Taku Takahashi

List of Publications by Year
in descending order

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73 papers	4,869 citations	101543 36 h-index	95266 68 g-index
74 all docs	74 docs citations	74 times ranked	4660 citing authors

#	Article	IF	Citations
1	Polyamines: ubiquitous polycations with unique roles in growth and stress responses. Annals of Botany, 2010, 105, 1-6.	2.9	425
2	Regulation of shoot epidermal cell differentiation by a pair of homeodomain proteins in Arabidopsis. Development (Cambridge), 2003, 130, 635-643.	2.5	313
3	A protective role for the polyamine spermine against drought stress in Arabidopsis. Biochemical and Biophysical Research Communications, 2007, 352, 486-490.	2.1	285
4	Characterization of the Class IV Homeodomain-Leucine Zipper Gene Family in Arabidopsis. Plant Physiology, 2006, 141, 1363-1375.	4.8	244
5	Spermidine Synthase Genes Are Essential for Survival of Arabidopsis. Plant Physiology, 2004, 135, 1565-1573.	4.8	209
6	The polyamine spermine protects against high salt stress inArabidopsis thaliana. FEBS Letters, 2006, 580, 6783-6788.	2.8	200
7	Identification of a cis-regulatory element for L1 layer-specific gene expression, which is targeted by an L1-specific homeodomain protein. Plant Journal, 2001, 26, 487-494.	5.7	179
8	Thermospermine is Required for Stem Elongation in Arabidopsis thaliana. Plant and Cell Physiology, 2008, 49, 1342-1349.	3.1	157
9	The dwarf phenotype of the Arabidopsis acl5 mutant is suppressed by a mutation in an upstream ORF of a bHLH gene. Development (Cambridge), 2006, 133, 3575-3585.	2.5	138
10	Spermine is not essential for survival of Arabidopsis. FEBS Letters, 2004, 556, 148-152.	2.8	127
11	Thermospermine is Not a Minor Polyamine in the Plant Kingdom. Plant and Cell Physiology, 2012, 53, 606-616.	3.1	124
12	Analysis of Tissue-Specific Expression of Arabidopsis thaliana HSP90-Family Gene HSP81. Plant and Cell Physiology, 1994, 35, 1207-1219.	3.1	116
13	The ArabidopsisERECTAgene is expressed in the shoot apical meristem and organ primordia. Plant Journal, 1998, 15, 301-310.	5.7	113
14	Characterization of two genes encoding small heat-shock proteins in Arabidopsis thaliana. Molecular Genetics and Genomics, 1989, 219, 365-372.	2.4	111
15	Key Proliferative Activity in the Junction between the Leaf Blade and Leaf Petiole of Arabidopsis Â Â. Plant Physiology, 2011, 157, 1151-1162.	4.8	108
16	ACL5: an Arabidopsis gene required for internodal elongation after flowering. Plant Journal, 1997, 12, 863-874.	5.7	107
17	Characterization of the spermidine synthase-related gene family inArabidopsis thaliana. FEBS Letters, 2002, 527, 176-180.	2.8	104
18	Salicylic Acid Induces the Expression of a Number of Receptor-Like Kinase Genes in Arabidopsis thaliana. Plant and Cell Physiology, 2000, 41, 1038-1044.	3.1	92

