

# Christoph Wittmann

## List of Publications by Year in descending order

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200  
papers

16,374  
citations

10389

72  
h-index

19190

118  
g-index

256  
all docs

256  
docs citations

256  
times ranked

12092  
citing authors

#	ARTICLE	IF	CITATIONS
1	From zero to hero – Design-based systems metabolic engineering of <i>Corynebacterium glutamicum</i> for l-lysine production. <i>Metabolic Engineering</i> , 2011, 13, 159-168.	7.0	528
2	A roadmap for interpreting <sup>13</sup> C metabolite labeling patterns from cells. <i>Current Opinion in Biotechnology</i> , 2015, 34, 189-201.	6.6	513
3	The yeast <i>Kluyveromyces marxianus</i> and its biotechnological potential. <i>Applied Microbiology and Biotechnology</i> , 2008, 79, 339-354.	3.6	440
4	Complete genome sequence of the myxobacterium <i>Sorangium cellulosum</i> . <i>Nature Biotechnology</i> , 2007, 25, 1281-1289.	17.5	354
5	Sampling for Metabolome Analysis of Microorganisms. <i>Analytical Chemistry</i> , 2007, 79, 3843-3849.	6.5	344
6	Bio-based production of chemicals, materials and fuels – <i>Corynebacterium glutamicum</i> as versatile cell factory. <i>Current Opinion in Biotechnology</i> , 2012, 23, 631-640.	6.6	329
7	A field of dreams: Lignin valorization into chemicals, materials, fuels, and health-care products. <i>Biotechnology Advances</i> , 2019, 37, 107360.	11.7	301
8	Industrial biotechnology of <i>Pseudomonas putida</i> and related species. <i>Applied Microbiology and Biotechnology</i> , 2012, 93, 2279-2290.	3.6	290
9	Advanced Biotechnology: Metabolically Engineered Cells for the Bio-based Production of Chemicals and Fuels, Materials, and Health-care Products. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 3328-3350.	13.8	255
10	From zero to hero – Production of bio-based nylon from renewable resources using engineered <i>Corynebacterium glutamicum</i> . <i>Metabolic Engineering</i> , 2014, 25, 113-123.	7.0	246
11	Top value platform chemicals: bio-based production of organic acids. <i>Current Opinion in Biotechnology</i> , 2015, 36, 168-175.	6.6	237
12	Fermentation of plant-based milk alternatives for improved flavour and nutritional value. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 9263-9275.	3.6	233
13	Impact of the cold shock phenomenon on quantification of intracellular metabolites in bacteria. <i>Analytical Biochemistry</i> , 2004, 327, 135-139.	2.4	225
14	From lignin to nylon: Cascaded chemical and biochemical conversion using metabolically engineered <i>Pseudomonas putida</i> . <i>Metabolic Engineering</i> , 2018, 47, 279-293.	7.0	225
15	OpenFLUX: efficient modelling software for <sup>13</sup> C-based metabolic flux analysis. <i>Microbial Cell Factories</i> , 2009, 8, 25.	4.0	218
16	Correcting mass isotopomer distributions for naturally occurring isotopes. <i>Biotechnology and Bioengineering</i> , 2002, 80, 477-479.	3.3	213
17	Systems and synthetic metabolic engineering for amino acid production – the heartbeat of industrial strain development. <i>Current Opinion in Biotechnology</i> , 2012, 23, 718-726.	6.6	210
18	Amplified Expression of Fructose 1,6-Bisphosphatase in <i>Corynebacterium glutamicum</i> Increases In Vivo Flux through the Pentose Phosphate Pathway and Lysine Production on Different Carbon Sources. <i>Applied and Environmental Microbiology</i> , 2005, 71, 8587-8596.	3.1	209

