Christoph Benning

List of Publications by Year
in descending order

191 papers	19,199 citations	8755 75 h-index	12272 133 g-index
223 all docs	223 docs citations	223 times ranked	12626 citing authors

#	Article	IF	Citations
1	AGO1 defines a novel locus of Arabidopsis controlling leaf development. EMBO Journal, 1998, 17, 170-180.	7.8	583
2	Plant triacylglycerols as feedstocks for the production of biofuels. Plant Journal, 2008, 54, 593-607.	5.7	580
3	WRINKLED1 encodes an AP2/EREB domain protein involved in the control of storage compound biosynthesis in Arabidopsis. Plant Journal, 2004, 40, 575-585.	5.7	548
4	Contrapuntal Networks of Gene Expression during Arabidopsis Seed Filling[W]. Plant Cell, 2002, 14, 1191-1206.	6.6	498
5	wrinkled1: A Novel, Low-Seed-Oil Mutant of Arabidopsis with a Deficiency in the Seed-Specific Regulation of Carbohydrate Metabolism1. Plant Physiology, 1998, 118, 91-101.	4.8	489
6	Changes in Transcript Abundance in Chlamydomonas reinhardtii following Nitrogen Deprivation Predict Diversion of Metabolism. Plant Physiology, 2010, 154, 1737-1752.	4.8	455
7	Freezing Tolerance in Plants Requires Lipid Remodeling at the Outer Chloroplast Membrane. Science, 2010, 330, 226-228.	12.6	422
8	Galactolipids rule in seed plants. Trends in Plant Science, 2002, 7, 112-118.	8.8	393
9	Three Acyltransferases and Nitrogen-responsive Regulator Are Implicated in Nitrogen Starvation-induced Triacylglycerol Accumulation in Chlamydomonas. Journal of Biological Chemistry, 2012, 287, 15811-15825.	3.4	379
10	Genome, Functional Gene Annotation, and Nuclear Transformation of the Heterokont Oleaginous Alga Nannochloropsis oceanica CCMP1779. PLoS Genetics, 2012, 8, e1003064.	3.5	376
11	RNA Interference Silencing of a Major Lipid Droplet Protein Affects Lipid Droplet Size in Chlamydomonas reinhardtii. Eukaryotic Cell, 2010, 9, 97-106.	3.4	374
12	DGD1-independent biosynthesis of extraplastidic galactolipids after phosphate deprivation in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 10649-10654.	7.1	346
13	Phosphate availability affects the thylakoid lipid composition and the expression of SQD1, a gene required for sulfolipid biosynthesis in Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 1950-1955.	7.1	342
14	Microarray Analysis of Developing Arabidopsis Seeds. Plant Physiology, 2000, 124, 1570-1581.	4.8	319
15	Arabidopsis disrupted in SQD2 encoding sulfolipid synthase is impaired in phosphate-limited growth. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5732-5737.	7.1	306
16	Isolation and characterization of an Arabidopsis mutant deficient in the thylakoid lipid digalactosyl diacylglycerol.. Plant Cell, 1995, 7, 1801-1810.	6.6	275
17	A Galactoglycerolipid Lipase Is Required for Triacylglycerol Accumulation and Survival Following Nitrogen Deprivation in Chlamydomonas reinhardtii. Plant Cell, 2012, 24, 4670-4686.	6.6	267
18	Lipid metabolism in microalgae distinguishes itself. Current Opinion in Biotechnology, 2013, 24, 300-309.	6.6	258

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19	Galactolipid deficiency and abnormal chloroplast development in the Arabidopsis MGD synthase 1 mutant. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 8175-8179.	7.1	257
20	A membrane-tethered transcription factor defines a branch of the heat stress response in Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16398-16403.	7.1	248
21	Accumulation of a Novel Glycolipid and a Betaine Lipid in Cells of Rhodobacter sphaeroides Grown under Phosphate Limitation. Archives of Biochemistry and Biophysics, 1995, 317, 103-111.	3.0	247
22	Mechanisms of Lipid Transport Involved in Organelle Biogenesis in Plant Cells. Annual Review of Cell and Developmental Biology, 2009, 25, 71-91.	9.4	241
23	A New Set of Arabidopsis Expressed Sequence Tags from Developing Seeds. The Metabolic Pathway from Carbohydrates to Seed Oil. Plant Physiology, 2000, 124, 1582-1594.	4.8	214
