Wout Boerjan

List of Publications by Year
in descending order

216 papers	33,693 citations	5558 82 h-index	3903 177 g-index
226 all docs	226 docs citations	226 times ranked	24673 citing authors

#	Article	IF	Citations
1	The Genome of Black Cottonwood, Populus trichocarpa (Torr. & Gray). Science, 2006, 313, 1596-1604.	6.0	3,945
2	LIGNINBIOSYNTHESIS. Annual Review of Plant Biology, 2003, 54, 519-546.	8.6	3,709
3	Lignin Biosynthesis and Structure. Plant Physiology, 2010, 153, 895-905.	2.3	1,990
4	Lignins: Natural polymers from oxidative coupling of 4-hydroxyphenyl- propanoids. Phytochemistry Reviews, 2004, 3, 29-60.	3.1	1,282
5	Genome-Wide Characterization of the Lignification Toolbox in Arabidopsis Â. Plant Physiology, 2003, 133, 1051-1071.	2.3	689
6	Reductive lignocellulose fractionation into soluble lignin-derived phenolic monomers and dimers and processable carbohydrate pulps. Energy and Environmental Science, 2015, 8, 1748-1763.	15.6	688
7	Lignin engineering. Current Opinion in Plant Biology, 2008, 11, 278-285.	3.5	603
8	Superroot, a recessive mutation in Arabidopsis, confers auxin overproduction.. Plant Cell, 1995, 7, 1405-1419.	3.1	592
9	Lignin structure and its engineering. Current Opinion in Biotechnology, 2019, 56, 240-249.	3.3	533
10	The role of the secondary cell wall in plant resistance to pathogens. Frontiers in Plant Science, 2014, 5, 358.	1.7	455
11	Lignin biosynthesis and its integration into metabolism. Current Opinion in Biotechnology, 2019, 56, 230-239.	3.3	440
12	A Molecular Timetable for Apical Bud Formation and Dormancy Induction in Poplar. Plant Cell, 2007, 19, 2370-2390.	3.1	436
13	Caffeoyl Shikimate Esterase (CSE) Is an Enzyme in the Lignin Biosynthetic Pathway in <i>Arabidopsis</i>. Science, 2013, 341, 1103-1106.	6.0	432
14	Gene discovery in the wood-forming tissues of poplar: Analysis of 5,692 expressed sequence tags. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 13330-13335.	3.3	409
15	Perturbation of Indole-3-Butyric Acid Homeostasis by the UDP-Glucosyltransferase<i>UGT74E2</i>Modulates<i>Arabidopsis</i>Architecture and Water Stress Tolerance. Plant Cell, 2010, 22, 2660-2679.	3.1	407
16	Structural variability and niche differentiation in the rhizosphere and endosphere bacterial microbiome of field-grown poplar trees. Microbiome, 2017, 5, 25.	4.9	406
17	Unravelling cell wall formation in the woody dicot stem. Plant Molecular Biology, 2001, 47, 239-274.	2.0	370
18	Molecular Phenotyping of the pal1 and pal2 Mutants of Arabidopsis thaliana Reveals Far-Reaching Consequences on Phenylpropanoid, Amino Acid, and Carbohydrate Metabolism. Plant Cell, 2004, 16, 2749-2771.	3.1	367

#	Article	IF	Citations
19	Mapping methyl jasmonate-mediated transcriptional reprogramming of metabolism and cell cycle progression in cultured <i>Arabidopsis</i> cells. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1380-1385.	3.3	367
20	Downregulation of Cinnamoyl-Coenzyme A Reductase in Poplar: Multiple-Level Phenotyping Reveals Effects on Cell Wall Polymer Metabolism and Structure. Plant Cell, 2007, 19, 3669-3691.	3.1	352
21	Field and pulping performances of transgenic trees with altered lignification. Nature Biotechnology, 2002, 20, 607-612.	9.4	350
22	Red Xylem and Higher Lignin Extractability by Down-Regulating a Cinnamyl Alcohol Dehydrogenase in Poplar. Plant Physiology, 1996, 112, 1479-1490.	2.3	342
23	Metabolic engineering of novel lignin in biomass crops. New Phytologist, 2012, 196, 978-1000.	3.5	338
24	Designer lignins: harnessing the plasticity of lignification. Current Opinion in Biotechnology, 2016, 37, 190-200.	3.3	333
25	Structural Alterations of Lignins in Transgenic Poplars with Depressed Cinnamyl Alcohol Dehydrogenase or Caffeic AcidO-Methyltransferase Activity Have an Opposite Impact on the Efficiency of Industrial Kraft Pulping1. Plant Physiology, 1999, 119, 153-164.	2.3	327
26	A Systems Biology View of Responses to Lignin Biosynthesis Perturbations in<i>Arabidopsis</i>Â. Plant Cell, 2012, 24, 3506-3529.	3.1	321
27	Tricin, a Flavonoid Monomer in Monocot Lignification Â. Plant Physiology, 2015, 167, 1284-1295.	2.3	283
28	Lignin: Genetic Engineering and Impact on Pulping. Critical Reviews in Biochemistry and Molecular Biology, 2003, 38, 305-350.	2.3	276
