Takashi HIRAYAMA

List of Publications by Year
in descending order

82 papers	11,052 citations	53794 45 h-index	64796 79 g-index
82 all docs	82 docs citations	82 times ranked	11283 citing authors

#	Article	IF	Citations
1	Plant Hormonomics: A Key Tool for Deep Physiological Phenotyping to Improve Crop Productivity. Plant and Cell Physiology, 2023, 63, 1826-1839.	3.1	16
2	Temperature-dependent fasciation mutants provide a link between mitochondrial RNA processing and lateral root morphogenesis. ELife, 2021, 10, .	6.0	11
3	Genetic Elucidation for Response of Flowering Time to Ambient Temperatures in Asian Rice Cultivars. International Journal of Molecular Sciences, 2021, 22, 1024.	4.1	7
4	PARN-like Proteins Regulate Gene Expression in Land Plant Mitochondria by Modulating mRNA Polyadenylation. International Journal of Molecular Sciences, 2021, 22, 10776.	4.1	3
5	Regulation of the Poly(A) Status of Mitochondrial mRNA by Poly(A)-Specific Ribonuclease Is Conserved among Land Plants. Plant and Cell Physiology, 2020, 61, 470-480.	3.1	7
6	Hormonal and transcriptional analyses of fruit development and ripening in different varieties of black pepper (Piper nigrum). Journal of Plant Research, 2020, 133, 73-94.	2.4	15
7	The barley pan-genome reveals the hidden legacy of mutation breeding. Nature, 2020, 588, 284-289.	27.8	314
8	Exploration of Life-Course Factors Influencing Phenotypic Outcomes in Crops. Plant and Cell Physiology, 2020, 61, 1381-1383.	3.1	1
9	BdWRKY38 is required for the incompatible interaction of <i>Brachypodium distachyon</i> with the necrotrophic fungus <i>Rhizoctonia solani</i>. Plant Journal, 2020, 104, 995-1008.	5.7	18
10	Decoding Plantâ€“Environment Interactions That Influence Crop Agronomic Traits. Plant and Cell Physiology, 2020, 61, 1408-1418.	3.1	11
11	Life-Course Monitoring of Endogenous Phytohormone Levels under Field Conditions Reveals Diversity of Physiological States among Barley Accessions. Plant and Cell Physiology, 2020, 61, 1438-1448.	3.1	4
12	The mechanism of SO₂â€induced stomatal closure differs from O₃ and CO₂ responses and is mediated by nonapoptotic cell death in guard cells. Plant, Cell and Environment, 2019, 42, 437-447.	5.7	12
13	Transcriptome Analysis and Identification of a Transcriptional Regulatory Network in the Response to H₂O₂. Plant Physiology, 2019, 180, 1629-1646.	4.8	37
14	Overexpression of Prunus DAM6 inhibits growth, represses bud break competency of dormant buds and delays bud outgrowth in apple plants. PLoS ONE, 2019, 14, e0214788.	2.5	69
15	Plant hormone profiling in developing seeds of common wheat (<i>Triticum aestivum</i> L.). Breeding Science, 2019, 69, 601-610.	1.9	14
16	Computer vision-based phenotyping for improvement of plant productivity: a machine learning perspective. GigaScience, 2019, 8, .	6.4	99
17	New Mechanism of Abscisic Acid Signaling Cascade: Survival Strategy for Plants to Adapt to Growing Environmental Change. Kagaku To Seibutsu, 2019, 57, 736-742.	0.0	0
18	Salicylic acidâ€dependent immunity contributes to resistance against <i>Rhizoctonia solani</i>, a necrotrophic fungal agent of sheath blight, in rice and <i>Brachypodium distachyon</i>. New Phytologist, 2018, 217, 771-783.	7.3	102

