Fachuang Lu

List of Publications by Year
in descending order

93 papers	9,211 citations	44069 48 h-index	42399 92 g-index
95 all docs	95 docs citations	95 times ranked	6609 citing authors

#	Article	IF	Citations
1	High-throughput platform for yeast morphological profiling predicts the targets of bioactive compounds. Npj Systems Biology and Applications, 2022, 8, 3.	3.0	5
2	Isolation, Characterization, and Depolymerization of <scp>l</scp>â€Cysteine Substituted <i>Eucalyptus</i> Lignin. Global Challenges, 2022, 6, 2100130.	3.6	2
3	Manipulation of Lignin Monomer Composition Combined with the Introduction of Monolignol Conjugate Biosynthesis Leads to Synergistic Changes in Lignin Structure. Plant and Cell Physiology, 2022, 63, 744-754.	3.1	12
4	Synthesis of hydroxycinnamoyl shikimates and their role in monolignol biosynthesis. Holzforschung, 2022, 76, 133-144.	1.9	3
5	A tailored fast thioacidolysis method incorporating multi-reaction monitoring mode of GC-MS for higher sensitivity on lignin monomer quantification. Holzforschung, 2022, .	1.9	0
6	The flying spider-monkey tree fern genome provides insights into fern evolution and arborescence. Nature Plants, 2022, 8, 500-512.	9.3	42
7	Fabrication of Novel Cellulose-Based Antibacterial Film Loaded with Poacic Acid against Staphylococcus Aureus. Journal of Polymers and the Environment, 2021, 29, 745-754.	5.0	5
8	Efficient Synthesis of Pinoresinol, an Important Lignin Dimeric Model Compound. Frontiers in Energy Research, 2021, 9, .	2.3	2
9	Aminoâ€functionalized glucuronoxylan as an efficient bioâ€based emulsifier. Cellulose, 2021, 28, 3677-3689.	4.9	10
10	BEL1-like Homeodomain Protein BLH6a Is a Negative Regulator of CAld5H2 in Sinapyl Alcohol Monolignol Biosynthesis in Poplar. Frontiers in Plant Science, 2021, 12, 695223.	3.6	5
11	Ferulate-sinapyl alcohol cross-coupling reaction improves the understanding of grass cell wall lignification. Industrial Crops and Products, 2021, 168, 113587.	5.2	6
12	A facile spectroscopic method for measuring lignin content in lignocellulosic biomass. Green Chemistry, 2021, 23, 5106-5112.	9.0	46
13	Incorporation of catechyl monomers into lignins: lignification from the non-phenolic end<i>via</i>Dielsâ€“Alder cycloaddition?. Green Chemistry, 2021, 23, 8995-9013.	9.0	6
14	Revealing the structure-activity relationship between lignin and anti-UV radiation. Industrial Crops and Products, 2021, 174, 114212.	5.2	39
15	New Products Generated from the Transformations of Ferulic Acid Dilactone. Biomolecules, 2020, 10, 175.	4.0	8
16	Synthesis and emulsifying properties of long-chain succinic acid esters of glucuronoxylans. Cellulose, 2019, 26, 3713-3724.	4.9	17
17	Structural features of alternative lignin monomers associated with improved digestibility of artificially lignified maize cell walls. Plant Science, 2019, 287, 110070.	3.6	14
18	Elucidating Tricin-Lignin Structures: Assigning Correlations in HSQC Spectra of Monocot Lignins. Polymers, 2018, 10, 916.	4.5	30

