George N Bennett

List of Publications by Citations

192 papers	8,377 citations	51 h-index	83 g-index
195 ext. papers	9,053 ext. citations	5.7 avg, IF	5.92 L-index

#	Paper	IF	Citations
192	Genome sequence and comparative analysis of the solvent-producing bacterium Clostridium acetobutylicum. *Journal of Bacteriology*, **2001**, 183, 4823-38	3.5	656
191	Construction and analysis of in vivo activity of E. coli promoter hybrids and promoter mutants that alter the -35 to -10 spacing. *Gene*, **1982**, 20, 231-43	3.8	227
190	Metabolic engineering of Escherichia coli: increase of NADH availability by overexpressing an NAD(+)-dependent formate dehydrogenase. *Metabolic Engineering*, **2002**, 4, 217-29	9.7	224
189	Metabolic engineering through cofactor manipulation and its effects on metabolic flux redistribution in Escherichia coli. *Metabolic Engineering*, **2002**, 4, 182-92	9.7	203
188	Novel pathway engineering design of the anaerobic central metabolic pathway in Escherichia coli to increase succinate yield and productivity. *Metabolic Engineering*, **2005**, 7, 229-39	9.7	202
187	Metabolic engineering of Clostridium acetobutylicum ATCC 824 for isopropanol-butanol-ethanol fermentation. *Applied and Environmental Microbiology*, **2012**, 78, 1416-23	4.8	190
186	Expression of cloned homologous fermentative genes in Clostridium acetobutylicum ATCC 824. *Nature Biotechnology*, **1992**, 10, 190-5	44.5	165
185	Metabolic engineering of aerobic succinate production systems in Escherichia coli to improve process productivity and achieve the maximum theoretical succinate yield. *Metabolic Engineering*, **2005**, 7, 116-27	9.7	161
184	Succinate production in Escherichia coli. *Biotechnology Journal*, **2012**, 7, 213-24	5.6	138
183	The effect of increasing NADH availability on the redistribution of metabolic fluxes in Escherichia coli chemostat cultures. *Metabolic Engineering*, **2002**, 4, 230-7	9.7	116
182	Sequence analysis of operator constitutive mutants of the tryptophan operon of Escherichia coli. *Journal of Molecular Biology*, **1978**, 121, 179-92	6.5	116
181	Biodegradation of xenobiotics by anaerobic bacteria. *Applied Microbiology and Biotechnology*, **2005**, 67, 600-18	5.7	114
180	Nucleotide sequences of the trpG regions of Escherichia coli, Shigella dysenteriae, Salmonella typhimurium and Serratia marcescens. *Journal of Molecular Biology*, **1980**, 142, 503-17	6.5	114
179	Cofactor engineering for advancing chemical biotechnology. *Current Opinion in Biotechnology*, **2013** , 24, 994-9	11.4	105
178	Replacing Escherichia coli NAD-dependent glyceraldehyde 3-phosphate dehydrogenase (GAPDH) with a NADP-dependent enzyme from Clostridium acetobutylicum facilitates NADPH dependent pathways. *Metabolic Engineering*, **2008**, 10, 352-9	9.7	102
177	Fed-batch culture of a metabolically engineered Escherichia coli strain designed for high-level succinate production and yield under aerobic conditions. *Biotechnology and Bioengineering*, **2005**, 90, 775-9	4.9	102
176	Effect of oxygen, and ArcA and FNR regulators on the expression of genes related to the electron transfer chain and the TCA cycle in Escherichia coli. *Metabolic Engineering*, **2005**, 7, 364-74	9.7	100

175	Effect of ArcA and FNR on the expression of genes related to the oxygen regulation and the glycolysis pathway in Escherichia coli under microaerobic growth conditions. *Biotechnology and Bioengineering*, **2005**, 92, 147-59	4.9	100
174	Efficient succinic acid production from glucose through overexpression of pyruvate carboxylase in an Escherichia coli alcohol dehydrogenase and lactate dehydrogenase mutant. *Biotechnology Progress*, **2005**, 21, 358-65	2.8	99
173	Characterization of the acetate-producing pathways in Escherichia coli. *Biotechnology Progress*, **2005**, 21, 1062-7	2.8	99
