

# Lars Mathias Blank

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7641597/publications.pdf>

Version: 2024-02-01

243  
papers

10,602  
citations

30070

54  
h-index

51608

86  
g-index

269  
all docs

269  
docs citations

269  
times ranked

9203  
citing authors

#	ARTICLE	IF	CITATIONS
1	MEMOTE for standardized genome-scale metabolic model testing. <i>Nature Biotechnology</i> , 2020, 38, 272-276.	17.5	314
2	Microbial hyaluronic acid production. <i>Applied Microbiology and Biotechnology</i> , 2005, 66, 341-351.	3.6	305
3	Large-scale <sup>13</sup> C-flux analysis reveals mechanistic principles of metabolic network robustness to null mutations in yeast. <i>Genome Biology</i> , 2005, 6, R49.	9.6	274
4	Possibilities and limitations of biotechnological plastic degradation and recycling. <i>Nature Catalysis</i> , 2020, 3, 867-871.	34.4	233
5	Metabolic functions of duplicate genes in <i>Saccharomyces cerevisiae</i> . <i>Genome Research</i> , 2005, 15, 1421-1430.	5.5	208
6	Growth independent rhamnolipid production from glucose using the non-pathogenic <i>Pseudomonas putida</i> KT2440. <i>Microbial Cell Factories</i> , 2011, 10, 80.	4.0	206
7	Metabolic-flux and network analysis in fourteen hemiascomycetous yeasts. <i>FEMS Yeast Research</i> , 2005, 5, 545-558.	2.3	192
8	Involvement of Pex13p in Pex14p Localization and Peroxisomal Targeting Signal 2-dependent Protein Import into Peroxisomes. <i>Journal of Cell Biology</i> , 1999, 144, 1151-1162.	5.2	178
9	Chemical and biological single cell analysis. <i>Current Opinion in Biotechnology</i> , 2010, 21, 12-20.	6.6	173
10	Tn7-Based Device for Calibrated Heterologous Gene Expression in <i>Pseudomonas putida</i> . <i>ACS Synthetic Biology</i> , 2015, 4, 1341-1351.	3.8	169
11	Machine Learning Applications for Mass Spectrometry-Based Metabolomics. <i>Metabolites</i> , 2020, 10, 243.	2.9	164
12	Pex17p of <i>Saccharomyces cerevisiae</i> Is a Novel Peroxin and Component of the Peroxisomal Protein Translocation Machinery. <i>Journal of Cell Biology</i> , 1998, 140, 49-60.	5.2	160
13	Towards bio-upcycling of polyethylene terephthalate. <i>Metabolic Engineering</i> , 2021, 66, 167-178.	7.0	151
14	Metabolic response of <i>Pseudomonas putida</i> during redox biocatalysis in the presence of a second octanol phase. <i>FEBS Journal</i> , 2008, 275, 5173-5190.	4.7	135
15	Plastic waste as a novel substrate for industrial biotechnology. <i>Microbial Biotechnology</i> , 2015, 8, 900-903.	4.2	134
16	TCA cycle activity in <i>Saccharomyces cerevisiae</i> is a function of the environmentally determined specific growth and glucose uptake rates. <i>Microbiology (United Kingdom)</i> , 2004, 150, 1085-1093.	1.8	130
17	Selected <i>Pseudomonas putida</i> Strains Able To Grow in the Presence of High Butanol Concentrations. <i>Applied and Environmental Microbiology</i> , 2009, 75, 4653-4656.	3.1	126
18	Engineering <i>Pseudomonas putida</i> KT2440 for efficient ethylene glycol utilization. <i>Metabolic Engineering</i> , 2018, 48, 197-207.	7.0	125

#	ARTICLE	IF	CITATIONS
19	Biotechnological upcycling of plastic waste and other non-conventional feedstocks in a circular economy. <i>Current Opinion in Biotechnology</i> , 2020, 62, 212-219.	6.6	124
20	Metabolic and Transcriptional Response to Cofactor Perturbations in <i>Escherichia coli</i> . <i>Journal of Biological Chemistry</i> , 2010, 285, 17498-17506.	3.4	115
21	Oxygen- and Glucose-Dependent Regulation of Central Carbon Metabolism in <i>Pichia anomala</i> . <i>Applied and Environmental Microbiology</i> , 2004, 70, 5905-5911.	3.1	114
22	Response of <i>Pseudomonas putida</i> KT2440 to Increased NADH and ATP Demand. <i>Applied and Environmental Microbiology</i> , 2011, 77, 6597-6605.	3.1	110
23	<i>Ustilago maydis</i> produces itaconic acid via the unusual intermediate <i>trans</i> -aconitate. <i>Microbial Biotechnology</i> , 2016, 9, 116-126.	4.2	107
24	Fermentation characterization and flux analysis of recombinant strains of <i>Clostridium acetobutylicum</i> with an inactivated <i>solR</i> gene. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2001, 27, 322-328.	3.0	102
25	Redox Biocatalysis and Metabolism: Molecular Mechanisms and Metabolic Network Analysis. <i>Antioxidants and Redox Signaling</i> , 2010, 13, 349-394.	5.4	101
26	Engineering mediator-based electroactivity in the obligate aerobic bacterium <i>Pseudomonas putida</i> KT2440. <i>Frontiers in Microbiology</i> , 2015, 6, 284.	3.5	100
27	Engineering and systems-level analysis of <i>Saccharomyces cerevisiae</i> for production of 3-hydroxypropionic acid via malonyl-CoA reductase-dependent pathway. <i>Microbial Cell Factories</i> , 2016, 15, 53.	4.0	98
28	Biodegradation and up-cycling of polyurethanes: Progress, challenges, and prospects. <i>Biotechnology Advances</i> , 2021, 48, 107730.	11.7	95
29	Carbon metabolism limits recombinant protein production in <i>Pichia pastoris</i> . <i>Biotechnology and Bioengineering</i> , 2011, 108, 1942-1953.	3.3	93
30	The Functional Structure of Central Carbon Metabolism in <i>Pseudomonas putida</i> KT2440. <i>Applied and Environmental Microbiology</i> , 2014, 80, 5292-5303.	3.1	93
31	Designer rhamnolipids by reduction of congener diversity: production and characterization. <i>Microbial Cell Factories</i> , 2017, 16, 225.	4.0	93
32	The polyhydroxyalkanoate metabolism controls carbon and energy spillage in <i>Pseudomonas putida</i> . <i>Environmental Microbiology</i> , 2012, 14, 1049-1063.	3.8	92
33	Correlation between TCA cycle flux and glucose uptake rate during respiration-fermentative growth of <i>Saccharomyces cerevisiae</i> . <i>Microbiology (United Kingdom)</i> , 2009, 155, 3827-3837.	1.8	91
34	Quantitative physiology of <i>Pichia pastoris</i> during glucose-limited high-cell density fed-batch cultivation for recombinant protein production. <i>Biotechnology and Bioengineering</i> , 2010, 107, 357-368.	3.3	90
35	Novel insights into biosynthesis and uptake of rhamnolipids and their precursors. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 2865-2878.	3.6	89
36	Metabolic engineering of <i>Pseudomonas taiwanensis</i> VLB120 with minimal genomic modifications for high-yield phenol production. <i>Metabolic Engineering</i> , 2018, 47, 121-133.	7.0	87