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19	The structure-antioxidant activity relationship of dehydrodiferulates. Food Chemistry, 2018, 269, 480-485.	8.2	43
20	Ligninâ€Derived Thioacidolysis Dimers: Reevaluation, New Products, Authentication, and Quantification. ChemSusChem, 2017, 10, 830-835.	6.8	41
21	Scaled-up production of poacic acid, a plant-derived antifungal agent. Industrial Crops and Products, 2017, 103, 240-243.	5.2	6
22	Degradation of lignin Î²â€aryl ether units in <i>Arabidopsis thaliana</i> expressing <i>LigD</i>,<i> LigF</i> and <i>LigG</i> from <i>Sphingomonas paucimobilis </i><scp>SYK</scp>â€6. Plant Biotechnology Journal, 2017, 15, 581-593.	8.3	29
23	Low Temperature Soda-Oxygen Pulping of Bagasse. Molecules, 2016, 21, 85.	3.8	22
24	Structural Modifications of Sugarcane Bagasse Lignins during Wet-Storage and Soda-Oxygen Pulping. ACS Sustainable Chemistry and Engineering, 2016, 4, 5311-5318.	6.7	19
25	Maize Tricin-Oligolignol Metabolites and their Implications for Monocot Lignification. Plant Physiology, 2016, 171, pp.02012.2016.	4.8	55
26	Isolation and characterization of new lignin streams derived from extractive-ammonia (EA) pretreatment. Green Chemistry, 2016, 18, 4205-4215.	9.0	68
27	Identification of 4â€“Oâ€“5-Units in Softwood Lignins via Definitive Lignin Models and NMR. Biomacromolecules, 2016, 17, 1909-1920.	5.4	77
28	Flexible Method for Conjugation of Phenolic Lignin Model Compounds to Carrier Proteins. Journal of Agricultural and Food Chemistry, 2016, 64, 7782-7788.	5.2	3
29	Tricinâ€lignins: occurrence and quantitation of tricin in relation to phylogeny. Plant Journal, 2016, 88, 1046-1057.	5.7	118
30	Monolignol ferulate conjugates are naturally incorporated into plant lignins. Science Advances, 2016, 2, e1600393.	10.3	147
31	Next-generation ammonia pretreatment enhances cellulosic biofuel production. Energy and Environmental Science, 2016, 9, 1215-1223.	30.8	169
32	Understanding the Physicochemical Characteristics and the Improved Enzymatic Saccharification of Corn Stover Pretreated with Aqueous and Gaseous Ammonia. Bioenergy Research, 2016, 9, 67-76.	3.9	48
33	Plant-derived antifungal agent poacic acid targets Î²-1,3-glucan. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1490-7.	7.1	91
34	Lignin monomer production integrated into the Î³-valerolactone sugar platform. Energy and Environmental Science, 2015, 8, 2657-2663.	30.8	212
35	Naturally p-Hydroxybenzoylated Lignins in Palms. Bioenergy Research, 2015, 8, 934-952.	3.9	99
36	Syringyl lignin production in conifers: Proof of concept in a Pine tracheary element system. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6218-6223.	7.1	98

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37	Engineering monolignol p-coumarate conjugates into Poplar and Arabidopsis lignins. Plant Physiology, 2015, 169, pp.00815.2015.	4.8	47
38	Tricin, a Flavonoid Monomer in Monocot Lignification Â. Plant Physiology, 2015, 167, 1284-1295.	4.8	283
39	Differences in the chemical structure of the lignins from sugarcane bagasse and straw. Biomass and Bioenergy, 2015, 81, 322-338.	5.7	227
40	Phenylcoumaran Benzylic Ether Reductase Prevents Accumulation of Compounds Formed under Oxidative Conditions in Poplar Xylem. Plant Cell, 2014, 26, 3775-3791.	6.6	43
41	Catalytic Alkaline Oxidation of Lignin and its Model Compounds: a Pathway to Aromatic Biochemicals. Bioenergy Research, 2014, 7, 78-86.	3.9	75
42	<i>p</i>â€Coumaroylâ€<scp>C</scp>o<scp>A</scp>:monolignol transferase (<scp>PMT</scp>) acts specifically in the lignin biosynthetic pathway in <i><scp>B</scp>rachypodium distachyon</i>. Plant Journal, 2014, 77, 713-726.	5.7	175
43	Determination of the Structure and Catalytic Mechanism of <i>Sorghum bicolor</i> Caffeic Acid <i>O</i>-Methyltransferase and the Structural Impact of Three <i>brown midrib12</i> Mutations Â. Plant Physiology, 2014, 165, 1440-1456.	4.8	33
44	A Highly Diastereoselective Oxidant Contributes to Ligninolysis by the White Rot Basidiomycete Ceriporiopsis subvermispora. Applied and Environmental Microbiology, 2014, 80, 7536-7544.	3.1	14
45	Application of new expansion pretreatment method on agricultural waste. Part I: Influence of pretreatment on the properties of lignin. Industrial Crops and Products, 2013, 50, 887-895.	5.2	36
46	Preparation of monolignol Î³-acetate, Î³-p-hydroxycinnamate, and Î³-p-hydroxybenzoate conjugates: selective deacylation of phenolic acetates with hydrazine acetate. RSC Advances, 2013, 3, 21964.	3.6	17
47	Identification of Grass-specific Enzyme That Acylates Monolignols with p-Coumarate. Journal of Biological Chemistry, 2012, 287, 8347-8355.	3.4	140
48	Synthesis and Characterization of New 5â€Linked Pinoresinol Lignin Models. Chemistry - A European Journal, 2012, 18, 16402-16410.	3.3	33
49	Rapid Syntheses of Dehydrodiferulates via Biomimetic Radical Coupling Reactions of Ethyl Ferulate. Journal of Agricultural and Food Chemistry, 2012, 60, 8272-8277.	5.2	16
50	Whole plant cell wall characterization using solution-state 2D NMR. Nature Protocols, 2012, 7, 1579-1589.	12.0	563
51	Syntheses of Lignin-Derived Thioacidolysis Monomers and Their Uses as Quantitation Standards. Journal of Agricultural and Food Chemistry, 2012, 60, 922-928.	5.2	92
52	Molecular and Biochemical Basis for Stress-Induced Accumulation of Free and Bound<i>p</i>-Coumaraldehyde in Cucumber Â Â. Plant Physiology, 2011, 157, 1056-1066.	4.8	23
53	Solution-State NMR of Lignocellulosic Biomass. Journal of Biobased Materials and Bioenergy, 2011, 5, 169-180.	0.3	41
54	Identifying new lignin bioengineering targets: 1. Monolignol-substitute impacts on lignin formation and cell wall fermentability. BMC Plant Biology, 2010, 10, 114.	3.6	75

