

Wolfgang Wiechert

List of Publications by Year in Descending Order

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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.

194
papers

7,149
citations

44
h-index

80
g-index

209
ext. papers

8,218
ext. citations

4.7
avg, IF

6.15
L-index

#	Paper	IF	Citations
194	Bayesian calibration, process modeling and uncertainty quantification in biotechnology.. <i>PLoS Computational Biology</i> , 2022 , 18, e1009223	5	3
193	bletl - A Python package for integrating BioLector microcultivation devices in the Design-Build-Test-Learn cycle.. <i>Engineering in Life Sciences</i> , 2022 , 22, 242-259	3.4	3
192	Hot isopropanol quenching procedure for automated microtiter plate scale C-labeling experiments.. <i>Microbial Cell Factories</i> , 2022 , 21, 78	6.4	0
191	High-Quality Genome-Scale Reconstruction of ATCC 13032. <i>Frontiers in Microbiology</i> , 2021 , 12, 750206	5.7	0
190	A fully automated pipeline for the dynamic at-line morphology analysis of microscale <i>Aspergillus</i> cultivation. <i>Fungal Biology and Biotechnology</i> , 2021 , 8, 2	7.5	3
189	Microbioreactor-assisted cultivation workflows for time-efficient phenotyping of protein producing <i>Aspergillus niger</i> in batch and fed-batch mode. <i>Biotechnology Progress</i> , 2021 , 37, e3144	2.8	
188	Need for speed: evaluation of dilute and shoot-mass spectrometry for accelerated metabolic phenotyping in bioprocess development. <i>Analytical and Bioanalytical Chemistry</i> , 2021 , 413, 3253-3268	4.4	1
187	Robotic integration enables autonomous operation of laboratory scale stirred tank bioreactors with model-driven process analysis. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 2759-2769	4.9	2
186	Quantitative Metabolic Flux Analysis Based on Isotope Labeling 2021 , 73-136		0
185	Microaerobic growth-decoupled production of α -ketoglutarate and succinate from xylose in a one-pot process using <i>Corynebacterium glutamicum</i> . <i>Biotechnology Journal</i> , 2021 , 16, e2100043	5.6	2
184	pyFOOMB: Python framework for object oriented modeling of bioprocesses. <i>Engineering in Life Sciences</i> , 2021 , 21, 242-257	3.4	6
183	Construction and comprehensive characterization of an E ₁ LDCC-CatIB set-varying linkers and aggregation inducing tags. <i>Microbial Cell Factories</i> , 2021 , 20, 49	6.4	6
182	Scaling production of GFP1-10 detector protein in E. coli for secretion screening by split GFP assay. <i>Microbial Cell Factories</i> , 2021 , 20, 191	6.4	1
181	Revisiting the Growth Modulon of Under Glucose Limited Chemostat Conditions. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 584614	5.8	2
180	Simulation of differential-algebraic equation systems with optimization criteria embedded in Modelica. <i>Computers and Chemical Engineering</i> , 2020 , 140, 106920	4	2
179	Parallelized microscale fed-batch cultivation in online-monitored microtiter plates: implications of media composition and feed strategies for process design and performance. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2020 , 47, 35-47	4.2	4
178	Comprehensive analysis of metabolic sensitivity of 1,4-butanediol producing <i>Escherichia coli</i> toward substrate and oxygen availability. <i>Biotechnology Progress</i> , 2020 , 36, e2917	2.8	2

