Ka-Yiu San

List of Publications by Year in Descending Order

124 papers	5,828 citations	45 h-index	72 g-index
126 ext. papers	6,283 ext. citations	5.4 avg, IF	5.7 L-index

#	Paper	IF	Citations
124	Metabolic engineering of Escherichia coli to produce succinate from woody hydrolysate under anaerobic conditions. *Journal of Industrial Microbiology and Biotechnology*, **2020**, 47, 223-232	4.2	4
123	Improved succinate production from galactose-rich feedstocks by engineered Escherichia coli under anaerobic conditions. *Biotechnology and Bioengineering*, **2020**, 117, 1082-1091	4.9	3
122	Metabolic engineering of Escherichia coli for malate production with a temperature sensitive malate dehydrogenase. *Biochemical Engineering Journal*, **2020**, 164, 107762	4.2	1
121	Genetic sensor-regulators functional in Clostridia. *Journal of Industrial Microbiology and Biotechnology*, **2020**, 47, 609-620	4.2	1
120	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
119	Metabolic engineering of Escherichia coli to produce succinate from soybean hydrolysate under anaerobic conditions. *Biotechnology and Bioengineering*, **2018**, 115, 1743-1754	4.9	12
118	Production of free fatty acids from switchgrass using recombinant Escherichia coli. *Biotechnology Progress*, **2018**, 34, 91-98	2.8	4
117	Effect of NADPH availability on free fatty acid production in Escherichia coli. *Biotechnology and Bioengineering*, **2018**, 115, 444-452	4.9	18
116	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
115	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
114	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
113	Still stable after 11 years: A Catharanthus roseus Hairy root line maintains inducible expression of anthranilate synthase. *Biotechnology Progress*, **2017**, 33, 66-69	2.8	8
112	Direct bioconversion of sorghum extract sugars to free fatty acids using metabolically engineered Escherichia coli strains: Value addition to the sorghum bioenergy crop. *Biomass and Bioenergy*, **2016**, 93, 217-226	5.3	3
111	Metabolic transistor strategy for controlling electron transfer chain activity in Escherichia coli. *Metabolic Engineering*, **2015**, 28, 159-168	9.7	15
110	Simultaneous utilization of glucose and mannose from woody hydrolysate for free fatty acid production by metabolically engineered Escherichia coli. *Bioresource Technology*, **2015**, 185, 431-5	11	4
109	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
108	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

107	Efficient production of free fatty acids from soybean meal carbohydrates. *Biotechnology and Bioengineering*, **2015**, 112, 2324-33	4.9	13
106	Efficient free fatty acid production in engineered Escherichia coli strains using soybean oligosaccharides as feedstock. *Biotechnology Progress*, **2015**, 31, 686-94	2.8	10
105	Metabolic engineering of Escherichia coli for efficient free fatty acid production from glycerol. *Metabolic Engineering*, **2014**, 25, 82-91	9.7	38
104	Efficient free fatty acid production from woody biomass hydrolysate using metabolically engineered Escherichia coli. *Bioresource Technology*, **2014**, 169, 119-125	11	29
103	Engineering Escherichia coli for odd straight medium chain free fatty acid production. *Applied Microbiology and Biotechnology*, **2014**, 98, 8145-54	5.7	10
102	Efficient odd straight medium chain free fatty acid production by metabolically engineered Escherichia coli. *Biotechnology and Bioengineering*, **2014**, 111, 2209-19	4.9	28
101	Soybean Carbohydrates as a Renewable Feedstock for the Fermentative Production of Succinic Acid and Ethanol. *ACS Symposium Series*, **2014**, 81-107	0.4	0
100	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
99	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
98	Metabolic engineering and transhydrogenase effects on NADPH availability in Escherichia coli. *Biotechnology Progress*, **2013**, 29, 1124-30	2.8	31
97	Cofactor engineering for advancing chemical biotechnology. *Current Opinion in Biotechnology*, **2013**, 24, 994-9	11.4	105
96	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
95	Improving fatty acid production in Escherichia coli through the overexpression of malonyl coA-acyl carrier protein transacylase. *Biotechnology Progress*, **2012**, 28, 60-5	2.8	39
94	Synthesis of methyl ketones by metabolically engineered Escherichia coli. *Journal of Industrial Microbiology and Biotechnology*, **2012**, 39, 1703-12	4.2	31
93	Effect of acetate formation pathway and long chain fatty acid CoA-ligase on the free fatty acid production in E. coli expressing acy-ACP thioesterase from Ricinus communis. *Metabolic Engineering*, **2012**, 14, 380-7	9.7	51
92	Succinate production in Escherichia coli. *Biotechnology Journal*, **2012**, 7, 213-24	5.6	138
91	Efficient free fatty acid production in Escherichia coli using plant acyl-ACP thioesterases. *Metabolic Engineering*, **2011**, 13, 713-22	9.7	105
90	Manipulating respiratory levels in Escherichia coli for aerobic formation of reduced chemical products. *Metabolic Engineering*, **2011**, 13, 704-12	9.7	23

