

Takashi HIRAYAMA

List of Publications by Citations

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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.

81
papers

8,730
citations

41
h-index

82
g-index

82
ext. papers

10,139
ext. citations

7.3
avg, IF

5.82
L-index

#	Paper	IF	Citations
81	EIN2, a bifunctional transducer of ethylene and stress responses in Arabidopsis. <i>Science</i> , 1999 , 284, 2148-52	35.3	1010
80	Research on plant abiotic stress responses in the post-genome era: past, present and future. <i>Plant Journal</i> , 2010 , 61, 1041-52	6.9	827
79	Type 2C protein phosphatases directly regulate abscisic acid-activated protein kinases in Arabidopsis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 17588-93	11.5	681
78	A transmembrane hybrid-type histidine kinase in Arabidopsis functions as an osmosensor. <i>Plant Cell</i> , 1999 , 11, 1743-54	11.6	464
77	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. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996 , 93, 765-9	11.5	451
76	Perception and transduction of abscisic acid signals: keys to the function of the versatile plant hormone ABA. <i>Trends in Plant Science</i> , 2007 , 12, 343-51	13.1	368
75	RESPONSIVE-TO-ANTAGONIST1, a Menkes/Wilson disease-related copper transporter, is required for ethylene signaling in Arabidopsis. <i>Cell</i> , 1999 , 97, 383-93	56.2	351
74	A gene encoding a phosphatidylinositol-specific phospholipase C is induced by dehydration and salt stress in Arabidopsis thaliana. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1995 , 92, 3903-7	11.5	323
73	AtIPT3 is a key determinant of nitrate-dependent cytokinin biosynthesis in Arabidopsis. <i>Plant and Cell Physiology</i> , 2004 , 45, 1053-62	4.9	295
72	ABA-hypersensitive germination3 encodes a protein phosphatase 2C (AtPP2CA) that strongly regulates abscisic acid signaling during germination among Arabidopsis protein phosphatase 2Cs. <i>Plant Physiology</i> , 2006 , 140, 115-26	6.6	284
71	Zinc finger protein STOP1 is critical for proton tolerance in Arabidopsis and coregulates a key gene in aluminum tolerance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 9900-5	11.5	283
70	ABA-Hypersensitive Germination1 encodes a protein phosphatase 2C, an essential component of abscisic acid signaling in Arabidopsis seed. <i>Plant Journal</i> , 2007 , 50, 935-49	6.9	208
69	Elucidation of the RNA recognition code for pentatricopeptide repeat proteins involved in organelle RNA editing in plants. <i>PLoS ONE</i> , 2013 , 8, e57286	3.7	199
68	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. <i>Plant and Cell Physiology</i> , 2011 , 52, 2136-46	4.9	185
67	A collection of 11 800 single-copy Ds transposon insertion lines in Arabidopsis. <i>Plant Journal</i> , 2004 , 37, 897-905	6.9	183
66	Hyperosmotic stress induces a rapid and transient increase in inositol 1,4,5-trisphosphate independent of abscisic acid in Arabidopsis cell culture. <i>Plant and Cell Physiology</i> , 2001 , 42, 214-22	4.9	152
65	Identification of two cell-cycle-controlling cdc2 gene homologs in Arabidopsis thaliana. <i>Gene</i> , 1991 , 105, 159-65	3.8	143

