

Toshihisa Kotake

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

85
papers

2,452
citations

30
h-index

47
g-index

88
ext. papers

2,989
ext. citations

4.5
avg, IF

4.47
L-index

#	Paper	IF	Citations
85	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. <i>Plant and Cell Physiology</i> , 2003 , 44, 555-64	4.9	196
84	β-galactosyl Yariv reagent binds to the β1,3-galactan of arabinogalactan proteins. <i>Plant Physiology</i> , 2013 , 161, 1117-26	6.6	101
83	Structural characterization of Arabidopsis leaf arabinogalactan polysaccharides. <i>Plant Physiology</i> , 2012 , 160, 653-66	6.6	93
82	UDP-sugar pyrophosphorylase with broad substrate specificity toward various monosaccharide 1-phosphates from pea sprouts. <i>Journal of Biological Chemistry</i> , 2004 , 279, 45728-36	5.4	92
81	Carbohydrate structural analysis of wheat flour arabinogalactan protein. <i>Carbohydrate Research</i> , 2010 , 345, 2648-56	2.9	84
80	Molecular cloning of a β-galactosidase from radish that specifically hydrolyzes β-(1→3)- and β-(1→6)-galactosyl residues of Arabinogalactan protein. <i>Plant Physiology</i> , 2005 , 138, 1563-76	6.6	82
79	A Synthetic Glycan Microarray Enables Epitope Mapping of Plant Cell Wall Glycan-Directed Antibodies. <i>Plant Physiology</i> , 2017 , 175, 1094-1104	6.6	80
78	The AMOR Arabinogalactan Sugar Chain Induces Pollen-Tube Competency to Respond to Ovular Guidance. <i>Current Biology</i> , 2016 , 26, 1091-7	6.3	78
77	Properties and physiological functions of UDP-sugar pyrophosphorylase in Arabidopsis. <i>Bioscience, Biotechnology and Biochemistry</i> , 2007 , 71, 761-71	2.1	72
76	An exo-beta-1,3-galactanase having a novel beta-1,3-galactan-binding module from Phanerochaete chrysosporium. <i>Journal of Biological Chemistry</i> , 2005 , 280, 25820-9	5.4	66
75	A galactosyltransferase acting on arabinogalactan protein glycans is essential for embryo development in Arabidopsis. <i>Plant Journal</i> , 2013 , 76, 128-37	6.9	64
74	A β-glucuronosyltransferase from Arabidopsis thaliana involved in biosynthesis of type III arabinogalactan has a role in cell elongation during seedling growth. <i>Plant Journal</i> , 2013 , 76, 1016-29	6.9	60
73	Rice Brittle culm 6 encodes a dominant-negative form of CesaA protein that perturbs cellulose synthesis in secondary cell walls. <i>Journal of Experimental Botany</i> , 2011 , 62, 2053-62	7	56
72	Rice BRITTLE CULM 3 (BC3) encodes a classical dynamin OsDRP2B essential for proper secondary cell wall synthesis. <i>Planta</i> , 2010 , 232, 95-108	4.7	52
71	The GLABRA2 homeodomain protein directly regulates CESA5 and XTH17 gene expression in Arabidopsis roots. <i>Plant Journal</i> , 2009 , 60, 564-74	6.9	49
70	Molecular cloning and expression in Escherichia coli of a Trichoderma viride endo-beta-(1→6)-galactanase gene. <i>Biochemical Journal</i> , 2004 , 377, 749-55	3.8	49
69	Rice BRITTLE CULM 5 (BRITTLE NODE) is involved in secondary cell wall formation in the sclerenchyma tissue of nodes. <i>Plant and Cell Physiology</i> , 2009 , 50, 1886-97	4.9	48

