# Nick Wierckx

## List of Publications by Year in Descending Order



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| 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 | Perspectives for the application of Ustilaginaceae as biotech cell factories. *Essays in Biochemistry*, **2021**, 65, 365-379 | 7.6 | 3 |
| 77 | Towards robust Pseudomonas cell factories to harbour novel biosynthetic pathways. *Essays in Biochemistry*, **2021**, 65, 319-336 | 7.6 | 13 |
| 76 | Electrochemical pH-T-Swing Separation of Itaconic Acid for Zero Salt Waste Downstream Processing. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 9336-9347 | 8.3 | 3 |
| 75 | Chemical and biological catalysis for plastics recycling and upcycling. *Nature Catalysis*, **2021**, 4, 539-556 | 36.5 | 78 |
| 74 | Towards bio-upcycling of polyethylene terephthalate. *Metabolic Engineering*, **2021**, 66, 167-178 | 9.7 | 42 |
| 73 | High level production of itaconic acid at low pH by Ustilago maydis with fed-batch fermentation. *Bioprocess and Biosystems Engineering*, **2021**, 44, 749-758 | 3.7 | 6 |
| 72 | MIXed plastics biodegradation and UPcycling using microbial communities: EU Horizon 2020 project MIX-UP started January 2020. *Environmental Sciences Europe*, **2021**, 33, 99 | 5 | 10 |
| 71 | Exploiting unconventional prokaryotic hosts for industrial biotechnology. *Trends in Biotechnology*, **2021**, | 15.1 | 4 |
| 70 | Engineering adipic acid metabolism in Pseudomonas putida. *Metabolic Engineering*, **2021**, 67, 29-40 | 9.7 | 8 |
| 69 | The metabolic potential of plastics as biotechnological carbon sources - Review and targets for the future.. *Metabolic Engineering*, **2021**, | 9.7 | 6 |
| 68 | Characterization of Context-Dependent Effects on Synthetic Promoters. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 551 | 5.8 | 8 |
| 67 | Engineered PQQ-Dependent Alcohol Dehydrogenase for the Oxidation of 5-(Hydroxymethyl)furoic Acid. *ACS Catalysis*, **2020**, 10, 7836-7842 | 13.1 | 5 |
| 66 | Unraveling 1,4-Butanediol Metabolism in KT2440. *Frontiers in Microbiology*, **2020**, 11, 382 | 5.7 | 20 |
| 65 | An Ustilago maydis chassis for itaconic acid production without by-products. *Microbial Biotechnology*, **2020**, 13, 350-362 | 6.3 | 17 |
| 64 | Von Plastikmüll zu Plastikwertstoffen – Polymerrecycling neu gedacht. *BioSpektrum*, **2020**, 26, 212-214 | 0.1 | |
| 63 | An Optimized for Itaconic Acid Production at Maximal Theoretical Yield. *Journal of Fungi (Basel, Switzerland)*, **2020**, 7, | 5.6 | 9 |
| 62 | Adaptive laboratory evolution of and to enhance anthranilate tolerance. *Microbiology (United Kingdom)*, **2020**, 166, 1025-1037 | 2.9 | 8 |

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| 61 | Metabolic specialization in itaconic acid production: a tale of two fungi. *Current Opinion in Biotechnology*, **2020**, 62, 153-159 | 11.4 | 36 |
| 60 | Complementing the intrinsic repertoire of Ustilago maydis for degradation of the pectin backbone polygalacturonic acid. *Journal of Biotechnology*, **2020**, 307, 148-163 | 3.7 | 13 |
| 59 | Pseudomonas as Versatile Aromatics Cell Factory. *Biotechnology Journal*, **2020**, 15, e1900569 | 5.6 | 15 |
| 58 | Defined Microbial Mixed Culture for Utilization of Polyurethane Monomers. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 17466-17474 | 8.3 | 37 |
| 57 | Benzoate Synthesis from Glucose or Glycerol Using Engineered Pseudomonas taiwanensis. *Biotechnology Journal*, **2020**, 15, e2000211 | 5.6 | 6 |
| 56 | Consolidated bioprocessing of cellulose to itaconic acid by a co-culture of Trichoderma reesei and Ustilago maydis. *Biotechnology for Biofuels*, **2020**, 13, 207 | 7.8 | 15 |
| 55 | Mitochondrial carriers of Ustilago maydis and Aspergillus terreus involved in itaconate production: same physiological role but different biochemical features. *FEBS Letters*, **2020**, 594, 728-739 | 3.8 | 6 |
| 54 | Streamlined VLB120 Chassis Strains with Improved Bioprocess Features. *ACS Synthetic Biology*, **2019**, 8, 2036-2050 | 5.7 | 12 |
| 53 | The interplay between transport and metabolism in fungal itaconic acid production. *Fungal Genetics and Biology*, **2019**, 125, 45-52 | 3.9 | 21 |
| 52 | High-Yield Production of 4-Hydroxybenzoate From Glucose or Glycerol by an Engineered VLB120. *Frontiers in Bioengineering and Biotechnology*, **2019**, 7, 130 | 5.8 | 14 |
| 51 | Laboratory evolution reveals the metabolic and regulatory basis of ethylene glycol metabolism by Pseudomonas putida KT2440. *Environmental Microbiology*, **2019**, 21, 3669-3682 | 5.2 | 43 |
| 50 | Pseudomonas putida rDNA is a favored site for the expression of biosynthetic genes. *Scientific Reports*, **2019**, 9, 7028 | 4.9 | 11 |
| 49 | Engineering the morphology and metabolism of pH tolerant Ustilago cynodontis for efficient itaconic acid production. *Metabolic Engineering*, **2019**, 54, 293-300 | 9.7 | 29 |
| 48 | Grand Research Challenges for Sustainable Industrial Biotechnology. *Trends in Biotechnology*, **2019**, 37, 1042-1050 | 15.1 | 53 |
| 47 | Targeting 16S rDNA for Stable Recombinant Gene Expression in. *ACS Synthetic Biology*, **2019**, 8, 1901-1912 | 5.7 | 9 |
| 46 | Rational Engineering of Phenylalanine Accumulation in to Enable High-Yield Production of -Cinnamate. *Frontiers in Bioengineering and Biotechnology*, **2019**, 7, 312 | 5.8 | 12 |
| 45 | Integrated strain- and process design enable production of 220 g L itaconic acid with. *Biotechnology for Biofuels*, **2019**, 12, 263 | 7.8 | 31 |
| 44 | Process engineering of pH tolerant Ustilago cynodontis for efficient itaconic acid production. *Microbial Cell Factories*, **2019**, 18, 213 | 6.4 | 9 |

