Shawn D Mansfield

List of Publications by Year
in descending order

257 papers	16,925 citations	10986 71 h-index	19749 117 g-index
260 all docs	260 docs citations	260 times ranked	14660 citing authors

#	Article	IF	Citations
1	Substrate and Enzyme Characteristics that Limit Cellulose Hydrolysis. Biotechnology Progress, 1999, 15, 804-816.	2.6	702
2	Whole plant cell wall characterization using solution-state 2D NMR. Nature Protocols, 2012, 7, 1579-1589.	12.0	563
3	The effect of initial pore volume and lignin content on the enzymatic hydrolysis of softwoods. Bioresource Technology, 1998, 64, 113-119.	9.6	376
4	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.	6.6	352
5	The Effects on Lignin Structure of Overexpression of Ferulate 5-Hydroxylase in Hybrid Poplar1 Â. Plant Physiology, 2009, 150, 621-635.	4.8	350
6	Sucrose synthase affects carbon partitioning to increase cellulose production and altered cell wall ultrastructure. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13118-13123.	7.1	337
7	Monolignol Ferulate Transferase Introduces Chemically Labile Linkages into the Lignin Backbone. Science, 2014, 344, 90-93.	12.6	337
8	Designer lignins: harnessing the plasticity of lignification. Current Opinion in Biotechnology, 2016, 37, 190-200.	6.6	333
9	Characterisation of a pine MYB that regulates lignification. Plant Journal, 2003, 36, 743-754.	5.7	304
10	Fasciclin-like arabinogalactan proteins: specialization for stem biomechanics and cell wall architecture in Arabidopsis and Eucalyptus. Plant Journal, 2010, 62, 689-703.	5.7	289
11	Significant Increases in Pulping Efficiency in C4H-F5H-Transformed Poplars:â€‰ Improved Chemical Savings and Reduced Environmental Toxins. Journal of Agricultural and Food Chemistry, 2003, 51, 6178-6183.	5.2	263
12	Global transcript profiling of primary stems from Arabidopsis thaliana identifies candidate genes for missing links in lignin biosynthesis and transcriptional regulators of fiber differentiation. Plant Journal, 2005, 42, 618-640.	5.7	254
13	Comparative Transcriptome and Secretome Analysis of Wood Decay Fungi <i>Postia placenta</i> and <i>Phanerochaete chrysosporium</i>. Applied and Environmental Microbiology, 2010, 76, 3599-3610.	3.1	237
14	Cellulase Adsorption and an Evaluation of Enzyme Recycle During Hydrolysis of Steam-Exploded Softwood Residues. Applied Biochemistry and Biotechnology, 2002, 98-100, 641-654.	2.9	196
15	RNAi-mediated suppression of <i>p</i> -coumaroyl-CoA 3â€²-hydroxylase in hybrid poplar impacts lignin deposition and soluble secondary metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4501-4506.	7.1	187
16	The Class II <i>KNOX</i> gene <i>KNAT7</i> negatively regulates secondary wall formation in <i>Arabidopsis</i> and is functionally conserved in <i>Populus</i>. New Phytologist, 2012, 194, 102-115.	7.3	186
17	Geographical and environmental gradients shape phenotypic trait variation and genetic structure in <i><scp>P</scp>opulus trichocarpa</i>. New Phytologist, 2014, 201, 1263-1276.	7.3	185
18	Involvement of Pinus taeda MYB1 and MYB8 in phenylpropanoid metabolism and secondary cell wall biogenesis: a comparative in planta analysis. Journal of Experimental Botany, 2008, 59, 3925-3939.	4.8	183

#	Article	IF	Citations
19	MYB75 Functions in Regulation of Secondary Cell Wall Formation in the Arabidopsis Inflorescence Stem. Plant Physiology, 2010, 154, 1428-1438.	4.8	174
20	Genome resequencing reveals multiscale geographic structure and extensive linkage disequilibrium in the forest tree <i>Populus trichocarpa</i>. New Phytologist, 2012, 196, 713-725.	7.3	173
21	Genomeâ€wide association implicates numerous genes underlying ecological trait variation in natural populations of <i>Populus trichocarpa</i>. New Phytologist, 2014, 203, 535-553.	7.3	171
22	Clone history shapes <i>Populus</i> drought responses. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12521-12526.	7.1	170
23	Tolerance and adaptation of ethanologenic yeasts to lignocellulosic inhibitory compounds. Biotechnology and Bioengineering, 2006, 93, 1196-1206.	3.3	165
24	Non-structural carbohydrates in woody plants compared among laboratories. Tree Physiology, 2015, 35, tpv073.	3.1	163
25	Dirigent Proteins in Conifer Defense: Gene Discovery, Phylogeny, and Differential Wound- and Insect-induced Expression of a Family of DIR and DIR-like Genes in Spruce (Picea spp.). Plant Molecular Biology, 2006, 60, 21-40.	3.9	160
26	Genomeâ€wide association mapping for wood characteristics in <i><scp>P</scp>opulus</i> identifies an array of candidate single nucleotide polymorphisms. New Phytologist, 2013, 200, 710-726.	7.3	158
27	Rapid analysis of poplar lignin monomer composition by a streamlined thioacidolysis procedure and nearâ€infrared reflectanceâ€based prediction modeling. Plant Journal, 2009, 58, 706-714.	5.7	156
28	Subgroup 4 R2R3-MYBs in conifer trees: gene family expansion and contribution to the isoprenoid- and flavonoid-oriented responses. Journal of Experimental Botany, 2010, 61, 3847-3864.	4.8	146
29	Effects of<i>PHENYLALANINE AMMONIA LYASE</i>(<i>PAL</i>) knockdown on cell wall composition, biomass digestibility, and biotic and abiotic stress responses in<i>Brachypodium</i>. Journal of Experimental Botany, 2015, 66, 4317-4335.	4.8	146
30	The <i>Arabidopsis MUM2</i> Gene Encodes a Î²-Galactosidase Required for the Production of Seed Coat Mucilage with Correct Hydration Properties. Plant Cell, 2008, 19, 4007-4021.	6.6	145
31	Do Enzymatic Hydrolyzability and Simons' Stain Reflect the Changes in the Accessibility of Lignocellulosic Substrates to Cellulase Enzymes?. Biotechnology Progress, 2001, 17, 1049-1054.	2.6	143
32	Up-regulation of sucrose synthase and UDP-glucose pyrophosphorylase impacts plant growth and metabolism. Plant Biotechnology Journal, 2006, 4, 87-101.	8.3	141
33	The Populus homeobox gene ARBORKNOX1 reveals overlapping mechanisms regulating the shoot apical meristem and the vascular cambium. Plant Molecular Biology, 2006, 61, 917-932.	3.9	141
34	Fast and efficient alkaline peroxide treatment to enhance the enzymatic digestibility of steam-exploded softwood substrates. Biotechnology and Bioengineering, 2002, 77, 678-684.	3.3	138
35	Neighboring Parenchyma Cells Contribute to <i>Arabidopsis</i> Xylem Lignification, while Lignification of Interfascicular Fibers Is Cell Autonomous. Plant Cell, 2013, 25, 3988-3999.	6.6	138
36	Light, the circadian clock, and sugar perception in the control of lignin biosynthesis. Journal of Experimental Botany, 2005, 56, 1651-1663.	4.8	137