177	Analysis of the local well-posedness of optimization-constrained differential equations by local optimality conditions. <i>AIChE Journal</i> , 2020 , 66, e16548	3.6	2
176	Screening of a genome-reduced <i>Corynebacterium glutamicum</i> strain library for improved heterologous cutinase secretion. <i>Microbial Biotechnology</i> , 2020 , 13, 2020-2031	6.3	5
175	Comprehensive Analysis of Anaplerotic Deletion Mutants Under Defined d-Glucose Conditions. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 602936	5.8	2
174	A closer look at : online monitoring via scattered light enables reproducible phenotyping. <i>Fungal Biology and Biotechnology</i> , 2019 , 6, 11	7.5	5
173	myceliso - high-throughput analysis of <i>Streptomyces</i> mycelium live cell imaging data. <i>BMC Bioinformatics</i> , 2019 , 20, 452	3.6	0
172	The Design of FluxML: A Universal Modeling Language for C Metabolic Flux Analysis. <i>Frontiers in Microbiology</i> , 2019 , 10, 1022	5.7	14
171	Analyzing Microbial Population Heterogeneity-Expanding the Toolbox of Microfluidic Single-Cell Cultivations. <i>Journal of Molecular Biology</i> , 2019 , 431, 4569-4588	6.5	22
170	Multiscale dynamic modeling and simulation of a biorefinery. <i>Biotechnology and Bioengineering</i> , 2019 , 116, 2561-2574	4.9	5
169	An Enzymatic 2-Step Cofactor and Co-Product Recycling Cascade towards a Chiral 1,2-Diol. Part I: Cascade Design. <i>Advanced Synthesis and Catalysis</i> , 2019 , 361, 2607-2615	5.6	7
168	An Enzymatic 2-Step Cofactor and Co-Product Recycling Cascade towards a Chiral 1,2-Diol. Part II: Catalytically Active Inclusion Bodies. <i>Advanced Synthesis and Catalysis</i> , 2019 , 361, 2616	5.6	5
167	FeedER: a feedback-regulated enzyme-based slow-release system for fed-batch cultivation in microtiter plates. <i>Bioprocess and Biosystems Engineering</i> , 2019 , 42, 1843-1852	3.7	6
166	A FRET-based biosensor for the quantification of glucose in culture supernatants of mL scale microbial cultivations. <i>Microbial Cell Factories</i> , 2019 , 18, 143	6.4	10
165	Rapid and comprehensive evaluation of microalgal fatty acids via untargeted gas chromatography and time-of-flight mass spectrometry. <i>Engineering in Life Sciences</i> , 2019 , 19, 1006-1011	3.4	0
164	Combinatorial impact of Sec signal peptides from <i>Bacillus subtilis</i> and bioprocess conditions on heterologous cutinase secretion by <i>Corynebacterium glutamicum</i> . <i>Biotechnology and Bioengineering</i> , 2019 , 116, 644-655	4.9	10
163	Less Sacrifice, More Insight: Repeated Low-Volume Sampling of Microbioreactor Cultivations Enables Accelerated Deep Phenotyping of Microbial Strain Libraries. <i>Biotechnology Journal</i> , 2019 , 14, e1800428	5.6	19
162	Microbioreactor Systems for Accelerated Bioprocess Development. <i>Biotechnology Journal</i> , 2018 , 13, e1700141	5.6	75
161	Laboratory-scale photobiotechnology-current trends and future perspectives. <i>FEMS Microbiology Letters</i> , 2018 , 365,	2.9	5
160	Quantitative measurements in single-cell analysis: towards scalability in microbial bioprocess development. <i>Current Opinion in Biotechnology</i> , 2018 , 54, 121-127	11.4	10