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19	Disruption of ureide degradation affects plant growth and development during and after transition from vegetative to reproductive stages. BMC Plant Biology, 2018, 18, 287.	3.6	25
20	The Putative Peptide Gene FEP1 Regulates Iron Deficiency Response in Arabidopsis. Plant and Cell Physiology, 2018, 59, 1739-1752.	3.1	101
21	Loss of CG methylation in Marchantia polymorpha causes disorganization of cell division and reveals unique DNA methylation regulatory mechanisms of non-CG methylation. Plant and Cell Physiology, 2018, 59, 2421-2431.	3.1	15
22	Control of seed dormancy and germination by DOG1-AHG1 PP2C phosphatase complex via binding to heme. Nature Communications, 2018, 9, 2132.	12.8	138
23	Phytohormones in red seaweeds: a technical review of methods for analysis and a consideration of genomic data. Botanica Marina, 2017, 60, .	1.2	24
24	ahg12 is a dominant proteasome mutant that affects multiple regulatory systems for germination of Arabidopsis. Scientific Reports, 2016, 6, 25351.	3.3	1
25	Allantoin, a stress-related purine metabolite, can activate jasmonate signaling in a MYC2-regulated and abscisic acid-dependent manner. Journal of Experimental Botany, 2016, 67, 2519-2532.	4.8	154
26	Comprehensive quantification and genome survey reveal the presence of novel phytohormone action modes in red seaweeds. Journal of Applied Phycology, 2016, 28, 2539-2548.	2.8	47
27	Crop improvement using life cycle datasets acquired under field conditions. Frontiers in Plant Science, 2015, 6, 740.	3.6	16
28	Abscisic acid induces ectopic outgrowth in epidermal cells through cortical microtubule reorganization in Arabidopsis thaliana. Scientific Reports, 2015, 5, 11364.	3.3	17
29	ABI1 regulates carbon/nitrogen-nutrient signal transduction independent of ABA biosynthesis and canonical ABA signalling pathways in Arabidopsis. Journal of Experimental Botany, 2015, 66, 2763-2771.	4.8	53
30	A unique system for regulating mitochondrial mRNA poly(A) status and stability in plants. Plant Signaling and Behavior, 2014, 9, e973809.	2.4	4
31	A poly(A)-specific ribonuclease directly regulates the poly(A) status of mitochondrial mRNA in Arabidopsis. Nature Communications, 2013, 4, 2247.	12.8	43
32	Elucidation of the RNA Recognition Code for Pentatricopeptide Repeat Proteins Involved in Organelle RNA Editing in Plants. PLoS ONE, 2013, 8, e57286.	2.5	263
33	Isolation of Arabidopsis ahg11, a weak ABA hypersensitive mutant defective in nad4 RNA editing. Journal of Experimental Botany, 2012, 63, 5301-5310.	4.8	61
34	Multiple hormone treatment revealed novel cooperative relationships between abscisic acid and biotic stress hormones in cultured cells. Plant Biotechnology, 2012, 29, 19-34.	1.0	7
35	The Regulatory Networks of Plant Responses to Abscisic Acid. Advances in Botanical Research, 2011, , 201-248.	1.1	6
36	An ABRE Promoter Sequence is Involved in Osmotic Stress-Responsive Expression of the DREB2A Gene, Which Encodes a Transcription Factor Regulating Drought-Inducible Genes in Arabidopsis. Plant and Cell Physiology, 2011, 52, 2136-2146.	3.1	263

