

Nick Wierckx

List of Publications by Citations

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

78
papers

2,630
citations

30
h-index

49
g-index

83
ext. papers

3,534
ext. citations

6.8
avg, IF

5.42
L-index

#	Paper	IF	Citations
78	Efficient whole-cell biotransformation of 5-(hydroxymethyl)furfural into FDCA, 2,5-furandicarboxylic acid. <i>Bioresource Technology</i> , 2010 , 101, 6291-6	11	191
77	Identification and characterization of the furfural and 5-(hydroxymethyl)furfural degradation pathways of <i>Cupriavidus basilensis</i> HMF14. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 4919-24	11.5	187
76	Engineering of solvent-tolerant <i>Pseudomonas putida</i> S12 for bioproduction of phenol from glucose. <i>Applied and Environmental Microbiology</i> , 2005 , 71, 8221-7	4.8	164
75	Microbial degradation of furanic compounds: biochemistry, genetics, and impact. <i>Applied Microbiology and Biotechnology</i> , 2011 , 92, 1095-105	5.7	114
74	Bioproduction of p-hydroxystyrene from glucose by the solvent-tolerant bacterium <i>Pseudomonas putida</i> S12 in a two-phase water-decanol fermentation. <i>Applied and Environmental Microbiology</i> , 2009 , 75, 931-6	4.8	107
73	Tn7-Based Device for Calibrated Heterologous Gene Expression in <i>Pseudomonas putida</i> . <i>ACS Synthetic Biology</i> , 2015 , 4, 1341-51	5.7	94
72	Plastic waste as a novel substrate for industrial biotechnology. <i>Microbial Biotechnology</i> , 2015 , 8, 900-3	6.3	93
71	Chemical and biological catalysis for plastics recycling and upcycling. <i>Nature Catalysis</i> , 2021 , 4, 539-556	36.5	78
70	<i>Ustilago maydis</i> produces itaconic acid via the unusual intermediate trans-aconitate. <i>Microbial Biotechnology</i> , 2016 , 9, 116-26	6.3	76
69	Isolation and characterization of <i>Cupriavidus basilensis</i> HMF14 for biological removal of inhibitors from lignocellulosic hydrolysate. <i>Microbial Biotechnology</i> , 2010 , 3, 336-43	6.3	71
68	Engineering mediator-based electroactivity in the obligate aerobic bacterium <i>Pseudomonas putida</i> KT2440. <i>Frontiers in Microbiology</i> , 2015 , 6, 284	5.7	69
67	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	3.4	61
66	Engineering <i>Pseudomonas putida</i> KT2440 for efficient ethylene glycol utilization. <i>Metabolic Engineering</i> , 2018 , 48, 197-207	9.7	60
65	Prospecting the biodiversity of the fungal family Ustilaginaceae for the production of value-added chemicals. <i>Fungal Biology and Biotechnology</i> , 2014 , 1, 2	7.5	55
64	Grand Research Challenges for Sustainable Industrial Biotechnology. <i>Trends in Biotechnology</i> , 2019 , 37, 1042-1050	15.1	53
63	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	9.7	50
62	Transcriptome analysis of a phenol-producing <i>Pseudomonas putida</i> S12 construct: genetic and physiological basis for improved production. <i>Journal of Bacteriology</i> , 2008 , 190, 2822-30	3.5	47