159	Microbial single-cell analysis in picoliter-sized batch cultivation chambers. <i>New Biotechnology</i> , 2018 , 47, 50-59	6.4	14
158	Differential transcriptomic analysis reveals hidden light response in <i>Streptomyces lividans</i> . <i>Biotechnology Progress</i> , 2018 , 34, 287-292	2.8	1
157	Multi-Omics and Targeted Approaches to Determine the Role of Cellular Proteases in Protein Secretion. <i>Frontiers in Microbiology</i> , 2018 , 9, 1174	5.7	13
156	Improved microscale cultivation of for clonal screening. <i>Fungal Biology and Biotechnology</i> , 2018 , 5, 8	7.5	10
155	<i>Corynebacterium glutamicum</i> Chassis C1*: Building and Testing a Novel Platform Host for Synthetic Biology and Industrial Biotechnology. <i>ACS Synthetic Biology</i> , 2018 , 7, 132-144	5.7	43
154	Tailor-made catalytically active inclusion bodies for different applications in biocatalysis. <i>Catalysis Science and Technology</i> , 2018 , 8, 5816-5826	5.5	19
153	A Pareto approach to resolve the conflict between information gain and experimental costs: Multiple-criteria design of carbon labeling experiments. <i>PLoS Computational Biology</i> , 2018 , 14, e1006533 ⁵		9
152	Characterization of Sigma Factor Genes in TK24 Using a Genomic Library-Based Approach for Multiple Gene Deletions. <i>Frontiers in Microbiology</i> , 2018 , 9, 3033	5.7	9
151	Germination and Growth Analysis of at the Single-Cell Level Under Varying Medium Compositions. <i>Frontiers in Microbiology</i> , 2018 , 9, 2680	5.7	3
150	The structural index of sensitivity equation systems. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2018 , 24, 573-592	1	2
149	Real-time monitoring of fungal growth and morphogenesis at single-cell resolution. <i>Engineering in Life Sciences</i> , 2017 , 17, 86-92	3.4	9
148	Comparative evaluation of phototrophic microtiter plate cultivation against laboratory-scale photobioreactors. <i>Bioprocess and Biosystems Engineering</i> , 2017 , 40, 663-673	3.7	8
147	Dynamic flux balance analysis with nonlinear objective function. <i>Journal of Mathematical Biology</i> , 2017 , 75, 1487-1515	2	10
146	Miniaturized and automated adaptive laboratory evolution: Evolving <i>Corynebacterium glutamicum</i> towards an improved d-xylose utilization. <i>Bioresource Technology</i> , 2017 , 245, 1377-1385	11	57
145	Fast and reliable strain characterization of <i>Streptomyces lividans</i> through micro-scale cultivation. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 2011-2022	4.9	18
144	Homogenizing bacterial cell factories: Analysis and engineering of phenotypic heterogeneity. <i>Metabolic Engineering</i> , 2017 , 42, 145-156	9.7	63
143	Automated growth rate determination in high-throughput microbioreactor systems. <i>BMC Research Notes</i> , 2017 , 10, 617	2.3	10
142	pH fluctuations imperil the robustness of <i>C. glutamicum</i> to short term oxygen limitation. <i>Journal of Biotechnology</i> , 2017 , 259, 248-260	3.7	8

141	To be certain about the uncertainty: Bayesian statistics for C metabolic flux analysis. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 2668-2684	4.9	14
140	Coarse-graining bacteria colonies for modelling critical solute distributions in picolitre bioreactors for bacterial studies on single-cell level. <i>Microbial Biotechnology</i> , 2017 , 10, 845-857	6.3	9
139	Kriging with trend functions nonlinear in their parameters: Theory and application in enzyme kinetics. <i>Engineering in Life Sciences</i> , 2017 , 17, 916-922	3.4	6
138	The linkage between nutrient supply, intracellular enzyme abundances and bacterial growth: New evidences from the central carbon metabolism of <i>Corynebacterium glutamicum</i> . <i>Journal of Biotechnology</i> , 2017 , 258, 13-24	3.7	8
137	A framework for accelerated phototrophic bioprocess development: integration of parallelized microscale cultivation, laboratory automation and Kriging-assisted experimental design. <i>Biotechnology for Biofuels</i> , 2017 , 10, 26	7.8	9
136	Design and validation of a parallelized micro-photobioreactor enabling phototrophic bioprocess development at elevated throughput. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 122-131	4.9	13
135	Metabolic profile of 1,5-diaminopentane producing <i>Corynebacterium glutamicum</i> under scale-down conditions: Blueprint for robustness to bioreactor inhomogeneities. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 560-575	4.9	34
134	Generic Protocol for Optimization of Heterologous Protein Production Using Automated Microbioreactor Technology. <i>Journal of Visualized Experiments</i> , 2017 ,	1.6	4
133	Artificial fluorogenic substrates in microfluidic devices for bacterial diagnostics in biotechnology. <i>Journal of Flow Chemistry</i> , 2016 , 6, 3-7	3.3	1
132	Time-resolved, single-cell analysis of induced and programmed cell death via non-invasive propidium iodide and counterstain perfusion. <i>Scientific Reports</i> , 2016 , 6, 32104	4.9	37
131	Adaptation of Microscale Cultivation for Optimization of Protein Production in <i>Pichia pastoris</i> . <i>Chemie-Ingenieur-Technik</i> , 2016 , 88, 1406-1406	0.8	
130	Exploring the Sequence-Function Space of ThDP-Dependent Enzymes. <i>Chemie-Ingenieur-Technik</i> , 2016 , 88, 1246-1246	0.8	
129	Cutting the Gordian Knot: Identifiability of anaplerotic reactions in <i>Corynebacterium glutamicum</i> by means of (13) C-metabolic flux analysis. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 661-74	4.9	16
128	Photocaged Arabinose: A Novel Optogenetic Switch for Rapid and Gradual Control of Microbial Gene Expression. <i>ChemBioChem</i> , 2016 , 17, 296-9	3.8	23
127	Plug flow versus stirred tank reactor flow characteristics in two-compartment scale-down bioreactor: Setup-specific influence on the metabolic phenotype and bioprocess performance of <i>Corynebacterium glutamicum</i> . <i>Engineering in Life Sciences</i> , 2016 , 16, 610-619	3.4	25
126	Framework for Kriging-based iterative experimental analysis and design: Optimization of secretory protein production in <i>Corynebacterium glutamicum</i> . <i>Engineering in Life Sciences</i> , 2016 , 16, 538-549	3.4	20
125	Discrete-continuous reaction-diffusion model with mobile point-like sources and sinks. <i>European Physical Journal E</i> , 2016 , 39, 11	1.5	6
124	Automation of a Nile red staining assay enables high throughput quantification of microalgal lipid production. <i>Microbial Cell Factories</i> , 2016 , 15, 34	6.4	21

