

Laigeng Li

List of Publications by Year in descending order

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76
papers

4,921
citations

94269

37
h-index

95083

68
g-index

81
all docs

81
docs citations

81
times ranked

4917
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel and Mechanical Stress-Responsive MicroRNAs in <i>Populus trichocarpa</i> That Are Absent from <i>Arabidopsis</i> . <i>Plant Cell</i> , 2005, 17, 2186-2203.	3.1	552
2	Combinatorial modification of multiple lignin traits in trees through multigene cotransformation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 4939-4944.	3.3	370
3	Coniferyl aldehyde 5-hydroxylation and methylation direct syringyl lignin biosynthesis in angiosperms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 8955-8960.	3.3	308
4	The Cellulose Synthase Gene Superfamily and Biochemical Functions of Xylem-Specific Cellulose Synthase-Like Genes in <i>Populus trichocarpa</i> . <i>Plant Physiology</i> , 2006, 142, 1233-1245.	2.3	237
5	The Last Step of Syringyl Monolignol Biosynthesis in Angiosperms Is Regulated by a Novel Gene Encoding Sinapyl Alcohol Dehydrogenase. <i>Plant Cell</i> , 2001, 13, 1567-1586.	3.1	219
6	Functional Characterization of Evolutionarily Divergent 4-Coumarate:Coenzyme A Ligases in Rice. <i>Plant Physiology</i> , 2011, 157, 574-586.	2.3	218
7	5-Hydroxyconiferyl Aldehyde Modulates Enzymatic Methylation for Syringyl Monolignol Formation, a New View of Monolignol Biosynthesis in Angiosperms. <i>Journal of Biological Chemistry</i> , 2000, 275, 6537-6545.	1.6	216
8	The Receptor-Like Cytoplasmic Kinase STRK1 Phosphorylates and Activates CatC, Thereby Regulating H ₂ O ₂ Homeostasis and Improving Salt Tolerance in Rice. <i>Plant Cell</i> , 2018, 30, 1100-1118.	3.1	142
9	Intron-Mediated Alternative Splicing of WOOD-ASSOCIATED NAC TRANSCRIPTION FACTOR1B Regulates Cell Wall Thickening during Fiber Development in <i>Populus</i> Species. <i>Plant Physiology</i> , 2014, 164, 765-776.	2.3	123
10	A novel multifunctional O-methyltransferase implicated in a dual methylation pathway associated with lignin biosynthesis in loblolly pine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997, 94, 5461-5466.	3.3	116
11	OsREM4.1 Interacts with OsSERK1 to Coordinate the Interlinking between Abscisic Acid and Brassinosteroid Signaling in Rice. <i>Developmental Cell</i> , 2016, 38, 201-213.	3.1	114
12	<i>Grain setting defect1</i> , Encoding a Remorin Protein, Affects the Grain Setting in Rice through Regulating Plasmodesmatal Conductance. <i>Plant Physiology</i> , 2014, 166, 1463-1478.	2.3	113
13	PtrHB7, a class III HD-Zip Gene, Plays a Critical Role in Regulation of Vascular Cambium Differentiation in <i>Populus</i> . <i>Molecular Plant</i> , 2013, 6, 1331-1343.	3.9	108
14	Characterization of cellulose synthase complexes in <i>Populus</i> xylem differentiation. <i>New Phytologist</i> , 2010, 187, 777-790.	3.5	98
15	Shortened Basal Internodes Encodes a Gibberellin 2-Oxidase and Contributes to Lodging Resistance in Rice. <i>Molecular Plant</i> , 2018, 11, 288-299.	3.9	85
16	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. <i>Plant Molecular Biology</i> , 1999, 40, 555-565.	2.0	72
17	Distinct Roles of Cinnamate 4-hydroxylase Genes in <i>Populus</i> . <i>Plant and Cell Physiology</i> , 2006, 47, 905-914.	1.5	72
18	Abscisic acid regulates secondary cell-wall formation and lignin deposition in <i>Arabidopsis thaliana</i> through phosphorylation of NST1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	69