61	Enhanced malic acid production from glycerol with high-cell density <i>Ustilago trichophora</i> TZ1 cultivations. <i>Biotechnology for Biofuels</i> , 2016 , 9, 135	7.8	47
60	Efficient malic acid production from glycerol with <i>Ustilago trichophora</i> TZ1. <i>Biotechnology for Biofuels</i> , 2016 , 9, 67	7.8	46
59	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	5.2	43
58	Towards bio-upcycling of polyethylene terephthalate. <i>Metabolic Engineering</i> , 2021 , 66, 167-178	9.7	42
57	Genetic and biochemical insights into the itaconate pathway of <i>Ustilago maydis</i> enable enhanced production. <i>Metabolic Engineering</i> , 2016 , 38, 427-435	9.7	41
56	Metabolic engineering of TZ1 for improved malic acid production. <i>Metabolic Engineering Communications</i> , 2017 , 4, 12-21	6.5	40
55	Efficient itaconic acid production from glycerol with TZ1. <i>Biotechnology for Biofuels</i> , 2017 , 10, 131	7.8	39
54	From beech wood to itaconic acid: case study on biorefinery process integration. <i>Biotechnology for Biofuels</i> , 2018 , 11, 279	7.8	38
53	Defined Microbial Mixed Culture for Utilization of Polyurethane Monomers. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 17466-17474	8.3	37
52	Metabolic specialization in itaconic acid production: a tale of two fungi. <i>Current Opinion in Biotechnology</i> , 2020 , 62, 153-159	11.4	36
51	Metabolic Engineering of <i>Pseudomonas putida</i> KT2440 to Produce Anthranilate from Glucose. <i>Frontiers in Microbiology</i> , 2015 , 6, 1310	5.7	35
50	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, 5174-85	4.8	32
49	Integrated strain- and process design enable production of 220g/L itaconic acid with. <i>Biotechnology for Biofuels</i> , 2019 , 12, 263	7.8	31
48	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	9.7	29
47	Solvent-impregnated resins as an in situ product recovery tool for phenol recovery from <i>Pseudomonas putida</i> S12TPL fermentations. <i>Biotechnology and Bioengineering</i> , 2008 , 100, 466-72	4.9	28
46	Identification of an endo-1,4-beta-xylanase of <i>Ustilago maydis</i> . <i>BMC Biotechnology</i> , 2013 , 13, 59	3.5	26
45	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, 124-37	3.7	22
44	The interplay between transport and metabolism in fungal itaconic acid production. <i>Fungal Genetics and Biology</i> , 2019 , 125, 45-52	3.9	21

43	Complete genome sequence of solvent-tolerant <i>Pseudomonas putida</i> S12 including megaplasmid pTTS12. <i>Journal of Biotechnology</i> , 2015 , 200, 17-8	3.7	21
42	Unraveling 1,4-Butanediol Metabolism in KT2440. <i>Frontiers in Microbiology</i> , 2020 , 11, 382	5.7	20
41	Plastic Biodegradation: Challenges and Opportunities 2018 , 1-29		20
40	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	3.4	17
39	An <i>Ustilago maydis</i> chassis for itaconic acid production without by-products. <i>Microbial Biotechnology</i> , 2020 , 13, 350-362	6.3	17
38	In situ phenol removal from fed-batch fermentations of solvent tolerant <i>Pseudomonas putida</i> S12 by pertraction. <i>Biochemical Engineering Journal</i> , 2011 , 53, 245-252	4.2	17
37	Promoters from the itaconate cluster of are induced by nitrogen depletion. <i>Fungal Biology and Biotechnology</i> , 2017 , 4, 11	7.5	16
36	<i>Pseudomonas</i> as Versatile Aromatics Cell Factory. <i>Biotechnology Journal</i> , 2020 , 15, e1900569	5.6	15
35	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	7.8	15
34	High-Yield Production of 4-Hydroxybenzoate From Glucose or Glycerol by an Engineered VLB120. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019 , 7, 130	5.8	14
33	Complementing the intrinsic repertoire of <i>Ustilago maydis</i> for degradation of the pectin backbone polygalacturonic acid. <i>Journal of Biotechnology</i> , 2020 , 307, 148-163	3.7	13
32	Towards robust <i>Pseudomonas</i> cell factories to harbour novel biosynthetic pathways. <i>Essays in Biochemistry</i> , 2021 , 65, 319-336	7.6	13
31	Streamlined VLB120 Chassis Strains with Improved Bioprocess Features. <i>ACS Synthetic Biology</i> , 2019 , 8, 2036-2050	5.7	12
30	Evolutionary freedom in the regulation of the conserved itaconate cluster by Ria1 in related <i>Ustilaginaceae</i> . <i>Fungal Biology and Biotechnology</i> , 2018 , 5, 14	7.5	12
29	Rational Engineering of Phenylalanine Accumulation in to Enable High-Yield Production of -Cinnamate. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019 , 7, 312	5.8	12
28	Regulation of solvent tolerance in <i>Pseudomonas putida</i> S12 mediated by mobile elements. <i>Microbial Biotechnology</i> , 2017 , 10, 1558-1568	6.3	11
27	<i>Pseudomonas putida</i> rDNA is a favored site for the expression of biosynthetic genes. <i>Scientific Reports</i> , 2019 , 9, 7028	4.9	11
26	Metabolic response of to increased NADH regeneration rates. <i>Engineering in Life Sciences</i> , 2017 , 17, 47-53.4	5.4	11

