

John A Morgan

List of Publications by Year in descending order

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68
papers

4,193
citations

117453

34
h-index

118652

62
g-index

71
all docs

71
docs citations

71
times ranked

4750
citing authors

#	ARTICLE	IF	CITATIONS
1	Flux balance analysis of primary metabolism in <i>Chlamydomonas reinhardtii</i> . <i>BMC Systems Biology</i> , 2009, 3, 4.	3.0	351
2	Mapping photoautotrophic metabolism with isotopically nonstationary ¹³ C flux analysis. <i>Metabolic Engineering</i> , 2011, 13, 656-665.	3.6	307
3	Plant "hairy root"™ culture. <i>Current Opinion in Biotechnology</i> , 1999, 10, 151-155.	3.3	239
4	Emission of volatile organic compounds from petunia flowers is facilitated by an ABC transporter. <i>Science</i> , 2017, 356, 1386-1388.	6.0	202
5	Metabolic Engineering of the Phenylpropanoid Pathway in <i>Saccharomyces cerevisiae</i> . <i>Applied and Environmental Microbiology</i> , 2005, 71, 2962-2969.	1.4	186
6	Flux Balance Analysis of Photoautotrophic Metabolism. <i>Biotechnology Progress</i> , 2005, 21, 1617-1626.	1.3	175
7	Rethinking how volatiles are released from plant cells. <i>Trends in Plant Science</i> , 2015, 20, 545-550.	4.3	153
8	Mathematical Modeling of Plant Metabolic Pathways. <i>Metabolic Engineering</i> , 2002, 4, 80-89.	3.6	123
9	The plasticity of cyanobacterial metabolism supports direct CO ₂ conversion to ethylene. <i>Nature Plants</i> , 2015, 1, .	4.7	119
10	Heterotrophic growth and lipid production of <i>Chlorella protothecoides</i> on glycerol. <i>Bioprocess and Biosystems Engineering</i> , 2011, 34, 121-125.	1.7	115
11	Metabolic flux analysis of CHO cell metabolism in the late non-growth phase. <i>Biotechnology and Bioengineering</i> , 2011, 108, 82-92.	1.7	113
12	Glycogen Synthesis and Metabolite Overflow Contribute to Energy Balancing in Cyanobacteria. <i>Cell Reports</i> , 2018, 23, 667-672.	2.9	107
13	Determination of metabolic rate-limitations by precursor feeding in <i>Catharanthus roseus</i> hairy root cultures. <i>Journal of Biotechnology</i> , 2000, 79, 137-145.	1.9	106
14	Completion of the cytosolic post-chorismate phenylalanine biosynthetic pathway in plants. <i>Nature Communications</i> , 2019, 10, 15.	5.8	103
15	Plant Volatiles: Going "In"™ but not "Out"™ of Trichome Cavities. <i>Trends in Plant Science</i> , 2017, 22, 930-938.		97
16	A transient isotopic labeling methodology for ¹³ C metabolic flux analysis of photoautotrophic microorganisms. <i>Phytochemistry</i> , 2007, 68, 2302-2312.	1.4	93
17	Identification of a plastidial phenylalanine exporter that influences flux distribution through the phenylalanine biosynthetic network. <i>Nature Communications</i> , 2015, 6, 8142.	5.8	76
18	Integrating cybernetic modeling with pathway analysis provides a dynamic, systems-level description of metabolic control. <i>Biotechnology and Bioengineering</i> , 2008, 100, 542-559.	1.7	72

