Hoon Kim

List of Publications by Year
in descending order

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88 papers	11,117 citations	41344 49 h-index	49909 87 g-index
91 all docs	91 docs citations	91 times ranked	8690 citing authors

#	Article	IF	Citations
1	Exogenous chalcone synthase expression in developing poplar xylem incorporates naringenin into lignins. Plant Physiology, 2022, 188, 984-996.	4.8	14
2	Flavonoids naringenin chalcone, naringenin, dihydrotricin, and tricin are lignin monomers in papyrus. Plant Physiology, 2022, 188, 208-219.	4.8	28
3	Rerouting of the lignin biosynthetic pathway by inhibition of cytosolic shikimate recycling in transgenic hybrid aspen. Plant Journal, 2022, 110, 358-376.	5.7	10
4	Density functional theory study on the coupling and reactions of diferuloylputrescine as a lignin monomer. Phytochemistry, 2022, 197, 113122.	2.9	0
5	Unconventional lignin monomersâ€"Extension of the lignin paradigm. Advances in Botanical Research, 2022, , 1-39.	1.1	13
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	H-lignin can be deposited independently of CINNAMYL ALCOHOL DEHYDROGENASE C and D in Arabidopsis. Plant Physiology, 2022, 189, 2015-2028.	4.8	4
8	Overexpression of the scopoletin biosynthetic pathway enhances lignocellulosic biomass processing. Science Advances, 2022, 8, .	10.3	13
9	Rewired phenolic metabolism and improved saccharification efficiency of a <i>Zea mays cinnamyl alcohol dehydrogenase 2 (zmcad2)</i> mutant. Plant Journal, 2021, 105, 1240-1257.	5.7	13
10	Maize specialized metabolome networks reveal organ-preferential mixed glycosides. Computational and Structural Biotechnology Journal, 2021, 19, 1127-1144.	4.1	15
11	Radical Coupling Reactions of Hydroxystilbene Glucosides and Coniferyl Alcohol: A Density Functional Theory Study. Frontiers in Plant Science, 2021, 12, 642848.	3.6	8
12	Pithâ€specific lignification in <i>Nicotiana attenuata</i> as a defense against a stemâ€boring herbivore. New Phytologist, 2021, 232, 332-344.	7.3	23
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	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
15	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
16	Coupling and Reactions of Lignols and New Lignin Monomers: A Density Functional Theory Study. ACS Sustainable Chemistry and Engineering, 2020, 8, 11033-11045.	6.7	12
17	Mechanistic Study of Diaryl Ether Bond Cleavage during Palladiumâ€Catalyzed Lignin Hydrogenolysis. ChemSusChem, 2020, 13, 4487-4494.	6.8	36
18	Lignin Monomers from beyond the Canonical Monolignol Biosynthetic Pathway: Another Brick in the Wall. ACS Sustainable Chemistry and Engineering, 2020, 8, 4997-5012.	6.7	184

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19	A Century-Old Mystery Unveiled: Sekizaisou is a Natural Lignin Mutant. Plant Physiology, 2020, 182, 1821-1828.	4.8	24
20	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
21	COSY catalyses transâ€“cis isomerization and lactonization in the biosynthesis of coumarins. Nature Plants, 2019, 5, 1066-1075.	9.3	64
22	Radical coupling reactions of piceatannol and monolignols: A density functional theory study. Phytochemistry, 2019, 164, 12-23.	2.9	17
23	Hydroxystilbene Glucosides Are Incorporated into Norway Spruce Bark Lignin. Plant Physiology, 2019, 180, 1310-1321.	4.8	43
24	Structural features of alternative lignin monomers associated with improved digestibility of artificially lignified maize cell walls. Plant Science, 2019, 287, 110070.	3.6	14
25	<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
26	Improving wood properties for wood utilization through multi-omics integration in lignin biosynthesis. Nature Communications, 2018, 9, 1579.	12.8	162
27	Structural Characterization of Lignin from Maize (Zea mays L.) Fibers: Evidence for Diferuloylputrescine Incorporated into the Lignin Polymer in Maize Kernels. Journal of Agricultural and Food Chemistry, 2018, 66, 4402-4413.	5.2	38
28	Selective Oxidation of Lignin Model Compounds. ChemSusChem, 2018, 11, 2045-2050.	6.8	39
29	<i>In Vitro</i> Enzymatic Depolymerization of Lignin with Release of Syringyl, Guaiacyl, and Tricin Units. Applied and Environmental Microbiology, 2018, 84, .	3.1	41
30	Variability in Lignin Composition and Structure in Cell Walls of Different Parts of MacaÃºba (<i>Acrocomia aculeata</i>) Palm Fruit. Journal of Agricultural and Food Chemistry, 2018, 66, 138-153.	5.2	70
31	An â€œideal ligninâ€• facilitates full biomass utilization. Science Advances, 2018, 4, eaau2968.	10.3	184
32	Structural Characterization of Lignins from Willow Bark and Wood. Journal of Agricultural and Food Chemistry, 2018, 66, 7294-7300.	5.2	50
33	Cell Wall Characteristics of a Maize Mutant Selected for Decreased Ferulates. American Journal of Plant Sciences, 2018, 09, 446-466.	0.8	6
34	Hydroxystilbenes Are Monomers in Palm Fruit Endocarp Lignins. Plant Physiology, 2017, 174, 2072-2082.	4.8	90
35	The Enzyme Activity and Substrate Specificity of Two Major Cinnamyl Alcohol Dehydrogenases in Sorghum (<i>Sorghum bicolor</i>), SbCAD2 and SbCAD4. Plant Physiology, 2017, 174, 2128-2145.	4.8	32
36	Natural acetylation impacts carbohydrate recovery during deconstruction of Populus trichocarpa wood. Biotechnology for Biofuels, 2017, 10, 48.	6.2	40