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| 43 | Plastic Biodegradation: Challenges and Opportunities **2018**, 1-29 | | 20 |
| 42 | Malatproduktion aus Rohglycerin mit Ustilago. *BioSpektrum*, **2018**, 24, 218-220 | 0.1 | |
| 41 | Metabolic engineering of Pseudomonas taiwanensis VLB120 with minimal genomic modifications for high-yield phenol production. *Metabolic Engineering*, **2018**, 47, 121-133 | 9.7 | 50 |
| 40 | Evolutionary freedom in the regulation of the conserved itaconate cluster by Ria1 in related Ustilaginaceae. *Fungal Biology and Biotechnology*, **2018**, 5, 14 | 7.5 | 12 |
| 39 | Engineering Pseudomonas putida KT2440 for efficient ethylene glycol utilization. *Metabolic Engineering*, **2018**, 48, 197-207 | 9.7 | 60 |
| 38 | From beech wood to itaconic acid: case study on biorefinery process integration. *Biotechnology for Biofuels*, **2018**, 11, 279 | 7.8 | 38 |
| 37 | Online in vivo monitoring of cytosolic NAD redox dynamics in Ustilago maydis. *Biochimica Et Biophysica Acta - Bioenergetics*, **2018**, 1859, 1015-1024 | 4.6 | 10 |
| 36 | Metabolic engineering of TZ1 for improved malic acid production. *Metabolic Engineering Communications*, **2017**, 4, 12-21 | 6.5 | 40 |
| 35 | Integrated process development of a reactive extraction concept for itaconic acid and application to a real fermentation broth. *Engineering in Life Sciences*, **2017**, 17, 809-816 | 3.4 | 17 |
| 34 | Regulation of solvent tolerance in Pseudomonas putida S12 mediated by mobile elements. *Microbial Biotechnology*, **2017**, 10, 1558-1568 | 6.3 | 11 |
| 33 | Promoters from the itaconate cluster of are induced by nitrogen depletion. *Fungal Biology and Biotechnology*, **2017**, 4, 11 | 7.5 | 16 |
| 32 | Efficient itaconic acid production from glycerol with TZ1. *Biotechnology for Biofuels*, **2017**, 10, 131 | 7.8 | 39 |
| 31 | Metabolic response of to increased NADH regeneration rates. *Engineering in Life Sciences*, **2017**, 17, 47-57 | 3.4 | 11 |
| 30 | Draft Genome Sequence of Ustilago trichophora RK089, a Promising Malic Acid Producer. *Genome Announcements*, **2016**, 4, | | 9 |
| 29 | Genetic and biochemical insights into the itaconate pathway of Ustilago maydis enable enhanced production. *Metabolic Engineering*, **2016**, 38, 427-435 | 9.7 | 41 |
| 28 | Draft Genome Sequences of Itaconate-Producing Ustilaginaceae. *Genome Announcements*, **2016**, 4, | | 9 |
| 27 | Activating Intrinsic Carbohydrate-Active Enzymes of the Smut Fungus Ustilago maydis for the Degradation of Plant Cell Wall Components. *Applied and Environmental Microbiology*, **2016**, 82, 5174-85 | 4.8 | 32 |
| 26 | Efficient malic acid production from glycerol with Ustilago trichophora TZ1. *Biotechnology for Biofuels*, **2016**, 9, 67 | 7.8 | 46 |

