

# Edward E K Baidoo

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/376548/publications.pdf>

Version: 2024-02-01

82  
papers

4,323  
citations

94433

37  
h-index

118850

62  
g-index

93  
all docs

93  
docs citations

93  
times ranked

5276  
citing authors

#	ARTICLE	IF	CITATIONS
1	Adaptive evolution of <i>Methylotuvimicrobium alcaliphilum</i> to grow in the presence of rhamnolipids improves fatty acid and rhamnolipid production from CH <sub>4</sub> . <i>Journal of Industrial Microbiology and Biotechnology</i> , 2022, 49, .	3.0	4
2	Downregulation of Squalene Synthase Broadly Impacts Isoprenoid Biosynthesis in Guayule. <i>Metabolites</i> , 2022, 12, 303.	2.9	3
3	Engineering <i>Saccharomyces cerevisiae</i> for isoprenol production. <i>Metabolic Engineering</i> , 2021, 64, 154-166.	7.0	34
4	In-planta production of the biodegradable polyester precursor 2-pyrone-4,6-dicarboxylic acid (PDC): Stacking reduced biomass recalcitrance with value-added co-product. <i>Metabolic Engineering</i> , 2021, 66, 148-156.	7.0	12
5	Identification, Characterization, and Application of a Highly Sensitive Lactam Biosensor from <i>Pseudomonas putida</i> . <i>ACS Synthetic Biology</i> , 2020, 9, 53-62.	3.8	31
6	Structural Mechanism of Regioselectivity in an Unusual Bacterial Acyl-CoA Dehydrogenase. <i>Journal of the American Chemical Society</i> , 2020, 142, 835-846.	13.7	9
7	A bimodular PKS platform that expands the biological design space. <i>Metabolic Engineering</i> , 2020, 61, 389-396.	7.0	2
8	Influence of hydrocracking and ionic liquid pretreatments on composition and properties of <i>Arabidopsis thaliana</i> wild type and CAD mutant lignins. <i>Renewable Energy</i> , 2020, 152, 1241-1249.	8.9	3
9	Chemoinformatic-Guided Engineering of Polyketide Synthases. <i>Journal of the American Chemical Society</i> , 2020, 142, 9896-9901.	13.7	13
10	An iron (II) dependent oxygenase performs the last missing step of plant lysine catabolism. <i>Nature Communications</i> , 2020, 11, 2931.	12.8	11
11	Response of <i>Pseudomonas putida</i> to Complex, Aromatic-Rich Fractions from Biomass. <i>ChemSusChem</i> , 2020, 13, 4455-4467.	6.8	23
12	Comparative studies of glycolytic pathways and channeling under <i>in vitro</i> and <i>in vivo</i> modes. <i>AIChE Journal</i> , 2019, 65, 483-490.	3.6	14
13	Distinct functional roles for hopanoid composition in the chemical tolerance of <i>Zymomonas mobilis</i> . <i>Molecular Microbiology</i> , 2019, 112, 1564-1575.	2.5	28
14	Optimization of the IPP-bypass mevalonate pathway and fed-batch fermentation for the production of isoprenol in <i>Escherichia coli</i> . <i>Metabolic Engineering</i> , 2019, 56, 85-96.	7.0	46
15	Omics-driven identification and elimination of valerolactam catabolism in <i>Pseudomonas putida</i> KT2440 for increased product titer. <i>Metabolic Engineering Communications</i> , 2019, 9, e00098.	3.6	25
16	Mevalonate Pathway Promiscuity Enables Noncanonical Terpene Production. <i>ACS Synthetic Biology</i> , 2019, 8, 2238-2247.	3.8	22
17	Structural insights into dehydratase substrate selection for the borrelidin and fluvirucin polyketide synthases. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2019, 46, 1225-1235.	3.0	7
18	Massively Parallel Fitness Profiling Reveals Multiple Novel Enzymes in <i>Pseudomonas putida</i> Lysine Metabolism. <i>MBio</i> , 2019, 10, .	4.1	60