24	The TAG1 locus of Arabidopsis encodes for a diacylglycerol acyltransferase. Plant Physiology and Biochemistry, 1999, 37, 831-840.	5.8	210
25	A permease-like protein involved in ER to thylakoid lipid transfer in Arabidopsis. EMBO Journal, 2003, 22, 2370-2379.	7.8	206
26	A phosphatidic acid-binding protein of the chloroplast inner envelope membrane involved in lipid trafficking. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10817-10822.	7.1	206
27	Systems Biology Approach in Chlamydomonas Reveals Connections between Copper Nutrition and Multiple Metabolic Steps Â Â. Plant Cell, 2011, 23, 1273-1292.	6.6	204
28	Arabidopsis Galactolipid Biosynthesis and Lipid Trafficking Mediated by DGD1. Science, 1999, 284, 2181-2184.	12.6	194
29	BIOSYNTHESIS AND FUNCTION OF THE SULFOLIPID SULFOQUINOVOSYL DIACYLGLYCEROL. Annual Review of Plant Biology, 1998, 49, 53-75.	14.3	192
30	Annotation of Genes Involved in Glycerolipid Biosynthesis in Chlamydomonas reinhardtii : Discovery of the Betaine Lipid Synthase BTA1 Cr. Eukaryotic Cell, 2005, 4, 242-252.	3.4	190
31	Three Enzyme Systems for Galactoglycerolipid Biosynthesis Are Coordinately Regulated in Plants. Journal of Biological Chemistry, 2005, 280, 2397-2400.	3.4	189
32	A Heteromeric Plastidic Pyruvate Kinase Complex Involved in Seed Oil Biosynthesis in Arabidopsis. Plant Cell, 2007, 19, 2006-2022.	6.6	185
33	Comparative Genomics of Two Closely Related Unicellular Thermo-Acidophilic Red Algae, Galdieria sulphuraria and Cyanidioschyzon merolae, Reveals the Molecular Basis of the Metabolic Flexibility of Galdieria Âsulphuraria and Significant Differences in Carbohydrate Metabolism of Both Algae. Plant Physiology, 2005, 137, 460-474.	4.8	184
34	Mutation of the TGD1 Chloroplast Envelope Protein Affects Phosphatidate Metabolism in Arabidopsis Â. Plant Cell, 2005, 17, 3094-3110.	6.6	179
35	Systems-Level Analysis of Nitrogen Starvation-Induced Modifications of Carbon Metabolism in a Chlamydomonas reinhardtii Starchless Mutant. Plant Cell, 2013, 25, 4305-4323.	6.6	176
36	Galactoglycerolipid metabolism under stress: a time for remodeling. Trends in Plant Science, 2011, 16, 98-107.	8.8	172

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37	JAZ repressors of metabolic defense promote growth and reproductive fitness in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E10768-E10777.	7.1	172
38	A Null Mutant of Synechococcus sp. PCC7942 Deficient in the Sulfolipid Sulfoquinovosyl Diacylglycerol. Journal of Biological Chemistry, 1996, 271, 7501-7507.	3.4	166
39	Increasing the energy density of vegetative tissues by diverting carbon from starch to oil biosynthesis in transgenic Arabidopsis. Plant Biotechnology Journal, 2011, 9, 874-883.	8.3	165
40	The sulfolipid sulfoquinovosyldiacylglycerol is not required for photosynthetic electron transport in Rhodobacter sphaeroides but enhances growth under phosphate limitation.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 1561-1565.	7.1	163
41	Anionic lipids are required for chloroplast structure and function inArabidopsis. Plant Journal, 2003, 36, 762-770.	5.7	152
42	Genome-wide analysis of glucose-6-phosphate dehydrogenases in Arabidopsis. Plant Journal, 2004, 41, 243-256.	5.7	150
43	Stress-induced neutral lipid biosynthesis in microalgae â€" Molecular, cellular and physiological insights. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 1269-1281.	2.4	146
44	Chloroplast lipid synthesis and lipid trafficking through ERâ€"plastid membrane contact sites. Biochemical Society Transactions, 2012, 40, 457-463.	3.4	138
45	Recombinant Arabidopsis SQD1 Converts UDP-glucose and Sulfite to the Sulfolipid Head Group Precursor UDP-sulfoquinovose in Vitro. Journal of Biological Chemistry, 2001, 276, 3941-3946.	3.4	135
46	The pgp1 Mutant Locus of Arabidopsis Encodes a Phosphatidylglycerolphosphate Synthase with Impaired Activity. Plant Physiology, 2002, 129, 594-604.	4.8	131