172	Effect of oxygen on the Escherichia coli ArcA and FNR regulation systems and metabolic responses. *Biotechnology and Bioengineering*, **2005**, 89, 556-64	4.9	99
171	Genetic reconstruction of the aerobic central metabolism in Escherichia coli for the absolute aerobic production of succinate. *Biotechnology and Bioengineering*, **2005**, 89, 148-56	4.9	98
170	Acetyl-CoA synthetase overexpression in Escherichia coli demonstrates more efficient acetate assimilation and lower acetate accumulation: a potential tool in metabolic engineering. *Applied Microbiology and Biotechnology*, **2006**, 71, 870-4	5.7	95
169	Microbial formation of esters. *Applied Microbiology and Biotechnology*, **2009**, 85, 13-25	5.7	88
168	Metabolic engineering of Clostridium acetobutylicum ATCC 824 for increased solvent production by enhancement of acetone formation enzyme activities using a synthetic acetone operon. *Biotechnology and Bioengineering*, **1993**, 42, 1053-60	4.9	88
167	Expression of a cloned cyclopropane fatty acid synthase gene reduces solvent formation in Clostridium acetobutylicum ATCC 824. *Applied and Environmental Microbiology*, **2003**, 69, 2831-41	4.8	87
166	Comparison of the nucleotide sequences of the initial transcribed regions of the tryptophan operons of Escherichia coli and Salmonella typhimurium. *Journal of Molecular Biology*, **1978**, 121, 193-217	6.5	86
165	Intracellular butyryl phosphate and acetyl phosphate concentrations in Clostridium acetobutylicum and their implications for solvent formation. *Applied and Environmental Microbiology*, **2005**, 71, 530-7	4.8	85
164	Effect of modified glucose uptake using genetic engineering techniques on high-level recombinant protein production in escherichia coli dense cultures. *Biotechnology and Bioengineering*, **1994**, 44, 952-60	4.9	84
163	Regulation of the sol locus genes for butanol and acetone formation in Clostridium acetobutylicum ATCC 824 by a putative transcriptional repressor. *Journal of Bacteriology*, **1999**, 181, 319-30	3.5	83
162	Metabolic engineering of Escherichia coli to minimize byproduct formate and improving succinate productivity through increasing NADH availability by heterologous expression of NAD(+)-dependent formate dehydrogenase. *Metabolic Engineering*, **2013**, 20, 1-8	9.7	81
161	Effect of overexpression of a soluble pyridine nucleotide transhydrogenase (UdhA) on the production of poly(3-hydroxybutyrate) in Escherichia coli. *Biotechnology Progress*, **2006**, 22, 420-5	2.8	81
160	Isolation and Characterization of Mutants of Clostridium acetobutylicum ATCC 824 Deficient in Acetoacetyl-Coenzyme A:Acetate/Butyrate:Coenzyme A-Transferase (EC 2.8.3.9) and in Other Solvent Pathway Enzymes. *Applied and Environmental Microbiology*, **1989**, 55, 970-6	4.8	76
159	Mutagenicity of nitroaromatic degradation compounds. *Environmental Toxicology and Chemistry*, **2003**, 22, 2293-7	3.8	75
158	Modification of central metabolic pathway in escherichia coli to reduce acetate accumulation by heterologous expression of the bacillus subtilis acetolactate synthase gene. *Biotechnology and Bioengineering*, **1994**, 44, 944-51	4.9	75

157	Batch culture characterization and metabolic flux analysis of succinate-producing Escherichia coli strains. *Metabolic Engineering*, **2006**, 8, 209-26	9.7	73
156	Enhanced lycopene productivity by manipulation of carbon flow to isopentenyl diphosphate in Escherichia coli. *Biotechnology Progress*, **2005**, 21, 1558-61	2.8	67
155	2,4,6-trinitrotoluene reduction by carbon monoxide dehydrogenase from Clostridium thermoaceticum. *Applied and Environmental Microbiology*, **2000**, 66, 1474-8	4.8	66
