Yuki Tobimatsu

List of Publications by Year
in descending order

81	4,048	34	60
papers	citations	h-index	g-index
		117625	128289

82	82	82	4048
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A polymer of caffeyl alcohol in plant seeds. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1772-1777.	7.1	314
2	Disruption of Mediator rescues the stunted growth of a lignin-deficient Arabidopsis mutant. Nature, 2014, 509, 376-380.	27.8	313
3	Lignin polymerization: how do plants manage the chemistry so well?. Current Opinion in Biotechnology, 2019, 56, 75-81.	6.6	212
4	Laccases Direct Lignification in the Discrete Secondary Cell Wall Domains of Protoxylem. Plant Physiology, 2014, 166, 798-807.	4.8	203
5	Ligninâ€based barrier restricts pathogens to the infection site and confers resistance in plants. EMBO Journal, 2019, 38, e101948.	7.8	198
6	An â€œideal ligninâ€• facilitates full biomass utilization. Science Advances, 2018, 4, eaau2968.	10.3	184
7	Coexistence but Independent Biosynthesis of Catechyl and Guaiacyl/Syringyl Lignin Polymers in Seed Coats. Plant Cell, 2013, 25, 2587-2600.	6.6	161
8	<i>CCoAOMT</i> suppression modifies lignin composition in <i>Pinus radiata</i>. Plant Journal, 2011, 67, 119-129.	5.7	136
9	Manipulation of Guaiacyl and Syringyl Monomer Biosynthesis in an Arabidopsis Cinnamyl Alcohol Dehydrogenase Mutant Results in Atypical Lignin Biosynthesis and Modified Cell Wall Structure. Plant Cell, 2015, 27, 2195-2209.	6.6	136
10	Novel seed coat lignins in the <scp>C</scp>actaceae: structure, distribution and implications for the evolution of lignin diversity. Plant Journal, 2013, 73, 201-211.	5.7	121
11	Loss of function of cinnamyl alcohol dehydrogenase 1 leads to unconventional lignin and a temperature-sensitive growth defect in <i>Medicago truncatula</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13660-13665.	7.1	115
12	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
13	Disrupting Flavone Synthase II Alters Lignin and Improves Biomass Digestibility. Plant Physiology, 2017, 174, 972-985.	4.8	89
14	Regulation of CONIFERALDEHYDE 5-HYDROXYLASE expression to modulate cell wall lignin structure in rice. Planta, 2017, 246, 337-349.	3.2	76
15	Lignin Functionalization through Chemical Demethylation: Preparation and Tannin-Like Properties of Demethylated Guaiacyl-Type Synthetic Lignins. ACS Sustainable Chemistry and Engineering, 2017, 5, 5424-5431.	6.7	72
16	Visualization of plant cell wall lignification using fluorescenceâ€tagged monolignols. Plant Journal, 2013, 76, 357-366.	5.7	70
17	Downregulation of pâ€<i><scp>COUMAROYL ESTER</scp> 3â€<scp>HYDROXYLASE</scp></i> in rice leads to altered cell wall structures and improves biomass saccharification. Plant Journal, 2018, 95, 796-811.	5.7	65
18	Host lignin composition affects haustorium induction in the parasitic plants <i>Phtheirospermum japonicum</i> and <i>Striga hermonthica</i>. New Phytologist, 2018, 218, 710-723.	7.3	64

