saccharomyces cerevisiae. ACS Synthetic Biology, 2015, 4, 585-594.	1.9	308
383	Development of Second-Generation Biorefineries. , 2016, , 11-40.		4
384	Can Microbially Derived Advanced Biofuels Ever Compete with Conventional Bioethanol? A Critical Review. BioResources, 2016, 11, .	0.5	3
385	13C-Metabolic Flux Analysis: An Accurate Approach to Demystify Microbial Metabolism for Biochemical Production. Bioengineering, 2016, 3, 3.	1.6	16
386	Systems and Synthetic Biology for the Microbial Production of Biofuels. Current Metabolomics, 2016, 4, 5-13.	0.5	6
387	A Review of Process-Design Challenges for Industrial Fermentation of Butanol from Crude Glycerol by Non-Biphasic Clostridium pasteurianum. Fermentation, 2016, 2, 13.	1.4	35
388	In Vitro Bioconversion of Pyruvate to n-Butanol with Minimized Cofactor Utilization. Frontiers in Bioengineering and Biotechnology, 2016, 4, 74.	2.0	21
389	Rebalancing Redox to Improve Biobutanol Production by Clostridium tyrobutyricum. Bioengineering, 2016, 3, 2.	1.6	11
390	Aadh2p: an Arxula adeninivorans alcohol dehydrogenase involved in the first step of the 1-butanol degradation pathway. Microbial Cell Factories, 2016, 15, 175.	1.9	6
391	Genetic Engineering In BioButanol Production And Tolerance. Brazilian Archives of Biology and Technology, 2016, 59, .	0.5	10
393	DNA microarray of global transcription factor mutant reveals membrane-related proteins involved in n-butanol tolerance in Escherichia coli. Biotechnology for Biofuels, 2016, 9, 114.	6.2	35
395	Production of Fatty Acids and Derivatives by Metabolic Engineering of Bacteria. , 2016, , 1-24.		2
396	Systematic engineering of the central metabolism in Escherichia coli for effective production of n-butanol. Biotechnology for Biofuels, 2016, 9, 69.	6.2	44
397	Metabolic engineering of Cupriavidus necator for heterotrophic and autotrophic alka(e)ne production. Metabolic Engineering, 2016, 37, 92-101.	3.6	80
398	Understanding butanol tolerance and assimilation in <scp>P</scp>seudomonas putidaâ€¦<scp>BIRD</scp>â€1: an integrated omics approach. Microbial Biotechnology, 2016, 9, 100-115.	2.0	38

#	Article	IF	Citations
399	Hydrogen photoproduction in green algae Chlamydomonas reinhardtii sustainable over 2Âweeks with the original cell culture without supply of fresh cells nor exchange of the whole culture medium. Journal of Plant Research, 2016, 129, 771-779.	1.2	12
400	Robust Parameter Identification to Perform the Modeling of pta and poxB Genes Deletion Effect on Escherichia Coli. Applied Biochemistry and Biotechnology, 2016, 179, 1418-1434.	1.4	3
401	Consolidating biofuel platforms through the fermentative bioconversion of crude glycerol to butanol. World Journal of Microbiology and Biotechnology, 2016, 32, 103.	1.7	17
402	Consolidated bioprocessing of poly(lactate-co-3-hydroxybutyrate) from xylan as a sole feedstock by genetically-engineered Escherichia coli. Journal of Bioscience and Bioengineering, 2016, 122, 406-414.	1.1	23
403	Molecular genetic improvements of cyanobacteria to enhance the industrial potential of the microbe: A review. Biotechnology Progress, 2016, 32, 1357-1371.	1.3	29
404	Raman spectroscopy detects phenotypic differences among Escherichia coli enriched for 1â€butanol tolerance using a metagenomic DNA library. Biotechnology Journal, 2016, 11, 877-889.	1.8	11
405	Homogeneous Ethanol to Butanol Catalysisâ€"Guerbet Renewed. ACS Catalysis, 2016, 6, 7125-7132.	5.5	145
406	Recent trends in metabolic engineering of microorganisms for the production of advanced biofuels. Current Opinion in Chemical Biology, 2016, 35, 10-21.	2.8	55
407	Potential applications of crude glycerol in polymer technologyâ€"Current state and perspectives. Renewable and Sustainable Energy Reviews, 2016, 66, 449-475.	8.2	109
408	Recycling of Solid Waste for Biofuels and Bio-chemicals. Environmental Footprints and Eco-design of Products and Processes, 2016, , .	0.7	9
409	Biofuel Production Technology and Engineering. Environmental Footprints and Eco-design of Products and Processes, 2016, , 275-299.	0.7	0
410	Biobutanolâ€"â€œA Renewable Green Alternative of Liquid Fuelâ€•from Algae. Green Energy and Technology, 2016, , 445-465.	0.4	7
411	Systems Metabolic Engineering of Escherichia coli. EcoSal Plus, 2016, 7, .	2.1	31
412	Microbiology of Platform Chemical Biorefinery and Metabolic Engineering. , 2016, , 437-450.		1
413	Engineering genomes for biofuels. , 2016, , 569-597.		0
414	Engineered fatty acid catabolism for fuel and chemical production. Current Opinion in Biotechnology, 2016, 42, 206-215.	3.3	20
415	Ethanol Use in the United States: Status, Threats and the Potential Future. , 2016, , 34-62.		4
417	Production of 2-methyl-1-butanol and 3-methyl-1-butanol in engineered Corynebacterium glutamicum. Metabolic Engineering, 2016, 38, 436-445.	3.6	44