47	A Small ATPase Protein of Arabidopsis, TGD3, Involved in Chloroplast Lipid Import. Journal of Biological Chemistry, 2007, 282, 35945-35953.	3.4	127
48	Lipid Trafficking between the Endoplasmic Reticulum and the Plastid in Arabidopsis Requires the Extraplastidic TGD4 Protein. Plant Cell, 2008, 20, 2190-2204.	6.6	125
49	Lipid Trafficking in Plant Cells. Traffic, 2014, 15, 915-932.	2.7	119
50	A toolkit for Nannochloropsis oceanica <scp>CCMP</scp>1779 enables gene stacking and genetic engineering of the eicosapentaenoic acid pathway for enhanced longâ€chain polyunsaturated fatty acid production. Plant Biotechnology Journal, 2018, 16, 298-309.	8.3	118
51	WRI1 Is Required for Seed Germination and Seedling Establishment. Plant Physiology, 2006, 141, 745-757.	4.8	113
52	WRINKLED1, A Ubiquitous Regulator in Oil Accumulating Tissues from Arabidopsis Embryos to Oil Palm Mesocarp. PLoS ONE, 2013, 8, e68887.	2.5	111
53	Isolation and genetic complementation of a sulfolipid-deficient mutant of Rhodobacter sphaeroides. Journal of Bacteriology, 1992, 174, 2352-2360.	2.2	109
54	The Digalactosyldiacylglycerol (DGDG) Synthase DGD1 Is Inserted into the Outer Envelope Membrane of Chloroplasts in a Manner Independent of the General Import Pathway and Does Not Depend on Direct Interaction with Monogalactosyldiacylglycerol Synthase for DGDG Biosynthesis. Journal of Biological Chemistry, 2001, 276, 31806-31812.	3.4	107

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55	Loss of Plastidic Lysophosphatidic Acid Acyltransferase Causes Embryo-Lethality in Arabidopsis. Plant and Cell Physiology, 2004, 45, 503-510.	3.1	107
56	A role for lipid trafficking in chloroplast biogenesis. Progress in Lipid Research, 2008, 47, 381-389.	11.6	107
57	A Lipid Droplet Protein of Nannochloropsis with Functions Partially Analogous to Plant Oleosins Â Â. Plant Physiology, 2012, 158, 1562-1569.	4.8	106
58	Functions of triacylglycerols during plant development and stress. Current Opinion in Biotechnology, 2018, 49, 191-198.	6.6	106
59	The protein Compromised Hydrolysis of Triacylglycerols 7 (CHT7) acts as a repressor of cellular quiescence in Chlamydomonas. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15833-15838.	7.1	105
60	Direct activation of a phospholipase by cyclic GMP-AMP in El Tor Vibrio cholerae. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6048-E6055.	7.1	105
61	Nontransgenic Marker-Free Gene Disruption by an Episomal CRISPR System in the Oleaginous Microalga, Nannochloropsis oceanica CCMP1779. ACS Synthetic Biology, 2018, 7, 962-968.	3.8	102
62	Phosphatidylglycerol biosynthesis in chloroplasts of Arabidopsis mutants deficient in acyl-ACP glycerol-3- phosphate acyltransferase. Plant Journal, 2006, 47, 296-309.	5.7	95
63	Altered Lipid Composition and Enhanced Nutritional Value of Arabidopsis Leaves following Introduction of an Algal Diacylglycerol Acyltransferase 2 Â. Plant Cell, 2013, 25, 677-693.	6.6	95
64	Changes in the Composition of the Photosynthetic Apparatus in the Galactolipid-Deficient dgd1 Mutant of Arabidopsis thaliana. Plant Physiology, 1997, 115, 1175-1184.	4.8	94
65	TGD4 involved in endoplasmic reticulumâ€toâ€chloroplast lipid trafficking is a phosphatidic acid binding protein. Plant Journal, 2012, 70, 614-623.	5.7	94
66	Two Abscisic Acid-Responsive Plastid Lipase Genes Involved in Jasmonic Acid Biosynthesis in Arabidopsis thaliana. Plant Cell, 2018, 30, 1006-1022.	6.6	94
67	The Sulfolipids 2â€²-O-Acyl-Sulfoquinovosyldiacylglycerol and Sulfoquinovosyldiacylglycerol Are Absent from a Chlamydomonas reinhardtii Mutant Deleted in SQD1 Â. Plant Physiology, 2003, 133, 864-874.	4.8	92
68	EST-analysis of the thermo-acidophilic red microalga Galdieriasulphuraria reveals potential for lipid A biosynthesis and unveils the pathway of carbon export from rhodoplasts. Plant Molecular Biology, 2004, 55, 17-32.	3.9	91
