

Brian F Pflieger

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92
papers

4,390
citations

34
h-index

65
g-index

101
ext. papers

5,274
ext. citations

9.1
avg, IF

5.91
L-index

#	Paper	IF	Citations
92	Nonenzymatic sugar production from biomass using biomass-derived Valerolactone. <i>Science</i> , 2014 , 343, 277-80	33.3	519
91	Combinatorial engineering of intergenic regions in operons tunes expression of multiple genes. <i>Nature Biotechnology</i> , 2006 , 24, 1027-32	44.5	434
90	A process for microbial hydrocarbon synthesis: Overproduction of fatty acids in <i>Escherichia coli</i> and catalytic conversion to alkanes. <i>Biotechnology and Bioengineering</i> , 2010 , 106, 193-202	4.9	200
89	Impact of synthetic biology and metabolic engineering on industrial production of fine chemicals. <i>Biotechnology Advances</i> , 2015 , 33, 1395-402	17.8	153
88	Common principles and best practices for engineering microbiomes. <i>Nature Reviews Microbiology</i> , 2019 , 17, 725-741	22.2	144
87	Microbial production of fatty acid-derived fuels and chemicals. <i>Current Opinion in Biotechnology</i> , 2013 , 24, 1044-53	11.4	144
86	Application of functional genomics to pathway optimization for increased isoprenoid production. <i>Applied and Environmental Microbiology</i> , 2008 , 74, 3229-41	4.8	143
85	Engineering <i>Escherichia coli</i> to synthesize free fatty acids. <i>Trends in Biotechnology</i> , 2012 , 30, 659-67	15.1	134
84	Metabolic engineering strategies for microbial synthesis of oleochemicals. <i>Metabolic Engineering</i> , 2015 , 29, 1-11	9.7	133
83	Modular synthase-encoding gene involved in Eblefin biosynthesis in <i>Synechococcus</i> sp. strain PCC 7002. <i>Applied and Environmental Microbiology</i> , 2011 , 77, 4264-7	4.8	132
82	Synthetic biology toolbox for controlling gene expression in the cyanobacterium <i>Synechococcus</i> sp. strain PCC 7002. <i>ACS Synthetic Biology</i> , 2015 , 4, 595-603	5.7	131
81	CRISPR interference as a titratable, trans-acting regulatory tool for metabolic engineering in the cyanobacterium <i>Synechococcus</i> sp. strain PCC 7002. <i>Metabolic Engineering</i> , 2016 , 38, 170-179	9.7	127
80	Membrane stresses induced by overproduction of free fatty acids in <i>Escherichia coli</i> . <i>Applied and Environmental Microbiology</i> , 2011 , 77, 8114-28	4.8	109
79	Biosynthetic analysis of the petrobactin siderophore pathway from <i>Bacillus anthracis</i> . <i>Journal of Bacteriology</i> , 2007 , 189, 1698-710	3.5	102
78	Identification of transport proteins involved in free fatty acid efflux in <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 2013 , 195, 135-44	3.5	90
77	Directed evolution of AraC for improved compatibility of arabinose- and lactose-inducible promoters. <i>Applied and Environmental Microbiology</i> , 2007 , 73, 5711-5	4.8	86
76	Production of medium chain length fatty alcohols from glucose in <i>Escherichia coli</i> . <i>Metabolic Engineering</i> , 2013 , 20, 177-86	9.7	76

