Hideki Takahashi

List of Publications by Year
in descending order

78 papers	11,112 citations	47006 47 h-index	74163 75 g-index
83 all docs	83 docs citations	83 times ranked	9176 citing authors

#	Article	IF	Citations
1	Functional genomics by integrated analysis of metabolome and transcriptome of Arabidopsis plants over-expressing an MYB transcription factor. Plant Journal, 2005, 42, 218-235.	5.7	891
2	Sulfur Assimilation in Photosynthetic Organisms: Molecular Functions and Regulations of Transporters and Assimilatory Enzymes. Annual Review of Plant Biology, 2011, 62, 157-184.	18.7	720
3	The roles of three functional sulphate transporters involved in uptake and translocation of sulphate inArabidopsis thaliana. Plant Journal, 2000, 23, 171-182.	5.7	523
4	The AtGenExpress hormone and chemical treatment data set: experimental design, data evaluation, model data analysis and data access. Plant Journal, 2008, 55, 526-542.	5.7	467
5	Sulphur starvation induces the expression of microRNAâ€395 and one of its target genes but in different cell types. Plant Journal, 2009, 57, 313-321.	5.7	377
6	Genome, Functional Gene Annotation, and Nuclear Transformation of the Heterokont Oleaginous Alga Nannochloropsis oceanica CCMP1779. PLoS Genetics, 2012, 8, e1003064.	3.5	376
7	Arabidopsis SLIM1 Is a Central Transcriptional Regulator of Plant Sulfur Response and Metabolism. Plant Cell, 2006, 18, 3235-3251.	6.6	337
8	Regulation of sulfur assimilation in higher plants: A sulfate transporter induced in sulfate-starved roots plays a central role in Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 11102-11107.	7.1	330
9	The Organization of High-Affinity Ammonium Uptake in <i>Arabidopsis</i> Roots Depends on the Spatial Arrangement and Biochemical Properties of AMT1-Type Transporters. Plant Cell, 2007, 19, 2636-2652.	6.6	330
10	Two distinct high-affinity sulfate transporters with different inducibilities mediate uptake of sulfate in Arabidopsis roots. Plant Journal, 2002, 29, 465-473.	5.7	320
11	Vacuolar Sulfate Transporters Are Essential Determinants Controlling Internal Distribution of Sulfate in Arabidopsis. Plant Cell, 2004, 16, 2693-2704.	6.6	302
12	Transcriptome Profiling of Sulfur-Responsive Genes in Arabidopsis Reveals Global Effects of Sulfur Nutrition on Multiple Metabolic Pathways Â. Plant Physiology, 2003, 132, 597-605.	4.8	286
13	Ammonium Triggers Lateral Root Branching in <i>Arabidopsis</i> in an AMMONIUM TRANSPORTER1;3-Dependent Manner. Plant Cell, 2010, 22, 3621-3633.	6.6	280
14	CLE-CLAVATA1 peptide-receptor signaling module regulates the expansion of plant root systems in a nitrogen-dependent manner. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2029-2034.	7.1	278
15	Plant sulphate transporters: co-ordination of uptake, intracellular and long-distance transport. Journal of Experimental Botany, 2004, 55, 1765-1773.	4.8	258
16	Severe reduction in growth rate and grain filling of rice mutants lacking OsGS1;1, a cytosolic glutamine synthetase1;1. Plant Journal, 2005, 42, 641-651.	5.7	258
17	Root-to-Shoot Transport of Sulfate in Arabidopsis. Evidence for the Role of SULTR3;5 as a Component of Low-Affinity Sulfate Transport System in the Root Vasculature. Plant Physiology, 2004, 136, 4198-4204.	4.8	251
18	Identification of a novel cis-acting element conferring sulfur deficiency response in Arabidopsis roots. Plant Journal, 2005, 42, 305-314.	5.7	240

