Claudia E Vickers

List of Publications by Year
in descending order

82 papers	4,493 citations	87888 38 h-index	110387 64 g-index
88 all docs	88 docs citations	88 times ranked	5416 citing authors

#	Article	IF	Citations
1	Pandemic preparedness: synthetic biology and publicly funded biofoundries can rapidly accelerate response time. Nature Communications, 2022, 13, 453.	12.8	7
2	Engineering eukaryote-like regulatory circuits to expand artificial control mechanisms for metabolic engineering in Saccharomyces cerevisiae. Communications Biology, 2022, 5, 135.	4.4	12
3	Analysing intracellular isoprenoid metabolites in diverse prokaryotic and eukaryotic microbes. Methods in Enzymology, 2022, , .	1.0	1
4	An in vivo gene amplification system for high level expression in Saccharomyces cerevisiae. Nature Communications, 2022, 13, .	12.8	16
5	Ancestral sequence reconstruction of the <scp>CYP711</scp> family reveals functional divergence in strigolactone biosynthetic enzymes associated with gene duplication events in monocot grasses. New Phytologist, 2022, 235, 1900-1912.	7.3	9
6	Auxin-mediated protein depletion for metabolic engineering in terpene-producing yeast. Nature Communications, 2021, 12, 1051.	12.8	40
7	Artificial Self-assembling Nanocompartment for Organizing Metabolic Pathways in Yeast. ACS Synthetic Biology, 2021, 10, 3251-3263.	3.8	25
8	Auxinâ€mediated induction of <i>GAL</i> promoters by conditional degradation of Mig1p improves sesquiterpene production in <i>Saccharomycesâ€‰cerevisiae</i> with engineered acetylâ€CoA synthesis. Microbial Biotechnology, 2021, 14, 2627-2642.	4.2	14
9	Building a biofoundry. Synthetic Biology, 2021, 6, ysaa026.	2.2	37
10	Connecting Artificial Proteolytic and Electrochemical Signaling Systems with Caged Messenger Peptides. ACS Sensors, 2021, 6, 3596-3603.	7.8	8
11	Synthetic biology beyond borders. Microbial Biotechnology, 2021, 14, 2254-2256.	4.2	0
12	Rational Design of Novel Fluorescent Enzyme Biosensors for Direct Detection of Strigolactones. ACS Synthetic Biology, 2020, 9, 2107-2118.	3.8	20
13	Translation of Strigolactones from Plant Hormone to Agriculture: Achievements, Future Perspectives, and Challenges. Trends in Plant Science, 2020, 25, 1087-1106.	8.8	62
14	Extrachromosomal Genetic Engineering of the Marine Diatom <i>Phaeodactylum tricornutum</i> Enables the Heterologous Production of Monoterpenoids. ACS Synthetic Biology, 2020, 9, 598-612.	3.8	49
15	Caged Activators of Artificial Allosteric Protein Biosensors. ACS Synthetic Biology, 2020, 9, 1306-1314.	3.8	17
16	Adaptation of hydroxymethylbutenyl diphosphate reductase enables volatile isoprenoid production. ELife, 2020, 9, .	6.0	19
17	The Synthetic Biology Toolkit for Photosynthetic Microorganisms. Plant Physiology, 2019, 181, 14-27.	4.8	33
18	Orthogonal monoterpenoid biosynthesis in yeast constructed on an isomeric substrate. Nature Communications, 2019, 10, 3799.	12.8	71

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19	Building a global alliance of biofoundries. Nature Communications, 2019, 10, 2040.	12.8	167
20	Generalizable Protein Biosensors Based on Synthetic Switch Modules. Journal of the American Chemical Society, 2019, 141, 8128-8135.	13.7	51
21	Formation of Isoprenoids. , 2019, , 57-85.		3
22	Revolutionizing agriculture with synthetic biology. Nature Plants, 2019, 5, 1207-1210.	9.3	100
23	A widespread alternative squalene epoxidase participates in eukaryote steroid biosynthesis. Nature Microbiology, 2019, 4, 226-233.	13.3	64
24	Engineered protein degradation of farnesyl pyrophosphate synthase is an effective regulatory mechanism to increase monoterpene production in Saccharomyces cerevisiae. Metabolic Engineering, 2018, 47, 83-93.	7.0	89
25	Process Proteomics of Beer Reveals a Dynamic Proteome with Extensive Modifications. Journal of Proteome Research, 2018, 17, 1647-1653.	3.7	30
26	Toward industrial production of isoprenoids in <i>Escherichia coli</i>: Lessons learned from CRISPRâ€Cas9 based optimization of a chromosomally integrated mevalonate pathway. Biotechnology and Bioengineering, 2018, 115, 1000-1013.	3.3	39
27	An Expanded Heterologous <i>GAL</i> Promoter Collection for Diauxie-Inducible Expression in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2018, 7, 748-751.	3.8	35
28	Terpenoid Metabolic Engineering in Photosynthetic Microorganisms. Genes, 2018, 9, 520.	2.4	67
29	Alternative Carbon Sources for Isoprene Emission. Trends in Plant Science, 2018, 23, 1081-1101.	8.8	30
30	Coupling gene regulatory patterns to bioprocess conditions to optimize synthetic metabolic modules for improved sesquiterpene production in yeast. Biotechnology for Biofuels, 2017, 10, 43.	6.2	53
31	Bespoke design of wholeâ€cell microbial machines. Microbial Biotechnology, 2017, 10, 35-36.	4.2	5
32	Recent advances in synthetic biology for engineering isoprenoid production in yeast. Current Opinion in Chemical Biology, 2017, 40, 47-56.	6.1	153
33	A squalene synthase protein degradation method for improved sesquiterpene production in Saccharomyces cerevisiae. Metabolic Engineering, 2017, 39, 209-219.	7.0	91
34	Cell-free pipeline for discovery of thermotolerant xylanases and endo -1,4-Î²-glucanases. Journal of Biotechnology, 2017, 259, 191-198.	3.8	6
35	Formation of Isoprenoids. , 2017, , 1-29.		3
36	Molecular Cloning Designer Simulator (MCDS): All-in-one molecular cloning and genetic engineering design, simulation and management software for complex synthetic biology and metabolic engineering projects. Metabolic Engineering Communications, 2016, 3, 173-186.	3.6	6

