Shinya Kajita

List of Publications by Year
in descending order

79 papers	2,163 citations	304743 22 h-index	243625 44 g-index
83 all docs	83 docs citations	83 times ranked	2692 citing authors

#	Article	IF	Citations
1	Lignins and lignocellulosics: a better control of synthesis for new and improved uses. Trends in Plant Science, 2003, 8, 576-581.	8.8	294
2	Multiple Classes of Transcription Factors Regulate the Expression of VASCULAR-RELATED NAC-DOMAIN7, a Master Switch of Xylem Vessel Differentiation. Plant and Cell Physiology, 2015, 56, 242-254.	3.1	149
3	Alterations in the Biosynthesis of Lignin in Transgenic Plants with Chimeric Genes for 4-Coumarate: Coenzyme A Ligase. Plant and Cell Physiology, 1996, 37, 957-965.	3.1	137
4	Advances in microbial lignin degradation and its applications. Current Opinion in Biotechnology, 2019, 56, 179-186.	6.6	132
5	Down-regulation of an anionic peroxidase in transgenic aspen and its effect on lignin characteristics. Journal of Plant Research, 2003, 116, 175-182.	2.4	116
6	Structural Characterization of Modified Lignin in Transgenic Tobacco Plants in Which the Activity of 4-Coumarate:Coenzyme A Ligase Is Depressed. Plant Physiology, 1997, 114, 871-879.	4.8	115
7	Transgenic tobacco expressing fungal laccase promotes the detoxification of environmental pollutants. Applied Microbiology and Biotechnology, 2005, 67, 138-142.	3.6	76
8	Beta-ketoadipic acid and muconolactone production from a lignin-related aromatic compound through the protocatechuate 3,4-metabolic pathway. Journal of Bioscience and Bioengineering, 2016, 121, 652-658.	2.2	62
9	Genetic engineering of woody plants: current and future targets in a stressful environment. Physiologia Plantarum, 2011, 142, 105-117.	5.2	57
10	Expression of a gene for Mn-peroxidase from Coriolus versicolor in transgenic tobacco generates potential tools for phytoremediation. Applied Microbiology and Biotechnology, 2002, 59, 246-251.	3.6	47
11	Introduction of chemically labile substructures into Arabidopsis lignin through the use of LigD, the Cî±â€dehydrogenase from Sphingobium sp. strain <scp>SYK</scp>â€6. Plant Biotechnology Journal, 2015, 13, 821-832.	8.3	45
12	Detection and characterization of a novel extracellular fungal enzyme that catalyzes the specific and hydrolytic cleavage of lignin guaiacylglycerol beta-aryl ether linkages. FEBS Journal, 2003, 270, 2353-2362.	0.2	42
13	Polyesters of 2-Pyrone-4,6-dicarboxylic Acid (PDC) as Bio-based Plastics Exhibiting Strong Adhering Properties. Polymer Journal, 2009, 41, 297-302.	2.7	41
14	Isolation of a novel cell wall architecture mutant of rice with defective Arabidopsis COBL4 ortholog BC1 required for regulated deposition of secondary cell wall components. Planta, 2010, 232, 257-270.	3.2	40
15	Characterization of the Third GlutathioneS-Transferase Gene Involved in Enantioselective Cleavage of the Î²-Aryl Ether bySphingobiumsp. Strain SYK-6. Bioscience, Biotechnology and Biochemistry, 2011, 75, 2404-2407.	1.3	36
16	Isolation and Analysis of Cinnamic Acid 4-Hydroxylase Homologous Genes from a Hybrid Aspen,Populus kitakamiensis. Bioscience, Biotechnology and Biochemistry, 1996, 60, 1586-1597.	1.3	35
17	Heat stable ssDNA/RNA-binding activity of a wheat cold shock domain protein. FEBS Letters, 2005, 579, 4887-4891.	2.8	34
18	Discovery of pinoresinol reductase genes in sphingomonads. Enzyme and Microbial Technology, 2013, 52, 38-43.	3.2	34