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19	In-Depth Profiling of Lysine-Producing <i>Corynebacterium glutamicum</i> by Combined Analysis of the Transcriptome, Metabolome, and Fluxome. <i>Journal of Bacteriology</i> , 2004, 186, 1769-1784.	2.2	200
20	Fluxome analysis using GC-MS. <i>Microbial Cell Factories</i> , 2007, 6, 6.	4.0	196
21	Comparative Metabolic Flux Analysis of Lysine-Producing <i>Corynebacterium glutamicum</i> Cultured on Glucose or Fructose. <i>Applied and Environmental Microbiology</i> , 2004, 70, 229-239.	3.1	184
22	Metabolically engineered <i>Corynebacterium glutamicum</i> for bio-based production of chemicals, fuels, materials, and healthcare products. <i>Metabolic Engineering</i> , 2018, 50, 122-141.	7.0	183
23	Systems-wide metabolic pathway engineering in <i>Corynebacterium glutamicum</i> for bio-based production of diaminopentane. <i>Metabolic Engineering</i> , 2010, 12, 341-351.	7.0	181
24	Integrated optical sensing of dissolved oxygen in microtiter plates: A novel tool for microbial cultivation. <i>Biotechnology and Bioengineering</i> , 2003, 81, 829-836.	3.3	178
25	Characterization and control of fungal morphology for improved production performance in biotechnology. <i>Journal of Biotechnology</i> , 2013, 163, 112-123.	3.8	175
26	Genealogy Profiling through Strain Improvement by Using Metabolic Network Analysis: Metabolic Flux Genealogy of Several Generations of Lysine-Producing <i>Corynebacteria</i> . <i>Applied and Environmental Microbiology</i> , 2002, 68, 5843-5859.	3.1	172
27	Bio-based production of the platform chemical 1,5-diaminopentane. <i>Applied Microbiology and Biotechnology</i> , 2011, 91, 1287-1296.	3.6	164
28	Characterization of the metabolic shift between oxidative and fermentative growth in <i>Saccharomyces cerevisiae</i> by comparative <sup>13</sup> C flux analysis. <i>Microbial Cell Factories</i> , 2005, 4, 30.	4.0	163
29	Metabolic flux engineering of l-lysine production in <i>Corynebacterium glutamicum</i> over expression and modification of G6P dehydrogenase. <i>Journal of Biotechnology</i> , 2007, 132, 99-109.	3.8	162
30	In-silico-driven metabolic engineering of <i>Pseudomonas putida</i> for enhanced production of poly-hydroxyalkanoates. <i>Metabolic Engineering</i> , 2013, 15, 113-123.	7.0	160
31	Review: Minibioreactors. <i>Biotechnology Letters</i> , 2004, 26, 1-10.	2.2	159
32	Mass spectrometry for metabolic flux analysis. , 1999, 62, 739-750.		155
33	Metabolic engineering of <i>Corynebacterium glutamicum</i> for the production of cis, cis-muconic acid from lignin. <i>Microbial Cell Factories</i> , 2018, 17, 115.	4.0	150
34	Metabolic pathway analysis for rational design of L-methionine production by <i>Escherichia coli</i> and <i>Corynebacterium glutamicum</i> . <i>Metabolic Engineering</i> , 2006, 8, 353-369.	7.0	143
35	Improved enzyme production by bio-pellets of <i>Aspergillus niger</i> : Targeted morphology engineering using titanate microparticles. <i>Biotechnology and Bioengineering</i> , 2012, 109, 462-471.	3.3	139
36	Metabolic engineering of cellular transport for overproduction of the platform chemical 1,5-diaminopentane in <i>Corynebacterium glutamicum</i> . <i>Metabolic Engineering</i> , 2011, 13, 617-627.	7.0	135