154	Metabolic flux analysis of Escherichia coli deficient in the acetate production pathway and expressing the Bacillus subtilis acetolactate synthase. *Metabolic Engineering*, **1999**, 1, 26-34	9.7	65
153	Increasing the acetyl-CoA pool in the presence of overexpressed phosphoenolpyruvate carboxylase or pyruvate carboxylase enhances succinate production in Escherichia coli. *Biotechnology Progress*, **2004**, 20, 1599-604	2.8	63
152	Redistribution of metabolic fluxes in Escherichia coli with fermentative lactate dehydrogenase overexpression and deletion. *Metabolic Engineering*, **1999**, 1, 141-52	9.7	62
151	Molecular characterization of adiY, a regulatory gene which affects expression of the biodegradative acid-induced arginine decarboxylase gene (adiA) of Escherichia coli. *Microbiology (United Kingdom)*, **1996**, 142 (Pt 5), 1311-1320	2.9	62
150	Cofactor engineering of intracellular CoA/acetyl-CoA and its effect on metabolic flux redistribution in Escherichia coli. *Metabolic Engineering*, **2004**, 6, 133-9	9.7	61
149	Effect of Sorghum vulgare phosphoenolpyruvate carboxylase and Lactococcus lactis pyruvate carboxylase coexpression on succinate production in mutant strains of Escherichia coli. *Applied Microbiology and Biotechnology*, **2005**, 67, 515-23	5.7	61
148	The effects of feed and intracellular pyruvate levels on the redistribution of metabolic fluxes in Escherichia coli. *Metabolic Engineering*, **2001**, 3, 115-23	9.7	59
147	Effect of different levels of NADH availability on metabolic fluxes of Escherichia coli chemostat cultures in defined medium. *Journal of Biotechnology*, **2005**, 117, 395-405	3.7	58
146	Metabolic engineering of Escherichia coli to enhance recombinant protein production through acetate reduction. *Biotechnology Progress*, **1995**, 11, 475-8	2.8	58
145	Redistribution of metabolic fluxes in the central aerobic metabolic pathway of E. coli mutant strains with deletion of the ackA-pta and poxB pathways for the synthesis of isoamyl acetate. *Biotechnology Progress*, **2005**, 21, 627-31	2.8	57
144	Sequence and arrangement of two genes of the butyrate-synthesis pathway of Clostridium acetobutylicum ATCC 824. *Gene*, **1993**, 134, 107-11	3.8	57
143	Escherichia coli RNA polymerase and trp repressor interaction with the promoter-operator region of the tryptophan operon of Salmonella typhimurium. *Journal of Molecular Biology*, **1980**, 144, 133-42	6.5	53
142	Sequence and arrangement of genes encoding enzymes of the acetone-production pathway of Clostridium acetobutylicum ATCC824. *Gene*, **1993**, 123, 93-7	3.8	52
141	Reduction of 2,4,6-trinitrotoluene by Clostridium acetobutylicum through hydroxylamino-nitrotoluene intermediates. *Environmental Toxicology and Chemistry*, **1998**, 17, 343-348	3.8	51
140	Reduction of acetate accumulation in Escherichia coli cultures for increased recombinant protein production. *Metabolic Engineering*, **2008**, 10, 97-108	9.7	49

139	Intracellular Concentrations of Coenzyme A and Its Derivatives from Clostridium acetobutylicum ATCC 824 and Their Roles in Enzyme Regulation. *Applied and Environmental Microbiology*, **1994**, 60, 39-44	4.8	48
138	Production of succinic acid by engineered E. coli strains using soybean carbohydrates as feedstock under aerobic fermentation conditions. *Bioresource Technology*, **2013**, 130, 398-405	11	47
137	Finding metabolic pathways using atom tracking. *Bioinformatics*, **2010**, 26, 1548-55	7.2	47
136	Proteome analysis and comparison of Clostridium acetobutylicum ATCC 824 and Spo0A strain variants. *Journal of Industrial Microbiology and Biotechnology*, **2006**, 33, 298-308	4.2	46
135	The central metabolic pathway from acetyl-CoA to butyryl-CoA inClostridium acetobutylicum. *FEMS Microbiology Reviews*, **1995**, 17, 241-249	15.1	46
