Christopher R Somerville

List of Publications by Citations

219 papers	43,345 citations	113 h-index	208 g-index
258 ext. papers	47,213 ext. citations	11.7 avg, IF	7.72 L-index

#	Paper	IF	Citations
219	Analysis of the genome sequence of the flowering plant Arabidopsis thaliana. *Nature*, **2000**, 408, 796-815	50.4	7262
218	Energy. Beneficial biofuels--the food, energy, and environment trilemma. *Science*, **2009**, 325, 270-1	33.3	1166
217	Visualization of cellulose synthase demonstrates functional association with microtubules. *Science*, **2006**, 312, 1491-5	33.3	966
216	Toward a systems approach to understanding plant cell walls. *Science*, **2004**, 306, 2206-11	33.3	931
215	Feedstocks for lignocellulosic biofuels. *Science*, **2010**, 329, 790-2	33.3	929
214	Insensitivity to Ethylene Conferred by a Dominant Mutation in Arabidopsis thaliana. *Science*, **1988**, 241, 1086-9	33.3	851
213	Random GFP::cDNA fusions enable visualization of subcellular structures in cells of Arabidopsis at a high frequency. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 3718-23	11.5	785
212	Cellulose synthesis in higher plants. *Annual Review of Cell and Developmental Biology*, **2006**, 22, 53-78	12.6	734
211	Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana. *Nature*, **1999**, 402, 761-8	50.4	619
210	Genes galore: a summary of methods for accessing results from large-scale partial sequencing of anonymous Arabidopsis cDNA clones. *Plant Physiology*, **1994**, 106, 1241-55	6.6	606
209	Cellulosic biofuels. *Annual Review of Plant Biology*, **2009**, 60, 165-82	30.7	601
208	Gibberellin Is Required for Flowering in Arabidopsis thaliana under Short Days. *Plant Physiology*, **1992**, 100, 403-8	6.6	489
207	Identification of genes required for cellulose synthesis by regression analysis of public microarray data sets. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 8633-8	11.5	479
206	The cellulose synthase superfamily. *Plant Physiology*, **2000**, 124, 495-8	6.6	445
205	Alterations in Growth, Photosynthesis, and Respiration in a Starchless Mutant of Arabidopsis thaliana (L.) Deficient in Chloroplast Phosphoglucomutase Activity. *Plant Physiology*, **1985**, 79, 11-7	6.6	442
204	PICKLE is a CHD3 chromatin-remodeling factor that regulates the transition from embryonic to vegetative development in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **1999**, 96, 13839-44	11.5	431
203	The irregular xylem3 locus of Arabidopsis encodes a cellulose synthase required for secondary cell wall synthesis. *Plant Cell*, **1999**, 11, 769-80	11.6	425

202	Plant lipids: metabolism, mutants, and membranes. *Science*, **1991**, 252, 80-7	33.3	420
201	Stomatal development and pattern controlled by a MAPKK kinase. *Science*, **2004**, 304, 1494-7	33.3	417
200	Glycerolipid Synthesis: Biochemistry and Regulation. *Annual Review of Plant Biology*, **1991**, 42, 467-506		409
199	Genetic evidence for three unique components in primary cell-wall cellulose synthase complexes in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 15566-71	11.5	403
198	Map-based cloning of a gene controlling omega-3 fatty acid desaturation in Arabidopsis. *Science*, **1992**, 258, 1353-5	33.3	400
197	Auxin-resistant mutants of Arabidopsis thaliana with an altered morphology. *Molecular Genetics and Genomics*, **1987**, 206, 200-206		399
196	Sulfonylurea-resistant mutants of Arabidopsis thaliana. *Molecular Genetics and Genomics*, **1986**, 204, 430-434		393
195	Fatty acid composition of leaf lipids determined after combined digestion and fatty acid methyl ester formation from fresh tissue. *Analytical Biochemistry*, **1986**, 152, 141-5	3.1	391
194	Identification and characterization of the Arabidopsis PHO1 gene involved in phosphate loading to the xylem. *Plant Cell*, **2002**, 14, 889-902	11.6	386
193	The Arabidopsis Information Resource (TAIR): a comprehensive database and web-based information retrieval, analysis, and visualization system for a model plant. *Nucleic Acids Research*, **2001**, 29, 102-5	20.1	382
192	An Arabidopsis mutant defective in the general phenylpropanoid pathway. *Plant Cell*, **1992**, 4, 1413-24	11.6	380
191	The role of plant cell wall polysaccharide composition in disease resistance. *Trends in Plant Science*, **2004**, 9, 203-9	13.1	369
190	Mutant of Arabidopsis deficient in xylem loading of phosphate. *Plant Physiology*, **1991**, 97, 1087-93	6.6	366
189	Polyhydroxybutyrate, a biodegradable thermoplastic, produced in transgenic plants. *Science*, **1992**, 256, 520-3	33.3	343
188	Modifications of cellulose synthase confer resistance to isoxaben and thiazolidinone herbicides in Arabidopsis Ixr1 mutants. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 10079-84	11.5	332
187	A MAPKK kinase gene regulates extra-embryonic cell fate in Arabidopsis. *Cell*, **2004**, 116, 109-19	56.2	315
186	An oleate 12-hydroxylase from Ricinus communis L. is a fatty acyl desaturase homolog. *Proceedings of the National Academy of Sciences of the United States of America*, **1995**, 92, 6743-7	11.5	313
185	The PEN1 syntaxin defines a novel cellular compartment upon fungal attack and is required for the timely assembly of papillae. *Molecular Biology of the Cell*, **2004**, 15, 5118-29	3.5	303