#	Article	IF	Citations
418	Nesterenkonia sp. strain F, a halophilic bacterium producing acetone, butanol and ethanol under aerobic conditions. Scientific Reports, 2016, 6, 18408.	1.6	27
419	Metabolic engineering of a synergistic pathway for n-butanol production in Saccharomyces cerevisiae. Scientific Reports, 2016, 6, 25675.	1.6	50
420	Elucidating the contributions of multiple aldehyde/alcohol dehydrogenases to butanol and ethanol production in Clostridium acetobutylicum. Scientific Reports, 2016, 6, 28189.	1.6	21
421	Role of Escherichia coli in Biofuel Production. Microbiology Insights, 2016, 9, MBI.S10878.	0.9	59
422	Self-regulated 1-butanol production in Escherichia coli based on the endogenous fermentative control. Biotechnology for Biofuels, 2016, 9, 267.	6.2	18
423	Bioreactors andin situproduct recovery techniques for acetoneâ€“butanolâ€“ethanol fermentation. FEMS Microbiology Letters, 2016, 363, fnw107.	0.7	24
424	Metabolic engineering of Clostridium cellulolyticum for the production of n-butanol from crystalline cellulose. Microbial Cell Factories, 2016, 15, 6.	1.9	91
425	n-Butanol production in Saccharomyces cerevisiae is limited by the availability of coenzyme A and cytosolic acetyl-CoA. Biotechnology for Biofuels, 2016, 9, 44.	6.2	63
426	Growth inhibition of S. cerevisiae, B. subtilis, and E. coli by lignocellulosic and fermentation products. Applied Microbiology and Biotechnology, 2016, 100, 9069-9080.	1.7	29
427	Evaluation of 3-hydroxypropionate biosynthesis in vitro by partial introduction of the 3-hydroxypropionate/4-hydroxybutyrate cycle from Metallosphaera sedula. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 1313-1321.	1.4	7
428	Isolation, characterization, and optimization of an aerobic butanolâ€producing bacterium from Singapore. Biotechnology and Applied Biochemistry, 2016, 63, 86-91.	1.4	8
429	Production of biobutanol from cellulose hydrolysate by theEscherichia colico-culture system. FEMS Microbiology Letters, 2016, 363, fnw008.	0.7	16
430	A cell-free framework for rapid biosynthetic pathway prototyping and enzyme discovery. Metabolic Engineering, 2016, 36, 116-126.	3.6	204
431	Biosynthesis of chainâ€specific alkanes by metabolic engineering in Escherichia coli. Engineering in Life Sciences, 2016, 16, 53-59.	2.0	16
432	Membrane engineering via trans unsaturated fatty acids production improves Escherichia coli robustness and production of biorenewables. Metabolic Engineering, 2016, 35, 105-113.	3.6	112
433	Frontiers in microbial 1-butanol and isobutanol production. FEMS Microbiology Letters, 2016, 363, fnw020.	0.7	77
434	Improving isobutanol production in metabolically engineered Escherichia coli by co-producing ethanol and modulation of pentose phosphate pathway. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 851-860.	1.4	9
435	Pervaporation membrane reactors. , 2016, , 331-381.		8

#	Article	IF	Citations
436	Assessing methanotrophy and carbon fixation for biofuel production by Methanosarcina acetivorans. Microbial Cell Factories, 2016, 15, 10.	1.9	40
437	3-Methyl-1-butanol Biosynthesis in an Engineered Corynebacterium glutamicum. Molecular Biotechnology, 2016, 58, 311-318.	1.3	10
438	Catalytic conversion of methanol/ethanol to isobutanol â€“ a highly selective route to an advanced biofuel. Chemical Communications, 2016, 52, 5202-5204.	2.2	71
440	High-throughput evaluation of synthetic metabolic pathways. Technology, 2016, 04, 9-14.	1.4	2
441	Sweet scents from good bacteria: Case studies on bacterial volatile compounds for plant growth and immunity. Plant Molecular Biology, 2016, 90, 677-687.	2.0	133
442	Butyrate production under aerobic growth conditions by engineered Escherichia coli. Journal of Bioscience and Bioengineering, 2017, 123, 562-568.	1.1	19
443	Retargeting a Dual-Acting sRNA for Multiple mRNA Transcript Regulation. ACS Synthetic Biology, 2017, 6, 648-658.	1.9	21
444	Energy efficiency of a new distillation process for isopropanol, butanol, and ethanol (IBE) dehydration. Chemical Engineering and Processing: Process Intensification, 2017, 112, 56-61.	1.8	28
445	Fermentative production of butanol: Perspectives on synthetic biology. New Biotechnology, 2017, 37, 210-221.	2.4	107
446	Progress and perspectives on improving butanol tolerance. World Journal of Microbiology and Biotechnology, 2017, 33, 51.	1.7	27
447	Modern Topics in the Phototrophic Prokaryotes. , 2017, , .		42
448	Synergizing 13C Metabolic Flux Analysis and Metabolic Engineering for Biochemical Production. Advances in Biochemical Engineering/Biotechnology, 2017, 162, 265-299.	0.6	7
449	A New Player in the Biorefineries Field: Phasin PhaP Enhances Tolerance to Solvents and Boosts Ethanol and 1,3-Propanediol Synthesis in Escherichia coli. Applied and Environmental Microbiology, 2017, 83, .	1.4	22
450	Engineering metabolic pathways in Escherichia coli for constructing a â€œmicrobial chassisâ€•for biochemical production. Bioresource Technology, 2017, 245, 1362-1368.	4.8	50
451	Metabolic engineering of Escherichia coli for higher alcohols production: An environmentally friendly alternative to fossil fuels. Renewable and Sustainable Energy Reviews, 2017, 77, 580-589.	8.2	18
452	Engineering Cyanobacteria for Biofuel Production. , 2017, , 351-393.		6
453	De Novo Biosynthesis of Glutarate via Î±-Keto Acid Carbon Chain Extension and Decarboxylation Pathway in Escherichia coli. ACS Synthetic Biology, 2017, 6, 1922-1930.	1.9	57
454	Cellulosic biobutanol by Clostridia: Challenges and improvements. Renewable and Sustainable Energy Reviews, 2017, 79, 1241-1254.	8.2	87

