

# Wout Boerjan

## List of Publications by Citations

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207  
papers

26,179  
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77  
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160  
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226  
ext. papers

30,456  
ext. citations

8.9  
avg, IF

6.77  
L-index

#	Paper	IF	Citations
207	The genome of black cottonwood, <i>Populus trichocarpa</i> (Torr. & Gray). <i>Science</i> , <b>2006</b> , 313, 1596-604	33.3	3205
206	Lignin biosynthesis. <i>Annual Review of Plant Biology</i> , <b>2003</b> , 54, 519-46	30.7	3143
205	Lignin biosynthesis and structure. <i>Plant Physiology</i> , <b>2010</b> , 153, 895-905	6.6	1486
204	Lignins: Natural polymers from oxidative coupling of 4-hydroxyphenyl- propanoids. <i>Phytochemistry Reviews</i> , <b>2004</b> , 3, 29-60	7.7	1062
203	Genome-wide characterization of the lignification toolbox in Arabidopsis. <i>Plant Physiology</i> , <b>2003</b> , 133, 1051-71	6.6	564
202	Superroot, a recessive mutation in Arabidopsis, confers auxin overproduction. <i>Plant Cell</i> , <b>1995</b> , 7, 1405-1416	11.6	532
201	Reductive lignocellulose fractionation into soluble lignin-derived phenolic monomers and dimers and processable carbohydrate pulps. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 1748-1763	35.4	515
200	Lignin engineering. <i>Current Opinion in Plant Biology</i> , <b>2008</b> , 11, 278-85	9.9	503
199	Gene discovery in the wood-forming tissues of poplar: analysis of 5, 692 expressed sequence tags. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1998</b> , 95, 13330-5	11.5	375
198	A molecular timetable for apical bud formation and dormancy induction in poplar. <i>Plant Cell</i> , <b>2007</b> , 19, 2370-90	11.6	362
197	Mapping methyl jasmonate-mediated transcriptional reprogramming of metabolism and cell cycle progression in cultured Arabidopsis cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 1380-5	11.5	319
196	Caffeoyl shikimate esterase (CSE) is an enzyme in the lignin biosynthetic pathway in Arabidopsis. <i>Science</i> , <b>2013</b> , 341, 1103-6	33.3	310
195	Molecular phenotyping of the pal1 and pal2 mutants of Arabidopsis thaliana reveals far-reaching consequences on phenylpropanoid, amino acid, and carbohydrate metabolism. <i>Plant Cell</i> , <b>2004</b> , 16, 2749-71	11.6	305
194	Field and pulping performances of transgenic trees with altered lignification. <i>Nature Biotechnology</i> , <b>2002</b> , 20, 607-12	44.5	302
193	Perturbation of indole-3-butyric acid homeostasis by the UDP-glucosyltransferase UGT74E2 modulates Arabidopsis architecture and water stress tolerance. <i>Plant Cell</i> , <b>2010</b> , 22, 2660-79	11.6	301
192	Red Xylem and Higher Lignin Extractability by Down-Regulating a Cinnamyl Alcohol Dehydrogenase in Poplar. <i>Plant Physiology</i> , <b>1996</b> , 112, 1479-1490	6.6	300
191	Structural alterations of lignins in transgenic poplars with depressed cinnamyl alcohol dehydrogenase or caffeic acid O-methyltransferase activity have an opposite impact on the efficiency of industrial kraft pulping. <i>Plant Physiology</i> , <b>1999</b> , 119, 153-64	6.6	287

190	Metabolic engineering of novel lignin in biomass crops. <i>New Phytologist</i> , <b>2012</b> , 196, 978-1000	9.8	281
189	Downregulation of cinnamoyl-coenzyme A reductase in poplar: multiple-level phenotyping reveals effects on cell wall polymer metabolism and structure. <i>Plant Cell</i> , <b>2007</b> , 19, 3669-91	11.6	280
188	Unravelling cell wall formation in the woody dicot stem. <i>Plant Molecular Biology</i> , <b>2001</b> , 47, 239-274	4.6	276
187	The role of the secondary cell wall in plant resistance to pathogens. <i>Frontiers in Plant Science</i> , <b>2014</b> , 5, 358	6.2	264
186	A systems biology view of responses to lignin biosynthesis perturbations in Arabidopsis. <i>Plant Cell</i> , <b>2012</b> , 24, 3506-29	11.6	252
185	Lignin structure and its engineering. <i>Current Opinion in Biotechnology</i> , <b>2019</b> , 56, 240-249	11.4	247
184	Lignin: genetic engineering and impact on pulping. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , <b>2003</b> , 38, 305-50	8.7	233
183	Designer lignins: harnessing the plasticity of lignification. <i>Current Opinion in Biotechnology</i> , <b>2016</b> , 37, 190-200	11.4	231
182	Dense genetic linkage maps of three Populus species (Populus deltoides, P. nigra and P. trichocarpa) based on AFLP and microsatellite markers. <i>Genetics</i> , <b>2001</b> , 158, 787-809	4	210
181	Structural variability and niche differentiation in the rhizosphere and endosphere bacterial microbiome of field-grown poplar trees. <i>Microbiome</i> , <b>2017</b> , 5, 25	16.6	206
180	Tricin, a flavonoid monomer in monocot lignification. <i>Plant Physiology</i> , <b>2015</b> , 167, 1284-95	6.6	203
179	Quantitative trait loci and candidate gene mapping of bud set and bud flush in populus. <i>Genetics</i> , <b>2000</b> , 154, 837-45	4	203
178	Lignin biosynthesis perturbations affect secondary cell wall composition and saccharification yield in Arabidopsis thaliana. <i>Biotechnology for Biofuels</i> , <b>2013</b> , 6, 46	7.8	194
177	Biosynthesis and Genetic Engineering of Lignin. <i>Critical Reviews in Plant Sciences</i> , <b>1998</b> , 17, 125-197	5.6	190
176	Lignin biosynthesis and its integration into metabolism. <i>Current Opinion in Biotechnology</i> , <b>2019</b> , 56, 230-239	11.4	189
175	Modifications in lignin and accumulation of phenolic glucosides in poplar xylem upon down-regulation of caffeoyl-coenzyme A O-methyltransferase, an enzyme involved in lignin biosynthesis. <i>Journal of Biological Chemistry</i> , <b>2000</b> , 275, 36899-909	5.4	188
174	Genome-wide identification of NBS resistance genes in Populus trichocarpa. <i>Plant Molecular Biology</i> , <b>2008</b> , 66, 619-36	4.6	185
173	A novel lignin in poplar trees with a reduced caffeic acid/5-hydroxyferulic acid O-methyltransferase activity. <i>Plant Journal</i> , <b>1995</b> , 8, 855-864	6.9	176