64	Stable isotope labeling of <i>Arabidopsis thaliana</i> for an NMR-based metabolomics approach. <i>Plant and Cell Physiology</i> , 2004 , 45, 1099-104	4.9	125
63	Analysis of ABA hypersensitive germination2 revealed the pivotal functions of PARN in stress response in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2005 , 44, 972-84	6.9	116
62	The barley pan-genome reveals the hidden legacy of mutation breeding. <i>Nature</i> , 2020 , 588, 284-289	50.4	97
61	A trial of phenome analysis using 4000 Ds-insertional mutants in gene-coding regions of <i>Arabidopsis</i> . <i>Plant Journal</i> , 2006 , 47, 640-51	6.9	96
60	RCH1, a locus in <i>Arabidopsis</i> that confers resistance to the hemibiotrophic fungal pathogen <i>Colletotrichum higginsianum</i> . <i>Molecular Plant-Microbe Interactions</i> , 2004 , 17, 749-62	3.6	93
59	Novel protein kinase of <i>Arabidopsis thaliana</i> (APK1) that phosphorylates tyrosine, serine and threonine. <i>Plant Molecular Biology</i> , 1992 , 20, 653-62	4.6	93
58	Cloning and characterization of seven cDNAs for hyperosmolarity-responsive (HOR) genes of <i>Saccharomyces cerevisiae</i> . <i>Molecular Genetics and Genomics</i> , 1995 , 249, 127-38		90
57	Control of seed dormancy and germination by DOG1-AHG1 PP2C phosphatase complex via binding to heme. <i>Nature Communications</i> , 2018 , 9, 2132	17.4	77
56	Cytological and biochemical analysis of COF1, an <i>Arabidopsis</i> mutant of an ABC transporter gene. <i>Plant and Cell Physiology</i> , 2007 , 48, 1524-33	4.9	77
55	Allantoin, a stress-related purine metabolite, can activate jasmonate signaling in a MYC2-regulated and abscisic acid-dependent manner. <i>Journal of Experimental Botany</i> , 2016 , 67, 2519-2532	7	73
54	Systematic NMR analysis of stable isotope labeled metabolite mixtures in plant and animal systems: coarse grained views of metabolic pathways. <i>PLoS ONE</i> , 2008 , 3, e3805	3.7	73
53	The glycerophosphoryl diester phosphodiesterase-like proteins SHV3 and its homologs play important roles in cell wall organization. <i>Plant and Cell Physiology</i> , 2008 , 49, 1522-35	4.9	68
52	A cdc5+ homolog of a higher plant, <i>Arabidopsis thaliana</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996 , 93, 13371-6	11.5	68
51	Isolation and characterization of novel mutants affecting the abscisic acid sensitivity of <i>Arabidopsis</i> germination and seedling growth. <i>Plant and Cell Physiology</i> , 2004 , 45, 1485-99	4.9	67
50	Expression and interaction analysis of <i>Arabidopsis</i> Skp1-related genes. <i>Plant and Cell Physiology</i> , 2004 , 45, 83-91	4.9	64
49	AtPLC2, a gene encoding phosphoinositide-specific phospholipase C, is constitutively expressed in vegetative and floral tissues in <i>Arabidopsis thaliana</i> . <i>Plant Molecular Biology</i> , 1997 , 34, 175-80	4.6	62
48	Exon-intron organization of the <i>Arabidopsis thaliana</i> protein kinase genes CDC2a and CDC2b. <i>FEBS Letters</i> , 1992 , 304, 73-7	3.8	57
47	Top-down phenomics of <i>Arabidopsis thaliana</i> : metabolic profiling by one- and two-dimensional nuclear magnetic resonance spectroscopy and transcriptome analysis of albino mutants. <i>Journal of Biological Chemistry</i> , 2007 , 282, 18532-18541	5.4	55

