Masayoshi Maeshima

List of Publications by Year
in descending order

96 papers	10,333 citations	19657 61 h-index	37204 96 g-index
97 all docs	97 docs citations	97 times ranked	8371 citing authors

#	Article	IF	Citations
1	Vacuolar H⁺-Pyrophosphatase and Cytosolic Soluble Pyrophosphatases Cooperatively Regulate Pyrophosphate Levels in <i>Arabidopsis thaliana</i>. Plant Cell, 2018, 30, 1040-1061.	6.6	44
2	Pyrophosphate inhibits gluconeogenesis by restricting UDP-glucose formation in vivo. Scientific Reports, 2018, 8, 14696.	3.3	46
3	A high molecular mass zinc transporter <scp>MTP</scp>12 forms a functional heteromeric complex with <scp>MTP</scp>5 in the Golgi in <i>ArabidopsisÂthaliana</i>. FEBS Journal, 2015, 282, 1965-1979.	4.7	77
4	Characteristics of a root hair-less line of Arabidopsis thaliana under physiological stresses. Journal of Experimental Botany, 2014, 65, 1497-1512.	4.8	102
5	Dynamics of Vacuoles and H+-Pyrophosphatase Visualized by Monomeric Green Fluorescent Protein in<i>Arabidopsis</i>: Artifactual Bulbs and Native Intravacuolar Spherical Structures Â. Plant Cell, 2014, 26, 3416-3434.	6.6	104
6	Studies on Vacuolar Membrane Microdomains Isolated from Arabidopsis Suspension-Cultured Cells: Local Distribution of Vacuolar Membrane Proteins. Plant and Cell Physiology, 2013, 54, 1571-1584.	3.1	50
7	Zincâ€binding and structural properties of the histidineâ€rich loop of <i>Arabidopsis thaliana</i> vacuolar membrane zinc transporter MTP1. FEBS Open Bio, 2013, 3, 218-224.	2.3	26
8	Mn tolerance in rice is mediated by MTP8.1, a member of the cation diffusion facilitator family. Journal of Experimental Botany, 2013, 64, 4375-4387.	4.8	163
9	<i>Arabidopsis</i> TWISTED DWARF1 Functionally Interacts with Auxin Exporter ABCB1 on the Root Plasma Membrane Â. Plant Cell, 2013, 25, 202-214.	6.6	83
10	Rapid Structural Changes and Acidification of Guard Cell Vacuoles during Stomatal Closure Require Phosphatidylinositol 3,5-Bisphosphate Â. Plant Cell, 2013, 25, 2202-2216.	6.6	114
11	AtABCA9 transporter supplies fatty acids for lipid synthesis to the endoplasmic reticulum. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 773-778.	7.1	103
12	The Ca²⁺â€binding protein <scp>PC</scp>aP2 located on the plasma membrane is involved in root hair development as a possible signal transducer. Plant Journal, 2013, 74, 690-700.	5.7	40
13	Interaction of the Trans-Frame Potyvirus Protein P3N-PIPO with Host Protein PCaP1 Facilitates Potyvirus Movement. PLoS Pathogens, 2012, 8, e1002639.	4.7	179
14	Amino acid screening based on structural modeling identifies critical residues for the function, ion selectivity and structure of Arabidopsis MTP1. FEBS Journal, 2012, 279, 2339-2356.	4.7	43
15	iTRAQ Analysis Reveals Mechanisms of Growth Defects Due to Excess Zinc in Arabidopsis Â Â. Plant Physiology, 2011, 155, 1893-1907.	4.8	167
16	Vacuolar Proton Pumps and Aquaporins Involved in Rapid Internode Elongation of Deepwater Rice. Bioscience, Biotechnology and Biochemistry, 2011, 75, 114-122.	1.3	41
17	The Small GTPase Rab5a Is Essential for Intracellular Transport of Proglutelin from the Golgi Apparatus to the Protein Storage Vacuole and Endosomal Membrane Organization in Developing Rice Endosperm Â Â Â. Plant Physiology, 2011, 157, 632-644.	4.8	44
18	Keep an Eye on PPi: The Vacuolar-Type H+-Pyrophosphatase Regulates Postgerminative Development in<i>Arabidopsis</i>Â Â Â. Plant Cell, 2011, 23, 2895-2908.	6.6	178

