Allan M Showalter

List of Publications by Year
in descending order

76 papers	5,600 citations	81900 39 h-index	88630 70 g-index
76 all docs	76 docs citations	76 times ranked	3974 citing authors

#	Article	IF	Citations
1	CRISPR-Cas9 multiplex genome editing of the hydroxyproline-O-galactosyltransferase gene family alters arabinogalactan-protein glycosylation and function in Arabidopsis. BMC Plant Biology, 2021, 21, 16.	3.6	13
2	Two Î²-glucuronosyltransferases involved in the biosynthesis of type II arabinogalactans function in mucilage polysaccharide matrix organization in Arabidopsis thaliana. BMC Plant Biology, 2021, 21, 245.	3.6	5
3	Three Î²-Glucuronosyltransferase Genes Involved in Arabinogalactan Biosynthesis Function in Arabidopsis Growth and Development. Plants, 2021, 10, 1172.	3.5	8
4	Glucuronidation of Type II Arabinogalactan Polysaccharides Function in Sexual Reproduction of Arabidopsis. Plant Journal, 2021, , .	5.7	3
5	Functional characterization of hydroxyproline-O-galactosyltransferases for Arabidopsis arabinogalactan-protein synthesis. BMC Plant Biology, 2021, 21, 590.	3.6	11
6	CRISPR/Cas9 Genome Editing Technology: A Valuable Tool for Understanding Plant Cell Wall Biosynthesis and Function. Frontiers in Plant Science, 2020, 11, 589517.	3.6	24
7	Identification of Cis-Regulatory Sequences Controlling Pollen-Specific Expression of Hydroxyproline-Rich Glycoprotein Genes in Arabidopsis thaliana. Plants, 2020, 9, 1751.	3.5	3
8	Systems identification and characterization of Î²-glucuronosyltransferase genes involved in arabinogalactan-protein biosynthesis in plant genomes. Scientific Reports, 2020, 10, 20562.	3.3	5
9	Elucidating the roles of three Î²-glucuronosyltransferases (GLCATs) acting on arabinogalactan-proteins using a CRISPR-Cas9 multiplexing approach in Arabidopsis. BMC Plant Biology, 2020, 20, 221.	3.6	30
10	Bioinformatic Identification of Plant Hydroxyproline-Rich Glycoproteins. Methods in Molecular Biology, 2020, 2149, 463-481.	0.9	2
11	Three Decades of Advances in Arabinogalactan-Protein Biosynthesis. Frontiers in Plant Science, 2020, 11, 610377.	3.6	76
12	Bioinformatic Identification and Analysis of Cell Wall Extensins in Three<i>Arabidopsis</i>Species. International Journal of Plant Sciences, 2017, 178, 724-739.	1.3	0
13	Bioinformatic Identification and Analysis of Extensins in the Plant Kingdom. PLoS ONE, 2016, 11, e0150177.	2.5	49
14	Glycosylation of a Fasciclin-Like Arabinogalactan-Protein (SOS5) Mediates Root Growth and Seed Mucilage Adherence via a Cell Wall Receptor-Like Kinase (FEI1/FEI2) Pathway in Arabidopsis. PLoS ONE, 2016, 11, e0145092.	2.5	82
15	Extensin and Arabinogalactan-Protein Biosynthesis: Glycosyltransferases, Research Challenges, and Biosensors. Frontiers in Plant Science, 2016, 7, 814.	3.6	126
16	Bioinformatic Identification and Analysis of Hydroxyproline-Rich Glycoproteins in Populus trichocarpa. BMC Plant Biology, 2016, 16, 229.	3.6	51
17	Glycosylation of arabinogalactan-proteins essential for development in Arabidopsis. Communicative and Integrative Biology, 2016, 9, e1177687.	1.4	32
18	A small multigene hydroxyproline-O-galactosyltransferase family functions in arabinogalactan-protein glycosylation, growth and development in Arabidopsis. BMC Plant Biology, 2015, 15, 295.	3.6	72