134	Inactivation of an aldehyde/alcohol dehydrogenase gene from Clostridium acetobutylicum ATCC 824. *Applied Biochemistry and Biotechnology*, **1996**, 57-58, 213-21	3.2	46
133	Succinate production from different carbon sources under anaerobic conditions by metabolic engineered Escherichia coli strains. *Metabolic Engineering*, **2011**, 13, 328-35	9.7	45
132	Effect of inactivation of nuo and ackA-pta on redistribution of metabolic fluxes in Escherichia coli. *Biotechnology and Bioengineering*, **1999**, 65, 291-297	4.9	45
131	2,4,6-trinitrotoluene reduction by an Fe-only hydrogenase in Clostridium acetobutylicum. *Applied and Environmental Microbiology*, **2003**, 69, 1542-7	4.8	44
130	Effect of different levels of NADH availability on metabolite distribution in Escherichia coli fermentation in minimal and complex media. *Applied Microbiology and Biotechnology*, **2004**, 65, 426-32	5.7	44
129	Effect of carbon sources differing in oxidation state and transport route on succinate production in metabolically engineered Escherichia coli. *Journal of Industrial Microbiology and Biotechnology*, **2005**, 32, 87-93	4.2	44
128	Characterization of the beta-lactamase promoter of pBR322. *Nucleic Acids Research*, **1981**, 9, 2517-33	20.1	44
127	The effect of carbon sources and lactate dehydrogenase deletion on 1,2-propanediol production in Escherichia coli. *Journal of Industrial Microbiology and Biotechnology*, **2003**, 30, 34-40	4.2	43
126	Role of hydroxylamine intermediates in the phytotransformation of 2,4,6-trinitrotoluene by Myriophyllum aquaticum. *Environmental Science & Technology*, **2003**, 37, 3595-600	10.3	42
125	SpoIIE regulates sporulation but does not directly affect solventogenesis in Clostridium acetobutylicum ATCC 824. *Journal of Bacteriology*, **2005**, 187, 1930-6	3.5	42
124	Applicability of CoA/acetyl-CoA manipulation system to enhance isoamyl acetate production in Escherichia coli. *Metabolic Engineering*, **2004**, 6, 294-9	9.7	41
123	Metabolic impact of the level of aeration during cell growth on anaerobic succinate production by an engineered Escherichia coli strain. *Metabolic Engineering*, **2010**, 12, 499-509	9.7	40
122	Effect of modulated glucose uptake on high-level recombinant protein production in a dense Escherichia coli culture. *Biotechnology Progress*, **1994**, 10, 644-7	2.8	40

121	Biochemical characterization of trinitrotoluene transforming oxygen-insensitive nitroreductases from Clostridium acetobutylicum ATCC 824. *Archives of Microbiology*, **2005**, 184, 158-67	3	39
120	Metabolic engineering of carbon and redox flow in the production of small organic acids. *Journal of Industrial Microbiology and Biotechnology*, **2015**, 42, 403-22	4.2	38
119	Development of a metabolic network design and optimization framework incorporating implementation constraints: a succinate production case study. *Metabolic Engineering*, **2006**, 8, 46-57	9.7	38
118	Expression of abrB310 and SinR, and effects of decreased abrB310 expression on the transition from acidogenesis to solventogenesis, in Clostridium acetobutylicum ATCC 824. *Applied and Environmental Microbiology*, **2005**, 71, 1987-95	4.8	38
117	Metabolic flux analysis of Escherichia coli creB and arcA mutants reveals shared control of carbon catabolism under microaerobic growth conditions. *Journal of Bacteriology*, **2009**, 191, 5538-48	3.5	37
116	A method for construction of E. coli strains with multiple DNA insertions in the chromosome. *Gene*, **1997**, 187, 231-8	3.8	37
115	Characterization of an acetyl-CoA C-acetyltransferase (thiolase) gene from Clostridium acetobutylicum ATCC 824. *Gene*, **1995**, 154, 81-5	3.8	37
114	Chemostat culture characterization of Escherichia coli mutant strains metabolically engineered for aerobic succinate production: a study of the modified metabolic network based on metabolite profile, enzyme activity, and gene expression profile. *Metabolic Engineering*, **2005**, 7, 337-52	9.7	36
