Shota Atsumi

List of Publications by Year
in descending order

58 papers	7,902 citations	100601 38 h-index	162838 57 g-index
59 all docs	59 docs citations	59 times ranked	6744 citing authors

#	Article	IF	Citations
1	Adaptive laboratory evolution for improved tolerance of isobutyl acetate in Escherichia coli. Metabolic Engineering, 2022, 69, 50-58.	3.6	13
2	Light-induced production of isobutanol and 3-methyl-1-butanol by metabolically engineered cyanobacteria. Microbial Cell Factories, 2022, 21, 7.	1.9	10
3	Synthetic Biology Approaches for Improving Chemical Production in Cyanobacteria. Frontiers in Bioengineering and Biotechnology, 2022, 10, 869195.	2.0	8
4	Microbial production of human milk oligosaccharide lactodifucotetraose. Metabolic Engineering, 2021, 66, 12-20.	3.6	14
5	Application of an engineered chromatic acclimation sensor for red-light-regulated gene expression in cyanobacteria. Algal Research, 2019, 44, 101691.	2.4	9
6	Nonphotosynthetic Biological CO₂ Reduction. Biochemistry, 2019, 58, 1470-1477.	1.2	28
7	Metabolic engineering tools in model cyanobacteria. Metabolic Engineering, 2018, 50, 47-56.	3.6	57
8	Electrical-biological hybrid system for CO2 reduction. Metabolic Engineering, 2018, 47, 211-218.	3.6	83
9	Photomixotrophic chemical production in cyanobacteria. Current Opinion in Biotechnology, 2018, 50, 65-71.	3.3	40
10	Global metabolic rewiring for improved CO2 fixation and chemical production in cyanobacteria. Nature Communications, 2017, 8, 14724.	5.8	159
11	Systematic Approaches to Efficiently Produce 2,3-Butanediol in a Marine Cyanobacterium. ACS Synthetic Biology, 2017, 6, 2136-2144.	1.9	41
12	Carbon recycling by cyanobacteria: improving CO2 fixation through chemical production. FEMS Microbiology Letters, 2017, 364, .	0.7	42
13	Engineering an Obligate Photoautotrophic Cyanobacterium to Utilize Glycerol for Growth and Chemical Production. ACS Synthetic Biology, 2017, 6, 69-75.	1.9	26
14	Cyanobacterial metabolic engineering for biofuel and chemical production. Current Opinion in Chemical Biology, 2016, 35, 43-50.	2.8	143
15	Biological conversion of gaseous alkenes to liquid chemicals. Metabolic Engineering, 2016, 38, 98-104.	3.6	13
16	Cyanobacterial chemical production. Journal of Biotechnology, 2016, 231, 106-114.	1.9	48
17	2,3 Butanediol production in an obligate photoautotrophic cyanobacterium in dark conditions via diverse sugar consumption. Metabolic Engineering, 2016, 36, 28-36.	3.6	39
18	Microbial production of scent and flavor compounds. Current Opinion in Biotechnology, 2016, 37, 8-15.	3.3	103

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19	Isobutanol production from cellobionic acid in Escherichia coli. Microbial Cell Factories, 2015, 14, 52.	1.9	46
20	Genome Engineering of the 2,3-Butanediol Biosynthetic Pathway for Tight Regulation in Cyanobacteria. ACS Synthetic Biology, 2015, 4, 1197-1204.	1.9	40
21	Two-dimensional isobutyl acetate production pathways to improve carbon yield. Nature Communications, 2015, 6, 7488.	5.8	44
22	A carbon sink pathway increases carbon productivity in cyanobacteria. Metabolic Engineering, 2015, 29, 106-112.	3.6	66
23	2-Keto acids based biosynthesis pathways for renewable fuels and chemicals. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 361-373.	1.4	32
24	Engineering trophic diversity into photosynthetic microbes. Biofuels, 2014, 5, 199-201.	1.4	0
25	Isobutanol production from cellobiose in Escherichia coli. Applied Microbiology and Biotechnology, 2014, 98, 3727-3736.	1.7	45
26	Expanding ester biosynthesis in Escherichia coli. Nature Chemical Biology, 2014, 10, 259-265.	3.9	179
27	Metabolic design for cyanobacterial chemical synthesis. Photosynthesis Research, 2014, 120, 249-261.	1.6	118
28	Biological Production of 2â€Butanone in <i>Escherichia coli</i>. ChemSusChem, 2014, 7, 92-95.	3.6	50
29	Metabolic engineering for higher alcohol production. Metabolic Engineering, 2014, 25, 174-182.	3.6	42
30	Toward aldehyde and alkane production by removing aldehyde reductase activity in Escherichia coli. Metabolic Engineering, 2014, 25, 227-237.	3.6	121
31	Combinatorial optimization of cyanobacterial 2,3-butanediol production. Metabolic Engineering, 2014, 22, 76-82.	3.6	98
32	Engineering a synthetic pathway in cyanobacteria for isopropanol production directly from carbon dioxide and light. Metabolic Engineering, 2013, 20, 101-108.	3.6	128
33	Synthetic Biology and Metabolic Engineering Approaches To Produce Biofuels. Chemical Reviews, 2013, 113, 4611-4632.	23.0	155
34	Photosynthetic approaches to chemical biotechnology. Current Opinion in Biotechnology, 2013, 24, 1031-1036.	3.3	42
35	Engineering Synechococcus elongatus PCC 7942 for Continuous Growth under Diurnal Conditions. Applied and Environmental Microbiology, 2013, 79, 1668-1675.	1.4	71
36	Cyanobacterial conversion of carbon dioxide to 2,3-butanediol. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1249-1254.	3.3	341

