Christopher V Rao

List of Publications by Citations

48 papers	1,457 citations	22 h-index	37 g-index
49 ext. papers	2,034 ext. citations	5.3 avg, IF	5.25 L-index

#	Paper	IF	Citations
48	Recent developments in pretreatment technologies on lignocellulosic biomass: Effect of key parameters, technological improvements, and challenges. *Bioresource Technology*, **2020**, 300, 122724	11	240
47	Engineering Rhodosporidium toruloides for increased lipid production. *Biotechnology and Bioengineering*, **2016**, 113, 1056-66	4.9	111
46	Linear programming and model predictive control. *Journal of Process Control*, **2000**, 10, 283-289	3.9	85
45	The three adaptation systems of Bacillus subtilis chemotaxis. *Trends in Microbiology*, **2008**, 16, 480-7	12.4	83
44	Metabolic engineering of the oleaginous yeast Rhodosporidium toruloides IFO0880 for lipid overproduction during high-density fermentation. *Applied Microbiology and Biotechnology*, **2016**, 100, 9393-9405	5.7	74
43	Stokes trap for multiplexed particle manipulation and assembly using fluidics. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3976-81	11.5	72
42	Ancient Regulatory Role of Lysine Acetylation in Central Metabolism. *MBio*, **2017**, 8,	7.8	59
41	Alginate lyases from alginate-degrading Vibrio splendidus 12B01 are endolytic. *Applied and Environmental Microbiology*, **2015**, 81, 1865-73	4.8	56
40	Renewable biohydrogen production from lignocellulosic biomass using fermentation and integration of systems with other energy generation technologies. *Science of the Total Environment* , **2021**, 765, 144429	10.2	54
39	A modular positive feedback-based gene amplifier. *Journal of Biological Engineering*, **2010**, 4, 4	6.3	45
38	Production of 1-decanol by metabolically engineered Yarrowia lipolytica. *Metabolic Engineering*, **2016**, 38, 139-147	9.7	45
37	A nutrient-tunable bistable switch controls motility in Salmonella enterica serovar Typhimurium. *MBio*, **2014**, 5, e01611-14	7.8	44
36	Metabolic Engineering of Probiotic Saccharomyces boulardii. *Applied and Environmental Microbiology*, **2016**, 82, 2280-2287	4.8	43
35	Increasing Growth Yield and Decreasing Acetylation in Escherichia coli by Optimizing the Carbon-to-Magnesium Ratio in Peptide-Based Media. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	32
34	Microbial conversion of xylose into useful bioproducts. *Applied Microbiology and Biotechnology*, **2018**, 102, 9015-9036	5.7	32
33	Production of D-arabitol from D-xylose by the oleaginous yeast Rhodosporidium toruloides IFO0880. *Applied Microbiology and Biotechnology*, **2018**, 102, 143-151	5.7	32
32	Regulation of metabolism in Escherichia coli during growth on mixtures of the non-glucose sugars: arabinose, lactose, and xylose. *Scientific Reports*, **2018**, 8, 609	4.9	31