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37	Designed for deconstruction â€“ poplar trees altered in cell wall lignification improve the efficacy of bioethanol production. New Phytologist, 2012, 194, 91-101.	7.3	135
38	Comparison of lignin deposition in three ectopic lignification mutants. New Phytologist, 2005, 168, 123-140.	7.3	134
39	Perturbed Lignification Impacts Tree Growth in Hybrid Poplarâ€"A Function of Sink Strength, Vascular Integrity, and Photosynthetic Assimilation. Plant Physiology, 2008, 148, 1229-1237.	4.8	133
40	<i>At</i>MYB61, an R2R3â€MYB transcription factor, functions as a pleiotropic regulator via a small gene network. New Phytologist, 2012, 195, 774-786.	7.3	132
41	Visualization of cellulose synthases in <i>Arabidopsis</i> secondary cell walls. Science, 2015, 350, 198-203.	12.6	132
42	Effect of initial moisture content and chip size on the bioconversion efficiency of softwood lignocellulosics. Biotechnology and Bioengineering, 2004, 85, 413-421.	3.3	130
43	The <i>Populus</i> homeobox gene <i>ARBORKNOX2</i> regulates cell differentiation during secondary growth. Plant Journal, 2009, 60, 1000-1014.	5.7	124
44	Recent Y chromosome divergence despite ancient origin of dioecy in poplars (<i>Populus</i>). Molecular Ecology, 2015, 24, 3243-3256.	3.9	121
45	Cellular machinery of wood production: differentiation of secondary xylem in Pinus contorta var. latifolia. Planta, 2002, 216, 72-82.	3.2	116
46	An update on the nomenclature for the cellulose synthase genes in Populus. Trends in Plant Science, 2009, 14, 248-254.	8.8	112
47	Syringyl-Rich Lignin Renders Poplars More Resistant to Degradation by Wood Decay Fungi. Applied and Environmental Microbiology, 2013, 79, 2560-2571.	3.1	108
48	Cortical microtubules optimize cellâ€wall crystallinity to drive unidirectional growth in Arabidopsis. Plant Journal, 2011, 66, 915-928.	5.7	107
49	Significant Alteration of Gene Expression in Wood Decay Fungi Postia placenta and Phanerochaete chrysosporium by Plant Species. Applied and Environmental Microbiology, 2011, 77, 4499-4507.	3.1	106
50	The <i>anisotropy1</i> D604N Mutation in the Arabidopsis Cellulose Synthase1 Catalytic Domain Reduces Cell Wall Crystallinity and the Velocity of Cellulose Synthase Complexes Â Â. Plant Physiology, 2013, 162, 74-85.	4.8	106
51	High-resolution genetic mapping of allelic variants associated with cell wall chemistry in Populus. BMC Genomics, 2015, 16, 24.	2.8	106
52	Regulation of secondary cell wall biosynthesis by poplar R2R3 MYB transcription factor PtrMYB152 in Arabidopsis. Scientific Reports, 2014, 4, 5054.	3.3	106
53	<i><scp>P</scp>opulus trichocarpa</i> cell wall chemistry and ultrastructure trait variation, genetic control and genetic correlations. New Phytologist, 2013, 197, 777-790.	7.3	100
54	Naturally p-Hydroxybenzoylated Lignins in Palms. Bioenergy Research, 2015, 8, 934-952.	3.9	99