75	Characterization and analysis of early enzymes for petrobactin biosynthesis in <i>Bacillus anthracis</i> . <i>Biochemistry</i> , 2007 , 46, 4147-57	3.2	76
74	Microbial sensors for small molecules: development of a mevalonate biosensor. <i>Metabolic Engineering</i> , 2007 , 9, 30-8	9.7	73
73	Construction of new synthetic biology tools for the control of gene expression in the cyanobacterium <i>Synechococcus</i> sp. strain PCC 7002. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 424-32	14.9	66
72	Efflux systems in bacteria and their metabolic engineering applications. <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 9381-93	5.7	62
71	Modulating membrane composition alters free fatty acid tolerance in <i>Escherichia coli</i> . <i>PLoS ONE</i> , 2013 , 8, e54031	3.7	57
70	Genetic tools for reliable gene expression and recombining in <i>Pseudomonas putida</i> . <i>Journal of Industrial Microbiology and Biotechnology</i> , 2018 , 45, 517-527	4.2	54
69	Transcription control engineering and applications in synthetic biology. <i>Synthetic and Systems Biotechnology</i> , 2017 , 2, 176-191	4.2	53
68	Engineering <i>Escherichia coli</i> for production of ϵ -polyhydroxyalkanoate from glucose. <i>Metabolic Engineering</i> , 2012 , 14, 705-13	9.7	50
67	Computational Redesign of Acyl-ACP Thioesterase with Improved Selectivity toward Medium-Chain-Length Fatty Acids. <i>ACS Catalysis</i> , 2017 , 7, 3837-3849	13.1	49
66	An organic acid based counter selection system for cyanobacteria. <i>PLoS ONE</i> , 2013 , 8, e76594	3.7	48
65	Structural and functional analysis of AsbF: origin of the stealth 3,4-dihydroxybenzoic acid subunit for petrobactin biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 17133-8	11.5	47
64	A metabolic pathway for catabolizing levulinic acid in bacteria. <i>Nature Microbiology</i> , 2017 , 2, 1624-1634	26.6	44
63	Freshwater diatoms as a source of lipids for biofuels. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2012 , 39, 419-28	4.2	44
62	Revisiting metabolic engineering strategies for microbial synthesis of oleochemicals. <i>Metabolic Engineering</i> , 2020 , 58, 35-46	9.7	40
61	Reassessing <i>Escherichia coli</i> as a cell factory for biofuel production. <i>Current Opinion in Biotechnology</i> , 2017 , 45, 92-103	11.4	39
60	Synthetic biology strategies for synthesizing polyhydroxyalkanoates from unrelated carbon sources. <i>Chemical Engineering Science</i> , 2013 , 103, 58-67	4.4	39
59	Artificial repressors for controlling gene expression in bacteria. <i>Chemical Communications</i> , 2013 , 49, 4325-8	5.8	35
58	RNA Sequencing Identifies New RNase III Cleavage Sites in and Reveals Increased Regulation of mRNA. <i>MBio</i> , 2017 , 8,	7.8	32

57	Highly Active C-Acyl-ACP Thioesterase Variant Isolated by a Synthetic Selection Strategy. <i>ACS Synthetic Biology</i> , 2018 , 7, 2205-2215	5.7	32
56	Light-optimized growth of cyanobacterial cultures: Growth phases and productivity of biomass and secreted molecules in light-limited batch growth. <i>Metabolic Engineering</i> , 2018 , 47, 230-242	9.7	31
55	Anaerobic production of medium-chain fatty alcohols via a β -reduction pathway. <i>Metabolic Engineering</i> , 2018 , 48, 63-71	9.7	30
54	Application of TALEs, CRISPR/Cas and sRNAs as trans-acting regulators in prokaryotes. <i>Current Opinion in Biotechnology</i> , 2014 , 29, 46-54	11.4	29
53	Kinetic modeling of free fatty acid production in Escherichia coli based on continuous cultivation of a plasmid free strain. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 1518-27	4.9	29
52	Solvent-enabled nonenzymatic sugar production from biomass for chemical and biological upgrading. <i>ChemSusChem</i> , 2015 , 8, 1317-22	8.3	28
51	Optimization of DsRed production in Escherichia coli: effect of ribosome binding site sequestration on translation efficiency. <i>Biotechnology and Bioengineering</i> , 2005 , 92, 553-8	4.9	27
50	A roadmap for the synthesis of separation networks for the recovery of bio-based chemicals: Matching biological and process feasibility. <i>Biotechnology Advances</i> , 2016 , 34, 1362-1383	17.8	26
49	Engineering photosynthetic production of L-lysine. <i>Metabolic Engineering</i> , 2017 , 44, 273-283	9.7	25
48	A transcription activator-like effector (TALE) induction system mediated by proteolysis. <i>Nature Chemical Biology</i> , 2016 , 12, 254-60	11.7	24
47	Bacterial production of free fatty acids from freshwater macroalgal cellulose. <i>Applied Microbiology and Biotechnology</i> , 2011 , 91, 435-46	5.7	24
46	Free fatty acid production in Escherichia coli under phosphate-limited conditions. <i>Applied Microbiology and Biotechnology</i> , 2013 , 97, 5149-59	5.7	23
45	A translation-coupling DNA cassette for monitoring protein translation in Escherichia coli. <i>Metabolic Engineering</i> , 2012 , 14, 298-305	9.7	23
44	Functional and structural analysis of the siderophore synthetase AsbB through reconstitution of the petrobactin biosynthetic pathway from Bacillus anthracis. <i>Journal of Biological Chemistry</i> , 2012 , 287, 16058-72	5.4	22
43	Flux Balance Analysis Indicates that Methane Is the Lowest Cost Feedstock for Microbial Cell Factories. <i>Metabolic Engineering Communications</i> , 2017 , 5, 26-33	6.5	21
42	Regulatory Tools for Controlling Gene Expression in Cyanobacteria. <i>Advances in Experimental Medicine and Biology</i> , 2018 , 1080, 281-315	3.6	20
41	Genetic and genomic analysis of RNases in model cyanobacteria. <i>Photosynthesis Research</i> , 2015 , 126, 171-83	3.7	18
40	Insights into the industrial growth of cyanobacteria from a model of the carbon-concentrating mechanism. <i>AIChE Journal</i> , 2014 , 60, 1269-1277	3.6	15