172	Distinct phenotypes generated by overexpression and suppression of S-adenosyl-L-methionine synthetase reveal developmental patterns of gene silencing in tobacco. <i>Plant Cell</i> , <b>1994</b> , 6, 1401-14	11.6	174
171	Purification and characterization of peroxidases correlated with lignification in poplar xylem. <i>Plant Physiology</i> , <b>1998</b> , 118, 125-35	6.6	172
170	PtABI3 impinges on the growth and differentiation of embryonic leaves during bud set in poplar. <i>Plant Cell</i> , <b>2002</b> , 14, 1885-901	11.6	170
169	Arabidopsis WAT1 is a vacuolar auxin transport facilitator required for auxin homeostasis. <i>Nature Communications</i> , <b>2013</b> , 4, 2625	17.4	166
168	Elucidation of new structures in lignins of CAD- and COMT-deficient plants by NMR. <i>Phytochemistry</i> , <b>2001</b> , 57, 993-1003	4	165
167	Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. <i>Plant Physiology</i> , <b>2004</b> , 136, 3537-49	6.6	160
166	Evolution of plant defense mechanisms. Relationships of phenylcoumaran benzylic ether reductases to pinoresinol-lariciresinol and isoflavone reductases. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 7516-27	5.4	156
165	Improved saccharification and ethanol yield from field-grown transgenic poplar deficient in cinnamoyl-CoA reductase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 845-50	11.5	155
164	Biosynthesis and Genetic Engineering of Lignin		149
163	Mass spectrometry-based sequencing of lignin oligomers. <i>Plant Physiology</i> , <b>2010</b> , 153, 1464-78	6.6	143
162	Transcription factor WRKY23 assists auxin distribution patterns during Arabidopsis root development through local control on flavonol biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 1554-9	11.5	129
161	Walls are thin 1 (WAT1), an Arabidopsis homolog of Medicago truncatula NODULIN21, is a tonoplast-localized protein required for secondary wall formation in fibers. <i>Plant Journal</i> , <b>2010</b> , 63, 469-83	6.9	128
160	Molecular phenotyping of lignin-modified tobacco reveals associated changes in cell-wall metabolism, primary metabolism, stress metabolism and photorespiration. <i>Plant Journal</i> , <b>2007</b> , 52, 263-85	6.9	126
159	Mass spectrometry-based fragmentation as an identification tool in lignomics. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 8095-105	7.8	123
158	Genetical metabolomics of flavonoid biosynthesis in Populus: a case study. <i>Plant Journal</i> , <b>2006</b> , 47, 224-37	37.9	122
157	Performance of 16s rDNA Primer Pairs in the Study of Rhizosphere and Endosphere Bacterial Microbiomes in Metabarcoding Studies. <i>Frontiers in Microbiology</i> , <b>2016</b> , 7, 650	5.7	120
156	Temperature signals contribute to the timing of photoperiodic growth cessation and bud set in poplar. <i>Tree Physiology</i> , <b>2011</b> , 31, 472-82	4.2	118
155	Cell-specific and conditional expression of caffeoyl-coenzyme A-3-O-methyltransferase in poplar. <i>Plant Physiology</i> , <b>2000</b> , 123, 853-67	6.6	111