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55	The cellulose paradox â€" simple molecule, complex biosynthesis. Current Opinion in Plant Biology, 2007, 10, 220-226.	7.1	98
56	Passive membrane transport of lignin-related compounds. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23117-23123.	7.1	94
57	Transcriptional and Hormonal Regulation of Gravitropism of Woody Stems in<i>Populus</i>. Plant Cell, 2015, 27, tpc.15.00531.	6.6	93
58	The effect of fiber characteristics on hydrolysis and cellulase accessibility to softwood substrates. Enzyme and Microbial Technology, 1999, 25, 644-650.	3.2	92
59	A 34K <scp>SNP</scp> genotyping array for <i>Populus trichocarpa</i>: Design, application to the study of natural populations and transferability to other <i>Populus</i> species. Molecular Ecology Resources, 2013, 13, 306-323.	4.8	92
60	Factors affecting the accuracy of genomic selection for growth and wood quality traits in an advanced-breeding population of black spruce (Picea mariana). BMC Genomics, 2017, 18, 335.	2.8	92
61	LANDSCAPE GENOMICS OF <i>POPULUS TRICHOCARPA</i> : THE ROLE OF HYBRIDIZATION, LIMITED GENE FLOW, AND NATURAL SELECTION IN SHAPING PATTERNS OF POPULATION STRUCTURE. Evolution; International Journal of Organic Evolution, 2014, 68, 3260-3280.	2.3	88
62	Enhancing the Enzymatic Hydrolysis of Cellulosic Materials Using Simultaneous Ball Milling. Applied Biochemistry and Biotechnology, 2002, 98-100, 815-832.	2.9	87
63	Perturbation of Wood Cellulose Synthesis Causes Pleiotropic Effects in Transgenic Aspen. Molecular Plant, 2011, 4, 331-345.	8.3	86
64	SO₂-Catalyzed Steam Explosion of Corn Fiber for Ethanol Production. Applied Biochemistry and Biotechnology, 2002, 98-100, 59-72.	2.9	84
65	Investigating the drought-stress response of hybrid poplar genotypes by metabolite profiling. Tree Physiology, 2014, 34, 1203-1219.	3.1	84
66	Solutions for dissolutionâ€"engineering cell walls for deconstruction. Current Opinion in Biotechnology, 2009, 20, 286-294.	6.6	83
67	SALT-OVERLY SENSITIVE5 Mediates Arabidopsis Seed Coat Mucilage Adherence and Organization through Pectins Â Â. Plant Physiology, 2014, 165, 991-1004.	4.8	83
68	Cellulose factories: advancing bioenergy production from forest trees. New Phytologist, 2012, 194, 54-62.	7.3	82
69	Tracking Monolignols during Wood Development in Lodgepole Pine Â Â. Plant Physiology, 2008, 147, 1750-1760.	4.8	79
70	The interacting MYB75 and KNAT7 transcription factors modulate secondary cell wall deposition both in stems and seed coat in Arabidopsis. Planta, 2013, 237, 1199-1211.	3.2	78
71	The developing xylem transcriptome and genome-wide analysis of alternative splicing in Populus trichocarpa(black cottonwood) populations. BMC Genomics, 2013, 14, 359.	2.8	76
72	Sucrose phosphate synthase and sucrose phosphate phosphatase interact<i>in planta</i>and promote plant growth and biomass accumulation. Journal of Experimental Botany, 2015, 66, 4383-4394.	4.8	76

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73	Over-expression of an arabidopsis family A sucrose phosphate synthase (SPS) gene alters plant growth and fibre development. Transgenic Research, 2008, 17, 181-192.	2.4	72
74	Characterization of endoglucanases from the brown rot fungi Gloeophyllum sepiarium and Gloeophyllum trabeum. Enzyme and Microbial Technology, 1998, 23, 133-140.	3.2	71
75	Cellulose hydrolysis â€“ the role of monocomponent cellulases in crystalline cellulose degradation. Cellulose, 2003, 10, 159-169.	4.9	70
76	Cellobiose dehydrogenase, an active agent in cellulose depolymerization. Applied and Environmental Microbiology, 1997, 63, 3804-3809.	3.1	69
77	Over-expression of UDP-glucose pyrophosphorylase in hybrid poplar affects carbon allocation. Journal of Experimental Botany, 2007, 58, 4257-4268.	4.8	67
78	Effects on Lignin Structure of Coumarate 3-Hydroxylase Downregulation in Poplar. Bioenergy Research, 2012, 5, 1009-1019.	3.9	65
79	Characterization and varied expression of a membraneâ€bound endoâ€Î²â€1,4â€glucanase in hybrid poplar. Plant Biotechnology Journal, 2010, 8, 294-307.	8.3	64
80	Effect of endoglucanases and hemicellulases in magnetic and flotation deinking of xerographic and laser-printed papers. Journal of Biotechnology, 1998, 65, 209-215.	3.8	63
81	Complete substitution of a secondary cell wall with a primary cell wall in Arabidopsis. Nature Plants, 2018, 4, 777-783.	9.3	63
82	The Class II KNOX genes <i>KNAT3</i> and <i>KNAT7</i> work cooperatively to influence deposition of secondary cell walls that provide mechanical support to Arabidopsis stems. Plant Journal, 2020, 101, 293-309.	5.7	63
83	Sucrose phosphate synthase expression influences poplar phenology. Tree Physiology, 2009, 29, 937-946.	3.1	60
84	Poplar trees reconfigure the transcriptome and metabolome in response to drought in a genotype- and time-of-day-dependent manner. BMC Genomics, 2015, 16, 329.	2.8	60
85	Physical characterization of enzymatically modified kraft pulp fibers. Journal of Biotechnology, 1997, 57, 205-216.	3.8	59
86	Enzymatic Treatment of Mechanical Pulp Fibers for Improving Papermaking Properties. Biotechnology Progress, 2000, 16, 1025-1029.	2.6	59
87	Sexual epigenetics: gender-specific methylation of a gene in the sex determining region of Populus balsamifera. Scientific Reports, 2017, 7, 45388.	3.3	59
88	Two Complementary Mechanisms Underpin Cell Wall Patterning during Xylem Vessel Development. Plant Cell, 2017, 29, 2433-2449.	6.6	59
89	Endoâ€Î²â€1,4â€glucanases impact plant cell wall development by influencing cellulose crystallization. Journal of Integrative Plant Biology, 2015, 57, 396-410.	8.5	57
90	Unidirectional Movement of Cellulose Synthase Complexes in Arabidopsis Seed Coat Epidermal Cells Deposit Cellulose Involved in Mucilage Extrusion, Adherence, and Ray Formation. Plant Physiology, 2015, 168, 502-520.	4.8	56

