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List of Publications by Year
in descending order

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57 papers	4,429 citations	101384 36 h-index	149479 56 g-index
59 all docs	59 docs citations	59 times ranked	3682 citing authors

#	Article	IF	Citations
1	Genome Sequence and Comparative Analysis of the Solvent-Producing Bacterium Clostridium acetobutylicum. Journal of Bacteriology, 2001, 183, 4823-4838.	1.0	725
2	Molecular characterization of the 1,3-propanediol (1,3-PD) operon of Clostridium butyricum. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5010-5015.	3.3	200
3	Relating diffusion along the substrate tunnel and oxygen sensitivity in hydrogenase. Nature Chemical Biology, 2010, 6, 63-70.	3.9	188
4	Metabolic engineering of Clostridium acetobutylicum for the industrial production of 1,3-propanediol from glycerol. Metabolic Engineering, 2005, 7, 329-336.	3.6	170
5	Regulation of Carbon and Electron Flow in Clostridium butyricum VPI 3266 Grown on Glucose-Glycerol Mixtures. Journal of Bacteriology, 2001, 183, 1748-1754.	1.0	168
6	A new process for the continuous production of succinic acid from glucose at high yield, titer, and productivity. Biotechnology and Bioengineering, 2008, 99, 129-135.	1.7	152
7	Molecular Characterization and Transcriptional Analysis of <i>adhE2</i> , the Gene Encoding the NADH-Dependent Aldehyde/Alcohol Dehydrogenase Responsible for Butanol Production in Alcohologenic Cultures of <i>Clostridium acetobutylicum</i> ATCC 824. Journal of Bacteriology, 2002, 184, 821-830.	1.0	148
8	Insight into the Mechanism of the B12-Independent Glycerol Dehydratase fromClostridium butyricum:Â Preliminary Biochemical and Structural Characterizationâ€¡. Biochemistry, 2004, 43, 4635-4645.	1.2	142
9	Metabolic engineering of Clostridium acetobutylicum ATCC 824 for the high-yield production of a biofuel composed of an isopropanol/butanol/ethanol mixture. Metabolic Engineering, 2013, 18, 1-8.	3.6	136
10	Homologous and Heterologous Overexpression in Clostridium acetobutylicum and Characterization of Purified Clostridial and Algal Fe-Only Hydrogenases with High Specific Activities. Applied and Environmental Microbiology, 2005, 71, 2777-2781.	1.4	128
11	Microbial Conversion of Glycerol to 1,3-Propanediol: Physiological Comparison of a Natural Producer, Clostridium butyricum VPI 3266, and an Engineered Strain, Clostridium acetobutylicum DG1(pSPD5). Applied and Environmental Microbiology, 2006, 72, 96-101.	1.4	126
12	Regulation of metabolic shifts inClostridium acetobutylicumATCC 824. FEMS Microbiology Reviews, 1995, 17, 287-297.	3.9	112
13	Mechanism of O2 diffusion and reduction in FeFe hydrogenases. Nature Chemistry, 2017, 9, 88-95.	6.6	105
14	How neutral red modified carbon and electron flow inClostridium acetobutylicumgrown in chemostat culture at neutral pH. FEMS Microbiology Reviews, 1995, 16, 151-162.	3.9	91
15	Comparative study of cellulases and hemicellulases from four fungi: mesophiles Trichoderma reesei and Penicillium sp. and thermophiles Thielavia terrestris and Sporotrichum cellulophilum. Enzyme and Microbial Technology, 1984, 6, 175-180.	1.6	90
16	The oxidative inactivation of FeFe hydrogenase reveals the flexibility of the H-cluster. Nature Chemistry, 2014, 6, 336-342.	6.6	83
17	Comparative Genomic Analysis of dha Regulon and Related Genes for Anaerobic Glycerol Metabolism in Bacteria. Biotechnology Progress, 2003, 19, 263-272.	1.3	81
18	Covalent Attachment of FeFe Hydrogenases to Carbon Electrodes for Direct Electron Transfer. Analytical Chemistry, 2012, 84, 7999-8005.	3.2	78