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19	Developmental Changes in the Metabolic Network of Snapdragon Flowers. PLoS ONE, 2012, 7, e40381.	1.1	72
20	Systematic development of hybrid cybernetic models: Application to recombinant yeast co-consuming glucose and xylose. Biotechnology and Bioengineering, 2009, 103, 984-1002.	1.7	71
21	Computation of metabolic fluxes and efficiencies for biological carbon dioxide fixation. Metabolic Engineering, 2011, 13, 150-158.	3.6	66
22	Metabolic cartography: experimental quantification of metabolic fluxes from isotopic labelling studies. Journal of Experimental Botany, 2012, 63, 2293-2308.	2.4	66
23	Targeted metabolomic analysis of Escherichia coli by desorption electrospray ionization and extractive electrospray ionization mass spectrometry. Analytical Biochemistry, 2008, 375, 272-281.	1.1	63
24	A kinetic model describes metabolic response to perturbations and distribution of flux control in the benzenoid network of <i>Petunia hybrida</i> . Plant Journal, 2010, 62, 64-76.	2.8	59
25	Quantification of metabolites in the indole alkaloid pathways of <i>Catharanthus roseus</i> : Implications for metabolic engineering. , 1998, 58, 333-338.		57
26	Genetic manipulation of lignocellulosic biomass for bioenergy. Current Opinion in Chemical Biology, 2015, 29, 32-39.	2.8	57
27	Natural fumigation as a mechanism for volatile transport between flower organs. Nature Chemical Biology, 2019, 15, 583-588.	3.9	56
28	Cuticle thickness affects dynamics of volatile emission from petunia flowers. Nature Chemical Biology, 2021, 17, 138-145.	3.9	50
29	Analysis of metabolic flux using dynamic labelling and metabolic modelling. Plant, Cell and Environment, 2013, 36, 1738-1750.	2.8	47
30	The monolignol pathway contributes to the biosynthesis of volatile phenylpropenes in flowers. New Phytologist, 2014, 204, 661-670.	3.5	44
31	Metabolic flux analysis of secondary metabolism in plants. Metabolic Engineering Communications, 2020, 10, e00123.	1.9	44
32	Optimization of an in vivo plant P450 monooxygenase system in <i>Saccharomyces cerevisiae</i> . Biotechnology and Bioengineering, 2004, 85, 130-137.	1.7	43
33	Metabolic flux analysis of heterotrophic growth in <i>Chlamydomonas reinhardtii</i> . PLoS ONE, 2017, 12, e0177292.	1.1	40
34	Effects of buffered media upon growth and alkaloid production of <i>Catharanthus roseus</i> hairy roots. Applied Microbiology and Biotechnology, 2000, 53, 262-265.	1.7	39
35	Inhibitor studies of tabersonine metabolism in <i>C. roseus</i> hairy roots. Phytochemistry, 1999, 51, 61-68.	1.4	36
36	Expression of a <i>Dianthus</i> flavonoid glucosyltransferase in <i>Saccharomyces cerevisiae</i> for whole-cell biocatalysis. Journal of Biotechnology, 2009, 142, 233-241.	1.9	33