39	Isolation of improved free fatty acid overproducing strains of via Nile red based high-throughput screening. <i>Environmental Progress and Sustainable Energy</i> , 2012 , 31, 17-23	2.5	15
38	A desaturase gene involved in the formation of 1,14-nonadecadiene in <i>Synechococcus</i> sp. strain PCC 7002. <i>Applied and Environmental Microbiology</i> , 2014 , 80, 6073-9	4.8	15
37	High-CO Requirement as a Mechanism for the Containment of Genetically Modified Cyanobacteria. <i>ACS Synthetic Biology</i> , 2018 , 7, 384-391	5.7	14
36	Growth-coupled bioconversion of levulinic acid to butanone. <i>Metabolic Engineering</i> , 2019 , 55, 92-101	9.7	9
35	Directed Evolution Reveals the Functional Sequence Space of an Adenylation Domain Specificity Code. <i>ACS Chemical Biology</i> , 2019 , 14, 2044-2054	4.9	9
34	Inhibition of Cyanobacterial Growth on a Municipal Wastewater Sidestream Is Impacted by Temperature. <i>MSphere</i> , 2018 , 3,	5	9
33	Leveraging synthetic biology for producing bioactive polyketides and non-ribosomal peptides in bacterial heterologous hosts. <i>MedChemComm</i> , 2019 , 10, 668-681	5	8
32	Biological synthesis unbounded?. <i>Nature Biotechnology</i> , 2015 , 33, 1148-9	44.5	8
31	Metabolic engineering of β -oxidation to leverage thioesterases for production of 2-heptanone, 2-nonanone and 2-undecanone. <i>Metabolic Engineering</i> , 2020 , 61, 335-343	9.7	7
30	Genome sequence and analysis of production strain LS5218. <i>Metabolic Engineering Communications</i> , 2017 , 5, 78-83	6.5	7
29	Machine learning-guided acyl-ACP reductase engineering for improved in vivo fatty alcohol production. <i>Nature Communications</i> , 2021 , 12, 5825	17.4	7
28	Rewiring yeast metabolism to synthesize products beyond ethanol. <i>Current Opinion in Chemical Biology</i> , 2020 , 59, 182-192	9.7	7
27	Distinct and redundant functions of three homologs of RNase III in the cyanobacterium <i>Synechococcus</i> sp. strain PCC 7002. <i>Nucleic Acids Research</i> , 2018 , 46, 1984-1997	20.1	6
26	Microbes paired for biological gas-to-liquids (Bio-GTL) process. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 3717-9	11.5	6
25	Production of 1-octanol in <i>Escherichia coli</i> by a high flux thioesterase route. <i>Metabolic Engineering</i> , 2020 , 61, 352-359	9.7	6
24	Optimization of synthetic operons using libraries of post-transcriptional regulatory elements. <i>Methods in Molecular Biology</i> , 2011 , 765, 99-111	1.4	5
23	Model-driven analysis of mutant fitness experiments improves genome-scale metabolic models of <i>Zymomonas mobilis</i> ZM4. <i>PLoS Computational Biology</i> , 2020 , 16, e1008137	5	4
22	Stepwise genetic engineering of <i>Pseudomonas putida</i> enables robust heterologous production of prodigiosin and glidobactin A. <i>Metabolic Engineering</i> , 2021 , 67, 112-124	9.7	4