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| 25 | Enhanced malic acid production from glycerol with high-cell density Ustilago trichophora TZ1 cultivations. *Biotechnology for Biofuels*, **2016**, 9, 135 | 7.8 | 47 |
| 24 | Itaconic Acid An Emerging Building Block **2016**, 453-472 | | 5 |
| 23 | Ustilago maydis produces itaconic acid via the unusual intermediate trans-aconitate. *Microbial Biotechnology*, **2016**, 9, 116-26 | 6.3 | 76 |
| 22 | A rapid method to estimate NADH regeneration rates in living cells. *Journal of Microbiological Methods*, **2016**, 130, 92-94 | 2.8 | 1 |
| 21 | Tn7-Based Device for Calibrated Heterologous Gene Expression in Pseudomonas putida. *ACS Synthetic Biology*, **2015**, 4, 1341-51 | 5.7 | 94 |
| 20 | Complete genome sequence of solvent-tolerant Pseudomonas putida S12 including megaplasmid pTTS12. *Journal of Biotechnology*, **2015**, 200, 17-8 | 3.7 | 21 |
| 19 | Plastic waste as a novel substrate for industrial biotechnology. *Microbial Biotechnology*, **2015**, 8, 900-3 | 6.3 | 93 |
| 18 | Engineering mediator-based electroactivity in the obligate aerobic bacterium Pseudomonas putida KT2440. *Frontiers in Microbiology*, **2015**, 6, 284 | 5.7 | 69 |
| 17 | Metabolic Engineering of Pseudomonas putida KT2440 to Produce Anthranilate from Glucose. *Frontiers in Microbiology*, **2015**, 6, 1310 | 5.7 | 35 |
| 16 | Whole-Cell Biocatalytic Production of 2,5-Furandicarboxylic Acid. *Microbiology Monographs*, **2015**, 207-228 | | 11 |
| 15 | Influence of carbon and nitrogen concentration on itaconic acid production by the smut fungusUstilago maydis. *Engineering in Life Sciences*, **2014**, 14, 129-134 | 3.4 | 61 |
| 14 | Prospecting the biodiversity of the fungal family Ustilaginaceae for the production of value-added chemicals. *Fungal Biology and Biotechnology*, **2014**, 1, 2 | 7.5 | 55 |
| 13 | Identification of an endo-1,4-beta-xylanase of Ustilago maydis. *BMC Biotechnology*, **2013**, 13, 59 | 3.5 | 26 |
| 12 | Microbial degradation of furanic compounds: biochemistry, genetics, and impact. *Applied Microbiology and Biotechnology*, **2011**, 92, 1095-105 | 5.7 | 114 |
| 11 | In situ phenol removal from fed-batch fermentations of solvent tolerant Pseudomonas putida S12 by pertraction. *Biochemical Engineering Journal*, **2011**, 53, 245-252 | 4.2 | 17 |
| 10 | Identification and characterization of the furfural and 5-(hydroxymethyl)furfural degradation pathways of Cupriavidus basilensis HMF14. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 4919-24 | 11.5 | 187 |
| 9 | Isolation and characterization of Cupriavidus basilensis HMF14 for biological removal of inhibitors from lignocellulosic hydrolysate. *Microbial Biotechnology*, **2010**, 3, 336-43 | 6.3 | 71 |
| 8 | Efficient whole-cell biotransformation of 5-(hydroxymethyl)furfural into FDCA, 2,5-furandicarboxylic acid. *Bioresource Technology*, **2010**, 101, 6291-6 | 11 | 191 |

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| 7 | Bioproduction of p-hydroxystyrene from glucose by the solvent-tolerant bacterium Pseudomonas putida S12 in a two-phase water-decanol fermentation. *Applied and Environmental Microbiology*, **2009**, 75, 931-6 | 4.8 | 107 |
| 6 | Metabolic flux analysis of a phenol producing mutant of Pseudomonas putida S12: verification and complementation of hypotheses derived from transcriptomics. *Journal of Biotechnology*, **2009**, 143, 124-9 | 3.7 | 22 |
| 5 | Transcriptome analysis of a phenol-producing Pseudomonas putida S12 construct: genetic and physiological basis for improved production. *Journal of Bacteriology*, **2008**, 190, 2822-30 | 3.5 | 47 |
| 4 | Solvent-impregnated resins as an in situ product recovery tool for phenol recovery from Pseudomonas putida S12TPL fermentations. *Biotechnology and Bioengineering*, **2008**, 100, 466-72 | 4.9 | 28 |
| 3 | Engineering of solvent-tolerant Pseudomonas putida S12 for bioproduction of phenol from glucose. *Applied and Environmental Microbiology*, **2005**, 71, 8221-7 | 4.8 | 164 |
| 2 | Bio-upcycling of polyethylene terephthalate | | 9 |
| 1 | Insights into an alternative pathway for glycerol metabolism in a glycerol kinase deficientPseudomonas putidaKT2440 | | 2 |