#	Article	IF	Citations
455	The application of constitutively solventâ€tolerant P. taiwanensis VLB120Î”CÎ”ttgV for stereospecific epoxidation of toxic styrene alleviates carrier solvent use. Biotechnology Journal, 2017, 12, 1600558.	1.8	15
456	Engineering coenzyme A-dependent pathway from Clostridium saccharobutylicum in Escherichia coli for butanol production. Bioresource Technology, 2017, 235, 140-148.	4.8	5
457	Metabolomics-driven approach to solving a CoA imbalance for improved 1-butanol production in Escherichia coli. Metabolic Engineering, 2017, 41, 135-143.	3.6	79
458	Products Components: Alcohols. Advances in Biochemical Engineering/Biotechnology, 2017, 166, 339-372.	0.6	4
459	Reassessing Escherichia coli as a cell factory for biofuel production. Current Opinion in Biotechnology, 2017, 45, 92-103.	3.3	53
460	Selection of an endogenous 2,3-butanediol pathway in Escherichia coli by fermentative redox balance. Metabolic Engineering, 2017, 39, 181-191.	3.6	26
461	Ferric iron and extracellular electron shuttling increase xylose utilization and butanol production during fermentation with multiple solventogenic bacteria. Applied Microbiology and Biotechnology, 2017, 101, 8053-8061.	1.7	9
462	A systematically chromosomally engineered Escherichia coli efficiently produces butanol. Metabolic Engineering, 2017, 44, 284-292.	3.6	54
463	Transcription control engineering and applications in synthetic biology. Synthetic and Systems Biotechnology, 2017, 2, 176-191.	1.8	70
464	Perspectives for the use of biotechnology in green chemistry applied to biopolymers, fuels and organic synthesis: from concepts to a critical point of view. Sustainable Chemistry and Pharmacy, 2017, 6, 82-89.	1.6	20
465	Engineering Escherichia coli membrane phospholipid head distribution improves tolerance and production of biorenewables. Metabolic Engineering, 2017, 44, 1-12.	3.6	83
466	Orthogonal partial least squares/projections to latent structures regression-based metabolomics approach for identification of gene targets for improvement of 1-butanol production in Escherichia coli. Journal of Bioscience and Bioengineering, 2017, 124, 498-505.	1.1	24
467	Holistic bioengineering: rewiring central metabolism for enhanced bioproduction. Biochemical Journal, 2017, 474, 3935-3950.	1.7	51
468	Effective production of n -butanol in Escherichia coli utilizing the glucoseâ€“glycerol mixture. Journal of the Taiwan Institute of Chemical Engineers, 2017, 81, 134-139.	2.7	13
469	Engineering cofactor flexibility enhanced 2,3-butanediol production in Escherichia coli. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 1605-1612.	1.4	7
470	Improved n-butanol production via co-expression of membrane-targeted tilapia metallothionein and the clostridial metabolic pathway in Escherichia coli. BMC Biotechnology, 2017, 17, 36.	1.7	19
471	Improving Escherichia coli membrane integrity and fatty acid production by expression tuning of FadL and OmpF. Microbial Cell Factories, 2017, 16, 38.	1.9	46
472	Engineering redox homeostasis to develop efficient alcohol-producing microbial cell factories. Microbial Cell Factories, 2017, 16, 115.	1.9	26

#	Article	IF	Citations
473	Molecular and biochemical characterization of recombinant cel12B, cel8C, and peh28 overexpressed in Escherichia coli and their potential in biofuel production. Biotechnology for Biofuels, 2017, 10, 52.	6.2	8
474	The significance of proline and glutamate on butanol chaotropic stress in Bacillus subtilis 168. Biotechnology for Biofuels, 2017, 10, 122.	6.2	20
475	Biobutanol â€“ An impending biofuel for future: A review on upstream and downstream processing tecniques. Renewable and Sustainable Energy Reviews, 2017, 68, 788-807.	8.2	173
476	Engineering the leucine biosynthetic pathway for isoamyl alcohol overproduction in Saccharomyces cerevisiae. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 107-117.	1.4	30
477	Enhancing productivity for cascade biotransformation of styrene to (S)-vicinal diol with biphasic system in hollow fiber membrane bioreactor. Applied Microbiology and Biotechnology, 2017, 101, 1857-1868.	1.7	21
478	In silico and in vivo stability analysis of a heterologous biosynthetic pathway for 1,4-butanediol production in metabolically engineered E. coli. Journal of Biomolecular Structure and Dynamics, 2017, 35, 1874-1889.	2.0	7
479	BeReTa: a systematic method for identifying target transcriptional regulators to enhance microbial production of chemicals. Bioinformatics, 2017, 33, 87-94.	1.8	10
480	Controlling Citrate Synthase Expression by CRISPR/Cas9 Genome Editing for n-Butanol Production in Escherichia coli. ACS Synthetic Biology, 2017, 6, 182-189.	1.9	51
481	Biobutanol recovery from model solutions using potassium pyrophosphate. Journal of Chemical Technology and Biotechnology, 2017, 92, 1229-1235.	1.6	18
482	Production of gasohol from isobutanol. IOP Conference Series: Earth and Environmental Science, 2017, 65, 012055.	0.2	2
483	Synthetic Biology. , 2017, , 239-269.		3
484	The Functional Characterization of a Site-Specific Apigenin 4â€²-O-methyltransferase Synthesized by the Liverwort Species Plagiochasma appendiculatum. Molecules, 2017, 22, 759.	1.7	17
485	Development of Synthetic Microbial Platforms to Convert Lignocellulosic Biomass to Biofuels. Advances in Bioenergy, 2017, 2, 233-278.	0.5	6
486	Anaerobic and micro-aerobic 1,3-propanediol production by engineered Escherichia coli with dha genes from Klebsiella pneumoniae GLC29. African Journal of Biotechnology, 2017, 16, 1800-1809.	0.3	1
487	CRISPR interference-guided multiplex repression of endogenous competing pathway genes for redirecting metabolic flux in Escherichia coli. Microbial Cell Factories, 2017, 16, 188.	1.9	68
488	Metabolic engineering of Escherichia coli for production of n-butanol from crude glycerol. Biotechnology for Biofuels, 2017, 10, 173.	6.2	44
489	Metabolic engineering of Rhodopseudomonas palustris for the obligate reduction of n-butyrate to n-butanol. Biotechnology for Biofuels, 2017, 10, 178.	6.2	22
490	Metabolic responses to ethanol and butanol in Chlamydomonas reinhardtii. Biotechnology for Biofuels, 2017, 10, 239.	6.2	9

#	Article	IF	Citations
491	Renewable synthesis of n-butyraldehyde from glucose by engineered Escherichia coli. Biotechnology for Biofuels, 2017, 10, 291.	6.2	30
492	Waste Degradation and Utilization by Lactic Acid Bacteria: Use of Lactic Acid Bacteria in Production of Food Additives, Bioenergy and Biogas. , 0, , .		11
493	Biofuels: Greenhouse Gas Mitigation and Global Warming. , 2018, , .		22
494	Enhancement of microalgal growth and biocomponent-based transformations for improved biofuel recovery: A review. Bioresource Technology, 2018, 258, 365-375.	4.8	49
495	Escherichia coli as a host for metabolic engineering. Metabolic Engineering, 2018, 50, 16-46.	3.6	250
496	Characterization of Carboxylic Acid Reductases for Biocatalytic Synthesis of Industrial Chemicals. ChemBioChem, 2018, 19, 1452-1460.	1.3	39
497	Biofuel production with a stress-resistant and growth phase-independent promoter: mechanism revealed by in vitro transcription assays. Applied Microbiology and Biotechnology, 2018, 102, 2929-2940.	1.7	11
498	Synthetic and Semisynthetic Metabolic Pathways for Biofuel Production. , 2018, , 421-432.		2
499	Rearrangement of Coenzyme A-Acylated Carbon Chain Enables Synthesis of Isobutanol via a Novel Pathway in Ralstonia eutropha. ACS Synthetic Biology, 2018, 7, 794-800.	1.9	25
500	Glycolysis and Its Metabolic Engineering Applications. , 2018, , 1-33.		2
501	Photosynthesis and Its Metabolic Engineering Applications. , 2018, , 121-165.		0
502	Engineering co-culture system for production of apigetrin in Escherichia coli. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 175-185.	1.4	47
503	Microbial production of branched-chain dicarboxylate 2-methylsuccinic acid via enoate reductase-mediated bioreduction. Metabolic Engineering, 2018, 45, 1-10.	3.6	18
504	Selective production of decanoic acid from iterative reversal of Î²â€oxidation pathway. Biotechnology and Bioengineering, 2018, 115, 1311-1320.	1.7	22
505	The enzymatic biosynthesis of acylated steroidal glycosides and their cytotoxic activity. Acta Pharmaceutica Sinica B, 2018, 8, 981-994.	5.7	18
506	Microalgae for biobutanol production â€“ Technology evaluation and value proposition. Algal Research, 2018, 31, 367-376.	2.4	57
507	Metabolic Engineering for Advanced Biofuels Production and Recent Advances Toward Commercialization. Biotechnology Journal, 2018, 13, 1600433.	1.8	26
508	Synthetic Biology â€“ Metabolic Engineering. Advances in Biochemical Engineering/Biotechnology, 2018, , .	0.6	4