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19	Two Hydroxyproline Galactosyltransferases, GALT5 and GALT2, Function in Arabinogalactan-Protein Glycosylation, Growth and Development in Arabidopsis. PLoS ONE, 2015, 10, e0125624.	2.5	65
20	Plant Cell Wall Polysaccharides: Structure and Biosynthesis. , 2015, , 3-54.		13
21	Plant Cell Wall Polysaccharides: Structure and Biosynthesis. , 2014, , 1-47.		5
22	Engineered DNA polymerase improves PCR results for plastid DNA. Applications in Plant Sciences, 2013, 1, 1200519.	2.1	16
23	Functional Identification of a Hydroxyproline-O-galactosyltransferase Specific for Arabinogalactan Protein Biosynthesis in Arabidopsis. Journal of Biological Chemistry, 2013, 288, 10132-10143.	3.4	81
24	Biochemical and physiological characterization of fut4 and fut6 mutants defective in arabinogalactan-protein fucosylation in Arabidopsis. Journal of Experimental Botany, 2013, 64, 5537-5551.	4.8	49
25	Arabinogalactan-proteins and the research challenges for these enigmatic plant cell surface proteoglycans. Frontiers in Plant Science, 2012, 3, 140.	3.6	135
26	Prot-Class: A bioinformatics tool for protein classification based on amino acid signatures. Natural Science, 2012, 04, 1161-1164.	0.4	2
27	Expression analyses of AtAGP17 and AtAGP19, two lysineâ€rich arabinogalactan proteins, in <i>Arabidopsis</i>. Plant Biology, 2011, 13, 431-438.	3.8	21
28	AtAGP18 is localized at the plasma membrane and functions in plant growth and development. Planta, 2011, 233, 675-683.	3.2	28
29	AtAGP18, a lysine-rich arabinogalactan protein in<i>Arabidopsis thaliana</i>, functions in plant growth and development as a putative co-receptor for signal transduction. Plant Signaling and Behavior, 2011, 6, 855-857.	2.4	35
30	Functional Identification of Two Nonredundant Arabidopsis Î±(1,2)Fucosyltransferases Specific to Arabinogalactan Proteins. Journal of Biological Chemistry, 2010, 285, 13638-13645.	3.4	93
31	IRX14 and IRX14-LIKE, Two Glycosyl Transferases Involved in Glucuronoxylan Biosynthesis and Drought Tolerance in Arabidopsis. Molecular Plant, 2010, 3, 834-841.	8.3	85
32	Identification and Characterization of in Vitro Galactosyltransferase Activities Involved in Arabinogalactan-Protein Glycosylation in Tobacco and Arabidopsis Â Â. Plant Physiology, 2010, 154, 632-642.	4.8	30
33	A Bioinformatics Approach to the Identification, Classification, and Analysis of Hydroxyproline-Rich Glycoproteins Â. Plant Physiology, 2010, 153, 485-513.	4.8	271
34	The O-Hyp glycosylation code in tobacco and Arabidopsis and a proposed role of Hyp-glycans in secretion. Phytochemistry, 2008, 69, 1631-1640.	2.9	83
35	A Cellular Networking Model Involving Interactions Among Glycosyl-Phosphatidylinositol (GPI)-Anchored Plasma Membrane Arabinogalactan Proteins (AGPs), Microtubules and F-actin in Tobacco BY-2 Cells. Plant Signaling and Behavior, 2007, 2, 8-9.	2.4	7
36	A lysine-rich arabinogalactan protein in Arabidopsis is essential for plant growth and development, including cell division and expansion. Plant Journal, 2007, 49, 629-640.	5.7	103

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37	Expression and localization of AtAGP18, a lysine-rich arabinogalactan-protein in Arabidopsis. Planta, 2007, 226, 169-179.	3.2	38
38	Salt stress upregulates periplasmic arabinogalactan proteins: using salt stress to analyse AGP function*. New Phytologist, 2006, 169, 479-492.	7.3	162
39	Molecular Interactions of Arabinogalactan Proteins with Cortical Microtubules and F-Actin in Bright Yellow-2 Tobacco Cultured Cells. Plant Physiology, 2006, 142, 1469-1479.	4.8	81
40	The Lysine-rich Arabinogalactan-protein Subfamily in Arabidopsis: Gene Expression, Glycoprotein Purification and Biochemical Characterization. Plant and Cell Physiology, 2005, 46, 975-984.	3.1	59
41	Effects of intraspecific competition on growth and photosynthesis of Atriplex prostrata. Aquatic Botany, 2005, 83, 187-192.	1.6	33
42	Salt Stimulation and Tolerance in an Intertidal Stem-Succulent Halophyte. Journal of Plant Nutrition, 2005, 28, 1365-1374.	1.9	51
43	Overexpression of tomato LeAGP-1 arabinogalactan-protein promotes lateral branching and hampers reproductive development. Plant Journal, 2004, 40, 870-881.	5.7	59
44	Cloning and salt-induced, ABA-independent expression of choline mono-oxygenase in Atriplex prostrata. Physiologia Plantarum, 2004, 120, 405-412.	5.2	37
45	Tomato LeAGP-1 is a plasma membrane-bound, glycosylphosphatidylinositol-anchored arabinogalactan-protein. Physiologia Plantarum, 2004, 120, 319-327.	5.2	38
46	Programmed cell death induced by (Î² -d -galactosyl)3 Yariv reagent in Nicotiana tabacum BY-2 suspension-cultured cells. Physiologia Plantarum, 2002, 116, 548-553.	5.2	44
47	Tomato LeAGP-1 arabinogalactan-protein purified from transgenic tobacco corroborates the Hyp contiguity hypothesis. Plant Journal, 2002, 31, 431-444.	5.7	77
48	Developmental expression and perturbation of arabinogalactan-proteins during seed germination and seedling growth in tomato. Physiologia Plantarum, 2001, 112, 442-450.	5.2	27
49	A leucine-rich repeat region is conserved in pollen extensin-like (Pex) proteins in monocots and dicots. Plant Molecular Biology, 2001, 46, 43-56.	3.9	44
50	Arabinogalactan-proteins: structure, expression and function. Cellular and Molecular Life Sciences, 2001, 58, 1399-1417.	5.4	501
51	Immunolocalization of LeAGP-1, a modular arabinogalactan-protein, reveals its developmentally regulated expression in tomato. Planta, 2000, 210, 865-874.	3.2	55
52	Effects of Salinity on Growth, Water Relations and Ion Accumulation of the Subtropical Perennial Halophyte, Atriplex griffithii var. stocksii. Annals of Botany, 2000, 85, 225-232.	2.9	239
53	The effect of salinity on the growth, water status, and ion content of a leaf succulent perennial halophyte, Suaeda fruticosa (L.) Forssk. Journal of Arid Environments, 2000, 45, 73-84.	2.4	223
54	Effects of sodium chloride treatments on growth and ion accumulation of the halophyte <i>Haloxylon recurvum</i>. Communications in Soil Science and Plant Analysis, 2000, 31, 2763-2774.	1.4	101

