

Timothy J Tschaplinski

List of Publications by Year in descending order

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179
papers

18,822
citations

26630

56
h-index

12597

132
g-index

187
all docs

187
docs citations

187
times ranked

21821
citing authors

#	ARTICLE	IF	CITATIONS
1	The Path Forward for Biofuels and Biomaterials. <i>Science</i> , 2006, 311, 484-489.	12.6	4,935
2	Lignin Valorization: Improving Lignin Processing in the Biorefinery. <i>Science</i> , 2014, 344, 1246843.	12.6	2,994
3	Priming in Systemic Plant Immunity. <i>Science</i> , 2009, 324, 89-91.	12.6	749
4	The genome of <i>Eucalyptus grandis</i> . <i>Nature</i> , 2014, 510, 356-362.	27.8	725
5	Plant water relations at elevated CO ₂ - implications for water-limited environments. <i>Plant, Cell and Environment</i> , 2002, 25, 319-331.	5.7	352
6	Genome-wide analysis of the structural genes regulating defense phenylpropanoid metabolism in <i>Populus</i> . <i>New Phytologist</i> , 2006, 172, 47-62.	7.3	271
7	A physical catalyst for the electrolysis of nitrogen to ammonia. <i>Science Advances</i> , 2018, 4, e1700336.	10.3	264
8	Regulation of Lignin Biosynthesis and Its Role in Growth-Defense Tradeoffs. <i>Frontiers in Plant Science</i> , 2018, 9, 1427.	3.6	231
9	Engineering crassulacean acid metabolism to improve water-use efficiency. <i>Trends in Plant Science</i> , 2014, 19, 327-338.	8.8	206
10	Carbon-negative production of acetone and isopropanol by gas fermentation at industrial pilot scale. <i>Nature Biotechnology</i> , 2022, 40, 335-344.	17.5	195
11	The fate of lignin during hydrothermal pretreatment. <i>Biotechnology for Biofuels</i> , 2013, 6, 110.	6.2	191
12	Efficient Degradation of Lignocellulosic Plant Biomass, without Pretreatment, by the Thermophilic Anaerobe <i>Anaerocellum thermophilum</i> DSM 6725. <i>Applied and Environmental Microbiology</i> , 2009, 75, 4762-4769.	3.1	187
13	4-Coumarate 3-hydroxylase in the lignin biosynthesis pathway is a cytosolic ascorbate peroxidase. <i>Nature Communications</i> , 2019, 10, 1994.	12.8	171
14	The <i>Kalanchoë</i> genome provides insights into convergent evolution and building blocks of crassulacean acid metabolism. <i>Nature Communications</i> , 2017, 8, 1899.	12.8	159
15	Transcript, protein and metabolite temporal dynamics in the CAM plant <i>Agave</i> . <i>Nature Plants</i> , 2016, 2, 16178.	9.3	158
16	Comparative genomics of <i>Mortierella elongata</i> and its bacterial endosymbiont <i>Mycoavidus cysteinexigens</i> . <i>Environmental Microbiology</i> , 2017, 19, 2964-2983.	3.8	154
17	Transcriptomic and metabolomic profiling of <i>Zymomonas mobilis</i> during aerobic and anaerobic fermentations. <i>BMC Genomics</i> , 2009, 10, 34.	2.8	138
18	Phenotypic variation in growth and biomass distribution for two advanced-generation pedigrees of hybrid poplar. <i>Canadian Journal of Forest Research</i> , 2005, 35, 1779-1789.	1.7	134