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91	Network-based integration of systems genetics data reveals pathways associated with lignocellulosic biomass accumulation and processing. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1195-1200.	7.1	55
92	Metabolite profiling of Douglasâ€fir (Pseudotsuga menziesii) field trials reveals strong environmental and weak genetic variation. New Phytologist, 2007, 174, 762-773.	7.3	54
93	Metabolic dynamics during autumn cold acclimation within and among populations of Sitka spruce (<i>Picea sitchensis</i>). New Phytologist, 2012, 194, 192-205.	7.3	54
94	Sexual homomorphism in dioecious trees: extensive tests fail to detect sexual dimorphism in Populus. Scientific Reports, 2017, 7, 1831.	3.3	54
95	Intraspecific variation in the <i>Populus balsamifera</i> drought transcriptome. Plant, Cell and Environment, 2010, 33, 1742-1755.	5.7	52
96	Transgenic<i>Populus</i>Trees for Forest Products, Bioenergy, and Functional Genomics. Critical Reviews in Plant Sciences, 2011, 30, 415-434.	5.7	52
97	<i>HIGHLY METHYL ESTERIFIED SEEDS</i> Is a Pectin Methyl Esterase Involved in Embryo Development Â. Plant Physiology, 2015, 167, 725-737.	4.8	52
98	Cellulose synthase complexes display distinct dynamic behaviors during xylem transdifferentiation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6366-E6374.	7.1	52
99	Degradation of trilinolein by laccase enzymes. Archives of Biochemistry and Biophysics, 2002, 405, 44-54.	3.0	51
100	The effects of crown ratio on the transition from juvenile to mature wood production in lodgepole pine in western Canada. Canadian Journal of Forest Research, 2007, 37, 1450-1459.	1.7	50
101	Optimization of SO₂-Catalyzed Steam Pretreatment of Corn Fiber for Ethanol Production. Applied Biochemistry and Biotechnology, 2003, 106, 319-336.	2.9	49
102	The influence of lignin chemistry and ultrastructure on the pulping efficiency of clonal aspen (Populus tremuloides Michx.). Holzforschung, 2006, 60, 111-122.	1.9	48
103	Transcriptome profiles of hybrid poplar (<i>Populus trichocarpa</i>â€ƒÃ—â€ƒ<i>deltoides</i>) reveal rapid changes in undamaged, systemic sink leaves after simulated feeding by forest tent caterpillar (<i>Malacosoma disstria</i>). New Phytologist, 2010, 188, 787-802.	7.3	48
104	Impact of lignin polymer backbone esters on ionic liquid pretreatment of poplar. Biotechnology for Biofuels, 2017, 10, 101.	6.2	48
105	Heritability and phenotypic and genetic correlations of coastal Douglas-fir (<i>Pseudotsuga) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	1.7	47
106	Comparative interrogation of the developing xylem transcriptomes of two woodâ€forming species: <i><scp>P</scp>opulus trichocarpa</i> and <i><scp>E</scp>ucalyptus grandis</i>. New Phytologist, 2015, 206, 1391-1405.	7.3	47
107	Engineering monolignol p-coumarate conjugates into Poplar and Arabidopsis lignins. Plant Physiology, 2015, 169, pp.00815.2015.	4.8	47
108	Ploidy Level Affects Important Biomass Traits of Novel Shrub Willow (Salix) Hybrids. Bioenergy Research, 2015, 8, 259-269.	3.9	47

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109	Genetic engineering of trees: progress and new horizons. In Vitro Cellular and Developmental Biology - Plant, 2018, 54, 341-376.	2.1	47
110	Revisiting the transition between juvenile and mature wood: a comparison of fibre length, microfibril angle and relative wood density in lodgepole pine. Holzforschung, 2009, 63, 449-456.	1.9	45
111	Defining the Diverse Cell Populations Contributing to Lignification in Arabidopsis Stems. Plant Physiology, 2017, 174, 1028-1036.	4.8	45
112	Chemical Pulping Advantages of Zipâ€lignin Hybrid Poplar. ChemSusChem, 2017, 10, 3565-3573.	6.8	45
113	The effects of initial spacing on wood density, fibre and pulp properties in jack pine (Pinus banksiana) Tj ETQq1 1 0.784314 rgBT /Overlo	1.9	44
114	The potential of metabolite profiling as a selection tool for genotype discrimination in Populus. Journal of Experimental Botany, 2005, 56, 2807-2819.	4.8	44
115	Identification of quantitative trait loci for wood quality and growth across eight full-sib coastal Douglas-fir families. Tree Genetics and Genomes, 2008, 4, 159-170.	1.6	44
116	Altered sucrose metabolism impacts plant biomass production and flower development. Transgenic Research, 2010, 19, 269-283.	2.4	44
117	Tailor-made trees: engineering lignin for ease of processing and tomorrowâ€™s bioeconomy. Current Opinion in Biotechnology, 2019, 56, 147-155.	6.6	44
118	Application of near-infrared spectroscopy for moisture-based sorting of green hem-fir timber. Journal of Wood Science, 2011, 57, 288-294.	1.9	42
119	Enhanced expression of glutamine synthetase (<i>GS1a</i>) confers altered fibre and wood chemistry in field grown hybrid poplar (<i>Populus tremula</i> X <i>alba</i>) (717â€1B4). Plant Biotechnology Journal, 2012, 10, 883-889.	8.3	42
120	Improving genomic prediction of growth and wood traits in Eucalyptus using phenotypes from non-genotyped trees by single-step GBLUP. Plant Science, 2019, 284, 9-15.	3.6	42
121	Natural acetylation impacts carbohydrate recovery during deconstruction of Populus trichocarpa wood. Biotechnology for Biofuels, 2017, 10, 48.	6.2	40
122	Ecological genomics of variation in budâ€break phenology and mechanisms of response to climate warming in <i>Populus trichocarpa</i>. New Phytologist, 2018, 220, 300-316.	7.3	40
123	Neural network prediction of bending strength and stiffness in western hemlock (Tsuga heterophylla) Tj ETQq1 1 0.784314 rgBT /Overlo	1.9	39
124	Lodgepole pine: the first evidence of seed-based somatic embryogenesis and the expression of embryogenesis marker genes in shoot bud cultures of adult trees. Tree Physiology, 2010, 30, 1469-1478.	3.1	38
125	RUBY, a Putative Galactose Oxidase, Influences Pectin Properties and Promotes Cell-To-Cell Adhesion in the Seed Coat Epidermis of Arabidopsis. Plant Cell, 2019, 31, 809-831.	6.6	38
126	Network analysis reveals the relationship among wood properties, gene expression levels and genotypes of natural P opulus trichocarpa accessions. New Phytologist, 2013, 200, 727-742.	7.3	37

