

Shinya Kajita

List of Publications by Year in descending order

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79
papers

2,163
citations

304743

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243625

44
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83
docs citations

83
times ranked

2692
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploration and structure-based engineering of alkenal double bond reductases catalyzing the C ¹ ± C ² double bond reduction of coniferaldehyde. <i>New Biotechnology</i> , 2022, 68, 57-67.	4.4	1
2	Rerouting of the lignin biosynthetic pathway by inhibition of cytosolic shikimate recycling in transgenic hybrid aspen. <i>Plant Journal</i> , 2022, 110, 358-376.	5.7	10
3	Fiber Cell-Specific Expression of the VP16-Fused Ethylene Response Factor 41 Protein Increases Biomass Yield and Alters Lignin Composition. <i>Frontiers in Plant Science</i> , 2021, 12, 654655.	3.6	8
4	Improved chemical pulping and saccharification of a natural mulberry mutant deficient in cinnamyl alcohol dehydrogenase. <i>Holzforschung</i> , 2021, .	1.9	3
5	Importance of Lignin Coniferaldehyde Residues for Plant Properties and Sustainable Uses. <i>ChemSusChem</i> , 2020, 13, 4400-4408.	6.8	14
6	Artificially lignified cell wall catalyzed by peroxidase selectively localized on a network of microfibrils from cultured cells. <i>Planta</i> , 2020, 251, 104.	3.2	6
7	Identification of enzymatic genes with the potential to reduce biomass recalcitrance through lignin manipulation in <i>Arabidopsis</i> . <i>Biotechnology for Biofuels</i> , 2020, 13, 97.	6.2	19
8	Determining the Genetic Regulation and Coordination of Lignification in Stem Tissues of <i>Arabidopsis</i> Using Semiquantitative Raman Microspectroscopy. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 4900-4909.	6.7	16
9	Cellular and Genetic Regulation of Coniferaldehyde Incorporation in Lignin of Herbaceous and Woody Plants by Quantitative Wiesner Staining. <i>Frontiers in Plant Science</i> , 2020, 11, 109.	3.6	25
10	Distinct deposition of ester-linked ferulic and p-coumaric acids to the cell wall of developing sorghum internodes. <i>Plant Biotechnology</i> , 2020, 37, 15-23.	1.0	9
11	A Century-Old Mystery Unveiled: Sekizaisou is a Natural Lignin Mutant. <i>Plant Physiology</i> , 2020, 182, 1821-1828.	4.8	24
12	Simultaneous manipulation of lignin structure and secondary cell wall formation in transgenic poplar. <i>Journal of Wood Science</i> , 2020, 66, .	1.9	3
13	Advances in microbial lignin degradation and its applications. <i>Current Opinion in Biotechnology</i> , 2019, 56, 179-186.	6.6	132
14	Expression analysis of cellulose synthases that comprise the Type II complex in hybrid aspen. <i>Plant Biology</i> , 2019, 21, 361-370.	3.8	1
15	Application of microalgae hydrolysate as a fermentation medium for microbial production of 2-pyrone 4,6-dicarboxylic acid. <i>Journal of Bioscience and Bioengineering</i> , 2018, 125, 717-722.	2.2	15
16	Change in lignin structure, but not in lignin content, in transgenic poplar overexpressing the rice master regulator of secondary cell wall biosynthesis. <i>Physiologia Plantarum</i> , 2018, 163, 170-182.	5.2	19
17	In vitro regeneration and Agrobacterium-mediated transformation of male-sterile marigold (<i>Tagetes erecta</i> L.). <i>Plant Biotechnology</i> , 2017, 34, 125-129.	1.0	2
18	Beta-ketoadipic acid and muconolactone production from a lignin-related aromatic compound through the protocatechuate 3,4-metabolic pathway. <i>Journal of Bioscience and Bioengineering</i> , 2016, 121, 652-658.	2.2	62