154	Wood formation in poplar: identification, characterization, and seasonal variation of xylem proteins. <i>Planta</i> , <b>2000</b> , 210, 589-98	4.7	108
153	Gene expression during the induction, maintenance, and release of dormancy in apical buds of poplar. <i>Journal of Experimental Botany</i> , <b>2007</b> , 58, 4047-60	7	104
152	Joint GC-MS and LC-MS platforms for comprehensive plant metabolomics: repeatability and sample pre-treatment. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , <b>2009</b> , 877, 3572-80	3.2	102
151	Protein-protein and protein-membrane associations in the lignin pathway. <i>Plant Cell</i> , <b>2012</b> , 24, 4465-82	11.6	102
150	Identification of the structure and origin of a thioacidolysis marker compound for ferulic acid incorporation into angiosperm lignins (and an indicator for cinnamoyl CoA reductase deficiency). <i>Plant Journal</i> , <b>2008</b> , 53, 368-79	6.9	102
149	Engineering traditional monolignols out of lignin by concomitant up-regulation of F5H1 and down-regulation of COMT in Arabidopsis. <i>Plant Journal</i> , <b>2010</b> , 64, 885-97	6.9	99
148	Biotechnology and the domestication of forest trees. <i>Current Opinion in Biotechnology</i> , <b>2005</b> , 16, 159-66	11.4	99
147	NMR evidence for benzodioxane structures resulting from incorporation of 5-hydroxyconiferyl alcohol into Lignins of O-methyltransferase-deficient poplars. <i>Journal of Agricultural and Food Chemistry</i> , <b>2001</b> , 49, 86-91	5.7	98
146	Bud set in poplar--genetic dissection of a complex trait in natural and hybrid populations. <i>New Phytologist</i> , <b>2011</b> , 189, 106-21	9.8	97
145	Characterization of cis-elements required for vascular expression of the cinnamoyl CoA reductase gene and for protein-DNA complex formation. <i>Plant Journal</i> , <b>2000</b> , 23, 663-76	6.9	97
144	MYB103 is required for FERULATE-5-HYDROXYLASE expression and syringyl lignin biosynthesis in Arabidopsis stems. <i>Plant Journal</i> , <b>2013</b> , 73, 63-76	6.9	94
143	Intraspecific and interspecific genetic and phylogenetic relationships in the genus <i>Populus</i> based on AFLP markers. <i>Theoretical and Applied Genetics</i> , <b>2005</b> , 111, 1440-56	6	94
142	Systematic structural characterization of metabolites in Arabidopsis via candidate substrate-product pair networks. <i>Plant Cell</i> , <b>2014</b> , 26, 929-45	11.6	93
141	Structure of the genetic diversity in black poplar ( <i>Populus nigra</i> L.) populations across European river systems: Consequences for conservation and restoration. <i>Forest Ecology and Management</i> , <b>2008</b> , 255, 1388-1399	3.9	93
140	Towards a carbon-negative sustainable bio-based economy. <i>Frontiers in Plant Science</i> , <b>2013</b> , 4, 174	6.2	88
139	Constitutive Overexpression of Cystathionine Synthase in Arabidopsis Leads to Accumulation of Soluble Methionine and S-Methylmethionine. <i>Plant Physiology</i> , <b>2002</b> , 128, 95-107	6.6	88
138	Accelerating the domestication of forest trees in a changing world. <i>Trends in Plant Science</i> , <b>2012</b> , 17, 64-72	13.1	85
137	Partial purification and identification of GDP-mannose 3",5"-epimerase of Arabidopsis thaliana, a key enzyme of the plant vitamin C pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2001</b> , 98, 14843-8	11.5	85

136	Lignification in sugarcane: biochemical characterization, gene discovery, and expression analysis in two genotypes contrasting for lignin content. <i>Plant Physiology</i> , <b>2013</b> , 163, 1539-57	6.6	82
135	A novel seed protein gene from <i>Vicia faba</i> is developmentally regulated in transgenic tobacco and <i>Arabidopsis</i> plants. <i>Molecular Genetics and Genomics</i> , <b>1991</b> , 225, 459-67		82
134	Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. <i>Plant Physiology</i> , <b>2004</b> , 136, 4023-36	6.6	81
133	ABI3 affects plastid differentiation in dark-grown <i>Arabidopsis</i> seedlings. <i>Plant Cell</i> , <b>2000</b> , 12, 35-52	11.6	81
132	Identification of AFLP molecular markers for resistance against <i>Melampsora larici-populina</i> in <i>Populus</i> . <i>Theoretical and Applied Genetics</i> , <b>1996</b> , 93, 733-7	6	79
131	The ABSCISIC ACID-INSENSITIVE 3 (ABI3) gene is expressed during vegetative quiescence processes in <i>Arabidopsis</i> . <i>Plant, Cell and Environment</i> , <b>1999</b> , 22, 261-270	8.4	77
130	Breeding with rare defective alleles (BRDA): a natural <i>Populus nigra</i> HCT mutant with modified lignin as a case study. <i>New Phytologist</i> , <b>2013</b> , 198, 765-776	9.8	73
129	Natural hypolignification is associated with extensive oligolignol accumulation in flax stems. <i>Plant Physiology</i> , <b>2012</b> , 158, 1893-915	6.6	71
128	Lignification: are Lignins Biosynthesized via simple Combinatorial Chemistry or via Proteinaceous Control and Template Replication?36-66		71
127	Upstream sequences regulating legumin gene expression in heterologous transgenic plants. <i>Molecular Genetics and Genomics</i> , <b>1991</b> , 225, 121-8		70
126	Naturally p-Hydroxybenzoylated Lignins in Palms. <i>Bioenergy Research</i> , <b>2015</b> , 8, 934-952	3.1	69
125	Preparation and relevance of a cross-coupling product between sinapyl alcohol and sinapyl p-hydroxybenzoate. <i>Organic and Biomolecular Chemistry</i> , <b>2004</b> , 2, 2888-90	3.9	68
124	Polyploidy Affects Plant Growth and Alters Cell Wall Composition. <i>Plant Physiology</i> , <b>2019</b> , 179, 74-87	6.6	67
123	Silencing Affects Lignification and Improves Saccharification in Poplar. <i>Plant Physiology</i> , <b>2017</b> , 175, 1040-1057	6.6	63
122	Small glycosylated lignin oligomers are stored in <i>Arabidopsis</i> leaf vacuoles. <i>Plant Cell</i> , <b>2015</b> , 27, 695-710	11.6	62
121	Silencing CHALCONE SYNTHASE in Maize Impedes the Incorporation of Tricin into Lignin and Increases Lignin Content. <i>Plant Physiology</i> , <b>2017</b> , 173, 998-1016	6.6	61
120	Different Routes for Conifer- and Sinapaldehyde and Higher Saccharification upon Deficiency in the Dehydrogenase CAD1. <i>Plant Physiology</i> , <b>2017</b> , 175, 1018-1039	6.6	60
119	Visualization of plant cell wall lignification using fluorescence-tagged monolignols. <i>Plant Journal</i> , <b>2013</b> , 76, 357-66	6.9	60