69	TGD1, -2, and -3 Proteins Involved in Lipid Trafficking Form ATP-binding Cassette (ABC) Transporter with Multiple Substrate-binding Proteins. Journal of Biological Chemistry, 2012, 287, 21406-21415.	3.4	89
70	Functional Analyses of Cytosolic Glucose-6-Phosphate Dehydrogenases and Their Contribution to Seed Oil Accumulation in Arabidopsis. Plant Physiology, 2008, 146, 277-288.	4.8	86
71	Nannochloropsis, a rich source of diacylglycerol acyltransferases for engineering of triacylglycerol content in different hosts. Biotechnology for Biofuels, 2017, 10, 8.	6.2	85
72	FATTY ACID DESATURASE4 of Arabidopsis encodes a protein distinct from characterized fatty acid desaturases. Plant Journal, 2009, 60, 832-839.	5.7	84

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73	ENDOSPERM DEFECTIVE1 Is a Novel Microtubule-Associated Protein Essential for Seed Development inArabidopsisÂ. Plant Cell, 2009, 21, 90-105.	6.6	80
74	Digalactosyldiacylglycerol is Required for Better Photosynthetic Growth of Synechocystis sp. PCC6803 Under Phosphate Limitation. Plant and Cell Physiology, 2007, 48, 1517-1523.	3.1	79
75	New Connections across Pathways and Cellular Processes: Industrialized Mutant Screening Reveals Novel Associations between Diverse Phenotypes in Arabidopsis Â Â. Plant Physiology, 2008, 146, 1482-1500.	4.8	79
76	Advanced genetic tools enable synthetic biology in the oleaginous microalgae Nannochloropsis sp.. Plant Cell Reports, 2018, 37, 1383-1399.	5.6	79
77	Non-vesicular and vesicular lipid trafficking involving plastids. Current Opinion in Plant Biology, 2006, 9, 241-247.	7.1	77
78	Remodeling of Membrane Lipids in Iron-starved Chlamydomonas. Journal of Biological Chemistry, 2013, 288, 30246-30258.	3.4	77
79	COPPER RESPONSE REGULATOR1â€“Dependent and â€“Independent Responses of the Chlamydomonas reinhardtii Transcriptome to Dark Anoxia. Plant Cell, 2013, 25, 3186-3211.	6.6	77
80	Deletion of a Câ€“terminal intrinsically disordered region of <scp>WRINKLED</scp>1 affects its stability and enhances oil accumulation in Arabidopsis. Plant Journal, 2015, 83, 864-874.	5.7	75
81	Identification of an operon involved in sulfolipid biosynthesis in Rhodobacter sphaeroides. Journal of Bacteriology, 1992, 174, 6479-6487.	2.2	73
82	Rapid Triacylglycerol Turnover in Chlamydomonas reinhardtii Requires a Lipase with Broad Substrate Specificity. Eukaryotic Cell, 2012, 11, 1451-1462.	3.4	73
83	The role of UDPâ€glucose epimerase in carbohydrate metabolism ofArabidopsis. Plant Journal, 1998, 13, 641-652.	5.7	72
84	Ectopic expression of WRI1 affects fatty acid homeostasis in Brachypodium distachyon vegetative tissues. Plant Physiology, 2015, 169, pp.01236.2015.	4.8	72
85	Triacylglycerol Accumulation in Photosynthetic Cells in Plants and Algae. Sub-Cellular Biochemistry, 2016, 86, 179-205.	2.4	71
86	Comparison of sulfoquinovosyl diacylglycerol from spinach and the purple bacteriumRhodobacter sphaeroides by fast atom bombardment tandem mass spectrometry. Lipids, 1992, 27, 632-636.	1.7	69
87	Transcriptional coordination of physiological responses in <scp>N</scp>annochloropsis oceanica<scp>CCMP</scp>1779 under light/dark cycles. Plant Journal, 2015, 83, 1097-1113.	5.7	69
88	Crystal structure of SQD1, an enzyme involved in the biosynthesis of the plant sulfolipid headgroup donor UDP-sulfoquinovose. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 13097-13102.	7.1	68
89	A Cytochrome b ₅ -Containing Plastid-Located Fatty Acid Desaturase from Chlamydomonas reinhardtii. Eukaryotic Cell, 2012, 11, 856-863.	3.4	65
90	Triacylglycerol profiling of microalgae Chlamydomonas reinhardtii and Nannochloropsis oceanica. Bioresource Technology, 2013, 146, 310-316.	9.6	65

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91	Enhancing oil production and harvest by combining the marine alga Nannochloropsis oceanica and the oleaginous fungus Mortierella elongata. Biotechnology for Biofuels, 2018, 11, 174.	6.2	65