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19	Transgenic modification of <i>gai</i> or <i>rgl1</i> causes dwarfing and alters gibberellins, root growth, and metabolite profiles in <i>Populus</i> . <i>Planta</i> , 2006, 224, 288-299.	3.2	130
20	The F-Box Gene Family Is Expanded in Herbaceous Annual Plants Relative to Woody Perennial Plants. <i>Plant Physiology</i> , 2008, 148, 1189-1200.	4.8	125
21	Combined inactivation of the <i>Clostridium cellulolyticum</i> lactate and malate dehydrogenase genes substantially increases ethanol yield from cellulose and switchgrass fermentations. <i>Biotechnology for Biofuels</i> , 2012, 5, 2.	6.2	125
22	Enhanced characteristics of genetically modified switchgrass (<i>Panicum virgatum</i> L.) for high biofuel production. <i>Biotechnology for Biofuels</i> , 2013, 6, 71.	6.2	118
23	Breeding progress and preparedness for mass-scale deployment of perennial lignocellulosic biomass crops switchgrass, miscanthus, willow and poplar. <i>GCB Bioenergy</i> , 2019, 11, 118-151.	5.6	116
24	Two Poplar-Associated Bacterial Isolates Induce Additive Favorable Responses in a Constructed Plant-Microbiome System. <i>Frontiers in Plant Science</i> , 2016, 7, 497.	3.6	113
25	Genome-wide association studies and expression-based quantitative trait loci analyses reveal roles of <i>HCT2</i> in caffeoylquinic acid biosynthesis and its regulation by defense-responsive transcription factors in <i>Populus</i> . <i>New Phytologist</i> , 2018, 220, 502-516.	7.3	112
26	Rhizosphere microbiomes diverge among <i>Populus trichocarpa</i> plant-host genotypes and chemotypes, but it depends on soil origin. <i>Microbiome</i> , 2019, 7, 76.	11.1	109
27	An In-Depth Understanding of Biomass Recalcitrance Using Natural Poplar Variants as the Feedstock. <i>ChemSusChem</i> , 2017, 10, 139-150.	6.8	106
28	Discovery and annotation of small proteins using genomics, proteomics, and computational approaches. <i>Genome Research</i> , 2011, 21, 634-641.	5.5	105
29	<i>Pseudomonas fluorescens</i> Induces Strain-Dependent and Strain-Independent Host Plant Responses in Defense Networks, Primary Metabolism, Photosynthesis, and Fitness. <i>Molecular Plant-Microbe Interactions</i> , 2012, 25, 765-778.	2.6	100
30	Genomics of Secondary Metabolism in <i>Populus</i> : Interactions with Biotic and Abiotic Environments. <i>Critical Reviews in Plant Sciences</i> , 2009, 28, 375-392.	5.7	98
31	Drought resistance of two hybrid <i>Populus</i> clones grown in a large-scale plantation. <i>Tree Physiology</i> , 1998, 18, 653-658.	3.1	96
32	Down-regulation of the caffeic acid O-methyltransferase gene in switchgrass reveals a novel monolignol analog. <i>Biotechnology for Biofuels</i> , 2012, 5, 71.	6.2	96
33	The exometabolome of <i>Clostridium thermocellum</i> reveals overflow metabolism at high cellulose loading. <i>Biotechnology for Biofuels</i> , 2014, 7, 155.	6.2	96
34	Identification, characterization of an AP2/ERF transcription factor that promotes adventitious, lateral root formation in <i>Populus</i> . <i>Planta</i> , 2013, 238, 271-282.	3.2	92
35	Closing the carbon balance for fermentation by <i>Clostridium thermocellum</i> (ATCC 27405). <i>Bioresource Technology</i> , 2012, 103, 293-299.	9.6	90
36	Abiotic Stresses Shift Belowground <i>Populus</i> -Associated Bacteria Toward a Core Stress Microbiome. <i>MSystems</i> , 2018, 3, .	3.8	89