29	Lignin biosynthesis perturbations affect secondary cell wall composition and saccharification yield in Arabidopsis thaliana. Biotechnology for Biofuels, 2013, 6, 46.	6.2	251
30	ArabidopsisÂWAT1 is a vacuolar auxin transport facilitator required for auxin homoeostasis. Nature Communications, 2013, 4, 2625.	5.8	249
31	Genome-wide identification of NBS resistance genes in Populus trichocarpa. Plant Molecular Biology, 2008, 66, 619-636.	2.0	247
32	Quantitative Trait Loci and Candidate Gene Mapping of Bud Set and Bud Flush in Populus. Genetics, 2000, 154, 837-845.	1.2	245
33	Performance of 16s rDNA Primer Pairs in the Study of Rhizosphere and Endosphere Bacterial Microbiomes in Metabarcoding Studies. Frontiers in Microbiology, 2016, 7, 650.	1.5	237
34	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. Journal of Biological Chemistry, 2000, 275, 36899-36909.	1.6	235
35	Dense Genetic Linkage Maps of Three Populus Species (<i>Populus deltoides</i>, <i>P. nigra</i> and) Tj ETQq1 1 0.784314 rgBT /Overlo	1.2	235
36	Biosynthesis and Genetic Engineering of Lignin. Critical Reviews in Plant Sciences, 1998, 17, 125-197.	2.7	227

#	Article	IF	Citations
37	A novel lignin in poplar trees with a reduced caffeic acid/5â€hydroxyferulic acid <i>O</i>â€methyltransferase activity. Plant Journal, 1995, 8, 855-864.	2.8	221
38	Walls are thinâ€ƒ1 (WAT1), an Arabidopsis homolog of Medicago truncatula NODULIN21, is a tonoplast-localized protein required for secondary wall formation in fibers. Plant Journal, 2010, 63, 469-483.	2.8	201
39	Biosynthesis and Genetic Engineering of Lignin. , 0, .		201
40	Purification and Characterization of Peroxidases Correlated with Lignification in Poplar Xylem1. Plant Physiology, 1998, 118, 125-135.	2.3	197
41	Elucidation of new structures in lignins of CAD- and COMT-deficient plants by NMR. Phytochemistry, 2001, 57, 993-1003.	1.4	195
42	PtABI3 Impinges on the Growth and Differentiation of Embryonic Leaves during Bud Set in Poplar. Plant Cell, 2002, 14, 1885-1901.	3.1	188
43	Distinct phenotypes generated by overexpression and suppression of S-adenosyl-L-methionine synthetase reveal developmental patterns of gene silencing in tobacco.. Plant Cell, 1994, 6, 1401-1414.	3.1	187
44	Improved saccharification and ethanol yield from field-grown transgenic poplar deficient in cinnamoyl-CoA reductase. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 845-850.	3.3	186
45	Transcription factor WRKY23 assists auxin distribution patterns during <i>Arabidopsis</i> root development through local control on flavonol biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1554-1559.	3.3	184
46	Profiling of Oligolignols Reveals Monolignol Coupling Conditions in Lignifying Poplar Xylem. Plant Physiology, 2004, 136, 3537-3549.	2.3	180
47	Evolution of Plant Defense Mechanisms. Journal of Biological Chemistry, 1999, 274, 7516-7527.	1.6	173
48	Mass Spectrometry-Based Sequencing of Lignin Oligomers. Plant Physiology, 2010, 153, 1464-1478.	2.3	166
49	Molecular phenotyping of ligninâ€modified tobacco reveals associated changes in cellâ€wall metabolism, primary metabolism, stress metabolism and photorespiration. Plant Journal, 2007, 52, 263-285.	2.8	161
50	Genetical metabolomics of flavonoid biosynthesis inPopulus: a case study. Plant Journal, 2006, 47, 224-237.	2.8	140
51	Mass Spectrometry-Based Fragmentation as an Identification Tool in Lignomics. Analytical Chemistry, 2010, 82, 8095-8105.	3.2	140
52	Temperature signals contribute to the timing of photoperiodic growth cessation and bud set in poplar. Tree Physiology, 2011, 31, 472-482.	1.4	138
53	Polyploidy Affects Plant Growth and Alters Cell Wall Composition. Plant Physiology, 2019, 179, 74-87.	2.3	134
54	Proteinâ€“Protein and Proteinâ€“Membrane Associations in the Lignin Pathway. Plant Cell, 2012, 24, 4465-4482.	3.1	131

#	Article	IF	Citations
55	<scp>MYB</scp>103 is required for <i><scp>FERULATE</scp>â€5â€<scp>HYDROXYLASE</scp></i> expression and syringyl lignin biosynthesis in <scp>A</scp>rabidopsis stems. Plant Journal, 2013, 73, 63-76.	2.8	128
56	Bud set in poplar â€" genetic dissection of a complex trait in natural and hybrid populations. New Phytologist, 2011, 189, 106-121.	3.5	125
57	Cell-Specific and Conditional Expression of Caffeoyl-Coenzyme A-3-O-Methyltransferase in Poplar1. Plant Physiology, 2000, 123, 853-868.	2.3	122