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37	Cyanobacteria as a Platform for Biofuel Production. Frontiers in Bioengineering and Biotechnology, 2013, 1, 7.	2.0	172
38	Recent progress in synthetic biology for microbial production of C3â€“C10 alcohols. Frontiers in Microbiology, 2012, 3, 196.	1.5	51
39	Synthetic Biology Approaches to Produce C3-C6 Alcohols from Microorganisms. Current Chemical Biology, 2012, 6, 32-41.	0.2	2
40	Cyanobacterial biofuel production. Journal of Biotechnology, 2012, 162, 50-56.	1.9	243
41	Isobutyraldehyde production from Escherichia coli by removing aldehyde reductase activity. Microbial Cell Factories, 2012, 11, 90.	1.9	103
42	Alternative biofuel production in non-natural hosts. Current Opinion in Biotechnology, 2012, 23, 744-750.	3.3	31
43	Synthetic Biology Approaches to Produce C3-C6 Alcohols from Microorganisms. Current Chemical Biology, 2012, 6, 32-41.	0.2	6
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	Evolution, genomic analysis, and reconstruction of isobutanol tolerance in <i>Escherichia coli</i>. Molecular Systems Biology, 2010, 6, 449.	3.2	252
46	Synthetic Biology Guides Biofuel Production. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-9.	3.0	59
47	An agar gel membrane-PDMS hybrid microfluidic device for long term single cell dynamic study. Lab on A Chip, 2010, 10, 2710.	3.1	24
48	Acetolactate Synthase from <i>Bacillus subtilis</i> Serves as a 2-Ketoisovalerate Decarboxylase for Isobutanol Biosynthesis in <i>Escherichia coli</i>. Applied and Environmental Microbiology, 2009, 75, 6306-6311.	1.4	92
49	Direct photosynthetic recycling of carbon dioxide to isobutyraldehyde. Nature Biotechnology, 2009, 27, 1177-1180.	9.4	769
50	Metabolic engineering for advanced biofuels production from Escherichia coli. Current Opinion in Biotechnology, 2008, 19, 414-419.	3.3	275
51	Metabolic engineering of Escherichia coli for 1-butanol production. Metabolic Engineering, 2008, 10, 305-311.	3.6	764
52	Non-fermentative pathways for synthesis of branched-chain higher alcohols as biofuels. Nature, 2008, 451, 86-89.	13.7	1,696
53	Directed Evolution of <i>Methanococcus jannaschii</i> Citramalate Synthase for Biosynthesis of 1-Propanol and 1-Butanol by <i>Escherichia coli</i>. Applied and Environmental Microbiology, 2008, 74, 7802-7808.	1.4	226
54	Engineered Synthetic Pathway for Isopropanol Production in <i>Escherichia coli</i>. Applied and Environmental Microbiology, 2007, 73, 7814-7818.	1.4	251

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55	Role of the lytic repressor in prophage induction of phage Â as analyzed by a module-replacement approach. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4558-4563.	3.3	42
56	A synthetic phage Â regulatory circuit. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19045-19050.	3.3	31
57	Regulatory circuit design and evolution using phage Â. Genes and Development, 2004, 18, 2086-2094.	2.7	34
58	Putative intermediary stages for the molecular evolution from a ribozyme to a catalytic RNP. Nucleic Acids Research, 2003, 31, 1488-1496.	6.5	14