31	Reciprocal Regulation of l-Arabinose and d-Xylose Metabolism in Escherichia coli. *Journal of Bacteriology*, **2016**, 198, 386-93	3.5	27
30	A comprehensive genome-scale model for IFO0880 accounting for functional genomics and phenotypic data. *Metabolic Engineering Communications*, **2019**, 9, e00101	6.5	26
29	High-throughput sequencing reveals adaptation-induced mutations in pentose-fermenting strains of Zymomonas mobilis. *Biotechnology and Bioengineering*, **2015**, 112, 2228-40	4.9	26
28	Expanding the synthetic biology toolbox: engineering orthogonal regulators of gene expression. *Current Opinion in Biotechnology*, **2012**, 23, 689-94	11.4	26
27	Evolutionary engineering of Geobacillus thermoglucosidasius for improved ethanol production. *Biotechnology and Bioengineering*, **2016**, 113, 2156-67	4.9	24
26	pH selectively regulates citric acid and lipid production in Yarrowia lipolytica W29 during nitrogen-limited growth on glucose. *Journal of Biotechnology*, **2019**, 290, 10-15	3.7	22
25	Oscillatory behavior of neutrophils under opposing chemoattractant gradients supports a winner-take-all mechanism. *PLoS ONE*, **2014**, 9, e85726	3.7	19
24	Production of galactitol from galactose by the oleaginous yeast IFO0880. *Biotechnology for Biofuels* , **2019**, 12, 250	7.8	17
23	Global Lysine Acetylation in Results from Growth Conditions That Favor Acetate Fermentation. *Journal of Bacteriology*, **2019**, 201,	3.5	13
22	Growth rate control of flagellar assembly in Escherichia coli strain RP437. *Scientific Reports*, **2017**, 7, 41189	4.9	12
21	Site-specific methylation in Bacillus subtilis chemotaxis: effect of covalent modifications to the chemotaxis receptor McpB. *Microbiology (United Kingdom)*, **2011**, 157, 56-65	2.9	11
20	Exploiting fine-scale genetic and physiological variation of closely related microbes to reveal unknown enzyme functions. *Journal of Biological Chemistry*, **2017**, 292, 13056-13067	5.4	10
19	The Unconventional Cytoplasmic Sensing Mechanism for Ethanol Chemotaxis in Bacillus subtilis. *MBio*, **2020**, 11,	7.8	10
18	The Mechanism of Bidirectional pH Taxis in Bacillus subtilis. *Journal of Bacteriology*, **2020**, 202,	3.5	10
17	Characterization of the GH16 and GH17 laminarinases from Vibrio breoganii 1C10. *Applied Microbiology and Biotechnology*, **2020**, 104, 161-171	5.7	10
16	Engineering xylose metabolism in yeasts to produce biofuels and chemicals. *Current Opinion in Biotechnology*, **2021**, 67, 15-25	11.4	9
15	Black and white with some shades of grey: the diverse responses of inducible metabolic pathways in Escherichia coli. *Molecular Microbiology*, **2014**, 93, 1079-83	4.1	8
14	Sparsity of Linear Discrete-Time Optimal Control Problems With l_1 Objectives. *IEEE Transactions on Automatic Control*, **2018**, 63, 513-517	5.9	6

13	Driving the expression of the Salmonella enterica sv Typhimurium flagellum using flhDC from Escherichia coli results in key regulatory and cellular differences. *Scientific Reports*, **2018**, 8, 16705	4.9	6
12	Synergistic action of SPI-1 gene expression in Salmonella enterica serovar typhimurium through transcriptional crosstalk with the flagellar system. *BMC Microbiology*, **2019**, 19, 211	4.5	5
11	Extracellular Acidic pH Inhibits Acetate Consumption by Decreasing Gene Transcription of the Tricarboxylic Acid Cycle and the Glyoxylate Shunt. *Journal of Bacteriology*, **2019**, 201,	3.5	5
10	Dynamic Measures of Flagellar Gene Expression. *Methods in Molecular Biology*, **2017**, 1593, 73-83	1.4	4
9	Two Tandem Mechanisms Control Bimodal Expression of the Flagellar Genes in Salmonella enterica. *Journal of Bacteriology*, **2020**, 202,	3.5	3
8	Metabolic engineering of Parageobacillus thermoglucosidasius for the efficient production of (2R, 3R)-butanediol. *Applied Microbiology and Biotechnology*, **2020**, 104, 4303-4311	5.7	3
7	Metabolic engineering of the oleaginous yeast Yarrowia lipolytica PO1f for production of erythritol from glycerol. *Biotechnology for Biofuels*, **2021**, 14, 188	7.8	3
6	Quorum Sensing in Yeast. *ACS Symposium Series*, **2020**, 235-250	0.4	2
5	In Vitro Assay for Measuring Receptor-Kinase Activity in the Bacillus subtilis Chemotaxis Pathway. *Methods in Molecular Biology*, **2018**, 1729, 95-105	1.4	1
4	Characterization of opposing responses to phenol by chemoreceptors.. *Journal of Bacteriology*, **2022**, JB0044121	3.5	1
3	HilE is required for synergistic activation of SPI-1 gene expression in Salmonella enterica serovar Typhimurium. *BMC Microbiology*, **2021**, 21, 49	4.5	0
2	Control Challenges in Synthetic Biology. *IFAC-PapersOnLine*, **2015**, 48, 996-1001	0.7	
1	Near-Complete Genome Sequence of Zygosaccharomyces rouxii NRRL Y-64007, a Yeast Capable of Growing on Lignocellulosic Hydrolysates.. *Microbiology Resource Announcements*, **2022**, e0005022	1.3	