Toshihisa Kotake

List of Publications by Year
in descending order

86	3,322	109264	161767
papers	citations	35 h-index	54 g-index

88	88	88	3362
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydroxycinnamic acidâ€modified xylan side chains and their crossâ€linking products in rice cell walls are reduced in the Xylosyl arabinosyl substitution of xylan 1 mutant. Plant Journal, 2022, 109, 1152-1167.	2.8	18
2	A Pipeline towards the Biochemical Characterization of the Arabidopsis GT14 Family. International Journal of Molecular Sciences, 2021, 22, 1360.	1.8	7
3	Biochemical and structural characterization of a novel 4â€Oâ€±â€<scp>l</scp>â€rhamnosylâ€Î²â€<scp>d</scp>â€glucuronidase from Fusarium oxysporum. FEBS Journal, 2021, 288, 4918-4938.	2.2	9
4	Wolfberry genomes and the evolution of LyciumÂ(Solanaceae). Communications Biology, 2021, 4, 671.	2.0	40
5	Root-knot nematode chemotaxis is positively regulated by <scp>l</scp> -galactose sidechains of mucilage carbohydrate rhamnogalacturonan-I. Science Advances, 2021, 7, .	4.7	15
6	Galactoglucomannan structure of Arabidopsis seedâ€coat mucilage in <scp>GDP</scp>â€mannose synthesis impaired mutants. Physiologia Plantarum, 2021, 173, 1244-1252.	2.6	9
7	Superoxide Production by the Red Tide-Producing Chattonella marina Complex (Raphidophyceae) Correlates with Toxicity to Aquacultured Fishes. Antioxidants, 2021, 10, 1635.	2.2	8
8	The Mechanics and Biology of Plant Cell Walls: Resilience and Sustainability for Our Future Society. Plant and Cell Physiology, 2021, 62, 1787-1790.	1.5	1
9	Calcium Binding by Arabinogalactan Polysaccharides Is Important for Normal Plant Development. Plant Cell, 2020, 32, 3346-3369.	3.1	65
10	Expression of a fungal exo-Î²-1,3-galactanase in Arabidopsis reveals a role of type II arabinogalactans in the regulation of cell shape. Journal of Experimental Botany, 2020, 71, 5414-5424.	2.4	9
11	Unique active-site and subsite features in the arabinogalactan-degrading GH43 exo-Î²-1,3-galactanase from Phanerochaete chrysosporium. Journal of Biological Chemistry, 2020, 295, 18539-18552.	1.6	3
12	Microgravity Affects the Level of Matrix Polysaccharide 1,3:1,4-Î²-Glucans in Cell Walls of Rice Shoots by Increasing the Expression Level of a Gene Involved in Their Breakdown. Astrobiology, 2020, 20, 820-829.	1.5	11
13	Structural features conserved in subclass of type II arabinogalactan. Plant Biotechnology, 2020, 37, 459-463.	0.5	5
14	Properties of arabinogalactan-proteins in European pear (Pyrus communis L.) fruits. Carbohydrate Research, 2019, 485, 107816.	1.1	12
15	Degradative enzymes for type II arabinogalactan side chains in Bifidobacterium longum subsp. longum. Applied Microbiology and Biotechnology, 2019, 103, 1299-1310.	1.7	30
16	Modification of growth anisotropy and cortical microtubule dynamics in Arabidopsis hypocotyls grown under microgravity conditions in space. Physiologia Plantarum, 2018, 162, 135-144.	2.6	29
17	The Patterned Structure of Galactoglucomannan Suggests It May Bind to Cellulose in Seed Mucilage. Plant Physiology, 2018, 178, 1011-1026.	2.3	62
18	Yariv reactivity of type II arabinogalactan from larch wood. Carbohydrate Research, 2018, 467, 8-13.	1.1	15