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19	PCaPs, possible regulators of PtdInsP signals on plasma membrane. Plant Signaling and Behavior, 2010, 5, 848-850.	2.4	25
20	An Arabidopsis Hydrophilic Ca2+-Binding Protein with a PEVK-Rich Domain, PCaP2, is Associated with the Plasma Membrane and Interacts with Calmodulin and Phosphatidylinositol Phosphates. Plant and Cell Physiology, 2010, 51, 366-379.	3.1	63
21	Quantification, Organ-Specific Accumulation and Intracellular Localization of Type II H+-Pyrophosphatase in Arabidopsis thaliana. Plant and Cell Physiology, 2010, 51, 1350-1360.	3.1	58
22	NIP1;1, an Aquaporin Homolog, Determines the Arsenite Sensitivity of Arabidopsis thaliana. Journal of Biological Chemistry, 2009, 284, 2114-2120.	3.4	201
23	A Mutant Strain Arabidopsis thaliana that Lacks Vacuolar Membrane Zinc Transporter MTP1 Revealed the Latent Tolerance to Excessive Zinc. Plant and Cell Physiology, 2009, 50, 1156-1170.	3.1	103
24	Dynamic Aspects of Ion Accumulation by Vesicle Traffic Under Salt Stress in Arabidopsis. Plant and Cell Physiology, 2009, 50, 2023-2033.	3.1	130
25	Activity of tonoplast proton pumps and Na+/H+ exchange in potato cell cultures is modulated by salt. Journal of Experimental Botany, 2009, 60, 1363-1374.	4.8	73
26	AtHMA1 contributes to the detoxification of excess Zn(II) in Arabidopsis. Plant Journal, 2009, 58, 737-753.	5.7	167
27	Synchrony between flower opening and petal-color change from red to blue in morning glory, Ipomoea tricolor cv. Heavenly Blue. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2009, 85, 187-197.	3.8	51
28	ER membrane aquaporins in plants. Pflugers Archiv European Journal of Physiology, 2008, 456, 709-716.	2.8	47
29	A hydrophilic cationâ€binding protein of <i>Arabidopsisâ€ƒthaliana</i>, AtPCaP1, is localized to plasma membrane via <i>N</i>â€myristoylation and interacts with calmodulin and the phosphatidylinositol phosphates PtdIns(3,4,5)<i>P</i>₃ and PtdIns(3,5)<i>P</i>₂. FEBS Journal, 2008, 275, 2267-2282.	4.7	56
30	The ABC transporter AtABCB14 is a malate importer and modulates stomatal response to CO2. Nature Cell Biology, 2008, 10, 1217-1223.	10.3	243
31	Deactivation of aquaporins decreases internal conductance to CO2 diffusion in tobacco leaves grown under long-term drought. Functional Plant Biology, 2008, 35, 553.	2.1	75
32	Expanding roles of plant aquaporins in plasma membranes and cell organelles. Functional Plant Biology, 2008, 35, 1.	2.1	123
33	Effect of Low Root Temperature on Hydraulic Conductivity of Rice Plants and the Possible Role of Aquaporins. Plant and Cell Physiology, 2008, 49, 1294-1305.	3.1	101
34	Tissue and Cell-Specific Localization of Rice Aquaporins and Their Water Transport Activities. Plant and Cell Physiology, 2008, 49, 30-39.	3.1	123
35	Deletion of a Histidine-rich Loop of AtMTP1, a Vacuolar Zn2+/H+ Antiporter of Arabidopsis thaliana, Stimulates the Transport Activity. Journal of Biological Chemistry, 2008, 283, 8374-8383.	3.4	164
36	Characterization of a Tobacco TPK-type K+ Channel as a Novel Tonoplast K+ Channel Using Yeast Tonoplasts. Journal of Biological Chemistry, 2008, 283, 1911-1920.	3.4	72