184	Real-time imaging of cellulose reorientation during cell wall expansion in Arabidopsis roots. *Plant Physiology*, **2010**, 152, 787-96	6.6	297
183	Cellular differentiation regulated by gibberellin in the Arabidopsis thaliana pickle mutant. *Science*, **1997**, 277, 91-4	33.3	295
182	Isolation and Characterization of a Starchless Mutant of Arabidopsis thaliana (L.) Heynh Lacking ADPglucose Pyrophosphorylase Activity. *Plant Physiology*, **1988**, 86, 1131-5	6.6	295
181	Discovery of lignin in seaweed reveals convergent evolution of cell-wall architecture. *Current Biology*, **2009**, 19, 169-75	6.3	288
180	Targeting of the polyhydroxybutyrate biosynthetic pathway to the plastids of Arabidopsis thaliana results in high levels of polymer accumulation. *Proceedings of the National Academy of Sciences of the United States of America*, **1994**, 91, 12760-4	11.5	276
179	Double stranded DNA sequencing as a choice for DNA sequencing. *Nucleic Acids Research*, **1988**, 16, 1220	20.1	275
178	Stearoyl-acyl-carrier-protein desaturase from higher plants is structurally unrelated to the animal and fungal homologs. *Proceedings of the National Academy of Sciences of the United States of America*, **1991**, 88, 2510-4	11.5	273
177	Production of polyhydroxyalkanoates, a family of biodegradable plastics and elastomers, in bacteria and plants. *Nature Biotechnology*, **1995**, 13, 142-50	44.5	266
176	Inhibition of photosynthesis in Arabidopsis mutants lacking leaf glutamate synthase activity. *Nature* , **1980**, 286, 257-259	50.4	261
175	Three Classes of Abscisic Acid (ABA)-Insensitive Mutations of Arabidopsis Define Genes that Control Overlapping Subsets of ABA Responses. *Plant Physiology*, **1990**, 94, 1172-9	6.6	260
174	Development and application of a suite of polysaccharide-degrading enzymes for analyzing plant cell walls. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 11417-22	11.5	259
173	Altered growth and cell walls in a fucose-deficient mutant of Arabidopsis. *Science*, **1993**, 261, 1032-5	33.3	256
172	Cloning of a temperature-regulated gene encoding a chloroplast omega-3 desaturase from Arabidopsis thaliana. *Plant Physiology*, **1994**, 106, 1615-21	6.6	247
171	Mutants of Arabidopsis with alterations in seed lipid fatty acid composition. *Theoretical and Applied Genetics*, **1990**, 80, 234-40	6	239
170	Tissue-specific expression of a gene encoding a cell wall-localized lipid transfer protein from Arabidopsis. *Plant Physiology*, **1994**, 105, 35-45	6.6	237
169	Transformation with a mutant Arabidopsis acetolactate synthase gene renders tobacco resistant to sulfonylurea herbicides. *Molecular Genetics and Genomics*, **1988**, 211, 266-271		236
168	Mutants of Arabidopsis thaliana with altered cell wall polysaccharide composition. *Plant Journal*, **1997**, 12, 335-45	6.9	232
167	Stearoyl-acyl carrier protein delta 9 desaturase from Ricinus communis is a diiron-oxo protein. *Proceedings of the National Academy of Sciences of the United States of America*, **1993**, 90, 2486-90	11.5	226