46	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. <i>Journal of Experimental Botany</i> , 2004 , 55, 2005-14	7	55
45	Salicylic acid-dependent immunity contributes to resistance against <i>Rhizoctonia solani</i> , a necrotrophic fungal agent of sheath blight, in rice and <i>Brachypodium distachyon</i> . <i>New Phytologist</i> , 2018 , 217, 771-783	9.8	52
44	Isolation of Arabidopsis ahg11, a weak ABA hypersensitive mutant defective in nad4 RNA editing. <i>Journal of Experimental Botany</i> , 2012 , 63, 5301-10	7	51
43	Computer vision-based phenotyping for improvement of plant productivity: a machine learning perspective. <i>GigaScience</i> , 2019 , 8,	7.6	49
42	The Putative Peptide Gene FEP1 Regulates Iron Deficiency Response in Arabidopsis. <i>Plant and Cell Physiology</i> , 2018 , 59, 1739-1752	4.9	47
41	Loss of Necrotic Spotted Lesions 1 associates with cell death and defense responses in Arabidopsis thaliana. <i>Plant Molecular Biology</i> , 2006 , 62, 29-42	4.6	43
40	Ethylene captures a metal! Metal ions are involved in ethylene perception and signal transduction. <i>Plant and Cell Physiology</i> , 2000 , 41, 548-55	4.9	41
39	ABI1 regulates carbon/nitrogen-nutrient signal transduction independent of ABA biosynthesis and canonical ABA signalling pathways in Arabidopsis. <i>Journal of Experimental Botany</i> , 2015 , 66, 2763-71	7	39
38	Molecular responses to water stress in Arabidopsis thaliana. <i>Journal of Plant Research</i> , 1998 , 111, 345-351.6	3.7	37
37	Organization and characterization of the virCD genes from <i>Agrobacterium rhizogenes</i> . <i>Molecular Genetics and Genomics</i> , 1988 , 213, 229-37		37
36	Overexpression of Prunus DAM6 inhibits growth, represses bud break competency of dormant buds and delays bud outgrowth in apple plants. <i>PLoS ONE</i> , 2019 , 14, e0214788	3.7	34
35	Comprehensive quantification and genome survey reveal the presence of novel phytohormone action modes in red seaweeds. <i>Journal of Applied Phycology</i> , 2016 , 28, 2539-2548	3.2	33
34	A poly(A)-specific ribonuclease directly regulates the poly(A) status of mitochondrial mRNA in Arabidopsis. <i>Nature Communications</i> , 2013 , 4, 2247	17.4	31
33	Putative start codon TTG for the regulatory protein VirG of the hairy-root-inducing plasmid pRiA4. <i>Gene</i> , 1989 , 78, 173-8	3.8	29
32	ABA hypersensitive germination2-1 causes the activation of both abscisic acid and salicylic acid responses in Arabidopsis. <i>Plant and Cell Physiology</i> , 2009 , 50, 2112-22	4.9	28
31	The PP2C-SnRK2 complex: the central regulator of an abscisic acid signaling pathway. <i>Plant Signaling and Behavior</i> , 2010 , 5, 160-3	2.5	28
30	Transcriptome Analysis and Identification of a Transcriptional Regulatory Network in the Response to HO. <i>Plant Physiology</i> , 2019 , 180, 1629-1646	6.6	22
29	Functional cloning of a cDNA encoding Mei2-like protein from Arabidopsis thaliana using a fission yeast pheromone receptor deficient mutant. <i>FEBS Letters</i> , 1997 , 413, 16-20	3.8	22