68	A bifunctional enzyme with L-fucokinase and GDP-L-fucose pyrophosphorylase activities salvages free L-fucose in Arabidopsis. <i>Journal of Biological Chemistry</i> , 2008 , 283, 8125-35	5.4	44
67	Properties of family 79 beta-glucuronidases that hydrolyze beta-glucuronosyl and 4-O-methyl-beta-glucuronosyl residues of arabinogalactan-protein. <i>Carbohydrate Research</i> , 2008 , 343, 1191-201	2.9	44
66	Purification and characterization of wall-bound exo-1,3-beta-D-glucanase from barley (<i>Hordeum vulgare</i> L.) seedlings. <i>Plant and Cell Physiology</i> , 1997 , 38, 194-200	4.9	42
65	Auxin-induced elongation growth and expressions of cell wall-bound exo- and endo-beta-glucanases in barley coleoptiles. <i>Plant and Cell Physiology</i> , 2000 , 41, 1272-8	4.9	41
64	Precise estimation of genomic regions controlling lodging resistance using a set of reciprocal chromosome segment substitution lines in rice. <i>Scientific Reports</i> , 2016 , 6, 30572	4.9	38
63	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. <i>Journal of Molecular Biology</i> , 2010 , 403, 578-90	6.5	37
62	An alpha-L-arabinofuranosidase/beta-D-xylosidase from immature seeds of radish (<i>Raphanus sativus</i> L.). <i>Journal of Experimental Botany</i> , 2006 , 57, 2353-62	7	37
61	Bifunctional cytosolic UDP-glucose 4-epimerases catalyse the interconversion between UDP-D-xylose and UDP-L-arabinose in plants. <i>Biochemical Journal</i> , 2009 , 424, 169-77	3.8	36
60	The role of extracellular polysaccharides produced by the terrestrial cyanobacterium <i>Nostoc</i> sp. strain HK-01 in NaCl tolerance. <i>Journal of Applied Phycology</i> , 2012 , 24, 237-243	3.2	35
59	Characterization of an exo-beta-1,3-galactanase from <i>Clostridium thermocellum</i> . <i>Applied and Environmental Microbiology</i> , 2006 , 72, 3515-23	4.8	35
58	A β (1-4)-xylosyltransferase involved in the synthesis of arabinoxylans in developing barley endosperms. <i>Physiologia Plantarum</i> , 2004 , 122, 169-180	4.6	35
57	Expression and function of cell wall-bound cationic peroxidase in asparagus somatic embryogenesis. <i>Plant Physiology</i> , 2003 , 131, 1765-74	6.6	31
56	KONJAC1 and 2 Are Key Factors for GDP-Mannose Generation and Affect l-Ascorbic Acid and Glucomannan Biosynthesis in Arabidopsis. <i>Plant Cell</i> , 2015 , 27, 3397-409	11.6	30
55	Degradation of carbohydrate moieties of arabinogalactan-proteins by glycoside hydrolases from <i>Neurospora crassa</i> . <i>Carbohydrate Research</i> , 2010 , 345, 2516-22	2.9	30
54	The Patterned Structure of Galactoglucomannan Suggests It May Bind to Cellulose in Seed Mucilage. <i>Plant Physiology</i> , 2018 , 178, 1011-1026	6.6	30
53	Endo-beta-1,3-galactanase from winter mushroom <i>Flammulina velutipes</i> . <i>Journal of Biological Chemistry</i> , 2011 , 286, 27848-54	5.4	29
52	Structural and biochemical characterization of glycoside hydrolase family 79 β glucuronidase from <i>Acidobacterium capsulatum</i> . <i>Journal of Biological Chemistry</i> , 2012 , 287, 14069-77	5.4	29
51	Metabolism of L-arabinose in plants. <i>Journal of Plant Research</i> , 2016 , 129, 781-792	2.6	29