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127	Analysis of Molecular Size Distributions of Cellulose Molecules during Hydrolysis of Cellulose by Recombinant <i>Cellulomonas fimi</i> Î²-1,4-Glucanases. Applied and Environmental Microbiology, 1998, 64, 2374-2379.	3.1	36
128	Isolation and characterization of galactinol synthases from hybrid poplar. Journal of Experimental Botany, 2012, 63, 2059-2069.	4.8	35
129	Gene Expression Patterns of Wood Decay Fungi Postia placenta and Phanerochaete chrysosporium Are Influenced by Wood Substrate Composition during Degradation. Applied and Environmental Microbiology, 2016, 82, 4387-4400.	3.1	35
130	The influence of bark on the fermentation of Douglas-fir whitewood pre-hydrolysates. Applied Microbiology and Biotechnology, 2002, 59, 443-448.	3.6	34
131	An ethanologenic yeast exhibiting unusual metabolism in the fermentation of lignocellulosic hexose sugars. Journal of Industrial Microbiology and Biotechnology, 2004, 31, 235-244.	3.0	34
132	Predicting the regenerative capacity of conifer somatic embryogenic cultures by metabolomics. Plant Biotechnology Journal, 2009, 7, 952-963.	8.3	34
133	Patterned Deposition of Xylan and Lignin is Independent from that of the Secondary Wall Cellulose of Arabidopsis Xylem Vessels. Plant Cell, 2018, 30, 2663-2676.	6.6	34
134	Arabidopsis sucrose synthase localization indicates a primary role in sucrose translocation in phloem. Journal of Experimental Botany, 2020, 71, 1858-1869.	4.8	34
135	Histology and cell wall biochemistry of stone cells in the physical defence of conifers against insects. Plant, Cell and Environment, 2016, 39, 1646-1661.	5.7	33
136	Wood Formation in Populus. , 2010, , 201-224.		33
137	Suppression of CINNAMOYL-CoA REDUCTASE increases the level of monolignol ferulates incorporated into maize lignins. Biotechnology for Biofuels, 2017, 10, 109.	6.2	32
138	The fermentability of concentrated softwood-derived hemicellulose fractions with and without supplemental cellulose hydrolysates. Enzyme and Microbial Technology, 2003, 33, 757-765.	3.2	31
139	In situ wood quality assessment in Douglas-fir. Tree Genetics and Genomes, 2011, 7, 553-561.	1.6	31
140	The endoâ€1,4â€Î²â€glucanase <i>Korrigan</i> exhibits functional conservation between gymnosperms and angiosperms and is required for proper cell wall formation in gymnosperms. New Phytologist, 2012, 193, 1076-1087.	7.3	31
141	Evolutionary Quantitative Genomics of Populus trichocarpa. PLoS ONE, 2015, 10, e0142864.	2.5	31
142	Engineered Lignin in Poplar Biomass Facilitates Cu-Catalyzed Alkaline-Oxidative Pretreatment. ACS Sustainable Chemistry and Engineering, 2018, 6, 2932-2941.	6.7	31
143	Exploiting CELLULOSE SYNTHASE (CESA) Class Specificity to Probe Cellulose Microfibril Biosynthesis. Plant Physiology, 2018, 177, 151-167.	4.8	31
144	Association Analysis Identifies Melampsora Ã—columbiana Poplar Leaf Rust Resistance SNPs. PLoS ONE, 2013, 8, e78423.	2.5	31

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145	Determination of Total Carbohydrates. , 2005, , 75-83.		30
146	Assessing the sensitivities of genomic selection for growth and wood quality traits in lodgepole pine using Bayesian models. Tree Genetics and Genomes, 2020, 16, 1.	1.6	30
147	Monolignol export by diffusion down a polymerization-induced concentration gradient. Plant Cell, 2022, 34, 2080-2095.	6.6	30
148	Wood Fiber Quality and Kraft Pulping Efficiencies of Trembling Aspen (<i>Populus tremuloides</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.7	29
149	Quantitative genetic parameters for growth and wood properties in Eucalyptus â€œurograndisâ€•hybrid using near-infrared phenotyping and genome-wide SNP-based relationships. PLoS ONE, 2019, 14, e0218747.	2.5	29
150	Varied growth, biomass and cellulose content in tobacco expressing yeast-derived invertases. Planta, 2006, 224, 1315-1327.	3.2	28
151	Optimized delignification of woodâ€derived lignocellulosics for improved enzymatic hydrolysis. Biotechnology and Bioengineering, 2010, 106, 884-893.	3.3	28
152	Influence of Populus Genotype on Gene Expression by the Wood Decay Fungus Phanerochaete chrysosporium. Applied and Environmental Microbiology, 2014, 80, 5828-5835.	3.1	28
153	Investigating the molecular underpinnings underlying morphology and changes in carbon partitioning during tension wood formation in <i>Eucalyptus</i>. New Phytologist, 2015, 206, 1351-1363.	7.3	27
154	FLA11 and FLA12 glycoproteins fineâ€tune stem secondary wall properties in response to mechanical stresses. New Phytologist, 2022, 233, 1750-1767.	7.3	27
155	Characterization of a unique ethanologenic yeast capable of fermenting galactose. Enzyme and Microbial Technology, 2004, 35, 242-253.	3.2	25
156	Cell Wall-Related Proteins of Unknown Function: Missing Links in Plant Cell Wall Development. Plant and Cell Physiology, 2014, 55, 1031-1043.	3.1	25
157	A role for <i><scp>SPEECHLESS</scp></i> in the integration of leaf stomatal patterning with the growth vs disease tradeâ€off in poplar. New Phytologist, 2019, 223, 1888-1903.	7.3	25
158	Tailoring renewable materials via plant biotechnology. Biotechnology for Biofuels, 2021, 14, 167.	6.2	25
159	Altering carbon allocation in hybrid poplar (<i>Populus albaÂÃ—Âgrandidentata</i>) impacts cell wall growth and development. Plant Biotechnology Journal, 2017, 15, 865-878.	8.3	24
160	Colour remediation of pulp mill effluent using purified fungal cellobiose dehydrogenase: Reaction optimisation and mechanism of degradation. Biotechnology and Bioengineering, 2005, 90, 95-106.	3.3	23
161	Wood dielectric loss factor prediction with artificial neural networks. Wood Science and Technology, 2006, 40, 563-574.	3.2	23
162	Sensitivity of cold acclimation to elevated autumn temperature in field-grown Pinus strobus seedlings. Frontiers in Plant Science, 2015, 6, 165.	3.6	23

