John A Morgan

List of Publications by Year
in descending order

68 papers	4,193 citations	117625 34 h-index	118850 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 Chlamydomonas reinhardtii. BMC Systems Biology, 2009, 3, 4.	3.0	351
2	Mapping photoautotrophic metabolism with isotopically nonstationary 13C flux analysis. Metabolic Engineering, 2011, 13, 656-665.	7.0	307
3	Plant â€˜hairy rootâ€™ culture. Current Opinion in Biotechnology, 1999, 10, 151-155.	6.6	239
4	Emission of volatile organic compounds from petunia flowers is facilitated by an ABC transporter. Science, 2017, 356, 1386-1388.	12.6	202
5	Metabolic Engineering of the Phenylpropanoid Pathway in Saccharomyces cerevisiae. Applied and Environmental Microbiology, 2005, 71, 2962-2969.	3.1	186
6	Flux Balance Analysis of Photoautotrophic Metabolism. Biotechnology Progress, 2005, 21, 1617-1626.	2.6	175
7	Rethinking how volatiles are released from plant cells. Trends in Plant Science, 2015, 20, 545-550.	8.8	153
8	Mathematical Modeling of Plant Metabolic Pathways. Metabolic Engineering, 2002, 4, 80-89.	7.0	123
9	The plasticity of cyanobacterial metabolism supports direct CO2 conversion to ethylene. Nature Plants, 2015, 1, .	9.3	119
10	Heterotrophic growth and lipid production of Chlorella protothecoides on glycerol. Bioprocess and Biosystems Engineering, 2011, 34, 121-125.	3.4	115
11	Metabolic flux analysis of CHO cell metabolism in the late nonâ€growth phase. Biotechnology and Bioengineering, 2011, 108, 82-92.	3.3	113
12	Glycogen Synthesis and Metabolite Overflow Contribute to Energy Balancing in Cyanobacteria. Cell Reports, 2018, 23, 667-672.	6.4	107
13	Determination of metabolic rate-limitations by precursor feeding in Catharanthus roseus hairy root cultures. Journal of Biotechnology, 2000, 79, 137-145.	3.8	106
14	Completion of the cytosolic post-chorismate phenylalanine biosynthetic pathway in plants. Nature Communications, 2019, 10, 15.	12.8	103
15	Plant Volatiles: Going â€˜Inâ€™ but not â€˜Outâ€™ of Trichome Cavities. Trends in Plant Science, 2017, 22, 930-938.	8.8	97
16	A transient isotopic labeling methodology for 13C metabolic flux analysis of photoautotrophic microorganisms. Phytochemistry, 2007, 68, 2302-2312.	2.9	93
17	Identification of a plastidial phenylalanine exporter that influences flux distribution through the phenylalanine biosynthetic network. Nature Communications, 2015, 6, 8142.	12.8	76
18	Integrating cybernetic modeling with pathway analysis provides a dynamic, systemsâ€level description of metabolic control. Biotechnology and Bioengineering, 2008, 100, 542-559.	3.3	72

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19	Developmental Changes in the Metabolic Network of Snapdragon Flowers. PLoS ONE, 2012, 7, e40381.	2.5	72
20	Systematic development of hybrid cybernetic models: Application to recombinant yeast coâ€consuming glucose and xylose. Biotechnology and Bioengineering, 2009, 103, 984-1002.	3.3	71
21	Computation of metabolic fluxes and efficiencies for biological carbon dioxide fixation. Metabolic Engineering, 2011, 13, 150-158.	7.0	66
22	Metabolic cartography: experimental quantification of metabolic fluxes from isotopic labelling studies. Journal of Experimental Botany, 2012, 63, 2293-2308.	4.8	66
23	Targeted metabolomic analysis of Escherichia coli by desorption electrospray ionization and extractive electrospray ionization mass spectrometry. Analytical Biochemistry, 2008, 375, 272-281.	2.4	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.	5.7	59
25	Quantification of metabolites in the indole alkaloid pathways ofCatharanthus roseus: 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.	6.1	57
27	Natural fumigation as a mechanism for volatile transport between flower organs. Nature Chemical Biology, 2019, 15, 583-588.	8.0	56
28	Cuticle thickness affects dynamics of volatile emission from petunia flowers. Nature Chemical Biology, 2021, 17, 138-145.	8.0	50
29	Analysis of metabolic flux using dynamic labelling and metabolic modelling. Plant, Cell and Environment, 2013, 36, 1738-1750.	5.7	47
30	The monolignol pathway contributes to the biosynthesis of volatile phenylpropenes in flowers. New Phytologist, 2014, 204, 661-670.	7.3	44
31	Metabolic flux analysis of secondary metabolism in plants. Metabolic Engineering Communications, 2020, 10, e00123.	3.6	44
32	Optimization of an in vivo plant P450 monooxygenase system inSaccharomyces cerevisiae. Biotechnology and Bioengineering, 2004, 85, 130-137.	3.3	43
33	Metabolic flux analysis of heterotrophic growth in Chlamydomonas reinhardtii. PLoS ONE, 2017, 12, e0177292.	2.5	40
34	Effects of buffered media upon growth and alkaloid production of Catharanthus roseus hairy roots. Applied Microbiology and Biotechnology, 2000, 53, 262-265.	3.6	39
35	Inhibitor studies of tabersonine metabolism in C. roseus hairy roots. Phytochemistry, 1999, 51, 61-68.	2.9	36
36	Expression of a Dianthus flavonoid glucosyltransferase in Saccharomyces cerevisiae for whole-cell biocatalysis. Journal of Biotechnology, 2009, 142, 233-241.	3.8	33