118	Genetic and physical mapping of Melampsora rust resistance genes in Populus and characterization of linkage disequilibrium and flanking genomic sequence. <i>New Phytologist</i> , <b>2004</b> , 164, 95-105	9.8	60
117	Ex-situ conservation of Black poplar in Europe: genetic diversity in nine gene bank collections and their value for nature development. <i>Theoretical and Applied Genetics</i> , <b>2004</b> , 108, 969-81	6	60
116	Expression of SofLAC, a new laccase in sugarcane, restores lignin content but not S:G ratio of Arabidopsis lac17 mutant. <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 1769-81	7	57
115	Lignin engineering in field-grown poplar trees affects the endosphere bacterial microbiome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 2312-7	11.5	55
114	Large-scale detection of rare variants via pooled multiplexed next-generation sequencing: towards next-generation Ecotilling. <i>Plant Journal</i> , <b>2011</b> , 67, 736-45	6.9	55
113	Gene flow between cultivated poplars and native black poplar ( <i>Populus nigra</i> L.): a case study along the river Meuse on the DutchBelgian border. <i>Forest Ecology and Management</i> , <b>2004</b> , 197, 307-310	3.9	50
112	Passive membrane transport of lignin-related compounds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 23117-23123	11.5	49
111	Lignin Engineering in Forest Trees. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 912	6.2	48
110	Modeling lignin polymerization. I. Simulation model of dehydrogenation polymers. <i>Plant Physiology</i> , <b>2010</b> , 153, 1332-44	6.6	48
109	Strangled at birth? Forest biotech and the Convention on Biological Diversity. <i>Nature Biotechnology</i> , <b>2009</b> , 27, 519-27	44.5	48
108	Phenylcoumaran benzylic ether reductase, a prominent poplar xylem protein, is strongly associated with phenylpropanoid biosynthesis in lignifying cells. <i>Planta</i> , <b>2000</b> , 211, 502-9	4.7	48
107	Mutation of the inducible ARABIDOPSIS THALIANA CYTOCHROME P450 REDUCTASE2 alters lignin composition and improves saccharification. <i>Plant Physiology</i> , <b>2014</b> , 166, 1956-71	6.6	47
106	Impact of the absence of stem-specific Eglucosidases on lignin and monolignols. <i>Plant Physiology</i> , <b>2012</b> , 160, 1204-17	6.6	46
105	The 20-year environmental safety record of GM trees. <i>Nature Biotechnology</i> , <b>2010</b> , 28, 656-8	44.5	46
104	Improving total saccharification yield of Arabidopsis plants by vessel-specific complementation of caffeoyl shikimate esterase (cse) mutants. <i>Biotechnology for Biofuels</i> , <b>2016</b> , 9, 139	7.8	46
103	Vessel-Specific Reintroduction of CINNAMOYL-COA REDUCTASE1 (CCR1) in Dwarfed Mutants Restores Vessel and Xylary Fiber Integrity and Increases Biomass. <i>Plant Physiology</i> , <b>2018</b> , 176, 611-633	6.6	45
102	Sequencing around 5-hydroxyconiferyl alcohol-derived units in caffeic acid O-methyltransferase-deficient poplar lignins. <i>Plant Physiology</i> , <b>2010</b> , 153, 569-79	6.6	44
101	Maize Tricin-Oligolignol Metabolites and Their Implications for Monocot Lignification. <i>Plant Physiology</i> , <b>2016</b> , 171, 810-20	6.6	43