58	Joint GCâ€"MS and LCâ€"MS platforms for comprehensive plant metabolomics: Repeatability and sample pre-treatment. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2009, 877, 3572-3580.	1.2	122
59	Lignification in Sugarcane: Biochemical Characterization, Gene Discovery, and Expression Analysis in Two Genotypes Contrasting for Lignin Content. Plant Physiology, 2013, 163, 1539-1557.	2.3	120
60	Identification of AFLP molecular markers for resistance against Melampsora larici-populina in Populus. Theoretical and Applied Genetics, 1996, 93-93, 733-737.	1.8	118
61	Wood formation in poplar: identification, characterization, and seasonal variation of xylem proteins. Planta, 2000, 210, 589-598.	1.6	117
62	Structure of the genetic diversity in black poplar (Populus nigra L.) populations across European river systems: Consequences for conservation and restoration. Forest Ecology and Management, 2008, 255, 1388-1399.	1.4	116
63	Systematic Structural Characterization of Metabolites in <i>Arabidopsis</i> via Candidate Substrate-Product Pair Networks Â. Plant Cell, 2014, 26, 929-945.	3.1	116
64	Biotechnology and the domestication of forest trees. Current Opinion in Biotechnology, 2005, 16, 159-166.	3.3	115
65	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). Plant Journal, 2008, 53, 368-379.	2.8	114
66	Engineering traditional monolignols out of lignin by concomitant up-regulation of F5H1 and down-regulation of COMT in Arabidopsis. Plant Journal, 2010, 64, 885-897.	2.8	114
67	Towards a carbon-negative sustainable bio-based economy. Frontiers in Plant Science, 2013, 4, 174.	1.7	114
68	Gene expression during the induction, maintenance, and release of dormancy in apical buds of poplar. Journal of Experimental Botany, 2007, 58, 4047-4060.	2.4	112
69	NMR Evidence for Benzodioxane Structures Resulting from Incorporation of 5-Hydroxyconiferyl Alcohol into Lignins ofO-Methyltransferase-Deficient Poplars. Journal of Agricultural and Food Chemistry, 2001, 49, 86-91.	2.4	109
70	Accelerating the domestication of forest trees in a changing world. Trends in Plant Science, 2012, 17, 64-72.	4.3	109
71	Characterization of cis-elements required for vascular expression of the Cinnamoyl CoA Reductase gene and for protein-DNA complex formation. Plant Journal, 2000, 23, 663-676.	2.8	108
72	Intraspecific and interspecific genetic and phylogenetic relationships in the genus Populus based on AFLP markers. Theoretical and Applied Genetics, 2005, 111, 1440-1456.	1.8	103

#	Article	IF	Citations
73	Partial purification and identification of GDP-mannose 3",5"-epimerase of Arabidopsis thaliana, a key enzyme of the plant vitamin C pathway. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 14843-14848.	3.3	102
74	Constitutive Overexpression of Cystathionine Î³-Synthase in Arabidopsis Leads to Accumulation of Soluble Methionine and<i>S</i>-Methylmethionine. Plant Physiology, 2002, 128, 95-107.	2.3	100
75	Naturally p-Hydroxybenzoylated Lignins in Palms. Bioenergy Research, 2015, 8, 934-952.	2.2	99
76	Lignin engineering in field-grown poplar trees affects the endosphere bacterial microbiome. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2312-2317.	3.3	99
77	Different Routes for Conifer- and Sinapaldehyde and Higher Saccharification upon Deficiency in the Dehydrogenase CAD1. Plant Physiology, 2017, 175, 1018-1039.	2.3	99
78	A novel seed protein gene from Vicia faba is developmentally regulated in transgenic tobacco and Arabidopsis plants. Molecular Genetics and Genomics, 1991, 225, 459-467.	2.4	95
79	Passive membrane transport of lignin-related compounds. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23117-23123.	3.3	94
80	Breeding with rare defective alleles (BRDA): a natural <i><scp>P</scp>opulus nigra </i><scp>HCT</scp> mutant with modified lignin as a case study. New Phytologist, 2013, 198, 765-776.	3.5	92
81	Lignin Engineering in Forest Trees. Frontiers in Plant Science, 2019, 10, 912.	1.7	92
82	Small Glycosylated Lignin Oligomers Are Stored in Arabidopsis Leaf Vacuoles. Plant Cell, 2015, 27, 695-710.	3.1	90
83	Silencing <i>CAFFEOYL SHIKIMATE ESTERASE</i> Affects Lignification and Improves Saccharification in Poplar. Plant Physiology, 2017, 175, 1040-1057.	2.3	90
84	ABI3 Affects Plastid Differentiation in Dark-Grown Arabidopsis Seedlings. Plant Cell, 2000, 12, 35-52.	3.1	89