#	ARTICLE	IF	CITATIONS
37	Laboratory evolution reveals the metabolic and regulatory basis of ethylene glycol metabolism by <i>Pseudomonas putida</i> KT2440. <i>Environmental Microbiology</i> , 2019, 21, 3669-3682.	3.8	85
38	Metabolic capacity estimation of <i>Escherichia coli</i> as a platform for redox biocatalysis: constraint-based modeling and experimental verification. <i>Biotechnology and Bioengineering</i> , 2008, 100, 1050-1065.	3.3	84
39	Comparison of Three Xylose Pathways in <i>Pseudomonas putida</i> KT2440 for the Synthesis of Valuable Products. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 480.	4.1	83
40	Prospecting the biodiversity of the fungal family Ustilaginaceae for the production of value-added chemicals. <i>Fungal Biology and Biotechnology</i> , 2014, 1, 2.	5.1	80
41	Detection of volatile metabolites of <i>Escherichia coli</i> by multi capillary column coupled ion mobility spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 394, 791-800.	3.7	79
42	Influence of carbon and nitrogen concentration on itaconic acid production by the smut fungus <i>Ustilago maydis</i> . <i>Engineering in Life Sciences</i> , 2014, 14, 129-134.	3.6	75
43	NADH Availability Limits Asymmetric Biocatalytic Epoxidation in a Growing Recombinant <i>Escherichia coli</i> Strain. <i>Applied and Environmental Microbiology</i> , 2008, 74, 1436-1446.	3.1	74
44	Creating metabolic demand as an engineering strategy in <i>Pseudomonas putida</i> – Rhamnolipid synthesis as an example. <i>Metabolic Engineering Communications</i> , 2016, 3, 234-244.	3.6	73
45	Mechanism-specific and whole-organism ecotoxicity of mono-rhamnolipids. <i>Science of the Total Environment</i> , 2016, 548-549, 155-163.	8.0	68
46	Grand Challenge Commentary: Chassis cells for industrial biochemical production. <i>Nature Chemical Biology</i> , 2010, 6, 875-877.	8.0	64
47	Enhanced malic acid production from glycerol with high-cell density <i>Ustilago trichophora</i> TZ1 cultivations. <i>Biotechnology for Biofuels</i> , 2016, 9, 135.	6.2	64
48	Microfluidic Platform for Multimodal Analysis of Enzyme Secretion in Nanoliter Droplet Arrays. <i>Analytical Chemistry</i> , 2019, 91, 2066-2073.	6.5	62
49	Defined Microbial Mixed Culture for Utilization of Polyurethane Monomers. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 17466-17474.	6.7	60
50	Evolution of the Hyaluronic Acid Synthesis (has) Operon in <i>Streptococcus zooepidemicus</i> and Other Pathogenic <i>Streptococci</i> . <i>Journal of Molecular Evolution</i> , 2008, 67, 13-22.	1.8	58
51	The Envirostat – a new bioreactor concept. <i>Lab on A Chip</i> , 2009, 9, 576-585.	6.0	58
52	Quantification of metabolic limitations during recombinant protein production in <i>Escherichia coli</i> . <i>Journal of Biotechnology</i> , 2011, 155, 178-184.	3.8	58
53	Genetic and biochemical insights into the itaconate pathway of <i>Ustilago maydis</i> enable enhanced production. <i>Metabolic Engineering</i> , 2016, 38, 427-435.	7.0	58
54	Efficient malic acid production from glycerol with <i>Ustilago trichophora</i> TZ1. <i>Biotechnology for Biofuels</i> , 2016, 9, 67.	6.2	58

