Fred Beisson

List of Publications by Year
in descending order

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54 papers	9,010 citations	87888 38 h-index	161849 54 g-index
57 all docs	57 docs citations	57 times ranked	9157 citing authors

#	Article	IF	Citations
1	Fatty acid photodecarboxylase is an ancient photoenzyme that forms hydrocarbons in the thylakoids of algae. Plant Physiology, 2021, 186, 1455-1472.	4.8	23
2	Mechanism and dynamics of fatty acid photodecarboxylase. Science, 2021, 372, .	12.6	93
3	CYP77B1 a fatty acid epoxygenase specific to flowering plants. Plant Science, 2021, 307, 110905.	3.6	5
4	Fatty Acid Photodecarboxylase Is an Interfacial Enzyme That Binds to Lipidâ€“Water Interfaces to Access Its Insoluble Substrate. Biochemistry, 2021, 60, 3200-3212.	2.5	12
5	Chlamydomonas cell cycle mutant crcdc5 over-accumulates starch and oil. Biochimie, 2020, 169, 54-61.	2.6	13
6	Phospholipase pPLAIIIÎ± Increases Germination Rate and Resistance to Turnip Crinkle Virus when Overexpressed. Plant Physiology, 2020, 184, 1482-1498.	4.8	11
7	Continuous photoproduction of hydrocarbon drop-in fuel by microbial cell factories. Scientific Reports, 2019, 9, 13713.	3.3	33
8	Branched-Chain Amino Acid Catabolism Impacts Triacylglycerol Homeostasis in <i>Chlamydomonas reinhardtii</i>. Plant Physiology, 2019, 179, 1502-1514.	4.8	26
9	The Phosphate Fast-Responsive Genes <i>PECP1</i> and <i>PPsPase1</i> Affect Phosphocholine and Phosphoethanolamine Content. Plant Physiology, 2018, 176, 2943-2962.	4.8	22
10	Interorganelle Communication: Peroxisomal MALATE DEHYDROGENASE2 Connects Lipid Catabolism to Photosynthesis through Redox Coupling in Chlamydomonas. Plant Cell, 2018, 30, 1824-1847.	6.6	51
11	<i>Chlamydomonas</i> carries out fatty acid Î²â€oxidation in ancestral peroxisomes using a bona fide acylâ€CoA oxidase. Plant Journal, 2017, 90, 358-371.	5.7	80
12	<i>Arabidopsis thaliana</i> EPOXIDE HYDROLASE1 (AtEH1) is a cytosolic epoxide hydrolase involved in the synthesis of polyâ€hydroxylated cutin monomers. New Phytologist, 2017, 215, 173-186.	7.3	17
13	An algal photoenzyme converts fatty acids to hydrocarbons. Science, 2017, 357, 903-907.	12.6	317
14	Whole Genome Re-Sequencing Identifies a Quantitative Trait Locus Repressing Carbon Reserve Accumulation during Optimal Growth in Chlamydomonas reinhardtii. Scientific Reports, 2016, 6, 25209.	3.3	12
15	BODYGUARD is required for the biosynthesis of cutin in Arabidopsis. New Phytologist, 2016, 211, 614-626.	7.3	43
16	Saturating Light Induces Sustained Accumulation of Oil in Plastidal Lipid Droplets in <i>Chlamydomonas reinhardtii</i>. Plant Physiology, 2016, 171, 2406-2417.	4.8	54
17	Microalgae Synthesize Hydrocarbons from Long-Chain Fatty Acids via a Light-Dependent Pathway. Plant Physiology, 2016, 171, 2393-2405.	4.8	102
18	Lipidomic and transcriptomic analyses of <i>Chlamydomonas reinhardtii</i> under heat stress unveil a direct route for the conversion of membrane lipids into storage lipids. Plant, Cell and Environment, 2016, 39, 834-847.	5.7	124