50	Molecular cloning and expression in <i>Pichia pastoris</i> of a <i>Irpep lacteus</i> exo-beta-(1→3)-galactanase gene. <i>Bioscience, Biotechnology and Biochemistry</i> , 2009 , 73, 2303-9	2.1	27
49	Calcium Binding by Arabinogalactan Polysaccharides Is Important for Normal Plant Development. <i>Plant Cell</i> , 2020 , 32, 3346-3369	11.6	27
48	Characterization of an exo-beta-1,3-D-galactanase from <i>Streptomyces avermitilis</i> NBRC14893 acting on arabinogalactan-proteins. <i>Bioscience, Biotechnology and Biochemistry</i> , 2006 , 70, 2745-50	2.1	25
47	Transient increase in the transcript levels of gamma-tubulin complex genes during reorientation of cortical microtubules by gravity in azuki bean (<i>Vigna angularis</i>) epicotyls. <i>Journal of Plant Research</i> , 2008 , 121, 493-8	2.6	24
46	Mode of action of beta-glucuronidase from <i>Aspergillus niger</i> on the sugar chains of arabinogalactan-protein. <i>Bioscience, Biotechnology and Biochemistry</i> , 2005 , 69, 2170-7	2.1	22
45	Characterization of an endo-beta-1,6-Galactanase from <i>Streptomyces avermitilis</i> NBRC14893. <i>Applied and Environmental Microbiology</i> , 2008 , 74, 2379-83	4.8	20
44	L-Fucose-containing arabinogalactan-protein in radish leaves. <i>Carbohydrate Research</i> , 2015 , 415, 1-11	2.9	19
43	Enzymatic fragmentation of carbohydrate moieties of radish arabinogalactan-protein and elucidation of the structures. <i>Bioscience, Biotechnology and Biochemistry</i> , 2014 , 78, 818-31	2.1	19
42	Modification of growth anisotropy and cortical microtubule dynamics in <i>Arabidopsis</i> hypocotyls grown under microgravity conditions in space. <i>Physiologia Plantarum</i> , 2018 , 162, 135-144	4.6	18
41	Degradative enzymes for type II arabinogalactan side chains in <i>Bifidobacterium longum</i> subsp. <i>longum</i> . <i>Applied Microbiology and Biotechnology</i> , 2019 , 103, 1299-1310	5.7	17
40	Generation of nucleotide sugars for biomass formation in plants. <i>Plant Biotechnology</i> , 2010 , 27, 231-236	1.3	16
39	Persistence of plant hormone levels in rice shoots grown under microgravity conditions in space: its relationship to maintenance of shoot growth. <i>Physiologia Plantarum</i> , 2017 , 161, 285-293	4.6	15
38	1-aminocyclopropane-1-carboxylic acid (ACC)-induced reorientation of cortical microtubules is accompanied by a transient increase in the transcript levels of gamma-tubulin complex and katanin genes in azuki bean epicotyls. <i>Journal of Plant Physiology</i> , 2010 , 167, 1165-71	3.6	15
37	Characterization and function of wall-bound exo-β-glucanases of <i>Lilium longiflorum</i> pollen tubes. <i>Sexual Plant Reproduction</i> , 2000 , 13, 1-9		15
36	The Transcript Level of Katanin Gene is Increased Transiently in Response to Changes in Gravitational Conditions in Azuki Bean Epicotyls. <i>Uchu Seibutsu Kagaku</i> , 2009 , 23, 23-28	1	15
35	Biosynthesis of (1→3),(1→4)-β-glucan in developing endosperms of barley (<i>Hordeum vulgare</i>). <i>Physiologia Plantarum</i> , 2005 , 125, 181-191	4.6	14
34	Suppression of Hydroxycinnamate Network Formation in Cell Walls of Rice Shoots Grown under Microgravity Conditions in Space. <i>PLoS ONE</i> , 2015 , 10, e0137992	3.7	13
33	Properties of two fungal endo-β _{1,3} -galactanases and their synergistic action with an exo-β _{1,3} -galactanase in degrading arabinogalactan-proteins. <i>Carbohydrate Research</i> , 2017 , 453-454, 26-35	2.9	12

32	Gummosis in grape hyacinth (<i>Muscari armeniacum</i>) bulbs: hormonal regulation and chemical composition of gums. <i>Journal of Plant Research</i> , 2010 , 123, 363-70	2.6	12
31	Beta-1,3:1,4-glucan synthase activity in rice seedlings under water. <i>Annals of Botany</i> , 2008 , 102, 221-6	4.1	12
30	Heterologous expression and characterization of an Arabidopsis β -arabinopyranosidase and β -D-galactosidases acting on β -arabinopyranosyl residues. <i>Journal of Experimental Botany</i> , 2017 , 68, 4651-4661	7	10
29	Chain elongation of pectic beta-(1 \rightarrow 4)-galactan by a partially purified galactosyltransferase from soybean (<i>Glycine max</i> Merr.) hypocotyls. <i>Planta</i> , 2007 , 226, 571-9	4.7	10
28	Biosynthesis of pectic galactan by membrane-bound galactosyltransferase from soybean (<i>Glycine max</i> Merr) seedlings. <i>Planta</i> , 2004 , 218, 833-42	4.7	10
27	Sugar treatment inhibits IAA-induced expression of endo-1,3:1,4-beta-glucanase EI transcripts in barley coleoptile segments. <i>Physiologia Plantarum</i> , 2010 , 139, 413-20	4.6	9
26	Transient increase in the levels of β tubulin complex and katanin are responsible for reorientation by ethylene and hypergravity of cortical microtubules. <i>Plant Signaling and Behavior</i> , 2010 , 5, 1480-2	2.5	9
25	Enzymatic activity and substrate specificity of the recombinant tomato β galactosidase 1. <i>Journal of Plant Physiology</i> , 2014 , 171, 1454-60	3.6	8
24	Action of an endo- β 1,3(4)-glucanase on cellobiosyl unit structure in barley β 1,3:1,4-glucan. <i>Bioscience, Biotechnology and Biochemistry</i> , 2015 , 79, 1810-7	2.1	8
23	Hormonal regulation of gummosis and composition of gums from bulbs of hyacinth (<i>Hyacinthus orientalis</i>). <i>Journal of Plant Physiology</i> , 2015 , 174, 1-4	3.6	8
22	Small complex-type N-linked glycans are attached to cell-wall bound exo-beta-glucanases of both mung bean and barley seedlings. <i>Physiologia Plantarum</i> , 2001 , 112, 308-314	4.6	8
21	Yariv reactivity of type II arabinogalactan from larch wood. <i>Carbohydrate Research</i> , 2018 , 467, 8-13	2.9	7
20	Changes in the transcript levels of microtubule-associated protein MAP65-1 during reorientation of cortical microtubules in azuki bean epicotyls. <i>Acta Physiologiae Plantarum</i> , 2012 , 34, 533-540	2.6	6
19	Roles of MAP65-1 and BPP1 in Gravity Resistance of Arabidopsis hypocotyls. <i>Uchu Seibutsu Kagaku</i> , 2016 , 30, 1-7	1	6
18	Properties of arabinogalactan-proteins in European pear (<i>Pyrus communis</i> L.) fruits. <i>Carbohydrate Research</i> , 2019 , 485, 107816	2.9	5
17	Microgravity Affects the Level of Matrix Polysaccharide 1,3:1,4- β Glucans in Cell Walls of Rice Shoots by Increasing the Expression Level of a Gene Involved in Their Breakdown. <i>Astrobiology</i> , 2020 , 20, 820-829	3.7	5
16	Biosynthesis of the carbohydrate moieties of arabinogalactan proteins by membrane-bound β glucuronosyltransferases from radish primary roots. <i>Planta</i> , 2013 , 238, 1157-69	4.7	4
15	Biochemical and structural characterization of a novel 4-O- β -rhamnosyl- β -D-glucuronidase from <i>Fusarium oxysporum</i> . <i>FEBS Journal</i> , 2021 , 288, 4918-4938	5.7	4