#	ARTICLE	IF	CITATIONS
55	Strain- and Substrate-Dependent Redox Mediator and Electricity Production by <i>Pseudomonas aeruginosa</i> . <i>Applied and Environmental Microbiology</i> , 2016, 82, 5026-5038.	3.1	57
56	Integrated strain- and process design enable production of 220 g l <sup>-1</sup> itaconic acid with <i>Ustilago maydis</i> . <i>Biotechnology for Biofuels</i> , 2019, 12, 263.	6.2	57
57	Integration of Genetic and Process Engineering for Optimized Rhamnolipid Production Using <i>Pseudomonas putida</i> . <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 976.	4.1	56
58	Stable production of hyaluronic acid in <i>Streptococcus zooepidemicus</i> chemostats operated at high dilution rate. <i>Biotechnology and Bioengineering</i> , 2005, 90, 685-693.	3.3	55
59	D-Xylose assimilation via the Weyberg pathway by solvent-tolerant <i>Pseudomonas taiwanensis</i> VLB120. <i>Environmental Microbiology</i> , 2015, 17, 156-170.	3.8	55
60	The metabolic potential of plastics as biotechnological carbon sources – Review and targets for the future. <i>Metabolic Engineering</i> , 2022, 71, 77-98.	7.0	55
61	Ethanol reduces mitochondrial membrane integrity and thereby impacts carbon metabolism of <i>Saccharomyces cerevisiae</i> . <i>FEMS Yeast Research</i> , 2012, 12, 675-684.	2.3	53
62	Metabolic engineering of <i>Ustilago trichophora</i> TZ1 for improved malic acid production. <i>Metabolic Engineering Communications</i> , 2017, 4, 12-21.	3.6	53
63	Efficient itaconic acid production from glycerol with <i>Ustilago vetiveriae</i> TZ1. <i>Biotechnology for Biofuels</i> , 2017, 10, 131.	6.2	53
64	From beech wood to itaconic acid: case study on biorefinery process integration. <i>Biotechnology for Biofuels</i> , 2018, 11, 279.	6.2	52
65	Fatty Acid and Alcohol Metabolism in <i>Pseudomonas putida</i> : Functional Analysis Using Random Barcode Transposon Sequencing. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	3.1	52
66	Systems biotechnology – Rational whole-cell biocatalyst and bioprocess design. <i>Engineering in Life Sciences</i> , 2010, 10, 384-397.	3.6	51
67	Complete genome sequence of <i>Pseudomonas</i> sp. strain VLB120 a solvent tolerant, styrene degrading bacterium, isolated from forest soil. <i>Journal of Biotechnology</i> , 2013, 168, 729-730.	3.8	51
68	Metabolic Engineering of <i>Pseudomonas putida</i> KT2440 to Produce Anthranilate from Glucose. <i>Frontiers in Microbiology</i> , 2015, 6, 1310.	3.5	51
69	Heterologous production of long-chain rhamnolipids from <i>Burkholderia glumae</i> in <i>Pseudomonas putida</i> – a step forward to tailor-made rhamnolipids. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 1229-1239.	3.6	51
70	Methods for the Analysis of Polyphosphate in the Life Sciences. <i>Analytical Chemistry</i> , 2020, 92, 4167-4176.	6.5	49
71	Characterization of rhamnolipids by liquid chromatography/mass spectrometry after solid-phase extraction. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 2505-2514.	3.7	48
72	Engineering the morphology and metabolism of pH tolerant <i>Ustilago cynodontis</i> for efficient itaconic acid production. <i>Metabolic Engineering</i> , 2019, 54, 293-300.	7.0	47

#	ARTICLE	IF	CITATIONS
73	High performance liquid chromatography-charged aerosol detection applying an inverse gradient for quantification of rhamnolipid biosurfactants. <i>Journal of Chromatography A</i> , 2016, 1455, 125-132.	3.7	45
74	Activating Intrinsic Carbohydrate-Active Enzymes of the Smut Fungus <i>Ustilago maydis</i> for the Degradation of Plant Cell Wall Components. <i>Applied and Environmental Microbiology</i> , 2016, 82, 5174-5185.	3.1	45
75	Electrochemical conversion of a bio-derivable hydroxy acid to a drop-in oxygenate diesel fuel. <i>Energy and Environmental Science</i> , 2019, 12, 2406-2411.	30.8	45
76	Consolidated bioprocessing of cellulose to itaconic acid by a co-culture of <i>Trichoderma reesei</i> and <i>Ustilago maydis</i> . <i>Biotechnology for Biofuels</i> , 2020, 13, 207.	6.2	45
77	High temperature stimulates acetic acid accumulation and enhances the growth inhibition and ethanol production by <i>Saccharomyces cerevisiae</i> under fermenting conditions. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 6085-6094.	3.6	43
78	Remobilization of pollutants during extreme flood events poses severe risks to human and environmental health. <i>Journal of Hazardous Materials</i> , 2022, 421, 126691.	12.4	43
79	Hemin Reconstitutes Proton Extrusion in an H <sup>+</sup> -ATPase-Negative Mutant of <i>Lactococcus lactis</i> . <i>Journal of Bacteriology</i> , 2001, 183, 6707-6709.	2.2	42
80	The glycerophospholipid inventory of <i>Pseudomonas putida</i> is conserved between strains and enables growth condition-related alterations. <i>Microbial Biotechnology</i> , 2012, 5, 45-58.	4.2	42
81	Picoliter nDEP traps enable time-resolved contactless single bacterial cell analysis in controlled microenvironments. <i>Lab on A Chip</i> , 2013, 13, 397-408.	6.0	42
82	Unraveling 1,4-Butanediol Metabolism in <i>Pseudomonas putida</i> KT2440. <i>Frontiers in Microbiology</i> , 2020, 11, 382.	3.5	42
83	Glycerophospholipid profiling by high-performance liquid chromatography/mass spectrometry using exact mass measurements and multi-stage mass spectrometric fragmentation experiments in parallel. <i>Rapid Communications in Mass Spectrometry</i> , 2009, 23, 1636-1646.	1.5	41
84	Fermentation and purification strategies for the production of betulonic acid and its lupane-type precursors in <i>Saccharomyces cerevisiae</i> . <i>Biotechnology and Bioengineering</i> , 2017, 114, 2528-2538.	3.3	41
85	A Physiologically Based Pharmacokinetic Model of Isoniazid and Its Application in Individualizing Tuberculosis Chemotherapy. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 6134-6145.	3.2	40
86	Increased biomass yield of <i>Lactococcus lactis</i> during energetically limited growth and respiratory conditions. <i>Biotechnology and Applied Biochemistry</i> , 2008, 50, 25-33.	3.1	39
87	Tailor-made poly- $\gamma$ -glutamic acid production. <i>Metabolic Engineering</i> , 2019, 55, 239-248.	7.0	38
88	Insights into cell wall disintegration of <i>Chlorella vulgaris</i> . <i>PLoS ONE</i> , 2022, 17, e0262500.	2.5	38
89	Dynamics of benzoate metabolism in <i>Pseudomonas putida</i> KT2440. <i>Metabolic Engineering Communications</i> , 2016, 3, 97-110.	3.6	37
90	Exploiting the Natural Diversity of RhIA Acyltransferases for the Synthesis of the Rhamnolipid Precursor 3-(3-Hydroxyalkanoxy)Alkanoic Acid. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	3.1	37