89	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
88	Screening 64 cultivars Catharanthus roseus for the production of vindoline, catharanthine, and serpentine. *Biotechnology Progress*, **2011**, 27, 937-43	2.8	8
87	Effect of sodium nitroprusside on growth and terpenoid indole alkaloid production in Catharanthus roseus hairy root cultures. *Biotechnology Progress*, **2011**, 27, 625-30	2.8	27
86	Culture conditionsTimpact on succinate production by a high succinate producing Escherichia coli strain. *Biotechnology Progress*, **2011**, 27, 1225-31	2.8	8
85	Succinate production from sucrose by metabolic engineered Escherichia coli strains under aerobic conditions. *Biotechnology Progress*, **2011**, 27, 1242-7	2.8	10
84	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
83	The expression of 1-deoxy-D-xylulose synthase and geraniol-10-hydroxylase or anthranilate synthase increases terpenoid indole alkaloid accumulation in Catharanthus roseus hairy roots. *Metabolic Engineering*, **2011**, 13, 234-40	9.7	87
82	Succinate production from different carbon sources under anaerobic conditions by metabolic engineered Escherichia coli strains. *Metabolic Engineering*, **2011**, 13, 328-35	9.7	45
81	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
80	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
79	Five year maintenance of the inducible expression of anthranilate synthase in Catharanthus roseus hairy roots. *Biotechnology and Bioengineering*, **2009**, 102, 1521-5	4.9	19
78	The role of the octadecanoid pathway in the production of terpenoid indole alkaloids in Catharanthus roseus hairy roots under normal and UV-B stress conditions. *Biotechnology and Bioengineering*, **2009**, 103, 1248-54	4.9	26
77	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
76	The effects of UV-B stress on the production of terpenoid indole alkaloids in Catharanthus roseus hairy roots. *Biotechnology Progress*, **2009**, 25, 861-5	2.8	81
75	Transcriptional response of the terpenoid indole alkaloid pathway to the overexpression of ORCA3 along with jasmonic acid elicitation of Catharanthus roseus hairy roots over time. *Metabolic Engineering*, **2009**, 11, 76-86	9.7	121
74	Engineering E. coli Central Metabolism for Enhanced Primary Metabolite Production **2009**, 351-376		2
73	Engineering poly(3-hydroxybutyrate-co-3-hydroxyvalerate) copolymer composition in E. coli. *Biotechnology and Bioengineering*, **2008**, 99, 919-28	4.9	31
72	Reduction of acetate accumulation in Escherichia coli cultures for increased recombinant protein production. *Metabolic Engineering*, **2008**, 10, 97-108	9.7	49

71	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
70	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
69	New Sesquiterpene Glycosides from Culture Hairy Roots of Catharanthus roseus. *Chinese Journal of Chemistry*, **2007**, 25, 1695-1699	4.9	6
68	Characterization of an ethanol-inducible promoter system in Catharanthus roseus hairy roots. *Biotechnology Progress*, **2007**, 23, 1258-60	2.8	10
67	Long-term maintenance of a transgenic Catharanthus roseus hairy root line. *Biotechnology Progress*, **2007**, 23, 1517-8	2.8	24
66	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
65	A kinetic model of oxygen regulation of cytochrome production in Escherichia coli. *Journal of Theoretical Biology*, **2006**, 242, 547-63	2.3	12
64	Effects of terpenoid precursor feeding on Catharanthus roseus hairy roots over-expressing the alpha or the alpha and beta subunits of anthranilate synthase. *Biotechnology and Bioengineering*, **2006**, 93, 534-40	4.9	47
63	Expression of the Arabidopsis feedback-insensitive anthranilate synthase holoenzyme and tryptophan decarboxylase genes in Catharanthus roseus hairy roots. *Journal of Biotechnology*, **2006** , 122, 28-38	3.7	70
62	Expression of the pfl gene and resulting metabolite flux distribution in nuo and ackA-pta E. coli mutant strains. *Biotechnology Progress*, **2006**, 22, 898-902	2.8	2
61	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
60	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
59	Batch culture characterization and metabolic flux analysis of succinate-producing Escherichia coli strains. *Metabolic Engineering*, **2006**, 8, 209-26	9.7	73
58	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
57	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
56	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
55	Characterization of the acetate-producing pathways in Escherichia coli. *Biotechnology Progress*, **2005**, 21, 1062-7	2.8	99
54	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