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19	Agrobacterium-mediated transformation of poplar using a disarmed binary vector and the overexpression of a specific member of a family of poplar peroxidase genes in transgenic poplar cell. Plant Science, 1994, 103, 231-239.	3.6	32
20	Tenacious Epoxy Adhesives Prepared from Lignin-derived Stable Metabolic Intermediate. Journal of Fiber Science and Technology, 2009, 65, 359-362.	0.0	30
21	Overproduction of recombinant laccase using a homologous expression system in Coriolus versicolor. Applied Microbiology and Biotechnology, 2004, 66, 194-199.	3.6	25
22	Characterization of the catabolic pathway for a phenylcoumaran-type lignin-derived biaryl in Sphingobium sp. strain SYK-6. Biodegradation, 2014, 25, 735-745.	3.0	25
23	Cellular and Genetic Regulation of Coniferaldehyde Incorporation in Lignin of Herbaceous and Woody Plants by Quantitative Wiesner Staining. Frontiers in Plant Science, 2020, 11, 109.	3.6	25
24	Isolation and functional analysis of the CjNdly gene, a homolog in Cryptomeria japonica of FLORICAULA/LEAFY genes. Tree Physiology, 2008, 28, 21-28.	3.1	24
25	A Century-Old Mystery Unveiled: Sekizaisou is a Natural Lignin Mutant. Plant Physiology, 2020, 182, 1821-1828.	4.8	24
26	DWARF50 (D50), a rice (Oryza sativa L.) gene encoding inositol polyphosphate 5â€phosphatase, is required for proper development of intercalary meristem. Plant, Cell and Environment, 2012, 35, 2031-2044.	5.7	21
27	Convenient synthesis of chiral lignin model compounds via optical resolution: four stereoisomers of guaiacylglycerol-Î²-guaiacyl ether and both enantiomers of 3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)-propan-1-one (erone). Tetrahedron Letters, 2012, 53, 842-845.	1.4	20
28	Membrane-Associated Glucose-Methanol-Choline Oxidoreductase Family Enzymes PhcC and PhcD Are Essential for Enantioselective Catabolism of Dehydrodiconiferyl Alcohol. Applied and Environmental Microbiology, 2015, 81, 8022-8036.	3.1	20
29	Change in lignin structure, but not in lignin content, in transgenic poplar overexpressing the rice master regulator of secondary cell wall biosynthesis. Physiologia Plantarum, 2018, 163, 170-182.	5.2	19
30	Identification of enzymatic genes with the potential to reduce biomass recalcitrance through lignin manipulation in Arabidopsis. Biotechnology for Biofuels, 2020, 13, 97.	6.2	19
31	Hybrid aspen with a transgene for fungal manganese peroxidase is a potential contributor to phytoremediation of the environment contaminated with bisphenol A. Journal of Wood Science, 2007, 53, 541-544.	1.9	18
32	Methoxyl groups of lignin are essential carbon donors in C1 metabolism of Sphingobium sp. SYKâ€6. Journal of Basic Microbiology, 2009, 49, S98-102.	3.3	17
33	Specific degradation ofÎ²-aryl ether linkage in synthetic lignin (dehydrogenative polymerizate) by bacterial enzymes ofSphingomonas paucimobilis SYK-6 produced in recombinantEscherichia coli. Journal of Wood Science, 2002, 48, 429-433.	1.9	16
34	Microbial conversion of glucose to a novel chemical building block, 2-pyrone-4,6-dicarboxylic acid. Metabolic Engineering, 2009, 11, 213-220.	7.0	16
35	Expression and functional analyses of a putative phenylcoumaran benzylic ether reductase in Arabidopsis thaliana. Plant Cell Reports, 2016, 35, 513-526.	5.6	16
36	Determining the Genetic Regulation and Coordination of Lignification in Stem Tissues of Arabidopsis Using Semiquantitative Raman Microspectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 4900-4909.	6.7	16