85	Phenolic Profiling of Caffeic Acid O-Methyltransferase-Deficient Poplar Reveals Novel Benzodioxane Oligolignols. Plant Physiology, 2004, 136, 4023-4036.	2.3	86
86	The ABSCISIC ACID-INSENSITIVE 3 (ABI3) gene is expressed during vegetative quiescence processes in Arabidopsis. Plant, Cell and Environment, 1999, 22, 261-270.	2.8	84
87	Silencing <i>CHALCONE SYNTHASE</i> in Maize Impedes the Incorporation of Tricin into Lignin and Increases Lignin Content. Plant Physiology, 2017, 173, 998-1016.	2.3	84
88	Preparation and relevance of a cross-coupling product between sinapyl alcohol and sinapyl p-hydroxybenzoate. Organic and Biomolecular Chemistry, 2004, 2, 2888.	1.5	83
89	Natural Hypolignification Is Associated with Extensive Oligolignol Accumulation in Flax Stems Â Â. Plant Physiology, 2012, 158, 1893-1915.	2.3	82
90	Largeâ€scale detection of rare variants via pooled multiplexed nextâ€generation sequencing: towards nextâ€generation Ecotilling. Plant Journal, 2011, 67, 736-745.	2.8	81

#	Article	IF	Citations
91	Cell wall remodeling under salt stress: Insights into changes in polysaccharides, feruloylation, lignification, and phenolic metabolism in maize. Plant, Cell and Environment, 2020, 43, 2172-2191.	2.8	79
92	Upstream sequences regulating legumin gene expression in heterologous transgenic plants. Molecular Genetics and Genomics, 1991, 225, 121-128.	2.4	76
93	Vessel-Specific Reintroduction of CINNAMOYL-COA REDUCTASE1 (CCR1) in Dwarfed <i>ccr1</i> Mutants Restores Vessel and Xylary Fiber Integrity and Increases Biomass. Plant Physiology, 2018, 176, 611-633.	2.3	76
94	Expression of SofLAC, a new laccase in sugarcane, restores lignin content but not S:G ratio of Arabidopsis lac17 mutant. Journal of Experimental Botany, 2013, 64, 1769-1781.	2.4	72
95	Visualization of plant cell wall lignification using fluorescenceâ€tagged monolignols. Plant Journal, 2013, 76, 357-366.	2.8	70
96	Unravelling the impact of lignin on cell wall mechanics: a comprehensive study on young poplar trees downregulated for <scp>CINNAMYL ALCOHOL DEHYDROGENASE</scp> (<scp>CAD</scp>). Plant Journal, 2017, 91, 480-490.	2.8	68
97	Impact of the Absence of Stem-Specific Î²-Glucosidases on Lignin and Monolignols Â. Plant Physiology, 2012, 160, 1204-1217.	2.3	67
98	Genetic and physical mapping of Melampsora rust resistance genes in Populus and characterization of linkage disequilibrium and flanking genomic sequence. New Phytologist, 2004, 164, 95-105.	3.5	66
99	Ex-situ conservation of Black poplar in Europe: genetic diversity in nine gene bank collections and their value for nature development. Theoretical and Applied Genetics, 2004, 108, 969-981.	1.8	65
100	COSY catalyses transâ€"cis isomerization and lactonization in the biosynthesis of coumarins. Nature Plants, 2019, 5, 1066-1075.	4.7	64
101	ARABIDOPSIS DEHISCENCE ZONE POLYGALACTURONASE 1 (ADPG1) releases latent defense signals in stems with reduced lignin content. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3281-3290.	3.3	64
102	Mutation of the Inducible <i>ARABIDOPSIS THALIANA CYTOCHROME P450 REDUCTASE2</i> Alters Lignin Composition and Improves Saccharification Â Â. Plant Physiology, 2014, 166, 1956-1971.	2.3	63
103	Improving total saccharification yield of Arabidopsis plants by vessel-specific complementation of caffeoyl shikimate esterase (cse) mutants. Biotechnology for Biofuels, 2016, 9, 139.	6.2	63
104	Modeling Lignin Polymerization. I. Simulation Model of Dehydrogenation Polymers Â. Plant Physiology, 2010, 153, 1332-1344.	2.3	61
105	cis-Cinnamic Acid Is a Novel, Natural Auxin Efflux Inhibitor That Promotes Lateral Root Formation. Plant Physiology, 2017, 173, 552-565.	2.3	61
106	Overexpression of <i><scp>GA</scp>20â€‹<scp>OXIDASE</scp>1</i> impacts plant height, biomass allocation and saccharification efficiency in maize. Plant Biotechnology Journal, 2016, 14, 997-1007.	4.1	59
107	Strangled at birth? Forest biotech and the Convention on Biological Diversity. Nature Biotechnology, 2009, 27, 519-527.	9.4	58
108	The 20-year environmental safety record of GM trees. Nature Biotechnology, 2010, 28, 656-658.	9.4	55

#	Article	IF	Citations
109	Maize Tricin-Oligolignol Metabolites and their Implications for Monocot Lignification. Plant Physiology, 2016, 171, pp.02012.2016.	2.3	55