28	A novel ethanol-hypersensitive mutant of Arabidopsis. <i>Plant and Cell Physiology</i> , 2004 , 45, 703-11	4.9	19
27	Abscisic acid induces ectopic outgrowth in epidermal cells through cortical microtubule reorganization in Arabidopsis thaliana. <i>Scientific Reports</i> , 2015 , 5, 11364	4.9	16
26	Metabolic movement upon abscisic acid and salicylic acid combined treatments. <i>Plant Biotechnology</i> , 2009 , 26, 551-560	1.3	15
25	Crop improvement using life cycle datasets acquired under field conditions. <i>Frontiers in Plant Science</i> , 2015 , 6, 740	6.2	14
24	Disruption of ureide degradation affects plant growth and development during and after transition from vegetative to reproductive stages. <i>BMC Plant Biology</i> , 2018 , 18, 287	5.3	13
23	Phytohormones in red seaweeds: a technical review of methods for analysis and a consideration of genomic data. <i>Botanica Marina</i> , 2017 , 60,	1.8	12
22	Loss of CG Methylation in Marchantia polymorpha Causes Disorganization of Cell Division and Reveals Unique DNA Methylation Regulatory Mechanisms of Non-CG Methylation. <i>Plant and Cell Physiology</i> , 2018 , 59, 2421-2431	4.9	11
21	A DNA-binding surface of SPO11-1, an Arabidopsis SPO11 orthologue required for normal meiosis. <i>FEBS Journal</i> , 2010 , 277, 2360-74	5.7	11
20	The mechanism of SO ₂ -induced stomatal closure differs from O ₃ and CO ₂ responses and is mediated by nonapoptotic cell death in guard cells. <i>Plant, Cell and Environment</i> , 2019 , 42, 437-447	8.4	10
19	Characterization of the virA gene of the agropine-type plasmid pRiA4 of Agrobacterium rhizogenes. <i>FEBS Letters</i> , 1990 , 271, 28-32	3.8	10
18	Multiple hormone treatment revealed novel cooperative relationships between abscisic acid and biotic stress hormones in cultured cells. <i>Plant Biotechnology</i> , 2012 , 29, 19-34	1.3	7
17	Plant hormone profiling in developing seeds of common wheat (L.). <i>Breeding Science</i> , 2019 , 69, 601-610	2	7
16	Decoding Plant-Environment Interactions That Influence Crop Agronomic Traits. <i>Plant and Cell Physiology</i> , 2020 , 61, 1408-1418	4.9	6
15	Hormonal and transcriptional analyses of fruit development and ripening in different varieties of black pepper (Piper nigrum). <i>Journal of Plant Research</i> , 2020 , 133, 73-94	2.6	6
14	The Regulatory Networks of Plant Responses to Abscisic Acid. <i>Advances in Botanical Research</i> , 2011 , 201-248	2.4	5
13	A novel Arabidopsis gene required for ethanol tolerance is conserved among plants and archaea. <i>Plant and Cell Physiology</i> , 2004 , 45, 659-66	4.9	5
12	BdWRKY38 is required for the incompatible interaction of Brachypodium distachyon with the necrotrophic fungus Rhizoctonia solani. <i>Plant Journal</i> , 2020 , 104, 995-1008	6.9	5
11	A unique system for regulating mitochondrial mRNA poly(A) status and stability in plants. <i>Plant Signaling and Behavior</i> , 2014 , 9, e973809	2.5	4

10	Regulation of the Poly(A) Status of Mitochondrial mRNA by Poly(A)-Specific Ribonuclease Is Conserved among Land Plants. <i>Plant and Cell Physiology</i> , 2020 , 61, 470-480	4.9	4
9	Hetero-nuclear NMR-based Metabolomics 2006 , 93-101		4
8	Temperature-dependent fasciation mutants provide a link between mitochondrial RNA processing and lateral root morphogenesis. <i>ELife</i> , 2021 , 10,	8.9	3
7	Genetic Elucidation for Response of Flowering Time to Ambient Temperatures in Asian Rice Cultivars. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	2
6	ahg12 is a dominant proteasome mutant that affects multiple regulatory systems for germination of Arabidopsis. <i>Scientific Reports</i> , 2016 , 6, 25351	4.9	1
5	PARN-like Proteins Regulate Gene Expression in Land Plant Mitochondria by Modulating mRNA Polyadenylation. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	1
4	Exploration of Life-Course Factors Influencing Phenotypic Outcomes in Crops. <i>Plant and Cell Physiology</i> , 2020 , 61, 1381-1383	4.9	1
3	Life-Course Monitoring of Endogenous Phytohormone Levels under Field Conditions Reveals Diversity of Physiological States among Barley Accessions. <i>Plant and Cell Physiology</i> , 2020 , 61, 1438-1448	4.9	1
2	New Mechanism of Abscisic Acid Signaling Cascade: Survival Strategy for Plants to Adapt to Growing Environmental Change. <i>Kagaku To Seibutsu</i> , 2019 , 57, 736-742	0	
1	Ds Transposon Mutant Lines for Saturation Mutagenesis of the Arabidopsis genome 17-30		