113	Overexpression, purification, and characterization of the thermostable mevalonate kinase from Methanococcus jannaschii. *Protein Expression and Purification*, **1999**, 17, 33-40	2	35
112	Characterization of methylglyoxal synthase from Clostridium acetobutylicum ATCC 824 and its use in the formation of 1, 2-propanediol. *Applied and Environmental Microbiology*, **1999**, 65, 3244-7	4.8	35
111	Production of isoamyl acetate in ackA-pta and/or ldh mutants of Escherichia coli with overexpression of yeast ATF2. *Applied Microbiology and Biotechnology*, **2004**, 63, 698-704	5.7	34
110	Improvement of biomass yield and recombinant gene expression in Escherichia coli by using fructose as the primary carbon source. *Biotechnology Progress*, **1999**, 15, 140-5	2.8	34
109	Effects of antibiotic physicochemical properties on their release kinetics from biodegradable polymer microparticles. *Pharmaceutical Research*, **2014**, 31, 3379-89	4.5	33
108	Effect of the global redox sensing/regulation networks on Escherichia coli and metabolic flux distribution based on C-13 labeling experiments. *Metabolic Engineering*, **2006**, 8, 619-27	9.7	33
107	Improving the Clostridium acetobutylicum butanol fermentation by engineering the strain for co-production of riboflavin. *Journal of Industrial Microbiology and Biotechnology*, **2011**, 38, 1013-25	4.2	32
106	Metabolic engineering and transhydrogenase effects on NADPH availability in Escherichia coli. *Biotechnology Progress*, **2013**, 29, 1124-30	2.8	31
105	Engineering poly(3-hydroxybutyrate-co-3-hydroxyvalerate) copolymer composition in E. coli. *Biotechnology and Bioengineering*, **2008**, 99, 919-28	4.9	31
104	Heterologous expression of the Saccharomyces cerevisiae alcohol acetyltransferase genes in Clostridium acetobutylicum and Escherichia coli for the production of isoamyl acetate. *Journal of Industrial Microbiology and Biotechnology*, **2003**, 30, 427-32	4.2	29

103	Metabolic flux analysis of Escherichia coli expressing the Bacillus subtilis acetolactate synthase in batch and continuous cultures. *Biotechnology and Bioengineering*, **1999**, 63, 737-49	4.9	28
102	Vector construction, transformation, and gene amplification in Clostridium acetobutylicum ATCC 824. *Annals of the New York Academy of Sciences*, **1992**, 665, 39-51	6.5	28
101	Construction ofEscherichia coli-Clostridium acetobutylicum shuttle vectors and transformation ofClostridium acetobutylicum strains. *Biotechnology Letters*, **1992**, 14, 427-432	3	27
100	Proteomic analyses of the phase transition from acidogenesis to solventogenesis using solventogenic and non-solventogenic Clostridium acetobutylicum strains. *Applied Microbiology and Biotechnology*, **2014**, 98, 5105-15	5.7	26
99	Heterologous pyc gene expression under various natural and engineered promoters in Escherichia coli for improved succinate production. *Journal of Biotechnology*, **2011**, 155, 236-43	3.7	26
98	Molecular cloning and characterization of the alcohol dehydrogenase ADH1 gene of Candida utilis ATCC 9950. *Journal of Industrial Microbiology and Biotechnology*, **2006**, 33, 1032-6	4.2	26
97	Characterization of a pH-inducible promoter system for high-level expression of recombinant proteins in Escherichia coli. *Biotechnology and Bioengineering*, **1995**, 47, 186-92	4.9	26
96	Anthramycin inhibition of restriction endonuclease cleavage and its use as a reversible blocking agent in DNA constructions. *Nucleic Acids Research*, **1981**, 9, 2105-19	20.1	25
95	Ester production in E. coli and C. acetobutylicum. *Enzyme and Microbial Technology*, **2006**, 38, 937-943	3.8	24
