

# David R Nielsen

## List of Publications by Year in descending order

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Version: 2024-02-01

52  
papers

2,258  
citations

236925

25  
h-index

214800

47  
g-index

52  
all docs

52  
docs citations

52  
times ranked

2533  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-omic based production strain improvement (MOBpsi) for bio-manufacturing of toxic chemicals. <i>Metabolic Engineering</i> , 2022, 72, 133-149.	7.0	6
2	Consolidated bioprocessing of hemicellulose to fuels and chemicals through an engineered <i>Bacillus subtilis</i> - <i>Escherichia coli</i> consortium. <i>Renewable Energy</i> , 2022, 193, 288-298.	8.9	6
3	Characterizing <i>Escherichia coli</i> 's transcriptional response to different styrene exposure modes reveals novel toxicity and tolerance insights. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2021, 48, .	3.0	6
4	Exploiting Polyploidy for Markerless and Plasmid-Free Genome Engineering in Cyanobacteria. <i>ACS Synthetic Biology</i> , 2021, 10, 2371-2382.	3.8	7
5	A coculture-coproduction system designed for enhanced carbon conservation through inter-strain CO <sub>2</sub> recycling. <i>Metabolic Engineering</i> , 2021, 67, 387-395.	7.0	5
6	Optimization of a T7-RNA polymerase system in <i>Synechococcus</i> sp. PCC 7002 mirrors the protein overproduction phenotype from <i>E. coli</i> BL21(DE3). <i>Applied Microbiology and Biotechnology</i> , 2021, 105, 1147-1158.	3.6	8
7	Applying a "Metabolic Funnel"™ for Phenol Production in <i>Escherichia coli</i> . <i>Fermentation</i> , 2021, 7, 216.	3.0	0
8	Synthetic biology strategies to address waste CO <sub>2</sub> loss during biofuel production. <i>Current Opinion in Environmental Science and Health</i> , 2021, , 100305.	4.1	2
9	Systematic Engineering of <i>Synechococcus elongatus</i> UTEX 2973 for Photosynthetic Production of Lysine, Cadaverine, and Glutamate. <i>ACS Synthetic Biology</i> , 2021, 10, 3561-3575.	3.8	8
10	Heterologous expression and purification of the bicarbonate transporter BicA from <i>Synechocystis</i> sp. PCC 6803. <i>Protein Expression and Purification</i> , 2020, 175, 105716.	1.3	1
11	Catabolic Division of Labor Enhances Production of D-Lactate and Succinate From Glucose-Xylose Mixtures in Engineered <i>Escherichia coli</i> Co-culture Systems. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 329.	4.1	15
12	High-throughput screening for efficient microbial biotechnology. <i>Current Opinion in Biotechnology</i> , 2020, 64, 141-150.	6.6	43
13	Tetragonal crystal form of the cyanobacterial bicarbonate-transporter regulator SbtB from <i>Synechocystis</i> sp. PCC 6803. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2020, 76, 438-443.	0.8	0
14	Emerging tools, enabling technologies, and future opportunities for the bioproduction of aromatic chemicals. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 38-52.	3.2	9
15	Recent trends in integrated bioprocesses: aiding and expanding microbial biofuel/biochemical production. <i>Current Opinion in Biotechnology</i> , 2019, 57, 82-87.	6.6	15
16	Engineering a Synthetic, Catabolically Orthogonal Coculture System for Enhanced Conversion of Lignocellulose-Derived Sugars to Ethanol. <i>ACS Synthetic Biology</i> , 2019, 8, 1089-1099.	3.8	31
17	Bioprospecting of Native Efflux Pumps To Enhance Furfural Tolerance in Ethanologenic <i>Escherichia coli</i> . <i>Applied and Environmental Microbiology</i> , 2019, 85, .	3.1	31
18	Catalytic conversion of cyanobacteria-derived fatty acids to alkanes for biorenewable synthetic paraffinic kerosene. <i>Sustainable Energy and Fuels</i> , 2018, 2, 882-893.	4.9	8

