

Fachuang Lu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

90
papers

7,435
citations

46
h-index

86
g-index

95
ext. papers

8,433
ext. citations

6.6
avg, IF

5.7
L-index

#	Paper	IF	Citations
90	High-throughput platform for yeast morphological profiling predicts the targets of bioactive compounds.. <i>Npj Systems Biology and Applications</i> , 2022 , 8, 3	5	0
89	Isolation, Characterization, and Depolymerization of l-Cysteine Substituted Lignin.. <i>Global Challenges</i> , 2022 , 6, 2100130	4.3	0
88	Synthesis of hydroxycinnamoyl shikimates and their role in monolignol biosynthesis. <i>Holzforschung</i> , 2022 , 76, 133-144	2	1
87	Incorporation of catechyl monomers into lignins: lignification from the non-phenolic end via Diels-Alder cycloaddition?. <i>Green Chemistry</i> , 2021 , 23, 8995-9013	10	1
86	Revealing the structure-activity relationship between lignin and anti-UV radiation. <i>Industrial Crops and Products</i> , 2021 , 174, 114212	5.9	8
85	Amino-functionalized glucuronoxytan as an efficient bio-based emulsifier. <i>Cellulose</i> , 2021 , 28, 3677-3689	5.5	1
84	BEL1-like Homeodomain Protein BLH6a Is a Negative Regulator of in Sinapyl Alcohol Monolignol Biosynthesis in Poplar. <i>Frontiers in Plant Science</i> , 2021 , 12, 695223	6.2	0
83	Fabrication of Novel Cellulose-Based Antibacterial Film Loaded with Poacic Acid against Staphylococcus Aureus. <i>Journal of Polymers and the Environment</i> , 2021 , 29, 745-754	4.5	2
82	Ferulate-sinapyl alcohol cross-coupling reaction improves the understanding of grass cell wall lignification. <i>Industrial Crops and Products</i> , 2021 , 168, 113587	5.9	3
81	A facile spectroscopic method for measuring lignin content in lignocellulosic biomass. <i>Green Chemistry</i> , 2021 , 23, 5106-5112	10	7
80	New Products Generated from the Transformations of Ferulic Acid Dilactone. <i>Biomolecules</i> , 2020 , 10,	5.9	5
79	Synthesis and emulsifying properties of long-chain succinic acid esters of glucuronoxytan. <i>Cellulose</i> , 2019 , 26, 3713-3724	5.5	6
78	Structural features of alternative lignin monomers associated with improved digestibility of artificially lignified maize cell walls. <i>Plant Science</i> , 2019 , 287, 110070	5.3	10
77	The structure-antioxidant activity relationship of dehydrodiferulates. <i>Food Chemistry</i> , 2018 , 269, 480-485	5.5	28
76	Elucidating Tricin-Lignin Structures: Assigning Correlations in HSQC Spectra of Monocot Lignins. <i>Polymers</i> , 2018 , 10,	4.5	23
75	Lignin-Derived Thioacidolysis Dimers: Reevaluation, New Products, Authentication, and Quantification. <i>ChemSusChem</i> , 2017 , 10, 830-835	8.3	30
74	Scaled-up production of poacic acid, a plant-derived antifungal agent. <i>Industrial Crops and Products</i> , 2017 , 103, 240-243	5.9	6