#	ARTICLE	IF	CITATIONS
91	Boosting Heterologous Phenazine Production in <i>Pseudomonas putida</i> KT2440 Through the Exploration of the Natural Sequence Space. <i>Frontiers in Microbiology</i> , 2019, 10, 1990.	3.5	36
92	Simple enzymatic procedure for L-carnosine synthesis: whole-cell biocatalysis and efficient biocatalyst recycling. <i>Microbial Biotechnology</i> , 2010, 3, 74-83.	4.2	34
93	The cell and P: from cellular function to biotechnological application. <i>Current Opinion in Biotechnology</i> , 2012, 23, 846-851.	6.6	34
94	Comprehensive Real-Time Analysis of the Yeast Volatilome. <i>Scientific Reports</i> , 2017, 7, 14236.	3.3	34
95	Proline Availability Regulates Proline-4-Hydroxylase Synthesis and Substrate Uptake in Proline-Hydroxylating Recombinant <i>Escherichia coli</i> . <i>Applied and Environmental Microbiology</i> , 2013, 79, 3091-3100.	3.1	33
96	Restoration of biofuel production levels and increased tolerance under ionic liquid stress is enabled by a mutation in the essential <i>Escherichia coli</i> gene <i>cydC</i> . <i>Microbial Cell Factories</i> , 2018, 17, 159.	4.0	33
97	MIXed plastics biodegradation and UPcycling using microbial communities: EU Horizon 2020 project MIX-UP started January 2020. <i>Environmental Sciences Europe</i> , 2021, 33, 99.	5.5	33
98	Engineering yield and rate of reductive biotransformation in <i>Escherichia coli</i> by partial cyclization of the pentose phosphate pathway and PTS-independent glucose transport. <i>Applied Microbiology and Biotechnology</i> , 2012, 93, 1459-1467.	3.6	32
99	A breath of information: the volatilome. <i>Current Genetics</i> , 2018, 64, 959-964.	1.7	32
100	Multi-Omics Analysis of Fatty Alcohol Production in Engineered Yeasts <i>Saccharomyces cerevisiae</i> and <i>Yarrowia lipolytica</i> . <i>Frontiers in Genetics</i> , 2019, 10, 747.	2.3	32
101	An <i>Ustilago maydis</i> chassis for itaconic acid production without by-products. <i>Microbial Biotechnology</i> , 2020, 13, 350-362.	4.2	32
102	Identification of an endo-1,4-beta-xylanase of <i>Ustilago maydis</i> . <i>BMC Biotechnology</i> , 2013, 13, 59.	3.3	31
103	CO <sub>2</sub> to succinic acid – Estimating the potential of biocatalytic routes. <i>Metabolic Engineering Communications</i> , 2018, 7, e00075.	3.6	31
104	High-Yield Production of 4-Hydroxybenzoate From Glucose or Glycerol by an Engineered <i>Pseudomonas taiwanensis</i> VLB120. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 130.	4.1	31
105	Metabolic flux distributions: genetic information, computational predictions, and experimental validation. <i>Applied Microbiology and Biotechnology</i> , 2010, 86, 1243-1255.	3.6	29
106	Discovery and Evaluation of Biosynthetic Pathways for the Production of Five Methyl Ethyl Ketone Precursors. <i>ACS Synthetic Biology</i> , 2018, 7, 1858-1873.	3.8	29
107	An Optimized <i>Ustilago maydis</i> for Itaconic Acid Production at Maximal Theoretical Yield. <i>Journal of Fungi</i> (Basel, Switzerland), 2021, 7, 20.	3.5	29
108	Flux-P: Automating Metabolic Flux Analysis. <i>Metabolites</i> , 2012, 2, 872-890.	2.9	28

#	ARTICLE	IF	CITATIONS
109	Complete genome sequence of solvent-tolerant <i>Pseudomonas putida</i> S12 including megaplasmid pTTS12. <i>Journal of Biotechnology</i> , 2015, 200, 17-18.	3.8	28
110	Integration of genome-scale metabolic networks into whole-body PBPK models shows phenotype-specific cases of drug-induced metabolic perturbation. <i>Npj Systems Biology and Applications</i> , 2018, 4, 10.	3.0	28
111	Streamlined <i>Pseudomonas taiwanensis</i> VLB120 Chassis Strains with Improved Bioprocess Features. <i>ACS Synthetic Biology</i> , 2019, 8, 2036-2050.	3.8	28
112	The interplay between transport and metabolism in fungal itaconic acid production. <i>Fungal Genetics and Biology</i> , 2019, 125, 45-52.	2.1	28
113	Increased TCA cycle activity and reduced oxygen consumption during cytochrome P450-dependent biotransformation in fission yeast. <i>Yeast</i> , 2006, 23, 779-794.	1.7	27
114	Analysis of carbon and nitrogen co-metabolism in yeast by ultrahigh-resolution mass spectrometry applying <sup>13</sup> C- and <sup>15</sup> N-labeled substrates simultaneously. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 403, 2291-2305.	3.7	27
115	Metabolic response of <i>Pseudomonas putida</i> to increased NADH regeneration rates. <i>Engineering in Life Sciences</i> , 2017, 17, 47-57.	3.6	27
116	<i>Saccharomyces cerevisiae</i> containing 28% polyphosphate and production of a polyphosphate-rich yeast extract thereof. <i>FEMS Yeast Research</i> , 2019, 19, .	2.3	27
117	Killing Two Birds With One Stone – Strain Engineering Facilitates the Development of a Unique Rhamnolipid Production Process. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 899.	4.1	27
118	Engineering adipic acid metabolism in <i>Pseudomonas putida</i> . <i>Metabolic Engineering</i> , 2021, 67, 29-40.	7.0	27
119	A rapid, reliable, and automatable lab-on-a-chip interface. <i>Lab on A Chip</i> , 2009, 9, 1455.	6.0	26
120	Enzymatic quantification and length determination of polyphosphate down to a chain length of two. <i>Analytical Biochemistry</i> , 2018, 548, 82-90.	2.4	26
121	Poly- <sup>13</sup> -glutamic acid production by <i>Bacillus subtilis</i> 168 using glucose as the sole carbon source: A metabolomic analysis. <i>Journal of Bioscience and Bioengineering</i> , 2020, 130, 272-282.	2.2	26
122	Single cell analysis reveals unexpected growth phenotype of <i>S. cerevisiae</i> . <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2009, 75A, 130-139.	1.5	25
123	Metabolic flux analysis of a phenol producing mutant of <i>Pseudomonas putida</i> S12: Verification and complementation of hypotheses derived from transcriptomics. <i>Journal of Biotechnology</i> , 2009, 143, 124-129.	3.8	25
124	Subtoxic product levels limit the epoxidation capacity of recombinant <i>E. coli</i> by increasing microbial energy demands. <i>Journal of Biotechnology</i> , 2013, 163, 194-203.	3.8	25
125	A Comparison of the Microbial Production and Combustion Characteristics of Three Alcohol Biofuels: Ethanol, 1-Butanol, and 1-Octanol. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 3, 112.	4.1	25
126	Anionic Extraction for Efficient Recovery of Biobased 2,3-Butanediol – A Platform for Bulk and Fine Chemicals. <i>ChemSusChem</i> , 2017, 10, 3252-3259.	6.8	25