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37	Morphology engineering of <i>Aspergillus niger</i> for improved enzyme production. <i>Biotechnology and Bioengineering</i> , 2010, 105, 1058-1068.	3.3	132
38	Industrial biotechnology of <i>Pseudomonas putida</i> : advances and prospects. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 7745-7766.	3.6	128
39	Metabolic engineering of <i>Corynebacterium glutamicum</i> for production of 1,5-diaminopentane from hemicellulose. <i>Biotechnology Journal</i> , 2011, 6, 306-317.	3.5	127
40	Enabling the valorization of guaiacol-based lignin: Integrated chemical and biochemical production of cis,cis-muconic acid using metabolically engineered <i>Amycolatopsis</i> sp ATCC 39116. <i>Metabolic Engineering</i> , 2018, 45, 200-210.	7.0	125
41	Biotechnology of riboflavin. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 2107-2119.	3.6	123
42	Pyrazine Biosynthesis in <i>Corynebacterium glutamicum</i> . <i>European Journal of Organic Chemistry</i> , 2010, 2010, 2687-2695.	2.4	119
43	Physiology of the yeast <i>Kluyveromyces marxianus</i> during batch and chemostat cultures with glucose as the sole carbon source. <i>FEMS Yeast Research</i> , 2007, 7, 422-435.	2.3	118
44	Areal activities and stratification of hydrolytic enzymes involved in the biochemical cycles of carbon, nitrogen, sulphur and phosphorus in podsolized boreal forest soils. <i>Soil Biology and Biochemistry</i> , 2004, 36, 425-433.	8.8	116
45	Metabolic engineering of industrial platform microorganisms for biorefinery applications – Optimization of substrate spectrum and process robustness by rational and evolutive strategies. <i>Bioresource Technology</i> , 2013, 135, 544-554.	9.6	115
46	Identification and Elimination of the Competing <i>N</i> -Acetyldiaminopentane Pathway for Improved Production of Diaminopentane by <i>Corynebacterium glutamicum</i> . <i>Applied and Environmental Microbiology</i> , 2010, 76, 5175-5180.	3.1	111
47	Systems metabolic engineering of <i>Corynebacterium glutamicum</i> for the production of the carbon-5 platform chemicals 5-aminovalerate and glutarate. <i>Microbial Cell Factories</i> , 2016, 15, 154.	4.0	109
48	Application of MALDI-TOF MS to lysine-producing <i>Corynebacterium glutamicum</i> . <i>FEBS Journal</i> , 2001, 268, 2441-2455.	0.2	108
49	Systems metabolic engineering of <i>Escherichia coli</i> for production of the antitumor drugs violacein and deoxyviolacein. <i>Metabolic Engineering</i> , 2013, 20, 29-41.	7.0	108
50	Increased lysine production by flux coupling of the tricarboxylic acid cycle and the lysine biosynthetic pathway – Metabolic engineering of the availability of succinyl-CoA in <i>Corynebacterium glutamicum</i> . <i>Metabolic Engineering</i> , 2013, 15, 184-195.	7.0	106
51	Systems metabolic engineering of xylose-utilizing <i>Corynebacterium glutamicum</i> for production of 1,5-diaminopentane. <i>Biotechnology Journal</i> , 2013, 8, 557-570.	3.5	106
52	Metabolic Engineering of the Tricarboxylic Acid Cycle for Improved Lysine Production by <i>Corynebacterium glutamicum</i> . <i>Applied and Environmental Microbiology</i> , 2009, 75, 7866-7869.	3.1	104
53	Morphology and Rheology in Filamentous Cultivations. <i>Advances in Applied Microbiology</i> , 2010, 72, 89-136.	2.4	100
54	Production of medium chain length polyhydroxyalkanoate in metabolic flux optimized <i>Pseudomonas putida</i> . <i>Microbial Cell Factories</i> , 2014, 13, 88.	4.0	98