73	Degradation of lignin β-aryl ether units in Arabidopsis thaliana expressing LigD, LigF and LigG from Sphingomonas paucimobilis SYK-6. <i>Plant Biotechnology Journal</i> , 2017 , 15, 581-593	11.6	20
72	Understanding the Physicochemical Characteristics and the Improved Enzymatic Saccharification of Corn Stover Pretreated with Aqueous and Gaseous Ammonia. <i>Bioenergy Research</i> , 2016 , 9, 67-76	3.1	41
71	Tricin-lignins: occurrence and quantitation of triclin in relation to phylogeny. <i>Plant Journal</i> , 2016 , 88, 1046-1057	6.9	89
70	Monolignol ferulate conjugates are naturally incorporated into plant lignins. <i>Science Advances</i> , 2016 , 2, e1600393	14.3	99
69	Next-generation ammonia pretreatment enhances cellulosic biofuel production. <i>Energy and Environmental Science</i> , 2016 , 9, 1215-1223	35.4	141
68	Low Temperature Soda-Oxygen Pulping of Bagasse. <i>Molecules</i> , 2016 , 21, 85	4.8	13
67	Structural Modifications of Sugarcane Bagasse Lignins during Wet-Storage and Soda-Oxygen Pulping. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 5311-5318	8.3	12
66	Maize Tricin-Oligolignol Metabolites and Their Implications for Monocot Lignification. <i>Plant Physiology</i> , 2016 , 171, 810-20	6.6	43
65	Isolation and characterization of new lignin streams derived from extractive-ammonia (EA) pretreatment. <i>Green Chemistry</i> , 2016 , 18, 4205-4215	10	57
64	Identification of 4-O-5-Units in Softwood Lignins via Definitive Lignin Models and NMR. <i>Biomacromolecules</i> , 2016 , 17, 1909-20	6.9	63
63	Flexible Method for Conjugation of Phenolic Lignin Model Compounds to Carrier Proteins. <i>Journal of Agricultural and Food Chemistry</i> , 2016 , 64, 7782-7788	5.7	3
62	Plant-derived antifungal agent p-coumaric acid targets β-1,3-glucan. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E1490-7	11.5	73
61	Lignin monomer production integrated into the Valerolactone sugar platform. <i>Energy and Environmental Science</i> , 2015 , 8, 2657-2663	35.4	174
60	Naturally p-Hydroxybenzoylated Lignins in Palms. <i>Bioenergy Research</i> , 2015 , 8, 934-952	3.1	69
59	Syringyl lignin production in conifers: Proof of concept in a Pine tracheary element system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 6218-23	11.5	74
58	Engineering Monolignol p-Coumarate Conjugates into Poplar and Arabidopsis Lignins. <i>Plant Physiology</i> , 2015 , 169, 2992-3001	6.6	33
57	Tricin, a flavonoid monomer in monocot lignification. <i>Plant Physiology</i> , 2015 , 167, 1284-95	6.6	203
56	Differences in the chemical structure of the lignins from sugarcane bagasse and straw. <i>Biomass and Bioenergy</i> , 2015 , 81, 322-338	5.3	153

55	p-Coumaroyl-CoA:monolignol transferase (PMT) acts specifically in the lignin biosynthetic pathway in <i>Brachypodium distachyon</i> . <i>Plant Journal</i> , 2014 , 77, 713-26	6.9	118
54	Determination of the Structure and Catalytic Mechanism of Sorghum bicolor Caffeic Acid O-Methyltransferase and the Structural Impact of Three brown midrib2 Mutations. <i>Plant Physiology</i> , 2014 , 165, 1440-1456	6.6	26
53	A highly diastereoselective oxidant contributes to Ligninolysis by the white rot basidiomycete <i>Ceriporiopsis subvermispora</i> . <i>Applied and Environmental Microbiology</i> , 2014 , 80, 7536-44	4.8	11
52	Phenylcoumaran benzylic ether reductase prevents accumulation of compounds formed under oxidative conditions in poplar xylem. <i>Plant Cell</i> , 2014 , 26, 3775-91	11.6	30
51	Catalytic Alkaline Oxidation of Lignin and its Model Compounds: a Pathway to Aromatic Biochemicals. <i>Bioenergy Research</i> , 2014 , 7, 78-86	3.1	66
50	Application of new expansion pretreatment method on agricultural waste. Part I: Influence of pretreatment on the properties of lignin. <i>Industrial Crops and Products</i> , 2013 , 50, 887-895	5.9	29
49	Preparation of monolignol β -acetate, β -hydroxycinnamate, and β -hydroxybenzoate conjugates: selective deacylation of phenolic acetates with hydrazine acetate. <i>RSC Advances</i> , 2013 , 3, 21964	3.7	13
48	Synthesis and characterization of new 5-linked pinoresinol lignin models. <i>Chemistry - A European Journal</i> , 2012 , 18, 16402-10	4.8	29
47	Rapid syntheses of dehydrodiferulates via biomimetic radical coupling reactions of ethyl ferulate. <i>Journal of Agricultural and Food Chemistry</i> , 2012 , 60, 8272-7	5.7	15
46	Whole plant cell wall characterization using solution-state 2D NMR. <i>Nature Protocols</i> , 2012 , 7, 1579-89	18.8	434
45	Syntheses of lignin-derived thioacidolysis monomers and their uses as quantitation standards. <i>Journal of Agricultural and Food Chemistry</i> , 2012 , 60, 922-8	5.7	65
44	Identification of grass-specific enzyme that acylates monolignols with p-coumarate. <i>Journal of Biological Chemistry</i> , 2012 , 287, 8347-55	5.4	107
43	Molecular and biochemical basis for stress-induced accumulation of free and bound p-coumaraldehyde in cucumber. <i>Plant Physiology</i> , 2011 , 157, 1056-66	6.6	16
42	Solution-State NMR of Lignocellulosic Biomass. <i>Journal of Biobased Materials and Bioenergy</i> , 2011 , 5, 169-180	1.4	38
41	Engineering traditional monolignols out of lignin by concomitant up-regulation of F5H1 and down-regulation of COMT in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2010 , 64, 885-97	6.9	99
40	Sequencing around 5-hydroxyconiferyl alcohol-derived units in caffeic acid O-methyltransferase-deficient poplar lignins. <i>Plant Physiology</i> , 2010 , 153, 569-79	6.6	44
39	Lignin 2010 , 169-207		31
38	Mass spectrometry-based fragmentation as an identification tool in lignomics. <i>Analytical Chemistry</i> , 2010 , 82, 8095-105	7.8	123