94	Effect of variation of Klebsiella pneumoniae acetolactate synthase expression on metabolic flux redistribution in Escherichia coli. *Biotechnology and Bioengineering*, **2000**, 69, 150-9	4.9	24
93	Cellular Assays for Ferredoxins: A Strategy for Understanding Electron Flow through Protein Carriers That Link Metabolic Pathways. *Biochemistry*, **2016**, 55, 7047-7064	3.2	23
92	De novo design of symmetric ferredoxins that shuttle electrons in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 14557-14562	11.5	23
91	Manipulating respiratory levels in Escherichia coli for aerobic formation of reduced chemical products. *Metabolic Engineering*, **2011**, 13, 704-12	9.7	23
90	Formation of alkali labile linkages in DNA by hedamycin and use of hedamycin as a probe of protein-DNA complexes. *Nucleic Acids Research*, **1982**, 10, 4581-94	20.1	23
89	Effects of Local Antibiotic Delivery from Porous Space Maintainers on Infection Clearance and Induction of an Osteogenic Membrane in an Infected Bone Defect. *Tissue Engineering - Part A*, **2017**, 23, 91-100	3.9	22
88	Bioconversion of methane to C-4 carboxylic acids using carbon flux through acetyl-CoA in engineered Methylomicrobium buryatense 5GB1C. *Metabolic Engineering*, **2018**, 48, 175-183	9.7	22
87	Improvement of NADPH bioavailability in Escherichia coli through the use of phosphofructokinase deficient strains. *Applied Microbiology and Biotechnology*, **2013**, 97, 6883-93	5.7	22
86	Genetic manipulation of acid and solvent formation in clostridium acetobutylicum ATCC 824. *Biotechnology and Bioengineering*, **1998**, 58, 215-21	4.9	22

85	Genetic and metabolic engineering of Clostridium acetobutylicum ATCC 824. *Annals of the New York Academy of Sciences*, **1994**, 721, 54-68	6.5	22
84	Effect of culture operating conditions on succinate production in a multiphase fed-batch bioreactor using an engineered Escherichia coli strain. *Applied Microbiology and Biotechnology*, **2011**, 92, 499-508	5.7	21
83	Role of DNA regions flanking the tryptophan promoter of Escherichia coli. I. Insertion of synthetic oligonucleotides. *Gene*, **1984**, 32, 337-48	3.8	21
82	Improvement of butanol production in Clostridium acetobutylicum through enhancement of NAD(P)H availability. *Journal of Industrial Microbiology and Biotechnology*, **2018**, 45, 993-1002	4.2	20
81	Evaluation of antibiotic releasing porous polymethylmethacrylate space maintainers in an infected composite tissue defect model. *Acta Biomaterialia*, **2013**, 9, 8832-9	10.8	20
80	Improvement of NADPH bioavailability in Escherichia coli by replacing NAD(+)-dependent glyceraldehyde-3-phosphate dehydrogenase GapA with NADP (+)-dependent GapB from Bacillus subtilis and addition of NAD kinase. *Journal of Industrial Microbiology and Biotechnology*, **2013**, 40, 1449-60	4.2	20
79	Genetically constrained metabolic flux analysis. *Metabolic Engineering*, **2005**, 7, 445-56	9.7	20
78	Sequence and arrangement of genes encoding sigma factors in Clostridium acetobutylicum ATCC 824. *Gene*, **1995**, 153, 89-92	3.8	20
77	Cloning, Sequencing, and Characterization of the Gene Encoding Flagellin, flaC, and the Post-translational Modification of Flagellin, FlaC, from Clostridium acetobutylicum ATCC824. *Anaerobe*, **2000**, 6, 69-79	2.8	19
76	Metalloprotein switches that display chemical-dependent electron transfer in cells. *Nature Chemical Biology*, **2019**, 15, 189-195	11.7	19
75	Characterization of thermostable Xyn10A enzyme from mesophilic Clostridium acetobutylicum ATCC 824. *Journal of Industrial Microbiology and Biotechnology*, **2005**, 32, 12-8	4.2	18
74	Genetic manipulation of stationary-phase genes to enhance recombinant protein production in Escherichia coli. *Biotechnology and Bioengineering*, **1996**, 50, 636-42	4.9	18