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55	In vivo analysis of intracellular amino acid labelings by GC/MS. Analytical Biochemistry, 2002, 307, 379-382.	2.4	97
56	Metabolic Fluxes in <i>Corynebacterium glutamicum</i> during Lysine Production with Sucrose as Carbon Source. Applied and Environmental Microbiology, 2004, 70, 7277-7287.	3.1	95
57	Growth inhibition by ammonia and use of a pH-controlled feeding strategy for the effective cultivation of <i>Mycobacterium chlorophenicum</i> . Applied Microbiology and Biotechnology, 1995, 44, 519-525.	3.6	93
58	Characterization and application of an optical sensor for quantification of dissolved O <sub>2</sub> in shake-flasks. Biotechnology Letters, 2003, 25, 377-380.	2.2	90
59	Metabolic fluxes and beyond systems biology understanding and engineering of microbial metabolism. Applied Microbiology and Biotechnology, 2010, 88, 1065-1075.	3.6	90
60	GC-MS-based <sup>13</sup> C metabolic flux analysis resolves the parallel and cyclic glucose metabolism of <i>Pseudomonas putida</i> KT2440 and <i>Pseudomonas aeruginosa</i> PAO1. Metabolic Engineering, 2019, 54, 35-53.	7.0	90
61	The Key to Acetate: Metabolic Fluxes of Acetic Acid Bacteria under Cocoa Pulp Fermentation-Simulating Conditions. Applied and Environmental Microbiology, 2014, 80, 4702-4716.	3.1	89
62	Systems-wide analysis and engineering of metabolic pathway fluxes in bio-succinate producing <i>Basfia succiniciproducens</i> . Biotechnology and Bioengineering, 2013, 110, 3013-3023.	3.3	88
63	In vivo quantification of intracellular amino acids and intermediates of the methionine pathway in <i>Corynebacterium glutamicum</i> . Analytical Biochemistry, 2005, 340, 171-173.	2.4	87
64	Metabolic physiology of aroma-producing <i>Kluyveromyces marxianus</i> . Yeast, 2002, 19, 1351-1363.	1.7	86
65	Metabolic responses to pyruvate kinase deletion in lysine producing <i>Corynebacterium glutamicum</i> . Microbial Cell Factories, 2008, 7, 8.	4.0	84
66	Systems metabolic engineering of <i>Corynebacterium glutamicum</i> for production of the chemical chaperone ectoine. Microbial Cell Factories, 2013, 12, 110.	4.0	84
67	Modeling and Experimental Design for Metabolic Flux Analysis of Lysine-Producing <i>Corynebacteria</i> by Mass Spectrometry. Metabolic Engineering, 2001, 3, 173-191.	7.0	83
68	Adaptation of <i>Bacillus subtilis</i> carbon core metabolism to simultaneous nutrient limitation and osmotic challenge: a multi-omics perspective. Environmental Microbiology, 2014, 16, 1898-1917.	3.8	83
69	Polyunsaturated fatty acid production by <i>Yarrowia lipolytica</i> employing designed myxobacterial PUFA synthases. Nature Communications, 2019, 10, 4055.	12.8	81
70	Flux Design: In silico design of cell factories based on correlation of pathway fluxes to desired properties. BMC Systems Biology, 2009, 3, 120.	3.0	80
71	Quantification of intracellular amino acids in batch cultures of <i>Saccharomyces cerevisiae</i> . Applied Microbiology and Biotechnology, 2001, 56, 776-779.	3.6	79
72	Response of fluxome and metabolome to temperature-induced recombinant protein synthesis in <i>Escherichia coli</i> . Journal of Biotechnology, 2007, 132, 375-384.	3.8	78