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37	The Saccharomyces cerevisiae pheromone-response is a metabolically active stationary phase for bio-production. Metabolic Engineering Communications, 2016, 3, 142-152.	3.6	18
38	The minimal genome comes of age. Nature Biotechnology, 2016, 34, 623-624.	17.5	17
39	Controlling heterologous gene expression in yeast cell factories on different carbon substrates and across the diauxic shift: a comparison of yeast promoter activities. Microbial Cell Factories, 2015, 14, 91.	4.0	161
40	Dynamic regulation of gene expression using sucrose responsive promoters and RNA interference in Saccharomyces cerevisiae. Microbial Cell Factories, 2015, 14, 43.	4.0	28
41	Systems analysis of methylerythritol-phosphate pathway flux in E. coli: insights into the role of oxidative stress and the validity of lycopene as an isoprenoid reporter metabolite. Microbial Cell Factories, 2015, 14, 193.	4.0	24
42	Production of Industrially Relevant Isoprenoid Compounds in Engineered Microbes. Microbiology Monographs, 2015, , 303-334.	0.6	20
43	Isoprene. Advances in Biochemical Engineering/Biotechnology, 2015, 148, 289-317.	1.1	21
44	Quorum-sensing linked RNA interference for dynamic metabolic pathway control in Saccharomyces cerevisiae. Metabolic Engineering, 2015, 29, 124-134.	7.0	118
45	Protocols for the Production and Analysis of Isoprenoids in Bacteria and Yeast. Springer Protocols, 2015, , 23-52.	0.3	8
46	Escherichia coli W shows fast, highly oxidative sucrose metabolism and low acetate formation. Applied Microbiology and Biotechnology, 2014, 98, 9033-9044.	3.6	27
47	Dynamic Balancing of Isoprene Carbon Sources Reflects Photosynthetic and Photorespiratory Responses to Temperature Stress. Plant Physiology, 2014, 166, 2051-2064.	4.8	41
48	Metabolic engineering of volatile isoprenoids in plants and microbes. Plant, Cell and Environment, 2014, 37, 1753-1775.	5.7	110
49	Isoprene production in transgenic tobacco alters isoprenoid, nonâ€structural carbohydrate and phenylpropanoid metabolism, and protects photosynthesis from drought stress. Plant, Cell and Environment, 2014, 37, 1950-1964.	5.7	63
50	Isoprene emission protects photosynthesis but reduces plant productivity during drought in transgenic tobacco (<i>Nicotiana tabacum</i>) plants. New Phytologist, 2014, 201, 205-216.	7.3	58
51	Genetic diversity and biogeography of the boab Adansonia gregorii (Malvaceae: Bombacoideae). Australian Journal of Botany, 2014, 62, 164.	0.6	11
52	The Trehalose Phosphotransferase System (PTS) in E. coli W Can Transport Low Levels of Sucrose that Are Sufficient to Facilitate Induction of the csc Sucrose Catabolism Operon. PLoS ONE, 2014, 9, e88688.	2.5	10
53	Knock-in/Knock-out (KIKO) vectors for rapid integration of large DNA sequences, including whole metabolic pathways, onto the Escherichia coli chromosome at well-characterised loci. Microbial Cell Factories, 2013, 12, 60.	4.0	74
54	2,2-Diphenyl-1-picrylhydrazyl as a screening tool for recombinant monoterpene biosynthesis. Microbial Cell Factories, 2013, 12, 76.	4.0	48