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37	The PP2Câ€“SnRK2 complex. Plant Signaling and Behavior, 2010, 5, 160-163.	2.4	42
38	A DNAâ€binding surface of SPO11â€1, an <i>Arabidopsis</i> SPO11 orthologue required for normal meiosis. FEBS Journal, 2010, 277, 2360-2374.	4.7	15
39	Research on plant abiotic stress responses in the postâ€genome era: past, present and future. Plant Journal, 2010, 61, 1041-1052.	5.7	1,021
40	ABA Hypersensitive Germination2-1 Causes the Activation of Both Abscisic Acid and Salicylic Acid Responses in Arabidopsis. Plant and Cell Physiology, 2009, 50, 2112-2122.	3.1	32
41	Type 2C protein phosphatases directly regulate abscisic acid-activated protein kinases in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17588-17593.	7.1	980
42	Metabolic movement upon abscisic acid and salicylic acid combined treatments. Plant Biotechnology, 2009, 26, 551-560.	1.0	16
43	The Glycerophosphoryl Diester Phosphodiesterase-Like Proteins SHV3 and its Homologs Play Important Roles in Cell Wall Organization. Plant and Cell Physiology, 2008, 49, 1522-1535.	3.1	103
44	Systematic NMR Analysis of Stable Isotope Labeled Metabolite Mixtures in Plant and Animal Systems: Coarse Grained Views of Metabolic Pathways. PLoS ONE, 2008, 3, e3805.	2.5	78
45	Zinc finger protein STOP1 is critical for proton tolerance in Arabidopsis and coregulates a key gene in aluminum tolerance. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9900-9905.	7.1	374
46	Cytological and Biochemical Analysis of COF1, an Arabidopsis Mutant of an ABC Transporter Gene. Plant and Cell Physiology, 2007, 48, 1524-1533.	3.1	84
47	Top-down Phenomics of Arabidopsis thaliana. Journal of Biological Chemistry, 2007, 282, 18532-18541.	3.4	58
48	Perception and transduction of abscisic acid signals: keys to the function of the versatile plant hormone ABA. Trends in Plant Science, 2007, 12, 343-351.	8.8	441
49	ABA-Hypersensitive Germination1 encodes a protein phosphatase 2C, an essential component of abscisic acid signaling in Arabidopsis seed. Plant Journal, 2007, 50, 935-949.	5.7	260
50	A trial of phenome analysis using 4000Ds-insertional mutants in gene-coding regions of Arabidopsis. Plant Journal, 2006, 47, 640-651.	5.7	110
51	Loss of NECROTIC SPOTTED LESIONS 1 associates with cell death and defense responses in Arabidopsis thaliana. Plant Molecular Biology, 2006, 62, 29-42.	3.9	68
52	ABA-Hypersensitive Germination3 Encodes a Protein Phosphatase 2C (AtPP2CA) That Strongly Regulates Abscisic Acid Signaling during Germination among Arabidopsis Protein Phosphatase 2Cs. Plant Physiology, 2006, 140, 115-126.	4.8	344
53	Hetero-nuclear NMR-based Metabolomics. , 2006, , 93-101.		5
54	Analysis of ABA Hypersensitive Germination2 revealed the pivotal functions of PARN in stress response in Arabidopsis. Plant Journal, 2005, 44, 972-984.	5.7	131