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37	Altering carbon allocation in hybrid poplar (<i>Populus albaÂÃ—Âgrandidentata</i>) impacts cell wall growth and development. Plant Biotechnology Journal, 2017, 15, 865-878.	8.3	24
38	Characterization and Elimination of Undesirable Protein Residues in Plant Cell Wall Materials for Enhancing Lignin Analysis by Solution-State Nuclear Magnetic Resonance Spectroscopy. Biomacromolecules, 2017, 18, 4184-4195.	5.4	94
39	Different Routes for Conifer- and Sinapaldehyde and Higher Saccharification upon Deficiency in the Dehydrogenase CAD1. Plant Physiology, 2017, 175, 1018-1039.	4.8	99
40	Silencing <i>CAFFEOYL SHIKIMATE ESTERASE</i> Affects Lignification and Improves Saccharification in Poplar. Plant Physiology, 2017, 175, 1040-1057.	4.8	90
41	Highly Decorated Lignins in Leaf Tissues of the Canary Island Date Palm <i>Phoenix canariensis</i>. Plant Physiology, 2017, 175, 1058-1067.	4.8	34
42	An essential role of caffeoyl shikimate esterase in monolignol biosynthesis in <i>Medicago truncatula</i>. Plant Journal, 2016, 86, 363-375.	5.7	111
43	Enhancing digestibility and ethanol yield of Populus wood via expression of an engineered monolignol 4-O-methyltransferase. Nature Communications, 2016, 7, 11989.	12.8	61
44	Formaldehyde stabilization facilitates lignin monomer production during biomass depolymerization. Science, 2016, 354, 329-333.	12.6	944
45	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
46	Small Glycosylated Lignin Oligomers Are Stored in Arabidopsis Leaf Vacuoles. Plant Cell, 2015, 27, 695-710.	6.6	90
47	Naturally p-Hydroxybenzoylated Lignins in Palms. Bioenergy Research, 2015, 8, 934-952.	3.9	99
48	Mutation of the Inducible <i>ARABIDOPSIS THALIANA CYTOCHROME P450 REDUCTASE2</i> Alters Lignin Composition and Improves Saccharification Â Â. Plant Physiology, 2014, 166, 1956-1971.	4.8	63
49	Phenylcoumaran Benzylic Ether Reductase Prevents Accumulation of Compounds Formed under Oxidative Conditions in Poplar Xylem. Plant Cell, 2014, 26, 3775-3791.	6.6	43
50	Stereochemical Features of Glutathione-dependent Enzymes in the Sphingobium sp. Strain SYK-6 Î²-Aryl Etherase Pathway. Journal of Biological Chemistry, 2014, 289, 8656-8667.	3.4	58
51	A gel-state 2D-NMR method for plant cell wall profiling and analysis: a model study with the amorphous cellulose and xylan from ball-milled cotton linters. RSC Advances, 2014, 4, 7549-7560.	3.6	100
52	Plant cell wall profiling by fast maximum likelihood reconstruction (FMLR) and region-of-interest (ROI) segmentation of solution-state 2D 1Hâ€“13C NMR spectra. Biotechnology for Biofuels, 2013, 6, 45.	6.2	18
53	Two-Dimensional NMR Evidence for Cleavage of Lignin and Xylan Substituents in Wheat Straw Through Hydrothermal Pretreatment and Enzymatic Hydrolysis. Bioenergy Research, 2013, 6, 211-221.	3.9	68
54	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