92	Two enzymes of diacylglyceryl-O-4'-(N,N,N,-trimethyl)homoserine biosynthesis are encoded by btaA and btaB in the purple bacterium Rhodobacter sphaeroides. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 5910-5915.	7.1	64
93	Phosphate Starvation in Fungi Induces the Replacement of Phosphatidylcholine with the Phosphorus-Free Betaine Lipid Diacylglyceryl- N , N , N -Trimethylhomoserine. Eukaryotic Cell, 2014, 13, 749-757.	3.4	64
94	Dynamics of protein and polar lipid recruitment during lipid droplet assembly in Chlamydomonas reinhardtii. Plant Journal, 2015, 83, 650-660.	5.7	64
95	Algal-fungal symbiosis leads to photosynthetic mycelium. ELife, 2019, 8, .	6.0	64
96	A 25-Amino Acid Sequence of the Arabidopsis TGD2 Protein Is Sufficient for Specific Binding of Phosphatidic Acid. Journal of Biological Chemistry, 2009, 284, 17420-17427.	3.4	61
97	A Cyanobacterial Gene, sqdX , Required for Biosynthesis of the Sulfolipid Sulfoquinovosyldiacylglycerol. Journal of Bacteriology, 2000, 182, 543-545.	2.2	60
98	14â€3â€3 protein mediates plant seed oil biosynthesis through interaction with AtWRI1. Plant Journal, 2016, 88, 228-235.	5.7	60
99	Galactoglycerolipid Lipase PGD1 Is Involved in Thylakoid Membrane Remodeling in Response to Adverse Environmental Conditions in Chlamydomonas. Plant Cell, 2018, 30, tpc.00446.2017.	6.6	60
100	Lipid Transport Mediated by Arabidopsis TGD Proteins is Unidirectional from the Endoplasmic Reticulum to the Plastid. Plant and Cell Physiology, 2010, 51, 1019-1028.	3.1	58
101	Arabidopsis thaliana Polar Glycerolipid Profiling by Thin Layer Chromatography (TLC) Coupled with Gas-Liquid Chromatography (GLC). Journal of Visualized Experiments, 2011, , .	0.3	58
102	Critical role ofChlamydomonas reinhardtiiferredoxin-5 in maintaining membrane structure and dark metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14978-14983.	7.1	58
103	Chloroplast Membrane Remodeling during Freezing Stress Is Accompanied by Cytoplasmic Acidification Activating SENSITIVE TO FREEZING2. Plant Physiology, 2016, 171, 2140-2149.	4.8	57
104	Porphyra (Bangiophyceae) Transcriptomes Provide Insights Into Red Algal Development And Metabolism. Journal of Phycology, 2012, 48, 1328-1342.	2.3	56
105	A Plastid Phosphatidylglycerol Lipase Contributes to the Export of Acyl Groups from Plastids for Seed Oil Biosynthesis. Plant Cell, 2017, 29, 1678-1696.	6.6	56
106	The Phosphatidic Acid Binding Site of the Arabidopsis Trigalactosyldiacylglycerol 4 (TGD4) Protein Required for Lipid Import into Chloroplasts. Journal of Biological Chemistry, 2013, 288, 4763-4771.	3.4	55
107	The phospholipid-deficient pho1 mutant of Arabidopsis thaliana is affected in the organization, but not in the light acclimation, of the thylakoid membrane. Biochimica Et Biophysica Acta - Biomembranes, 1998, 1415, 205-218.	2.6	54
108	The Microalga Nannochloropsis during Transition from Quiescence to Autotrophy in Response to Nitrogen Availability. Plant Physiology, 2020, 182, 819-839.	4.8	54

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109	Human health benefits of very-long-chain polyunsaturated fatty acids from microalgae. Biochimie, 2020, 178, 15-25.	2.6	53
110	Multiple GmWRI1s are redundantly involved in seed filling and nodulation by regulating plastidic glycolysis, lipid biosynthesis and hormone signalling in soybean (Glycine max). Plant Biotechnology Journal, 2020, 18, 155-171.	8.3	52
111	Arabidopsis chloroplast lipid transport protein TGD2 disrupts membranes and is part of a large complex. Plant Journal, 2011, 66, 759-769.	5.7	51
112	Cytosolic lipid droplets as engineered organelles for production and accumulation of terpenoid biomaterials in leaves. Nature Communications, 2019, 10, 853.	12.8	51
113	Synthesis and transfer of galactolipids in the chloroplast envelope membranes of Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10714-10719.	7.1	50