#	ARTICLE	IF	CITATIONS
19	Lessons from Two Designâ€œBuildâ€œTestâ€œLearn Cycles of Dodecanol Production in <i>Escherichia coli</i> Aided by Machine Learning. <i>ACS Synthetic Biology</i> , 2019, 8, 1337-1351.	3.8	107
20	Methyl ketone production by <i>Pseudomonas putida</i> is enhanced by plantâ€œderived amino acids. <i>Biotechnology and Bioengineering</i> , 2019, 116, 1909-1922.	3.3	29
21	Complete biosynthesis of cannabinoids and their unnatural analogues in yeast. <i>Nature</i> , 2019, 567, 123-126.	27.8	473
22	Workflow Automation in Liquid Chromatography Mass Spectrometry. , 2019, , .		0
23	Liquid Chromatography and Mass Spectrometry Analysis of Isoprenoid Intermediates in <i>Escherichia coli</i> . <i>Methods in Molecular Biology</i> , 2019, 1859, 209-224.	0.9	13
24	Mass Spectrometry-Based Microbial Metabolomics: Techniques, Analysis, and Applications. <i>Methods in Molecular Biology</i> , 2019, 1859, 11-69.	0.9	16
25	Microbial Metabolomics: A General Overview. <i>Methods in Molecular Biology</i> , 2019, 1859, 1-8.	0.9	18
26	Production of muconic acid in plants. <i>Metabolic Engineering</i> , 2018, 46, 13-19.	7.0	19
27	Integrated analysis of isopentenyl pyrophosphate (IPP) toxicity in isoprenoid-producing <i>Escherichia coli</i> . <i>Metabolic Engineering</i> , 2018, 47, 60-72.	7.0	106
28	Biochemical Characterization of $\beta$ -Amino Acid Incorporation in Fluvirucinâ€œ... $\beta$ - <sub>2</sub> Biosynthesis. <i>ChemBioChem</i> , 2018, 19, 1391-1395.	2.6	11
29	Model metabolic strategy for heterotrophic bacteria in the cold ocean based on <i>Colwellia psychrerythraea</i> 34H. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12507-12512.	7.1	26
30	Discovery of novel geranylgeranyl reductases and characterization of their substrate promiscuity. <i>Biotechnology for Biofuels</i> , 2018, 11, 340.	6.2	17
31	Renewable production of high density jet fuel precursor sesquiterpenes from <i>Escherichia coli</i> . <i>Biotechnology for Biofuels</i> , 2018, 11, 285.	6.2	43
32	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
33	Short-chain ketone production by engineered polyketide synthases in <i>Streptomyces albus</i> . <i>Nature Communications</i> , 2018, 9, 4569.	12.8	52
34	Overexpression of a rice BAHD acyltransferase gene in switchgrass ( <i>Panicum virgatum</i> L.) enhances saccharification. <i>BMC Biotechnology</i> , 2018, 18, 54.	3.3	38
35	Engineering the oleaginous yeast <i>Yarrowia lipolytica</i> to produce the aroma compound $\beta$ -ionone. <i>Microbial Cell Factories</i> , 2018, 17, 136.	4.0	72
36	Increased drought tolerance in plants engineered for low lignin and low xylan content. <i>Biotechnology for Biofuels</i> , 2018, 11, 195.	6.2	33