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37	A study of poplar organosolv lignin after melt rheology treatment as carbon fiber precursors. <i>Green Chemistry</i> , 2016, 18, 5015-5024.	9.0	85
38	Multitrait genome-wide association analysis of <i>Populus trichocarpa</i> identifies key polymorphisms controlling morphological and physiological traits. <i>New Phytologist</i> , 2019, 223, 293-309.	7.3	85
39	Importance of changing CO ₂ , temperature, precipitation, and ozone on carbon and water cycles of an upland-oak forest: incorporating experimental results into model simulations. <i>Global Change Biology</i> , 2005, 11, 1402-1423.	9.5	83
40	Insights of biomass recalcitrance in natural <i>Populus trichocarpa</i> variants for biomass conversion. <i>Green Chemistry</i> , 2017, 19, 5467-5478.	9.0	82
41	Transgenic American chestnuts show enhanced blight resistance and transmit the trait to T1 progeny. <i>Plant Science</i> , 2014, 228, 88-97.	3.6	77
42	Carbohydrate and lignin are simultaneously solubilized from unpretreated switchgrass by microbial action at high temperature. <i>Energy and Environmental Science</i> , 2013, 6, 2186.	30.8	75
43	Photosynthetic reinvigoration of leaves following shoot decapitation and accelerated growth of coppice shoots. <i>Physiologia Plantarum</i> , 1989, 75, 157-165.	5.2	74
44	Interactions between drought and elevated CO ₂ on growth and gas exchange of seedlings of three deciduous tree species. <i>New Phytologist</i> , 1995, 129, 63-71.	7.3	74
45	<i>Clostridium thermocellum</i> ATCC27405 transcriptomic, metabolomic and proteomic profiles after ethanol stress. <i>BMC Genomics</i> , 2012, 13, 336.	2.8	73
46	Apoplast proteome reveals that extracellular matrix contributes to multistress response in poplar. <i>BMC Genomics</i> , 2010, 11, 674.	2.8	70
47	<i>Populus trichocarpa</i> and <i>Populus deltoides</i> Exhibit Different Metabolomic Responses to Colonization by the Symbiotic Fungus <i>Laccaria bicolor</i> . <i>Molecular Plant-Microbe Interactions</i> , 2014, 27, 546-556.	2.6	69
48	Stepping on the Gas to a Circular Economy: Accelerating Development of Carbon-Negative Chemical Production from Gas Fermentation. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2021, 12, 439-470.	6.8	69
49	Effects of root restriction on growth correlations, water relations and senescence of alder seedlings. <i>Physiologia Plantarum</i> , 1985, 64, 167-176.	5.2	66
50	Biosynthesis and emission of insect-induced methyl salicylate and methyl benzoate from rice. <i>Plant Physiology and Biochemistry</i> , 2010, 48, 279-287.	5.8	65
51	Water-stress tolerance of black and eastern cottonwood clones and four hybrid progeny. I. Growth, water relations, and gas exchange. <i>Canadian Journal of Forest Research</i> , 1994, 24, 364-371.	1.7	64
52	Systems Biology Analysis of <i>Zymomonas mobilis</i> ZM4 Ethanol Stress Responses. <i>PLoS ONE</i> , 2013, 8, e68886.	2.5	64
53	Knockdown of a laccase in <i>Populus deltoides</i> confers altered cell wall chemistry and increased sugar release. <i>Plant Biotechnology Journal</i> , 2016, 14, 2010-2020.	8.3	64
54	Poplar <i>PtabZIP1</i> enhances lateral root formation and biomass growth under drought stress. <i>Plant Journal</i> , 2017, 89, 692-705.	5.7	64

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55	Diel rewiring and positive selection of ancient plant proteins enabled evolution of CAM photosynthesis in Agave. <i>BMC Genomics</i> , 2018, 19, 588.	2.8	64
56	Osmotic potential of several hardwood species as affected by manipulation of throughfall precipitation in an upland oak forest during a dry year. <i>Tree Physiology</i> , 1998, 18, 291-298.	3.1	63
57	Temperature-dependent shade avoidance involves the receptor-like kinase <i>ERECTA</i> . <i>Plant Journal</i> , 2013, 73, 980-992.	5.7	63
58	Global transcriptome analysis of <i>Clostridium thermocellum</i> ATCC 27405 during growth on dilute acid pretreated <i>Populus</i> and switchgrass. <i>Biotechnology for Biofuels</i> , 2013, 6, 179.	6.2	62
59	Metabolic profiling reveals altered sugar and secondary metabolism in response to UGPase overexpression in <i>Populus</i> . <i>BMC Plant Biology</i> , 2014, 14, 265.	3.6	61
60	Structural changes of lignins in natural <i>Populus</i> variants during different pretreatments. <i>Bioresource Technology</i> , 2020, 295, 122240.	9.6	61
61	Growth, soluble carbohydrates, and aloin concentration of <i>Aloe vera</i> plants exposed to three irradiance levels. <i>Environmental and Experimental Botany</i> , 2000, 44, 133-139.	4.2	56
62	ALD1 Regulates Basal Immune Components and Early Inducible Defense Responses in <i>Arabidopsis</i> . <i>Molecular Plant-Microbe Interactions</i> , 2015, 28, 455-466.	2.6	56
63	A 5-Enolpyruvylshikimate 3-Phosphate Synthase Functions as a Transcriptional Repressor in <i>Populus</i> . <i>Plant Cell</i> , 2018, 30, 1645-1660.	6.6	56
64	Consolidated bioprocessing of <i>Populus</i> using <i>Clostridium</i> (<i>Ruminiclostridium</i>) <i>thermocellum</i> : a case study on the impact of lignin composition and structure. <i>Biotechnology for Biofuels</i> , 2016, 9, 31.	6.2	54
65	Nitrogen fertilization strategies in a short-rotation sycamore plantation. <i>Forest Ecology and Management</i> , 1994, 64, 13-24.	3.2	51
66	Phenotypic variation and quantitative trait locus identification for osmotic potential in an interspecific hybrid inbred F2 poplar pedigree grown in contrasting environments. <i>Tree Physiology</i> , 2006, 26, 595-604.	3.1	50
67	Genome-wide identification of lineage-specific genes in <i>Arabidopsis</i> , <i>Oryza</i> and <i>Populus</i> . <i>Genomics</i> , 2009, 93, 473-480.	2.9	50
68	The obscure events contributing to the evolution of an incipient sex chromosome in <i>Populus</i> : a retrospective working hypothesis. <i>Tree Genetics and Genomes</i> , 2012, 8, 559-571.	1.6	50
69	Characterization of <i>Clostridium thermocellum</i> strains with disrupted fermentation end-product pathways. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2013, 40, 725-734.	3.0	50
70	Phylogenetic Occurrence of the Phenylpropanoid Pathway and Lignin Biosynthesis in Plants. <i>Frontiers in Plant Science</i> , 2021, 12, 704697.	3.6	49
71	Water-stress tolerance of black and eastern cottonwood clones and four hybrid progeny. II. Metabolites and inorganic ions that constitute osmotic adjustment. <i>Canadian Journal of Forest Research</i> , 1994, 24, 681-687.	1.7	48
72	A Carotenoid-Deficient Mutant in <i>Pantoea</i> sp. YR343, a Bacteria Isolated from the Rhizosphere of <i>Populus deltoides</i> , Is Defective in Root Colonization. <i>Frontiers in Microbiology</i> , 2016, 7, 491.	3.5	48