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55	Caffeoyl Shikimate Esterase (CSE) Is an Enzyme in the Lignin Biosynthetic Pathway in <i>Arabidopsis</i>. Science, 2013, 341, 1103-1106.	12.6	432
56	Chemoselective Metal-Free Aerobic Alcohol Oxidation in Lignin. Journal of the American Chemical Society, 2013, 135, 6415-6418.	13.7	547
57	Breeding with rare defective alleles (BRDA): a natural <i><scp>P</scp>opulus nigra </i><scp>HCT</scp> mutant with modified lignin as a case study. New Phytologist, 2013, 198, 765-776.	7.3	92
58	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
59	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
60	An Engineered Monolignol 4-<i>O</i>-Methyltransferase Depresses Lignin Biosynthesis and Confers Novel Metabolic Capability in <i>Arabidopsis</i>. Plant Cell, 2012, 24, 3135-3152.	6.6	92
61	Identification of Grass-specific Enzyme That Acylates Monolignols with p-Coumarate. Journal of Biological Chemistry, 2012, 287, 8347-8355.	3.4	140
62	Whole plant cell wall characterization using solution-state 2D NMR. Nature Protocols, 2012, 7, 1579-1589.	12.0	563
63	The DUF579 domain containing proteins IRX15 and IRX15â€L affect xylan synthesis in Arabidopsis. Plant Journal, 2011, 66, 387-400.	5.7	120
64	Lignin Composition and Structure in Young versus Adult<i>Eucalyptus globulus</i>Plants. Plant Physiology, 2011, 155, 667-682.	4.8	263
65	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
66	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
67	Mass Spectrometry-Based Sequencing of Lignin Oligomers. Plant Physiology, 2010, 153, 1464-1478.	4.8	166
68	Solution-state 2D NMR of ball-milled plant cell wall gels in DMSO-d6/pyridine-d5. Organic and Biomolecular Chemistry, 2010, 8, 576-591.	2.8	565
69	Mass Spectrometry-Based Fragmentation as an Identification Tool in Lignomics. Analytical Chemistry, 2010, 82, 8095-8105.	6.5	140
70	Suppression of 4-Coumarate-CoA Ligase in the Coniferous Gymnosperm <i>Pinus radiata</i> Â Â. Plant Physiology, 2009, 149, 370-383.	4.8	166
71	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
72	Grass lignin acylation: p-coumaroyl transferase activity and cell wall characteristics of C3 and C4 grasses. Planta, 2009, 229, 1253-1267.	3.2	94

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73	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
74	Solution-state 2D NMR of Ball-milled Plant Cell Wall Gels in DMSO-d 6. Bioenergy Research, 2008, 1, 56-66.	3.9	266
75	Peroxidase-Catalyzed Oligomerization of Ferulic Acid Esters. Journal of Agricultural and Food Chemistry, 2008, 56, 10368-10375.	5.2	29
76	Downregulation of Cinnamoyl-Coenzyme A Reductase in Poplar: Multiple-Level Phenotyping Reveals Effects on Cell Wall Polymer Metabolism and Structure. Plant Cell, 2007, 19, 3669-3691.	6.6	352
77	Effects of Coumarate 3-Hydroxylase Down-regulation on Lignin Structure. Journal of Biological Chemistry, 2006, 281, 8843-8853.	3.4	209
78	Simplified Preparation of Coniferyl and Sinapyl Alcohols. Journal of Agricultural and Food Chemistry, 2005, 53, 3693-3695.	5.2	35
79	Profiling of Oligolignols Reveals Monolignol Coupling Conditions in Lignifying Poplar Xylem. Plant Physiology, 2004, 136, 3537-3549.	4.8	180
80	Lignins: Natural polymers from oxidative coupling of 4-hydroxyphenyl- propanoids. Phytochemistry Reviews, 2004, 3, 29-60.	6.5	1,282
81	Peroxidase-dependent cross-linking reactions of p-hydroxycinnamates in plant cell walls. Phytochemistry Reviews, 2004, 3, 79-96.	6.5	239
82	Signatures of cinnamyl alcohol dehydrogenase deficiency in poplar lignins. Phytochemistry, 2004, 65, 313-321.	2.9	85
83	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
84	Sinapate Dehydrodimers and Sinapateâ˘'Ferulate Heterodimers in Cereal Dietary Fiber. Journal of Agricultural and Food Chemistry, 2003, 51, 1427-1434.	5.2	99
85	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
86	Elucidation of new structures in lignins of CAD- and COMT-deficient plants by NMR. Phytochemistry, 2001, 57, 993-1003.	2.9	195
87	Cross-Coupling of Hydroxycinnamyl Aldehydes into Lignins. Organic Letters, 2000, 2, 2197-2200.	4.6	69
88	Arylpropane-1,3-diols in Lignins from Normal and CAD-Deficient Pines. Organic Letters, 1999, 1, 323-326.	4.6	36