114	The plant lipidome in human and environmental health. Science, 2016, 353, 1228-1232.	12.6	50
115	Digalactosyldiacylglycerol Synthesis in Chloroplasts of the Arabidopsis dgd1 Mutant. Plant Physiology, 2002, 128, 885-895.	4.8	48
116	Two enzymes, BtaA and BtaB, are sufficient for betaine lipid biosynthesis in bacteria. Archives of Biochemistry and Biophysics, 2005, 441, 96-105.	3.0	48
117	Accumulation of Sulfoquinovosyl-1-O-dihydroxyacetone in a Sulfolipid-Deficient Mutant ofRhodobacter sphaeroidesInactivated insqdC. Archives of Biochemistry and Biophysics, 1997, 340, 219-230.	3.0	46
118	Arabidopsis Seedlings Deficient in a Plastidic Pyruvate Kinase Are Unable to Utilize Seed Storage Compounds for Germination and Establishment. Plant Physiology, 2007, 145, 1670-1680.	4.8	45
119	An Energy-Independent Pro-longevity Function of Triacylglycerol in Yeast. PLoS Genetics, 2016, 12, e1005878.	3.5	43
120	Functional Expression of Uridine 5â€²-Diphospho-Glucose 4-Epimerase (EC 5.1.3.2) fromArabidopsis thalianainSaccharomyces cerevisiaeandEscherichia coli. Archives of Biochemistry and Biophysics, 1996, 327, 27-34.	3.0	42
121	The Arabidopsis WRINKLED1 transcription factor affects auxin homeostasis in roots. Journal of Experimental Botany, 2017, 68, 4627-4634.	4.8	42
122	Accumulation of UDP-sulfoquinovose in a Sulfolipid-deficient Mutant of Rhodobacter sphaeroides. Journal of Biological Chemistry, 1995, 270, 25792-25797.	3.4	41
123	Chloroplast lipid transfer processes in Chlamydomonas reinhardtii involving a <scp>TRIGALACTOSYLDIACYLGLYCEROL</scp>Â2 (<scp>TGD</scp>2) orthologue. Plant Journal, 2015, 84, 1005-1020.	5.7	37
124	Nitrogen-dependent coordination of cell cycle, quiescence and TAG accumulation in Chlamydomonas. Biotechnology for Biofuels, 2019, 12, 292.	6.2	37
125	Ferredoxin-dependent glutamate synthase moonlights in plant sulfolipid biosynthesis by forming a complex with SQD1. Archives of Biochemistry and Biophysics, 2005, 436, 206-214.	3.0	35
126	Analysis of Porphyra Membrane Transporters Demonstrates Gene Transfer among Photosynthetic Eukaryotes and Numerous Sodium-Coupled Transport Systems Â Â Â. Plant Physiology, 2012, 158, 2001-2012.	4.8	35

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127	A high-capacity gene stacking toolkit for the oleaginous microalga, Nannochloropsis oceanica CCMP1779. Algal Research, 2020, 45, 101664.	4.6	34
128	Disruption of a Gene Essential for Sulfoquinovosyldiacylglycerol Biosynthesis in Sinorhizobium meliloti Has No Detectable Effect on Root Nodule Symbiosis. Molecular Plant-Microbe Interactions, 2000, 13, 666-672.	2.6	32
129	A gene family in Arabidopsis thaliana with sequence similarity to NDR1 and HIN1. Plant Physiology and Biochemistry, 2000, 38, 789-796.	5.8	32
130	Galactolipids not associated with the photosynthetic apparatus in phosphate-deprived plants. Journal of Photochemistry and Photobiology B: Biology, 2001, 61, 46-51.	3.8	32
131	Prediction of the Active-Site Structure and NAD+ Binding in SQD1, a Protein Essential for Sulfolipid Biosynthesis in Arabidopsis. Archives of Biochemistry and Biophysics, 1999, 369, 30-41.	3.0	31
132	Characterization of tt15 , a novel transparent testa mutant of Arabidopsis thaliana (L.) Heynh.. Planta, 1999, 208, 352-357.	3.2	30
133	Mutation of a mitochondrial outer membrane protein affects chloroplast lipid biosynthesis. Plant Journal, 2008, 54, 163-175.	5.7	30
134	Recovery from N Deprivation Is a Transcriptionally and Functionally Distinct State in Chlamydomonas. Plant Physiology, 2018, 176, 2007-2023.	4.8	30
135	The Role of Chloroplast Membrane Lipid Metabolism in Plant Environmental Responses. Cells, 2021, 10, 706.	4.1	30
136	Prevalence, Evolution, andcis-Regulation of Diel Transcription inChlamydomonas reinhardtii. G3: Genes, Genomes, Genetics, 2014, 4, 2461-2471.	1.8	29