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19	An <i>Arabidopsis thaliana</i> high-affinity molybdate transporter required for efficient uptake of molybdate from soil. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18807-18812.	7.1	236
20	Additive contribution of AMT1;1 and AMT1;3 to high-affinity ammonium uptake across the plasma membrane of nitrogen-deficient Arabidopsis roots. Plant Journal, 2006, 48, 522-534.	5.7	199
21	Phloem-Localizing Sulfate Transporter, Sultr1;3, Mediates Re-Distribution of Sulfur from Source to Sink Organs in Arabidopsis. Plant Physiology, 2003, 131, 1511-1517.	4.8	195
22	Interplay of SLIM1 and miR395 in the regulation of sulfate assimilation in Arabidopsis. Plant Journal, 2011, 66, 863-876.	5.7	189
23	Disruption of Adenosine-5â€²-Phosphosulfate Kinase in<i>Arabidopsis</i>Reduces Levels of Sulfated Secondary Metabolites. Plant Cell, 2009, 21, 910-927.	6.6	180
24	A novel regulatory pathway of sulfate uptake inArabidopsisroots: implication of CRE1/WOL/AHK4-mediated cytokinin-dependent regulation. Plant Journal, 2004, 38, 779-789.	5.7	175
25	Kinetic Properties and Ammonium-dependent Regulation of Cytosolic Isoenzymes of Glutamine Synthetase in Arabidopsis. Journal of Biological Chemistry, 2004, 279, 16598-16605.	3.4	171
26	MACRONUTRIENTUTILIZATION BYPHOTOSYNTHETICEUKARYOTES AND THEFABRIC OFINTERACTIONS. Annual Review of Plant Biology, 2001, 52, 163-210.	14.3	167
27	Transcriptome analyses give insights into seleniumâ€stress responses and selenium tolerance mechanisms in Arabidopsis. Physiologia Plantarum, 2008, 132, 236-253.	5.2	164
28	Posttranscriptional Regulation of High-Affinity Sulfate Transporters in Arabidopsis by Sulfur Nutrition. Plant Physiology, 2007, 145, 378-388.	4.8	134
29	Metabolomics data reveal a crucial role of cytosolic glutamine synthetase 1;1 in coordinating metabolic balance in rice. Plant Journal, 2011, 66, 456-466.	5.7	133
30	Biochemical Background and Compartmentalized Functions of Cytosolic Glutamine Synthetase for Active Ammonium Assimilation in Rice Roots. Plant and Cell Physiology, 2004, 45, 1640-1647.	3.1	130
31	Overexpression of AtCpNifS Enhances Selenium Tolerance and Accumulation in Arabidopsis. Plant Physiology, 2005, 139, 1518-1528.	4.8	127
32	Sulfur deficiencyâ€"induced repressor proteins optimize glucosinolate biosynthesis in plants. Science Advances, 2016, 2, e1601087.	10.3	127
33	Systematic approaches to using the FOX hunting system to identify useful rice genes. Plant Journal, 2009, 57, 883-894.	5.7	121
34	Auxin-mediated root branching is determined by the form of available nitrogen. Nature Plants, 2020, 6, 1136-1145.	9.3	113
35	Regulation of high-affinity sulphate transporters in plants: towards systematic analysis of sulphur signalling and regulation. Journal of Experimental Botany, 2004, 55, 1843-1849.	4.8	111
36	Sulfur nutrition: impacts on plant development, metabolism, and stress responses. Journal of Experimental Botany, 2019, 70, 4069-4073.	4.8	104