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37	Isotopomer Measurement Techniques in Metabolic Flux Analysis II: Mass Spectrometry. Methods in Molecular Biology, 2014, 1083, 85-108.	0.9	33
38	Toward the development of a biocatalytic system for oxidation of p-xylene to terephthalic acid: oxidation of 1,4-benzenedimethanol. Journal of Molecular Catalysis B: Enzymatic, 2002, 18, 147-154.	1.8	31
39	Targeted Metabolomics of the Phenylpropanoid Pathway in <scp><i>Arabidopsis thaliana</i></scp> using Reversed Phase Liquid Chromatography Coupled with Tandem Mass Spectrometry. Phytochemical Analysis, 2017, 28, 267-276.	2.4	30
40	Combining isotopically non-stationary metabolic flux analysis with proteomics to unravel the regulation of the Calvin-Benson-Bassham cycle in Synechocystis sp. PCC 6803. Metabolic Engineering, 2019, 56, 77-84.	7.0	30
41	Transient studies of light-adapted cultures of hairy roots ofCatharanthus roseus: Growth and indole alkaloid accumulation. , 1998, 60, 670-678.		29
42	Isotopically Nonstationary MFA (INST-MFA) of Autotrophic Metabolism. Methods in Molecular Biology, 2014, 1090, 181-210.	0.9	29
43	Modeling Plant Metabolism: From Network Reconstruction to Mechanistic Models. Annual Review of Plant Biology, 2020, 71, 303-326.	18.7	27
44	Modulation of auxin formation by the cytosolic phenylalanine biosynthetic pathway. Nature Chemical Biology, 2020, 16, 850-856.	8.0	27
45	Quantification of Metabolic Flux in Plant Secondary Metabolism by a Biogenetic Organizational Approach. Metabolic Engineering, 2002, 4, 257-262.	7.0	26
46	Multifaceted plant responses to circumvent Phe hyperaccumulation by downregulation of flux through the shikimate pathway and by vacuolar Phe sequestration. Plant Journal, 2017, 92, 939-950.	5.7	24
47	A 13C isotope labeling method for the measurement of lignin metabolic flux in Arabidopsis stems. Plant Methods, 2018, 14, 51.	4.3	22
48	Salt-activation of nonhydrolase enzymes for use in organic solvents. Biotechnology and Bioengineering, 2004, 85, 456-459.	3.3	20
49	Non-natural cinnamic acid derivatives as substrates of cinnamate 4-hydroxylase. Phytochemistry, 2007, 68, 306-311.	2.9	19
50	Synthesis of non-natural flavanones and dihydrochalcones in metabolically engineered yeast. Journal of Molecular Catalysis B: Enzymatic, 2010, 66, 257-263.	1.8	19
51	Parallel Synthesis and Biocatalytic Amplification of a Cross-Conjugated Cyclopentenone Library. ACS Combinatorial Science, 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. Applied and Environmental Microbiology, 2020, 86, .	3.1	18
53	Controlling selectivity and enhancing yield of flavonoid glycosides in recombinant yeast. Bioprocess and Biosystems Engineering, 2010, 33, 863-871.	3.4	17
54	Dynamic modeling of subcellular phenylpropanoid metabolism in Arabidopsis lignifying cells. Metabolic Engineering, 2018, 49, 36-46.	7.0	16

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55	Production of C35 isoprenoids depends on H2 availability during cultivation of the hyperthermophile Methanococcus jannaschii. Extremophiles, 2004, 8, 13-21.	2.3	12
56	Overexpression of arogenate dehydratase reveals an upstream point of metabolic control in phenylalanine biosynthesis. Plant Journal, 2021, 108, 737-751.	5.7	12
57	Diffusion of volatile organics and water in the epicuticular waxes of petunia petal epidermal cells. Plant Journal, 2022, 110, 658-672.	5.7	10
58	Calculation of theoretical yields in metabolic networks. Biochemistry and Molecular Biology Education, 2004, 32, 314-318.	1.2	7
59	Network Stoichiometry. , 2009, , 211-243.		7
60	Cybernetic modeling of metabolism: towards a framework for rational design of recombinant organisms. Chemical Engineering Science, 2004, 59, 5041-5049.	3.8	5
61	High throughput screening of heterologous P450 whole cell activity. Enzyme and Microbial Technology, 2006, 38, 760-764.	3.2	5
62	Electric Pulse Pretreatment for Enhanced Lipid Recovery from Chlorella protothecoides. Bioenergy Research, 2020, 13, 499-506.	3.9	5
63	Probing Light-Dependent Regulation of the Calvin Cycle Using a Multi-Omics Approach. Frontiers in Plant Science, 2021, 12, 733122.	3.6	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. Methods in Molecular Biology, 2014, 1090, 211-222.	0.9	1
66	Expression of a flavonoid glucosyltransferase in yeast for whole-cell biocatalysis. Journal of Biotechnology, 2008, 136, S376.	3.8	0
67	Editorial overview: Plant biotechnology. Current Opinion in Biotechnology, 2016, 37, 153-154.	6.6	0
68	Cost-Aware Learning for Improved Identifiability with Multiple Experiments. , 2019, , .		0