100	Stacking transgenes in forest trees. <i>Trends in Plant Science</i> , <b>2003</b> , 8, 363-5	13.1	42
99	Introduction of chemically labile substructures into Arabidopsis lignin through the use of LigD, the C <sub>6</sub> H <sub>5</sub> dehydrogenase from <i>Sphingobium</i> sp. strain SYK-6. <i>Plant Biotechnology Journal</i> , <b>2015</b> , 13, 821-32	11.6	40
98	cis-Cinnamic Acid Is a Novel, Natural Auxin Efflux Inhibitor That Promotes Lateral Root Formation. <i>Plant Physiology</i> , <b>2017</b> , 173, 552-565	6.6	39
97	Potential of Arabidopsis systems biology to advance the biofuel field. <i>Trends in Biotechnology</i> , <b>2010</b> , 28, 543-7	15.1	39
96	The syringaldazine-oxidizing peroxidase PXP 3-4 from poplar xylem: cDNA isolation, characterization and expression. <i>Plant Molecular Biology</i> , <b>2001</b> , 47, 581-93	4.6	39
95	NMR characterization of lignins from transgenic poplars with suppressed caffeic acid O-methyltransferase activity. <i>Journal of the Chemical Society, Perkin Transactions 1</i> , <b>2001</b> , 2939-2945		39
94	Unravelling the impact of lignin on cell wall mechanics: a comprehensive study on young poplar trees downregulated for CINNAMYL ALCOHOL DEHYDROGENASE (CAD). <i>Plant Journal</i> , <b>2017</b> , 91, 480-490	6.9	38
93	Metabolite profiling reveals a role for atypical cinnamyl alcohol dehydrogenase CAD1 in the synthesis of coniferyl alcohol in tobacco xylem. <i>Plant Molecular Biology</i> , <b>2005</b> , 59, 753-69	4.6	38
92	Ectopic lignification in the flax lignified bast fiber1 mutant stem is associated with tissue-specific modifications in gene expression and cell wall composition. <i>Plant Cell</i> , <b>2014</b> , 26, 4462-82	11.6	37
91	Annotation of a 95-kb <i>Populus deltoides</i> genomic sequence reveals a disease resistance gene cluster and novel class I and class II transposable elements. <i>Theoretical and Applied Genetics</i> , <b>2004</b> , 109, 10-22	6	37
90	Overexpression of GA20-OXIDASE1 impacts plant height, biomass allocation and saccharification efficiency in maize. <i>Plant Biotechnology Journal</i> , <b>2016</b> , 14, 997-1007	11.6	37
89	A Key Role for Apoplastic HO in Norway Spruce Phenolic Metabolism. <i>Plant Physiology</i> , <b>2017</b> , 174, 1449-1475	14.75	36
88	Suppression of CCR impacts metabolite profile and cell wall composition in <i>Pinus radiata</i> tracheary elements. <i>Plant Molecular Biology</i> , <b>2013</b> , 81, 105-17	4.6	36
87	Factors regulating the expression of cell cycle genes in individual buds of <i>Populus</i> . <i>Planta</i> , <b>1997</b> , 201, 43-52	4.7	36
86	Molecular changes associated with the setting up of secondary growth in aspen. <i>Journal of Experimental Botany</i> , <b>2005</b> , 56, 2211-27	7	36
85	A click chemistry strategy for visualization of plant cell wall lignification. <i>Chemical Communications</i> , <b>2014</b> , 50, 12262-5	5.8	35
84	Retromer subunits VPS35A and VPS29 mediate prevacuolar compartment (PVC) function in Arabidopsis. <i>Molecular Plant</i> , <b>2013</b> , 6, 1849-62	14.4	35
83	Lignins <b>2007</b> ,		35