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19	The Structural Integrity of Lignin Is Crucial for Resistance against <i>Striga hermonthica</i> Parasitism in Rice. Plant Physiology, 2019, 179, 1796-1809.	4.8	60
20	Os<scp>MYB</scp>108 lossâ€ofâ€function enriches <i>p</i>â€coumaroylated and tricin lignin units in rice cell walls. Plant Journal, 2019, 98, 975-987.	5.7	57
21	Hydroxycinnamate Conjugates as Potential Monolignol Replacements: Inâ€…vitro Lignification and Cell Wall Studies with Rosmarinic Acid. ChemSusChem, 2012, 5, 676-686.	6.8	54
22	Comparative analysis of lignin chemical structures of sugarcane bagasse pretreated by alkaline, hydrothermal, and dilute sulfuric acid methods. Industrial Crops and Products, 2018, 121, 124-131.	5.2	54
23	The Arabidopsis R2R3 MYB Transcription Factor MYB15 Is a Key Regulator of Lignin Biosynthesis in Effector-Triggered Immunity. Frontiers in Plant Science, 2020, 11, 583153.	3.6	51
24	Introduction of chemically labile substructures into <i>Arabidopsis</i> lignin through the use of LigD, the CÎ±â€dehydrogenase from <i>Sphingobium</i> sp. strain <scp>SYK</scp>â€6. Plant Biotechnology Journal, 2015, 13, 821-832.	8.3	45
25	MYB-mediated upregulation of lignin biosynthesis in <i>Oryza sativa</i> towards biomass refinery. Plant Biotechnology, 2017, 34, 7-15.	1.0	44
26	Fibreâ€specific regulation of lignin biosynthesis improves biomass quality in <i>Populus</i>. New Phytologist, 2020, 226, 1074-1087.	7.3	43
27	Suppression of CCR impacts metabolite profile and cell wall composition in Pinus radiata tracheary elements. Plant Molecular Biology, 2013, 81, 105-117.	3.9	42
28	Lignin characterization of rice <i>CONIFERALDEHYDE 5â€HYDROXYLASE</i> lossâ€ofâ€function mutants generated with the <scp>CRISPR</scp>/Cas9 system. Plant Journal, 2019, 97, 543-554.	5.7	40
29	A click chemistry strategy for visualization of plant cell wall lignification. Chemical Communications, 2014, 50, 12262-12265.	4.1	39
30	NMR studies on lignocellulose deconstructions in the digestive system of the lower termite Coptotermes formosanus Shiraki. Scientific Reports, 2018, 8, 1290.	3.3	39
31	Recruitment of specific flavonoid Bâ€ring hydroxylases for two independent biosynthesis pathways of flavoneâ€derived metabolites in grasses. New Phytologist, 2019, 223, 204-219.	7.3	38
32	Fluorescence-Tagged Monolignols: Synthesis, and Application to Studying In Vitro Lignification. Biomacromolecules, 2011, 12, 1752-1761.	5.4	37
33	Epigallocatechin gallate incorporation into lignin enhances the alkaline delignification and enzymatic saccharification of cell walls. Biotechnology for Biofuels, 2012, 5, 59.	6.2	35
34	OsCAldOMT1 is a bifunctional O-methyltransferase involved in the biosynthesis of tricin-lignins in rice cell walls. Scientific Reports, 2019, 9, 11597.	3.3	35
35	Film-forming polymers from distillersâ€™ grains: structural and material properties. Industrial Crops and Products, 2014, 59, 282-289.	5.2	34
36	Structureâ€guided analysis of catalytic specificity of the abundantly secreted chitosanase SACTE_5457 from <i>Streptomyces</i> sp. SirexAAâ€E. Proteins: Structure, Function and Bioinformatics, 2014, 82, 1245-1257.	2.6	33