166	O-glycosylated cell wall proteins are essential in root hair growth. *Science*, **2011**, 332, 1401-3	33.3	220
165	The Arabidopsis irregular xylem8 mutant is deficient in glucuronoxylan and homogalacturonan, which are essential for secondary cell wall integrity. *Plant Cell*, **2007**, 19, 237-55	11.6	219
164	Cellulose synthase interactive protein 1 (CSI1) links microtubules and cellulose synthase complexes. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 185-90	11.5	212
163	Mutations in PMR5 result in powdery mildew resistance and altered cell wall composition. *Plant Journal*, **2004**, 40, 968-78	6.9	207
162	Altered regulation of lipid biosynthesis in a mutant of Arabidopsis deficient in chloroplast glycerol-3-phosphate acyltransferase activity. *Proceedings of the National Academy of Sciences of the United States of America*, **1988**, 85, 4143-7	11.5	207
161	Catalytic plasticity of fatty acid modification enzymes underlying chemical diversity of plant lipids. *Science*, **1998**, 282, 1315-7	33.3	202
160	A highly repeated DNA sequence in Arabidopsis thaliana. *Molecular Genetics and Genomics*, **1986**, 204, 417-423		198
159	Accumulation of ricinoleic, lesquerolic, and densipolic acids in seeds of transgenic Arabidopsis plants that express a fatty acyl hydroxylase cDNA from castor bean. *Plant Physiology*, **1997**, 113, 933-42	6.6	193
158	Regulation of membrane fatty acid composition by temperature in mutants of Arabidopsis with alterations in membrane lipid composition. *BMC Plant Biology*, **2004**, 4, 17	5.3	193
157	Mutants of Arabidopsis with altered regulation of starch degradation. *Plant Physiology*, **1991**, 95, 1181-8	6.6	187
156	Photorespiration-deficient Mutants of Arabidopsis thaliana Lacking Mitochondrial Serine Transhydroxymethylase Activity. *Plant Physiology*, **1981**, 67, 666-71	6.6	184
155	Identification of a cellulose synthase-associated protein required for cellulose biosynthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 12866-71	11.5	178
154	A Starch Deficient Mutant of Arabidopsis thaliana with Low ADPglucose Pyrophosphorylase Activity Lacks One of the Two Subunits of the Enzyme. *Plant Physiology*, **1988**, 88, 1175-81	6.6	173
153	A fortunate choice: the history of Arabidopsis as a model plant. *Nature Reviews Genetics*, **2002**, 3, 883-9	30.1	171
152	Ferulate-5-hydroxylase from Arabidopsis thaliana defines a new family of cytochrome P450-dependent monooxygenases. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 6869-74	11.5	171
151	A phosphoglycolate phosphatase-deficient mutant of Arabidopsis. *Nature*, **1979**, 280, 833-836	50.4	168
150	Microspore separation in the quartet 3 mutants of Arabidopsis is impaired by a defect in a developmentally regulated polygalacturonase required for pollen mother cell wall degradation. *Plant Physiology*, **2003**, 133, 1170-80	6.6	165
149	Transcriptional coordination of the metabolic network in Arabidopsis. *Plant Physiology*, **2006**, 142, 762-74	6.6	163