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19	AtVAM3 is Required for Normal Specification of Idioblasts, Myrosin Cells. Plant and Cell Physiology, 2006, 47, 164-175.	3.1	91
20	A semiâ€dominant mutation in the ribosomal protein L10 gene suppresses the dwarf phenotype of the acl5 mutant in Arabidopsis thaliana. Plant Journal, 2008, 56, 881-890.	5.7	86
21	AtXTH27 plays an essential role in cell wall modification during the development of tracheary elements. Plant Journal, 2005, 42, 525-534.	5.7	80
22	Isolation and Analysis of the Expression of Two Genes for the 81-Kilodalton Heat-Shock Proteins from Arabidopsis. Plant Physiology, 1992, 99, 383-390.	4.8	79
23	The Arabidopsis HSP18.2 promoter/GUS gene fusion in transgenic Arabidopsis plants: a powerful tool for the isolation of regulatory mutants of the heatâ€shock response. Plant Journal, 1992, 2, 751-761.	5.7	78
24	Cloning and Characterization of an L1 Layer-Specific Gene in Arabidopsis thaliana. Plant and Cell Physiology, 1999, 40, 571-580.	3.1	68
25	ATML1 and PDF2 Play a Redundant and Essential Role in Arabidopsis Embryo Development. Plant and Cell Physiology, 2015, 56, 1183-1192.	3.1	67
26	Infrared laserâ€mediated local gene induction in medaka, zebrafish and Arabidopsis thaliana. Development Growth and Differentiation, 2009, 51, 769-775.	1.5	64
27	Expression of Endoxyloglucan Transferase Genes inacaulis Mutants of Arabidopsis. Plant Physiology, 1999, 121, 715-722.	4.8	62
28	Heat-shock tagging: a simple method for expression and isolation of plant genome DNA flanked by T-DNA insertions. Plant Journal, 2000, 22, 79-86.	5.7	59
29	Gene silencing using a heat-inducible RNAi system in Arabidopsis. Biochemical and Biophysical Research Communications, 2004, 321, 364-369.	2.1	52
30	Disruption of a DNA Topoisomerase I Gene Affects Morphogenesis in Arabidopsis. Plant Cell, 2002, 14, 2085-2093.	6.6	51
31	Mutations in epidermisâ€specific <scp>HD</scp>â€<scp>ZIP IV</scp> genes affect floral organ identity in <scp>A</scp>rabidopsis thaliana. Plant Journal, 2013, 75, 430-440.	5.7	50
32	Arabidopsis Qa-SNARE SYP2 proteins localized to different subcellular regions function redundantly in vacuolar protein sorting and plant development. Plant Journal, 2010, 64, 924-935.	5.7	46
33	Identification by PCR of receptor-like protein kinases from Arabidopsis flowers. Plant Molecular Biology, 1998, 37, 587-596.	3.9	42
34	Identification of an Allele of VAM3/SYP22 that Confers a Semi-dwarf Phenotype in Arabidopsis thaliana. Plant and Cell Physiology, 2005, 46, 1358-1365.	3.1	41
35	NIMAâ€related kinases 6, 4, and 5 interact with each other to regulate microtubule organization during epidermal cell expansion in Arabidopsis thaliana. Plant Journal, 2011, 67, 993-1005.	5.7	41
36	A Chemical Biology Approach Reveals an Opposite Action between Thermospermine and Auxin in Xylem Development in Arabidopsis thaliana. Plant and Cell Physiology, 2012, 53, 635-645.	3.1	41

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37	Chemical control of xylem differentiation by thermospermine, xylemin and auxin. Scientific Reports, 2016, 6, 21487.	3.3	40
38	Microtubule Response to Tensile Stress Is Curbed by NEK6 to Buffer Growth Variation in the Arabidopsis Hypocotyl. Current Biology, 2020, 30, 1491-1503.e2.	3.9	39
39	TheSAC51Family Plays a Central Role in Thermospermine Responses in Arabidopsis. Plant and Cell Physiology, 2016, 57, 1583-1592.	3.1	36
40	Mutations in Ribosomal Proteins, RPL4 and RACK1, Suppress the Phenotype of a Thermospermine-Deficient Mutant of Arabidopsis thaliana. PLoS ONE, 2015, 10, e0117309.	2.5	36
41	Norspermine substitutes for thermospermine in the control of stem elongation in Arabidopsis thaliana. FEBS Letters, 2010, 584, 3042-3046.	2.8	34
42	Editorial: Molecular Mechanisms Underlying Polyamine Functions in Plants. Frontiers in Plant Science, 2017, 8, 14.	3.6	33
43	Thermospermine modulates expression of auxin-related genes in Arabidopsis. Frontiers in Plant Science, 2014, 5, 94.	3.6	32
44	An evolutionarily conserved NIMA-related kinase directs rhizoid tip growth in the basal land plant Marchantia polymorpha. Development (Cambridge), 2018, 145, .	2.5	30
45	Polyamine Resistance Is Increased by Mutations in a Nitrate Transporter Gene NRT1.3 (AtNPF6.4) in Arabidopsis thaliana. Frontiers in Plant Science, 2016, 7, 834.	3.6	26
46	Plant Polyamines. Plants, 2020, 9, 511.	3.5	25
47	Ceramides mediate positional signals in Arabidopsis thaliana protoderm differentiation. Development (Cambridge), 2021, 148, .	2.5	21
48	Development of inflorescences inArabidopsis thaliana. Journal of Plant Research, 1998, 111, 283-288.	2.4	19
49	Floral organ-specific and constitutive expression of an Arabidopsis thaliana heat-shock HSP18.2:: GUS fusion gene is retained even after homeotic conversion of flowers by mutation. Molecular Genetics and Genomics, 1993, 237-237, 26-32.	2.4	18
50	Abscisic acid induces ectopic outgrowth in epidermal cells through cortical microtubule reorganization in Arabidopsis thaliana. Scientific Reports, 2015, 5, 11364.	3.3	17
51	The root growth reduction in response to mechanical stress involves ethylene-mediated microtubule reorganization and transmembrane receptor-mediated signal transduction in Arabidopsis. Plant Cell Reports, 2021, 40, 575-582.	5.6	17
52	NIMA-related kinases regulate directional cell growth and organ development through microtubule function inArabidopsis thaliana. Plant Signaling and Behavior, 2012, 7, 1552-1555.	2.4	16
53	Salt hypersensitivity is associated with excessive xylem development in a thermospermineâ€deficient mutant of Arabidopsis thaliana. Plant Journal, 2019, 100, 374-383.	5.7	16
54	Formation of Corymb-like Inflorescences Due to Delay in Bolting and Flower Development in the corymbosa2 Mutant of Arabidopsis. Plant and Cell Physiology, 2002, 43, 298-306.	3.1	15