123	A scientific workflow framework for (13)C metabolic flux analysis. <i>Journal of Biotechnology</i> , 2016 , 232, 12-24	3.7	14
122	Image-Based Single Cell Profiling: High-Throughput Processing of Mother Machine Experiments. <i>PLoS ONE</i> , 2016 , 11, e0163453	3.7	23
121	A Toolbox of Genetically Encoded FRET-Based Biosensors for Rapid L-Lysine Analysis. <i>Sensors</i> , 2016 , 16,	3.8	20
120	Use of a Sec signal peptide library from <i>Bacillus subtilis</i> for the optimization of cutinase secretion in <i>Corynebacterium glutamicum</i> . <i>Microbial Cell Factories</i> , 2016 , 15, 208	6.4	31
119	MORE: A microfluidic magnetic oscillation reactor for accelerated parameter optimization in biocatalysis. <i>Journal of Biotechnology</i> , 2016 , 231, 174-182	3.7	10
118	Simplified cryopreservation of the microalga <i>Chlorella vulgaris</i> integrating a novel concept for cell viability estimation. <i>Engineering in Life Sciences</i> , 2016 , 16, 36-44	3.4	13
117	Technical bias of microcultivation environments on single-cell physiology. <i>Lab on A Chip</i> , 2015 , 15, 1822-34	3.4	28
116	Chassis organism from <i>Corynebacterium glutamicum</i> --a top-down approach to identify and delete irrelevant gene clusters. <i>Biotechnology Journal</i> , 2015 , 10, 290-301	5.6	87
115	Computational Systems Biology [neues Fach in den Lebenswissenschaften]. <i>BioSpektrum</i> , 2015 , 21, 46-48	0.1	
114	Bioprocess automation on a Mini Pilot Plant enables fast quantitative microbial phenotyping. <i>Microbial Cell Factories</i> , 2015 , 14, 32	6.4	56
113	Modeling and CFD simulation of nutrient distribution in picoliter bioreactors for bacterial growth studies on single-cell level. <i>Lab on A Chip</i> , 2015 , 15, 4177-86	7.2	28
112	Vizardous: interactive analysis of microbial populations with single cell resolution. <i>Bioinformatics</i> , 2015 , 31, 3875-7	7.2	5
111	Rapid inoculation of single bacteria into parallel picoliter fermentation chambers. <i>Analytical Methods</i> , 2015 , 7, 91-98	3.2	24
110	How to measure metabolic fluxes: a taxonomic guide for (13)C fluxomics. <i>Current Opinion in Biotechnology</i> , 2015 , 34, 82-90	11.4	79
109	Absolute quantification of <i>Corynebacterium glutamicum</i> glycolytic and anaplerotic enzymes by QconCAT. <i>Journal of Proteomics</i> , 2015 , 113, 366-77	3.9	11
108	Visual workflows for 13C-metabolic flux analysis. <i>Bioinformatics</i> , 2015 , 31, 346-54	7.2	23
107	A Primer to 13C Metabolic Flux Analysis 2015 , 97-142		7
106	Live cell imaging of SOS and prophage dynamics in isogenic bacterial populations. <i>Molecular Microbiology</i> , 2015 , 98, 636-50	4.1	26