148	A non-specific lipid transfer protein from Arabidopsis is a cell wall protein. *Plant Journal*, **1993**, 3, 427-36	6.9	161
147	Isolation of mutants of Acinetobacter calcoaceticus deficient in wax ester synthesis and complementation of one mutation with a gene encoding a fatty acyl coenzyme A reductase. *Journal of Bacteriology*, **1997**, 179, 2969-75	3.5	160
146	The Arabidopsis SKU5 gene encodes an extracellular glycosyl phosphatidylinositol-anchored glycoprotein involved in directional root growth. *Plant Cell*, **2002**, 14, 1635-48	11.6	159
145	VACUOLELESS1 is an essential gene required for vacuole formation and morphogenesis in Arabidopsis. *Developmental Cell*, **2001**, 1, 303-10	10.2	158
144	Alpha-glucosidase I is required for cellulose biosynthesis and morphogenesis in Arabidopsis. *Journal of Cell Biology*, **2002**, 156, 1003-13	7.3	155
143	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, 1561-5	11.5	154
142	Tetrad pollen formation in quartet mutants of Arabidopsis thaliana is associated with persistence of pectic polysaccharides of the pollen mother cell wall. *Plant Journal*, **1998**, 15, 79-88	6.9	152
141	A mutant of Arabidopsis lacking a chloroplast-specific lipid. *Science*, **1985**, 227, 763-5	33.3	152
140	An Arabidopsis mutant resistant to thaxtomin A, a cellulose synthesis inhibitor from Streptomyces species. *Plant Cell*, **2003**, 15, 1781-94	11.6	151
139	A Mutant of Arabidopsis thaliana Which Lacks Activation of RuBP Carboxylase In Vivo. *Plant Physiology*, **1982**, 70, 381-7	6.6	151
138	A mutant of Arabidopsis deficient in c(18:3) and c(16:3) leaf lipids. *Plant Physiology*, **1986**, 81, 859-64	6.6	150
137	A bifunctional oleate 12-hydroxylase: desaturase from Lesquerella fendleri. *Plant Journal*, **1998**, 13, 201-10	6.9	148
136	Effect of Light Quality and Vernalization on Late-Flowering Mutants of Arabidopsis thaliana. *Plant Physiology*, **1990**, 92, 770-6	6.6	143
135	The Arabidopsis sku6/spiral1 gene encodes a plus end-localized microtubule-interacting protein involved in directional cell expansion. *Plant Cell*, **2004**, 16, 1506-20	11.6	141
134	Genetic control of morphogenesis in Arabidopsis. *Genesis*, **1988**, 9, 73-89		141
133	Biofuels. *Current Biology*, **2007**, 17, R115-9	6.3	140
132	A Mutation at the fad8 Locus of Arabidopsis Identifies a Second Chloroplast [omega]-3 Desaturase. *Plant Physiology*, **1994**, 106, 1609-1614	6.6	137
131	Enhanced thermal tolerance of photosynthesis and altered chloroplast ultrastructure in a mutant of Arabidopsis deficient in lipid desaturation. *Plant Physiology*, **1989**, 90, 1134-42	6.6	137

130	The genetics of plant lipids. *Lipids and Lipid Metabolism*, **1991**, 1082, 1-26		137
129	Cellulose microfibril crystallinity is reduced by mutating C-terminal transmembrane region residues CESA1A903V and CESA3T942I of cellulose synthase. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 4098-103	11.5	130
128	Genetic evidence that cellulose synthase activity influences microtubule cortical array organization. *Plant Physiology*, **2008**, 147, 1723-34	6.6	128
127	Mutations at the Arabidopsis CHM locus promote rearrangements of the mitochondrial genome. *Plant Cell*, **1992**, 4, 889-99	11.6	128
126	A role for membrane lipid polyunsaturation in chloroplast biogenesis at low temperature. *Plant Physiology*, **1992**, 99, 197-202	6.6	128
125	50 years of Arabidopsis research: highlights and future directions. *New Phytologist*, **2016**, 209, 921-44	9.8	128
124	An early Arabidopsis demonstration. Resolving a few issues concerning photorespiration. *Plant Physiology*, **2001**, 125, 20-4	6.6	126
123	A mutant of Arabidopsis deficient in the chloroplast 16:1/18:1 desaturase. *Plant Physiology*, **1989**, 90, 522-9	6.6	125
122	Analysis of Photosynthesis with Mutants of Higher Plants and Algae. *Annual Review of Plant Physiology*, **1986**, 37, 467-506		123
121	Genetic modification of photorespiration. *Trends in Biochemical Sciences*, **1982**, 7, 171-174	10.3	123
120	Isolation of a cDNA Clone for Spinach Lipid Transfer Protein and Evidence that the Protein Is Synthesized by the Secretory Pathway. *Plant Physiology*, **1991**, 95, 164-70	6.6	121
119	Photorespiration mutants of Arabidopsis thaliana deficient in serine-glyoxylate aminotransferase activity. *Proceedings of the National Academy of Sciences of the United States of America*, **1980**, 77, 2684-7	11.5	121
118	Chitinase-like1/pom-pom1 and its homolog CTL2 are glucan-interacting proteins important for cellulose biosynthesis in Arabidopsis. *Plant Cell*, **2012**, 24, 589-607	11.6	118
117	Plant neurobiology: no brain, no gain?. *Trends in Plant Science*, **2007**, 12, 135-6	13.1	118
116	Cloning and expression of the Rhodospirillum rubrum ribulosebisphosphate carboxylase gene in E. coli. *Molecular Genetics and Genomics*, **1984**, 193, 214-219		118
115	Mutations of cellulose synthase (CESA1) phosphorylation sites modulate anisotropic cell expansion and bidirectional mobility of cellulose synthase. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 17188-93	11.5	117
114	Metabolic click-labeling with a fucose analog reveals pectin delivery, architecture, and dynamics in Arabidopsis cell walls. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 1329-34	11.5	116
113	Genetic engineering of plant lipids. *Annual Review of Nutrition*, **1999**, 19, 197-216	9.9	116

