Vincent L Chiang

List of Publications by Year
in descending order

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91 papers	8,051 citations	66343 42 h-index	49909 87 g-index
95 all docs	95 docs citations	95 times ranked	6732 citing authors

#	Article	IF	Citations
1	A PtrLBD39-mediated transcriptional network regulates tension wood formation in Populus trichocarpa. Plant Communications, 2022, 3, 100250.	7.7	7
2	Dimerization of PtrMYB074 and PtrWRKY19 mediates transcriptional activation of <i>PtrbHLH186</i> for secondary xylem development in <i>Populus trichocarpa</i>. New Phytologist, 2022, 234, 918-933.	7.3	19
3	The Manchurian Walnut Genome: Insights into Juglone and Lipid Biosynthesis. GigaScience, 2022, 11, .	6.4	13
4	Clonal variations in cone, seed and nut traits in a Pinus koraiensis seed orchard in Northeast China. Journal of Forestry Research, 2021, 32, 171-179.	3.6	9
5	Qu-2, a robust poplar suspension cell line for molecular biology. Journal of Forestry Research, 2021, 32, 733-740.	3.6	4
6	A multiscale model of lignin biosynthesis for predicting bioenergy traits in Populus trichocarpa. Computational and Structural Biotechnology Journal, 2021, 19, 168-182.	4.1	10
7	Transcriptional reprogramming of xylem cell wall biosynthesis in tension wood. Plant Physiology, 2021, 186, 250-269.	4.8	28
8	The microRNA476aâ€<i>RFL</i> module regulates adventitious root formation through a mitochondriaâ€dependent pathway in <i>Populus</i>. New Phytologist, 2021, 230, 2011-2028.	7.3	14
9	Cooperative Regulation of Flavonoid and Lignin Biosynthesis in Plants. Critical Reviews in Plant Sciences, 2021, 40, 109-126.	5.7	42
10	MYB-Mediated Regulation of Anthocyanin Biosynthesis. International Journal of Molecular Sciences, 2021, 22, 3103.	4.1	157
11	Effects of environment and genotype on growth traits in poplar clones in Northeast China. Euphytica, 2021, 217, 1.	1.2	6
12	An Overview of the Practices and Management Methods for Enhancing Seed Production in Conifer Plantations for Commercial Use. Horticulturae, 2021, 7, 252.	2.8	9
13	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.	8.3	29
14	Histone Acetylation Changes in Plant Response to Drought Stress. Genes, 2021, 12, 1409.	2.4	29
15	Enzyme Complexes of Ptr4CL and PtrHCT Modulate Co-enzyme A Ligation of Hydroxycinnamic Acids for Monolignol Biosynthesis in Populus trichocarpa. Frontiers in Plant Science, 2021, 12, 727932.	3.6	5
16	Molecular and Metabolic Insights into Anthocyanin Biosynthesis for Leaf Color Change in Chokecherry (Padus virginiana). International Journal of Molecular Sciences, 2021, 22, 10697.	4.1	33
17	Involvement of CesA4, CesA7-A/B and CesA8-A/B in secondary wall formation in Populus trichocarpa wood. Tree Physiology, 2020, 40, 73-89.	3.1	30
18	Microbial Interactions Within Multiple-Strain Biological Control Agents Impact Soil-Borne Plant Disease. Frontiers in Microbiology, 2020, 11, 585404.	3.5	111