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19	Persistence of plant hormone levels in rice shoots grown under microgravity conditions in space: its relationship to maintenance of shoot growth. Physiologia Plantarum, 2017, 161, 285-293.	2.6	20
20	Screening of rice mutants with improved saccharification efficiency results in the identification of CONSTITUTIVE PHOTOMORPHOGENIC 1 and GOLD HULL AND INTERNODE 1. Planta, 2017, 246, 61-74.	1.6	5
21	Properties of two fungal endo-Î²-1,3-galactanases and their synergistic action with an exo-Î²-1,3-galactanase in degrading arabinogalactan-proteins. Carbohydrate Research, 2017, 453-454, 26-35.	1.1	16
22	A Synthetic Glycan Microarray Enables Epitope Mapping of Plant Cell Wall Glycan-Directed Antibodies. Plant Physiology, 2017, 175, 1094-1104.	2.3	117
23	Heterologous expression and characterization of an Arabidopsis Î²-l-arabinopyranosidase and Î±-d-galactosidases acting on Î²-l-arabinopyranosyl residues. Journal of Experimental Botany, 2017, 68, 4651-4661.	2.4	21
24	A protease/peptidase from culture medium of Flammulina velutipes that acts on arabinogalactan-protein. Bioscience, Biotechnology and Biochemistry, 2017, 81, 475-481.	0.6	2
25	Roles of MAP65-1 and BPP1 in Gravity Resistance of Arabidopsis hypocotyls. Uchu Seibutsu Kagaku, 2016, 30, 1-7.	1.0	7
26	Metabolism of l-arabinose in plants. Journal of Plant Research, 2016, 129, 781-792.	1.2	57
27	The AMOR Arabinogalactan Sugar Chain Induces Pollen-Tube Competency to Respond to Ovular Guidance. Current Biology, 2016, 26, 1091-1097.	1.8	103
28	Precise estimation of genomic regions controlling lodging resistance using a set of reciprocal chromosome segment substitution lines in rice. Scientific Reports, 2016, 6, 30572.	1.6	53
29	Suppression of Hydroxycinnamate Network Formation in Cell Walls of Rice Shoots Grown under Microgravity Conditions in Space. PLoS ONE, 2015, 10, e0137992.	1.1	18
30	Action of an endo-Î²-1,3(4)-glucanase on cellobiosyl unit structure in barley Î²-1,3:1,4-glucan. Bioscience, Biotechnology and Biochemistry, 2015, 79, 1810-1817.	0.6	12
31	KONJAC1 and 2 Are Key Factors for GDP-Mannose Generation and Affect l-Ascorbic Acid and Glucomannan Biosynthesis in Arabidopsis. Plant Cell, 2015, 27, 3397-3409.	3.1	48
32	Hormonal regulation of gummosis and composition of gums from bulbs of hyacinth (Hyacinthus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	1.6	11
33	l-Fucose-containing arabinogalactan-protein in radish leaves. Carbohydrate Research, 2015, 415, 1-11.	1.1	25
34	Enzymatic fragmentation of carbohydrate moieties of radish arabinogalactan-protein and elucidation of the structures. Bioscience, Biotechnology and Biochemistry, 2014, 78, 818-831.	0.6	26
35	Enzymatic activity and substrate specificity of the recombinant tomato Î²-galactosidase 1. Journal of Plant Physiology, 2014, 171, 1454-1460.	1.6	11
36	Biosynthesis of the carbohydrate moieties of arabinogalactan proteins by membrane-bound Î²-glucuronosyltransferases from radish primary roots. Planta, 2013, 238, 1157-1169.	1.6	15