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19	Optimized over-expression of [FeFe] hydrogenases with high specific activity in Clostridium acetobutylicum. International Journal of Hydrogen Energy, 2008, 33, 6076-6081.	3.8	77
20	Reviving the Weizmann process for commercial n-butanol production. Nature Communications, 2018, 9, 3682.	5.8	76
21	Regulation of solvent production in Clostridium acetobutylicum. Trends in Biotechnology, 1998, 16, 11-16.	4.9	74
22	Evolution of a Saccharomyces cerevisiae metabolic pathway in Escherichia coli. Metabolic Engineering, 2007, 9, 152-159.	3.6	73
23	Complete activity profile of<i>Clostridium acetobutylicum</i>[FeFe]-hydrogenase and kinetic parameters for endogenous redox partners. FEMS Microbiology Letters, 2007, 275, 113-121.	0.7	70
24	The quest for a functional substrate access tunnel in FeFe hydrogenase. Faraday Discussions, 2011, 148, 385-407.	1.6	70
25	Response of the central metabolism of <i>Escherichia coli</i> to modified expression of the gene encoding the glucoseâ€6â€phosphate dehydrogenase. FEBS Letters, 2007, 581, 3771-3776.	1.3	65
26	Development of a Sensitive Gene Expression Reporter System and an Inducible Promoter-Repressor System for Clostridium acetobutylicum. Applied and Environmental Microbiology, 2003, 69, 4985-4988.	1.4	64
27	CO Disrupts the Reduced H-Cluster of FeFe Hydrogenase. A Combined DFT and Protein Film Voltammetry Study. Journal of the American Chemical Society, 2011, 133, 2096-2099.	6.6	62
28	A Quantitative System-Scale Characterization of the Metabolism of Clostridium acetobutylicum. MBio, 2015, 6, e01808-15.	1.8	60
29	Steady-State Catalytic Wave-Shapes for 2-Electron Reversible Electrocatalysts and Enzymes. Journal of the American Chemical Society, 2013, 135, 3926-3938.	6.6	57
30	Characterization of the CipA Scaffolding Protein and In Vivo Production of a Minicellulosome in Clostridium acetobutylicum. Journal of Bacteriology, 2003, 185, 1092-1096.	1.0	53
31	Electrochemical Measurements of the Kinetics of Inhibition of Two FeFe Hydrogenases by O₂ Demonstrate That the Reaction Is Partly Reversible. Journal of the American Chemical Society, 2015, 137, 12580-12587.	6.6	51
32	The mechanism of inhibition by H2 of H2-evolution by hydrogenases. Chemical Communications, 2013, 49, 6840.	2.2	48
33	New Tool for Metabolic Pathway Engineering in Escherichia coli : One-Step Method To Modulate Expression of Chromosomal Genes. Applied and Environmental Microbiology, 2005, 71, 2140-2144.	1.4	47
34	Butanol tolerance and autobacteriocin production byClostridium acetobutylicum. Current Microbiology, 1987, 14, 295-299.	1.0	45
35	Modulation of metabolism ofClostridium acetobutylicum grown in chemostat culture in a three-electrode potentiostatic system with methyl viologen as electron carrier. , 1996, 51, 342-348.		45
36	Stress-induced evolution of Escherichia coli points to original concepts in respiratory cofactor selectivity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1278-1283.	3.3	45

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37	Construction of a restriction-less, marker-less mutant useful for functional genomic and metabolic engineering of the biofuel producer Clostridium acetobutylicum. Biotechnology for Biofuels, 2016, 9, 23.	6.2	38
38	FeFe hydrogenase reductive inactivation and implication for catalysis. Energy and Environmental Science, 2014, 7, 715-719.	15.6	35
39	Characterization of Two 2[4Fe4S] Ferredoxins from Clostridium acetobutylicum. Current Microbiology, 2008, 56, 261-267.	1.0	33
40	Elucidation of the roles of adhE1 and adhE2 in the primary metabolism of Clostridium acetobutylicum by combining in-frame gene deletion and a quantitative system-scale approach. Biotechnology for Biofuels, 2016, 9, 92.	6.2	33
41	Roles of the F-domain in [FeFe] hydrogenase. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 69-77.	0.5	32
42	Solvent-forming genes in clostridia. Nature, 1996, 380, 489-489.	13.7	29
43	Trends in Systems Biology for the Analysis and Engineering of Clostridium acetobutylicum Metabolism. Trends in Microbiology, 2020, 28, 118-140.	3.5	29
44	Reactivity of the Excited States of the H-Cluster of FeFe Hydrogenases. Journal of the American Chemical Society, 2016, 138, 13612-13618.	6.6	25
45	Acetonobutylic fermentation byClostridium acetobutylicum ATCC 824: Autobacteriocin production, properties, and effects. Current Microbiology, 1986, 13, 163-169.	1.0	22
46	Metabolic flexibility of a butyrate pathway mutant of Clostridium acetobutylicum. Metabolic Engineering, 2017, 40, 138-147.	3.6	22
47	amyP, a reporter gene to study strain degeneration inClostridium acetobutylicumATCC 824. FEMS Microbiology Letters, 2002, 210, 93-98.	0.7	21
48	Photoinhibition of FeFe Hydrogenase. ACS Catalysis, 2017, 7, 7378-7387.	5.5	17
49	Metabolism of lactose by Clostridium thermolacticum growing in continuous culture. Archives of Microbiology, 2006, 185, 331-339.	1.0	15
50	Molecular Characterization of the Glycerol-Oxidative Pathway of Clostridium butyricum VPI 1718. Journal of Bacteriology, 2011, 193, 3127-3134.	1.0	15
51	Transcript Quantification Based on Chemical Labeling of RNA Associated with Fluorescent Detection. Analytical Biochemistry, 2001, 298, 246-252.	1.1	12
52	An efficient method for markerless mutant generation by allelic exchange in Clostridium acetobutylicum and Clostridium saccharobutylicum using suicide vectors. Biotechnology for Biofuels, 2019, 12, 31.	6.2	11
53	Effects of various alcoholic supplements on the growth rate of Clostridium acetobutylicum ATCC 824. Applied Microbiology and Biotechnology, 1989, 31, 179-183.	1.7	10
54	A tentative physiological model of batch acetonobutylic fermentation. Applied Microbiology and Biotechnology, 1992, 37, 714-717.	1.7	9

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55	Improved CRISPR/Cas9 Tools for the Rapid Metabolic Engineering of Clostridium acetobutylicum. International Journal of Molecular Sciences, 2021, 22, 3704.	1.8	7
56	Physicochemical and metabolic constraints for thermodynamics-based stoichiometric modelling under mesophilic growth conditions. PLoS Computational Biology, 2021, 17, e1007694.	1.5	5
57	Creation of New Metabolic Pathways or Improvement of Existing Metabolic Enzymes by In Vivo Evolution in Escherichia coli. Methods in Molecular Biology, 2012, 834, 75-86.	0.4	4