112	Direct tests of the role of membrane lipid composition in low-temperature-induced photoinhibition and chilling sensitivity in plants and cyanobacteria. *Proceedings of the National Academy of Sciences of the United States of America*, **1995**, 92, 6215-8	11.5	116
111	Glycosylphosphatidylinositol-anchored proteins are required for cell wall synthesis and morphogenesis in Arabidopsis. *Plant Cell*, **2005**, 17, 1128-40	11.6	115
110	Phenotypic Suppression of the Gibberellin-Insensitive Mutant (gai) of Arabidopsis. *Plant Physiology*, **1995**, 108, 495-502	6.6	115
109	Mutations in UDP-Glucose:sterol glucosyltransferase in Arabidopsis cause transparent testa phenotype and suberization defect in seeds. *Plant Physiology*, **2009**, 151, 78-87	6.6	113
108	Construction and characterization of a yeast artificial chromosome library of Arabidopsis which is suitable for chromosome walking. *Molecular Genetics and Genomics*, **1991**, 226, 484-90		113
107	Positive selection for male-sterile mutants of Arabidopsis lacking adenine phosphoribosyl transferase activity. *Plant Physiology*, **1988**, 86, 1150-4	6.6	111
106	Dissecting desaturation: plants prove advantageous. *Trends in Cell Biology*, **1996**, 6, 148-53	18.3	109
105	A mutant of Arabidopsis deficient in desaturation of palmitic Acid in leaf lipids. *Plant Physiology*, **1989**, 90, 943-7	6.6	108
104	The mutants of Arabidopsis. *Trends in Genetics*, **1986**, 2, 89-93	8.5	108
103	POLYGALACTURONASE INVOLVED IN EXPANSION1 functions in cell elongation and flower development in Arabidopsis. *Plant Cell*, **2014**, 26, 1018-35	11.6	105
102	Isolation and genetic complementation of a sulfolipid-deficient mutant of Rhodobacter sphaeroides. *Journal of Bacteriology*, **1992**, 174, 2352-60	3.5	102
101	Suspensor-derived polyembryony caused by altered expression of valyl-tRNA synthetase in the twn2 mutant of Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 7349-55	11.5	96
100	Genomics. Plant biology in 2010. *Science*, **2000**, 290, 2077-8	33.3	96
99	Integrative approaches to determining Csl function **2001**, 47, 131-143		93
98	Enhanced thermal tolerance in a mutant of Arabidopsis deficient in palmitic Acid unsaturation. *Plant Physiology*, **1989**, 91, 401-8	6.6	92
97	Analysis of Photosynthetic Antenna Function in a Mutant of Arabidopsis thaliana (L.) Lacking trans-Hexadecenoic Acid. *Plant Physiology*, **1985**, 78, 853-8	6.6	92
96	Cellularisation in the endosperm of Arabidopsis thaliana is coupled to mitosis and shares multiple components with cytokinesis. *Development (Cambridge)*, **2002**, 129, 5567-76	6.6	90
95	Nonmotile cellulose synthase subunits repeatedly accumulate within localized regions at the plasma membrane in Arabidopsis hypocotyl cells following 2,6-dichlorobenzonitrile treatment. *Plant Physiology*, **2007**, 145, 334-8	6.6	89