#	ARTICLE	IF	CITATIONS
37	Production of jet fuel precursor monoterpenoids from engineered <i>Escherichia coli</i> . <i>Biotechnology and Bioengineering</i> , 2017, 114, 1703-1712.	3.3	81
38	Cyanobacterial carbon metabolism: Fluxome plasticity and oxygen dependence. <i>Biotechnology and Bioengineering</i> , 2017, 114, 1593-1602.	3.3	83
39	Deciphering flux adjustments of engineered <i>E. coli</i> cells during fermentation with changing growth conditions. <i>Metabolic Engineering</i> , 2017, 39, 247-256.	7.0	33
40	Heterologous Gene Expression of N-Terminally Truncated Variants of LipPks1 Suggests a Functionally Critical Structural Motif in the N-terminus of Modular Polyketide Synthase. <i>ACS Chemical Biology</i> , 2017, 12, 2725-2729.	3.4	12
41	The Experiment Data Depot: A Web-Based Software Tool for Biological Experimental Data Storage, Sharing, and Visualization. <i>ACS Synthetic Biology</i> , 2017, 6, 2248-2259.	3.8	45
42	Oxidative cyclization of prodigiosin by an alkylglycerol monooxygenase-like enzyme. <i>Nature Chemical Biology</i> , 2017, 13, 1155-1157.	8.0	25
43	Comprehensive <i>in Vitro</i> Analysis of Acyltransferase Domain Exchanges in Modular Polyketide Synthases and Its Application for Short-Chain Ketone Production. <i>ACS Synthetic Biology</i> , 2017, 6, 139-147.	3.8	100
44	Glycosylation of inositol phosphorylceramide sphingolipids is required for normal growth and reproduction in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2017, 89, 278-290.	5.7	43
45	Flux-Enabled Exploration of the Role of Sip1 in Galactose Yeast Metabolism. <i>Frontiers in Bioengineering and Biotechnology</i> , 2017, 5, 31.	4.1	4
46	<i>Rhodospiridium toruloides</i> : a new platform organism for conversion of lignocellulose into terpene biofuels and bioproducts. <i>Biotechnology for Biofuels</i> , 2017, 10, 241.	6.2	150
47	SbCOMT (Bmr12) is involved in the biosynthesis of triclin-lignin in sorghum. <i>PLoS ONE</i> , 2017, 12, e0178160.	2.5	59
48	Expression of S-adenosylmethionine Hydrolase in Tissues Synthesizing Secondary Cell Walls Alters Specific Methylated Cell Wall Fractions and Improves Biomass Digestibility. <i>Frontiers in Bioengineering and Biotechnology</i> , 2016, 4, 58.	4.1	8
49	<sup>13</sup> C Metabolic Flux Analysis for Systematic Metabolic Engineering of <i>S. cerevisiae</i> for Overproduction of Fatty Acids. <i>Frontiers in Bioengineering and Biotechnology</i> , 2016, 4, 76.	4.1	42
50	Loss of Inositol Phosphorylceramide Sphingolipid Mannosylation Induces Plant Immune Responses and Reduces Cellulose Content in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2016, 28, 2991-3004.	6.6	71
51	ATP citrate lyase mediated cytosolic acetyl-CoA biosynthesis increases mevalonate production in <i>Saccharomyces cerevisiae</i> . <i>Microbial Cell Factories</i> , 2016, 15, 48.	4.0	58
52	Characterizing Strain Variation in Engineered <i>E. coli</i> Using a Multi-Omics-Based Workflow. <i>Cell Systems</i> , 2016, 2, 335-346.	6.2	73
53	Exploiting members of the BAHD acyltransferase family to synthesize multiple hydroxycinnamate and benzoate conjugates in yeast. <i>Microbial Cell Factories</i> , 2016, 15, 198.	4.0	32
54	Examining <i>Escherichia coli</i> glycolytic pathways, catabolite repression, and metabolite channeling using <i>pfk</i> mutants. <i>Biotechnology for Biofuels</i> , 2016, 9, 212.	6.2	74