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19	Phosphorylation of LTF1, an MYB Transcription Factor in Populus, Acts as a Sensory Switch Regulating Lignin Biosynthesis in Wood Cells. <i>Molecular Plant</i> , 2019, 12, 1325-1337.	3.9	68
20	Genome biology of the paleotetraploid perennial biomass crop <i>Miscanthus</i> . <i>Nature Communications</i> , 2020, 11, 5442.	5.8	67
21	Phenylpropanoid Derivatives Are Essential Components of Sporopollenin in Vascular Plants. <i>Molecular Plant</i> , 2020, 13, 1644-1653.	3.9	66
22	Blue Light Regulates Secondary Cell Wall Thickening via MYC2/MYC4 Activation of the <i>NST1</i> -Directed Transcriptional Network in Arabidopsis. <i>Plant Cell</i> , 2018, 30, 2512-2528.	3.1	59
23	Rapid Characterization of Woody Biomass Digestibility and Chemical Composition Using Near-infrared Spectroscopy. <i>Journal of Integrative Plant Biology</i> , 2011, 53, 166-175.	4.1	57
24	A Genomic and Molecular View of Wood Formation. <i>Critical Reviews in Plant Sciences</i> , 2006, 25, 215-233.	2.7	56
25	<i>P</i> opulus <i>endo</i> - β -mannanase <i>MAN6</i> plays a role in coordinating cell wall remodeling with suppression of secondary wall thickening through generation of oligosaccharide signals. <i>Plant Journal</i> , 2013, 74, 473-485.	2.8	55
26	The Receptor-Like Kinase <i>AtVRLK1</i> Regulates Secondary Cell Wall Thickening. <i>Plant Physiology</i> , 2018, 177, 671-683.	2.3	52
27	Grain setting defect1 (<i>GSD1</i>) function in rice depends on S-acylation and interacts with actin 1 (<i>OsACT1</i>) at its C-terminal. <i>Frontiers in Plant Science</i> , 2015, 6, 804.	1.7	51
28	A <i>HD-ZIP III</i> gene, <i>PtrHB4</i> , is required for interfascicular cambium development in <i>Populus</i> . <i>Plant Biotechnology Journal</i> , 2018, 16, 808-817.	4.1	50
29	<i>CCR1</i> , an enzyme required for lignin biosynthesis in Arabidopsis, mediates cell proliferation exit for leaf development. <i>Plant Journal</i> , 2015, 83, 375-387.	2.8	45
30	Differential expression of three eucalyptus secondary cell wall-related cellulose synthase genes in response to tension stress. <i>Journal of Experimental Botany</i> , 2008, 59, 681-695.	2.4	43
31	<i>PtrKOR1</i> is required for secondary cell wall cellulose biosynthesis in <i>Populus</i> . <i>Tree Physiology</i> , 2014, 34, 1289-1300.	1.4	43
32	Fibre-specific regulation of lignin biosynthesis improves biomass quality in <i>Populus</i> . <i>New Phytologist</i> , 2020, 226, 1074-1087.	3.5	43
33	Clarification of Cinnamoyl Co-enzyme A Reductase Catalysis in Monolignol Biosynthesis of Aspen. <i>Plant and Cell Physiology</i> , 2005, 46, 1073-1082.	1.5	42
34	<i>PtrCel9A6</i> , an Endo-1,4- β -Glucanase, Is Required for Cell Wall Formation during Xylem Differentiation in <i>Populus</i> . <i>Molecular Plant</i> , 2013, 6, 1904-1917.	3.9	42
35	Formation of wood secondary cell wall may involve two type cellulose synthase complexes in <i>Populus</i> . <i>Plant Molecular Biology</i> , 2017, 93, 419-429.	2.0	42
36	Conservation and functional influence of alternative splicing in wood formation of <i>Populus</i> and <i>Eucalyptus</i> . <i>BMC Genomics</i> , 2014, 15, 780.	1.2	41