110	Gene flow between cultivated poplars and native black poplar (Populus nigra L.): a case study along the river Meuse on the Dutchâ€"Belgian border. Forest Ecology and Management, 2004, 197, 307-310.	1.4	53
111	NMR characterization of lignins from transgenic poplars with suppressed caffeic acid O-methyltransferase activity. Journal of the Chemical Society, Perkin Transactions 1, 2001, , 2939-2945.	1.3	52
112	Sequencing around 5-Hydroxyconiferyl Alcohol-Derived Units in Caffeic Acid <i>O</i>-Methyltransferase-Deficient Poplar Lignins Â. Plant Physiology, 2010, 153, 569-579.	2.3	52
113	Strong Cellular Preference in the Expression of a Housekeeping Gene of Arabidopsis thaliana Encoding S-Adenosylmethionine Synthetase. Plant Cell, 1989, 1, 81.	3.1	51
114	Phenylcoumaran benzylic ether reductase, a prominent poplar xylem protein, is strongly associated with phenylpropanoid biosynthesis in lignifying cells. Planta, 2000, 211, 502-509.	1.6	50
115	Introducing curcumin biosynthesis in Arabidopsis enhances lignocellulosic biomass processing. Nature Plants, 2019, 5, 225-237.	4.7	50
116	Bioactivity: phenylpropanoidsâ€™ best kept secret. Current Opinion in Biotechnology, 2019, 56, 156-162.	3.3	49
117	Two chemically distinct root lignin barriers control solute and water balance. Nature Communications, 2021, 12, 2320.	5.8	48
118	Retromer Subunits VPS35A and VPS29 Mediate Prevacuolar Compartment (PVC) Function in Arabidopsis. Molecular Plant, 2013, 6, 1849-1862.	3.9	47
119	The syringaldazine-oxidizing peroxidase PXP 3-4 from poplar xylem: cDNA isolation, characterization and expression. Plant Molecular Biology, 2001, 47, 581-593.	2.0	46
120	A Key Role for Apoplastic H₂O₂ in Norway Spruce Phenolic Metabolism. Plant Physiology, 2017, 174, 1449-1475.	2.3	46
121	Biotechnology in trees: Towards improved paper pulping by lignin engineering. Euphytica, 2001, 118, 185-195.	0.6	45
122	Stacking transgenes in forest trees. Trends in Plant Science, 2003, 8, 363-365.	4.3	45
123	Introduction of chemically labile substructures into <i>Arabidopsis</i> lignin through the use of LigD, the CÎ±â€dehydrogenase from <i>Sphingobium</i> sp. strain <scp>SYK</scp>â€6. Plant Biotechnology Journal, 2015, 13, 821-832.	4.1	45
124	Molecular changes associated with the setting up of secondary growth in aspen. Journal of Experimental Botany, 2005, 56, 2211-2227.	2.4	43
125	Potential of Arabidopsis systems biology to advance the biofuel field. Trends in Biotechnology, 2010, 28, 543-547.	4.9	43
126	Phenylcoumaran Benzylic Ether Reductase Prevents Accumulation of Compounds Formed under Oxidative Conditions in Poplar Xylem. Plant Cell, 2014, 26, 3775-3791.	3.1	43

#	Article	IF	Citations
127	Metabolite Profiling Reveals a Role for Atypical Cinnamyl Alcohol Dehydrogenase CAD1 in the Synthesis of Coniferyl Alcohol in Tobacco Xylem. Plant Molecular Biology, 2005, 59, 753-769.	2.0	42
128	Suppression of CCR impacts metabolite profile and cell wall composition in Pinus radiata tracheary elements. Plant Molecular Biology, 2013, 81, 105-117.	2.0	42
129	Ectopic Lignification in the Flax lignified bast fiber1 Mutant Stem Is Associated with Tissue-Specific Modifications in Gene Expression and Cell Wall Composition Â. Plant Cell, 2014, 26, 4462-4482.	3.1	42
130	Tailoring poplar lignin without yield penalty by combining a null and haploinsufficient CINNAMOYL-CoA REDUCTASE2 allele. Nature Communications, 2020, 11, 5020.	5.8	41
131	Factors regulating the expression of cell cycle genes in individual buds ofPopulus. Planta, 1997, 201, 43-52.	1.6	40
132	A click chemistry strategy for visualization of plant cell wall lignification. Chemical Communications, 2014, 50, 12262-12265.	2.2	39
133	Annotation of a 95-kb Populus deltoides genomic sequence reveals a disease resistance gene cluster and novel class I and class II transposable elements. Theoretical and Applied Genetics, 2004, 109, 10-22.	1.8	37
134	<scp>RNA</scp>iâ€suppression of barley caffeic acid <i>O</i>â€methyltransferase modifies lignin despite redundancy in the gene family. Plant Biotechnology Journal, 2019, 17, 594-607.	4.1	37
135	Postglacial migration of Populus nigra L.: lessons learnt from chloroplast DNA. Forest Ecology and Management, 2005, 206, 71-90.	1.4	36