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19	MYB Transcription Factor161 Mediates Feedback Regulation of <i>Secondary wall-associated NAC-Domain1</i> Family Genes for Wood Formation. Plant Physiology, 2020, 184, 1389-1406.	4.8	41
20	Use of the lignocellulose-degrading bacterium Caldicellulosiruptor bescii to assess recalcitrance and conversion of wild-type and transgenic poplar. Biotechnology for Biofuels, 2020, 13, 43.	6.2	9
21	Progeny performance and selection of superior trees within families in Larix olgensis. Euphytica, 2020, 216, 1.	1.2	11
22	Monolignol Benzoates Incorporate into the Lignin of Transgenic <i>Populus trichocarpa</i> Depleted in C3H and C4H. ACS Sustainable Chemistry and Engineering, 2020, 8, 3644-3654.	6.7	39
23	Modeling cross-regulatory influences on monolignol transcripts and proteins under single and combinatorial gene knockdowns in Populus trichocarpa. PLoS Computational Biology, 2020, 16, e1007197.	3.2	11
24	Quantitative fermentation of unpretreated transgenic poplar by Caldicellulosiruptor bescii. Nature Communications, 2019, 10, 3548.	12.8	22
25	Certification for gene-edited forests. Science, 2019, 365, 767-768.	12.6	12
26	A novel synthetic-genetic-arrayâ€"based yeast one-hybrid system for high discovery rate and short processing time. Genome Research, 2019, 29, 1343-1351.	5.5	20
27	Hierarchical Transcription Factor and Chromatin Binding Network for Wood Formation in <i>Populus trichocarpa</i>. Plant Cell, 2019, 31, 602-626.	6.6	109
28	Flux modeling for monolignol biosynthesis. Current Opinion in Biotechnology, 2019, 56, 187-192.	6.6	33
29	The AREB1 Transcription Factor Influences Histone Acetylation to Regulate Drought Responses and Tolerance in <i>Populus trichocarpa</i>. Plant Cell, 2019, 31, 663-686.	6.6	139
30	<scp>CAD</scp>1 and <scp>CCR</scp>2 protein complex formation in monolignol biosynthesis in <i>Populus trichocarpa</i>. New Phytologist, 2019, 222, 244-260.	7.3	43
31	Improving wood properties for wood utilization through multi-omics integration in lignin biosynthesis. Nature Communications, 2018, 9, 1579.	12.8	162
32	A Dedicated Satellite Trauma Orthopaedic Program Operating Room Safely Increases Capacity. Journal of Bone and Joint Surgery - Series A, 2018, 100, e70.	3.0	5
33	Assessing the impact of the 4CL enzyme complex on the robustness of monolignol biosynthesis using metabolic pathway analysis. PLoS ONE, 2018, 13, e0193896.	2.5	14
34	Enzyme-Enzyme Interactions in Monolignol Biosynthesis. Frontiers in Plant Science, 2018, 9, 1942.	3.6	26
35	Tissue and cell-type co-expression networks of transcription factors and wood component genes in Populus trichocarpa. Planta, 2017, 245, 927-938.	3.2	74
36	Reciprocal cross-regulation of VND and SND multigene TF families for wood formation in <i>Populus trichocarpa</i>. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9722-E9729.	7.1	62

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37	<i><scp>C</scp>aldicellulosiruptor saccharolyticus</i> transcriptomes reveal consequences of chemical pretreatment and genetic modification of lignocellulose. Microbial Biotechnology, 2017, 10, 1546-1557.	4.2	11
38	A cell wall-bound anionic peroxidase, PtrPO21, is involved in lignin polymerization in Populus trichocarpa. Tree Genetics and Genomes, 2016, 12, 1.	1.6	24
39	Bottom-up GGM algorithm for constructing multilayered hierarchical gene regulatory networks that govern biological pathways or processes. BMC Bioinformatics, 2016, 17, 132.	2.6	19
40	4-Coumaroyl and Caffeoyl Shikimic Acids Inhibit 4-Coumaric Acid:Coenzyme A Ligases and Modulate Metabolic Flux for 3-Hydroxylation in Monolignol Biosynthesis of Populus trichocarpa. Molecular Plant, 2015, 8, 176-187.	8.3	50
41	Improved Protocol for Alkaline Nitrobenzene Oxidation of Woody and Non-Woody Biomass. Journal of Wood Chemistry and Technology, 2015, 35, 52-61.	1.7	28
42	Phosphorylation is an on/off switch for 5-hydroxyconiferaldehyde <i>O</i> -methyltransferase activity in poplar monolignol biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8481-8486.	7.1	60
43	Wood characteristics and enzymatic saccharification efficiency of field-grown transgenic black cottonwood with altered lignin content and structure. Cellulose, 2015, 22, 683-693.	4.9	10
44	Elucidation of Xylem-Specific Transcription Factors and Absolute Quantification of Enzymes Regulating Cellulose Biosynthesis in <i>Populus trichocarpa</i>. Journal of Proteome Research, 2015, 14, 4158-4168.	3.7	14
45	Phenolic Compounds and Expression of 4CL Genes in Silver Birch Clones and Pt4CL1a Lines. PLoS ONE, 2014, 9, e114434.	2.5	14
46	A new <i>O</i>-methyltransferase for monolignol synthesis in <i>Carthamus tinctorius</i>. Plant Biotechnology, 2014, 31, 545-553.	1.0	2
47	Plant biotechnology for lignocellulosic biofuel production. Plant Biotechnology Journal, 2014, 12, 1174-1192.	8.3	96
48	4-Coumaroyl and Caffeoyl Shikimic Acids Inhibit 4-Coumaric Acid: Coenzyme A Ligases and Modulate Metabolic Flux for 3-Hydroxylation in Monolignol Biosynthesis of Populus trichocarpa. Molecular Plant, 2014, , .	8.3	0
49	A simple improved-throughput xylem protoplast system for studying wood formation. Nature Protocols, 2014, 9, 2194-2205.	12.0	81
50	Systems Biology of Lignin Biosynthesis in <i>Populus trichocarpa</i>: Heteromeric 4-Coumaric Acid:Coenzyme A Ligase Protein Complex Formation, Regulation, and Numerical Modeling. Plant Cell, 2014, 26, 876-893.	6.6	75
51	A robust chromatin immunoprecipitation protocol for studying transcription factorâ€“DNA interactions and histone modifications in wood-forming tissue. Nature Protocols, 2014, 9, 2180-2193.	12.0	63
52	Vibrational sum-frequency-generation (SFG) spectroscopy study of the structural assembly of cellulose microfibrils in reaction woods. Cellulose, 2014, 21, 2219-2231.	4.9	30
53	Complete Proteomic-Based Enzyme Reaction and Inhibition Kinetics Reveal How Monolignol Biosynthetic Enzyme Families Affect Metabolic Flux and Lignin in <i>Populus trichocarpa</i>. Plant Cell, 2014, 26, 894-914.	6.6	136
54	Popâ€™s Pipes: poplar gene expression data analysis pipelines. Tree Genetics and Genomes, 2014, 10, 1093-1101.	1.6	15