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55	Engineering traditional monolignols out of lignin by concomitant up-regulation of F5H1 and down-regulation of COMT in Arabidopsis. Plant Journal, 2010, 64, 885-897.	5.7	114
56	Sequencing around 5-Hydroxyconiferyl Alcohol-Derived Units in Caffeic Acid <i>O</i>-Methyltransferase-Deficient Poplar Lignins Â. Plant Physiology, 2010, 153, 569-579.	4.8	52
57	Lignin. , 2010, , 169-207.		33
58	Mass Spectrometry-Based Fragmentation as an Identification Tool in Lignomics. Analytical Chemistry, 2010, 82, 8095-8105.	6.5	140
59	Cell wall fermentation kinetics are impacted more by lignin content and ferulate crossâ€linking than by lignin composition. Journal of the Science of Food and Agriculture, 2009, 89, 122-129.	3.5	116
60	Ferulateâ€"coniferyl alcohol cross-coupled products formed by radical coupling reactions. Planta, 2009, 229, 1099-1108.	3.2	29
61	Grass lignin acylation: p-coumaroyl transferase activity and cell wall characteristics of C3 and C4 grasses. Planta, 2009, 229, 1253-1267.	3.2	94
62	Identification of the structure and origin of a thioacidolysis marker compound for ferulic acid incorporation into angiosperm lignins (and an indicator for cinnamoyl CoA reductase deficiency). Plant Journal, 2008, 53, 368-379.	5.7	114
63	Novel tetrahydrofuran structures derived from Î²â€"Î²-coupling reactions involving sinapyl acetate in Kenaf lignins. Organic and Biomolecular Chemistry, 2008, 6, 3681.	2.8	94
64	Coniferyl Ferulate Incorporation into Lignin Enhances the Alkaline Delignification and Enzymatic Degradation of Cell Walls. Biomacromolecules, 2008, 9, 2510-2516.	5.4	114
65	NMR Studies on the Occurrence of Spirodienone Structures in Lignins. Journal of Wood Chemistry and Technology, 2006, 26, 65-79.	1.7	112
66	Effects of Coumarate 3-Hydroxylase Down-regulation on Lignin Structure. Journal of Biological Chemistry, 2006, 281, 8843-8853.	3.4	209
67	Phenolic Profiling of Caffeic Acid O-Methyltransferase-Deficient Poplar Reveals Novel Benzodioxane Oligolignols. Plant Physiology, 2004, 136, 4023-4036.	4.8	86
68	Profiling of Oligolignols Reveals Monolignol Coupling Conditions in Lignifying Poplar Xylem. Plant Physiology, 2004, 136, 3537-3549.	4.8	180
69	Lignins: Natural polymers from oxidative coupling of 4-hydroxyphenyl- propanoids. Phytochemistry Reviews, 2004, 3, 29-60.	6.5	1,282
70	Peroxidase-dependent cross-linking reactions of p-hydroxycinnamates in plant cell walls. Phytochemistry Reviews, 2004, 3, 79-96.	6.5	239
71	Preparation and relevance of a cross-coupling product between sinapyl alcohol and sinapyl p-hydroxybenzoate. Organic and Biomolecular Chemistry, 2004, 2, 2888.	2.8	83
72	Lignins and Ferulateâ^'Coniferyl Alcohol Cross-Coupling Products in Cereal Grains. Journal of Agricultural and Food Chemistry, 2004, 52, 6496-6502.	5.2	108

