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	Structure and function of plant cell wall proteins.. Plant Cell, 1993, 5, 9-23.	6.6	960
2	Arabinogalactan-proteins: structure, expression and function. Cellular and Molecular Life Sciences, 2001, 58, 1399-1417.	5.4	501
3	A Bioinformatics Approach to the Identification, Classification, and Analysis of Hydroxyproline-Rich Glycoproteins Â. Plant Physiology, 2010, 153, 485-513.	4.8	271
4	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
5	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
6	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
7	Salt stress upregulates periplasmic arabinogalactan proteins: using salt stress to analyse AGP function*. New Phytologist, 2006, 169, 479-492.	7.3	162
8	Arabinogalactan-proteins and the research challenges for these enigmatic plant cell surface proteoglycans. Frontiers in Plant Science, 2012, 3, 140.	3.6	135
9	Extensin and Arabinogalactan-Protein Biosynthesis: Glycosyltransferases, Research Challenges, and Biosensors. Frontiers in Plant Science, 2016, 7, 814.	3.6	126
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	Tomato extensin and extensin-like cDNAs: structure and expression in response to wounding. Plant Molecular Biology, 1991, 16, 547-565.	3.9	82
18	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

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19	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
20	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
21	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
22	Tomato LeAGP-1 arabinogalactan-protein purified from transgenic tobacco corroborates the Hyp contiguity hypothesis. Plant Journal, 2002, 31, 431-444.	5.7	77
23	Three Decades of Advances in Arabinogalactan-Protein Biosynthesis. Frontiers in Plant Science, 2020, 11, 610377.	3.6	76
24	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
25	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
26	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
27	Two Hydroxyproline Galactosyltransferases, GALT5 and GALT2, Function in Arabinogalactan-Protein Glycosylation, Growth and Development in Arabidopsis. PLoS ONE, 2015, 10, e0125624.	2.5	65
28	Overexpression of tomato LeAGP-1 arabinogalactan-protein promotes lateral branching and hampers reproductive development. Plant Journal, 2004, 40, 870-881.	5.7	59
29	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
30	Cloning and developmental/stress-regulated expression of a gene encoding a tomato arabinogalactan protein. Plant Molecular Biology, 1996, 32, 641-652.	3.9	57
31	Immunolocalization of LeAGP-1, a modular arabinogalactan-protein, reveals its developmentally regulated expression in tomato. Planta, 2000, 210, 865-874.	3.2	55
32	Salt Stimulation and Tolerance in an Intertidal Stem-Succulent Halophyte. Journal of Plant Nutrition, 2005, 28, 1365-1374.	1.9	51
33	Bioinformatic Identification and Analysis of Hydroxyproline-Rich Glycoproteins in Populus trichocarpa. BMC Plant Biology, 2016, 16, 229.	3.6	51
34	NaCl-induced accumulation of glycinebetaine in four subtropical halophytes from Pakistan. Physiologia Plantarum, 1998, 102, 487-492.	5.2	50
35	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
36	Isolation and characterization of two wound-regulated tomato extensin genes. Plant Molecular Biology, 1992, 20, 5-17.	3.9	49

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37	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
38	Bioinformatic Identification and Analysis of Extensins in the Plant Kingdom. PLoS ONE, 2016, 11, e0150177.	2.5	49
39	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
40	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
41	Tomato LeAGP-1 is a plasma membrane-bound, glycosylphosphatidylinositol-anchored arabinogalactan-protein. Physiologia Plantarum, 2004, 120, 319-327.	5.2	38
42	Expression and localization of AtAGP18, a lysine-rich arabinogalactan-protein in Arabidopsis. Planta, 2007, 226, 169-179.	3.2	38
43	Molecular details of tomato extensin and glycine-rich protein gene expression. Plant Molecular Biology, 1992, 19, 205-215.	3.9	37
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	Molecular Biology of Plant Cell Wall Hydroxyproline-Rich Glycoproteins. , 1990, , 247-281.		36
46	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
47	Effects of intraspecific competition on growth and photosynthesis of Atriplex prostrata. Aquatic Botany, 2005, 83, 187-192.	1.6	33
48	Glycosylation of arabinogalactan-proteins essential for development in Arabidopsis. Communicative and Integrative Biology, 2016, 9, e1177687.	1.4	32
49	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
50	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
51	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
52	AtAGP18 is localized at the plasma membrane and functions in plant growth and development. Planta, 2011, 233, 675-683.	3.2	28
53	Developmental expression and perturbation of arabinogalactan-proteins during seed germination and seedling growth in tomato. Physiologia Plantarum, 2001, 112, 442-450.	5.2	27
54	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

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55	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
56	Expression analyses of AtAGP17 and AtAGP19, two lysineâ€rich arabinogalactan proteins, in <i>Arabidopsis</i>. Plant Biology, 2011, 13, 431-438.	3.8	21
57	Structure and Function of Plant Cell Wall Proteins. Plant Cell, 1993, 5, 9.	6.6	18
58	Primary structure of the carbohydrate-containing regions of the carboxyl propeptides of type I procollagen. FEBS Letters, 1981, 125, 170-174.	2.8	17
59	Engineered DNA polymerase improves PCR results for plastid DNA. Applications in Plant Sciences, 2013, 1, 1200519.	2.1	16
60	Plant Cell Wall Polysaccharides: Structure and Biosynthesis. , 2015, , 3-54.		13
61	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
62	Immunolocalization of extensin and potato tuber lectin in carrot, tomato and potato. Physiologia Plantarum, 1996, 97, 708-718.	5.2	12
63	Functional characterization of hydroxyproline-O-galactosyltransferases for Arabidopsis arabinogalactan-protein synthesis. BMC Plant Biology, 2021, 21, 590.	3.6	11
64	Hydroxyproline-O-Galactosyltransferases Synthesizing Type II Arabinogalactans Are Essential for Male Gametophytic Development in Arabidopsis. Frontiers in Plant Science, 0, 13, .	3.6	9
65	Three Î²-Glucuronosyltransferase Genes Involved in Arabinogalactan Biosynthesis Function in Arabidopsis Growth and Development. Plants, 2021, 10, 1172.	3.5	8
66	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
67	Systems identification and characterization of Î²-glucuronosyltransferase genes involved in arabinogalactan-protein biosynthesis in plant genomes. Scientific Reports, 2020, 10, 20562.	3.3	5
68	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
69	Plant Cell Wall Polysaccharides: Structure and Biosynthesis. , 2014, , 1-47.		5
70	Identification of Cis-Regulatory Sequences Controlling Pollen-Specific Expression of Hydroxyproline-Rich Glycoprotein Genes in Arabidopsis thaliana. Plants, 2020, 9, 1751.	3.5	3
71	Glucuronidation of Type II Arabinogalactan Polysaccharides Function in Sexual Reproduction of Arabidopsis. Plant Journal, 2021, , .	5.7	3
72	Bioinformatic Identification of Plant Hydroxyproline-Rich Glycoproteins. Methods in Molecular Biology, 2020, 2149, 463-481.	0.9	2

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73	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
74	Prot-Class: A bioinformatics tool for protein classification based on amino acid signatures. Natural Science, 2012, 04, 1161-1164.	0.4	2
75	Immunolocalization of extensin and potato tuber lectin in carrot, tomato and potato. Physiologia Plantarum, 1996, 97, 708-718.	5.2	1
76	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