#	ARTICLE	IF	CITATIONS
127	Process engineering of pH tolerant <i>Ustilago cynodontis</i> for efficient itaconic acid production. <i>Microbial Cell Factories</i> , 2019, 18, 213.	4.0	25
128	Selection of a recyclable <i>in situ</i> liquid-liquid extraction solvent for foam-free synthesis of rhamnolipids in a two-phase fermentation. <i>Green Chemistry</i> , 2020, 22, 8495-8510.	9.0	25
129	Activation of the Glutamic Acid-Dependent Acid Resistance System in <i>Escherichia coli</i> BL21(DE3) Leads to Increase of the Fatty Acid Biotransformation Activity. <i>PLoS ONE</i> , 2016, 11, e0163265.	2.5	25
130	Integrated process development of a reactive extraction concept for itaconic acid and application to a real fermentation broth. <i>Engineering in Life Sciences</i> , 2017, 17, 809-816.	3.6	24
131	Investigating metabolic interactions in a microbial co-culture through integrated modelling and experiments. <i>Computational and Structural Biotechnology Journal</i> , 2020, 18, 1249-1258.	4.1	24
132	Promoters from the itaconate cluster of <i>Ustilago maydis</i> are induced by nitrogen depletion. <i>Fungal Biology and Biotechnology</i> , 2017, 4, 11.	5.1	23
133	A model-based assay design to reproduce <i>in vivo</i> patterns of acute drug-induced toxicity. <i>Archives of Toxicology</i> , 2018, 92, 553-555.	4.2	23
134	Rational Engineering of Phenylalanine Accumulation in <i>Pseudomonas taiwanensis</i> to Enable High-Yield Production of Trans-Cinnamate. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 312.	4.1	23
135	Hypothesis-driven omics integration. <i>Nature Chemical Biology</i> , 2010, 6, 485-487.	8.0	22
136	Genetic Cell-Surface Modification for Optimized Foam Fractionation. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 572892.	4.1	22
137	Towards real time analysis of protein secretion from single cells. <i>Lab on A Chip</i> , 2009, 9, 3047.	6.0	21
138	Interaction of rhamnolipids with model biomembranes of varying complexity. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183431.	2.6	21
139	Comparison of Isomerase and Weimberg Pathway for $\hat{I}^3$ -PGA Production From Xylose by Engineered <i>Bacillus subtilis</i> . <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 476.	4.1	21
140	Analytical polyphosphate extraction from <i>Saccharomyces cerevisiae</i> . <i>Analytical Biochemistry</i> , 2018, 563, 71-78.	2.4	20
141	A Straightforward Assay for Screening and Quantification of Biosurfactants in Microbial Culture Supernatants. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 958.	4.1	20
142	The Inflection Point Hypothesis: The Relationship between the Temperature Dependence of Enzyme-Catalyzed Reaction Rates and Microbial Growth Rates. <i>Biochemistry</i> , 2020, 59, 3562-3569.	2.5	20
143	Uncoupling Foam Fractionation and Foam Adsorption for Enhanced Biosurfactant Synthesis and Recovery. <i>Microorganisms</i> , 2020, 8, 2029.	3.6	20
144	Adaptive laboratory evolution of <i>Pseudomonas putida</i> and <i>Corynebacterium glutamicum</i> to enhance anthranilate tolerance. <i>Microbiology (United Kingdom)</i> , 2020, 166, 1025-1037.	1.8	20