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37	The carbohydrate-binding module (CBM)-like sequence is crucial for rice CWA1/BC1 function in proper assembly of secondary cell wall materials. Plant Signaling and Behavior, 2010, 5, 1433-1436.	2.4	15
38	Application of microalgae hydrolysate as a fermentation medium for microbial production of 2-pyrone 4,6-dicarboxylic acid. Journal of Bioscience and Bioengineering, 2018, 125, 717-722.	2.2	15
39	Application of fungal laccase fused with cellulose-binding domain to develop low-lignin rice plants. Journal of Bioscience and Bioengineering, 2013, 116, 616-619.	2.2	14
40	Importance of Lignin Coniferaldehyde Residues for Plant Properties and Sustainable Uses. ChemSusChem, 2020, 13, 4400-4408.	6.8	14
41	Nucleotide Sequence for the Genomic DNA Encoding an Anionic Peroxidase Gene from a Hybrid Poplar,Populus kitakamiensis. Bioscience, Biotechnology and Biochemistry, 1993, 57, 131-133.	1.3	13
42	Specific Accumulation of Polysaccharide-Linked Hydroxycinnamoyl Esters in the Cell Walls of Irregularly Shaped and Collapsed Internode Parenchyma Cells of the Dwarf Rice Mutant Fukei 71. Plant and Cell Physiology, 2000, 41, 776-784.	3.1	13
43	Improvement in pulping and bleaching properties of xylem from transgenic tobacco plants. Journal of the Science of Food and Agriculture, 2002, 82, 1216-1223.	3.5	12
44	Tetrahydrofolate-dependent vanillate and syringateO-demethylation links tightly to one-carbon metabolic pathway associated with amino acid synthesis and DNA methylation in the lignin metabolism ofSphingomonas paucimobilis SYK-6. Journal of Wood Science, 2002, 48, 434-439.	1.9	12
45	Immunological characterization of transgenic tobacco plants with a chimeric gene for 4-coumarate:CoA ligase that have altered lignin in their xylem tissue. Plant Science, 1997, 128, 109-118.	3.6	10
46	Laser Raman detection of an electrogenerated intermediate during anodic synthesis of dihydrobenzofurans via formal [3+2] cycloaddition. Electrochemistry Communications, 2007, 9, 1331-1336.	4.7	10
47	Successful expression of a novel bacterial gene for pinoresinol reductase and its effect on lignan biosynthesis in transgenic Arabidopsis thaliana. Applied Microbiology and Biotechnology, 2014, 98, 8165-8177.	3.6	10
48	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
49	Molecular cloning of the promoter region of the glyceraldehyde-3-phosphate dehydrogenase gene that contributes to the construction of a new transformation system in Coriolus versicolor. Mycoscience, 2004, 45, 131-136.	0.8	9
50	Immunohistochemical localization of enzymes that catalyze the long sequential pathways of lignin biosynthesis during differentiation of secondary xylem tissues of hybrid aspen (Populus sieboldii x) Tj ETQq0 0 0 rgBT1/Overlock 10 Tf 50		9
51	Distinct deposition of ester-linked ferulic and <i>p</i>-coumaric acids to the cell wall of developing sorghum internodes. Plant Biotechnology, 2020, 37, 15-23.	1.0	9
52	Fiber Cell-Specific Expression of the VP16-Fused Ethylene Response Factor 41 Protein Increases Biomass Yield and Alters Lignin Composition. Frontiers in Plant Science, 2021, 12, 654655.	3.6	8
53	Thermoplastic Polyesters of 2-Pyrone-4,6-Dicarboxylic Acid (PDC) Obtained from a Metabolic Intermediate of Lignin. Journal of Fiber Science and Technology, 2013, 69, 39-47.	0.0	8
54	3-Deoxy-d-arabino-heptulosonate 7-phosphate synthase is regulated for the accumulation of polysaccharide-linked hydroxycinnamoyl esters in rice (Oryza sativa L.) internode cell walls. Plant Cell Reports, 2006, 25, 676-688.	5.6	7