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37	Termite Gut Microbiota Contribution to Wheat Straw Delignification in Anaerobic Bioreactors. ACS Sustainable Chemistry and Engineering, 2021, 9, 2191-2202.	6.7	33
38	Monolignol acyltransferase for lignin p-hydroxybenzoylation in Populus. Nature Plants, 2021, 7, 1288-1300.	9.3	30
39	Isolation and Characterization of Polyethylene Glycol (PEG)-Modified Glycol Lignin via PEG Solvolysis of Softwood Biomass in a Large-Scale Batch Reactor. ACS Sustainable Chemistry and Engineering, 2018, 6, 7841-7848.	6.7	25
40	Altered lignocellulose chemical structure and molecular assembly in CINNAMYL ALCOHOL DEHYDROGENASE-deficient rice. Scientific Reports, 2019, 9, 17153.	3.3	25
41	Convergent recruitment of 5â€²â€hydroxylase activities by CYP75B flavonoid Bâ€ring hydroxylases for tricin biosynthesis in <i>Medicago</i> legumes. New Phytologist, 2020, 228, 269-284.	7.3	25
42	Tricin Biosynthesis and Bioengineering. Frontiers in Plant Science, 2021, 12, 733198.	3.6	25
43	Localised laccase activity modulates distribution of lignin polymers in gymnosperm compression wood. New Phytologist, 2021, 230, 2186-2199.	7.3	23
44	Studies on the dehydrogenative polymerizations of monolignol Î²-glycosides. Part 2: Horseradish peroxidase-catalyzed dehydrogenative polymerization of isoconiferin. Holzforschung, 2006, 60, 513-518.	1.9	21
45	Emulsifying properties of an arabinoxylanâ€“protein gum from distillersâ€™ grains and the co-production of animal feed. Cellulose, 2014, 21, 3623-3635.	4.9	21
46	MYB-mediated regulation of lignin biosynthesis in grasses. Current Plant Biology, 2020, 24, 100174.	4.7	21
47	Double knockout of OsWRKY36 and OsWRKY102 boosts lignification with altering culm morphology of rice. Plant Science, 2020, 296, 110466.	3.6	21
48	Studies on the Dehydrogenative Polymerizations of Monolignol Î²-glycosides. Part 3: Horseradish Peroxidase-Catalyzed Polymerizations of Triandrin and Isosyringin. Journal of Wood Chemistry and Technology, 2008, 28, 69-83.	1.7	19
49	Comparative evaluations of lignocellulose reactivity and usability in transgenic rice plants with altered lignin composition. Journal of Wood Science, 2019, 65, .	1.9	19
50	Possible mechanisms for the generation of phenyl glycosideâ€type ligninâ€“carbohydrate linkages in lignification with monolignol glucosides. Plant Journal, 2020, 104, 156-170.	5.7	18
51	Methylation-triggered fractionation of lignocellulosic biomass to afford cellulose-, hemicellulose-, and lignin-based functional polymers <i>via</i> click chemistry. Green Chemistry, 2020, 22, 2909-2928.	9.0	18
52	Deficiency in flavonoid biosynthesis genes <i>CHS</i>, <i>CHI</i>, and <i>CHIL</i> alters rice flavonoid and lignin profiles. Plant Physiology, 2022, 188, 1993-2011.	4.8	18
53	Studies on the Dehydrogenative Polymerizations of Monolignol Î²â€Glycosides. Part 1. Syntheses of Monolignol Î²â€glycosides, (E)â€Isoconiferin, (E)â€Isosyringin, and (E)â€Triandrin. Journal of Wood Chemistry and Technology, 2006, 26, 215-229.	1.7	17
54	Lignin-Inspired Surface Modification of Nanocellulose by Enzyme-Catalyzed Radical Coupling of Coniferyl Alcohol in Pickering Emulsion. ACS Sustainable Chemistry and Engineering, 2020, 8, 1185-1194.	6.7	17