53	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
52	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
51	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
50	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
49	Genetically constrained metabolic flux analysis. *Metabolic Engineering*, **2005**, 7, 445-56	9.7	20
48	Enhanced lycopene productivity by manipulation of carbon flow to isopentenyl diphosphate in Escherichia coli. *Biotechnology Progress*, **2005**, 21, 1558-61	2.8	67
47	Transient effects of overexpressing anthranilate synthase alpha and beta subunits in Catharanthus roseus hairy roots. *Biotechnology Progress*, **2005**, 21, 1572-6	2.8	30
46	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
45	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
44	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
43	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
42	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
41	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
40	Enhanced isoamyl acetate production upon manipulation of the acetyl-CoA node in Escherichia coli. *Biotechnology Progress*, **2004**, 20, 692-7	2.8	14
39	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
38	Expression of a feedback-resistant anthranilate synthase in Catharanthus roseus hairy roots provides evidence for tight regulation of terpenoid indole alkaloid levels. *Biotechnology and Bioengineering*, **2004**, 86, 718-27	4.9	76
37	Applicability of CoA/acetyl-CoA manipulation system to enhance isoamyl acetate production in Escherichia coli. *Metabolic Engineering*, **2004**, 6, 294-9	9.7	41
36	Metabolic engineering of the indole pathway in Catharanthus roseus hairy roots and increased accumulation of tryptamine and serpentine. *Metabolic Engineering*, **2004**, 6, 268-76	9.7	106

35	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
34	Metabolic engineering through cofactor manipulation and its effects on metabolic flux redistribution in Escherichia coli. *Metabolic Engineering*, **2002**, 4, 182-92	9.7	203
33	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
32	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
31	Characterization of an inducible promoter system in Catharanthus roseus hairy roots. *Biotechnology Progress*, **2002**, 18, 1183-6	2.8	44
30	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
29	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
28	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
27	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
26	Redistribution of metabolic fluxes in Escherichia coli with fermentative lactate dehydrogenase overexpression and deletion. *Metabolic Engineering*, **1999**, 1, 141-52	9.7	62
25	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
24	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
23	Genetic manipulation of stationary-phase genes to enhance recombinant protein production in Escherichia coli. *Biotechnology and Bioengineering*, **1996**, 50, 636-42	4.9	18
22	Metabolic engineering of Escherichia coli to enhance recombinant protein production through acetate reduction. *Biotechnology Progress*, **1995**, 11, 475-8	2.8	58
21	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
20	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
19	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
18	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

17	Continuous production of cell-free recombinant proteins using Escherichia coli. *Biotechnology Progress*, **1993**, 9, 587-93	2.8	7
16	A pH-regulated promoter for the expression of recombinant proteins inEscherichia coli. *Biotechnology Letters*, **1992**, 14, 157-162	3	37
15	Protein release in recombinant Escherichia coli using bacteriocin release protein. *Biotechnology Progress*, **1992**, 8, 25-9	2.8	19
14	Population dynamics of a recombinant culture in a chemostat under prolonged cultivation. *Biotechnology and Bioengineering*, **1990**, 36, 727-36	4.9	13
13	Process Analysis and Identification with a Real Time Intelligent Bioreactor Supervisory Controller **1990**,		1
12	A comparison of two plating techniques to estimate plasmid stability of a prolonged chemostat culture. *Biotechnology Letters*, **1989**, 3, 397-400		4
11	Data analysis of plasmid maintenance in a CSTR. *Biotechnology and Bioengineering*, **1989**, 33, 451-9	4.9	17
10	Optimization of fed-batch penicillin fermentation: a case of singular optimal control with state constraints. *Biotechnology and Bioengineering*, **1989**, 34, 72-8	4.9	97
9	Analysis of a framework using material balances in metabolic pathways to elucidate cellular metabolism. *Biotechnology and Bioengineering*, **1989**, 34, 496-501	4.9	11
8	Dynamics of plasmid maintenance in a CSTR upon square-wave perturbations in the dilution rate. *Biotechnology and Bioengineering*, **1989**, 34, 1104-13	4.9	29
7	The design of controllers for batch bioreactors. *Biotechnology and Bioengineering*, **1988**, 32, 519-26	4.9	34
6	Plasmid maintenance and gene expression of a recombinant culture under aerobic and anaerobic conditions. *Biotechnology Letters*, **1988**, 10, 373-376	3	14
5	Enhanced plasmid maintenance in a CSTR upon square-wave oscillations in the dilution rate. *Biotechnology Letters*, **1988**, 10, 531-536	3	21
4	Studies on on-line bioreactor identification. I. Theory. *Biotechnology and Bioengineering*, **1984**, 26, 1176-88	4.9	238
3	Studies on on-line bioreactor identification. II. Numerical and experimental results. *Biotechnology and Bioengineering*, **1984**, 26, 1189-97	4.9	71
2	Studies on on-line bioreactor identification. IV. Utilization of pH measurements for product estimation. *Biotechnology and Bioengineering*, **1984**, 26, 1209-18	4.9	52
1	Optimal control policy for substrate inhibited kinetics with enzyme deactivation in an isothermal CSTR. *AICHE Journal*, **1983**, 29, 417-424	3.6	5