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37	Evolutionary Relationships and Functional Diversity of Plant Sulfate Transporters. Frontiers in Plant Science, 2012, 2, 119.	3.6	101
38	AtAMT1;4, a Pollen-Specific High-Affinity Ammonium Transporter of the Plasma Membrane in Arabidopsis. Plant and Cell Physiology, 2009, 50, 13-25.	3.1	91
39	Subcellular Localization of Spinach Cysteine Synthase Isoforms and Regulation of Their Gene Expression by Nitrogen and Sulfur. Plant Physiology, 1996, 112, 273-280.	4.8	84
40	Induction of SULTR1;1 Sulfate Transporter in Arabidopsis Roots Involves Protein Phosphorylation/Dephosphorylation Circuit for Transcriptional Regulation. Plant and Cell Physiology, 2004, 45, 340-345.	3.1	80
41	Sulfate transport systems in plants: functional diversity and molecular mechanisms underlying regulatory coordination. Journal of Experimental Botany, 2019, 70, 4075-4087.	4.8	79
42	Regulation of Sulfate Transport and Assimilation in Plants. International Review of Cell and Molecular Biology, 2010, 281, 129-159.	3.2	77
43	RiceFOX: A Database of Arabidopsis Mutant Lines Overexpressing Rice Full-Length cDNA that Contains a Wide Range of Trait Information to Facilitate Analysis of Gene Function. Plant and Cell Physiology, 2011, 52, 265-273.	3.1	72
44	Sulfur Economy and Cell Wall Biosynthesis during Sulfur Limitation of Chlamydomonas reinhardtii. Plant Physiology, 2001, 127, 665-673.	4.8	68
45	Isolation and characterization of a cDNA encoding a sulfate transporter fromArabidopsis thaliana. FEBS Letters, 1996, 392, 95-99.	2.8	60
46	CHOTTO1, a Double AP2 Domain Protein of Arabidopsis thaliana, Regulates Germination and Seedling Growth Under Excess Supply of Glucose and Nitrate. Plant and Cell Physiology, 2009, 50, 330-340.	3.1	60
47	Sulfur-Responsive Elements in the 3â€²-Nontranscribed Intergenic Region Are Essential for the Induction of <i>SULFATE TRANSPORTER 2;1</i> Gene Expression in Arabidopsis Roots under Sulfur Deficiency. Plant Cell, 2015, 27, 1279-1296.	6.6	59
48	Contributions of two cytosolic glutamine synthetase isozymes to ammonium assimilation in Arabidopsis roots. Journal of Experimental Botany, 2017, 68, erw454.	4.8	49
49	The function of SULTR2;1 sulfate transporter during seed development in Arabidopsis thaliana. Physiologia Plantarum, 2005, 125, 95-105.	5.2	40
50	Statistical modeling of nitrogenâ€dependent modulation of root system architecture in <i>Arabidopsis thaliana</i>. Journal of Integrative Plant Biology, 2016, 58, 254-265.	8.5	40
51	Alternative translational initiation of ATP sulfurylase underlying dual localization of sulfate assimilation pathways in plastids and cytosol in Arabidopsis thaliana. Frontiers in Plant Science, 2014, 5, 750.	3.6	38
52	Editorial: Frontiers of Sulfur Metabolism in Plant Growth, Development, and Stress Response. Frontiers in Plant Science, 2015, 6, 1220.	3.6	38
53	Gene note. Cloning of an Arabidopsis cDNA encoding a chloroplast localizing sulphate transporter isoform. Journal of Experimental Botany, 1999, 50, 1713-1714.	4.8	38
54	Cell type distinct accumulations of mRNA and protein for NADH-dependent glutamate synthase in rice roots in response to the supply of NH4+. Plant Physiology and Biochemistry, 2003, 41, 643-647.	5.8	37