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37	Isotopomer Measurement Techniques in Metabolic Flux Analysis II: Mass Spectrometry. <i>Methods in Molecular Biology</i> , 2014, 1083, 85-108.	0.4	33
38	Toward the development of a biocatalytic system for oxidation of p-xylene to terephthalic acid: oxidation of 1,4-benzenedimethanol. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2002, 18, 147-154.	1.8	31
39	Targeted Metabolomics of the Phenylpropanoid Pathway in <i>Arabidopsis thaliana</i> using Reversed Phase Liquid Chromatography Coupled with Tandem Mass Spectrometry. <i>Phytochemical Analysis</i> , 2017, 28, 267-276.	1.2	30
40	Combining isotopically non-stationary metabolic flux analysis with proteomics to unravel the regulation of the Calvin-Benson-Bassham cycle in <i>Synechocystis</i> sp. PCC 6803. <i>Metabolic Engineering</i> , 2019, 56, 77-84.	3.6	30
41	Transient studies of light-adapted cultures of hairy roots of <i>Catharanthus roseus</i> : Growth and indole alkaloid accumulation. , 1998, 60, 670-678.		29
42	Isotopically Nonstationary MFA (INST-MFA) of Autotrophic Metabolism. <i>Methods in Molecular Biology</i> , 2014, 1090, 181-210.	0.4	29
43	Modeling Plant Metabolism: From Network Reconstruction to Mechanistic Models. <i>Annual Review of Plant Biology</i> , 2020, 71, 303-326.	8.6	27
44	Modulation of auxin formation by the cytosolic phenylalanine biosynthetic pathway. <i>Nature Chemical Biology</i> , 2020, 16, 850-856.	3.9	27
45	Quantification of Metabolic Flux in Plant Secondary Metabolism by a Biogenetic Organizational Approach. <i>Metabolic Engineering</i> , 2002, 4, 257-262.	3.6	26
46	Multifaceted plant responses to circumvent Phe hyperaccumulation by downregulation of flux through the shikimate pathway and by vacuolar Phe sequestration. <i>Plant Journal</i> , 2017, 92, 939-950.	2.8	24
47	A ¹³ C isotope labeling method for the measurement of lignin metabolic flux in <i>Arabidopsis</i> stems. <i>Plant Methods</i> , 2018, 14, 51.	1.9	22
48	Salt-activation of nonhydrolase enzymes for use in organic solvents. <i>Biotechnology and Bioengineering</i> , 2004, 85, 456-459.	1.7	20
49	Non-natural cinnamic acid derivatives as substrates of cinnamate 4-hydroxylase. <i>Phytochemistry</i> , 2007, 68, 306-311.	1.4	19
50	Synthesis of non-natural flavanones and dihydrochalcones in metabolically engineered yeast. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2010, 66, 257-263.	1.8	19
51	Parallel Synthesis and Biocatalytic Amplification of a Cross-Conjugated Cyclopentenone Library. <i>ACS Combinatorial Science</i> , 2001, 3, 346-353.	3.3	18
52	Combining Random Mutagenesis and Metabolic Engineering for Enhanced Tryptophan Production in <i>Synechocystis</i> sp. Strain PCC 6803. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	1.4	18
53	Controlling selectivity and enhancing yield of flavonoid glycosides in recombinant yeast. <i>Bioprocess and Biosystems Engineering</i> , 2010, 33, 863-871.	1.7	17
54	Dynamic modeling of subcellular phenylpropanoid metabolism in <i>Arabidopsis</i> lignifying cells. <i>Metabolic Engineering</i> , 2018, 49, 36-46.	3.6	16

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55	Production of C35 isoprenoids depends on H ₂ availability during cultivation of the hyperthermophile <i>Methanococcus jannaschii</i> . <i>Extremophiles</i> , 2004, 8, 13-21.	0.9	12
56	Overexpression of arogenate dehydratase reveals an upstream point of metabolic control in phenylalanine biosynthesis. <i>Plant Journal</i> , 2021, 108, 737-751.	2.8	12
57	Diffusion of volatile organics and water in the epicuticular waxes of petunia petal epidermal cells. <i>Plant Journal</i> , 2022, 110, 658-672.	2.8	10
58	Calculation of theoretical yields in metabolic networks. <i>Biochemistry and Molecular Biology Education</i> , 2004, 32, 314-318.	0.5	7
59	Network Stoichiometry. , 2009, , 211-243.		7
60	Cybernetic modeling of metabolism: towards a framework for rational design of recombinant organisms. <i>Chemical Engineering Science</i> , 2004, 59, 5041-5049.	1.9	5
61	High throughput screening of heterologous P450 whole cell activity. <i>Enzyme and Microbial Technology</i> , 2006, 38, 760-764.	1.6	5
62	Electric Pulse Pretreatment for Enhanced Lipid Recovery from <i>Chlorella protothecoides</i> . <i>Bioenergy Research</i> , 2020, 13, 499-506.	2.2	5
63	Probing Light-Dependent Regulation of the Calvin Cycle Using a Multi-Omics Approach. <i>Frontiers in Plant Science</i> , 2021, 12, 733122.	1.7	5
64	Application of Dynamic Flux Analysis in Plant Metabolic Networks. , 2009, , 285-305.		4
65	Simulating Labeling to Estimate Kinetic Parameters for Flux Control Analysis. <i>Methods in Molecular Biology</i> , 2014, 1090, 211-222.	0.4	1
66	Expression of a flavonoid glucosyltransferase in yeast for whole-cell biocatalysis. <i>Journal of Biotechnology</i> , 2008, 136, S376.	1.9	0
67	Editorial overview: Plant biotechnology. <i>Current Opinion in Biotechnology</i> , 2016, 37, 153-154.	3.3	0
68	Cost-Aware Learning for Improved Identifiability with Multiple Experiments. , 2019, , .		0