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37	Plant growth, biomass partitioning and soil carbon formation in response to altered lignin biosynthesis in <i>Populus tremuloides</i> . <i>New Phytologist</i> , 2007, 173, 732-742.	3.5	40
38	Modulation of NAC transcription factor NST1 activity by XYLEM NAC DOMAIN1 regulates secondary cell wall formation in <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2020, 71, 1449-1458.	2.4	39
39	Development of highly regenerable callus lines and biolistic transformation of turf-type common bermudagrass [<i>Cynodon dactylon</i> (L.) Pers.]. <i>Plant Cell Reports</i> , 2004, 22, 403-407.	2.8	38
40	SUMO modification of LBD30 by SIZ1 regulates secondary cell wall formation in <i>Arabidopsis thaliana</i> . <i>PLoS Genetics</i> , 2019, 15, e1007928.	1.5	37
41	RNA silencing in plants by the expression of siRNA duplexes. <i>Nucleic Acids Research</i> , 2004, 32, e171-e171.	6.5	35
42	Rapid analysis of transgenic trees using transmittance near-infrared spectroscopy (NIR). <i>Holzforschung</i> , 2006, 60, 24-28.	0.9	35
43	Characterization of the plasma membrane proteins and receptor-like kinases associated with secondary vascular differentiation in poplar. <i>Plant Molecular Biology</i> , 2011, 76, 97-115.	2.0	35
44	An MKP-MAPK protein phosphorylation cascade controls vascular immunity in plants. <i>Science Advances</i> , 2022, 8, eabg8723.	4.7	35
45	Triplin, a small molecule, reveals copper ion transport in ethylene signaling from ATX1 to RAN1. <i>PLoS Genetics</i> , 2017, 13, e1006703.	1.5	32
46	Major Chromosomal Rearrangements Distinguish Willow and Poplar After the Ancestral <i>Salicoid</i> Genome Duplication. <i>Genome Biology and Evolution</i> , 2016, 8, 1868-1875.	1.1	30
47	Two MADS-box genes regulate vascular cambium activity and secondary growth by modulating auxin homeostasis in <i>Populus</i> . <i>Plant Communications</i> , 2021, 2, 100134.	3.6	28
48	Decipher the ancestry of the plant-specific LBD gene family. <i>BMC Genomics</i> , 2017, 18, 951.	1.2	27
49	In vitro somatic embryogenesis in turf-type bermudagrass: roles of abscisic acid and gibberellic acid, and occurrence of secondary somatic embryogenesis. <i>Plant Breeding</i> , 2002, 121, 155-158.	1.0	26
50	Biomass properties from different <i>Miscanthus</i> species. <i>Food and Energy Security</i> , 2013, 2, 12-19.	2.0	26
51	Agrobacterium-Mediated Transformation of Common Bermudagrass (<i>Cynodon dactylon</i>). <i>Plant Cell, Tissue and Organ Culture</i> , 2005, 83, 223-229.	1.2	25
52	Chromosome-scale assembly and analysis of biomass crop <i>Miscanthus lutarioriparius</i> genome. <i>Nature Communications</i> , 2021, 12, 2458.	5.8	25
53	Genetic modification of wood quality for second-generation biofuel production. <i>GM Crops</i> , 2010, 1, 230-236.	1.8	24
54	A xylem-produced peptide PtrCLE20 inhibits vascular cambium activity in <i>Populus</i> . <i>Plant Biotechnology Journal</i> , 2020, 18, 195-206.	4.1	23