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55	Characterization and Localization of a Novel Tomato Arabinogalactan-Protein (LeAGP-1) and the Involvement of Arabinogalactan-Proteins in Programmed Cell Death. , 2000, , 61-70.		2
56	Isolation, characterization and immunolocalization of a novel, modular tomato arabinogalactan-protein corresponding to the LeAGP-1 gene. Plant Journal, 1999, 18, 43-55.	5.7	70
57	Yariv reagent treatment induces programmed cell death in Arabidopsis cell cultures and implicates arabinogalactan protein involvement. Plant Journal, 1999, 19, 321-331.	5.7	184
58	Effects of salinity on growth, ion content, and osmotic relations inHalopyrum mucronatum(L.) Stapf.. Journal of Plant Nutrition, 1999, 22, 191-204.	1.9	99
59	NaCl-induced accumulation of glycinebetaine in four subtropical halophytes from Pakistan. Physiologia Plantarum, 1998, 102, 487-492.	5.2	50
60	Effect of salinity on growth, ion content, and cell wall chemistry in Atriplex prostrata (Chenopodiaceae). American Journal of Botany, 1997, 84, 1247-1255.	1.7	81
61	Purification and Characterization of a Wound-Inducible Cell Wall Cationic Peroxidase from Carrot Roots. Biochemical and Biophysical Research Communications, 1996, 226, 254-260.	2.1	30
62	Cloning and developmental/stress-regulated expression of a gene encoding a tomato arabinogalactan protein. Plant Molecular Biology, 1996, 32, 641-652.	3.9	57
63	Immunolocalization of extensin and potato tuber lectin in carrot, tomato and potato. Physiologia Plantarum, 1996, 97, 708-718.	5.2	12
64	Immunolocalization of extensin and potato tuber lectin in carrot, tomato and potato. Physiologia Plantarum, 1996, 97, 708-718.	5.2	1
65	Potato lectin: a modular protein sharing sequence similarities with the extensin family, the hevein lectin family, and snake venom disintegrins (platelet aggregation inhibitors). Plant Journal, 1994, 5, 849-861.	5.7	83
66	Structure and Function of Plant Cell Wall Proteins. Plant Cell, 1993, 5, 9.	6.6	18
67	Structure and function of plant cell wall proteins.. Plant Cell, 1993, 5, 9-23.	6.6	960
68	Molecular details of tomato extensin and glycine-rich protein gene expression. Plant Molecular Biology, 1992, 19, 205-215.	3.9	37
69	Isolation and characterization of two wound-regulated tomato extensin genes. Plant Molecular Biology, 1992, 20, 5-17.	3.9	49
70	Tomato extensin and extensin-like cDNAs: structure and expression in response to wounding. Plant Molecular Biology, 1991, 16, 547-565.	3.9	82
71	Extensin and Phenylalanine Ammonia-Lyase Gene Expression Altered in Potato Tubers in Response to Wounding, Hypoxia, and <i>Erwinia carotovora</i> Infection. Plant Physiology, 1990, 93, 1134-1139.	4.8	49
72	Molecular Biology of Plant Cell Wall Hydroxyproline-Rich Glycoproteins. , 1990, , 247-281.		36

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73	Structure of the carboxyl propeptide of chicken type II procollagen determined by DNA and protein sequence analysis. Biochemistry, 1984, 23, 617-624.	2.5	69
74	Primary structure of the carbohydrate-containing regions of the carboxyl propeptides of type I procollagen. FEBS Letters, 1981, 125, 170-174.	2.8	17
75	Nucleotide sequence of a collagen cDNA-fragment coding for the carboxyl end of proÎ±1(I)-chains. FEBS Letters, 1980, 111, 61-65.	2.8	22
76	Hydroxyproline-O-Galactosyltransferases Synthesizing Type II Arabinogalactans Are Essential for Male Gametophytic Development in Arabidopsis. Frontiers in Plant Science, 0, 13, .	3.6	9