73	Cloning of small DNA fragments containing the Escherichia coli tryptophan operon promoter and operator. *Gene*, **1982**, 17, 9-18	3.8	18
72	The YfiD protein contributes to the pyruvate formate-lyase flux in an Escherichia coli arcA mutant strain. *Biotechnology and Bioengineering*, **2007**, 97, 138-43	4.9	17
71	Thermostable xylanase10B from Clostridium acetobutylicum ATCC824. *Journal of Industrial Microbiology and Biotechnology*, **2004**, 31, 229-34	4.2	17
70	Regulation of lysine decarboxylase activity in Escherichia coli K-12. *Archives of Microbiology*, **1989**, 151, 466-8	3	17
69	High yield production of four-carbon dicarboxylic acids by metabolically engineered Escherichia coli. *Journal of Industrial Microbiology and Biotechnology*, **2018**, 45, 53-60	4.2	16
68	Metabolic transistor strategy for controlling electron transfer chain activity in Escherichia coli. *Metabolic Engineering*, **2015**, 28, 159-168	9.7	15

67	Mutagenicity of trinitrotoluene and metabolites formed during anaerobic degradation by Clostridium acetobutylicum ATCC 824. *Environmental Toxicology and Chemistry*, **2000**, 19, 2871-2875	3.8	15
66	Enzymatic characterization of a nonmotile, nonsolventogenicClostridium acetobutylicum ATCC 824 mutant. *Current Microbiology*, **1991**, 23, 253-258	2.4	15
65	Polymer-Based Local Antibiotic Delivery for Prevention of Polymicrobial Infection in Contaminated Mandibular Implants. *ACS Biomaterials Science and Engineering*, **2016**, 2, 558-566	5.5	15
64	Cloning, sequence, and expression of the phosphofructokinase gene of Clostridium acetobutylicum ATCC 824 in Escherichia coli. *Current Microbiology*, **1998**, 37, 17-22	2.4	14
63	Characterization of alcohol dehydrogenase 1 and 3 from Neurospora crassa FGSC2489. *Applied Microbiology and Biotechnology*, **2007**, 76, 349-56	5.7	14
62	Enhanced isoamyl acetate production upon manipulation of the acetyl-CoA node in Escherichia coli. *Biotechnology Progress*, **2004**, 20, 692-7	2.8	14
61	Evolutionary Relationships Between Low Potential Ferredoxin and Flavodoxin Electron Carriers. *Frontiers in Energy Research*, **2019**, 7,	3.8	13
60	Efficient production of free fatty acids from soybean meal carbohydrates. *Biotechnology and Bioengineering*, **2015**, 112, 2324-33	4.9	13
59	Construction and characterization of pBR322-derived plasmids with deletions of the RNA I region. *Gene*, **1986**, 41, 281-8	3.8	13
58	Metabolic engineering of Escherichia coli to produce succinate from soybean hydrolysate under anaerobic conditions. *Biotechnology and Bioengineering*, **2018**, 115, 1743-1754	4.9	12
57	A kinetic model of oxygen regulation of cytochrome production in Escherichia coli. *Journal of Theoretical Biology*, **2006**, 242, 547-63	2.3	12
56	Enzymatic digestion of operator DNA in the presence of the lac repressor tryptic core. *Journal of Molecular Biology*, **1984**, 179, 335-50	6.5	12
55	An algorithm for efficient identification of branched metabolic pathways. *Journal of Computational Biology*, **2011**, 18, 1575-97	1.7	11
54	Sequences affecting the regulation of solvent production in Clostridium acetobutylicum. *Journal of Industrial Microbiology and Biotechnology*, **2003**, 30, 414-20	4.2	11
53	Volatile Gas Production by Methyl Halide Transferase: An In Situ Reporter Of Microbial Gene Expression In Soil. *Environmental Science & Technology*, **2016**, 50, 8750-9	10.3	10
52	Efficient free fatty acid production in engineered Escherichia coli strains using soybean oligosaccharides as feedstock. *Biotechnology Progress*, **2015**, 31, 686-94	2.8	10
51	Succinate production from sucrose by metabolic engineered Escherichia coli strains under aerobic conditions. *Biotechnology Progress*, **2011**, 27, 1242-7	2.8	10