#	ARTICLE	IF	CITATIONS
55	Engineering a functional 1-deoxy-D-xylulose 5-phosphate (DXP) pathway in <i>Saccharomyces cerevisiae</i> . <i>Metabolic Engineering</i> , 2016, 38, 494-503.	7.0	46
56	Alteration of Polyketide Stereochemistry from <i>anti</i> to <i>syn</i> by a Ketoreductase Domain Exchange in a Type I Modular Polyketide Synthase Subunit. <i>Biochemistry</i> , 2016, 55, 1677-1680.	2.5	23
57	Exploiting the Substrate Promiscuity of Hydroxycinnamoyl-CoA:Shikimate Hydroxycinnamoyl Transferase to Reduce Lignin. <i>Plant and Cell Physiology</i> , 2016, 57, 568-579.	3.1	78
58	Metabolic engineering of <i>Escherichia coli</i> for the biosynthesis of 2-pyrrolidone. <i>Metabolic Engineering Communications</i> , 2016, 3, 1-7.	3.6	34
59	Isopentenyl diphosphate (IPP)-bypass mevalonate pathways for isopentenol production. <i>Metabolic Engineering</i> , 2016, 34, 25-35.	7.0	97
60	Interlaboratory study to evaluate the robustness of capillary electrophoresis-mass spectrometry for peptide mapping. <i>Journal of Separation Science</i> , 2015, 38, 3262-3270.	2.5	36
61	Expression of a bacterial 3-dehydroshikimate dehydratase reduces lignin content and improves biomass saccharification efficiency. <i>Plant Biotechnology Journal</i> , 2015, 13, 1241-1250.	8.3	90
62	Engineering temporal accumulation of a low recalcitrance polysaccharide leads to increased C6 sugar content in plant cell walls. <i>Plant Biotechnology Journal</i> , 2015, 13, 903-914.	8.3	37
63	Metabolic engineering for the high-yield production of isoprenoid-based C5 alcohols in <i>E. coli</i> . <i>Scientific Reports</i> , 2015, 5, 11128.	3.3	125
64	Acute Limonene Toxicity in <i>Escherichia coli</i> Is Caused by Limonene Hydroperoxide and Alleviated by a Point Mutation in Alkyl Hydroperoxidase AhpC. <i>Applied and Environmental Microbiology</i> , 2015, 81, 4690-4696.	3.1	65
65	Assay for lignin breakdown based on lignin films: insights into the Fenton reaction with insoluble lignin. <i>Green Chemistry</i> , 2015, 17, 4830-4845.	9.0	10
66	Enhancing Terpene Yield from Sugars via Novel Routes to 1-Deoxy- <i>D</i> -Xylulose 5-Phosphate. <i>Applied and Environmental Microbiology</i> , 2015, 81, 130-138.	3.1	55
67	A kinetic-based approach to understanding heterologous mevalonate pathway function in <i>E. coli</i> . <i>Biotechnology and Bioengineering</i> , 2015, 112, 111-119.	3.3	42
68	Precursor-Directed Combinatorial Biosynthesis of Cinnamoyl, Dihydrocinnamoyl, and Benzoyl Anthranilates in <i>Saccharomyces cerevisiae</i> . <i>PLoS ONE</i> , 2015, 10, e0138972.	2.5	14
69	Identification of a cyclic-di-GMP-modulating response regulator that impacts biofilm formation in a model sulfate reducing bacterium. <i>Frontiers in Microbiology</i> , 2014, 5, 382.	3.5	28
70	Correlation analysis of targeted proteins and metabolites to assess and engineer microbial isopentenol production. <i>Biotechnology and Bioengineering</i> , 2014, 111, 1648-1658.	3.3	89
71	Metabolic pathway optimization using ribosome binding site variants and combinatorial gene assembly. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 1567-1581.	3.6	94
72	Analysis of plant nucleotide sugars by hydrophilic interaction liquid chromatography and tandem mass spectrometry. <i>Analytical Biochemistry</i> , 2014, 448, 14-22.	2.4	49

#	ARTICLE	IF	CITATIONS
73	Substantial improvements in methyl ketone production in <i>E. coli</i> and insights on the pathway from in vitro studies. <i>Metabolic Engineering</i> , 2014, 26, 67-76.	7.0	53
74	Metabolite Profiling of Plastidial Deoxyxylulose-5-Phosphate Pathway Intermediates by Liquid Chromatography and Mass Spectrometry. <i>Methods in Molecular Biology</i> , 2014, 1153, 57-76.	0.9	8
75	Production of hydroxycinnamoyl anthranilates from glucose in <i>Escherichia coli</i> . <i>Microbial Cell Factories</i> , 2013, 12, 62.	4.0	48
76	Microbial metabolomics: welcome to the real world!. <i>Metabolomics</i> , 2013, 9, 755-756.	3.0	5
77	Engineering dynamic pathway regulation using stress-response promoters. <i>Nature Biotechnology</i> , 2013, 31, 1039-1046.	17.5	411
78	Characterization of NaCl tolerance in <i>Desulfovibrio vulgaris</i> Hildenborough through experimental evolution. <i>ISME Journal</i> , 2013, 7, 1790-1802.	9.8	46
79	HipA-Triggered Growth Arrest and $\beta$ -Lactam Tolerance in <i>Escherichia coli</i> Are Mediated by RelA-Dependent ppGpp Synthesis. <i>Journal of Bacteriology</i> , 2013, 195, 3173-3182.	2.2	84
80	Physical and Functional Interactions of a Monothiol Glutaredoxin and an Iron Sulfur Cluster Carrier Protein with the Sulfur-donating Radical S-Adenosyl-L-methionine Enzyme MiaB. <i>Journal of Biological Chemistry</i> , 2013, 288, 14200-14211.	3.4	28
81	Arabinosylation of a Yariv-Precipitable Cell Wall Polymer Impacts Plant Growth as Exemplified by the <i>Arabidopsis</i> Glycosyltransferase Mutant ray1. <i>Molecular Plant</i> , 2013, 6, 1369-1372.	8.3	46
82	Remodeling the isoprenoid pathway in tobacco by expressing the cytoplasmic mevalonate pathway in chloroplasts. <i>Metabolic Engineering</i> , 2012, 14, 19-28.	7.0	120