94	The Implications of Lignocellulosic Biomass Chemical Composition for the Production of Advanced Biofuels. *BioScience*, **2014**, 64, 192-201	5.7	87
93	Genetic Control of Root Hair Development in Arabidopsis thaliana. *Plant Cell*, **1990**, 2, 235	11.6	87
92	Identification of a gene that complements an Arabidopsis mutant deficient in chloroplast omega 6 desaturase activity. *Plant Physiology*, **1994**, 106, 1453-9	6.6	84
91	The construction of Arabidopsis expressed sequence tag assemblies. A new resource to facilitate gene identification. *Plant Physiology*, **1996**, 112, 1177-83	6.6	79
90	Characterization of synthetic hydroxyproline-rich proteoglycans with arabinogalactan protein and extensin motifs in Arabidopsis. *Plant Physiology*, **2006**, 142, 458-70	6.6	78
89	Characterization of an HSP70 Cognate Gene Family in Arabidopsis. *Plant Physiology*, **1988**, 88, 731-40	6.6	75
88	Complexes with mixed primary and secondary cellulose synthases are functional in Arabidopsis plants. *Plant Physiology*, **2012**, 160, 726-37	6.6	74
87	A conserved role for kinesin-5 in plant mitosis. *Journal of Cell Science*, **2007**, 120, 2819-27	5.3	73
86	Coidentity of putative amylase inhibitors from barley and finger millet with phospholipid transfer proteins inferred from amino acid sequence homology. *Archives of Biochemistry and Biophysics*, **1989**, 269, 695-7	4.1	73
85	The effects of reduced amounts of lipid unsaturation on chloroplast ultrastructure and photosynthesis in a mutant of Arabidopsis. *Plant Physiology*, **1987**, 84, 353-60	6.6	73
84	A comparative systems analysis of polysaccharide-elicited responses in Neurospora crassa reveals carbon source-specific cellular adaptations. *Molecular Microbiology*, **2014**, 91, 275-99	4.1	70
83	Collapsed Xylem Phenotype of Arabidopsis Identifies Mutants Deficient in Cellulose Deposition in the Secondary Cell Wall. *Plant Cell*, **1997**, 9, 689	11.6	70
82	Cytokinesis-defective mutants of Arabidopsis. *Plant Physiology*, **2002**, 129, 678-90	6.6	68
81	The role of cytochrome b5 in delta 12 desaturation of oleic acid by microsomes of safflower (Carthamus tinctorius L.). *Archives of Biochemistry and Biophysics*, **1991**, 284, 431-6	4.1	68
80	The gravitropism defective 2 mutants of Arabidopsis are deficient in a protein implicated in endocytosis in Caenorhabditis elegans. *Plant Physiology*, **2004**, 136, 3095-103; discussion 3002	6.6	67
79	The GRV2/RME-8 protein of Arabidopsis functions in the late endocytic pathway and is required for vacuolar membrane flow. *Plant Journal*, **2008**, 53, 29-41	6.9	65
78	A Mutation Causing Imidazolinone Resistance Maps to the Csr1 Locus of Arabidopsis thaliana. *Plant Physiology*, **1990**, 92, 1081-5	6.6	65
77	Identification of an operon involved in sulfolipid biosynthesis in Rhodobacter sphaeroides. *Journal of Bacteriology*, **1992**, 174, 6479-87	3.5	64