#	Article	IF	Citations
163	Comparative analysis of plant carbohydrate active enZymes and their role in xylogenesis. BMC Genomics, 2015, 16, 402.	2.8	23
164	Overexpression of AtGolS3 and CsRFS in poplar enhances ROS tolerance and represses defense response to leaf rust disease. Tree Physiology, 2018, 38, 457-470.	3.1	23
165	Seasonal variation of fungal biomass in the sediment of a salt marsh in New Brunswick. Microbial Ecology, 1993, 26, 37-45.	2.8	22
166	Overexpression of SIPK in tobacco enhances ozone-induced ethylene formation and blocks ozone-induced SA accumulation. Journal of Experimental Botany, 2005, 56, 2195-2201.	4.8	22
167	Cell wall chemistry and tissue structure underlie shifts in material properties of a perennial kelp. European Journal of Phycology, 2018, 53, 307-317.	2.0	22
168	Localization of gene expression, tissue specificity of Populus xylosyltransferase genes by isolation and functional characterization of their promoters. Plant Cell, Tissue and Organ Culture, 2018, 134, 503-508.	2.3	22
169	Enhancing the Enzymatic Hydrolysis of Cellulosic Materials Using Simultaneous Ball Milling. , 2002, , 815-832.		22
170	ToF-SIMS imaging reveals that <i>p</i>-hydroxybenzoate groups specifically decorate the lignin of fibres in the xylem of poplar and willow. Holzforschung, 2021, 75, 452-462.	1.9	21
171	Genetic effects on wood quality traits of plantation-grown white spruce (Picea glauca) and their relationships with growth. Tree Genetics and Genomes, 2012, 8, 303-311.	1.6	20
172	Development of a green binder system for paper products. BMC Biotechnology, 2013, 13, 28.	3.3	20
173	Tubulin perturbation leads to unexpected cell wall modifications and affects stomatal behaviour in<i>Populus</i>. Journal of Experimental Botany, 2015, 66, 6507-6518.	4.8	20
174	Phosphorus storage and resorption in riparian tree species: Environmental applications of poplar and willow. Environmental and Experimental Botany, 2018, 149, 1-8.	4.2	20
175	Predicting Douglas-fir wood density by artificial neural networks (ANN) based on progeny testing information. Holzforschung, 2013, 67, 771-777.	1.9	19
176	Global near infrared spectroscopy models to predict wood chemical properties of <i>Eucalyptus</i>. Journal of Near Infrared Spectroscopy, 2018, 26, 117-132.	1.5	19
177	Organization of Xylan Production in the Golgi During Secondary Cell Wall Biosynthesis. Plant Physiology, 2019, 181, 527-546.	4.8	18
178	<i>p</i>HBMT1, a BAHD-family monolignol acyltransferase, mediates lignin acylation in poplar. Plant Physiology, 2022, 188, 1014-1027.	4.8	18
179	The Effect of Wood Drying on Crystallinity and Microfibril Angle in Black Spruce(Picea mariana). Journal of Wood Chemistry and Technology, 2008, 28, 167-179.	1.7	17
180	Wood Quality and Growth Characterization across Intra- and Inter-Specific Hybrid Aspen Clones. Forests, 2013, 4, 786-807.	2.1	17