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55	Novel enzymatic activity of cell free extract from thermophilic Geobacillus sp. UZO 3 catalyzes reductive cleavage of diaryl ether bonds of 2,7-dichlorodibenzo-p-dioxin. Chemosphere, 2011, 83, 868-872.	8.2	7
56	Enhancement of secondary xylem cell proliferation by Arabidopsis cyclin D overexpression in tobacco plants. Plant Cell Reports, 2012, 31, 1573-1580.	5.6	7
57	Conductive Cements Based Polyesters of PDC(2-Pyrone-4,6-Dicarboxylic Acid) Obtained from a Metabolic Intermediate of Lignin. Kobunshi Ronbunshu, 2009, 66, 141-146.	0.2	6
58	Overexpression of a fungal laccase gene induces nondehiscent anthers and morphological changes in flowers of transgenic tobacco. Journal of Wood Science, 2010, 56, 460-469.	1.9	6
59	Artificially lignified cell wall catalyzed by peroxidase selectively localized on a network of microfibrils from cultured cells. Planta, 2020, 251, 104.	3.2	6
60	Formation of a Tree having a Low Lignin Content. Journal of Plant Research, 2001, 114, 517-523.	2.4	5
61	Analysis of Transgenic Poplar in Which the Expression of Peroxidase Gene is Suppressed. Progress in Biotechnology, 2001, , 195-204.	0.2	4
62	Generation of transgenic hybrid aspen that express a bacterial gene for feruloyl-CoA hydratase/lyase (FerB), which is involved in lignin degradation in Sphingomonas paucimobilis SYK-6. Journal of Wood Science, 2004, 50, 275-280.	1.9	4
63	Isolation of rice dwarf mutants with ectopic deposition of phenolic components including lignin in parenchyma cell walls of internodes. Plant Cell Reports, 2011, 30, 2195-2205.	5.6	4
64	Production Technology for Bioenergy Crops and Trees. , 2014, , 51-106.		4
65	Isolation and Functional Analysis of the Promoter Sequence of the Cry j 1 Gene, Which Encodes a Major Allergenic Protein in the Pollen of Japanese Cedar (Cryptomeria japonica). Plant Biotechnology, 2003, 20, 241-245.	1.0	4
66	Close association between the enzymes involved in the lignin metabolic pathway ofSphingomonas paucimobilis SYK-6: interaction ofO-demethylase (LigX) and ring fission dioxygenase (LigZ). Journal of Wood Science, 2002, 48, 250-252.	1.9	3
67	Development of a highly sensitive assay for enzymeâ€mediated reductive degradation of polychlorinated dibenzoâ€pâ€dioxin. Environmental Toxicology and Chemistry, 2012, 31, 1072-1075.	4.3	3
68	Improved chemical pulping and saccharification of a natural mulberry mutant deficient in cinnamyl alcohol dehydrogenase. Holzforschung, 2021, .	1.9	3
69	Curing Kinetics of Lignin-based Epoxy Resins. Journal of Fiber Science and Technology, 2012, 68, 73-78.	0.0	3
70	High-level fructooligosaccharide production in transgenic tobacco plants. Plant Biotechnology, 2013, 30, 77-81.	1.0	3
71	Simultaneous manipulation of lignin structure and secondary cell wall formation in transgenic poplar. Journal of Wood Science, 2020, 66, .	1.9	3
72	Immunohistochemical localization of enzymes related to lignin biosynthesis in the primary xylem of hybrid aspen. Journal of Wood Science, 2002, 48, 457-466.	1.9	2

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73	Transcription profiling identifies candidate genes for secondary cell wall formation and hydroxycinnamoyl-arabinoxylan biosynthesis in the rice internode. Plant Biotechnology, 2013, 30, 433-446.	1.0	2
74	<i>In vitro</i> regeneration and <i>Agrobacterium</i>-mediated transformation of male- sterile marigold (<i>Tagetes erecta</i> L.). Plant Biotechnology, 2017, 34, 125-129.	1.0	2
75	Quantitative Determination of Magnolol in the Callus from Petioles and Mature Seeds of Magnolia obovata. Mokuzai Gakkai Shi, 2009, 55, 163-169.	0.2	2
76	Isolation and Molecular Characterization of Single-Chain Fv Antibodies Raised against Pollen Allergens from Japanese Cedar (Cryptomeria japonicaD. Don). Bioscience, Biotechnology and Biochemistry, 2009, 73, 2399-2407.	1.3	1
77	Expression analysis of cellulose synthases that comprise the Type II complex in hybrid aspen. Plant Biology, 2019, 21, 361-370.	3.8	1
78	Exploration and structure-based engineering of alkenal double bond reductases catalyzing the CÎ± CÎ² double bond reduction of coniferaldehyde. New Biotechnology, 2022, 68, 57-67.	4.4	1
79	Current Status and Future Prospects of Wood and Tree Biotechnology. Mokuzai Gakkai Shi, 2015, 61, 200-206.	0.2	0