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19	Metabolism of acylâ€lipids in <i>Chlamydomonas reinhardtii</i>. Plant Journal, 2015, 82, 504-522.	5.7	230
20	Microalgal lipid droplets: composition, diversity, biogenesis and functions. Plant Cell Reports, 2015, 34, 545-555.	5.6	118
21	<scp>CYP</scp>77<scp>A</scp>19 and <scp>CYP</scp>77<scp>A</scp>20 characterized from <scp><i>S</i></scp><i>olanum tuberosum</i> oxidize fatty acids <i>in vitro</i> and partially restore the wild phenotype in an <scp><i>A</i></scp><i>rabidopsis thaliana</i> cutin mutant. Plant, Cell and Environment, 2014, 37, 2102-2115.	5.7	17
22	Histone H2B Monoubiquitination is Involved in the Regulation of Cutin and Wax Composition in Arabidopsis thaliana. Plant and Cell Physiology, 2014, 55, 455-466.	3.1	86
23	Development of a forward genetic screen to isolate oil mutants in the green microalga Chlamydomonas reinhardtii. Biotechnology for Biofuels, 2013, 6, 178.	6.2	49
24	Acyl-Lipid Metabolism. The Arabidopsis Book, 2013, 11, e0161.	0.5	974
25	The Green Microalga Chlamydomonas reinhardtii Has a Single Â-3 Fatty Acid Desaturase That Localizes to the Chloroplast and Impacts Both Plastidic and Extraplastidic Membrane Lipids. Plant Physiology, 2013, 163, 914-928.	4.8	83
26	Knitting a polyester skin. Nature Chemical Biology, 2012, 8, 603-604.	8.0	9
27	A Land-Plant-Specific Glycerol-3-Phosphate Acyltransferase Family in Arabidopsis: Substrate Specificity, <i>sn</i>-2 Preference, and Evolution Â Â. Plant Physiology, 2012, 160, 638-652.	4.8	188
28	Solving the puzzles of cutin and suberin polymer biosynthesis. Current Opinion in Plant Biology, 2012, 15, 329-337.	7.1	256
29	Cytochrome P450 metabolizing fatty acids in plants: characterization and physiological roles. FEBS Journal, 2011, 278, 195-205.	4.7	128
30	Cytochromes P450. The Arabidopsis Book, 2011, 9, e0144.	0.5	294
31	Oil accumulation in the model green alga Chlamydomonas reinhardtii: characterization, variability between common laboratory strains and relationship with starch reserves. BMC Biotechnology, 2011, 11, 7.	3.3	625
32	Proteomic profiling of oil bodies isolated from the unicellular green microalga <i>Chlamydomonas reinhardtii</i>: With focus on proteins involved in lipid metabolism. Proteomics, 2011, 11, 4266-4273.	2.2	201
33	A distinct type of glycerol-3-phosphate acyltransferase with <i>sn</i> -2 preference and phosphatase activity producing 2-monoacylglycerol. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12040-12045.	7.1	169
34	CELLULOSE SYNTHASE9 Serves a Nonredundant Role in Secondary Cell Wall Synthesis in Arabidopsis Epidermal Testa Cells Â Â Â. Plant Physiology, 2010, 153, 580-589.	4.8	86
35	Acyl-Lipid Metabolism. The Arabidopsis Book, 2010, 8, e0133.	0.5	287
36	Mutations in UDP-Glucose:Sterol Glucosyltransferase in Arabidopsis Cause Transparent Testa Phenotype and Suberization Defect in Seeds Â Â Â. Plant Physiology, 2009, 151, 78-87.	4.8	135

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37	Nanoridges that characterize the surface morphology of flowers require the synthesis of cutin polyester. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22008-22013.	7.1	228
38	Identification of an Arabidopsis Feruloyl-Coenzyme A Transferase Required for Suberin Synthesis Â Â. Plant Physiology, 2009, 151, 1317-1328.	4.8	193
39	The biosynthesis of cutin and suberin as an alternative source of enzymes for the production of bio-based chemicals and materials. Biochimie, 2009, 91, 685-691.	2.6	40
40	Building lipid barriers: biosynthesis of cutin and suberin. Trends in Plant Science, 2008, 13, 236-246.	8.8	779
41	Identification of acyltransferases required for cutin biosynthesis and production of cutin with suberin-like monomers. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18339-18344.	7.1	348
42	Monoacylglycerols Are Components of Root Waxes and Can Be Produced in the Aerial Cuticle by Ectopic Expression of a Suberin-Associated Acyltransferase. Plant Physiology, 2007, 144, 1267-1277.	4.8	99
43	The Acyltransferase GPAT5 Is Required for the Synthesis of Suberin in Seed Coat and Root of Arabidopsis. Plant Cell, 2007, 19, 351-368.	6.6	366
44	Characterization of Arabidopsis ABCG11/WBC11, an ATP binding cassette (ABC) transporter that is required for cuticular lipid secretion^{â€}. Plant Journal, 2007, 52, 485-498.	5.7	349
45	Oil content of Arabidopsis seeds: The influence of seed anatomy, light and plant-to-plant variation. Phytochemistry, 2006, 67, 904-915.	2.9	324
46	Cuticular Lipid Composition, Surface Structure, and Gene Expression in Arabidopsis Stem Epidermis. Plant Physiology, 2005, 139, 1649-1665.	4.8	309
47	Analysis of the aliphatic monomer composition of polyesters associated with Arabidopsis epidermis: occurrence of octadeca-cis-6, cis-9-diene-1,18-dioate as the major component. Plant Journal, 2004, 40, 920-930.	5.7	175
48	Arabidopsis Genes Involved in Acyl Lipid Metabolism. A 2003 Census of the Candidates, a Study of the Distribution of Expressed Sequence Tags in Organs, and a Web-Based Database. Plant Physiology, 2003, 132, 681-697.	4.8	350
49	Large scale purification of an almond oleosin using an organic solvent procedure. Plant Physiology and Biochemistry, 2001, 39, 623-630.	5.8	37
50	Use of the Tape Stripping Technique for Directly Quantifying Esterase Activities in Human Stratum Corneum. Analytical Biochemistry, 2001, 290, 179-185.	2.4	45
51	Interfacial catalysis by lipases. Journal of Molecular Catalysis B: Enzymatic, 2001, 11, 165-171.	1.8	62
52	Methods for lipase detection and assay: a critical review. European Journal of Lipid Science and Technology, 2000, 102, 133-153.	1.5	287
53	Assaying Arabidopsis lipase activity. Biochemical Society Transactions, 2000, 28, 773.	3.4	6
54	Use of naturally fluorescent triacylglycerols from Parinari glaberrimum to detect low lipase activities from Arabidopsis thaliana seedlings. Journal of Lipid Research, 1999, 40, 2313-21.	4.2	26