#	Article	IF	Citations
181	Extensive Functional Pleiotropy of REVOLUTA Substantiated through Forward Genetics Â Â. Plant Physiology, 2014, 164, 548-554.	4.8	17
182	Wood species identification by near-infrared spectroscopy. International Wood Products Journal, 2017, 8, 32-35.	1.1	17
183	Exploiting Natural Variation to Uncover an Alkene Biosynthetic Enzyme in Poplar. Plant Cell, 2017, 29, 2000-2015.	6.6	17
184	Climatic drivers of genotypeâ€"environment interactions in lodgepole pine based on multi-environment trial data and a factor analytic model of additive covariance. Canadian Journal of Forest Research, 2018, 48, 835-854.	1.7	17
185	Dwarfism of highâ€monolignol Arabidopsis plants is rescued by ectopic LACCASE overexpression. Plant Direct, 2020, 4, e00265.	1.9	17
186	Chemical responses to modified lignin composition in tension wood of hybrid poplar (Populus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542	3.1	16
187	Elevated temperature and CO2 stimulate late season photosynthesis but impair cold hardening in pine. Plant Physiology, 2016, 172, pp.00753.2016.	4.8	16
188	The in vivo impact of MsLAC1, a Miscanthus laccase isoform, on lignification and lignin composition contrasts with its in vitro substrate preference. BMC Plant Biology, 2019, 19, 552.	3.6	16
189	Wet-pocket classification in Abies lasiocarpa using spectroscopy inÂtheÂvisible and near infrared range. European Journal of Wood and Wood Products, 2012, 70, 61-67.	2.9	15
190	Atypical lignification in eastern leatherwood (<i>Dirca palustris</i>). New Phytologist, 2020, 226, 704-713.	7.3	15
191	Prediction accuracy of single-step BLUP for growth and wood quality traits in the lodgepole pine breeding program in British Columbia. Tree Genetics and Genomes, 2020, 16, 1.	1.6	15
192	Cellulases: Agents for Fiber Modification or Bioconversion? The effect of substrate accessibility on cellulose enzymatic hydrolyzability. Progress in Biotechnology, 2002, 21, 21-36.	0.2	14
193	Kiln-drying lumber quality of hybrid poplar clones. Holzforschung, 2007, 61, 65-73.	1.9	14
194	Detection of wet-pockets on the surface of Tsuga heterophylla (Raf.) Sarg. by near infrared (NIR) spectroscopy. Holzforschung, 2010, 64, .	1.9	14
195	Differences in growth and physiological and metabolic responses among Canadian native and hybrid willows (Salix spp.) under salinity stress. Tree Physiology, 2020, 40, 652-666.	3.1	14
196	The Arabidopsis Domain of Unknown Function 1218 (DUF1218) Containing Proteins, MODIFYING WALL LIGNIN-1 and 2 (At1g31720/MWL-1 and At4g19370/MWL-2) Function Redundantly to Alter Secondary Cell Wall Lignin Content. PLoS ONE, 2016, 11, e0150254.	2.5	14
197	Exogenous chalcone synthase expression in developing poplar xylem incorporates naringenin into lignins. Plant Physiology, 2022, 188, 984-996.	4.8	14
198	Heterologous expression and functional characterization of two hybrid poplar cell-wall invertases. Planta, 2008, 228, 1011-1019.	3.2	13

#	Article	IF	Citations
199	Spatial and temporal expression profiling of cell-wall invertase genes during early development in hybrid poplar. Tree Physiology, 2008, 28, 1059-1067.	3.1	13
200	Xylanase prebleaching of fractions of Douglas-fir kraft pulp of different fibre length. Applied Microbiology and Biotechnology, 1996, 46, 319-326.	3.6	12
201	An AFLP linkage map for Douglas-fir based upon multiple full-sib families. Tree Genetics and Genomes, 2008, 4, 181-191.	1.6	12
202	Predicting the strength of Populus spp. clones using artificial neural networks and Îµ-regression support vector machines (Îµ-rSVM). Holzforschung, 2011, 65, 855-863.	1.9	12
203	Genetics of wood quality attributes in Western Larch. Annals of Forest Science, 2014, 71, 415-424.	2.0	12
204	Assessing the wood quality of interior spruce (<i>Picea glauca</i> Ã— <i>P. engelmannii</i>): variation in strength, relative density, microfibril angle, and fiber length. Holzforschung, 2016, 70, 223-234.	1.9	12
205	Cannabis Glandular Trichome Cell Walls Undergo Remodeling to Store Specialized Metabolites. Plant and Cell Physiology, 2021, , .	3.1	12
206	A new approach to zipâ€lignin: 3,4â€dihydroxybenzoate is compatible with lignification. New Phytologist, 2022, 235, 234-246.	7.3	12
207	Evaluating the suitability of hybrid poplar clones for the manufacture of oriented strand boards. Holzforschung, 2007, 61, 430-438.	1.9	11
208	Learning from methylomes: epigenomic correlates of <i>Populus balsamifera</i> traits based on deep learning models of natural DNA methylation. Plant Biotechnology Journal, 2020, 18, 1361-1375.	8.3	11
209	The uncharacterized gene<i>EVE</i>contributes to vessel element dimensions in<i>Populus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5059-5066.	7.1	11
210	Effect of Oxygen Delignification Operating Parameters on Downstream Enzymatic Hydrolysis of Softwood Substrates. Biotechnology Progress, 2003, 19, 1606-1611.	2.6	10
211	A systems genetics analysis in <i>Eucalyptus</i> reveals coordination of metabolic pathways associated with xylan modification in woodâ€forming tissues. New Phytologist, 2019, 223, 1952-1972.	7.3	10
212	Near-infrared-based models for lignin syringyl/guaiacyl ratio of Eucalyptus benthamii and E. pellita using a streamlined thioacidolysis procedure as the reference method. Wood Science and Technology, 2019, 53, 521-533.	3.2	10
213	CELLULOSE SYNTHASE INTERACTING 1 is required for wood mechanics and leaf morphology in aspen. Plant Journal, 2020, 103, 1858-1868.	5.7	10
214	Opportunities and barriers for biofuel and bioenergy production from poplar. GCB Bioenergy, 2021, 13, 905-913.	5.6	10
215	Spatially and temporally restricted expression of PtrMYB021 regulates secondary cell wall formation in Arabidopsis. Journal of Plant Biology, 2016, 59, 16-23.	2.1	9
216	Assessing the between-background stability of metabolic effects arising from lignin-related transgenic modifications, in two Populus hybrids using non-targeted metabolomics. Tree Physiology, 2018, 38, 378-396.	3.1	9