136	Compensatory Guaiacyl Lignin Biosynthesis at the Expense of Syringyl Lignin in <i>4CL1</i>-Knockout Poplar. Plant Physiology, 2020, 183, 123-136.	2.3	36
137	Expression of a poplar cDNA encoding a ferulate-5-hydroxylase/coniferaldehyde 5-hydroxylase increases S lignin deposition in Arabidopsis thaliana. Plant Physiology and Biochemistry, 2002, 40, 1087-1096.	2.8	35
138	Genomic regions involved in productivity of two interspecific poplar families in Europe. 1. Stem height, circumference and volume. Tree Genetics and Genomes, 2009, 5, 147-164.	0.6	35
139	Syringyl Lignin Is Unaltered by Severe Sinapyl Alcohol Dehydrogenase Suppression in Tobacco. Plant Cell, 2011, 23, 4492-4506.	3.1	34
140	Fine Mapping and Identification of Nucleotide Binding Site/Leucine-Rich Repeat Sequences at the MER Locus in Populus deltoides â€˜S9-2â€™. Phytopathology, 2001, 91, 1069-1073.	1.1	32
141	Constitutive overexpression of cystathionine gamma-synthase in Arabidopsis leads to accumulation of soluble methionine and S-methylmethionine. Plant Physiology, 2002, 128, 95-107.	2.3	32
142	cis-Cinnamic acid is a natural plant growth-promoting compound. Journal of Experimental Botany, 2019, 70, 6293-6304.	2.4	31
143	A New Bioassay for Auxins and Cytokinins. Plant Physiology, 1992, 99, 1090-1098.	2.3	30
144	Bioethanol from poplar: a commercially viable alternative to fossil fuel in the European Union. Biotechnology for Biofuels, 2014, 7, 113.	6.2	30

#	Article	IF	Citations
145	Elucidating Tricin-Lignin Structures: Assigning Correlations in HSQC Spectra of Monocot Lignins. Polymers, 2018, 10, 916.	2.0	30
146	Degradation of lignin Î²â€aryl ether units in <i>Arabidopsis thaliana</i> expressing <i>LigD</i>,<i> LigF</i> and <i>LigG</i> from <i>Sphingomonas paucimobilis </i><scp>SYK</scp>â€6. Plant Biotechnology Journal, 2017, 15, 581-593.	4.1	29
147	Significant influence of lignin on axial elastic modulus of poplar wood at low microfibril angles under wet conditions. Journal of Experimental Botany, 2019, 70, 4039-4047.	2.4	29
148	CRISPRâ€Cas9 editing of CAFFEOYL SHIKIMATE ESTERASE 1 and 2 shows their importance and partial redundancy in lignification in <i>Populus tremula</i> Ã— <i>P. alba</i>. Plant Biotechnology Journal, 2021, 19, 2221-2234.	4.1	29
149	Application of AFLPâ„¢-based molecular markers to breeding of Populus spp.. Plant Growth Regulation, 1996, 20, 47-52.	1.8	28
150	The Response of the Root Proteome to the Synthetic Strigolactone GR24 in Arabidopsis. Molecular and Cellular Proteomics, 2016, 15, 2744-2755.	2.5	28
151	Seedling developmental defects upon blocking CINNAMATEâ€4â€HYDROXYLASE are caused by perturbations in auxin transport. New Phytologist, 2021, 230, 2275-2291.	3.5	27
152	Chemical Genetics Uncovers Novel Inhibitors of Lignification, Including <i>p</i>-Iodobenzoic Acid Targeting CINNAMATE-4-HYDROXYLASE. Plant Physiology, 2016, 172, 198-220.	2.3	26
153	Potential of genetically engineered hybrid poplar for pyrolytic production of bio-based phenolic compounds. Bioresource Technology, 2016, 207, 229-236.	4.8	26
154	A metabolomics characterisation of natural variation in the resistance of cassava to whitefly. BMC Plant Biology, 2019, 19, 518.	1.6	26
155	Accumulation of <i>N</i>-Acetylglucosamine Oligomers in the Plant Cell Wall Affects Plant Architecture in a Dose-Dependent and Conditional Manner Â Â. Plant Physiology, 2014, 165, 290-308.	2.3	25
156	The effect of altered lignin composition on mechanical properties of CINNAMYL ALCOHOL DEHYDROGENASE (CAD) deficient poplars. Planta, 2018, 247, 887-897.	1.6	25
157	Characterization of the UDP-glycosyltransferase UGT72 Family in Poplar and Identification of Genes Involved in the Glycosylation of Monolignols. International Journal of Molecular Sciences, 2020, 21, 5018.	1.8	25
158	Paternity analysis ofPopulus nigraL. offspring in a Belgian plantation of native and exotic poplars. Annals of Forest Science, 2006, 63, 783-790.	0.8	25
159	A Century-Old Mystery Unveiled: Sekizaisou is a Natural Lignin Mutant. Plant Physiology, 2020, 182, 1821-1828.	2.3	24
160	A High-Performance Liquid Chromatography Radio Method for Determination of l-Ascorbic Acid and Guanosine 5â€²-Diphosphate-l-Galactose, Key Metabolites of the Plant Vitamin C Pathway. Analytical Biochemistry, 2001, 294, 161-168.	1.1	22
161	Unravelling cell wall formation in the woody dicot stem. , 2001, , 239-274.		21