82	Biotechnology in trees: Towards improved paper pulping by lignin engineering. <i>Euphytica</i> , <b>2001</b> , 118, 185-195	2.1	32
81	Postglacial migration of <i>Populus nigra</i> L.: lessons learnt from chloroplast DNA. <i>Forest Ecology and Management</i> , <b>2005</b> , 206, 71-90	3.9	31
80	Introducing curcumin biosynthesis in <i>Arabidopsis</i> enhances lignocellulosic biomass processing. <i>Nature Plants</i> , <b>2019</b> , 5, 225-237	11.5	30
79	Phenylcoumaran benzylic ether reductase prevents accumulation of compounds formed under oxidative conditions in poplar xylem. <i>Plant Cell</i> , <b>2014</b> , 26, 3775-91	11.6	30
78	Genomic regions involved in productivity of two interspecific poplar families in Europe. 1. Stem height, circumference and volume. <i>Tree Genetics and Genomes</i> , <b>2009</b> , 5, 147-164	2.1	30
77	Expression of a poplar cDNA encoding a ferulate-5-hydroxylase/coniferaldehyde 5-hydroxylase increases S lignin deposition in <i>Arabidopsis thaliana</i> . <i>Plant Physiology and Biochemistry</i> , <b>2002</b> , 40, 1087-1096	5.4	30
76	A new bioassay for auxins and cytokinins. <i>Plant Physiology</i> , <b>1992</b> , 99, 1090-8	6.6	30
75	Constitutive overexpression of cystathionine gamma-synthase in <i>Arabidopsis</i> leads to accumulation of soluble methionine and S-methylmethionine. <i>Plant Physiology</i> , <b>2002</b> , 128, 95-107	6.6	30
74	ARABIDOPSIS DEHISCENCE ZONE POLYGALACTURONASE 1 (ADPG1) releases latent defense signals in stems with reduced lignin content. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 3281-3290	11.5	29
73	Fine Mapping and Identification of Nucleotide Binding Site/Leucine-Rich Repeat Sequences at the MER Locus in <i>Populus deltoides</i> 'S9-2'. <i>Phytopathology</i> , <b>2001</b> , 91, 1069-73	3.8	29
72	Strong Cellular Preference in the Expression of a Housekeeping Gene of <i>Arabidopsis thaliana</i> Encoding S-Adenosylmethionine Synthetase. <i>Plant Cell</i> , <b>1989</b> , 1, 81	11.6	28
71	Syringyl lignin is unaltered by severe sinapyl alcohol dehydrogenase suppression in tobacco. <i>Plant Cell</i> , <b>2011</b> , 23, 4492-506	11.6	27
70	Cell wall remodeling under salt stress: Insights into changes in polysaccharides, feruloylation, lignification, and phenolic metabolism in maize. <i>Plant, Cell and Environment</i> , <b>2020</b> , 43, 2172-2191	8.4	25
69	Bioactivity: phenylpropanoids' best kept secret. <i>Current Opinion in Biotechnology</i> , <b>2019</b> , 56, 156-162	11.4	25
68	COSY catalyses trans-cis isomerization and lactonization in the biosynthesis of coumarins. <i>Nature Plants</i> , <b>2019</b> , 5, 1066-1075	11.5	24
67	Paternity analysis of <i>Populus nigra</i> L. offspring in a Belgian plantation of native and exotic poplars. <i>Annals of Forest Science</i> , <b>2006</b> , 63, 783-790	3.1	24
66	The Response of the Root Proteome to the Synthetic Strigolactone GR24 in <i>Arabidopsis</i> . <i>Molecular and Cellular Proteomics</i> , <b>2016</b> , 15, 2744-55	7.6	23
65	Bioethanol from poplar: a commercially viable alternative to fossil fuel in the European Union. <i>Biotechnology for Biofuels</i> , <b>2014</b> , 7, 113	7.8	23

64	Elucidating Tricin-Lignin Structures: Assigning Correlations in HSQC Spectra of Monocot Lignins. <i>Polymers</i> , <b>2018</b> , 10,	4.5	23
63	Application of AFLP-based molecular markers to breeding of <i>Populus</i> spp.. <i>Plant Growth Regulation</i> , <b>1996</b> , 20, 47-52	3.2	22
62	Potential of genetically engineered hybrid poplar for pyrolytic production of bio-based phenolic compounds. <i>Bioresource Technology</i> , <b>2016</b> , 207, 229-36	11	21
61	Accumulation of N-acetylglucosamine oligomers in the plant cell wall affects plant architecture in a dose-dependent and conditional manner. <i>Plant Physiology</i> , <b>2014</b> , 165, 290-308	6.6	20
60	Degradation of lignin β-aryl ether units in <i>Arabidopsis thaliana</i> expressing LigD, LigF and LigG from <i>Sphingomonas paucimobilis</i> SYK-6. <i>Plant Biotechnology Journal</i> , <b>2017</b> , 15, 581-593	11.6	20
59	Plant cell wall profiling by fast maximum likelihood reconstruction (FMLR) and region-of-interest (ROI) segmentation of solution-state 2D 1H-13C NMR spectra. <i>Biotechnology for Biofuels</i> , <b>2013</b> , 6, 45	7.8	18
58	Tissue-specific expression conferred by the S-adenosyl-L-methionine synthetase promoter of <i>Arabidopsis thaliana</i> in transgenic poplar. <i>Plant and Cell Physiology</i> , <b>1996</b> , 37, 1108-15	4.9	18
57	A high-performance liquid chromatography radio method for determination of L-ascorbic acid and guanosine 5'-diphosphate-L-galactose, key metabolites of the plant vitamin C pathway. <i>Analytical Biochemistry</i> , <b>2001</b> , 294, 161-8	3.1	18
56	Unravelling cell wall formation in the woody dicot stem <b>2001</b> , 239-274		18
55	Carpel, a new <i>Arabidopsis</i> epi-mutant of the SUPERMAN gene: phenotypic analysis and DNA methylation status. <i>Plant and Cell Physiology</i> , <b>1999</b> , 40, 961-72	4.9	18
54	Significant influence of lignin on axial elastic modulus of poplar wood at low microfibril angles under wet conditions. <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 4039-4047	7	17
53	The effect of altered lignin composition on mechanical properties of CINNAMYL ALCOHOL DEHYDROGENASE (CAD) deficient poplars. <i>Planta</i> , <b>2018</b> , 247, 887-897	4.7	17
52	Genomic nucleotide sequence of an <i>Arabidopsis thaliana</i> gene encoding a cinnamyl alcohol dehydrogenase. <i>Plant Physiology</i> , <b>1995</b> , 107, 285-6	6.6	17
51	RNAi-suppression of barley caffeic acid O-methyltransferase modifies lignin despite redundancy in the gene family. <i>Plant Biotechnology Journal</i> , <b>2019</b> , 17, 594-607	11.6	16
50	Carbon isotope compositions ( $\delta^{13}C$ ) of leaf, wood and holocellulose differ among genotypes of poplar and between previous land uses in a short-rotation biomass plantation. <i>Plant, Cell and Environment</i> , <b>2015</b> , 38, 144-56	8.4	16
49	Chemical Genetics Uncovers Novel Inhibitors of Lignification, Including p-Iodobenzoic Acid Targeting CINNAMATE-4-HYDROXYLASE. <i>Plant Physiology</i> , <b>2016</b> , 172, 198-220	6.6	16
48	Compensatory Guaiacyl Lignin Biosynthesis at the Expense of Syringyl Lignin in -Knockout Poplar. <i>Plant Physiology</i> , <b>2020</b> , 183, 123-136	6.6	16
47	cis-Cinnamic acid is a natural plant growth-promoting compound. <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 6293-6304	7	15