105	Spatiotemporal microbial single-cell analysis using a high-throughput microfluidics cultivation platform. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2015 , 87, 1104-1115	4.6	68
104	(13)C Tracers for Glucose Degrading Pathway Discrimination in <i>Gluconobacter oxydans</i> 621H. <i>Metabolites</i> , 2015 , 5, 455-74	5.6	
103	The effect of composition on diffusion of macromolecules in a crowded environment. <i>Physical Biology</i> , 2015 , 12, 046003	3	23
102	Non-Invasive Microbial Metabolic Activity Sensing at Single Cell Level by Perfusion of Calcein Acetoxymethyl Ester. <i>PLoS ONE</i> , 2015 , 10, e0141768	3.7	11
101	Growth and Production Capabilities of <i>Corynebacterium glutamicum</i> : Interrogating a Genome-scale Metabolic Network Model 2015 , 39-56		7
100	Effective Production of (S)- β -Hydroxy ketones: An Reaction Engineering Approach. <i>Topics in Catalysis</i> , 2014 , 57, 401-411	2.3	8
99	Process inhomogeneity leads to rapid side product turnover in cultivation of <i>Corynebacterium glutamicum</i> . <i>Microbial Cell Factories</i> , 2014 , 13, 6	6.4	48
98	Single-cell microfluidics: opportunity for bioprocess development. <i>Current Opinion in Biotechnology</i> , 2014 , 29, 15-23	11.4	128
97	Quantitative metabolomics: a phantom?. <i>Trends in Biotechnology</i> , 2014 , 32, 238-44	15.1	36
96	Assessment of robustness against dissolved oxygen/substrate oscillations for <i>C. glutamicum</i> DM1933 in two-compartment bioreactor. <i>Bioprocess and Biosystems Engineering</i> , 2014 , 37, 1151-62	3.7	35
95	Engineering of <i>Corynebacterium glutamicum</i> for minimized carbon loss during utilization of D-xylose containing substrates. <i>Journal of Biotechnology</i> , 2014 , 192 Pt A, 156-60	3.7	65
94	Rapid assessment of oxygen transfer impact for <i>Corynebacterium glutamicum</i> . <i>Bioprocess and Biosystems Engineering</i> , 2014 , 37, 2567-77	3.7	16
93	Beyond growth rate 0.6: What drives <i>Corynebacterium glutamicum</i> to higher growth rates in defined medium. <i>Biotechnology and Bioengineering</i> , 2014 , 111, 359-71	4.9	85
92	An evaluation of genetically encoded FRET-based biosensors for quantitative metabolite analyses in vivo. <i>Journal of Biotechnology</i> , 2014 , 191, 250-9	3.7	24
91	Light-responsive control of bacterial gene expression: precise triggering of the lac promoter activity using photocaged IPTG. <i>Integrative Biology (United Kingdom)</i> , 2014 , 6, 755-65	3.7	34
90	Developing a new production host from a blueprint: <i>Bacillus pumilus</i> as an industrial enzyme producer. <i>Microbial Cell Factories</i> , 2014 , 13, 46	6.4	12
89	¹³ C-flux spectral analysis of host-pathogen metabolism reveals a mixed diet for intracellular <i>Mycobacterium tuberculosis</i> . <i>Chemistry and Biology</i> , 2013 , 20, 1012-21		106
88	Combined fluxomics and transcriptomics analysis of glucose catabolism via a partially cyclic pentose phosphate pathway in <i>Gluconobacter oxydans</i> 621H. <i>Applied and Environmental Microbiology</i> , 2013 , 79, 2336-48	4.8	49