#	Article	IF	Citations
509	Investigation of the Synergetic Effect of Xylose Metabolic Pathways on the Production of Glutaric Acid. ACS Synthetic Biology, 2018, 7, 24-29.	1.9	35
510	Prospects of Solvent Tolerance in Butanol Fermenting Bacteria. Biofuel and Biorefinery Technologies, 2018, , 249-264.	0.1	6
511	Bio-butanol downstream processing: regeneration of adsorbents and selective exclusion of fermentation by-products. Adsorption, 2018, 24, 95-104.	1.4	14
512	Review of NAD(P)H-dependent oxidoreductases: Properties, engineering and application. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 327-347.	1.1	216
513	Metabolic engineering of microorganisms for biofuel production. Renewable and Sustainable Energy Reviews, 2018, 82, 3863-3885.	8.2	124
514	Rational engineering of a malate dehydrogenase for microbial production of 2,4-dihydroxybutyric acid via homoserine pathway. Biochemical Journal, 2018, 475, 3887-3901.	1.7	12
515	A Critical Analysis of Bio-Hydrocarbon Production in Bacteria: Current Challenges and Future Directions. Energies, 2018, 11, 2663.	1.6	10
516	Selective Recovery of n-Butanol from Aqueous Solutions with Functionalized Poly(epoxide) Tj ETQq1 1 0.784314 rgBT /Overlock	1.6	5
517	An oleaginous yeast platform for renewable 1-butanol synthesis based on a heterologous CoA-dependent pathway and an endogenous pathway. Microbial Cell Factories, 2018, 17, 166.	1.9	14
518	Restoration of biofuel production levels and increased tolerance under ionic liquid stress is enabled by a mutation in the essential Escherichia coli gene cydC. Microbial Cell Factories, 2018, 17, 159.	1.9	33
519	Resting cells isobutanol production byShimwellia blattae(p424IbPSO): Influence of growth culture conditions. Biotechnology Progress, 2018, 34, 1073-1080.	1.3	8
520	CRISPR Gene Perturbations Provide Insights for Improving Bacterial Biofuel Tolerance. Frontiers in Bioengineering and Biotechnology, 2018, 6, 122.	2.0	19
521	Utilization of rare codon-rich markers for screening amino acid overproducers. Nature Communications, 2018, 9, 3616.	5.8	28
522	Reviving the Weizmann process for commercial n-butanol production. Nature Communications, 2018, 9, 3682.	5.8	76
523	Augmenting the Calvinâ€“Bensonâ€“Bassham cycle by a synthetic malyl-CoA-glycerate carbon fixation pathway. Nature Communications, 2018, 9, 2008.	5.8	73
524	Development of a High-Throughput, In Vivo Selection Platform for NADPH-Dependent Reactions Based on Redox Balance Principles. ACS Synthetic Biology, 2018, 7, 1715-1721.	1.9	33
525	Kinetics of n-butanol oxidation over Pt/ZSM-5 catalyst. Fuel Processing Technology, 2018, 179, 108-113.	3.7	8
526	From Ethanol to Biodiesel. , 2018, , 861-879.		1

#	Article	IF	Citations
527	Investigation of Oxidation Reaction Products of 2-Phenylethanol Using Synchrotron Photoionization. Journal of Physical Chemistry A, 2018, 122, 6789-6798.	1.1	4
528	Regulation Mechanism Mediated by Trans-Encoded sRNA Nc117 in Short Chain Alcohols Tolerance in Synechocystis sp. PCC 6803. Frontiers in Microbiology, 2018, 9, 863.	1.5	7
529	Iterative cycle of widely targeted metabolic profiling for the improvement of 1-butanol titer and productivity in Synechococcus elongatus. Biotechnology for Biofuels, 2018, 11, 188.	6.2	33
530	Identifying metabolic elements that contribute to productivity of 1-propanol bioproduction using metabolomic analysis. Metabolomics, 2018, 14, 96.	1.4	3
531	Exotic glycerol dehydrogenase expressing Escherichia coli increases yield of 2,3-butanediol. Bioresources and Bioprocessing, 2018, 5, .	2.0	9
532	Butyrate-based n-butanol production from an engineered Shewanella oneidensis MR-1. Bioprocess and Biosystems Engineering, 2018, 41, 1195-1204.	1.7	20
533	Directed strain evolution restructures metabolism for 1-butanol production in minimal media. Metabolic Engineering, 2018, 49, 153-163.	3.6	22
534	Improvement of butanol production in Clostridium acetobutylicum through enhancement of NAD(P)H availability. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 993-1002.	1.4	24
535	Solvent production from xylose. Applied Microbiology and Biotechnology, 2018, 102, 8707-8715.	1.7	4
536	Advanced bioprocessing strategies for biobutanol production from biomass. Renewable and Sustainable Energy Reviews, 2018, 91, 1192-1204.	8.2	77
537	Sustainable Approaches for Biofuels Production Technologies. Biofuel and Biorefinery Technologies, 2019, , .	0.1	6
538	Discovery of potential genes contributing to the biosynthesis of short-chain fatty acids and lactate in gut microbiota from systematic investigation in E. coli. Npj Biofilms and Microbiomes, 2019, 5, 19.	2.9	39
539	Nutrient composition and safety evaluation of simulated isobutanol distillers dried grains with solubles and associated fermentation metabolites when fed to male Ross 708 broiler chickens (Gallus) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.1	8
540	Developing a pyruvate-driven metabolic scenario for growth-coupled microbial production. Metabolic Engineering, 2019, 55, 191-200.	3.6	28
541	Advances in Microbial Technology for Upscaling Sustainable Biofuel Production. , 2019, , 69-76.		12
542	Discovery and implementation of a novel pathway for n-butanol production via 2-oxoglutarate. Biotechnology for Biofuels, 2019, 12, 230.	6.2	12
543	Shewanella oneidensis NADH Dehydrogenase Mutants Exhibit an Amino Acid Synthesis Defect. Frontiers in Energy Research, 2019, 7, .	1.2	6
544	Engineering microbial chemical factories using metabolic models. BMC Chemical Engineering, 2019, 1, .	3.4	5