46	Genetically modified lignin below ground. <i>Nature Biotechnology</i> , <b>2007</b> , 25, 168-9	44.5	15
45	Side by Side Comparison of Chemical Compounds Generated by Aqueous Pretreatments of Maize Stover, Miscanthus and Sugarcane Bagasse. <i>Bioenergy Research</i> , <b>2014</b> , 7, 1466-1480	3.1	14
44	The Allelochemical MDCA Inhibits Lignification and Affects Auxin Homeostasis. <i>Plant Physiology</i> , <b>2016</b> , 172, 874-888	6.6	14
43	Forest biotechnology makes its position known. <i>Nature Biotechnology</i> , <b>1999</b> , 17, 1145	44.5	13
42	Genomic regions involved in productivity of two interspecific poplar families in Europe. 2. Biomass production and its relationships with tree architecture and phenology. <i>Tree Genetics and Genomes</i> , <b>2010</b> , 6, 533-554	2.1	12
41	Gene note. Isolation and expression analysis of an ABSCISIC ACID-INSENSITIVE 3 (AB13) homologue from <i>Populus trichocarpa</i> . <i>Journal of Experimental Botany</i> , <b>1998</b> , 49, 1059-1060	7	12
40	Tailoring poplar lignin without yield penalty by combining a null and haploinsufficient CINNAMOYL-CoA REDUCTASE2 allele. <i>Nature Communications</i> , <b>2020</b> , 11, 5020	17.4	12
39	A metabolomics characterisation of natural variation in the resistance of cassava to whitefly. <i>BMC Plant Biology</i> , <b>2019</b> , 19, 518	5.3	12
38	PtaRHE1, a <i>Populus tremula</i>    <i>Populus alba</i> RING-H2 protein of the ATL family, has a regulatory role in secondary phloem fibre development. <i>Plant Journal</i> , <b>2015</b> , 82, 978-990	6.9	11
37	Two chemically distinct root lignin barriers control solute and water balance. <i>Nature Communications</i> , <b>2021</b> , 12, 2320	17.4	10
36	Seedling developmental defects upon blocking CINNAMATE-4-HYDROXYLASE are caused by perturbations in auxin transport. <i>New Phytologist</i> , <b>2021</b> , 230, 2275-2291	9.8	10
35	Plant cell wall sugars: sweeteners for a bio-based economy. <i>Physiologia Plantarum</i> , <b>2018</b> , 164, 27-44	4.6	9
34	Lignin: Genetic Engineering and Impact on Pulping		9
33	Clade classification of monolignol biosynthesis gene family members reveals target genes to decrease lignin in <i>Lolium perenne</i> . <i>Plant Biology</i> , <b>2015</b> , 17, 877-92	3.7	8
32	Applications of molecular genetics for biosynthesis of novel lignins. <i>Polymer Degradation and Stability</i> , <b>1998</b> , 59, 47-52	4.7	8
31	Application of Py-GC/MS coupled with PARAFAC2 and PLS-DA to study fast pyrolysis of genetically engineered poplars. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2018</b> , 129, 101-111	6	7
30	Saccharification Protocol for Small-scale Lignocellulosic Biomass Samples to Test Processing of Cellulose into Glucose. <i>Bio-protocol</i> , <b>2016</b> , 6,	0.9	6
29	Maize specialized metabolome networks reveal organ-preferential mixed glycosides. <i>Computational and Structural Biotechnology Journal</i> , <b>2021</b> , 19, 1127-1144	6.8	6