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19	Expression and functional analyses of a putative phenylcoumaran benzylic ether reductase in <i>Arabidopsis thaliana</i> . <i>Plant Cell Reports</i> , 2016, 35, 513-526.	5.6	16
20	Introduction of chemically labile substructures into <i>Arabidopsis</i> lignin through the use of LigD, the Cl ⁻ â€dehydrogenase from <i>Sphingobium</i> sp. strain SYK. <i>Plant Biotechnology Journal</i> , 2015, 13, 821-832.	8.3	45
21	Membrane-Associated Glucose-Methanol-Choline Oxidoreductase Family Enzymes PhcC and PhcD Are Essential for Enantioselective Catabolism of Dehydrodiconiferyl Alcohol. <i>Applied and Environmental Microbiology</i> , 2015, 81, 8022-8036.	3.1	20
22	Multiple Classes of Transcription Factors Regulate the Expression of VASCULAR-RELATED NAC-DOMAIN7, a Master Switch of Xylem Vessel Differentiation. <i>Plant and Cell Physiology</i> , 2015, 56, 242-254.	3.1	149
23	Current Status and Future Prospects of Wood and Tree Biotechnology. <i>Mokuzai Gakkai Shi</i> , 2015, 61, 200-206.	0.2	0
24	Production Technology for Bioenergy Crops and Trees. , 2014, , 51-106.		4
25	Successful expression of a novel bacterial gene for pinoresinol reductase and its effect on lignan biosynthesis in transgenic <i>Arabidopsis thaliana</i> . <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 8165-8177.	3.6	10
26	Characterization of the catabolic pathway for a phenylcoumaran-type lignin-derived biaryl in <i>Sphingobium</i> sp. strain SYK-6. <i>Biodegradation</i> , 2014, 25, 735-745.	3.0	25
27	Application of fungal laccase fused with cellulose-binding domain to develop low-lignin rice plants. <i>Journal of Bioscience and Bioengineering</i> , 2013, 116, 616-619.	2.2	14
28	Discovery of pinoresinol reductase genes in sphingomonads. <i>Enzyme and Microbial Technology</i> , 2013, 52, 38-43.	3.2	34
29	Transcription profiling identifies candidate genes for secondary cell wall formation and hydroxycinnamoyl-arabinoxylan biosynthesis in the rice internode. <i>Plant Biotechnology</i> , 2013, 30, 433-446.	1.0	2
30	Thermoplastic Polyesters of 2-Pyrone-4,6-Dicarboxylic Acid (PDC) Obtained from a Metabolic Intermediate of Lignin. <i>Journal of Fiber Science and Technology</i> , 2013, 69, 39-47.	0.0	8
31	High-level fructooligosaccharide production in transgenic tobacco plants. <i>Plant Biotechnology</i> , 2013, 30, 77-81.	1.0	3
32	Enhancement of secondary xylem cell proliferation by <i>Arabidopsis</i> cyclin D overexpression in tobacco plants. <i>Plant Cell Reports</i> , 2012, 31, 1573-1580.	5.6	7
33	Development of a highly sensitive assay for enzyme-mediated reductive degradation of polychlorinated dibenzo-p-dioxin. <i>Environmental Toxicology and Chemistry</i> , 2012, 31, 1072-1075.	4.3	3
34	Convenient synthesis of chiral lignin model compounds via optical resolution: four stereoisomers of guaiacylglycerol- β -guaiacyl ether and both enantiomers of 3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)-propan-1-one (erone). <i>Tetrahedron Letters</i> , 2012, 53, 842-845.	1.4	20
35	DWARF50 (D50), a rice (<i>Oryza sativa</i> L.) gene encoding inositol polyphosphate 5-phosphatase, is required for proper development of intercalary meristem. <i>Plant, Cell and Environment</i> , 2012, 35, 2031-2044.	5.7	21
36	Curing Kinetics of Lignin-based Epoxy Resins. <i>Journal of Fiber Science and Technology</i> , 2012, 68, 73-78.	0.0	3