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73	Clonal and seasonal differences in leaf osmotic potential and organic solutes of five hybrid poplar clones grown under field conditions. <i>Tree Physiology</i> , 1998, 18, 645-652.	3.1	46
74	Stem respiration increases in CO ₂ -enriched sweetgum trees. <i>New Phytologist</i> , 2002, 155, 239-248.	7.3	46
75	Evaluation of the bioconversion of genetically modified switchgrass using simultaneous saccharification and fermentation and a consolidated bioprocessing approach. <i>Biotechnology for Biofuels</i> , 2012, 5, 81.	6.2	46
76	Genomic aspects of research involving polyploid plants. <i>Plant Cell, Tissue and Organ Culture</i> , 2011, 104, 387-397.	2.3	45
77	The nature of the progression of drought stress drives differential metabolomic responses in <i>Populus deltoides</i> . <i>Annals of Botany</i> , 2019, 124, 617-626.	2.9	45
78	Transgenic Poplar Designed for Biofuels. <i>Trends in Plant Science</i> , 2020, 25, 881-896.	8.8	45
79	Transcriptional Regulation of Drought Response in <i>Arabidopsis</i> and Woody Plants. <i>Frontiers in Plant Science</i> , 2020, 11, 572137.	3.6	43
80	Stomatal control of water use efficiency in poplar clones and hybrids. <i>Canadian Journal of Botany</i> , 1984, 62, 1344-1351.	1.1	42
81	Poplar Genomics: State of the Science. <i>Critical Reviews in Plant Sciences</i> , 2009, 28, 285-308.	5.7	42
82	Mediation of plant-mycorrhizal interaction by a lectin receptor-like kinase. <i>Nature Plants</i> , 2019, 5, 676-680.	9.3	42
83	The role of sink demand in carbon partitioning and photosynthetic reinvigoration following shoot decapitation. <i>Physiologia Plantarum</i> , 1989, 75, 166-173.	5.2	41
84	Water relations of several hardwood species in response to throughfall manipulation in an upland oak forest during a wet year. <i>Tree Physiology</i> , 1998, 18, 299-305.	3.1	40
85	Two poplar methyl salicylate esterases display comparable biochemical properties but divergent expression patterns. <i>Phytochemistry</i> , 2009, 70, 32-39.	2.9	39
86	Water relations, photosynthetic capacity, and root/shoot partitioning of photosynthate as determinants of productivity in hybrid poplar. <i>Canadian Journal of Botany</i> , 1989, 67, 1689-1697.	1.1	37
87	Microfluidics and Metabolomics Reveal Symbiotic Bacterial-Fungal Interactions Between <i>Mortierella elongata</i> and <i>Burkholderia</i> Include Metabolite Exchange. <i>Frontiers in Microbiology</i> , 2019, 10, 2163.	3.5	37
88	Water-stress tolerance and late-season organic solute accumulation in hybrid poplar. <i>Canadian Journal of Botany</i> , 1989, 67, 1681-1688.	1.1	36
89	Biological responses of two soybean cultivars exposed to enhanced UVB radiation. <i>Environmental and Experimental Botany</i> , 1993, 33, 347-356.	4.2	36
90	Plant Hosts Modify Belowground Microbial Community Response to Extreme Drought. <i>MSystems</i> , 2020, 5, .	3.8	36