#	Article	IF	Citations
545	Engineering transcription factor BmoR for screening butanol overproducers. Metabolic Engineering, 2019, 56, 28-38.	3.6	28
546	Microbial biosynthesis of lactate esters. Biotechnology for Biofuels, 2019, 12, 226.	6.2	40
547	Hydrotropic pretreatment on wheat straw for efficient biobutanol production. Biomass and Bioenergy, 2019, 122, 76-83.	2.9	35
548	Anaerobic butanol production driven by oxygen-evolving photosynthesis using the heterocyst-forming multicellular cyanobacterium Anabaena sp. PCC 7120. Applied Microbiology and Biotechnology, 2019, 103, 2441-2447.	1.7	11
549	Engineering Clostridial Aldehyde/Alcohol Dehydrogenase for Selective Butanol Production. MBio, 2019, 10, .	1.8	18
550	Metabolic Engineering of Escherichia coli for para-Amino-Phenylethanol and para-Amino-Phenylacetic Acid Biosynthesis. Frontiers in Bioengineering and Biotechnology, 2019, 6, 201.	2.0	3
551	Manganeseâ€Catalyzed Selective Upgrading of Ethanol with Methanol into Isobutanol. ChemSusChem, 2019, 12, 3069-3072.	3.6	43
552	A POCO type pincer complex of iridium: Synthesis, characterization, and catalysis. Polyhedron, 2019, 160, 83-91.	1.0	7
554	Current challenges and advances in butanol production. , 2019, , 225-256.		5
555	Investigating the Potential of Ion Mobility-Mass Spectrometry for Microalgae Biomass Characterization. Analytical Chemistry, 2019, 91, 9266-9276.	3.2	10
556	Production of fuels and chemicals from renewable resources using engineered Escherichia coli. Biotechnology Advances, 2019, 37, 107402.	6.0	33
557	Response of microbial membranes to butanol: interdigitationvs.disorder. Physical Chemistry Chemical Physics, 2019, 21, 11903-11915.	1.3	19
558	Biobutanol as a promising liquid fuel for the future - recent updates and perspectives. Fuel, 2019, 253, 637-646.	3.4	110
559	Applications and Future Perspectives of Synthetic Biology Systems. , 2019, , 393-412.		3
560	Biological Conversion of Amino Acids to Higher Alcohols. Trends in Biotechnology, 2019, 37, 855-869.	4.9	47
561	CRISPR/Cas9-mediated engineering of Escherichia coli for n-butanol production from xylose in defined medium. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 965-975.	1.4	40
563	Establishment of BmoR-based biosensor to screen isobutanol overproducer. Microbial Cell Factories, 2019, 18, 30.	1.9	35
564	Optimization of Blending Octane Number Premium Composition and Blending Sulfur Content Diesel Composition In Refinery I Ru IV Cilacap. IOP Conference Series: Materials Science and Engineering, 2019, 494, 012044.	0.3	0

#	Article	IF	Citations
566	Increased Isoprene Production by the Recombinant Pantoea ananatis Strain due to the Balanced Amplification of Mevalonate Pathway Genes. Applied Biochemistry and Microbiology, 2019, 55, 850-860.	0.3	3
567	To beat the heat â€“ engineering of the most thermostable pyruvate decarboxylase to date. RSC Advances, 2019, 9, 29743-29746.	1.7	6
568	Whole conversion of microalgal biomass into biofuels through successive high-throughput fermentation. Chemical Engineering Journal, 2019, 360, 797-805.	6.6	74
569	Kinetic Modeling of the Isobutanol Production from Glucose Using Shimwellia blattae (p424lbPSO) Strain: Effect of Initial Substrate Concentration. Industrial & Engineering Chemistry Research, 2019, 58, 1502-1512.	1.8	4
570	Strain engineering for microbial production of value-added chemicals and fuels from glycerol. Biotechnology Advances, 2019, 37, 538-568.	6.0	34
571	Metabolome analysis revealed the knockout of glyoxylate shunt as an effective strategy for improvement of 1-butanol production in transgenic Escherichia coli. Journal of Bioscience and Bioengineering, 2019, 127, 301-308.	1.1	17
572	Recent trends in biobutanol production. Reviews in Chemical Engineering, 2019, 35, 475-504.	2.3	49
573	Metabolic engineering of Escherichia coli for the production of isoflavonoidâ€4â€²â€Oâ€methoxides and their biological activities. Biotechnology and Applied Biochemistry, 2019, 66, 484-493.	1.4	24
574	n-Butylamine production from glucose using a transaminase-mediated synthetic pathway in Escherichia coli. Journal of Bioscience and Bioengineering, 2020, 129, 99-103.	1.1	2
575	Effects of blending C3-C4 alcohols on motor gasoline properties and performance of spark ignition engines: A review. Fuel Processing Technology, 2020, 197, 106194.	3.7	53
576	Bioconversion of lignocellulosic biomass to bioethanol and biobutanol. , 2020, , 67-125.		20
577	Enhancing control of cell-free metabolism through pH modulation. Synthetic Biology, 2020, 5, .	1.2	24
578	Production of 1-octanol in Escherichia coli by a high flux thioesterase route. Metabolic Engineering, 2020, 61, 352-359.	3.6	22
579	Recent Progress with Pincer Transition Metal Catalysts for Sustainability. Catalysts, 2020, 10, 773.	1.6	71
580	Optimization of n-butanol synthesis in Lactobacillus brevis via the functional expression of thl, hbd, crt and ter. Journal of Industrial Microbiology and Biotechnology, 2020, 47, 1099-1108.	1.4	5
581	Biomass coproducts utilization. , 2020, , 153-197.		0
582	Manganese Diphosphine and Phosphinoamine Complexes Are Effective Catalysts for the Production of Biofuel Alcohols via the Guerbet Reaction. Organometallics, 2020, 39, 3873-3878.	1.1	21
585	Efficient, Simple Production of Corresponding Alcohols from Supplemented C2-C8 Carboxylic Acids in Escherichia coli Using Acyl-CoA Transferase from Megasphaera hexanoica. Biotechnology and Bioprocess Engineering, 2020, 25, 599-606.	1.4	12