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37	A galactosyltransferase acting on arabinogalactan protein glycans is essential for embryo development in <scp>A</scp>rabidopsis. Plant Journal, 2013, 76, 128-137.	2.8	80
38	Characterization of alkali-soluble polysaccharides in deep subsoil layers. Soil Science and Plant Nutrition, 2013, 59, 871-876.	0.8	1
39	A Î²â€“glucuronosyltransferase from <scp>A</scp>rabidopsis thaliana involved in biosynthesis of typeÂ<scp>II</scp> arabinogalactan has a role in cell elongation during seedling growth. Plant Journal, 2013, 76, 1016-1029.	2.8	84
40	Î²-Galactosyl Yariv Reagent Binds to the Î²-1,3-Galactan of Arabinogalactan Proteins Â Â. Plant Physiology, 2013, 161, 1117-1126.	2.3	142
41	Structural Characterization of Arabidopsis Leaf Arabinogalactan Polysaccharides Â. Plant Physiology, 2012, 160, 653-666.	2.3	132
42	Structural and Biochemical Characterization of Glycoside Hydrolase Family 79 Î²-Glucuronidase from Acidobacterium capsulatum. Journal of Biological Chemistry, 2012, 287, 14069-14077.	1.6	39
43	Changes in the transcript levels of microtubule-associated protein MAP65-1 during reorientation of cortical microtubules in azuki bean epicotyls. Acta Physiologiae Plantarum, 2012, 34, 533-540.	1.0	9
44	The role of extracellular polysaccharides produced by the terrestrial cyanobacterium Nostoc sp. strain HK-01 in NaCl tolerance. Journal of Applied Phycology, 2012, 24, 237-243.	1.5	39
45	Endo-Î²-1,3-galactanase from Winter Mushroom Flammulina velutipes. Journal of Biological Chemistry, 2011, 286, 27848-27854.	1.6	38
46	Rice Brittle culm 6 encodes a dominant-negative form of CesA protein that perturbs cellulose synthesis in secondary cell walls. Journal of Experimental Botany, 2011, 62, 2053-2062.	2.4	95
47	Rice BRITTLE CULM 3 (BC3) encodes a classical dynamin OsDRP2B essential for proper secondary cell wall synthesis. Planta, 2010, 232, 95-108.	1.6	68
48	Gummosis in grape hyacinth (Muscari armeniacum) bulbs: hormonal regulation and chemical composition of gums. Journal of Plant Research, 2010, 123, 363-370.	1.2	15
49	Degradation of carbohydrate moieties of arabinogalactan-proteins by glycoside hydrolases from Neurospora crassa. Carbohydrate Research, 2010, 345, 2516-2522.	1.1	36
50	Carbohydrate structural analysis of wheat flour arabinogalactan protein. Carbohydrate Research, 2010, 345, 2648-2656.	1.1	101
51	Sugar treatment inhibits IAA-induced expression of endo-1,3:1,4-Î²-glucanase EI transcripts in barley coleoptile segments. Physiologia Plantarum, 2010, 139, no-no.	2.6	10
52	Generation of nucleotide sugars for biomass formation in plants. Plant Biotechnology, 2010, 27, 231-236.	0.5	19
53	Transient increase in the levels of Î³-tubulin complex and katanin are responsible for reorientation by ethylene and hypergravity of cortical microtubules. Plant Signaling and Behavior, 2010, 5, 1480-1482.	1.2	24
54	1-Aminocyclopropane-1-carboxylic acid (ACC)-induced reorientation of cortical microtubules is accompanied by a transient increase in the transcript levels of Î³-tubulin complex and katanin genes in azuki bean epicotyls. Journal of Plant Physiology, 2010, 167, 1165-1171.	1.6	31

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55	Chemoenzymatic Synthesis, Inhibition Studies, and X-ray Crystallographic Analysis of the Phosphono Analog of UDP-Galp as an Inhibitor and Mechanistic Probe for UDP-Galactopyranose Mutase. Journal of Molecular Biology, 2010, 403, 578-590.	2.0	40
56	Molecular Cloning and Expression inPichia pastorisof aIrpex lacteusExo-Î²-(1â†'3)-galactanase Gene. Bioscience, Biotechnology and Biochemistry, 2009, 73, 2303-2309.	0.6	33
57	Rice BRITTLE CULM 5 (BRITTLE NODE) is Involved in Secondary Cell Wall Formation in the Sclerenchyma Tissue of Nodes. Plant and Cell Physiology, 2009, 50, 1886-1897.	1.5	60
58	The GLABRA2 homeodomain protein directly regulates CESA5 and XTH17 gene expression in Arabidopsis roots. Plant Journal, 2009, 60, 564-574.	2.8	62
59	Bifunctional cytosolic UDP-glucose 4-epimerases catalyse the interconversion between UDP-<scp>D</scp>-xylose and UDP-<scp>L</scp>-arabinose in plants. Biochemical Journal, 2009, 424, 169-177.	1.7	43
60	Arabinogalactan-Proteins in The Evolution of Gravity Resistance in Land Plants. Uchu Seibutsu Kagaku, 2009, 23, 143-149.	1.0	4
61	The Transcript Level of Katanin Gene is Increased Transiently in Response to Changes in Gravitational Conditions in Azuki Bean Epicotyls. Uchu Seibutsu Kagaku, 2009, 23, 23-28.	1.0	17
62	Transient increase in the transcript levels of Î³-tubulin complex genes during reorientation of cortical microtubules by gravity in azuki bean (Vigna angularis) epicotyls. Journal of Plant Research, 2008, 121, 493-498.	1.2	26
63	Properties of family 79 Î²-glucuronidases that hydrolyze Î²-glucuronosyl and 4-O-methyl-Î²-glucuronosyl residues of arabinogalactan-protein. Carbohydrate Research, 2008, 343, 1191-1201.	1.1	54
64	Characterization of an Endo-Î²-1,6-Galactanase from Streptomyces avermitilis NBRC14893. Applied and Environmental Microbiology, 2008, 74, 2379-2383.	1.4	25
65	Î²-1,3 : 1,4-Glucan Synthase Activity in Rice Seedlings under Water. Annals of Botany, 2008, 102, 221-226.	1.4	13
66	A Bifunctional Enzyme with L-Fucokinase and GDP-L-fucose Pyrophosphorylase Activities Salvages Free L-Fucose in Arabidopsis. Journal of Biological Chemistry, 2008, 283, 8125-8135.	1.6	50
67	Arabinogalactan-proteins Degrading Enzymes. Journal of Applied Glycoscience (1999), 2008, 55, 149-155.	0.3	1
68	Properties and Physiological Functions of UDP-Sugar Pyrophosphorylase inArabidopsis. Bioscience, Biotechnology and Biochemistry, 2007, 71, 761-771.	0.6	83
69	Chain elongation of pectic Î²-(1â†'4)-galactan by a partially purified galactosyltransferase from soybean (Glycine max Merr.) hypocotyls. Planta, 2007, 226, 571-579.	1.6	10
70	Characterization of an Exo-Î²-1,3-D-galactanase fromStreptomyces avermitilisNBRC14893 Acting on Arabinogalactan-Proteins. Bioscience, Biotechnology and Biochemistry, 2006, 70, 2745-2750.	0.6	27
71	An Â-L-arabinofuranosidase/Â-D-xylosidase from immature seeds of radish (Raphanus sativus L.). Journal of Experimental Botany, 2006, 57, 2353-2362.	2.4	43
72	Characterization of an Exo-Î²-1,3-Galactanase from Clostridium thermocellum. Applied and Environmental Microbiology, 2006, 72, 3515-3523.	1.4	43