137	TEOSINTE BRANCHED1/CYCLOIDEA/PROLIFERATING CELL FACTOR4 Interacts with WRINKLED1 to Mediate Seed Oil Biosynthesis. Plant Physiology, 2020, 184, 658-665.	4.8	29
138	SENSITIVE TO FREEZING2 Aids in Resilience to Salt and Drought in Freezing-Sensitive Tomato. Plant Physiology, 2016, 172, 1432-1442.	4.8	28
139	Photosynthetic light utilization and xanthophyll cycle activity in the galactolipid deficient dgd1 mutant of Arabidopsis thaliana. Plant Physiology and Biochemistry, 1998, 36, 407-417.	5.8	26
140	Questions remaining in sulfolipid biosynthesis: a historical perspective. Photosynthesis Research, 2007, 92, 199-203.	2.9	26
141	Molecular Genetics of Lipid Metabolism in the Model Green Alga Chlamydomonas reinhardtii. Advances in Photosynthesis and Respiration, 2009, , 139-155.	1.0	26
142	Native uridine 5â€²-diphosphateâ€“sulfoquinovose synthase, SQD1, from spinach purifies as a 250-kDa complex. Archives of Biochemistry and Biophysics, 2003, 413, 123-130.	3.0	25
143	Cardiolipin Deficiency in Rhodobacter sphaeroides Alters the Lipid Profile of Membranes and of Crystallized Cytochrome Oxidase, but Structure and Function Are Maintained. Biochemistry, 2011, 50, 3879-3890.	2.5	24
144	LIP4 Is Involved in Triacylglycerol Degradation in Chlamydomonas reinhardtii. Plant and Cell Physiology, 2019, 60, 1250-1259.	3.1	24

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145	A J-Like Protein Influences Fatty Acid Composition of Chloroplast Lipids in Arabidopsis. PLoS ONE, 2011, 6, e25368.	2.5	24
146	Lipid trafficking between the endoplasmic reticulum and the chloroplast. Biochemical Society Transactions, 2006, 34, 395-398.	3.4	23
147	Structural Determinants Allowing Transferase Activity in SENSITIVE TO FREEZING 2, Classified as a Family I Glycosyl Hydrolase. Journal of Biological Chemistry, 2014, 289, 26089-26106.	3.4	23
148	PEROXIREDOXIN Q stimulates the activity of the chloroplast 16:1^{Î”3trans} FATTY ACID DESATURASE4. Plant Journal, 2020, 102, 718-729.	5.7	23
149	Arabidopsis DGD1 SUPPRESSOR1 Is a Subunit of the Mitochondrial Contact Site and Cristae Organizing System and Affects Mitochondrial Biogenesis. Plant Cell, 2019, 31, 1856-1878.	6.6	19
150	Functional diversity of glycerolipid acylhydrolases in plant metabolism and physiology. Progress in Lipid Research, 2019, 75, 100987.	11.6	19
151	Combined Genetic and Metabolic Manipulation of Lipids in Rhodobacter sphaeroides Reveals Non-Phospholipid Substitutions in Fully Active Cytochrome c Oxidase. Biochemistry, 2011, 50, 3891-3902.	2.5	18
152	Arabidopsis: A rich harvest 10â€ƒyears after completion of the genome sequence. Plant Journal, 2010, 61, 905-908.	5.7	16
153	Sulfolipid Biosynthesis and Function in Plants. Advances in Photosynthesis and Respiration, 2008, , 185-200.	1.0	15
154	In vivo lipid â€˜tag and trackâ€™ approach shows acyl editing of plastid lipids and chloroplast import of phosphatidylglycerol precursors in Arabidopsis thaliana. Plant Journal, 2018, 95, 1129-1139.	5.7	15
155	Glycerolipid Biosynthesis. , 2009, , 41-68.		14
156	Phosphate Regulation of Lipid Biosynthesis in Arabidopsis Is Independent of the Mitochondrial Outer Membrane DGS1 Complex. Plant Physiology, 2010, 152, 1951-1959.	4.8	14
157	Characterization of photosynthesis in Arabidopsis ER-to-plastid lipid trafficking mutants. Photosynthesis Research, 2012, 112, 49-61.	2.9	13
158	Probing Arabidopsis Chloroplast Diacylglycerol Pools by Selectively Targeting Bacterial Diacylglycerol Kinase to Suborganellar Membranes Â Â Â. Plant Physiology, 2013, 163, 61-74.	4.8	13
159	Genetic mutant screening by direct metabolite analysis. Analytical Biochemistry, 2004, 332, 1-9.	2.4	12
160	Genomic approaches towards the engineering of oil seeds. Plant Physiology and Biochemistry, 2001, 39, 263-270.	5.8	11
161	Harnessing plant biomass for biofuels and biomaterials. Plant Journal, 2008, 54, 533-535.	5.7	10