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37	Genetic engineering of woody plants: current and future targets in a stressful environment. <i>Physiologia Plantarum</i> , 2011, 142, 105-117.	5.2	57
38	Novel enzymatic activity of cell free extract from thermophilic <i>Geobacillus</i> sp. UZO 3 catalyzes reductive cleavage of diaryl ether bonds of 2,7-dichlorodibenzo-p-dioxin. <i>Chemosphere</i> , 2011, 83, 868-872.	8.2	7
39	Isolation of rice dwarf mutants with ectopic deposition of phenolic components including lignin in parenchyma cell walls of internodes. <i>Plant Cell Reports</i> , 2011, 30, 2195-2205.	5.6	4
40	Characterization of the Third Glutathione <i>S</i> -Transferase Gene Involved in Enantioselective Cleavage of the 1 ² -Aryl Ether by <i>Sphingobium</i> sp. Strain SYK-6. <i>Bioscience, Biotechnology and Biochemistry</i> , 2011, 75, 2404-2407.	1.3	36
41	Overexpression of a fungal laccase gene induces nondehiscent anthers and morphological changes in flowers of transgenic tobacco. <i>Journal of Wood Science</i> , 2010, 56, 460-469.	1.9	6
42	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. <i>Planta</i> , 2010, 232, 257-270.	3.2	40
43	The carbohydrate-binding module (CBM)-like sequence is crucial for rice CWA1/BC1 function in proper assembly of secondary cell wall materials. <i>Plant Signaling and Behavior</i> , 2010, 5, 1433-1436.	2.4	15
44	Tenacious Epoxy Adhesives Prepared from Lignin-derived Stable Metabolic Intermediate. <i>Journal of Fiber Science and Technology</i> , 2009, 65, 359-362.	0.0	30
45	Immunohistochemical localization of enzymes that catalyze the long sequential pathways of lignin biosynthesis during differentiation of secondary xylem tissues of hybrid aspen (<i>Populus sieboldii</i> x <i>T. grandis</i>). <i>Journal of Wood Science</i> , 2009, 55, 114-119.	1.4	1
46	Methoxyl groups of lignin are essential carbon donors in C1 metabolism of <i>Sphingobium</i> sp. SYK-6. <i>Journal of Basic Microbiology</i> , 2009, 49, 98-102.	3.3	17
47	Microbial conversion of glucose to a novel chemical building block, 2-pyrone-4,6-dicarboxylic acid. <i>Metabolic Engineering</i> , 2009, 11, 213-220.	7.0	16
48	Polyesters of 2-Pyrone-4,6-dicarboxylic Acid (PDC) as Bio-based Plastics Exhibiting Strong Adhering Properties. <i>Polymer Journal</i> , 2009, 41, 297-302.	2.7	41
49	Isolation and Molecular Characterization of Single-Chain Fv Antibodies Raised against Pollen Allergens from Japanese Cedar (<i>Cryptomeria japonica</i> D. Don). <i>Bioscience, Biotechnology and Biochemistry</i> , 2009, 73, 2399-2407.	1.3	1
50	Conductive Cements Based Polyesters of PDC(2-Pyrone-4,6-Dicarboxylic Acid) Obtained from a Metabolic Intermediate of Lignin. <i>Kobunshi Ronbunshu</i> , 2009, 66, 141-146.	0.2	6
51	Quantitative Determination of Magnolol in the Callus from Petioles and Mature Seeds of <i>Magnolia obovata</i> . <i>Mokuzai Gakkai Shi</i> , 2009, 55, 163-169.	0.2	2
52	Isolation and functional analysis of the <i>CjNdy</i> gene, a homolog in <i>Cryptomeria japonica</i> of <i>FLORICAULA/LEAFY</i> genes. <i>Tree Physiology</i> , 2008, 28, 21-28.	3.1	24
53	Laser Raman detection of an electrogenerated intermediate during anodic synthesis of dihydrobenzofurans via formal [3+2] cycloaddition. <i>Electrochemistry Communications</i> , 2007, 9, 1331-1336.	4.7	10
54	Hybrid aspen with a transgene for fungal manganese peroxidase is a potential contributor to phytoremediation of the environment contaminated with bisphenol A. <i>Journal of Wood Science</i> , 2007, 53, 541-544.	1.9	18