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19	Muconic Acid Production <i>via</i> Alternative Pathways and a Synthetic "Metabolic Funnel". ACS Synthetic Biology, 2018, 7, 565-575.	3.8	37
20	High Efficiency and Facile Butanol Recovery with Magnetically Responsive Micro/Mesoporous Carbon Adsorbents. ACS Sustainable Chemistry and Engineering, 2017, 5, 885-894.	6.7	19
21	Expanding Upon Styrene Biosynthesis to Engineer a Novel Route to 2-Phenylethanol. Biotechnology Journal, 2017, 12, 1700310.	3.5	28
22	Engineering and comparison of non-natural pathways for microbial phenol production. Biotechnology and Bioengineering, 2016, 113, 1745-1754.	3.3	25
23	Production of biorenewable styrene: utilization of biomass-derived sugars and insights into toxicity. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 595-604.	3.0	50
24	Membrane engineering via trans unsaturated fatty acids production improves Escherichia coli robustness and production of biorenewables. Metabolic Engineering, 2016, 35, 105-113.	7.0	112
25	Activity of Lactobacillus brevis Alcohol Dehydrogenase on Primary and Secondary Alcohol Biofuel Precursors. Fermentation, 2015, 1, 24-37.	3.0	6
26	Engineering Escherichia coli for renewable benzyl alcohol production. Metabolic Engineering Communications, 2015, 2, 39-45.	3.6	56
27	Improving n-butanol production in batch and semi-continuous processes through integrated product recovery. Process Biochemistry, 2015, 50, 1487-1498.	3.7	49
28	Creating pathways towards aromatic building blocks and fine chemicals. Current Opinion in Biotechnology, 2015, 36, 1-7.	6.6	52
29	Comparing in situ removal strategies for improving styrene bioproduction. Bioprocess and Biosystems Engineering, 2015, 38, 165-174.	3.4	41
30	Synthetic biology applications in industrial microbiology. Frontiers in Microbiology, 2014, 5, 451.	3.5	9
31	In situ butanol recovery from Clostridium acetobutylicum fermentations by expanded bed adsorption. Biotechnology Progress, 2014, 30, 68-78.	2.6	57
32	"Hybrid"™ processing strategies for expanding and improving the synthesis of renewable bioproducts. Current Opinion in Biotechnology, 2014, 30, 17-23.	6.6	9
33	Rational engineering of a novel pathway for producing the aromatic compounds p-hydroxybenzoate, protocatechuate, and catechol in Escherichia coli. Process Biochemistry, 2014, 49, 1843-1850.	3.7	38
34	Rational and combinatorial approaches to engineering styrene production by Saccharomyces cerevisiae. Microbial Cell Factories, 2014, 13, 123.	4.0	59
35	Technoeconomic evaluation of bio-based styrene production by engineered Escherichia coli. Journal of Industrial Microbiology and Biotechnology, 2014, 41, 1211-1216.	3.0	32
36	Microbial production of the aromatic building blocks (S) styrene oxide and (R) 1,2-phenylethanediol from renewable resources. Biotechnology Journal, 2013, 8, 1465-1475.	3.5	40

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37	Adsorption of Short-Chain Alcohols by Hydrophobic Silica Aerogels. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 18379-18385.	3.7	11
38	Engineering cyanobacteria for photosynthetic production of 3-hydroxybutyrate directly from CO <sub>2</sub> . <i>Metabolic Engineering</i> , 2013, 16, 68-77.	7.0	149
39	Engineering <i>Escherichia coli</i> for renewable production of the 5-carbon polyamide building blocks 5-aminovalerate and glutarate. <i>Biotechnology and Bioengineering</i> , 2013, 110, 1726-1734.	3.3	86
40	Solid-phase extraction of long-chain fatty acids from aqueous solution. <i>Separation and Purification Technology</i> , 2013, 106, 1-7.	7.9	6
41	From promise to practice. <i>EMBO Reports</i> , 2013, 14, 1034-1038.	4.5	11
42	Engineering microbial chemical factories to produce renewable "biomonomers". <i>Frontiers in Microbiology</i> , 2012, 3, 313.	3.5	72
43	Sensitivity analysis of a proposed model mechanism for newly created glucose oxidases. <i>AIChE Journal</i> , 2012, 58, 2303-2308.	3.6	7
44	Rapid adsorption of alcohol biofuels by high surface area mesoporous carbons. <i>Microporous and Mesoporous Materials</i> , 2012, 148, 107-114.	4.4	56
45	Styrene biosynthesis from glucose by engineered <i>E. coli</i> . <i>Metabolic Engineering</i> , 2011, 13, 544-554.	7.0	222
46	Advances and opportunities at the interface between microbial bioenergy and nanotechnology. <i>Canadian Journal of Chemical Engineering</i> , 2011, 89, 2-12.	1.7	16
47	Metabolic engineering of acetoin and <i>meso</i> -2, 3-butanediol biosynthesis in <i>E. coli</i> . <i>Biotechnology Journal</i> , 2010, 5, 274-284.	3.5	100
48	Predicting the adsorption of second generation biofuels by polymeric resins with applications for in situ product recovery (ISPR). <i>Bioresource Technology</i> , 2010, 101, 2762-2769.	9.6	49
49	In situ product recovery of <i>n</i> -butanol using polymeric resins. <i>Biotechnology and Bioengineering</i> , 2009, 102, 811-821.	3.3	162
50	Engineering alternative butanol production platforms in heterologous bacteria. <i>Metabolic Engineering</i> , 2009, 11, 262-273.	7.0	350
51	Dynamic simulation of benzene vapor treatment by a two-phase partitioning bioscrubber. <i>Biochemical Engineering Journal</i> , 2007, 36, 239-249.	3.6	21
52	Dynamic simulation of benzene vapor treatment by a two-phase partitioning bioscrubber. <i>Biochemical Engineering Journal</i> , 2007, 36, 250-261.	3.6	20