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55	Identification of molecular processes needed for vascular formation through transcriptome analysis of different vascular systems. <i>BMC Genomics</i> , 2013, 14, 217.	1.2	21
56	Cell-Specific Suppression of 4-Coumarate-CoA Ligase Gene Reveals Differential Effect of Lignin on Cell Physiological Function in <i>Populus</i> . <i>Frontiers in Plant Science</i> , 2020, 11, 589729.	1.7	21
57	A lignan O-methyltransferase catalyzing the regioselective methylation of matairesinol in <i>Carthamus tinctorius</i> . <i>Plant Biotechnology</i> , 2013, 30, 97-109.	0.5	20
58	Multi-layered Regulation of Plant Cell Wall Thickening. <i>Plant and Cell Physiology</i> , 2021, 62, 1867-1873.	1.5	18
59	Suppression of <i>PtrDUF579-3</i> Expression Causes Structural Changes of the Glucuronoxylan in <i>Populus</i> . <i>Frontiers in Plant Science</i> , 2016, 7, 493.	1.7	17
60	Diverse roles of <i>PtrDUF579</i> proteins in <i>Populus</i> and <i>PtrDUF579-1</i> function in vascular cambium proliferation during secondary growth. <i>Plant Molecular Biology</i> , 2014, 85, 601-612.	2.0	16
61	Preliminary tests to evaluate the mechanical properties of young trees with small diameter. <i>Holzforschung</i> , 2007, 61, 390-393.	0.9	12
62	Microwave Pretreatment of Switchgrass to Enhance Enzymatic Hydrolysis. , 2007, , .		10
63	Profiling of phenylpropanoid monomers in developing xylem tissue of transgenic aspen (<i>Populus</i>) Tj ETQq1 1 0.784314 rgBT /Overloc 0.9 10		
64	Effect of Lignin Genetic Modification on Wood Anatomy of Aspen Trees. <i>IAWA Journal</i> , 2010, 31, 29-38.	2.7	9
65	An auxin-induced β -type endo-1,4- β -glucanase in poplar is involved in cell expansion and lateral root formation. <i>Planta</i> , 2018, 247, 1149-1161.	1.6	8
66	Molecular understanding of wood formation in trees. <i>Forestry Research</i> , 2022, 2, 0-0.	0.5	8
67	N-glycosylation and dimerization regulate the <i>PtrMAN6</i> enzyme activity that may modulate generation of oligosaccharide signals. <i>Plant Signaling and Behavior</i> , 2013, 8, e26956.	1.2	7
68	A Comparative Analysis of Transcription Networks Active in Juvenile and Mature Wood in <i>Populus</i> . <i>Frontiers in Plant Science</i> , 2021, 12, 675075.	1.7	7
69	Elastic Modulus Determination of Transgenic Aspen Using a Dynamic Mechanical Analyzer in Static Bending Mode. <i>Forest Products Journal</i> , 2010, 60, 296-300.	0.2	7
70	The Last Step of Syringyl Monolignol Biosynthesis in Angiosperms Is Regulated by a Novel Gene Encoding Sinapyl Alcohol Dehydrogenase. <i>Plant Cell</i> , 2001, 13, 1567.	3.1	5
71	Translate Plant Metabolism into Modern Agriculture: A Starting Point. <i>Molecular Plant</i> , 2012, 5, 291-293.	3.9	2
72	A new β -methyltransferase for monolignol synthesis in <i>Carthamus tinctorius</i> . <i>Plant Biotechnology</i> , 2014, 31, 545-553.	0.5	2

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73	Identification of Auxin Activity Like 1, a chemical with weak functions in auxin signaling pathway. <i>Plant Molecular Biology</i> , 2018, 98, 275-287.	2.0	2
74	A small molecule inhibits cell elongation by modulating cell wall polysaccharide composition in <i>Arabidopsis</i> . <i>Cell Surface</i> , 2021, 7, 100049.	1.5	2
75	A brief view of international conference on plant cell wall biology 2017. <i>Science Bulletin</i> , 2017, 62, 1357-1358.	4.3	1
76	HD-Zip III Transcription Factor and Cell Differentiation in Plants. <i>Chinese Bulletin of Botany</i> , 2013, 48, 199-209.	0.0	1