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73	A bio-based route to the carbon-5 chemical glutaric acid and to bionylon-6,5 using metabolically engineered <i>Corynebacterium glutamicum</i> . <i>Green Chemistry</i> , 2018, 20, 4662-4674.	9.0	78
74	Transcriptional and Metabolic Responses of <i>Bacillus subtilis</i> to the Availability of Organic Acids: Transcription Regulation Is Important but Not Sufficient To Account for Metabolic Adaptation. <i>Applied and Environmental Microbiology</i> , 2007, 73, 499-507.	3.1	76
75	Biochemistry, genetics and biotechnology of glycerol utilization in <i>Pseudomonas</i> species. <i>Microbial Biotechnology</i> , 2020, 13, 32-53.	4.2	76
76	Large-Scale <sup>13</sup> C Flux Profiling Reveals Conservation of the Entner-Doudoroff Pathway as a Glycolytic Strategy among Marine Bacteria That Use Glucose. <i>Applied and Environmental Microbiology</i> , 2015, 81, 2408-2422.	3.1	73
77	Advances in metabolic engineering of <i>Corynebacterium glutamicum</i> to produce high-value active ingredients for food, feed, human health, and well-being. <i>Essays in Biochemistry</i> , 2021, 65, 197-212.	4.7	71
78	Consequences of phosphoenolpyruvate:sugar phosphotransferase system and pyruvate kinase isozymes inactivation in central carbon metabolism flux distribution in <i>Escherichia coli</i> . <i>Microbial Cell Factories</i> , 2012, 11, 127.	4.0	70
79	Integrated analysis of gene expression and metabolic fluxes in PHA-producing <i>Pseudomonas putida</i> grown on glycerol. <i>Microbial Cell Factories</i> , 2016, 15, 73.	4.0	70
80	Metabolic network analysis of lysine producing <i>Corynebacterium glutamicum</i> at a miniaturized scale. <i>Biotechnology and Bioengineering</i> , 2004, 87, 1-6.	3.3	66
81	Response of the central metabolism of <i>Escherichia coli</i> to modified expression of the gene encoding the glucose-6-phosphate dehydrogenase. <i>FEBS Letters</i> , 2007, 581, 3771-3776.	2.8	65
82	Lysine production from the sugar alcohol mannitol: Design of the cell factory <i>Corynebacterium glutamicum</i> SEA-3 through integrated analysis and engineering of metabolic pathway fluxes. <i>Metabolic Engineering</i> , 2018, 47, 475-487.	7.0	65
83	Integration of in vivo and in silico metabolic fluxes for improvement of recombinant protein production. <i>Metabolic Engineering</i> , 2012, 14, 47-58.	7.0	64
84	Microbial production of polyunsaturated fatty acids – high-value ingredients for aquafeed, superfoods, and pharmaceuticals. <i>Current Opinion in Biotechnology</i> , 2021, 69, 199-211.	6.6	64
85	Derivatization of small biomolecules for optimized matrix-assisted laser desorption/ionization mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2002, 37, 963-973.	1.6	61
86	Core Fluxome and Metafluxome of Lactic Acid Bacteria under Simulated Cocoa Pulp Fermentation Conditions. <i>Applied and Environmental Microbiology</i> , 2013, 79, 5670-5681.	3.1	61
87	Metabolic Engineering of <i>Corynebacterium glutamicum</i> for High-Level Ectoine Production: Design, Combinatorial Assembly, and Implementation of a Transcriptionally Balanced Heterologous Ectoine Pathway. <i>Biotechnology Journal</i> , 2019, 14, e1800417.	3.5	61
88	Microbial production of extremolytes – high-value active ingredients for nutrition, health care, and well-being. <i>Current Opinion in Biotechnology</i> , 2020, 65, 118-128.	6.6	61
89	The L-Lysine Story: From Metabolic Pathways to Industrial Production. , 2007, , 39-70.		60
90	Systems Biology of Recombinant Protein Production Using <i>Bacillus megaterium</i> . <i>Methods in Enzymology</i> , 2011, 500, 165-195.	1.0	60