162	carpel, a New Arabidopsis Epi-Mutant of the SUPERMAN Gene: Phenotypic Analysis and DNA Methylation Status. Plant and Cell Physiology, 1999, 40, 961-972.	1.5	20

#	Article	IF	Citations
163	Genomic Nucleotide Sequence of an Arabidopsis thaliana Gene Encoding a Cinnamyl Alcohol Dehydrogenase. Plant Physiology, 1995, 107, 285-286.	2.3	19
164	Tissue-Specific Expression Conferred by the S-Adenosyl-L-Methionine Synthetase Promoter of Arabidopsis thaliana in Transgenic Poplar. Plant and Cell Physiology, 1996, 37, 1108-1115.	1.5	19
165	Side by Side Comparison of Chemical Compounds Generated by Aqueous Pretreatments of Maize Stover, Miscanthus and Sugarcane Bagasse. Bioenergy Research, 2014, 7, 1466-1480.	2.2	19
166	Plant cell wall profiling by fast maximum likelihood reconstruction (FMLR) and region-of-interest (ROI) segmentation of solution-state 2D 1Hâ€“13C NMR spectra. Biotechnology for Biofuels, 2013, 6, 45.	6.2	18
167	Carbon isotope compositions (Î´¹³C) of leaf, wood and holocellulose differ among genotypes of poplar and between previous land uses in a shortâ€rotation biomass plantation. Plant, Cell and Environment, 2015, 38, 144-156.	2.8	18
168	Hydroxycinnamic acidâ€modified xylan side chains and their crossâ€linking products in rice cell walls are reduced in the <i>Xylosyl arabinosyl substitution of xylan 1</i> mutant. Plant Journal, 2022, 109, 1152-1167.	2.8	18
169	Pta<scp>RHE</scp>1, a <i>Populus tremula</i>ÂÃ—Â<i>Populus alba </i><scp>RING</scp>â€H2 protein of the <scp>ATL</scp> family, has a regulatory role in secondary phloem fibre development. Plant Journal, 2015, 82, 978-990.	2.8	17
170	Gene note. Isolation and expression analysis of an ABSCISIC ACID-INSENSITIVE 3 (AB13) homologue from Populus trichocarpa. Journal of Experimental Botany, 1998, 49, 1059-1060.	2.4	17
171	Forest biotechnology makes its position known. Nature Biotechnology, 1999, 17, 1145-1145.	9.4	16
172	Genetically modified lignin below ground. Nature Biotechnology, 2007, 25, 168-169.	9.4	15
173	Maize specialized metabolome networks reveal organ-preferential mixed glycosides. Computational and Structural Biotechnology Journal, 2021, 19, 1127-1144.	1.9	15
174	Behind the Scenes: The Impact of Bioactive Phenylpropanoids on the Growth Phenotypes of Arabidopsis Lignin Mutants. Frontiers in Plant Science, 2021, 12, 734070.	1.7	15
175	The allelochemical MDCA inhibits lignification and affects auxin homeostasis. Plant Physiology, 2016, 172, pp.01972.2015.	2.3	14
176	Plant cell wall sugars: sweeteners for a bioâ€based economy. Physiologia Plantarum, 2018, 164, 27-44.	2.6	14
177	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 Arabidopsis thaliana. Biotechnology for Biofuels, 2018, 11, 257.	6.2	14
178	Application of Py-GC/MS coupled with PARAFAC2 and PLS-DA to study fast pyrolysis of genetically engineered poplars. Journal of Analytical and Applied Pyrolysis, 2018, 129, 101-111.	2.6	13
179	Rewired phenolic metabolism and improved saccharification efficiency of a <i>Zea mays cinnamyl alcohol dehydrogenase 2 (zmcad2)</i> mutant. Plant Journal, 2021, 105, 1240-1257.	2.8	13
180	Overexpression of the scopoletin biosynthetic pathway enhances lignocellulosic biomass processing. Science Advances, 2022, 8, .	4.7	13

#	Article	IF	Citations
181	Genomic regions involved in productivity of two interspecific poplar families in Europe. 2. Biomass production and its relationships with tree architecture and phenology. Tree Genetics and Genomes, 2010, 6, 533-554.	0.6	12
182	Certification for gene-edited forests. Science, 2019, 365, 767-768.	6.0	12
183	PIRIN2 suppresses Sâ€type lignin accumulation in a noncellâ€autonomous manner in Arabidopsis xylem elements. New Phytologist, 2020, 225, 1923-1935.	3.5	12
184	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. Molecular Plant Pathology, 2020, 21, 1634-1646.	2.0	12
185	Integrative genetical genomics in Arabidopsis. Nature Genetics, 2009, 41, 144-145.	9.4	11
186	WAT1 (WALLS ARE THIN1) defines a novel auxin transporter in plants and integrates auxin signaling in secondary wall formation in Arabidopsis fibers. BMC Proceedings, 2011, 5, O24.	1.8	11
187	Vesselâ€•and rayâ€specific monolignol biosynthesis as an approach to engineer fiberâ€hypolignification and enhanced saccharification in poplar. Plant Journal, 2021, 108, 752-765.	2.8	11