162	Coevolution of Domain Interactions in the Chloroplast TGD1, 2, 3 Lipid Transfer Complex Specific to Brassicaceae and Poaceae Plants. Plant Cell, 2017, 29, 1500-1515.	6.6	10

#	Article	IF	Citations
163	A predicted plastid rhomboid protease affects phosphatidic acid metabolism in Arabidopsis thaliana. Plant Journal, 2019, 99, 978-987.	5.7	10
164	Chlamydomonas CHT7 Is Required for an Effective Quiescent State by Regulating Nutrient-Responsive Cell Cycle Gene Expression. Plant Cell, 2020, 32, 1240-1269.	6.6	10
165	Membrane Lipid Biosynthesis in Purple Bacteria. Advances in Photosynthesis and Respiration, 2009, , 119-134.	1.0	10
166	Membrane Lipids in Anoxygenic Photosynthetic Bacteria. , 1998, , 83-101.		8
167	From Î´-aminolevulinic acid to chlorophylls and every step in between: in memory of Constantin (Tino) A. Rebeiz, 1936â€“2019. Photosynthesis Research, 2020, 145, 71-82.	2.9	7
168	Synthetic biology for basic and applied plant research. Plant Journal, 2016, 87, 3-4.	5.7	6
169	Proteins associated with the Arabidopsis thaliana plastid rhomboidâ€like protein RBL10. Plant Journal, 2021, 108, 1332-1345.	5.7	6
170	Govindjee was honored with the First Lifetime Achievement Award, and Britta FÃ¶rster and coworkers, with the First Annual Paper Prize of the Rebeiz Foundation for Basic Research. Photosynthesis Research, 2007, 94, 147-151.	2.9	5
171	Modulation of CHT7 Complexes during Light/Dark- and Nitrogen-Mediated Life Cycle Transitions of Chlamydomonas. Plant Physiology, 2020, 184, 1762-1774.	4.8	3
172	Chlamydomonas CHT7 is involved in repressing DNA replication and mitotic genes during synchronous growth. G3: Genes, Genomes, Genetics, 2022, 12, .	1.8	3
173	Fueling research on Chlamydomonas. Plant Journal, 2015, 82, 363-364.	5.7	2
174	Chapter 12 The Anionic Chloroplast Membrane Lipids: Phosphatidylglycerol and Sulfoquinovosyldiacylglycerol. Advances in Photosynthesis and Respiration, 2010, , 171-184.	1.0	2
175	TGD3, an ATPase Protein of Arabidopsis, Functions in ERâ€toâ€Plastid Lipid Trafficking. FASEB Journal, 2007, 21, A236.	0.5	2
176	Lipid trafficking between the endoplasmic reticulum and the chloroplast in the model plant Arabidopsis. FASEB Journal, 2007, 21, A37.	0.5	2
177	Geneticallyâ€determined variations in photosynthesis indicate roles for specific fatty acid species in chilling responses. Plant, Cell and Environment, 2022, 45, 1682-1697.	5.7	2
178	Functional Genomics from a Plant Biochemist's Perspective. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2003, 53, 41-50.	0.6	1
179	Plastidic ABC Proteins. Signaling and Communication in Plants, 2014, , 103-136.	0.7	1
180	The Use of Lipid Headgroup Mutants to Explore the Function of Thylakoid Lipids in Photosynthesis. , 1998, , 1787-1792.		1

#	Article	IF	Citations
181	Lipid Transport Involving Chloroplast Envelope Membranes in Plants and Algae. FASEB Journal, 2015, 29, 366.1.	0.5	1
182	Lipid trafficking and signaling in plants. , 2020, , 23-44.		1
183	Editorial. Plant Journal, 2010, 61, 1-2.	5.7	0
184	The Plant Journal turns twenty. Plant Journal, 2011, 67, 567-569.	5.7	0
185	The future is bright for The Plant Journal, now in its 20th year. Plant Journal, 2011, 68, 939-940.	5.7	0
186	New initiatives atThe Plant Journalto better support the plant science community. Plant Journal, 2012, 72, 173-174.	5.7	0
187	Plant science from The Plant Journal Editors' perspective. Plant Journal, 2017, 90, 625-627.	5.7	0
188	Connecting research and teaching introductory cell and molecular biology using an Arabidopsis mutant screen. Biochemistry and Molecular Biology Education, 2021, 49, 926-934.	1.2	0
189	Arabidopsis as a Genetic Model for Interorganelle Lipid Trafficking. , 2004, 26, 1-11.		0
190	DGS1, a membraneâ€tethered transcriptional regulator of chloroplast lipid biosynthesis in Arabidopsis. FASEB Journal, 2006, 20, A87.	0.5	0
191	Dynamic regulation of lipid droplets in the microalgae Chlamydomonas reinhardtii. FASEB Journal, 2012, 26, 597.3.	0.5	0