#	Article	IF	Citations
586	n-Butanol production by Saccharomyces cerevisiae from protein-rich agro-industrial by-products. Brazilian Journal of Microbiology, 2020, 51, 1655-1664.	0.8	7
587	Improved Butanol Production Using FASII Pathway in E. coli. ACS Synthetic Biology, 2020, 9, 2390-2398.	1.9	12
588	Metabolomics Analysis Reveals Global Metabolic Changes in the Evolved E. coli Strain with Improved Growth and 1-Butanol Production in Minimal Medium. Metabolites, 2020, 10, 192.	1.3	3
589	Metabolic engineering strategies for butanol production in Escherichia coli. Biotechnology and Bioengineering, 2020, 117, 2571-2587.	1.7	17
590	Recent Development of Extremophilic Bacteria and Their Application in Biorefinery. Frontiers in Bioengineering and Biotechnology, 2020, 8, 483.	2.0	84
591	In vitro prototyping and rapid optimization of biosynthetic enzymes for cell design. Nature Chemical Biology, 2020, 16, 912-919.	3.9	142
592	Intermediates detection in the conversion of ethanol to butanol catalyzed by zirconium, cerium, titanium monoxide cations by inductively coupled plasma tandem mass spectrometry. Microchemical Journal, 2020, 156, 104926.	2.3	2
593	A Growth-Based, High-Throughput Selection Platform Enables Remodeling of 4-Hydroxybenzoate Hydroxylase Active Site. ACS Catalysis, 2020, 10, 6969-6974.	5.5	23
594	Pathway dissection, regulation, engineering and application: lessons learned from biobutanol production by solventogenic clostridia. Biotechnology for Biofuels, 2020, 13, 39.	6.2	65
595	The Impact of ackA, pta, and ackA-pta Mutations on Growth, Gene Expression and Protein Acetylation in Escherichia coli K-12. Frontiers in Microbiology, 2020, 11, 233.	1.5	30
596	Butanol production by Saccharomyces cerevisiae: perspectives, strategies and challenges. World Journal of Microbiology and Biotechnology, 2020, 36, 48.	1.7	23
597	Genetic engineering of non-native hosts for 1-butanol production and its challenges: a review. Microbial Cell Factories, 2020, 19, 79.	1.9	30
598	Biobutanol as a potential alternative to petroleum fuel: Sustainable bioprocess and cost analysis. Fuel, 2020, 278, 118403.	3.4	12
599	Protein-based biorefining driven by nitrogen-responsive transcriptional machinery. Biotechnology for Biofuels, 2020, 13, 29.	6.2	6
600	Merger of Whole Cell Biocatalysis with Organocatalysis Upgrades Alcohol Feedstocks in a Mild, Aqueous, One-Pot Process. ACS Sustainable Chemistry and Engineering, 2020, 8, 4114-4119.	3.2	17
601	Metabolic Engineering of Clostridium cellulovorans to Improve Butanol Production by Consolidated Bioprocessing. ACS Synthetic Biology, 2020, 9, 304-315.	1.9	35
602	Bio-based production of chemicals through metabolic engineering. , 2020, , 171-202.		1
603	Effect of Catalyst Structure and Acidâ€“Base Property on the Multiproduct Upgrade of Ethanol and Acetaldehyde to C₄ (Butadiene and Butanol) over the Yâ€“SiO₂ Catalysts. ACS Sustainable Chemistry and Engineering, 2020, 8, 1555-1565.	3.2	39

#	Article	IF	Citations
604	Substrate Analysis for Effective Biofuels Production. Clean Energy Production Technologies, 2020, , .	0.3	3
605	Genetic manipulation of nonâ€solventâ€producing microbial species for effective butanol production. Biofuels, Bioproducts and Biorefining, 2021, 15, 119-130.	1.9	5
606	How to outwit nature: Omics insight into butanol tolerance. Biotechnology Advances, 2021, 46, 107658.	6.0	12
607	Biomass-based biorefineries: An important architype towards a circular economy. Fuel, 2021, 288, 119622.	3.4	147
608	Overview of Current Developments in Biobutanol Production Methods and Future Perspectives. Methods in Molecular Biology, 2021, 2290, 3-21.	0.4	3
609	Modulating redox metabolism to improve isobutanol production in Shimwellia blattae. Biotechnology for Biofuels, 2021, 14, 8.	6.2	15
610	Metabolic energy conservation for fermentative product formation. Microbial Biotechnology, 2021, 14, 829-858.	2.0	12
611	Proteomic Analysis Identifies Dysregulated Proteins in Butanol-Tolerant Gram-Positive Lactobacillus mucosae BR0713â€“33. ACS Omega, 2021, 6, 4034-4043.	1.6	5
612	Principles and practice of designing microbial biocatalysts for fuel and chemical production. Journal of Industrial Microbiology and Biotechnology, 2022, 49, .	1.4	3
613	Control of n-Butanol Induced Lipidome Adaptations in E. coli. Metabolites, 2021, 11, 286.	1.3	2
615	Dual-functional antibiofilm polymer composite for biodegradable medical devices. Materials Science and Engineering C, 2021, 123, 111985.	3.8	9
616	Development of Clostridium saccharoperbutylacetonicum as a Whole Cell Biocatalyst for Production of Chirally Pure (R)-1,3-Butanediol. Frontiers in Bioengineering and Biotechnology, 2021, 9, 659895.	2.0	4
617	Strategies for optimizing acetyl-CoA formation from glucose in bacteria. Trends in Biotechnology, 2022, 40, 149-165.	4.9	21
618	Analysis of metabolic network disruption in engineered microbial hosts due to enzyme promiscuity. Metabolic Engineering Communications, 2021, 12, e00170.	1.9	7
621	Escherichia coli as a platform microbial host for systems metabolic engineering. Essays in Biochemistry, 2021, 65, 225-246.	2.1	22
623	Rhenium Complexes Bearing Tridentate and Bidentate Phosphinoamine Ligands in the Production of Biofuel Alcohols via the Guerbet Reaction. Organometallics, 2021, 40, 2844-2851.	1.1	4
624	WinBEST-KIT: Biochemical Reaction Simulator for Analyzing Multi-Layered Metabolic Pathways. Bioengineering, 2021, 8, 114.	1.6	0
625	Recent Progress and Trends in the Development of Microbial Biofuels from Solid Wasteâ€”A Review. Energies, 2021, 14, 6011.	1.6	7