#	ARTICLE	IF	CITATIONS
145	Rhamnolipid biosurfactant analysis using online turbulent flow chromatography-liquid chromatography-tandem mass spectrometry. <i>Journal of Chromatography A</i> , 2016, 1465, 90-97.	3.7	19
146	Targeting 16S rDNA for Stable Recombinant Gene Expression in <i>Pseudomonas</i> . <i>ACS Synthetic Biology</i> , 2019, 8, 1901-1912.	3.8	19
147	Integration of biocatalyst and process engineering for sustainable and efficient <i>n</i> -butanol production. <i>Engineering in Life Sciences</i> , 2015, 15, 4-19.	3.6	18
148	Elucidation of the regulatory role of the fructose operon reveals a novel target for enhancing the NADPH supply in <i>Corynebacterium glutamicum</i> . <i>Metabolic Engineering</i> , 2016, 38, 344-357.	7.0	18
149	Aromatisation of bio-derivable isobutyraldehyde over HZSM-5 zeolite catalysts. <i>Green Chemistry</i> , 2019, 21, 1710-1717.	9.0	18
150	Lignin Aromatics to PHA Polymers: Nitrogen and Oxygen Are the Key Factors for <i>Pseudomonas</i> . <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 10579-10590.	6.7	18
151	A blueprint of the amino acid biosynthesis network of hemiascomycetes. <i>FEMS Yeast Research</i> , 2014, 14, n/a-n/a.	2.3	17
152	Draft Genome Sequence of <i>Ustilago trichophora</i> RK089, a Promising Malic Acid Producer. <i>Genome Announcements</i> , 2016, 4, .	0.8	17
153	<i>Pseudomonas</i> mRNA 2.0: Boosting Gene Expression Through Enhanced mRNA Stability and Translational Efficiency. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 458.	4.1	17
154	Single Cell Analytics: An Overview. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2010, 124, 99-122.	1.1	16
155	Critical Factors for Microbial Contamination of Domestic Heating Oil. <i>Energy &amp; Fuels</i> , 2015, 29, 6394-6403.	5.1	16
156	Model-based contextualization of in vitro toxicity data quantitatively predicts in vivo drug response in patients. <i>Archives of Toxicology</i> , 2017, 91, 865-883.	4.2	16
157	Elevated temperatures do not trigger a conserved metabolic network response among thermotolerant yeasts. <i>BMC Microbiology</i> , 2019, 19, 100.	3.3	16
158	Draft Genome Sequences of Itaconate-Producing <i>Ustilaginaceae</i> . <i>Genome Announcements</i> , 2016, 4, .	0.8	15
159	Using quantitative systems pharmacology to evaluate the drug efficacy of COX-2 and 5-LOX inhibitors in therapeutic situations. <i>Npj Systems Biology and Applications</i> , 2018, 4, 28.	3.0	15
160	High titer methyl ketone production with tailored <i>Pseudomonas taiwanensis</i> VLB120. <i>Metabolic Engineering</i> , 2020, 62, 84-94.	7.0	15
161	Coupling an Electroactive <i>Pseudomonas putida</i> KT2440 with Bioelectrochemical Rhamnolipid Production. <i>Microorganisms</i> , 2020, 8, 1959.	3.6	15
162	<i>Haemophilus influenzae</i> Glucose Catabolism Leading to Production of the Immunometabolite Acetate Has a Key Contribution to the Host Airway Pathogen Interplay. <i>ACS Infectious Diseases</i> , 2020, 6, 406-421.	3.8	15

#	ARTICLE	IF	CITATIONS
163	Exploration and Exploitation of the Yeast Volatilome. <i>Current Metabolomics</i> , 2017, 5, .	0.5	15
164	Improved sake metabolic profile during fermentation due to increased mitochondrial pyruvate dissimilation. <i>FEMS Yeast Research</i> , 2014, 14, 249-260.	2.3	14
165	Evolutionary freedom in the regulation of the conserved itaconate cluster by Ria1 in related Ustilaginaceae. <i>Fungal Biology and Biotechnology</i> , 2018, 5, 14.	5.1	14
166	Characterization of Context-Dependent Effects on Synthetic Promoters. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 551.	4.1	14
167	Electrophysiology of the Facultative Autotrophic Bacterium <i>Desulfosporosinus orientis</i> . <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 457.	4.1	14
168	Brewersâ€™ spent grain as carbon source for itaconate production with engineered <i>Ustilago maydis</i> . <i>Bioresource Technology</i> , 2021, 336, 125262.	9.6	14
169	Ustilaginaceae Biocatalyst for Co-Metabolism of CO <sub>2</sub> -Derived Substrates toward Carbon-Neutral Itaconate Production. <i>Journal of Fungi (Basel, Switzerland)</i> , 2021, 7, 98.	3.5	14
170	From measurement to implementation of metabolic fluxes. <i>Current Opinion in Biotechnology</i> , 2013, 24, 13-21.	6.6	13
171	Multi-Capillary Column-Ion Mobility Spectrometry of Volatile Metabolites Emitted by <i>Saccharomyces Cerevisiae</i> . <i>Metabolites</i> , 2014, 4, 751-774.	2.9	13
172	Online in vivo monitoring of cytosolic NAD redox dynamics in <i>Ustilago maydis</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 1015-1024.	1.0	13
173	Genetic Optimization Algorithm for Metabolic Engineering Revisited. <i>Metabolites</i> , 2018, 8, 33.	2.9	13
174	Identification of Key Metabolites in Poly- $\hat{\beta}$ -Glutamic Acid Production by Tuning $\hat{\beta}$ -PGA Synthetase Expression. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 38.	4.1	13
175	A scalable bubble-free membrane aerator for biosurfactant production. <i>Biotechnology and Bioengineering</i> , 2021, 118, 3545-3558.	3.3	13
176	Data-driven personalization of a physiologically based pharmacokinetic model for caffeine: A systematic assessment. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2021, 10, 782-793.	2.5	13
177	Phosphorus biotechnology. <i>Current Opinion in Biotechnology</i> , 2012, 23, 830-832.	6.6	12
178	Ultrasonically manufactured microfluidic device for yeast analysis. <i>Microsystem Technologies</i> , 2017, 23, 2139-2144.	2.0	12
179	Regulation of solvent tolerance in <i>Pseudomonas putida</i> S12 mediated by mobile elements. <i>Microbial Biotechnology</i> , 2017, 10, 1558-1568.	4.2	12
180	A comprehensive evaluation of constraining amino acid biosynthesis in compartmented models for metabolic flux analysis. <i>Metabolic Engineering Communications</i> , 2017, 5, 34-44.	3.6	12