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73	Biosynthesis of (13),(14)-beta-glucan in developing endosperms of barley (Hordeum vulgare). Physiologia Plantarum, 2005, 125, 181-191.	2.6	17
74	An Exo-Î²-1,3-galactanase Having a Novel Î²-1,3-Galactan-bindingModule from Phanerochaetechrysosporium. Journal of Biological Chemistry, 2005, 280, 25820-25829.	1.6	79
75	Molecular Cloning of a Î²-Galactosidase from Radish That Specifically Hydrolyzes Î²-(1â†'3)- and Î²-(1â†'6)-Galactosyl Residues of Arabinogalactan Protein. Plant Physiology, 2005, 138, 1563-1576.	2.3	100
76	Mode of Action of Î²-Glucuronidase fromAspergillus nigeron the Sugar Chains of Arabinogalactan-Protein. Bioscience, Biotechnology and Biochemistry, 2005, 69, 2170-2177.	0.6	30
77	UDP-sugar Pyrophosphorylase with Broad Substrate Specificity Toward Various Monosaccharide 1-Phosphates from Pea Sprouts. Journal of Biological Chemistry, 2004, 279, 45728-45736.	1.6	110
78	A beta-(14)-xylosyltransferase involved in the synthesis of arabinoxylans in developing barley endosperms. Physiologia Plantarum, 2004, 122, 169-180.	2.6	37
79	Biosynthesis of pectic galactan by membrane-bound galactosyltransferase from soybean (Glycine max) Tj ETQq1 1 0.784314 rgBT /O	1.6	11
80	Molecular cloning and expression in Escherichia coli of a Trichoderma viride endo-beta-(1) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (	1.7	57
81	Arabidopsis TERMINAL FLOWER 2 Gene Encodes a Heterochromatin Protein 1 Homolog and Represses both FLOWERING LOCUS T to Regulate Flowering Time and Several Floral Homeotic Genes. Plant and Cell Physiology, 2003, 44, 555-564.	1.5	214
82	Expression and Function of Cell Wall-Bound Cationic Peroxidase in Asparagus Somatic Embryogenesis. Plant Physiology, 2003, 131, 1765-1774.	2.3	36
83	Small complex-type N-linked glycans are attached to cell-wall bound exo-Î²-glucanases of both mung bean and barley seedlings. Physiologia Plantarum, 2001, 112, 308-314.	2.6	8
84	Characterization and function of wall-bound exo-Î²-glucanases of Lilium longiflorum pollen tubes. Sexual Plant Reproduction, 2000, 13, 1-9.	2.2	18
85	Auxin-Induced Elongation Growth and Expressions of Cell Wall-Bound Exo- and Endo-Î²-Glucanases in Barley Coleoptiles. Plant and Cell Physiology, 2000, 41, 1272-1278.	1.5	45
86	Purification and Characterization of Wall-bound Exo-l,3-Â-D-Glucanase from Barley (Hordeum vulgare) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.5	47