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91	Correlation between early root production, carbohydrate metabolism, and subsequent biomass production in hybrid poplar. <i>Canadian Journal of Botany</i> , 1989, 67, 2168-2174.	1.1	35
92	Influence of dormancy induction treatments on western hemlock seedlings. I. Seedling development and stock quality assessment. <i>Canadian Journal of Forest Research</i> , 1991, 21, 164-174.	1.7	35
93	Underground Azelaic Acid Conferred Resistance to <i>Pseudomonas syringae</i> in <i>Arabidopsis</i> . <i>Molecular Plant-Microbe Interactions</i> , 2019, 32, 86-94.	2.6	35
94	Carbohydrate accumulation and turgor maintenance in seedling shoots and roots of two boreal conifers subjected to water stress. <i>Canadian Journal of Botany</i> , 1991, 69, 2522-2528.	1.1	34
95	Transcriptional and Post-transcriptional Regulation of Lignin Biosynthesis Pathway Genes in <i>Populus</i> . <i>Frontiers in Plant Science</i> , 2020, 11, 652.	3.6	34
96	Salicylate and catechol levels are maintained in nahG transgenic poplar. <i>Phytochemistry</i> , 2007, 68, 2043-2052.	2.9	33
97	Nitrogen and sulfur requirements for <i>Clostridium thermocellum</i> and <i>Caldicellulosiruptor bescii</i> on cellulosic substrates in minimal nutrient media. <i>Bioresource Technology</i> , 2013, 130, 125-135.	9.6	33
98	Interactions between drought and elevated CO ₂ on osmotic adjustment and solute concentrations of tree seedlings. <i>New Phytologist</i> , 1995, 131, 169-177.	7.3	32
99	Down-Regulation of KORRIGAN-Like Endo- β -1,4-Glucanase Genes Impacts Carbon Partitioning, Mycorrhizal Colonization and Biomass Production in <i>Populus</i> . <i>Frontiers in Plant Science</i> , 2016, 7, 1455.	3.6	32
100	Mathematical models of lignin biosynthesis. <i>Biotechnology for Biofuels</i> , 2018, 11, 34.	6.2	32
101	Pleiotropic and Epistatic Network-Based Discovery: Integrated Networks for Target Gene Discovery. <i>Frontiers in Energy Research</i> , 2018, 6, .	2.3	32
102	Pinoresinol reductase 1 impacts lignin distribution during secondary cell wall biosynthesis in <i>Arabidopsis</i> . <i>Phytochemistry</i> , 2015, 112, 170-178.	2.9	31
103	Plant-Microbe Interactions: From Genes to Ecosystems Using <i>Populus</i> as a Model System. <i>Phytobiomes Journal</i> , 2021, 5, 29-38.	2.7	31
104	Integrated omics analyses reveal the details of metabolic adaptation of <i>Clostridium thermocellum</i> to lignocellulose-derived growth inhibitors released during the deconstruction of switchgrass. <i>Biotechnology for Biofuels</i> , 2017, 10, 14.	6.2	30
105	Study of traits and recalcitrance reduction of field-grown COMT down-regulated switchgrass. <i>Biotechnology for Biofuels</i> , 2017, 10, 12.	6.2	30
106	Role of water relations and photosynthesis in the release of buds from apical dominance and the early reinvigoration of decapitated poplars. <i>Physiologia Plantarum</i> , 1986, 68, 287-293.	5.2	29
107	Comparative analysis of GT14/GT14-like gene family in <i>Arabidopsis</i> , <i>Oryza</i> , <i>Populus</i> , <i>Sorghum</i> and <i>Vitis</i> . <i>Plant Science</i> , 2011, 181, 688-695.	3.6	29
108	Characterization of a novel, ubiquitous fungal endophyte from the rhizosphere and root endosphere of <i>Populus</i> trees. <i>Fungal Ecology</i> , 2017, 27, 78-86.	1.6	27