76	Abscisic acid or high osmoticum promote accumulation of long-chain fatty acids in developing embryos of Brassica napus. *Plant Science*, **1989**, 61, 213-217	5.3	64
75	Global expression analysis of CESA and CSL genes in Arabidopsis. *Cellulose*, **2004**, 11, 279-286	5.5	63
74	Isolation of photosynthetically active protoplasts and chloroplasts from Arabidopsis thaliana. *Plant Science Letters*, **1981**, 21, 89-96		58
73	BRASSINOSTEROID INSENSITIVE2 negatively regulates cellulose synthesis in by phosphorylating cellulose synthase 1. *Proceedings of the National Academy of Sciences of the United States of America* , **2017**, 114, 3533-3538	11.5	57
72	Cloning in silico. *Current Biology*, **1997**, 7, R108-11	6.3	56
71	Cloning, expression, and characterization of an oligoxyloglucan reducing end-specific xyloglucanobiohydrolase from Aspergillus nidulans. *Carbohydrate Research*, **2005**, 340, 2590-7	2.9	55
70	Plant polymers for biodegradable plastics: Cellulose, starch and polyhydroxyalkanoates. *Molecular Breeding*, **1995**, 1, 105-122	3.4	53
69	Synthesis of high-molecular-weight poly([R]-(-)-3-hydroxybutyrate) in transgenic Arabidopsis thaliana plant cells. *International Journal of Biological Macromolecules*, **1995**, 17, 7-12	7.9	52
68	Plants as factories for technical materials. *Plant Physiology*, **2001**, 125, 168-71	6.6	48
67	A chilling sensitive mutant of Arabidopsis with altered steryl-ester metabolism. *Plant Physiology*, **1990**, 93, 1053-62	6.6	48
66	Altered regulation of beta-amylase activity in mutants of Arabidopsis with lesions in starch metabolism. *Proceedings of the National Academy of Sciences of the United States of America*, **1989**, 86, 5830-3	11.5	47
65	Prefoldin 6 is required for normal microtubule dynamics and organization in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 18064-9	11.5	46
64	Expressed Sequence Tags from Developing Castor Seeds. *Plant Physiology*, **1995**, 108, 1141-1150	6.6	46
63	Perspectives on the production of polyhydroxyalkanoates in plants. *FEMS Microbiology Letters*, **1992**, 103, 237-246	2.9	45
62	Altered chloroplast structure and function in a mutant of Arabidopsis deficient in plastid glycerol-3-phosphate acyltransferase activity. *Plant Physiology*, **1989**, 90, 846-53	6.6	45
61	Identification and characterization of a galacturonic acid transporter from Neurospora crassa and its application for Saccharomyces cerevisiae fermentation processes. *Biotechnology for Biofuels*, **2014**, 7, 20	7.8	44
60	Mutants of Escherichia coli defective in the degradation of guanosine 5Ptriphosphate, 3Pdiphosphate (pppGpp). *Molecular Genetics and Genomics*, **1979**, 169, 315-23		44
59	Use of transgenic plants and mutants to study the regulation and function of lipid composition. *Plant, Cell and Environment*, **1994**, 17, 627-637	8.4	40

58	Progress in plant metabolic engineering. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 8925-7	11.5	39
57	Plant science. Best practices for biofuels. *Science*, **2014**, 344, 1095-6	33.3	37
56	Anisotropic Cell Expansion Is Affected through the Bidirectional Mobility of Cellulose Synthase Complexes and Phosphorylation at Two Critical Residues on CESA3. *Plant Physiology*, **2016**, 171, 242-50	6.6	37
55	Changes in lipid composition during protoplast isolation. *Plant Science*, **1988**, 56, 15-20	5.3	36
54	Shootward and rootward: peak terminology for plant polarity. *Trends in Plant Science*, **2010**, 15, 593-4	13.1	35
53	Isolating plant genes. *Trends in Biotechnology*, **1993**, 11, 306-13	15.1	35
52	Development of feedstocks for cellulosic biofuels. *F1000 Biology Reports*, **2012**, 4, 10		35
51	Imaging plant cell death: GFP-Nit1 aggregation marks an early step of wound and herbicide induced cell death. *BMC Plant Biology*, **2005**, 5, 4	5.3	33
50	Cellulose synthase interacting protein: a new factor in cellulose synthesis. *Plant Signaling and Behavior*, **2010**, 5, 1571-4	2.5	32
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47	The biochemistry and cell biology of photorespiration. *Critical Reviews in Plant Sciences*, **1986**, 4, 121-147	5.6	29
46	Cellulose Deficiency Is Enhanced on Hyper Accumulation of Sucrose by a H+-Coupled Sucrose Symporter. *Plant Physiology*, **2016**, 171, 110-24	6.6	29
45	The twentieth century trajectory of plant biology. *Cell*, **2000**, 100, 13-25	56.2	26
44	Flat-Surface grafting inArabidopsis thaliana. *Plant Molecular Biology Reporter*, **1995**, 13, 118-123	1.7	25
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41	Progress toward biologically produced Biodegradable Thermoplastics. *Advanced Materials*, **1993**, 5, 30-37	7.4	23

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