37	Identifying new lignin bioengineering targets: 1. Monolignol-substitute impacts on lignin formation and cell wall fermentability. <i>BMC Plant Biology</i> , 2010 , 10, 114	5.3	67
36	Cell wall fermentation kinetics are impacted more by lignin content and ferulate cross-linking than by lignin composition. <i>Journal of the Science of Food and Agriculture</i> , 2009 , 89, 122-129	4.3	102
35	Ferulate-coniferyl alcohol cross-coupled products formed by radical coupling reactions. <i>Planta</i> , 2009 , 229, 1099-108	4.7	25
34	Grass lignin acylation: p-coumaroyl transferase activity and cell wall characteristics of C3 and C4 grasses. <i>Planta</i> , 2009 , 229, 1253-67	4.7	78
33	Novel tetrahydrofuran structures derived from beta-beta-coupling reactions involving sinapyl acetate in Kenaf lignins. <i>Organic and Biomolecular Chemistry</i> , 2008 , 6, 3681-94	3.9	74
32	Coniferyl ferulate incorporation into lignin enhances the alkaline delignification and enzymatic degradation of cell walls. <i>Biomacromolecules</i> , 2008 , 9, 2510-6	6.9	101
31	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). <i>Plant Journal</i> , 2008 , 53, 368-79	6.9	102
30	NMR Studies on the Occurrence of Spirodienone Structures in Lignins. <i>Journal of Wood Chemistry and Technology</i> , 2006 , 26, 65-79	2	94
29	Effects of coumarate 3-hydroxylase down-regulation on lignin structure. <i>Journal of Biological Chemistry</i> , 2006 , 281, 8843-53	5.4	192
28	Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. <i>Plant Physiology</i> , 2004 , 136, 4023-36	6.6	81
27	Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. <i>Plant Physiology</i> , 2004 , 136, 3537-49	6.6	160
26	Lignins: Natural polymers from oxidative coupling of 4-hydroxyphenyl- propanoids. <i>Phytochemistry Reviews</i> , 2004 , 3, 29-60	7.7	1062
25	Peroxidase-dependent cross-linking reactions of p-hydroxycinnamates in plant cell walls. <i>Phytochemistry Reviews</i> , 2004 , 3, 79-96	7.7	209
24	Preparation and relevance of a cross-coupling product between sinapyl alcohol and sinapyl p-hydroxybenzoate. <i>Organic and Biomolecular Chemistry</i> , 2004 , 2, 2888-90	3.9	68
23	Lignins and ferulate-coniferyl alcohol cross-coupling products in cereal grains. <i>Journal of Agricultural and Food Chemistry</i> , 2004 , 52, 6496-502	5.7	92
22	A new Arabidopsis thaliana mutant deficient in the expression of O-methyltransferase impacts lignins and sinapoyl esters. <i>Plant Molecular Biology</i> , 2003 , 51, 973-89	4.6	146
21	Non-degradative dissolution and acetylation of ball-milled plant cell walls: high-resolution solution-state NMR. <i>Plant Journal</i> , 2003 , 35, 535-44	6.9	302
20	NMR analysis of lignins in CAD-deficient plants. Part 1. Incorporation of hydroxycinnamaldehydes and hydroxybenzaldehydes into lignins. <i>Organic and Biomolecular Chemistry</i> , 2003 , 1, 268-81	3.9	124