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109	Overexpression of a serine hydroxymethyltransferase increases biomass production and reduces recalcitrance in the bioenergy crop <i>Populus</i> . <i>Sustainable Energy and Fuels</i> , 2019, 3, 195-207.	4.9	27
110	Ectopic Defense Gene Expression Is Associated with Growth Defects in <i>Medicago truncatula</i> Lignin Pathway Mutants. <i>Plant Physiology</i> , 2019, 181, 63-84.	4.8	27
111	Development of a clostridia-based cell-free system for prototyping genetic parts and metabolic pathways. <i>Metabolic Engineering</i> , 2020, 62, 95-105.	7.0	27
112	Solute accumulation of chestnut oak and dogwood leaves in response to throughfall manipulation of an upland oak forest. <i>Tree Physiology</i> , 2002, 22, 251-260.	3.1	26
113	Overexpression of a Domain of Unknown Function 231-containing protein increases O-xylan acetylation and cellulose biosynthesis in <i>Populus</i> . <i>Biotechnology for Biofuels</i> , 2017, 10, 311.	6.2	26
114	Developmental changes in lignin composition are driven by both monolignol supply and laccase specificity. <i>Science Advances</i> , 2022, 8, eabm8145.	10.3	26
115	Functional Genomics of Drought Tolerance in Bioenergy Crops. <i>Critical Reviews in Plant Sciences</i> , 2014, 33, 205-224.	5.7	25
116	Improvement of cellulose catabolism in <i>Clostridium cellulolyticum</i> by sporulation abolishment and carbon alleviation. <i>Biotechnology for Biofuels</i> , 2014, 7, 25.	6.2	25
117	Genome-scale resources for <i>Thermoanaerobacterium saccharolyticum</i> . <i>BMC Systems Biology</i> , 2015, 9, 30.	3.0	24
118	Pentose sugars inhibit metabolism and increase expression of an AgrD-type cyclic pentapeptide in <i>Clostridium thermocellum</i> . <i>Scientific Reports</i> , 2017, 7, 43355.	3.3	24
119	Impacts of Soil Microbiome Variations on Root Colonization by Fungi and Bacteria and on the Metabolome of <i>Populus tremula</i> – <i>Populus alba</i> . <i>Phytobiomes Journal</i> , 2020, 4, 142-155.	2.7	24
120	Transgenic soybean overexpressing <i>GmSAMT1</i> exhibits resistance to multiple HG types of soybean cyst nematode <i>Heterodera glycines</i> . <i>Plant Biotechnology Journal</i> , 2016, 14, 2100-2109.	8.3	23
121	Phytobiome and Transcriptional Adaptation of <i>Populus deltoides</i> to Acute Progressive Drought and Cyclic Drought. <i>Phytobiomes Journal</i> , 2018, 2, 249-260.	2.7	23
122	Agronomic performance of <i>Populus deltoides</i> trees engineered for biofuel production. <i>Biotechnology for Biofuels</i> , 2017, 10, 253.	6.2	22
123	Industrial Robustness: Understanding the Mechanism of Tolerance for the <i>Populus</i> Hydrolysate-Tolerant Mutant Strain of <i>Clostridium thermocellum</i> . <i>PLoS ONE</i> , 2013, 8, e78829.	2.5	21
124	Comparative genomics can provide new insights into the evolutionary mechanisms and gene function in CAM plants. <i>Journal of Experimental Botany</i> , 2019, 70, 6539-6547.	4.8	21
125	Genome-Wide Association Study of Wood Anatomical and Morphological Traits in <i>Populus trichocarpa</i> . <i>Frontiers in Plant Science</i> , 2020, 11, 545748.	3.6	21
126	Molecular and biochemical characterization of the jasmonic acid methyltransferase gene from black cottonwood (<i>Populus trichocarpa</i>). <i>Phytochemistry</i> , 2013, 94, 74-81.	2.9	20

