Doug K Allen

List of Publications by Year
in descending order

46 papers	2,581 citations	236925 25 h-index	233421 45 g-index
52 all docs	52 docs citations	52 times ranked	3204 citing authors

#	Article	IF	Citations
1	The role of light in soybean seed filling metabolism. Plant Journal, 2009, 58, 220-234.	5.7	198
2	Isotopically nonstationary ¹³ C flux analysis of changes in Arabidopsis thaliana leaf metabolism due to high light acclimation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16967-16972.	7.1	189
3	Driving on Biomass. Science, 2009, 324, 1019-1020.	12.6	145
4	Synergy between 13C-metabolic flux analysis and flux balance analysis for understanding metabolic adaption to anaerobiosis in E. coli. Metabolic Engineering, 2011, 13, 38-48.	7.0	143
5	Metabolic flux analysis in plants: coping with complexity. Plant, Cell and Environment, 2009, 32, 1241-1257.	5.7	131
6	A community effort towards a knowledge-base and mathematical model of the human pathogen Salmonella Typhimurium LT2. BMC Systems Biology, 2011, 5, 8.	3.0	128
7	Crops In Silico: Generating Virtual Crops Using an Integrative and Multi-scale Modeling Platform. Frontiers in Plant Science, 2017, 8, 786.	3.6	102
8	Compartment-specific labeling information in 13C metabolic flux analysis of plants. Phytochemistry, 2007, 68, 2197-2210.	2.9	98
9	Perspectives for a better understanding of the metabolic integration of photorespiration within a complex plant primary metabolism network. Journal of Experimental Botany, 2016, 67, 3015-3026.	4.8	98
10	Deciphering cyanobacterial phenotypes for fast photoautotrophic growth via isotopically nonstationary metabolic flux analysis. Biotechnology for Biofuels, 2017, 10, 273.	6.2	92
11	Tracking the metabolic pulse of plant lipid production with isotopic labeling and flux analyses: Past, present and future. Progress in Lipid Research, 2015, 58, 97-120.	11.6	88
12	Carbon and Nitrogen Provisions Alter the Metabolic Flux in Developing Soybean Embryos Â Â. Plant Physiology, 2013, 161, 1458-1475.	4.8	87
13	Synergism between Inositol Polyphosphates and TOR Kinase Signaling in Nutrient Sensing, Growth Control, and Lipid Metabolism in Chlamydomonas. Plant Cell, 2016, 28, 2026-2042.	6.6	85
14	Cytosolic Phosphorylating Glyceraldehyde-3-Phosphate Dehydrogenases Affect Arabidopsis Cellular Metabolism and Promote Seed Oil Accumulation. Plant Cell, 2014, 26, 3023-3035.	6.6	80
15	Rapid Kinetic Labeling of Arabidopsis Cell Suspension Cultures: Implications for Models of Lipid Export from Plastids Â Â. Plant Physiology, 2012, 158, 601-611.	4.8	71
16	Accurate and efficient amino acid analysis for protein quantification using hydrophilic interaction chromatography coupled tandem mass spectrometry. Plant Methods, 2019, 15, 46.	4.3	67
17	Rerouting of carbon flux in a glycogen mutant of cyanobacteria assessed via isotopically nonâ€stationary ¹³C metabolic flux analysis. Biotechnology and Bioengineering, 2017, 114, 2298-2308.	3.3	66
18	Carbohydrate-alkyl ester derivatives as biosurfactants. Journal of Surfactants and Detergents, 1999, 2, 383-390.	2.1	64