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91	Robustness and Plasticity of Metabolic Pathway Flux among Uropathogenic Isolates of <i>Pseudomonas aeruginosa</i> . <i>PLoS ONE</i> , 2014, 9, e88368.	2.5	60
92	MALDI-TOF MS for quantification of substrates and products in cultivations of <i>Corynebacterium glutamicum</i> . <i>Biotechnology and Bioengineering</i> , 2001, 72, 642-647.	3.3	59
93	Dynamics of intracellular metabolites of glycolysis and TCA cycle during cell-cycle-related oscillation in <i>Saccharomyces cerevisiae</i> . <i>Biotechnology and Bioengineering</i> , 2005, 89, 839-847.	3.3	59
94	Anodic electrofermentation: Anaerobic production of Lysine by recombinant <i>Corynebacterium glutamicum</i> . <i>Biotechnology and Bioengineering</i> , 2018, 115, 1499-1508.	3.3	58
95	Appropriate sampling for intracellular amino acid analysis in five phylogenetically different yeasts. <i>Biotechnology Letters</i> , 2008, 30, 1993-2000.	2.2	57
96	Physiological response of <i>Corynebacterium glutamicum</i> to oxidative stress induced by deletion of the transcriptional repressor McbR. <i>Microbiology (United Kingdom)</i> , 2008, 154, 3917-3930.	1.8	57
97	Contextual Flexibility in <i>Pseudomonas aeruginosa</i> Central Carbon Metabolism during Growth in Single Carbon Sources. <i>MBio</i> , 2020, 11, .	4.1	57
98	Optoregulated Drug Release from an Engineered Living Material: Self-Replenishing Drug Depots for Long-Term, Light-Regulated Delivery. <i>Small</i> , 2019, 15, e1804717.	10.0	56
99	Towards methionine overproduction in <i>Corynebacterium glutamicum</i> - methanethiol and dimethylsulfide as reduced sulfur sources. <i>Journal of Microbiology and Biotechnology</i> , 2010, 20, 1196-1203.	2.1	56
100	Theoretical aspects of <sup>13</sup> C metabolic flux analysis with sole quantification of carbon dioxide labeling. <i>Computational Biology and Chemistry</i> , 2005, 29, 121-133.	2.3	53
101	Optimized bioprocess for production of fructofuranosidase by recombinant <i>Aspergillus niger</i> . <i>Applied Microbiology and Biotechnology</i> , 2010, 87, 2011-2024.	3.6	53
102	Erythritol feeds the pentose phosphate pathway via three new isomerases leading to D-erythrose-4-phosphate in <i>Brucella</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 17815-17820.	7.1	53
103	The Pyruvate-Tricarboxylic Acid Cycle Node. <i>Journal of Biological Chemistry</i> , 2014, 289, 30114-30132.	3.4	53
104	Glycolytic Shunts Replenish the Calvin-Benson-Bassham Cycle as Anaplerotic Reactions in Cyanobacteria. <i>Molecular Plant</i> , 2020, 13, 471-482.	8.3	53
105	Free intracellular amino acid pools during autonomous oscillations in <i>Saccharomyces cerevisiae</i> . <i>Biotechnology and Bioengineering</i> , 2003, 82, 143-151.	3.3	52
106	From systems biology to metabolically engineered cells – an omics perspective on the development of industrial microbes. <i>Current Opinion in Microbiology</i> , 2018, 45, 180-188.	5.1	52
107	Metabolic fluxes in the central carbon metabolism of <i>Dinoroseobacter shibae</i> and <i>Phaeobacter gallaeciensis</i> , two members of the marine <i>Roseobacter</i> clade. <i>BMC Microbiology</i> , 2009, 9, 209.	3.3	51
108	Filamentous fungi in good shape: Microparticles for tailor-made fungal morphology and enhanced enzyme production. <i>Bioengineered Bugs</i> , 2011, 2, 100-104.	1.7	51

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109	Standard reporting requirements for biological samples in metabolomics experiments: microbial and in vitro biology experiments. <i>Metabolomics</i> , 2007, 3, 189-194.	3.0	50
110	Sampling of intracellular metabolites for stationary and non-stationary <sup>13</sup> C metabolic flux analysis in <i>Escherichia coli</i> . <i>Analytical Biochemistry</i> , 2014, 465, 38-49.	2.4	50
111	Improved riboflavin production with <i>Ashbya gossypii</i> from vegetable oil based on <sup>13</sup> C metabolic network analysis with combined labeling analysis by GC/MS, LC/MS, 1D, and 2D NMR. <i>Metabolic Engineering</i> , 2018, 47, 357-373.	7.0	50
112	Accumulation of Homolanthionine and Activation of a Novel Pathway for Isoleucine Biosynthesis in <i>Corynebacterium glutamicum</i> McbR Deletion Strains. <i>Journal of Bacteriology</i> , 2006, 188, 609-618.	2.2	48
113	Reconciling in vivo and in silico key biological parameters of <i>Pseudomonas putida</i> KT2440 during growth on glucose under carbon-limited condition. <i>BMC Biotechnology</i> , 2013, 13, 93.	3.3	48
114	Systems level engineering of <i>Corynebacterium glutamicum</i> – Reprogramming translational efficiency for superior production. <i>Engineering in Life Sciences</i> , 2010, 10, 430-438.	3.6	47
115	Getting the big beast to work – Systems biotechnology of <i>Bacillus megaterium</i> for novel high-value proteins. <i>Journal of Biotechnology</i> , 2013, 163, 87-96.	3.8	47
116	Debottlenecking recombinant protein production in <i>Bacillus megaterium</i> under large-scale conditions – targeted precursor feeding designed from metabolomics. <i>Biotechnology and Bioengineering</i> , 2012, 109, 1538-1550.	3.3	46
117	Bio-based succinate from sucrose: High-resolution <sup>13</sup> C metabolic flux analysis and metabolic engineering of the rumen bacterium <i>Basfia succiniciproducens</i> . <i>Metabolic Engineering</i> , 2017, 44, 198-212.	7.0	46
118	Respirometric <sup>13</sup> C flux analysis – Part II: In vivo flux estimation of lysine-producing <i>Corynebacterium glutamicum</i> . <i>Metabolic Engineering</i> , 2006, 8, 432-446.	7.0	44
119	Use of Single-Frequency Impedance Spectroscopy to Characterize the Growth Dynamics of Biofilm Formation in <i>Pseudomonas aeruginosa</i> . <i>Scientific Reports</i> , 2017, 7, 5223.	3.3	44
120	Microbial production of the drugs violacein and deoxyviolacein: analytical development and strain comparison. <i>Biotechnology Letters</i> , 2012, 34, 717-720.	2.2	41
121	Systems metabolic engineering of <i>Escherichia coli</i> for the heterologous production of high value molecules – a veteran at new shores. <i>Current Opinion in Biotechnology</i> , 2016, 42, 178-188.	6.6	41
122	Effect of different carbon sources on central metabolic fluxes and the recombinant production of a hydrolase from <i>Thermobifida fusca</i> in <i>Bacillus megaterium</i> . <i>Journal of Biotechnology</i> , 2007, 132, 385-394.	3.8	40
123	Systems metabolic engineering of <i>Escherichia coli</i> for gram scale production of the antitumor drug deoxyviolacein from glycerol. <i>Biotechnology and Bioengineering</i> , 2014, 111, 2280-2289.	3.3	40
124	<i>Corynebacterium glutamicum</i> for Sustainable Bioproduction: From Metabolic Physiology to Systems Metabolic Engineering. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2016, 162, 217-263.	1.1	40
125	Analysis of <sup>13</sup> C labeling enrichment in microbial culture applying metabolic tracer experiments using gas chromatography – combustion – isotope ratio mass spectrometry. <i>Analytical Biochemistry</i> , 2008, 380, 202-210.	2.4	39
126	Microparticle based morphology engineering of filamentous microorganisms for industrial bio-production. <i>Biotechnology Letters</i> , 2012, 34, 1975-1982.	2.2	38