#	ARTICLE	IF	CITATIONS
181	Improved microscale cultivation of <i>Pichia pastoris</i> for clonal screening. <i>Fungal Biology and Biotechnology</i> , 2018, 5, 8.	5.1	12
182	GC-MS-Based Metabolomics for the Smut Fungus <i>Ustilago maydis</i> : A Comprehensive Method Optimization to Quantify Intracellular Metabolites. <i>Frontiers in Molecular Biosciences</i> , 2020, 7, 211.	3.5	12
183	<i>Pseudomonas putida</i> KT2440 endures temporary oxygen limitations. <i>Biotechnology and Bioengineering</i> , 2021, 118, 4735-4750.	3.3	12
184	A minimal growth medium for the basidiomycete <i>Pleurotus sapidus</i> for metabolic flux analysis. <i>Fungal Biology and Biotechnology</i> , 2014, 1, 9.	5.1	11
185	Whole-Cell Biocatalytic Production of 2,5-Furandicarboxylic Acid. <i>Microbiology Monographs</i> , 2015, , 207-223.	0.6	11
186	Evaluation of pyruvate decarboxylase-negative <i>Saccharomyces cerevisiae</i> strains for the production of succinic acid. <i>Engineering in Life Sciences</i> , 2019, 19, 711-720.	3.6	11
187	Exploiting the diversity of streptococcal hyaluronan synthases for the production of molecular weight-tailored hyaluronan. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 7567-7581.	3.6	11
188	Microfluidic Irreversible Electroporation: A Versatile Tool to Extract Intracellular Contents of Bacteria and Yeast. <i>Metabolites</i> , 2019, 9, 211.	2.9	11
189	Polyphosphate Chain Length Determination in the Range of Two to Several Hundred P-Subunits with a New Enzyme Assay and <sup>31</sup> P NMR. <i>Analytical Chemistry</i> , 2019, 91, 7654-7661.	6.5	11
190	Biotechnological synthesis of water-soluble food-grade polyphosphate with <i>Saccharomyces cerevisiae</i> . <i>Biotechnology and Bioengineering</i> , 2020, 117, 2089-2099.	3.3	11
191	Seventeen Ustilaginaceae High-Quality Genome Sequences Allow Phylogenomic Analysis and Provide Insights into Secondary Metabolite Synthesis. <i>Journal of Fungi (Basel, Switzerland)</i> , 2022, 8, 269.	3.5	11
192	Miniaturized octupole cytometry for cell type independent trapping and analysis. <i>Microfluidics and Nanofluidics</i> , 2017, 21, 1.	2.2	10
193	A Physiology-Based Model of Human Bile Acid Metabolism for Predicting Bile Acid Tissue Levels After Drug Administration in Healthy Subjects and BRIC Type 2 Patients. <i>Frontiers in Physiology</i> , 2019, 10, 1192.	2.8	10
194	Rational Selection of Carbon Fiber Properties for High-Performance Textile Electrodes in Bioelectrochemical Systems. <i>Frontiers in Energy Research</i> , 2019, 7, .	2.3	10
195	Benzoate Synthesis from Glucose or Glycerol Using Engineered <i>Pseudomonas taiwanensis</i> . <i>Biotechnology Journal</i> , 2020, 15, e2000211.	3.5	10
196	A Comparative Analysis of Drug-Induced Hepatotoxicity in Clinically Relevant Situations. <i>PLoS Computational Biology</i> , 2017, 13, e1005280.	3.2	10
197	Bilayer microfluidic chip for diffusion-controlled activation of yeast species. <i>Journal of Chromatography A</i> , 2008, 1206, 77-82.	3.7	9
198	Defined inoculum for the investigation of microbial contaminations of liquid fuels. <i>International Biodeterioration and Biodegradation</i> , 2018, 132, 84-93.	3.9	9

#	ARTICLE	IF	CITATIONS
199	Mitochondrial carriers of <i>UstilagoÂmaydis</i> and <i>AspergillusÂterreus</i> involved in itaconate production: same physiological role but different biochemical features. <i>FEBS Letters</i> , 2020, 594, 728-739.	2.8	9
200	A Combined Bio-Chemical Synthesis Route for 1-Octene Sheds Light on Rhamnolipid Structure. <i>Catalysts</i> , 2020, 10, 874.	3.5	9
201	Upcycling of hydrolyzed PET by microbial conversion to a fatty acid derivative. <i>Methods in Enzymology</i> , 2021, 648, 391-421.	1.0	9
202	An integrated yeast-based process for <i>cis</i> , <i>cis</i> -muconic acid production. <i>Biotechnology and Bioengineering</i> , 2022, 119, 376-387.	3.3	9
203	Pressure-resistant and reversible on-tube-sealing for microfluidics. <i>Microfluidics and Nanofluidics</i> , 2011, 10, 679-684.	2.2	8
204	GC-MS-Based Determination of Mass Isotopomer Distributions for <sup>13</sup> C-Based Metabolic Flux Analysis. <i>Springer Protocols</i> , 2015, , 223-243.	0.3	8
205	Multiscale modeling reveals inhibitory and stimulatory effects of caffeine on acetaminophen-induced toxicity in humans. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2017, 6, 136-146.	2.5	8
206	Physiologic and metabolic characterization of <i>Saccharomyces cerevisiae</i> reveals limitations in the synthesis of the triterpene squalene. <i>FEMS Yeast Research</i> , 2018, 18, .	2.3	8
207	Comprehensive liamocin biosurfactants analysis by reversed phase liquid chromatography coupled to mass spectrometric and charged-aerosol detection. <i>Journal of Chromatography A</i> , 2020, 1627, 461404.	3.7	8
208	Designed to Be Green, Economic, and Efficient: A Ketone-Ester-Alcohol-Alkane Blend for Future Spark-Ignition Engines. <i>ChemSusChem</i> , 2021, 14, 5254-5264.	6.8	8
209	Nitrogen Metabolism in <i>Pseudomonas putida</i> : Functional Analysis Using Random Barcode Transposon Sequencing. <i>Applied and Environmental Microbiology</i> , 2022, 88, e0243021.	3.1	8
210	Methods for Recombinant Rhamnolipid Production. <i>Springer Protocols</i> , 2015, , 65-94.	0.3	7
211	Complete Genome Sequence and Annotation of the <i>Paracoccus pantotrophus</i> Type Strain DSM 2944. <i>Microbiology Resource Announcements</i> , 2020, 9, .	0.6	7
212	Genome-scale model reconstruction of the methylotrophic yeast <i>Ogataea polymorpha</i> . <i>BMC Biotechnology</i> , 2021, 21, 23.	3.3	7
213	Bio-energy conversion with carbon capture and utilization (BECCU): integrated biomass fermentation and chemo-catalytic CO <sub>2</sub> hydrogenation for bioethanol and formic acid co-production. <i>Green Chemistry</i> , 2021, 23, 9860-9864.	9.0	7
214	Let's talk about flux or the importance of (intracellular) reaction rates. <i>Microbial Biotechnology</i> , 2017, 10, 28-30.	4.2	6
215	Double bond localization in unsaturated rhamnolipid precursors 3-(3-hydroxyalkanoyloxy)alkanoic acids by liquid chromatography-mass spectrometry applying online Patern-B <sub>4</sub> chi reaction. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 5601-5613.	3.7	6
216	Seawater activated TiO <sub>2</sub> photocatalyst for degradation of organic compounds. <i>Sustainable Chemistry and Pharmacy</i> , 2020, 16, 100251.	3.3	6