#	Article	IF	Citations
626	Management of microbial enzymes for biofuels and biogas production by using metagenomic and genome editing approaches. 3 Biotech, 2021, 11, 429.	1.1	3
627	Growth-Based, High-Throughput Selection for NADH Preference in an Oxygen-Dependent Biocatalyst. ACS Synthetic Biology, 2021, 10, 2359-2370.	1.9	10
628	Application of biomass derived products in mid-size automotive industries: A review. Chemosphere, 2021, 280, 130723.	4.2	32
629	Multi-feedstock lignocellulosic biorefineries based on biological processes: An overview. Industrial Crops and Products, 2021, 172, 114062.	2.5	20
630	Interfacing non-enzymatic catalysis with living microorganisms. RSC Chemical Biology, 2021, 2, 1073-1083.	2.0	16
631	Escherichia coli, the workhorse cell factory for the production of chemicals. , 2021, , 115-137.		3
632	Identification and expression of a CHMO from the Pseudomonas aeruginosa strain Pa1242: application to the bioconversion of Cyreneâ„¢ into a key precursor (S)-Î³-hydroxymethyl-butyrolactone. Green Chemistry, 2021, 23, 2694-2702.	4.6	2
633	Clostridia and Process Engineering for Energy Generation. , 0, , 347-358.		3
634	The Economics of Current and Future Biofuels. , 2011, , 37-69.		13
635	C3â€“C4 Platform Chemicals Bioproduction Using Biomass. , 2014, , 473-489.		2
636	Heterologous Pathway Engineering. , 2016, , 31-52.		4
637	Mechanisms and Applications of Microbial Solvent Tolerance. Microbiology Monographs, 2012, , 177-208.	0.3	3
638	Bioenergy from Microorganisms: An Overview. Advances in Photosynthesis and Respiration, 2014, , 3-21.	1.0	5
639	Algal Butanol Production. Clean Energy Production Technologies, 2020, , 33-50.	0.3	1
640	Acetyl-CoA-derived biofuel and biochemical production in cyanobacteria: a mini review. Journal of Applied Phycology, 2020, 32, 1643-1653.	1.5	21
641	Biobutanol Production From Renewable Resources. Advances in Bioenergy, 2016, 1, 1-68.	0.5	8
642	Converting Escherichia coli MG1655 into a chemical overproducer through inactivating defense system against exogenous DNA. Synthetic and Systems Biotechnology, 2020, 5, 333-342.	1.8	10
643	Metabolic engineering for the production of butanol, a potential advanced biofuel, from renewable resources. Biochemical Society Transactions, 2020, 48, 2283-2293.	1.6	7

#	Article	IF	Citations
646	Development of chromosome-based T7 RNA polymerase and orthogonal T7 promoter circuit in Escherichia coli W3110 as a cell factory. Bioresources and Bioprocessing, 2020, 7, .	2.0	20
647	Phenotype Sequencing: Identifying the Genes That Cause a Phenotype Directly from Pooled Sequencing of Independent Mutants. PLoS ONE, 2011, 6, e16517.	1.1	20
648	ToMI-FBA: A genome-scale metabolic flux based algorithm to select optimum hosts and media formulations for expressing pathways of interest. AIMS Bioengineering, 2015, 2, 335-374.	0.6	6
649	Metabolic Engineering of <i>Thermoanaerobacterium thermosaccharolyticum</i> for Increased n-Butanol Production. Advances in Microbiology, 2013, 03, 46-51.	0.3	30
650	Evaluation of Carbon and Electron Flow in <i>Lactobacillus brevis</i> as a Potential Host for Heterologous 1-Butanol Biosynthesis. Advances in Microbiology, 2013, 03, 450-461.	0.3	3
651	The Past, Present, and Future of Biofuels â€“ Biobutanol as Promising Alternative. , 0, , .		7
652	Tunable hybrid carbon metabolism coordination for the carbon-efficient biosynthesis of 1,3-butanediol inEscherichia coli. Green Chemistry, 2021, 23, 8694-8706.	4.6	17
655	Dynamic metabolic engineering of Escherichia coli improves fermentation for the production of pyruvate and its derivatives. Journal of Bioscience and Bioengineering, 2022, 133, 56-63.	1.1	5
656	Recent progress on n-butanol production by lactic acid bacteria. World Journal of Microbiology and Biotechnology, 2021, 37, 205.	1.7	2
657	Metabolic Regulation Analysis and Metabolic Engineering. , 2011, , 541-554.		1
658	Cellular Responses to Alcohol in Escherichia coli, Clostridium acetobutylicum, and Saccharomyces cerevisiae. Korean Chemical Engineering Research, 2011, 49, 105-108.	0.2	0
659	Open Access Research in Biological Networks Will Facilitate Advances in Network-Based Paradigms for Biomedicine and Biofuel Production. , 2012, 02, .		0
660	Transcriptional Analysis Responding to Propanol Stress in Escherichia coli. Journal of Life Science, 2012, 22, 417-427.	0.2	8
661	Isolation and Characterization of n-Butanol Tolerant Microorganisms. Lecture Notes in Electrical Engineering, 2014, , 1057-1066.	0.3	0
663	Production of Metabolites and Heterologous Proteins. , 2014, , 299-326.		1
664	Engineering Central Metabolism for Production of Higher Alcohol-based Biofuels. , 2016, , 1-34.		3
665	Conversion of Glucose and Gluconate to Ethanol in Mineral Salts Medium using Recombinant Escherichia coli Strains. Fermentation Technology, 2016, 05, .	0.1	0
667	Industrial biotechnology: Its applications in food and chemical industries. , 2016, , 517-527.		0

