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	A unified mechanism of action for volatile isoprenoids in plant abiotic stress. Nature Chemical Biology, 2009, 5, 283-291.	8.0	606
2	Isoprene synthesis protects transgenic tobacco plants from oxidative stress. Plant, Cell and Environment, 2009, 32, 520-531.	5.7	216
3	Building a global alliance of biofoundries. Nature Communications, 2019, 10, 2040.	12.8	167
4	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
5	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
6	Recent advances in synthetic biology for engineering isoprenoid production in yeast. Current Opinion in Chemical Biology, 2017, 40, 47-56.	6.1	153
7	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
8	Isoprene emissions influence herbivore feeding decisions. Plant, Cell and Environment, 2008, 31, 1410-1415.	5.7	126
9	Quorum-sensing linked RNA interference for dynamic metabolic pathway control in Saccharomyces cerevisiae. Metabolic Engineering, 2015, 29, 124-134.	7.0	118
10	Metabolic engineering of volatile isoprenoids in plants and microbes. Plant, Cell and Environment, 2014, 37, 1753-1775.	5.7	110
11	Revolutionizing agriculture with synthetic biology. Nature Plants, 2019, 5, 1207-1210.	9.3	100
12	A squalene synthase protein degradation method for improved sesquiterpene production in Saccharomyces cerevisiae. Metabolic Engineering, 2017, 39, 209-219.	7.0	91
13	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
14	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
15	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
16	Emissions of putative isoprene oxidation products from mango branches under abiotic stress. Journal of Experimental Botany, 2013, 64, 3669-3679.	4.8	72
17	Orthogonal monoterpenoid biosynthesis in yeast constructed on an isomeric substrate. Nature Communications, 2019, 10, 3799.	12.8	71
18	Circadian control of isoprene emissions from oil palm (Elaeis guineensis). Plant Journal, 2006, 47, 960-968.	5.7	68

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19	Terpenoid Metabolic Engineering in Photosynthetic Microorganisms. Genes, 2018, 9, 520.	2.4	67
20	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
21	Grand Challenge Commentary: Chassis cells for industrial biochemical production. Nature Chemical Biology, 2010, 6, 875-877.	8.0	64
22	A widespread alternative squalene epoxidase participates in eukaryote steroid biosynthesis. Nature Microbiology, 2019, 4, 226-233.	13.3	64
23	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
24	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
25	Translation of Strigolactones from Plant Hormone to Agriculture: Achievements, Future Perspectives, and Challenges. Trends in Plant Science, 2020, 25, 1087-1106.	8.8	62
26	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
27	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
28	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
29	Generalizable Protein Biosensors Based on Synthetic Switch Modules. Journal of the American Chemical Society, 2019, 141, 8128-8135.	13.7	51
30	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
31	2,2-Diphenyl-1-picrylhydrazyl as a screening tool for recombinant monoterpene biosynthesis. Microbial Cell Factories, 2013, 12, 76.	4.0	48
32	pGFPGUSPlus, a new binary vector for gene expression studies and optimising transformation systems in plants. Biotechnology Letters, 2007, 29, 1793-1796.	2.2	47
33	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
34	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
35	Dual gene expression cassette vectors with antibiotic selection markers for engineering in Saccharomyces cerevisiae. Microbial Cell Factories, 2013, 12, 96.	4.0	45
36	Examining the feasibility of bulk commodity production in Escherichia coli. Biotechnology Letters, 2012, 34, 585-596.	2.2	43

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37	Genetic structure and regulation of isoprene synthase in Poplar (Populus spp.). Plant Molecular Biology, 2010, 73, 547-558.	3.9	42
38	Dynamic Balancing of Isoprene Carbon Sources Reflects Photosynthetic and Photorespiratory Responses to Temperature Stress. Plant Physiology, 2014, 166, 2051-2064.	4.8	41
39	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
40	Auxin-mediated protein depletion for metabolic engineering in terpene-producing yeast. Nature Communications, 2021, 12, 1051.	12.8	40
41	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
42	Isoprene synthesis in plants: lessons from a transgenic tobacco model. Plant, Cell and Environment, 2011, 34, 1043-1053.	5.7	38
43	Building a biofoundry. Synthetic Biology, 2021, 6, ysaa026.	2.2	37
44	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
45	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
46	A transferable sucrose utilization approach for non-sucrose-utilizing Escherichia coli strains. Biotechnology Advances, 2012, 30, 1001-1010.	11.7	33
47	The Synthetic Biology Toolkit for Photosynthetic Microorganisms. Plant Physiology, 2019, 181, 14-27.	4.8	33
48	Process Proteomics of Beer Reveals a Dynamic Proteome with Extensive Modifications. Journal of Proteome Research, 2018, 17, 1647-1653.	3.7	30
49	Alternative Carbon Sources for Isoprene Emission. Trends in Plant Science, 2018, 23, 1081-1101.	8.8	30
50	Dynamic regulation of gene expression using sucrose responsive promoters and RNA interference in Saccharomyces cerevisiae. Microbial Cell Factories, 2015, 14, 43.	4.0	28
51	Escherichia coli W shows fast, highly oxidative sucrose metabolism and low acetate formation. Applied Microbiology and Biotechnology, 2014, 98, 9033-9044.	3.6	27
52	Effects of fosmidomycin on plant photosynthesis as measured by gas exchange and chlorophyll fluorescence. Photosynthesis Research, 2010, 104, 49-59.	2.9	26
53	Artificial Self-assembling Nanocompartment for Organizing Metabolic Pathways in Yeast. ACS Synthetic Biology, 2021, 10, 3251-3263.	3.8	25
54	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