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55	Regulation of phenylalanine ammonia-lyase (PAL) gene family in wood forming tissue of Populus trichocarpa. Planta, 2013, 238, 487-497.	3.2	53
56	Ptr-miR397a is a negative regulator of laccase genes affecting lignin content in <i>Populus trichocarpa</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10848-10853.	7.1	329
57	Monolignol Pathway 4-Coumaric Acid:Coenzyme A Ligases in <i>Populus. trichocarpa</i>: Novel Specificity, Metabolic Regulation, and Simulation of Coenzyme A Ligation Fluxes Â. Plant Physiology, 2013, 161, 1501-1516.	4.8	54
58	SND1 Transcription Factor-Directed Quantitative Functional Hierarchical Genetic Regulatory Network in Wood Formation in Populus trichocarpa. Plant Cell, 2013, 25, 4324-4341.	6.6	131
59	A lignan O-methyltransferase catalyzing the regioselective methylation of matairesinol in Carthamus tinctorius. Plant Biotechnology, 2013, 30, 97-109.	1.0	20
60	High-level gene expression in differentiating xylem of tobacco driven by a 2.0^|^#8201;kb Poplar COMT2 promoter and a 4^|^times;35S enhancer. Plant Biotechnology, 2013, 30, 191-198.	1.0	0
61	Functional redundancy of the two 5-hydroxylases in monolignol biosynthesis of Populus trichocarpa: LCâ€"MS/MS based protein quantification and metabolic flux analysis. Planta, 2012, 236, 795-808.	3.2	19
62	A standard reaction condition and a single HPLC separation system are sufficient for estimation of monolignol biosynthetic pathway enzyme activities. Planta, 2012, 236, 879-885.	3.2	20
63	Splice variant of the SND1 transcription factor is a dominant negative of SND1 members and their regulation in <i>Populus trichocarpa</i>. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14699-14704.	7.1	143
64	Comprehensive Quantification of Monolignol-Pathway Enzymes in <i>Populus trichocarpa</i> by Protein Cleavage Isotope Dilution Mass Spectrometry. Journal of Proteome Research, 2012, 11, 3390-3404.	3.7	42
65	Effects of ligninâ€modified <i>Populus tremuloides</i> on soil organic carbon. Journal of Plant Nutrition and Soil Science, 2011, 174, 818-826.	1.9	4
66	Down-regulation of glycosyltransferase 8D genes in Populus trichocarpa caused reduced mechanical strength and xylan content in wood. Tree Physiology, 2011, 31, 226-236.	3.1	73
67	Membrane protein complexes catalyze both 4- and 3-hydroxylation of cinnamic acid derivatives in monolignol biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 21253-21258.	7.1	133
68	Specific down-regulation of PAL genes by artificial microRNAs in Populus trichocarpa. Planta, 2010, 232, 1281-1288.	3.2	49
69	Towards a Systems Approach for Lignin Biosynthesis in Populus trichocarpa: Transcript Abundance and Specificity of the Monolignol Biosynthetic Genes. Plant and Cell Physiology, 2010, 51, 144-163.	3.1	280
70	Lignin and Biomass: A Negative Correlation for Wood Formation and Lignin Content in Trees. Plant Physiology, 2010, 154, 555-561.	4.8	322
71	An update on the nomenclature for the cellulose synthase genes in Populus. Trends in Plant Science, 2009, 14, 248-254.	8.8	112
72	A Genomic and Molecular View of Wood Formation. Critical Reviews in Plant Sciences, 2006, 25, 215-233.	5.7	56