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55	Serine Acetyltransferase Involved in Cysteine Biosynthesis from Spinach: Molecular Cloning, Characterization and Expression Analysis of cDNA Encoding a Plastidic Isoform. Plant and Cell Physiology, 2001, 42, 627-634.	3.1	36
56	Inferring transcriptional gene regulation network of starch metabolism in Arabidopsis thaliana leaves using graphical Gaussian model. BMC Systems Biology, 2012, 6, 100.	3.0	36
57	CLE peptides regulate lateral root development in response to nitrogen nutritional status of plants. Plant Signaling and Behavior, 2014, 9, e29302.	2.4	34
58	Small peptide signaling pathways modulating macronutrient utilization in plants. Current Opinion in Plant Biology, 2017, 39, 31-39.	7.1	28
59	CLE-CLAVATA1 Signaling Pathway Modulates Lateral Root Development under Sulfur Deficiency. Plants, 2019, 8, 103.	3.5	28
60	Rice-Arabidopsis FOX line screening with FT-NIR-based fingerprinting for GC-TOF/MS-based metabolite profiling. Metabolomics, 2010, 6, 137-145.	3.0	25
61	CLE peptide signaling and nitrogen interactions in plant root development. Plant Molecular Biology, 2016, 91, 607-615.	3.9	25
62	Tissue-Specific Activity of Two Manganese Superoxide Dismutase Promoters in Transgenic Tobacco. Plant Physiology, 1996, 112, 525-535.	4.8	24
63	Molecular cloning, characterization and expression of cDNA encoding phosphoserine aminotransferase involved in phosphorylated pathway of serine biosynthesis from spinach. Plant Molecular Biology, 1997, 33, 359-366.	3.9	24
64	Integrating N signals and root growth: the role of nitrate transceptor NRT1.1 in auxin-mediated lateral root development. Journal of Experimental Botany, 2020, 71, 4365-4368.	4.8	22
65	Plastid-cytosol partitioning and integration of metabolic pathways for APS/PAPS biosynthesis in Arabidopsis thaliana. Frontiers in Plant Science, 2014, 5, 751.	3.6	19
66	Involvement of a truncated MADS-box transcription factor ZmTMM1 in root nitrate foraging. Journal of Experimental Botany, 2020, 71, 4547-4561.	4.8	18
67	Compartmentalization and Regulation of Sulfate Assimilation Pathways in Plants. International Review of Cell and Molecular Biology, 2016, 326, 1-31.	3.2	17
68	Gln49 and Ser174 Residues Play Critical Roles in Determining the Catalytic Efficiencies of Plant Glutamine Synthetase. Plant and Cell Physiology, 2006, 47, 299-303.	3.1	16
69	Improving nitrogen use efficiency: from cells to plant systems. Journal of Experimental Botany, 2020, 71, 4359-4364.	4.8	15
70	Sulfur-responsive promoter of sulfate transporter gene is potentially useful to detect and quantify selenate and chromate. Plant Biotechnology, 2007, 24, 261-263.	1.0	6
71	Anionic Nutrient Transport in Plants: The Molecular Basis of the Sulfate Transporter Gene Family. , 2006, 27, 67-80.		5
72	Nutrient-Responsive Small Signaling Peptides and Their Influence on the Root System Architecture. International Journal of Molecular Sciences, 2018, 19, 3927.	4.1	5

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73	Molecular Biology and Functional Genomics for Identification of Regulatory Networks of Plant Sulfate Uptake and Assimilatory Metabolism. Advances in Photosynthesis and Respiration, 2008, , 149-159.	1.0	3
74	Identification of Genes Involved in Anthocyanin Accumulation by Integrated Analysis of Metabolome and Transcriptome in Pap1-Overexpressing Arabidopsis Plants. , 2007, , 159-168.		2
75	Measurement of Uptake and Root-to-Shoot Distribution of Sulfate in Arabidopsis Seedlings. Bio-protocol, 2016, 6, .	0.4	2
76	Preface. Journal of Experimental Botany, 2014, 65, 767-768.	4.8	1
77	æ¤‰©ã«ãŠã‘ã‚‹ç¡«é»„ä»£è¬ã®èª¿ç¯€. Kagaku To Seibutsu, 2008, 46, 850-858.	0.0	0
78	5â€²-non-transcribed flanking region and 5â€²-untranslated region play distinctive roles in sulfur deficiency induced expression of <i>SULFATE TRANSPORTER 1;2</i> in <i>Arabidopsis</i> roots. Plant Biotechnology, 2017, 34, 51-55.	1.0	0