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55	Dual gene expression cassette vectors with antibiotic selection markers for engineering in Saccharomyces cerevisiae. Microbial Cell Factories, 2013, 12, 96.	4.0	45
56	Engineered Quorum Sensing Using Pheromone-Mediated Cell-to-Cell Communication in <i>Saccharomyces cerevisiae</i>. ACS Synthetic Biology, 2013, 2, 136-149.	3.8	62
57	Molecular Control of Sucrose Utilization in Escherichia coli W, an Efficient Sucrose-Utilizing Strain. Applied and Environmental Microbiology, 2013, 79, 478-487.	3.1	76
58	Emissions of putative isoprene oxidation products from mango branches under abiotic stress. Journal of Experimental Botany, 2013, 64, 3669-3679.	4.8	72
59	A transferable sucrose utilization approach for non-sucrose-utilizing Escherichia coli strains. Biotechnology Advances, 2012, 30, 1001-1010.	11.7	33
60	Morphology, ploidy and molecular phylogenetics reveal a new diploid species from Africa in the baobab genus <i>Adansonia</i> (Malvaceae: Bombacoideae). Taxon, 2012, 61, 1240-1250.	0.7	53
61	Examining the feasibility of bulk commodity production in Escherichia coli. Biotechnology Letters, 2012, 34, 585-596.	2.2	43
62	Deletion of cscR in Escherichia coli W improves growth and poly-3-hydroxybutyrate (PHB) production from sucrose in fed batch culture. Journal of Biotechnology, 2011, 156, 275-278.	3.8	35
63	Isoprene synthesis in plants: lessons from a transgenic tobacco model. Plant, Cell and Environment, 2011, 34, 1043-1053.	5.7	38
64	The genome sequence of E. coli W (ATCC 9637): comparative genome analysis and an improved genome-scale reconstruction of E. coli. BMC Genomics, 2011, 12, 9.	2.8	159
65	HR Index-A Simple Method for the Prediction of Oxygen Uptake. Medicine and Science in Sports and Exercise, 2011, 43, 2005-2012.	0.4	46
66	Development of sucrose-utilizing Escherichia coli K-12 strain by cloning Î²-fructofuranosidases and its application for l-threonine production. Applied Microbiology and Biotechnology, 2010, 88, 905-913.	3.6	46
67	Genetic structure and regulation of isoprene synthase in Poplar (Populus spp.). Plant Molecular Biology, 2010, 73, 547-558.	3.9	42
68	Effects of fosmidomycin on plant photosynthesis as measured by gas exchange and chlorophyll fluorescence. Photosynthesis Research, 2010, 104, 49-59.	2.9	26
69	Metabolic engineering of sucrose utilizing Escherichia coli for polyhydroxybutyrate production. Journal of Biotechnology, 2010, 150, 72-73.	3.8	1
70	Production of bacteriocins byStreptococcus bovisstrains from Australian ruminants. Journal of Applied Microbiology, 2010, 108, 428-436.	3.1	5
71	Grand Challenge Commentary: Chassis cells for industrial biochemical production. Nature Chemical Biology, 2010, 6, 875-877.	8.0	64
72	Isoprene synthesis protects transgenic tobacco plants from oxidative stress. Plant, Cell and Environment, 2009, 32, 520-531.	5.7	216

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73	A unified mechanism of action for volatile isoprenoids in plant abiotic stress. Nature Chemical Biology, 2009, 5, 283-291.	8.0	606
74	Isoprene emissions influence herbivore feeding decisions. Plant, Cell and Environment, 2008, 31, 1410-1415.	5.7	126
75	The role of isoprene in insect herbivory. Plant Signaling and Behavior, 2008, 3, 1141-1142.	2.4	11
76	pGFPGUSPlus, a new binary vector for gene expression studies and optimising transformation systems in plants. Biotechnology Letters, 2007, 29, 1793-1796.	2.2	47
77	Circadian control of isoprene emissions from oil palm (Elaeis guineensis). Plant Journal, 2006, 47, 960-968.	5.7	68
78	A novel cis-acting element, ESP, contributes to high-level endosperm-specific expression in an oat globulin promoter. Plant Molecular Biology, 2006, 62, 195-214.	3.9	40
79	Promoter trapping in Lotus japonicus reveals novel root and nodule GUS expression domains. Plant and Cell Physiology, 2005, 46, 1202-1212.	3.1	19
80	Promoter Analysis of the Barley Pht1;1 Phosphate Transporter Gene Identifies Regions Controlling Root Expression and Responsiveness to Phosphate Deprivation. Plant Physiology, 2004, 136, 4205-4214.	4.8	131
81	Selectable marker-free transgenic barley producing a high level of cellulase (1,4-?-glucanase) in developing grains. Plant Cell Reports, 2003, 21, 1088-1094.	5.6	66
82	A synthetic xylanase as a novel reporter in plants. Plant Cell Reports, 2003, 22, 135-140.	5.6	23