#	Article	IF	Citations
217	Assessing the utility of seed coat-specific promoters to engineer cell wall polysaccharide composition of mucilage. Plant Molecular Biology, 2019, 101, 373-387.	3.9	9
218	Applications of Biotechnology in the Forest Products Industry. ACS Symposium Series, 2003, , 2-29.	0.5	8
219	On some physical properties of six aspen clones. Holzforschung, 2005, 59, 54-58.	1.9	8
220	Wood microfibril angle variation after drying. Holzforschung, 2016, 70, 485-488.	1.9	8
221	Imaging Changes in Cell Walls of Engineered Poplar by Stimulated Raman Scattering and Atomic Force Microscopy. ACS Sustainable Chemistry and Engineering, 2019, 7, 10616-10622.	6.7	8
222	Pectin Modification in Seed Coat Mucilage by <i>In Vivo</i> Expression of Rhamnogalacturonan-I- and Homogalacturonan-Degrading Enzymes. Plant and Cell Physiology, 2021, 62, 1912-1926.	3.1	8
223	Modification of Kraft wood pulp fibre with silica for surface functionalisation. Composites Part A: Applied Science and Manufacturing, 2008, 39, 1815-1821.	7.6	7
224	Variations in cell wall traits impact saccharification potential of Salix famelica and Salix eriocephala. Biomass and Bioenergy, 2021, 148, 106051.	5.7	7
225	Wood quality trait associations with climate: Room for improvement in two northern commercial tree species?. Forest Ecology and Management, 2021, 497, 119492.	3.2	7
226	Integrating genomic information and productivity and climate-adaptability traits into a regional white spruce breeding program. PLoS ONE, 2022, 17, e0264549.	2.5	7
227	The Synergistic Effects of Endoglucanase and Xylanase in Modifying Douglas Fir Kraft Pulp. ACS Symposium Series, 1998, , 75-87.	0.5	6
228	Cambial injury in lodgepole pine (Pinus contorta): mountain pine beetle vs fire. Tree Physiology, 2017, 37, 1611-1621.	3.1	6
229	Near-Infrared Spectroscopic Separation of Green Chain Sub-Alpine Fir Lumber from a Spruce-Pine-Fir Mix. BioResources, 2017, 12, .	1.0	6
230	Understanding the Role of <i>Populus</i> ECERIFERUM2-Likes in the Biosynthesis of Very-Long-Chain Fatty Acids for Cuticular Waxes. Plant and Cell Physiology, 2021, 62, 827-838.	3.1	6
231	The Effects of Recombinant Cellulomonas fimi Î²-1,4-glycanases on Softwood Kraft Pulp Fibre and Paper Properties. Progress in Biotechnology, 2002, 21, 301-310.	0.2	5
232	Wood and Pulping Properties Variation of Acacia crassicarpa A.Cunn. ex Benth. and Sampling Strategies for Accurate Phenotyping. Forests, 2020, 11, 1043.	2.1	5
233	Physiological Response of Populus balsamifera and Salix eriocephala to Salinity and Hydraulic Fracturing Wastewater: Potential for Phytoremediation Applications. International Journal of Environmental Research and Public Health, 2020, 17, 7641.	2.6	5
234	Analysis of Monosaccharides from Arabidopsis Seed Mucilage and Whole Seeds Using HPAEC-PAD. Bio-protocol, 2019, 9, e3464.	0.4	5

#	Article	IF	Citations
235	Distinct and Overlapping Functions of Miscanthus sinensis MYB Transcription Factors SCM1 and MYB103 in Lignin Biosynthesis. International Journal of Molecular Sciences, 2021, 22, 12395.	4.1	5
236	Evolutionary Patterns in Chemical Composition and Biomechanics of Articulated Coralline Algae. Integrative and Comparative Biology, 2022, 62, 652-667.	2.0	5
237	Differences in drought resistance in nine North American hybrid poplars. Trees - Structure and Function, 2019, 33, 1111-1128.	1.9	3
238	Biotechnological mechanism for improving plant remobilization of phosphorus during leaf senescence. Plant Biotechnology Journal, 2020, 18, 470-478.	8.3	3
239	Extractellular Fungal Hydrolytic Enzyme Activity. , 2005, , 239-248.		2
240	Optimization of SO2-Catalyzed Steam Pretreatment of Corn Fiber for Ethanol Production. , 2003, , 319-335.		2
241	Metabolomics in Poplar. , 2011, , 166-191.		2
242	Oxidative enzymes in lignification. Advances in Botanical Research, 2022, , 133-167.	1.1	2
243	Initial wood trait variation overwhelms endophyte community effects for explaining decay trajectories. Functional Ecology, 2022, 36, 1243-1257.	3.6	2
244	Metabolite profiling reveals complex relationship between developing xylem metabolism and intra-ring checking in <i>Pinus radiata</i>. Holzforschung, 2022, 76, 120-132.	1.9	2
245	Molecular Mass Distribution of Materials Solubilized by Xylanase Treatment of Douglas-Fir Kraft Pulp. ACS Symposium Series, 1996, , 44-62.	0.5	1
246	Determination of Soluble Carbohydrates. , 2005, , 85-90.		1
247	Hybrid e-regression and validation soft computing techniques: The case of wood dielectric loss factor. Neurocomputing, 2013, 107, 33-39.	5.9	1
248	Discerning the effects of phosphate status on the metabolism of hybrid poplar. Tree Physiology, 2020, 40, 158-169.	3.1	1
249	An introduction to a Virtual Issue on Wood Biology. New Phytologist, 2020, 225, 1401-1403.	7.3	1
250	Cellulase Adsorption and an Evaluation of Enzyme Recycle During Hydrolysis of Steam-Exploded Softwood Residues. , 2002, , 641-654.		1
251	Support Vector Machines versus Artificial Neural Networks for Wood Dielectric Loss Factor Estimation. International Federation for Information Processing, 2011, , 140-149.	0.4	1
252	Determination of Soluble Carbohydrates. , 2020, , 131-137.		1

#	Article	IF	Citations
253	Free Amino Acids. , 2005, , 69-74.		1
254	Isolation and characterization of hybrid poplar galactinol synthases. BMC Proceedings, 2011, 5, .	1.6	0
255	Variation in Trembling Aspen and White Spruce Wood Quality Grown in Mixed and Single Species Stands in the Boreal Mixedwood Forest. Forests, 2015, 6, 1628-1648.	2.1	0
256	Extracellular Fungal Hydrolytic Enzyme Activity. , 2020, , 387-395.		0
257	Xylanase prebleaching of fractions of Douglas-fir kraft pulp of different fibre length. Applied Microbiology and Biotechnology, 1996, 46, 319-326.	3.6	0