87	Omix  Visualization Tool for Metabolic Networks with Highest Usability and Customizability in Focus. <i>Chemie-Ingenieur-Technik</i> , 2013 , 85, 849-862	0.8	21
86	Simultaneous utilization of glucose and gluconate in <i>Penicillium chrysogenum</i> during overflow metabolism. <i>Biotechnology and Bioengineering</i> , 2013 , 110, 3235-43	4.9	13
85	Cloud MapReduce for Monte Carlo bootstrap applied to Metabolic Flux Analysis. <i>Future Generation Computer Systems</i> , 2013 , 29, 582-590	7.5	10
84	Metabolic isotopomer labeling systems. Part III: path tracing. <i>Mathematical Biosciences</i> , 2013 , 244, 1-12	3.9	5
83	Isotopically non-stationary metabolic flux analysis: complex yet highly informative. <i>Current Opinion in Biotechnology</i> , 2013 , 24, 979-86	11.4	78
82	¹³ CFLUX2--high-performance software suite for (¹³ C)-metabolic flux analysis. <i>Bioinformatics</i> , 2013 , 29, 143-5	7.2	150
81	Microfluidic growth chambers with optical tweezers for full spatial single-cell control and analysis of evolving microbes. <i>Journal of Microbiological Methods</i> , 2013 , 95, 470-6	2.8	34
80	Beyond growth rate 0.6: <i>Corynebacterium glutamicum</i> cultivated in highly diluted environments. <i>Biotechnology and Bioengineering</i> , 2013 , 110, 220-8	4.9	50
79	Microfluidic picoliter bioreactor for microbial single-cell analysis: fabrication, system setup, and operation. <i>Journal of Visualized Experiments</i> , 2013 , 50560	1.6	38
78	Polydimethylsiloxane (PDMS) Sub-Micron Traps for Single-Cell Analysis of Bacteria. <i>Micromachines</i> , 2013 , 4, 357-369	3.3	37
77	Collisional fragmentation of central carbon metabolites in LC-MS/MS increases precision of $\delta^{13}\text{C}$ metabolic flux analysis. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 763-71	4.9	79
76	Surface bound adsorption in a microfluidic T-sensor: Numerical comparison and optimization of 2D and 3D models and of sensor designs. <i>Sensors and Actuators B: Chemical</i> , 2012 , 170, 75-81	8.5	3
75	Extensive exometabolome analysis reveals extended overflow metabolism in various microorganisms. <i>Microbial Cell Factories</i> , 2012 , 11, 122	6.4	176
74	A disposable picolitre bioreactor for cultivation and investigation of industrially relevant bacteria on the single cell level. <i>Lab on A Chip</i> , 2012 , 12, 2060-8	7.2	90
73	Error propagation analysis for quantitative intracellular metabolomics. <i>Metabolites</i> , 2012 , 2, 1012-30	5.6	16
72	Tailoring a stabilized variant of hydroxynitrile lyase from <i>Arabidopsis thaliana</i> . <i>ChemBioChem</i> , 2012 , 13, 797-802	3.8	18
71	Expressionsoptimierung in Mikroorganismen. <i>BioSpektrum</i> , 2012 , 18, 449-451	0.1	
70	Semi-automatic drawing of metabolic networks. <i>Information Visualization</i> , 2012 , 11, 171-187	2.4	2