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55	A Novel Arabidopsis Gene Required for Ethanol Tolerance is Conserved Among Plants and Archaea. Plant and Cell Physiology, 2004, 45, 659-666.	3.1	13
56	AtIPT3 is a Key Determinant of Nitrate-Dependent Cytokinin Biosynthesis in Arabidopsis. Plant and Cell Physiology, 2004, 45, 1053-1062.	3.1	343
57	Expression and Interaction Analysis of Arabidopsis Skp1-Related Genes. Plant and Cell Physiology, 2004, 45, 83-91.	3.1	67
58	Isolation and Characterization of Novel Mutants Affecting the Abscisic Acid Sensitivity of Arabidopsis Germination and Seedling Growth. Plant and Cell Physiology, 2004, 45, 1485-1499.	3.1	74
59	Stable Isotope Labeling of Arabidopsis thaliana for an NMR-Based Metabolomics Approach. Plant and Cell Physiology, 2004, 45, 1099-1104.	3.1	145
60	A Novel Ethanol-Hypersensitive Mutant of Arabidopsis. Plant and Cell Physiology, 2004, 45, 703-711.	3.1	27
61	Quantitative trait loci analysis of nitrate storage in Arabidopsis leading to an investigation of the contribution of the anion channel gene, AtCLC-c, to variation in nitrate levels. Journal of Experimental Botany, 2004, 55, 2005-2014.	4.8	65
62	A collection of 11â€ƒ800 single-copyDstransposon insertion lines inArabidopsis. Plant Journal, 2004, 37, 897-905.	5.7	203
63	RCH1, a Locus in Arabidopsis That Confers Resistance to the Hemibiotrophic Fungal Pathogen Colletotrichum higginsianum. Molecular Plant-Microbe Interactions, 2004, 17, 749-762.	2.6	123
64	Hyperosmotic Stress Induces a Rapid and Transient Increase in Inositol 1,4,5-Trisphosphate Independent of Abscisic Acid in Arabidopsis Cell Culture. Plant and Cell Physiology, 2001, 42, 214-222.	3.1	167
65	Ethylene Captures a Metal! Metal Ions Are Involved in Ethylene Perception and Signal Transduction. Plant and Cell Physiology, 2000, 41, 548-555.	3.1	51
66	A Transmembrane Hybrid-Type Histidine Kinase in Arabidopsis Functions as an Osmosensor. Plant Cell, 1999, 11, 1743-1754.	6.6	501
67	EIN2, a Bifunctional Transducer of Ethylene and Stress Responses in Arabidopsis. Science, 1999, 284, 2148-2152.	12.6	1,172
68	RESPONSIVE-TO-ANTAGONIST1, a Menkes/Wilson Diseaseâ€“Related Copper Transporter, Is Required for Ethylene Signaling in Arabidopsis. Cell, 1999, 97, 383-393.	28.9	385
69	Molecular responses to water stress inArabidopsis thaliana. Journal of Plant Research, 1998, 111, 345-351.	2.4	41
70	Functional cloning of a cDNA encoding Mei2â€like protein from <i>Arabidopsis thaliana</i> using a fission yeast pheromone receptor deficient mutant. FEBS Letters, 1997, 413, 16-20.	2.8	22
71	AtPLC2, a gene encoding phosphoinositide-specific phospholipase C, is constitutively expressed in vegetative and floral tissues in Arabidopsis thaliana. Plant Molecular Biology, 1997, 34, 175-180.	3.9	66
72	A gene encoding a mitogen-activated protein kinase kinase kinase is induced simultaneously with genes for a mitogen-activated protein kinase and an S6 ribosomal protein kinase by touch, cold, and water stress in Arabidopsis thaliana.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 765-769.	7.1	483

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73	A cdc5+ homolog of a higher plant, Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 13371-13376.	7.1	77
74	Cloning and characterization of seven cDNAs for hyperosmolarity-responsive (HOR) genes of Saccharomyces cerevisiae. Molecular Genetics and Genomics, 1995, 249, 127-138.	2.4	103
75	A gene encoding a phosphatidylinositol-specific phospholipase C is induced by dehydration and salt stress in Arabidopsis thaliana.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 3903-3907.	7.1	360
76	Exon-intron organization of theArabidopsis thalianaprotein kinase genesCDC2aandCDC2b. FEBS Letters, 1992, 304, 73-77.	2.8	72
77	Novel protein kinase of Arabidopsis thaliana (APK1) that phosphorylates tyrosine, serine and threonine. Plant Molecular Biology, 1992, 20, 653-662.	3.9	103
78	Identification of two cell-cycle-controlling cdc2 gene homologs in Arabidopsis thaliana. Gene, 1991, 105, 159-165.	2.2	160
79	Characterization of the vir A gene of the agropine-type plasmid pRiA4 of Agrobacterium rhizogenes. FEBS Letters, 1990, 271, 28-32.	2.8	14
80	Putative start codon TTG for the regulatory protein VirG of the hairy-root-inducing plasmid pRiA4. Gene, 1989, 78, 173-178.	2.2	31
81	Organization and characterization of the virCD genes from Agrobacterium rhizogenes. Molecular Genetics and Genomics, 1988, 213, 229-237.	2.4	44
82	Ds Transposon Mutant Lines for Saturation Mutagenesis of theArabidopsis genome. , 0, , 17-30.		0