19	Sinapate dehydrodimers and sinapate-ferulate heterodimers in cereal dietary fiber. <i>Journal of Agricultural and Food Chemistry</i> , 2003 , 51, 1427-34	5.7	86
18	Identification of the structure and origin of thioacidolysis marker compounds for cinnamyl alcohol dehydrogenase deficiency in angiosperms. <i>Journal of Biological Chemistry</i> , 2002 , 277, 47412-9	5.4	65
17	Preliminary evidence for sinapyl acetate as a lignin monomer in kenaf. <i>Chemical Communications</i> , 2002 , 90-1	5.8	67
16	Elucidation of new structures in lignins of CAD- and COMT-deficient plants by NMR. <i>Phytochemistry</i> , 2001 , 57, 993-1003	4	165
15	NMR evidence for benzodioxane structures resulting from incorporation of 5-hydroxyconiferyl alcohol into Lignins of O-methyltransferase-deficient poplars. <i>Journal of Agricultural and Food Chemistry</i> , 2001 , 49, 86-91	5.7	98
14	Isochroman lignin trimers from DFRC-degraded <i>Pinus taeda</i> . <i>Phytochemistry</i> , 1999 , 50, 659-666	4	38
13	Are lignins optically active?. <i>Journal of Agricultural and Food Chemistry</i> , 1999 , 47, 2991-6	5.7	114
12	Detection and determination of p-coumaroylated units in lignins. <i>Journal of Agricultural and Food Chemistry</i> , 1999 , 47, 1988-92	5.7	145
11	Arylpropane-1,3-diols in lignins from normal and CAD-deficient pines. <i>Organic Letters</i> , 1999 , 1, 323-6	6.2	32
10	The DFRC method for lignin analysis. 7. Behavior of cinnamyl end groups. <i>Journal of Agricultural and Food Chemistry</i> , 1999 , 47, 1981-7	5.7	17
9	The DFRC Method for Lignin Analysis. 2. Monomers from Isolated Lignins. <i>Journal of Agricultural and Food Chemistry</i> , 1998 , 46, 547-552	5.7	118
8	Facile Synthesis of 4-Hydroxycinnamyl p-Coumarates. <i>Journal of Agricultural and Food Chemistry</i> , 1998 , 46, 2911-2913	5.7	31
7	The DFRC Method for Lignin Analysis. 6. A Simple Modification for Identifying Natural Acetates on Lignins. <i>Journal of Agricultural and Food Chemistry</i> , 1998 , 46, 4616-4619	5.7	78
6	The DFRC Method for Lignin Analysis. 4. Lignin Dimers Isolated from DFRC-Degraded Loblolly Pine Wood. <i>Journal of Agricultural and Food Chemistry</i> , 1998 , 46, 553-560	5.7	39
5	Highly Selective Syntheses of Coniferyl and Sinapyl Alcohols. <i>Journal of Agricultural and Food Chemistry</i> , 1998 , 46, 1794-1796	5.7	21
4	The DFRC Method for Lignin Analysis. Part 3. NMR Studies. <i>Journal of Wood Chemistry and Technology</i> , 1998 , 18, 219-233	2	24
3	Derivatization Followed by Reductive Cleavage (DFRC Method), a New Method for Lignin Analysis: Protocol for Analysis of DFRC Monomers. <i>Journal of Agricultural and Food Chemistry</i> , 1997 , 45, 2590-2592	5.7	251
2	DFRC Method for Lignin Analysis. 1. New Method for Aryl Ether Cleavage: Lignin Model Studies. <i>Journal of Agricultural and Food Chemistry</i> , 1997 , 45, 4655-4660	5.7	162

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