#	ARTICLE	IF	CITATIONS
217	Proteome Regulation Patterns Determine Escherichia coli Wild-Type and Mutant Phenotypes. <i>MSystems</i> , 2021, 6, .	3.8	6
218	Comparative Analysis of the Behaviour of Marine Litter in Thermochemical Waste Treatment Processes. <i>Processes</i> , 2021, 9, 13.	2.8	6
219	Early prediction of decompensation (<sc>EPOD</sc>) score: Non-invasive determination of cirrhosis decompensation risk. <i>Liver International</i> , 2022, 42, 640-650.	3.9	6
220	Ustilago maydis Metabolic Characterization and Growth Quantification with a Genome-Scale Metabolic Model. <i>Journal of Fungi (Basel, Switzerland)</i> , 2022, 8, 524.	3.5	6
221	Impact of the number of rhamnose moieties of rhamnolipids on the structure, lateral organization and morphology of model biomembranes. <i>Soft Matter</i> , 2021, 17, 3191-3206.	2.7	5
222	A plea for the integration of Green Toxicology in sustainable bioeconomy strategies – Biosurfactants and microgel-based pesticide release systems as examples. <i>Journal of Hazardous Materials</i> , 2022, 426, 127800.	12.4	5
223	Rhamnolipids: Production, Performance, and Application. , 2017, , 587-622.		4
224	Systems Analysis of NADH Dehydrogenase Mutants Reveals Flexibility and Limits of Pseudomonas taiwanensis VLB120's Metabolism. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	3.1	4
225	Successful Downsizing for High-Throughput 13C-MFA Applications. <i>Methods in Molecular Biology</i> , 2014, 1191, 127-142.	0.9	4
226	Insight to Gene Expression From Promoter Libraries With the Machine Learning Workflow Exp2lpynb. <i>Frontiers in Bioinformatics</i> , 2021, 1, .	2.1	4
227	Assessment of microbial activity by CO <sub>2</sub> production during heating oil storage. <i>Engineering in Life Sciences</i> , 2022, 22, 508-518.	3.6	4
228	Mix and Match: Promoters and Terminators for Tuning Gene Expression in the Methylotrophic Yeast <i>Ogataea polymorpha</i> . <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, .	4.1	4
229	Mass spectrometric characterization of siderophores produced by <i>Pseudomonas taiwanensis</i> VLB120 assisted by stable isotope labeling of nitrogen source. <i>BioMetals</i> , 2018, 31, 785-795.	4.1	3
230	The Transcriptome and Flux Profiling of Crabtree-Negative Hydroxy Acid-Producing Strains of <i>Saccharomyces cerevisiae</i> Reveals Changes in the Central Carbon Metabolism. <i>Biotechnology Journal</i> , 2019, 14, 1900013.	3.5	3
231	A Model-Based Workflow to Benchmark the Clinical Cholestasis Risk of Drugs. <i>Clinical Pharmacology and Therapeutics</i> , 2021, 110, 1293-1301.	4.7	3
232	Yeast-based production and in situ purification of acetaldehyde. <i>Bioprocess and Biosystems Engineering</i> , 2022, 45, 761-769.	3.4	3
233	The trade-off of availability and growth inhibition through copper for the production of copper-dependent enzymes by <i>Pichia pastoris</i> . <i>BMC Biotechnology</i> , 2016, 16, 20.	3.3	2
234	Multi-capillary Column Ion Mobility Spectrometry of Volatile Metabolites for Phenotyping of Microorganisms. <i>Methods in Molecular Biology</i> , 2018, 1671, 229-258.	0.9	2

#	ARTICLE	IF	CITATIONS
235	Systematic Screening of Fermentation Products as Future Platform Chemicals for Biofuels. <i>Computer Aided Chemical Engineering</i> , 2015, 37, 1331-1336.	0.5	2
236	Rhamnolipids: Production, Performance, and Application. , 2017, , 1-37.		2
237	Predicting high recombinant protein producer strains of <i>Pichia pastoris</i> MutS using the oxygen transfer rate as an indicator of metabolic burden. <i>Scientific Reports</i> , 2022, 12, .	3.3	2
238	Microbial challenges for domestic heating oil storage tanks. <i>Engineering in Life Sciences</i> , 2016, 16, 474-482.	3.6	1
239	A rapid method to estimate NADH regeneration rates in living cells. <i>Journal of Microbiological Methods</i> , 2016, 130, 92-94.	1.6	1
240	Customized Woven Carbon Fiber Electrodes for Bioelectrochemical Systemsâ€”A Study of Structural Parameters. <i>Frontiers in Chemical Engineering</i> , 2022, 4, .	2.7	1
241	Malatproduktion aus Rohglycerin mit <i>Ustilago</i> . <i>BioSpektrum</i> , 2018, 24, 218-220.	0.0	0
242	Special Issue â€œMetabolic Engineering and Synthetic Biology Volume 2â€ Metabolites, 2021, 11, 35.	2.9	0
243	Correction for Thompson et al., â€œFatty Acid and Alcohol Metabolism in <i>Pseudomonas putida</i> : Functional Analysis Using Random Barcode Transposon Sequencingâ€ Applied and Environmental Microbiology, 2021, 87, .	3.1	0