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55	A synthetic xylanase as a novel reporter in plants. Plant Cell Reports, 2003, 22, 135-140.	5.6	23
56	Isoprene. Advances in Biochemical Engineering/Biotechnology, 2015, 148, 289-317.	1.1	21
57	Production of Industrially Relevant Isoprenoid Compounds in Engineered Microbes. Microbiology Monographs, 2015, , 303-334.	0.6	20
58	Rational Design of Novel Fluorescent Enzyme Biosensors for Direct Detection of Strigolactones. ACS Synthetic Biology, 2020, 9, 2107-2118.	3.8	20
59	Promoter trapping in Lotus japonicus reveals novel root and nodule GUS expression domains. Plant and Cell Physiology, 2005, 46, 1202-1212.	3.1	19
60	Adaptation of hydroxymethylbutenyl diphosphate reductase enables volatile isoprenoid production. ELife, 2020, 9, .	6.0	19
61	The Saccharomyces cerevisiae pheromone-response is a metabolically active stationary phase for bio-production. Metabolic Engineering Communications, 2016, 3, 142-152.	3.6	18
62	The minimal genome comes of age. Nature Biotechnology, 2016, 34, 623-624.	17.5	17
63	Caged Activators of Artificial Allosteric Protein Biosensors. ACS Synthetic Biology, 2020, 9, 1306-1314.	3.8	17
64	An in vivo gene amplification system for high level expression in Saccharomyces cerevisiae. Nature Communications, 2022, 13, .	12.8	16
65	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
66	Engineering eukaryote-like regulatory circuits to expand artificial control mechanisms for metabolic engineering in Saccharomyces cerevisiae. Communications Biology, 2022, 5, 135.	4.4	12
67	The role of isoprene in insect herbivory. Plant Signaling and Behavior, 2008, 3, 1141-1142.	2.4	11
68	Genetic diversity and biogeography of the boab Adansonia gregorii (Malvaceae: Bombacoideae). Australian Journal of Botany, 2014, 62, 164.	0.6	11
69	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
70	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
71	Protocols for the Production and Analysis of Isoprenoids in Bacteria and Yeast. Springer Protocols, 2015, , 23-52.	0.3	8
72	Connecting Artificial Proteolytic and Electrochemical Signaling Systems with Caged Messenger Peptides. ACS Sensors, 2021, 6, 3596-3603.	7.8	8

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73	Pandemic preparedness: synthetic biology and publicly funded biofoundries can rapidly accelerate response time. Nature Communications, 2022, 13, 453.	12.8	7
74	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
75	Cell-free pipeline for discovery of thermotolerant xylanases and endo -1,4-Î²-glucanases. Journal of Biotechnology, 2017, 259, 191-198.	3.8	6
76	Production of bacteriocins byStreptococcus bovisstrains from Australian ruminants. Journal of Applied Microbiology, 2010, 108, 428-436.	3.1	5
77	Bespoke design of wholeâ€cell microbial machines. Microbial Biotechnology, 2017, 10, 35-36.	4.2	5
78	Formation of Isoprenoids. , 2019, , 57-85.		3
79	Formation of Isoprenoids. , 2017, , 1-29.		3
80	Metabolic engineering of sucrose utilizing Escherichia coli for polyhydroxybutyrate production. Journal of Biotechnology, 2010, 150, 72-73.	3.8	1
81	Analysing intracellular isoprenoid metabolites in diverse prokaryotic and eukaryotic microbes. Methods in Enzymology, 2022, , .	1.0	1
82	Synthetic biology beyond borders. Microbial Biotechnology, 2021, 14, 2254-2256.	4.2	0