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55	New Insights on Structures Forming the Lignin-Like Fractions of Ancestral Plants. Frontiers in Plant Science, 2021, 12, 740923.	3.6	17
56	Studies on the dehydrogenative polymerizations (DHPs) of monolignol Î²-glycosides: Part 4. Horseradish peroxidase-catalyzed copolymerization of isoconiferin and isosyringin. Holzforschung, 2008, 62, 495-500.	1.9	16
57	Reactivity of syringyl quinone methide intermediates in dehydrogenative polymerization I: high-yield production of synthetic lignins (DHPs) in horseradish peroxidase-catalyzed polymerization of sinapyl alcohol in the presence of nucleophilic reagents. Journal of Wood Science, 2010, 56, 233-241.	1.9	15
58	Variation in lignocellulose characteristics of 30 Indonesian sorghum (Sorghum bicolor) accessions. Industrial Crops and Products, 2019, 142, 111840.	5.2	15
59	The effects of various lignocelluloses and lignins on physiological responses of a lower termite, Coptotermes formosanus. Journal of Wood Science, 2017, 63, 464-472.	1.9	14
60	A comparative study of the biomass properties of<i>Erianthus</i>and sugarcane: lignocellulose structure, alkaline delignification rate, and enzymatic saccharification efficiency. Bioscience, Biotechnology and Biochemistry, 2018, 82, 1143-1152.	1.3	14
61	Structural features of alternative lignin monomers associated with improved digestibility of artificially lignified maize cell walls. Plant Science, 2019, 287, 110070.	3.6	14
62	Plant-specific Dof transcription factors VASCULAR-RELATED DOF1 and VASCULAR-RELATED DOF2 regulate vascular cell differentiation and lignin biosynthesis in Arabidopsis. Plant Molecular Biology, 2020, 104, 263-281.	3.9	14
63	Pathogen-induced autophagy regulates monolignol transport and lignin formation in plant immunity. Autophagy, 2023, 19, 597-615.	9.1	14
64	Seed-coat protective neolignans are produced by the dirigent protein AtDP1 and the laccase AtLAC5 in Arabidopsis. Plant Cell, 2021, 33, 129-152.	6.6	13
65	Studies on the dehydrogenative polymerization of monolignol Î²-glycosides: Part 5. UV spectroscopic monitoring of horseradish peroxidase-catalyzed polymerization of monolignol glycosides. Holzforschung, 2008, 62, 501-507.	1.9	10
66	Limiting silicon supply alters lignin content and structures of sorghum seedling cell walls. Plant Science, 2022, 321, 111325.	3.6	10
67	Identifying transcription factors that reduce wood recalcitrance and improve enzymatic degradation of xylem cell wall in Populus. Scientific Reports, 2020, 10, 22043.	3.3	9
68	Azide ion as a quinone methide scavenger in the horseradish peroxidasecatalyzed polymerization of sinapyl alcohol. Journal of Wood Science, 2008, 54, 87-89.	1.9	8
69	Studies on the dehydrogenative polymerization of monolignol Î²-glycosides. Part 6: Monitoring of horseradish peroxidase-catalyzed polymerization of monolignol glycosides by GPC-PDA. Holzforschung, 2010, 64, .	1.9	8
70	Effect of Heat Treatment on the Chemical Structure and Thermal Properties of Softwood-Derived Glycol Lignin. Molecules, 2020, 25, 1167.	3.8	8
71	Nitrogen deficiency results in changes to cell wall composition of sorghum seedlings. Scientific Reports, 2021, 11, 23309.	3.3	8
72	Reactivity of syringyl quinone methide intermediates in dehydrogenative polymerization. Part 2: pH effect in horseradish peroxidase-catalyzed polymerization of sinapyl alcohol. Holzforschung, 2010, 64, .	1.9	7

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73	Twoâ€dimensional NMR analysis of <scp><i>Angiopteris evecta</i></scp> rhizome and improved extraction method for angiopteroside. Phytochemical Analysis, 2019, 30, 95-100.	2.4	7
74	Effects of lignins as diet components on the physiological activities of a lower termite, Coptotermes formosanus Shiraki. Journal of Insect Physiology, 2017, 103, 57-63.	2.0	6
75	Fractionation and Characterization of Glycol Lignins by Stepwise-pH Precipitation of Japanese Cedar/Poly(ethylene glycol) Solvolysis Liquor. ACS Sustainable Chemistry and Engineering, 2021, 9, 756-764.	6.7	6
76	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
77	Reaction Selectivity in Electro-oxidation of Lignin Dimer Model Compounds and Synthetic Lignin with Different Mediators for the Laccase Mediator System (PZH, NHPI, ABTS). ACS Sustainable Chemistry and Engineering, 2022, 10, 6633-6641.	6.7	4
78	Structural basis of lignocellulose deconstruction by the wood-feeding anobiid beetle Nicobium hirtum. Journal of Wood Science, 2022, 68, .	1.9	2
79	Title is missing!. Kagaku To Seibutsu, 2016, 54, 156-158.	0.0	0
80	A â€œDouble Clickâ€•for Illuminating Plant Cell Walls. Cell Chemical Biology, 2017, 24, 246-247.	5.2	0
81	Evaluation of Electron Temperature Fluctuations Using a Conditional Technique. Plasma and Fusion Research, 2012, 7, 2401133-2401133.	0.7	0