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73	The Cellulose Synthase Gene Superfamily and Biochemical Functions of Xylem-Specific Cellulose Synthase-Like Genes in Populus trichocarpa. Plant Physiology, 2006, 142, 1233-1245.	4.8	237
74	Monolignol biosynthesis and genetic engineering of lignin in trees, a review. Environmental Chemistry Letters, 2006, 4, 143-146.	16.2	62
75	Genetic Transformation of Populus trichocarpa Genotype Nisqually-1: A Functional Genomic Tool for Woody Plants. Plant and Cell Physiology, 2006, 47, 1582-1589.	3.1	109
76	Novel and Mechanical Stressâ€"Responsive MicroRNAs in Populus trichocarpa That Are Absent from Arabidopsis. Plant Cell, 2005, 17, 2186-2203.	6.6	552
77	Facile means for quantifying microRNA expression by real-time PCR. BioTechniques, 2005, 39, 519-525.	1.8	663
78	Clarification of Cinnamoyl Co-enzyme A Reductase Catalysis in Monolignol Biosynthesis of Aspen. Plant and Cell Physiology, 2005, 46, 1073-1082.	3.1	42
79	Combinatorial modification of multiple lignin traits in trees through multigene cotransformation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4939-4944.	7.1	370
80	Differential Substrate Inhibition Couples Kinetically Distinct 4-Coumarate:Coenzyme A Ligases with Spatially Distinct Metabolic Roles in Quaking Aspen. Plant Physiology, 2002, 128, 428-438.	4.8	98
81	From rags to riches. Nature Biotechnology, 2002, 20, 557-558.	17.5	55
82	The Last Step of Syringyl Monolignol Biosynthesis in Angiosperms Is Regulated by a Novel Gene Encoding Sinapyl Alcohol Dehydrogenase. Plant Cell, 2001, 13, 1567-1586.	6.6	219
83	A xylem-specific cellulose synthase gene from aspen (Populus tremuloides) is responsive to mechanical stress. Plant Journal, 2000, 22, 495-502.	5.7	140
84	5-Hydroxyconiferyl Aldehyde Modulates Enzymatic Methylation for Syringyl Monolignol Formation, a New View of Monolignol Biosynthesis in Angiosperms. Journal of Biological Chemistry, 2000, 275, 6537-6545.	3.4	216
85	Repression of lignin biosynthesis promotes cellulose accumulation and growth in transgenic trees. Nature Biotechnology, 1999, 17, 808-812.	17.5	684
86	Secondary xylem-specific expression of caffeoyl-coenzyme A 3-O-methyltransferase plays an important role in the methylation pathway associated with lignin biosynthesis in loblolly pine. Plant Molecular Biology, 1999, 40, 555-565.	3.9	72
87	Conserved sequence motifs in plant S-adenosyl-L-methionine-dependent methyltransferases. Plant Molecular Biology, 1998, 37, 663-674.	3.9	265
88	Suppression of O-Methyltransferase Gene by Homologous Sense Transgene in Quaking Aspen Causes Red-Brown Wood Phenotypes1. Plant Physiology, 1998, 117, 101-112.	4.8	148
89	Modification of lignin biosynthesis in transgenic Nicotiana through expression of an antisense O-methyltransferase gene from Populus. Plant Molecular Biology, 1994, 26, 61-71.	3.9	123
90	Isothermal Reaction Kinetics of Kraft Delignification of Douglas-Fir. Journal of Wood Chemistry and Technology, 1990, 10, 293-310.	1.7	30

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91	Lignin Fragmentation and Condensation Reactions in Middle Lamella and Secondary Wall Regions during Kraft Pulping of Douglas-Fir. Journal of Wood Chemistry and Technology, 1989, 9, 61-83.	1.7	7