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55	3-Deoxy-d-arabino-heptulosonate 7-phosphate synthase is regulated for the accumulation of polysaccharide-linked hydroxycinnamoyl esters in rice (<i>Oryza sativa</i> L.) internode cell walls. <i>Plant Cell Reports</i> , 2006, 25, 676-688.	5.6	7
56	Transgenic tobacco expressing fungal laccase promotes the detoxification of environmental pollutants. <i>Applied Microbiology and Biotechnology</i> , 2005, 67, 138-142.	3.6	76
57	Heat stable ssDNA/RNA-binding activity of a wheat cold shock domain protein. <i>FEBS Letters</i> , 2005, 579, 4887-4891.	2.8	34
58	Generation of transgenic hybrid aspen that express a bacterial gene for feruloyl-CoA hydratase/lyase (FerB), which is involved in lignin degradation in <i>Sphingomonas paucimobilis</i> SYK-6. <i>Journal of Wood Science</i> , 2004, 50, 275-280.	1.9	4
59	Molecular cloning of the promoter region of the glyceraldehyde-3-phosphate dehydrogenase gene that contributes to the construction of a new transformation system in <i>Coriolus versicolor</i> . <i>Mycoscience</i> , 2004, 45, 131-136.	0.8	9
60	Overproduction of recombinant laccase using a homologous expression system in <i>Coriolus versicolor</i> . <i>Applied Microbiology and Biotechnology</i> , 2004, 66, 194-199.	3.6	25
61	Down-regulation of an anionic peroxidase in transgenic aspen and its effect on lignin characteristics. <i>Journal of Plant Research</i> , 2003, 116, 175-182.	2.4	116
62	Detection and characterization of a novel extracellular fungal enzyme that catalyzes the specific and hydrolytic cleavage of lignin guaiacylglycerol beta-aryl ether linkages. <i>FEBS Journal</i> , 2003, 270, 2353-2362.	0.2	42
63	Lignins and lignocellulosics: a better control of synthesis for new and improved uses. <i>Trends in Plant Science</i> , 2003, 8, 576-581.	8.8	294
64	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 (<i>Cryptomeria japonica</i>). <i>Plant Biotechnology</i> , 2003, 20, 241-245.	1.0	4
65	Improvement in pulping and bleaching properties of xylem from transgenic tobacco plants. <i>Journal of the Science of Food and Agriculture</i> , 2002, 82, 1216-1223.	3.5	12
66	Expression of a gene for Mn-peroxidase from <i>Coriolus versicolor</i> in transgenic tobacco generates potential tools for phytoremediation. <i>Applied Microbiology and Biotechnology</i> , 2002, 59, 246-251.	3.6	47
67	Immunohistochemical localization of enzymes related to lignin biosynthesis in the primary xylem of hybrid aspen. <i>Journal of Wood Science</i> , 2002, 48, 457-466.	1.9	2
68	Specific degradation of β -aryl ether linkage in synthetic lignin (dehydrogenative polymerizate) by bacterial enzymes of <i>Sphingomonas paucimobilis</i> SYK-6 produced in recombinant <i>Escherichia coli</i> . <i>Journal of Wood Science</i> , 2002, 48, 429-433.	1.9	16
69	Tetrahydrofolate-dependent vanillate and syringate O-demethylation links tightly to one-carbon metabolic pathway associated with amino acid synthesis and DNA methylation in the lignin metabolism of <i>Sphingomonas paucimobilis</i> SYK-6. <i>Journal of Wood Science</i> , 2002, 48, 434-439.	1.9	12
70	Close association between the enzymes involved in the lignin metabolic pathway of <i>Sphingomonas paucimobilis</i> SYK-6: interaction of O-demethylase (LigX) and ring fission dioxygenase (LigZ). <i>Journal of Wood Science</i> , 2002, 48, 250-252.	1.9	3
71	Formation of a Tree having a Low Lignin Content. <i>Journal of Plant Research</i> , 2001, 114, 517-523.	2.4	5
72	Analysis of Transgenic Poplar in Which the Expression of Peroxidase Gene is Suppressed. <i>Progress in Biotechnology</i> , 2001, , 195-204.	0.2	4

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73	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. <i>Plant and Cell Physiology</i> , 2000, 41, 776-784.	3.1	13
74	Structural Characterization of Modified Lignin in Transgenic Tobacco Plants in Which the Activity of 4-Coumarate:Coenzyme A Ligase Is Depressed. <i>Plant Physiology</i> , 1997, 114, 871-879.	4.8	115
75	Immunological characterization of transgenic tobacco plants with a chimeric gene for 4-coumarate:CoA ligase that have altered lignin in their xylem tissue. <i>Plant Science</i> , 1997, 128, 109-118.	3.6	10
76	Isolation and Analysis of Cinnamic Acid 4-Hydroxylase Homologous Genes from a Hybrid Aspen, <i>Populus kitakamiensis</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 1996, 60, 1586-1597.	1.3	35
77	Alterations in the Biosynthesis of Lignin in Transgenic Plants with Chimeric Genes for 4-Coumarate:Coenzyme A Ligase. <i>Plant and Cell Physiology</i> , 1996, 37, 957-965.	3.1	137
78	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. <i>Plant Science</i> , 1994, 103, 231-239.	3.6	32
79	Nucleotide Sequence for the Genomic DNA Encoding an Anionic Peroxidase Gene from a Hybrid Poplar, <i>Populus kitakamiensis</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 1993, 57, 131-133.	1.3	13