25	Whole-Cell Biocatalytic Production of 2,5-Furandicarboxylic Acid. <i>Microbiology Monographs</i> , 2015 , 207-223	11
24	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	4.6 10
23	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 10
22	Draft Genome Sequence of <i>Ustilago trichophora</i> RK089, a Promising Malic Acid Producer. <i>Genome Announcements</i> , 2016 , 4,	9
21	Draft Genome Sequences of Itaconate-Producing Ustilaginaceae. <i>Genome Announcements</i> , 2016 , 4,	9
20	Targeting 16S rDNA for Stable Recombinant Gene Expression in. <i>ACS Synthetic Biology</i> , 2019 , 8, 1901-1912	9
19	An Optimized for Itaconic Acid Production at Maximal Theoretical Yield. <i>Journal of Fungi (Basel, Switzerland)</i> , 2020 , 7,	5.6 9
18	Bio-upcycling of polyethylene terephthalate	9
17	Process engineering of pH tolerant <i>Ustilago cynodontis</i> for efficient itaconic acid production. <i>Microbial Cell Factories</i> , 2019 , 18, 213	6.4 9
16	Characterization of Context-Dependent Effects on Synthetic Promoters. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 551	5.8 8
15	Adaptive laboratory evolution of and to enhance anthranilate tolerance. <i>Microbiology (United Kingdom)</i> , 2020 , 166, 1025-1037	2.9 8
14	Engineering adipic acid metabolism in <i>Pseudomonas putida</i> . <i>Metabolic Engineering</i> , 2021 , 67, 29-40	9.7 8
13	Benzoate Synthesis from Glucose or Glycerol Using Engineered <i>Pseudomonas taiwanensis</i> . <i>Biotechnology Journal</i> , 2020 , 15, e2000211	5.6 6
12	Mitochondrial carriers of <i>Ustilago maydis</i> and <i>Aspergillus terreus</i> involved in itaconate production: same physiological role but different biochemical features. <i>FEBS Letters</i> , 2020 , 594, 728-739	3.8 6
11	High level production of itaconic acid at low pH by <i>Ustilago maydis</i> with fed-batch fermentation. <i>Bioprocess and Biosystems Engineering</i> , 2021 , 44, 749-758	3.7 6
10	The metabolic potential of plastics as biotechnological carbon sources - Review and targets for the future.. <i>Metabolic Engineering</i> , 2021 ,	9.7 6
9	Engineered PQQ-Dependent Alcohol Dehydrogenase for the Oxidation of 5-(Hydroxymethyl)furoic Acid. <i>ACS Catalysis</i> , 2020 , 10, 7836-7842	13.1 5
8	Itaconic Acid [An Emerging Building Block 2016 , 453-472	5

7	Exploiting unconventional prokaryotic hosts for industrial biotechnology. <i>Trends in Biotechnology</i> , 2021 ,	15.1	4
6	Perspectives for the application of Ustilaginaceae as biotech cell factories. <i>Essays in Biochemistry</i> , 2021 , 65, 365-379	7.6	3
5	Electrochemical pH-T-Swing Separation of Itaconic Acid for Zero Salt Waste Downstream Processing. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 9336-9347	8.3	3
4	Insights into an alternative pathway for glycerol metabolism in a glycerol kinase deficient <i>Pseudomonas putida</i> KT2440		2
3	A rapid method to estimate NADH regeneration rates in living cells. <i>Journal of Microbiological Methods</i> , 2016 , 130, 92-94	2.8	1
2	Von Plastikmüll zu Plastikwertstoffen [Polymerrecycling neu gedacht. <i>BioSpektrum</i> , 2020 , 26, 212-214	0.1	
1	Malatproduktion aus Rohglycerin mit <i>Ustilago</i> . <i>BioSpektrum</i> , 2018 , 24, 218-220	0.1	