188	Saccharification Protocol for Small-scale Lignocellulosic Biomass Samples to Test Processing of Cellulose into Glucose. Bio-protocol, 2016, 6, .	0.2	11
189	Applications of molecular genetics for biosynthesis of novel lignins. Polymer Degradation and Stability, 1998, 59, 47-52.	2.7	10
190	Clade classification of monolignol biosynthesis gene family members reveals target genes to decrease lignin in <i>Lolium perenne</i>. Plant Biology, 2015, 17, 877-892.	1.8	10
191	Analytical Py-GC/MS of Genetically Modified Poplar for the Increased Production of Bio-aromatics. Computational and Structural Biotechnology Journal, 2019, 17, 599-610.	1.9	10
192	Molecular Changes Concomitant with Vascular System Development in Mature Galls Induced by Root-Knot Nematodes in the Model Tree Host Populus tremula Ã— P. alba. International Journal of Molecular Sciences, 2020, 21, 406.	1.8	10
193	Seeing the forest for the trees: Retrieving plant secondary biochemical pathways from metabolome networks. Computational and Structural Biotechnology Journal, 2021, 19, 72-85.	1.9	10
194	Rerouting of the lignin biosynthetic pathway by inhibition of cytosolic shikimate recycling in transgenic hybrid aspen. Plant Journal, 2022, 110, 358-376.	2.8	10
195	Alterations in the phenylpropanoid pathway affect poplar ability for ectomycorrhizal colonisation and susceptibility to root-knot nematodes. Mycorrhiza, 2020, 30, 555-566.	1.3	9
196	Lignin: Genetic Engineering and Impact on Pulping. , 0, .		9
197	Field and saccharification performances of poplars severely downregulated in <i>CAD1</i>. New Phytologist, 2022, 236, 2075-2090.	3.5	9
198	Engineering Curcumin Biosynthesis in Poplar Affects Lignification and Biomass Yield. Frontiers in Plant Science, 0, 13, .	1.7	8

#	Article	IF	Citations
199	Lignin Biosynthesis in Poplar: Genetic Engineering and Effects on Kraft Pulping. Progress in Biotechnology, 2001, 18, 187-194.	0.2	7
200	ACCERBATIN, a small molecule at the intersection of auxin and reactive oxygen species homeostasis with herbicidal properties. Journal of Experimental Botany, 2017, 68, 4185-4203.	2.4	7
201	EU Regulations Impede Market Introduction of GM Forest Trees. Trends in Plant Science, 2016, 21, 283-285.	4.3	6
202	Editorial: Forest Genomics and Biotechnology. Frontiers in Plant Science, 2019, 10, 1187.	1.7	6
203	Editorial overview: Plant biotechnology â€" lignin engineering. Current Opinion in Biotechnology, 2019, 56, iii-v.	3.3	6
204	Incorporation of catechyl monomers into lignins: lignification from the non-phenolic end<i>via</i>Dielsâ€"Alder cycloaddition?. Green Chemistry, 2021, 23, 8995-9013.	4.6	6
205	Transcriptional and metabolic changes associated with internode development and reduced cinnamyl alcohol dehydrogenase activity in sorghum. Journal of Experimental Botany, 2022, 73, 6307-6333.	2.4	6
206	Xylem Peroxidases: Purification and Altered Expression. Progress in Biotechnology, 2001, 18, 171-176.	0.2	4
207	Transcript and Metabolite Profiling for the Evaluation of Tobacco Tree and Poplar as Feedstock for the Bio-based Industry. Journal of Visualized Experiments, 2014, , .	0.2	3
208	Improved chemical pulping and saccharification of a natural mulberry mutant deficient in cinnamyl alcohol dehydrogenase. Holzforschung, 2021, .	0.9	3
209	Shikimate Hydroxycinnamoyl Transferase (HCT) Activity Assays in Populus nigra. Bio-protocol, 2013, 3, .	0.2	3
210	Synthesis of hydroxycinnamoyl shikimates and their role in monolignol biosynthesis. Holzforschung, 2022, 76, 133-144.	0.9	3
211	Science, society and biosafety of a field trial with transgenic biofuel poplars. BMC Proceedings, 2011, 5, I23.	1.8	2
212	Environmental impact assessment and monitoring of genetically modified trees. BMC Proceedings, 2011, 5, .	1.8	1
213	Micropyrolysis of natural poplar mutants with altered p-hydroxyphenyl lignin content. Journal of Analytical and Applied Pyrolysis, 2016, 122, 377-386.	2.6	1
214	Transgenic. Molecular Genetics and Genomics, 1996, 251, 365.	2.4	0
215	Potential Impacts of GM Trees on the Environment and on Plant â€œOmicsâ€: Questionnaire-Based Responses. Forestry Sciences, 2016, , 195-205.	0.4	0
216	Flexible and digestible wood caused by viral-induced alteration of cell wall composition. Current Biology, 2022, , .	1.8	0