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127	Respirometric <sup>13</sup> C flux analysis, Part I: Design, construction and validation of a novel multiple reactor system using on-line membrane inlet mass spectrometry. <i>Metabolic Engineering</i> , 2006, 8, 417-431.	7.0	37
128	High yield production of extracellular recombinant levansucrase by <i>Bacillus megaterium</i> . <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 3343-3353.	3.6	36
129	Guiding stars to the field of dreams: Metabolically engineered pathways and microbial platforms for a sustainable lignin-based industry. <i>Metabolic Engineering</i> , 2022, 71, 13-41.	7.0	36
130	Mineralization of detritus and oxidation of methane in acid boreal coniferous forest soils: seasonal and vertical distribution and effects of clear-cut. <i>Soil Biology and Biochemistry</i> , 2002, 34, 1191-1200.	8.8	35
131	Towards better understanding of industrial cell factories: novel approaches for <sup>13</sup> C metabolic flux analysis in complex nutrient environments. <i>Current Opinion in Biotechnology</i> , 2018, 54, 128-137.	6.6	33
132	Limited life cycle and cost assessment for the bioconversion of lignin-derived aromatics into adipic acid. <i>Biotechnology and Bioengineering</i> , 2020, 117, 1381-1393.	3.3	32
133	Metabolic flux screening of <i>Saccharomyces cerevisiae</i> single knockout strains on glucose and galactose supports elucidation of gene function. <i>Journal of Biotechnology</i> , 2007, 132, 395-404.	3.8	31
134	Oxygen supply in disposable shake-flasks: prediction of oxygen transfer rate, oxygen saturation and maximum cell concentration during aerobic growth. <i>Biotechnology Letters</i> , 2013, 35, 1223-1230.	2.2	31
135	Cascaded valorization of brown seaweed to produce l-lysine and value-added products using <i>Corynebacterium glutamicum</i> streamlined by systems metabolic engineering. <i>Metabolic Engineering</i> , 2021, 67, 293-307.	7.0	30
136	Comparative metabolic flux analysis of an <i>Ashbya gossypii</i> wild type strain and a high riboflavin-producing mutant strain. <i>Journal of Bioscience and Bioengineering</i> , 2015, 119, 101-106.	2.2	29
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