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127	Genome Anchored QTLs for Biomass Productivity in Hybrid Populus Grown under Contrasting Environments. <i>PLoS ONE</i> , 2013, 8, e54468.	2.5	20
128	Understanding the influences of different pretreatments on recalcitrance of Populus natural variants. <i>Bioresource Technology</i> , 2018, 265, 75-81.	9.6	20
129	Multi-Phenotype Association Decomposition: Unraveling Complex Gene-Phenotype Relationships. <i>Frontiers in Genetics</i> , 2019, 10, 417.	2.3	20
130	Population-level approaches reveal novel aspects of lignin biosynthesis, content, composition and structure. <i>Current Opinion in Biotechnology</i> , 2019, 56, 250-257.	6.6	20
131	Advances and perspectives in discovery and functional analysis of small secreted proteins in plants. <i>Horticulture Research</i> , 2021, 8, 130.	6.3	20
132	Selective herbivory by an invasive cyprinid, the rudd <i>Scardinius erythrophthalmus</i> . <i>Freshwater Biology</i> , 2014, 59, 2315-2327.	2.4	19
133	Perspectives on the basic and applied aspects of crassulacean acid metabolism (CAM) research. <i>Plant Science</i> , 2018, 274, 394-401.	3.6	18
134	Combining loss of function of FOLYLPOLYGLUTAMATE SYNTHETASE1 and CAFFEYOYL-COA 3-O-METHYLTRANSFERASE1 for lignin reduction and improved saccharification efficiency in Arabidopsis thaliana. <i>Biotechnology for Biofuels</i> , 2019, 12, 108.	6.2	18
135	Scavenging organic nitrogen and remodelling lipid metabolism are key survival strategies adopted by the endophytic fungi, <i>Serendipita vermifera</i> and <i>Serendipita bescii</i> to alleviate nitrogen and phosphorous starvation in vitro. <i>Environmental Microbiology Reports</i> , 2019, 11, 548-557.	2.4	18
136	ALD1 accumulation in Arabidopsis epidermal plastids confers local and non-autonomous disease resistance. <i>Journal of Experimental Botany</i> , 2021, 72, 2710-2726.	4.8	18
137	Multiplex knockout of trichome-regulating MYB duplicates in hybrid poplar using a single gRNA. <i>Plant Physiology</i> , 2022, 189, 516-526.	4.8	18
138	Assessment of Populus wood chemistry following the introduction of a Bt toxin gene. <i>Tree Physiology</i> , 2006, 26, 557-564.	3.1	17
139	A comparative multidimensional LC-MS proteomic analysis reveals mechanisms for furan aldehyde detoxification in <i>Thermoanaerobacter pseudethanolicus</i> 39E. <i>Biotechnology for Biofuels</i> , 2014, 7, 165.	6.2	17
140	Quantitative proteome profile of water deficit stress responses in eastern cottonwood (<i>Populus</i>) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50 2	2.5	17
141	Overexpression of a <i>Prefoldin 1²</i> subunit gene reduces biomass recalcitrance in the bioenergy crop <i>Populus</i> . <i>Plant Biotechnology Journal</i> , 2020, 18, 859-871.	8.3	17
142	Arabidopsis C-terminal binding protein ANGUSTIFOLIA modulates transcriptional co-regulation of <i>MYB46</i> and <i>WRKY33</i> . <i>New Phytologist</i> , 2020, 228, 1627-1639.	7.3	17
143	Xylan hydrolysis in <i>Populus trichocarpa</i> - <i>P. deltoides</i> and model substrates during hydrothermal pretreatment. <i>Bioresource Technology</i> , 2015, 179, 202-210.	9.6	16
144	<i>Clostridium thermocellum</i> LL1210 pH homeostasis mechanisms informed by transcriptomics and metabolomics. <i>Biotechnology for Biofuels</i> , 2018, 11, 98.	6.2	16

#	ARTICLE	IF	CITATIONS
145	Modification of plant cell wall chemistry impacts metabolome and microbiome composition in Populus PdkOR1 RNAi plants. Plant and Soil, 2018, 429, 349-361.	3.7	16
146	Biosystems Design to Accelerate C ₃ -to-CAM Progression. Biodesign Research, 2020, 2020, .	1.9	16
147	Plant Biosystems Design Research Roadmap 1.0. Biodesign Research, 2020, 2020, .	1.9	16
148	Physiological indicators of nitrogen response in a short rotation sycamore plantation. I. CO ₂ assimilation, photosynthetic pigments and soluble carbohydrates. Physiologia Plantarum, 1991, 82, 117-126.	5.2	15
149	Rex in Caldicellulosiruptor bescii : Novel regulon members and its effect on the production of ethanol and overflow metabolites. MicrobiologyOpen, 2019, 8, e00639.	3.0	15
150	Data Integration in Poplar: Omics Layers and Integration Strategies. Frontiers in Genetics, 2019, 10, 874.	2.3	15
151	Biomass and Soil Nitrogen Relationships of a One-Year-Old Sycamore Plantation. Soil Science Society of America Journal, 1991, 55, 841-847.	2.2	14
152	Measuring the Efficiency of Biomass Energy. Science, 2006, 312, 1744-1745.	12.6	14
153	³¹ P-NMR Characterization of Tricin and Its Structurally Similar Flavonoids. ChemistrySelect, 2017, 2, 3557-3561.	1.5	14
154	Towards engineering ectomycorrhization into switchgrass bioenergy crops via a lectin receptor-like kinase. Plant Biotechnology Journal, 2021, 19, 2454-2468.	8.3	14
155	Proteomic and metabolic disturbances in lignin-modified <i>Brachypodium distachyon</i> . Plant Cell, 2022, 34, 3339-3363.	6.6	14
156	Finding New Cell Wall Regulatory Genes in Populus trichocarpa Using Multiple Lines of Evidence. Frontiers in Plant Science, 2019, 10, 1249.	3.6	13
157	Growth and solute adjustment of calli of Populus clones cultured on nutrient medium containing polyethylene glycol. Canadian Journal of Forest Research, 1995, 25, 1425-1433.	1.7	12
158	Estimating the Net Primary and Net Ecosystem Production of a Southeastern Upland Quercus Forest from an 8-Year Biometric Record. Ecological Studies, 2003, , 378-395.	1.2	12
159	Correlating laser-induced breakdown spectroscopy with neutron activation analysis to determine the elemental concentration in the ionome of the Populus trichocarpa leaf. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 138, 46-53.	2.9	11
160	A dynamic model of lignin biosynthesis in Brachypodium distachyon. Biotechnology for Biofuels, 2018, 11, 253.	6.2	11
161	Natural variability and antioxidant properties of commercially cultivated switchgrass extractives. Industrial Crops and Products, 2019, 138, 111474.	5.2	11
162	Computational Ranking of Yerba Mate Small Molecules Based on Their Predicted Contribution to Antibacterial Activity against Methicillin-Resistant Staphylococcus aureus. PLoS ONE, 2015, 10, e0123925.	2.5	10