#	Article	IF	Citations
668	Production of Fatty Acids and Derivatives by Metabolic Engineering of Bacteria. , 2017, , 1-24.		0
669	Production of Fatty Acids and Derivatives by Metabolic Engineering of Bacteria. , 2017, , 435-458.		0
670	Biofuels from Protein-Rich Lignocellulosic Biomass: New Approach. Biofuel and Biorefinery Technologies, 2019, , 83-92.	0.1	0
672	Bacteria for Butanol Production: Bottlenecks, Achievements and Prospects. Journal of Pure and Applied Microbiology, 2019, 13, 1429-1440.	0.3	1
673	Cyanobacterial Biofuel Production: Current Development, Challenges and Future Needs. Biofuel and Biorefinery Technologies, 2020, , 35-62.	0.1	2
676	Biobutanol, the forgotten biofuel candidate: latest research and future directions. , 2022, , 315-328.		2
677	Synthetic Biology and Future Production of Biofuels and Highâ€“Value Products. , 2020, , 271-302.		4
678	A short look at microbial producers of biobutanol: New trends, potentialities and limitations. Journal on Processing and Energy in Agriculture, 2020, 24, 100-104.	0.3	0
679	n-Butanol production by Rhodopseudomonas palustris TIE-1. Communications Biology, 2021, 4, 1257.	2.0	20
681	Homogeneous Catalysis for Sustainable Energy: Hydrogen and Methanol Economies, Fuels from Biomass, and Related Topics. Chemical Reviews, 2022, 122, 385-441.	23.0	223
682	Adaptive laboratory evolution for improved tolerance of isobutyl acetate in Escherichia coli. Metabolic Engineering, 2022, 69, 50-58.	3.6	13
683	Production of Metabolites and Heterologous Proteins. , 2014, , 299-326.		0
685	Waste biomass to biobutanol: recent trends and advancements. , 2022, , 393-423.		5
687	Role of Biofuels in Energy Transition, Green Economy and Carbon Neutrality. Sustainability, 2021, 13, 12374.	1.6	37
688	Controlling selectivity of modular microbial biosynthesis of butyryl-CoA-derived designer esters. Metabolic Engineering, 2022, 69, 262-274.	3.6	11
689	Advanced biofuels: Perspectives and possibilities. , 2022, , 21-38.		0
690	Microbial CO2 fixation and biotechnology in reducing industrial CO2 emissions. Archives of Microbiology, 2022, 204, 149.	1.0	16
691	Harnessing plasmid replication mechanism to enable dynamic control of gene copy in bacteria. Metabolic Engineering, 2022, 70, 67-78.	3.6	16

#	Article	IF	Citations
692	Synthetic metabolic pathways for conversion of CO2 into secreted short-to medium-chain hydrocarbons using cyanobacteria. Metabolic Engineering, 2022, 72, 14-23.	3.6	20
694	Metabolic engineering of Escherichia coli for efficient biosynthesis of butyl acetate. Microbial Cell Factories, 2022, 21, 28.	1.9	6
695	Engineering Transcription Factor BmoR Mutants for Constructing Multifunctional Alcohol Biosensors. ACS Synthetic Biology, 2022, 11, 1251-1260.	1.9	7
696	Advances in microbial metabolic engineering for the production of butanol isomers (isobutanol and) Tj ETQq1 1 0.784314 rgBT /Overlo	2.2	4
697	Synthetic Biology Tool Development Advances Predictable Gene Expression in the Metabolically Versatile Soil Bacterium Rhodopseudomonas palustris. Frontiers in Bioengineering and Biotechnology, 2022, 10, 800734.	2.0	4
698	Engineering E. coli to synthesize butanol. Biochemical Society Transactions, 2022, 50, 867-876.	1.6	7
699	Recent advances in biofuel production through metabolic engineering. Bioresource Technology, 2022, 352, 127037.	4.8	36
700	Microbial pathways for advanced biofuel production. Biochemical Society Transactions, 2022, 50, 987-1001.	1.6	8
701	Metabolomics-Driven Identification of the Rate-Limiting Steps in 1-Propanol Production. Frontiers in Microbiology, 2022, 13, 871624.	1.5	4
719	An updated review on advancement in fermentative production strategies for biobutanol using Clostridium spp.. Environmental Science and Pollution Research, 2022, 29, 47988-48019.	2.7	9
720	Application of proteomics and metabolomics in microbiology research. , 2022, , 107-129.		0
721	Biofuel production from renewable feedstocks: Progress through metabolic engineering. , 2022, , 417-448.		1
722	Bioengineering in microbial production of biobutanol from renewable resources. , 2022, , 307-334.		1
723	Valorization of Ethanol: Ruthenium-Catalyzed Guerbet and Sequential Functionalization Processes. ACS Catalysis, 2022, 12, 6729-6736.	5.5	14
724	Trends in Synthetic Biology in the Bioeconomy of Non-Food-Competing Biofuels. SynBio, 2022, 1, 33-53.	1.6	1
725	Improving isoprenol productionviasystematic CRISPRi screening in engineeredEscherichia coli. Green Chemistry, 2022, 24, 6955-6964.	4.6	7
726	Current Applications of Enzymes in GM (Genetically Modified) Food Development and Food Chain. , 2022, , 383-409.		0
727	Biobutanol. Green Energy and Technology, 2022, , 51-89.	0.4	0

#	Article	IF	Citations
730	Agricultural Lignocellulosic Waste for Bioethanol Production. Clean Energy Production Technologies, 2022, , 271-308.	0.3	0
731	Efficient Production of 2,4-Dihydroxybutyrate from <scp>l</scp>-Homoserine by the Designed Cofactor Self-Sufficient Route. ACS Sustainable Chemistry and Engineering, 2022, 10, 14361-14369.	3.2	1
732	Isobutanol production by combined in vivo and in vitro metabolic engineering. Metabolic Engineering Communications, 2022, 15, e00210.	1.9	4
733	Biosensor-assisted titratable CRISPRi high-throughput (BATCH) screening for over-production phenotypes. Metabolic Engineering, 2023, 75, 58-67.	3.6	14
734	Bio-butanol production: scope, significance, and applications. , 2023, , 1-45.		0
735	Biobutanol fermentation research and development: feedstock, process and biofuel production. , 2023, , 79-103.		2
736	Insights into metabolic engineering approaches for enhanced biobutanol production. , 2023, , 329-361.		0
737	Economic analysis of biobutanol recovery from the acetone-butanol-ethanol fermentation using molasses. Journal of the Indian Chemical Society, 2023, 100, 100809.	1.3	1
738	Quantitative Methods for Metabolite Analysis in Metabolic Engineering. Biotechnology and Bioprocess Engineering, 2023, 28, 949-961.	1.4	0
739	Protein engineering strategies for tailoring the physical and catalytic properties of enzymes for defined industrial applications. Current Protein and Peptide Science, 2023, 24, .	0.7	0
741	A dynamic kinetic model captures cell-free metabolism for improved butanol production. Metabolic Engineering, 2023, 76, 133-145.	3.6	7
742	Bacterial metabolic engineering for the production of second-generation (2ÂG) bioethanol and biobutanol; a review. Journal of Applied Microbiology, 2023, 134, .	1.4	4
743	Advances in biosynthesis of higher alcohols in Escherichia coli. World Journal of Microbiology and Biotechnology, 2023, 39, .	1.7	4
749	Higher alcohols: metabolic pathways and engineering strategies for enhanced production. , 2024, , 19-65.		0
762	Production and Characterization of Bio-alcohols from Agricultural Wastes. Clean Energy Production Technologies, 2024, , 147-174.	0.3	0
763	Production Of Branched Chain Higher Alcohols From Cellulosic Sugars. , 2024, , 1-29.		0