14	Screening of rice mutants with improved saccharification efficiency results in the identification of CONSTITUTIVE PHOTOMORPHOGENIC 1 and GOLD HULL AND INTERNODE 1. <i>Planta</i> , 2017 , 246, 61-74	4.7	3
13	Arabinogalactan-Proteins in The Evolution of Gravity Resistance in Land Plants. <i>Uchu Seibutsu Kagaku</i> , 2009 , 23, 143-149	1	3
12	Expression of a fungal exo- β 1,3-galactanase in Arabidopsis reveals a role of type II arabinogalactans in the regulation of cell shape. <i>Journal of Experimental Botany</i> , 2020 , 71, 5414-5424	7	3
11	Wolfberry genomes and the evolution of Lycium (Solanaceae). <i>Communications Biology</i> , 2021 , 4, 671	6.7	3
10	Superoxide Production by the Red Tide-Producing Complex (Raphidophyceae) Correlates with Toxicity to Aquacultured Fishes. <i>Antioxidants</i> , 2021 , 10,	7.1	2
9	Root-knot nematode chemotaxis is positively regulated by l-galactose sidechains of mucilage carbohydrate rhamnogalacturonan-I. <i>Science Advances</i> , 2021 , 7,	14.3	2
8	A Pipeline towards the Biochemical Characterization of the GT14 Family. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	2
7	Unique active-site and subsite features in the arabinogalactan-degrading GH43 exo- β 1,3-galactanase from. <i>Journal of Biological Chemistry</i> , 2020 , 295, 18539-18552	5.4	1
6	A protease/peptidase from culture medium of Flammulina velutipes that acts on arabinogalactan-protein. <i>Bioscience, Biotechnology and Biochemistry</i> , 2017 , 81, 475-481	2.1	1
5	Characterization of alkali-soluble polysaccharides in deep subsoil layers. <i>Soil Science and Plant Nutrition</i> , 2013 , 59, 871-876	1.6	1
4	Arabinogalactan-proteins Degrading Enzymes. <i>Journal of Applied Glycoscience (1999)</i> , 2008 , 55, 149-155	1	1
3	Structural features conserved in subclass of type II arabinogalactan. <i>Plant Biotechnology</i> , 2020 , 37, 459-463	4.3	1
2	Galactoglucomannan structure of Arabidopsis seed-coat mucilage in GDP-mannose synthesis impaired mutants. <i>Physiologia Plantarum</i> , 2021 , 173, 1244-1252	4.6	0
1	The Mechanics and Biology of Plant Cell Walls: Resilience and Sustainability for Our Future Society.. <i>Plant and Cell Physiology</i> , 2021 , 62, 1787-1790	4.9	