28	Stacking of a low-lignin trait with an increased guaiacyl and 5-hydroxyguaiacyl unit trait leads to additive and synergistic effects on saccharification efficiency in. <i>Biotechnology for Biofuels</i> , <b>2018</b> , 11, 257	7.8	6
27	CRISPR-Cas9 editing of CAFFEOYL SHIKIMATE ESTERASE 1 and 2 shows their importance and partial redundancy in lignification in <i>Populus tremula</i> [P. alba]. <i>Plant Biotechnology Journal</i> , <b>2021</b> , 19, 2221-2234	11.6	6
26	Molecular Changes Concomitant with Vascular System Development in Mature Galls Induced by Root-Knot Nematodes in the Model Tree Host. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	5
25	Lignin Biosynthesis in Poplar: Genetic Engineering and Effects on Kraft Pulping. <i>Progress in Biotechnology</i> , <b>2001</b> , 18, 187-194		5
24	Characterization of the UDP-glycosyltransferase UGT72 Family in Poplar and Identification of Genes Involved in the Glycosylation of Monolignols. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	5
23	Seeing the forest for the trees: Retrieving plant secondary biochemical pathways from metabolome networks. <i>Computational and Structural Biotechnology Journal</i> , <b>2021</b> , 19, 72-85	6.8	5
22	A Century-Old Mystery Unveiled: Sekizaisou is a Natural Lignin Mutant. <i>Plant Physiology</i> , <b>2020</b> , 182, 1821-1828	16.8	4
21	EU Regulations Impede Market Introduction of GM Forest Trees. <i>Trends in Plant Science</i> , <b>2016</b> , 21, 283-285	1	4
20	ACCERBATIN, a small molecule at the intersection of auxin and reactive oxygen species homeostasis with herbicidal properties. <i>Journal of Experimental Botany</i> , <b>2017</b> , 68, 4185-4203	7	4
19	WAT1 (WALLS ARE THIN1) defines a novel auxin transporter in plants and integrates auxin signaling in secondary wall formation in Arabidopsis fibers. <i>BMC Proceedings</i> , <b>2011</b> , 5, O24	2.3	4
18	PIRIN2 suppresses S-type lignin accumulation in a noncell-autonomous manner in Arabidopsis xylem elements. <i>New Phytologist</i> , <b>2020</b> , 225, 1923-1935	9.8	4
17	Chorismate mutase and isochorismatase, two potential effectors of the migratory nematode <i>Hirschmanniella oryzae</i> , increase host susceptibility by manipulating secondary metabolite content of rice. <i>Molecular Plant Pathology</i> , <b>2020</b> , 21, 1634-1646	5.7	4
16	Rewired phenolic metabolism and improved saccharification efficiency of a <i>Zea mays</i> cinnamyl alcohol dehydrogenase 2 (zmcad2) mutant. <i>Plant Journal</i> , <b>2021</b> , 105, 1240-1257	6.9	4
15	Analytical Py-GC/MS of Genetically Modified Poplar for the Increased Production of Bio-aromatics. <i>Computational and Structural Biotechnology Journal</i> , <b>2019</b> , 17, 599-610	6.8	3
14	Certification for gene-edited forests. <i>Science</i> , <b>2019</b> , 365, 767-768	33.3	3
13	Transcript and metabolite profiling for the evaluation of tobacco tree and poplar as feedstock for the bio-based industry. <i>Journal of Visualized Experiments</i> , <b>2014</b> ,	1.6	3
12	The genome and metabolome of the tobacco tree, <i>Nicotiana glauca</i> : a potential renewable feedstock for the bioeconomy		3
11	Science, society and biosafety of a field trial with transgenic biofuel poplars. <i>BMC Proceedings</i> , <b>2011</b> , 5, 123	2.3	2

10	Shikimate Hydroxycinnamoyl Transferase (HCT) Activity Assays in <i>Populus nigra</i> . <i>Bio-protocol</i> , <b>2013</b> , 3,	0.9	2
9	Alterations in the phenylpropanoid pathway affect poplar ability for ectomycorrhizal colonisation and susceptibility to root-knot nematodes. <i>Mycorrhiza</i> , <b>2020</b> , 30, 555-566	3.9	2
8	Behind the Scenes: The Impact of Bioactive Phenylpropanoids on the Growth Phenotypes of Arabidopsis Lignin Mutants. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 734070	6.2	2
7	Xylem Peroxidases: Purification and Altered Expression. <i>Progress in Biotechnology</i> , <b>2001</b> , 18, 171-176		1
6	Incorporation of catechyl monomers into lignins: lignification from the non-phenolic end via Diels-Alder cycloaddition?. <i>Green Chemistry</i> , <b>2021</b> , 23, 8995-9013	10	1
5	Schengen-pathway controls spatially separated and chemically distinct lignin deposition in the endodermis		1
4	Micropyrolysis of natural poplar mutants with altered p-hydroxyphenyl lignin content. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2016</b> , 122, 377-386	6	1
3	Vessel- and ray-specific monolignol biosynthesis as an approach to engineer fiber-hypolignification and enhanced saccharification in poplar. <i>Plant Journal</i> , <b>2021</b> , 108, 752-765	6.9	1
2	Synthesis of hydroxycinnamoyl shikimates and their role in monolignol biosynthesis. <i>Holzforschung</i> , <b>2022</b> , 76, 133-144	2	1
1	Potential Impacts of GM Trees on the Environment and on Plant Dynamics—Questionnaire-Based Responses. <i>Forestry Sciences</i> , <b>2016</b> , 195-205		