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73	A new Arabidopsis thaliana mutant deficient in the expression of O-methyltransferase impacts lignins and sinapoyl esters. Plant Molecular Biology, 2003, 51, 973-989.	3.9	181
74	Non-degradative dissolution and acetylation of ball-milled plant cell walls: high-resolution solution-state NMR. Plant Journal, 2003, 35, 535-544.	5.7	330
75	NMR analysis of lignins in CAD-deficient plants. Part 1. Incorporation of hydroxycinnamaldehydes and hydroxybenzaldehydes into lignins. Organic and Biomolecular Chemistry, 2003, 1, 268-281.	2.8	145
76	Sinapate Dehydrodimers and Sinapateâ"Ferulate Heterodimers in Cereal Dietary Fiber. Journal of Agricultural and Food Chemistry, 2003, 51, 1427-1434.	5.2	99
77	Identification of the Structure and Origin of Thioacidolysis Marker Compounds for Cinnamyl Alcohol Dehydrogenase Deficiency in Angiosperms. Journal of Biological Chemistry, 2002, 277, 47412-47419.	3.4	80
78	Preliminary evidence for sinapyl acetate as a lignin monomer in kenaf. Chemical Communications, 2002, , 90-91.	4.1	88
79	NMR Evidence for Benzodioxane Structures Resulting from Incorporation of 5-Hydroxyconiferyl Alcohol into Lignins of<i>O</i>-Methyltransferase-Deficient Poplars. Journal of Agricultural and Food Chemistry, 2001, 49, 86-91.	5.2	109
80	Elucidation of new structures in lignins of CAD- and COMT-deficient plants by NMR. Phytochemistry, 2001, 57, 993-1003.	2.9	195
81	Isochroman lignin trimers from DFRC-degraded Pinus taeda1Part 5 in the series â€œThe DFRC Method for Lignin Analysisâ€• Previous paper: Peng, J., Lu, F., & Ralph, J. (1998). â€œPart 4. Lignin Dimers Isolated from DFRC-Degraded Loblolly Pine Woodâ€•J. Agric. Food Chem., 46, 553â€"560.1. Phytochemistry, 1999, 50, 659-666.	2.9	45
82	Are Lignins Optically Active?. Journal of Agricultural and Food Chemistry, 1999, 47, 2991-2996.	5.2	132
83	Detection and Determination ofp-Coumaroylated Units in Lignins. Journal of Agricultural and Food Chemistry, 1999, 47, 1988-1992.	5.2	181
84	Arylpropane-1,3-diols in Lignins from Normal and CAD-Deficient Pines. Organic Letters, 1999, 1, 323-326.	4.6	36
85	The DFRC Method for Lignin Analysis. 7. Behavior of Cinnamyl End Groups. Journal of Agricultural and Food Chemistry, 1999, 47, 1981-1987.	5.2	22
86	The DFRC Method for Lignin Analysis. 2. Monomers from Isolated Lignins. Journal of Agricultural and Food Chemistry, 1998, 46, 547-552.	5.2	131
87	Facile Synthesis of 4-Hydroxycinnamylp-Coumarates. Journal of Agricultural and Food Chemistry, 1998, 46, 2911-2913.	5.2	33
88	The DFRC Method for Lignin Analysis. 6. A Simple Modification for Identifying Natural Acetates on Lignins. Journal of Agricultural and Food Chemistry, 1998, 46, 4616-4619.	5.2	94
89	The DFRC Method for Lignin Analysis. 4. Lignin Dimers Isolated from DFRC-Degraded Loblolly Pine Wood. Journal of Agricultural and Food Chemistry, 1998, 46, 553-560.	5.2	46
90	Highly Selective Syntheses of Coniferyl and Sinapyl Alcohols. Journal of Agricultural and Food Chemistry, 1998, 46, 1794-1796.	5.2	25

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91	The DFRC Method for Lignin Analysis. Part 3. NMR Studies. Journal of Wood Chemistry and Technology, 1998, 18, 219-233.	1.7	27
92	Derivatization Followed by Reductive Cleavage (DFRC Method), a New Method for Lignin Analysis:Â Protocol for Analysis of DFRC Monomers. Journal of Agricultural and Food Chemistry, 1997, 45, 2590-2592.	5.2	278
93	DFRC Method for Lignin Analysis. 1. New Method for Î²-Aryl Ether Cleavage:Â Lignin Model Studies. Journal of Agricultural and Food Chemistry, 1997, 45, 4655-4660.	5.2	177