69	Influence of Organic Solvents on Enzymatic Asymmetric Carbonylations. <i>Advanced Synthesis and Catalysis</i> , 2012 , 354, 2805-2820	5.6	39
68	Accuracy of Parameter Sensitivities of DAE Systems using Finite Difference Methods. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 136-142		
67	Optical sensors for monitoring dynamic changes of intracellular metabolite levels in mammalian cells. <i>Nature Protocols</i> , 2011 , 6, 1818-33	18.8	97
66	Determination of flux directions by thermodynamic network analysis: Computing informative metabolite pools. <i>Mathematics and Computers in Simulation</i> , 2011 , 82, 460-470	3.3	3
65	Mechanistic pathway modeling for industrial biotechnology: challenging but worthwhile. <i>Current Opinion in Biotechnology</i> , 2011 , 22, 604-10	11.4	40
64	The benefits of being transient: isotope-based metabolic flux analysis at the short time scale. <i>Applied Microbiology and Biotechnology</i> , 2011 , 91, 1247-65	5.7	64
63	An Efficient Route to Both Enantiomers of allo-Threonine by Simultaneous Amino Acid Racemase-Catalyzed Isomerization of Threonine and Crystallization. <i>Advanced Synthesis and Catalysis</i> , 2011 , 353, 2431-2438	5.6	9
62	Hydroxynitrile Lyase from <i>Arabidopsis thaliana</i> : Identification of Reaction Parameters for Enantiopure Cyanohydrin Synthesis by Pure and Immobilized Catalyst. <i>Advanced Synthesis and Catalysis</i> , 2011 , 353, 2399-2408	5.6	31
61	An Online Provenance Service for Distributed Metabolic Flux Analysis Workflows 2011 ,		3
60	Visualizing multi-omics data in metabolic networks with the software Omix: a case study. <i>BioSystems</i> , 2011 , 105, 154-61	1.9	78
59	Stationary versus non-stationary (13)C-MFA: a comparison using a consistent dataset. <i>Journal of Biotechnology</i> , 2011 , 154, 179-90	3.7	55
58	Comparative 13C metabolic flux analysis of pyruvate dehydrogenase complex-deficient, L-valine-producing <i>Corynebacterium glutamicum</i> . <i>Applied and Environmental Microbiology</i> , 2011 , 77, 6644-52	4.8	63
57	A Hybrid Parallelization Approach for Cloud-enabled Metabolic Flux Analysis Simulation Workflows. <i>PARS Parallel-Algorithmen -Rechnerstrukturen Und -Systemsoftware</i> , 2011 , 28, 210-213		
56	Workflows for Metabolic Flux Analysis: Data Integration and Human Interaction. <i>Lecture Notes in Computer Science</i> , 2010 , 261-275	0.9	6
55	Metabolic Flux Analysis in the Cloud 2010 ,		7
54	Modeling languages for biochemical network simulation: reaction vs equation based approaches. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2010 , 121, 109-38	1.7	1
53	Surface bound adsorption in a microfluidic T-sensor: Numerical comparison and optimization of 2D and 3D models. <i>Procedia Engineering</i> , 2010 , 5, 1272-1275		
52	Customizable Visualization on Demand for Hierarchically Organized Information in Biochemical Networks. <i>Lecture Notes in Computer Science</i> , 2010 , 163-174	0.9	2

51	Translating biochemical network models between different kinetic formats. <i>Metabolic Engineering</i> , 2009 , 11, 87-100	9.7	24
50	Customizable Visualization of Multi-omics Data in the Context of Biochemical Networks 2009 ,		2
49	Atomic Force Microscope Cantilevers Used as Sensors for Monitoring Microdrop Evaporation. <i>Nanoscience and Technology</i> , 2009 , 17-38	0.6	
48	¹³ C labeling experiments at metabolic nonstationary conditions: an exploratory study. <i>BMC Bioinformatics</i> , 2008 , 9, 152	3.6	45
47	Visualizing regulatory interdependencies and parameter sensitivities in biochemical network models. <i>Mathematics and Computers in Simulation</i> , 2008 , 79, 991-998	3.3	4
46	Automatic Sensitivity Analysis of DAE-systems Generated from Equation-Based Modeling Languages. <i>Lecture Notes in Computational Science and Engineering</i> , 2008 , 235-246	0.3	5
45	The thermodynamic meaning of metabolic exchange fluxes. <i>Biophysical Journal</i> , 2007 , 93, 2255-64	2.9	36
44	Visualizing regulatory interactions in metabolic networks. <i>BMC Biology</i> , 2007 , 5, 46	7.3	13
43	The topology of metabolic isotope labeling networks. <i>BMC Bioinformatics</i> , 2007 , 8, 315	3.6	24
42	Fluxomics: mass spectrometry versus quantitative imaging. <i>Current Opinion in Plant Biology</i> , 2007 , 10, 323-30	9.9	68
41	Event driven algorithms applied to a high energy ball mill simulation. <i>Granular Matter</i> , 2007 , 9, 251-266	2.6	6
40	Evaporation of Solvent Microdrops on Polymer Substrates: From Well Controlled Experiments To Mathematical Models and Back. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2007 , 11, 31-41	3.7	7
39	Nondestructive and noncontact method for determining the spring constant of rectangular cantilevers. <i>Review of Scientific Instruments</i> , 2007 , 78, 043705	1.7	23
38	Stress and failure at mechanical contacts of microspheres under uniaxial compression. <i>Journal of Applied Physics</i> , 2007 , 101, 084908	2.5	3
37	Metabolic flux analysis at ultra short time scale: isotopically non-stationary ¹³ C labeling experiments. <i>Journal of Biotechnology</i> , 2007 , 129, 249-67	3.7	178
36	Experimental design principles for isotopically instationary ¹³ C labeling experiments. <i>Biotechnology and Bioengineering</i> , 2006 , 94, 234-51	4.9	81
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