21	Enhancing photosynthetic production of glycogen-rich biomass for use as a fermentation feedstock. <i>Frontiers in Energy Research</i> , 2020 , 8,	3.8	3
20	Genome-Wide Analysis of RNA Decay in the Cyanobacterium sp. Strain PCC 7002. <i>MSystems</i> , 2020 , 5,	7.6	3
19	IPRO+/-: Computational Protein Design Tool Allowing for Insertions and Deletions. <i>Structure</i> , 2020 , 28, 1344-1357.e4	5.2	3
18	Optimization of a T7-RNA polymerase system in <i>Synechococcus</i> sp. PCC 7002 mirrors the protein overproduction phenotype from <i>E. coli</i> BL21(DE3). <i>Applied Microbiology and Biotechnology</i> , 2021 , 105, 1147-1158	5.7	3
17	Functional genomics analysis of free fatty acid production under continuous phosphate limiting conditions. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2017 , 44, 759-772	4.2	2
16	EnZymClass: Substrate specificity prediction tool of plant acyl-ACP thioesterases based on ensemble learning. <i>Current Research in Biotechnology</i> , 2022 , 4, 1-9	4.8	2
15	Enabling commercial success of industrial biotechnology.. <i>Science</i> , 2021 , 374, 1563-1565	33.3	2
14	Introduction of NADH-dependent nitrate assimilation in <i>Synechococcus</i> sp. PCC 7002 improves photosynthetic production of 2-methyl-1-butanol and isobutanol. <i>Metabolic Engineering</i> , 2021 , 69, 87-97	9.7	2
13	Accelerating strain phenotyping with desorption electrospray ionization-imaging mass spectrometry and untargeted analysis of intact microbial colonies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	2
12	Cyanobacterial Growth on Municipal Wastewater Requires Low Temperatures		2
11	Production of Fatty Acids and Derivatives by Metabolic Engineering of Bacteria 2016 , 1-24		2
10	Renewable linear alpha-olefins by base-catalyzed dehydration of biologically-derived fatty alcohols. <i>Green Chemistry</i> , 2021 , 23, 4338-4354	10	2
9	Structural and Biosynthetic Analysis of the Fabrubactins, Unusual Siderophores from Strain C58. <i>ACS Chemical Biology</i> , 2021 , 16, 125-135	4.9	1
8	Construction and Operation of an Affordable Laboratory Photobioreactor System for Simultaneous Cultivation of up to 12 Independent 1 L Cyanobacterial Cultures		1
7	Metabolic engineering strategies to produce medium-chain oleochemicals via acyl-ACP:CoA transacylase activity.. <i>Nature Communications</i> , 2022 , 13, 1619	17.4	1
6	Infrastructures for Phosphorus Recovery from Livestock Waste Using Cyanobacteria: Transportation, Techno-Economic, and Policy Implications. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 11416-11426	8.3	0
5	By-passing the refinery for production of high-value BTX derivatives. <i>Biotechnology Journal</i> , 2013 , 8, 1375-6	5.6	
4	Directed Evolution of an Adenylation Domain Specificity Code. <i>FASEB Journal</i> , 2018 , 32, 530.6	0.9	

3 Production of Fatty Acids and Derivatives by Metabolic Engineering of Bacteria **2017**, 1-24

2 Production of Fatty Acids and Derivatives by Metabolic Engineering of Bacteria **2017**, 435-458

1 Comparative functional genomics identifies an iron-limited bottleneck in a strain with a cytosolic-localized isobutanol pathway.. *Synthetic and Systems Biotechnology*, **2022**, 7, 738-749 4-2