50	Characterization of D-ribose biosynthesis in Bacillus subtilis JY200 deficient in transketolase gene. *Journal of Biotechnology*, **2006**, 121, 508-16	3.7	10

49	Effects of rifampicin and chloramphenicol on product and enzyme levels of the acid- and solvent-producing pathways of Clostridium acetobutylicum (ATCC 824). *Enzyme and Microbial Technology*, **1992**, 14, 277-283	3.8	10
48	Genome analysis of a hyper acetone-butanol-ethanol (ABE) producing Clostridium acetobutylicum BKM19. *Biotechnology Journal*, **2017**, 12, 1600457	5.6	9
47	Metabolic control of respiratory levels in coenzyme Q biosynthesis-deficient Escherichia coli strains leading to fine-tune aerobic lactate fermentation. *Biotechnology and Bioengineering*, **2015**, 112, 1720-6	4.9	9
46	100th Anniversary of Macromolecular Science Viewpoint: Soft Materials for Microbial Bioelectronics. *ACS Macro Letters*, **2020**, 9, 1590-1603	6.6	9
45	Characterization and evaluation of corn steep liquid in acetone-butanol-ethanol production by Clostridium acetobutylicum. *Biotechnology and Bioprocess Engineering*, **2013**, 18, 266-271	3.1	9
44	Synthesis and expression of a gene for a mini type II dihydrofolate reductase. *DNA and Cell Biology*, **1988**, 7, 243-51		9
43	Ratiometric Gas Reporting: A Nondisruptive Approach To Monitor Gene Expression in Soils. *ACS Synthetic Biology*, **2018**, 7, 903-911	5.7	8
42	Biosynthesis of Medium-Chain □Hydroxy Fatty Acids by AlkBGT of GPo1 With Native FadL in Engineered. *Frontiers in Bioengineering and Biotechnology*, **2019**, 7, 273	5.8	8
41	Strategies for manipulation of oxygen utilization by the electron transfer chain in microbes for metabolic engineering purposes. *Journal of Industrial Microbiology and Biotechnology*, **2017**, 44, 647-658	4.2	8
40	Analysis of redox responses during TNT transformation by Clostridium acetobutylicum ATCC 824 and mutants exhibiting altered metabolism. *Applied Microbiology and Biotechnology*, **2013**, 97, 4651-63	5.7	8
39	Culture conditionsSimpact on succinate production by a high succinate producing Escherichia coli strain. *Biotechnology Progress*, **2011**, 27, 1225-31	2.8	8
38	Cloning and assembly of PCR products using modified primers and DNA repair enzymes. *BioTechniques*, **1997**, 23, 858-62, 864	2.5	8
37	Cell population heterogeneity in expression of a gene-switching network with fluorescent markers of different half-lives. *Journal of Biotechnology*, **2007**, 128, 362-75	3.7	8
36	Effect of glucose analog supplementation on metabolic flux distribution in anaerobic chemostat cultures of Escherichia coli. *Metabolic Engineering*, **2000**, 2, 149-54	9.7	8
35	Isolation of mutants ofClostridium acetobutylicum ATCC 824 deficient in protease activity. *Current Microbiology*, **1993**, 26, 151-154	2.4	8
34	In vivo cloning of DNA regions carrying mutations linked to selectable genes: application to mutations in the regulatory region of the Escherichia coli tryptophan operon. *Plasmid*, **1979**, 2, 498-502	3.3	8
33	Single cell protein production from food waste using purple non-sulfur bacteria shows economically viable protein products have higher environmental impacts. *Journal of Cleaner Production*, **2020**, 276, 123114	10.3	8
32	Improving the organization and interactivity of metabolic pathfinding with precomputed pathways. *BMC Bioinformatics*, **2020**, 21, 13	3.6	7

31	A rapid, flexible method for incorporating controlled antibiotic release into porous polymethylmethacrylate space maintainers for craniofacial reconstruction. *Biomaterials Science*, **2016**, 4, 121-9	7.4	7
30	Metabolic engineering of the anaerobic central metabolic pathway in Escherichia coli for the simultaneous anaerobic production of isoamyl acetate and succinic acid. *Biotechnology Progress*, **2009**, 25, 1304-9	2.8	7
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