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19	Phospholipase DÎ¶ Enhances Diacylglycerol Flux into Triacylglycerol. Plant Physiology, 2017, 174, 110-123.	4.8	52
20	Tracing metabolic flux through time and space with isotope labeling experiments. Current Opinion in Biotechnology, 2020, 64, 92-100.	6.6	47
21	Quantifying plant phenotypes with isotopic labeling & metabolic flux analysis. Current Opinion in Biotechnology, 2016, 37, 45-52.	6.6	42
22	Isotope labelling of Rubisco subunits provides in vivo information on subcellular biosynthesis and exchange of amino acids between compartments. Plant, Cell and Environment, 2012, 35, 1232-1244.	5.7	41
23	Interactions of C₄ Subtype Metabolic Activities and Transport in Maize Are Revealed through the Characterization of DCT2 Mutants. Plant Cell, 2016, 28, 466-484.	6.6	39
24	Assessing compartmentalized flux in lipid metabolism with isotopes. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 1226-1242.	2.4	30
25	Isotopically Nonstationary MFA (INST-MFA) of Autotrophic Metabolism. Methods in Molecular Biology, 2014, 1090, 181-210.	0.9	29
26	Metabolic flux analysis of the non-transitory starch tradeoff for lipid production in mature tobacco leaves. Metabolic Engineering, 2022, 69, 231-248.	7.0	27
27	Metabolic flux analysis using 13 C peptide label measurements. Plant Journal, 2014, 77, 476-486.	5.7	25
28	On the Inverse Correlation of Protein and Oil: Examining the Effects of Altered Central Carbon Metabolism on Seed Composition Using Soybean Fast Neutron Mutants. Metabolites, 2020, 10, 18.	2.9	25
29	Application of Stable Isotope Tracing to Elucidate Metabolic Dynamics During Yarrowia lipolytica Î±-Ionone Fermentation. IScience, 2020, 23, 100854.	4.1	25
30	Temporal changes in metabolism late in seed development affect biomass composition. Plant Physiology, 2021, 186, 874-890.	4.8	25
31	The Interaction of the Soybean Seed High Oleic Acid Oil Trait With Other Fatty Acid Modifications. JAOCS, Journal of the American Oil Chemists' Society, 2018, 95, 39-49.	1.9	22
32	Isotopically Nonstationary Metabolic Flux Analysis (INST-MFA) of Photosynthesis and Photorespiration in Plants. Methods in Molecular Biology, 2017, 1653, 167-194.	0.9	21
33	Reorganization of Acyl Flux through the Lipid Metabolic Network in Oil-Accumulating Tobacco Leaves. Plant Physiology, 2020, 182, 739-755.	4.8	20
34	Transcriptional response to petiole heat girdling in cassava. Scientific Reports, 2015, 5, 8414.	3.3	19
35	Sterile Spikelets Contribute to Yield in Sorghum and Related Grasses. Plant Cell, 2020, 32, 3500-3518.	6.6	19
36	Analysis of Isotopic Labeling in Peptide Fragments by Tandem Mass Spectrometry. PLoS ONE, 2014, 9, e91537.	2.5	17

#	Article	IF	Citations
37	Quantification of Peptide m/z Distributions from ¹³C-Labeled Cultures with High-Resolution Mass Spectrometry. Analytical Chemistry, 2014, 86, 1894-1901.	6.5	16
38	Synthesis and characterization of maltose fatty acid monoesters as biosurfactants. Journal of Surfactants and Detergents, 2002, 5, 245-255.	2.1	15
39	A General Method for Quantification and Discovery of Acyl Groups Attached to Acyl Carrier Proteins in Fatty Acid Metabolism Using LC-MS/MS. Plant Cell, 2020, 32, 820-832.	6.6	15
40	Analyzing Mass Spectrometry Imaging Data of 13C-Labeled Phospholipids in Camelina sativa and Thlaspi arvense (Pennycress) Embryos. Metabolites, 2021, 11, 148.	2.9	14
41	Quantification of Isotope Label. , 2009, , 105-149.		13
42	Suppression of SDP1 Improves Soybean Seed Composition by Increasing Oil and Reducing Undigestible Oligosaccharides. Frontiers in Plant Science, 2022, 13, 863254.	3.6	13
43	An efficient LC-MS method for isomer separation and detection of sugars, phosphorylated sugars, and organic acids. Journal of Experimental Botany, 2022, 73, 2938-2952.	4.8	12
44	Comparative Metabolic Analysis Reveals a Metabolic Switch in Mature, Hydrated, and Germinated Pollen in Arabidopsis thaliana. Frontiers in Plant Science, 2022, 13, .	3.6	10
45	Quantification of Acyl-Acyl Carrier Proteins for Fatty Acid Synthesis Using LC-MS/MS. Methods in Molecular Biology, 2021, 2295, 219-247.	0.9	5
46	Kinetic characterization of enhanced lipase activity on oil bodies. Bioprocess and Biosystems Engineering, 2007, 30, 271-279.	3.4	4