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55	Distinct Functions of Ethylene and ACC in the Basal Land Plant Marchantia polymorpha. Plant and Cell Physiology, 2021, 62, 858-871.	3.1	14
56	Thermospermine suppresses auxin-inducible xylem differentiation inArabidopsis thaliana. Plant Signaling and Behavior, 2012, 7, 937-939.	2.4	13
57	Thermospermine enhances translation of SAC51 and SACL1 in Arabidopsis. Plant Signaling and Behavior, 2017, 12, e1276685.	2.4	13
58	Directional cell expansion requires NIMA-related kinase 6 (NEK6)-mediated cortical microtubule destabilization. Scientific Reports, 2017, 7, 7826.	3.3	13
59	Structure, function, and evolution of plant NIMA-related kinases: implication for phosphorylation-dependent microtubule regulation. Journal of Plant Research, 2015, 128, 875-891.	2.4	12
60	Allele-specific effects ofPDF2on floral morphology inArabidopsis thaliana. Plant Signaling and Behavior, 2013, 8, e27417.	2.4	11
61	Effect of Thermospermine on the Growth and Expression of Polyamine-Related Genes in Rice Seedlings. Plants, 2019, 8, 269.	3.5	11
62	Complexity and Conservation of Thermospermine-Responsive uORFs of SAC51 Family Genes in Angiosperms. Frontiers in Plant Science, 2019, 10, 564.	3.6	11
63	Ethylene signaling plays a pivotal role in mechanical-stress-induced root-growth cessation in Arabidopsis thaliana. Plant Signaling and Behavior, 2019, 14, 1669417.	2.4	9
64	Responses of Polyamine-Metabolic Genes to Polyamines and Plant Stress Hormones in Arabidopsis Seedlings. Cells, 2021, 10, 3283.	4.1	9
65	Omeprazole Enhances Mechanical Stress-Induced Root Growth Reduction in Arabidopsis thaliana. Plant and Cell Physiology, 2018, 59, 1581-1591.	3.1	7
66	Thermospermine: An Evolutionarily Ancient but Functionally New Compound in Plants. Methods in Molecular Biology, 2018, 1694, 51-59.	0.9	5
67	Regulation and Diversity of Polyamine Biosynthesis in Plants. , 2015, , 27-44.		5
68	Determination of polyamines in Arabidopsis thaliana by capillary electrophoresis using salicylaldehyde-5-sulfonate as a derivatizing reagent. Analytical Methods, 2013, 5, 2854.	2.7	4
69	Easy-to-Use InDel Markers for Genetic Mapping between Col-0 and Ler-0 Accessions of Arabidopsis thaliana. Plants, 2020, 9, 779.	3.5	3
70	The plant exon finder: a tool for precise detection of exons using a T-DNA-based tagging approach. Gene, 2004, 338, 267-273.	2.2	2
71	Detection of Thermospermine and Spermine by HPLC in Plants. Methods in Molecular Biology, 2018, 1694, 69-73.	0.9	2
72	Chemical Synthesis and Biological Effect on Xylem Formation of Xylemin and Its Analogues. European Journal of Organic Chemistry, 2020, 2020, 2745-2753.	2.4	1

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73	Metabolism and Function of Plant Polyamines: One of the Most Versatile Compounds in Plant Cells. Kagaku To Seibutsu, 2021, 59, 290-297.	0.0	0