#	ARTICLE	IF	CITATIONS
163	Isolation, Characterization, and Pathogenicity of Two <i>Pseudomonas syringae</i> Pathovars from <i>Populus trichocarpa</i> Seeds. <i>Microorganisms</i> , 2020, 8, 1137.	3.6	9
164	Evolutionary analyses of non- <i>ε</i> -family genes in plants. <i>Plant Journal</i> , 2013, 73, 788-797.	5.7	7
165	Physiological indicators of nitrogen response in a short rotation sycamore plantation. II. Nitrogen metabolism. <i>Canadian Journal of Botany</i> , 1993, 71, 841-847.	1.1	6
166	Targeted redox and energy cofactor metabolomics in <i>Clostridium thermocellum</i> and <i>Thermoanaerobacterium saccharolyticum</i> . <i>Biotechnology for Biofuels</i> , 2017, 10, 270.	6.2	5
167	Horizontal transfer of a pathway for coumarate catabolism unexpectedly inhibits purine nucleotide biosynthesis. <i>Molecular Microbiology</i> , 2019, 112, 1784-1797.	2.5	5
168	Biological Parts for Plant Biodesign to Enhance Land-Based Carbon Dioxide Removal. <i>Biodesign Research</i> , 2021, 2021, .	1.9	5
169	Scaling nitrogen and carbon interactions: what are the consequences of biological buffering?. <i>Ecology and Evolution</i> , 2015, 5, 2839-2850.	1.9	4
170	Identification of functional single nucleotide polymorphism of <i>Populus trichocarpa</i> PtrEPSPâ€ŒTF and determination of its transcriptional effect. <i>Plant Direct</i> , 2020, 4, e00178.	1.9	4
171	Host plant genetic control of associated fungal and insect species in a <i>Populus</i> hybrid cross. <i>Ecology and Evolution</i> , 2020, 10, 5119-5134.	1.9	4
172	Dormant-Season Nonstructural Carbohydrate Storage. <i>Ecological Studies</i> , 2003, , 67-84.	1.2	4
173	Expanding the Biological Role of Lipo-Chitooligosaccharides and Chitooligosaccharides in <i>Laccaria bicolor</i> Growth and Development. <i>Frontiers in Fungal Biology</i> , 2022, 3, .	2.0	4
174	Third-codon transversion rate-based Nymphaea basal angiosperm phylogeny -- concordance with developmental evidence. <i>Nature Precedings</i> , 0, , .	0.1	3
175	Physiological indicators of nitrogen response in a short rotation sycamore plantation. I. CO ₂ assimilation, photosynthetic pigments and soluble carbohydrates. <i>Physiologia Plantarum</i> , 1991, 82, 117-126.	5.2	2
176	Relationships between <i>Sphaerulina musiva</i> Infection and the <i>Populus</i> Microbiome and Metabolome. <i>MSystems</i> , 2022, 7, .	3.8	2
177	Leaf Water Potential, Osmotic Potential, and Solute Accumulation of Several Hardwood Species as Affected by Manipulation of Throughfall Precipitation in an Upland <i>Quercus</i> Forest. <i>Ecological Studies</i> , 2003, , 121-139.	1.2	1
178	Diversity and conservation of plant small secreted proteins associated with arbuscular mycorrhizal symbiosis. <i>Horticulture Research</i> , 2022, 9, .	6.3	1
179	Ozonized biochar filtrate effects on the growth of <i>Pseudomonas putida</i> and cyanobacteria <i>Synechococcus elongatus</i> PCC 7942. <i>Bioresources and Bioprocessing</i> , 2022, 9, .	4.2	0