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37	Molecular properties of a novel, hydrophilic cation-binding protein associated with the plasma membrane. Journal of Experimental Botany, 2007, 58, 1173-1183.	4.8	43
38	The ABC transporter AtPDR8 is a cadmium extrusion pump conferring heavy metal resistance. Plant Journal, 2007, 50, 207-218.	5.7	593
39	Vacuolar transporters and their essential role in plant metabolism. Journal of Experimental Botany, 2006, 58, 83-102.	4.8	521
40	Transcriptional Induction of Two Genes for CCaPs, Novel Cytosolic Proteins, in Arabidopsis thaliana in the Dark. Plant and Cell Physiology, 2006, 48, 54-65.	3.1	3
41	Aquaporin NIP2;1 is Mainly Localized to the ER Membrane and Shows Root-Specific Accumulation in Arabidopsis thaliana. Plant and Cell Physiology, 2006, 47, 1420-1426.	3.1	63
42	Expression of the Vacuolar Ca2+/H+ Exchanger, OsCAX1a, in Rice: Cell and Age Specificity of Expression, and Enhancement by Ca2+. Plant and Cell Physiology, 2006, 47, 96-106.	3.1	47
43	Loss of AtPDR8, a Plasma Membrane ABC Transporter of Arabidopsis thaliana, Causes Hypersensitive Cell Death Upon Pathogen Infection. Plant and Cell Physiology, 2006, 47, 309-318.	3.1	171
44	Subcellular localization of Strboh proteins and NADPH-dependent O2â˘'-generating activity in potato tuber tissues. Journal of Experimental Botany, 2006, 57, 1373-1379.	4.8	69
45	The Involvement of Tonoplast Proton Pumps and Na+(K+)/H+ Exchangers in the Change of Petal Color During Flower Opening of Morning Glory, Ipomoea tricolor cv. Heavenly Blue. Plant and Cell Physiology, 2005, 46, 407-415.	3.1	93
46	The Distribution of Aquaporin Subtypes (PIP1, PIP2 and Î³-TIP) is Tissue Dependent in Soybean (Glycine max) Root Nodules. Annals of Botany, 2005, 96, 457-460.	2.9	26
47	Identification of 33 Rice Aquaporin Genes and Analysis of Their Expression and Function. Plant and Cell Physiology, 2005, 46, 1568-1577.	3.1	527
48	Expression Profile of the Genes for Rice Cation/H+ Exchanger Family and Functional Analysis in Yeast. Plant and Cell Physiology, 2005, 46, 1735-1740.	3.1	66
49	Novel type aquaporin SIPs are mainly localized to the ER membrane and show cell-specific expression inArabidopsis thaliana. FEBS Letters, 2005, 579, 5814-5820.	2.8	185
50	Water Channel Activity of Radish Plasma Membrane Aquaporins Heterologously Expressed in Yeast and Their Modification by Site-Directed Mutagenesis. Plant and Cell Physiology, 2004, 45, 823-830.	3.1	105
51	Contribution of the Plasma Membrane and Central Vacuole in the Formation of Autolysosomes in Cultured Tobacco Cells. Plant and Cell Physiology, 2004, 45, 951-957.	3.1	43
52	Membrane Topology of the H+-pyrophosphatase of Streptomyces coelicolor Determined by Cysteine-scanning Mutagenesis. Journal of Biological Chemistry, 2004, 279, 35106-35112.	3.4	49
53	Residues in Internal Repeats of the Rice Cation/H+ Exchanger Are Involved in the Transport and Selection of Cations. Journal of Biological Chemistry, 2004, 279, 812-819.	3.4	76
54	Characterization of fructose-bisphosphate aldolase regulated by gibberellin in roots of rice seedling. Plant Molecular Biology, 2004, 56, 839-848.	3.9	108

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55	Effect of salt and osmotic stresses on the expression of genes for the vacuolar H+-pyrophosphatase, H+-ATPase subunit A, and Na+/H+ antiporter from barley. Journal of Experimental Botany, 2004, 55, 585-594.	4.8	157
56	Zinc Transporter of Arabidopsis thaliana AtMTP1 is Localized to Vacuolar Membranes and Implicated in Zinc Homeostasis. Plant and Cell Physiology, 2004, 45, 1749-1758.	3.1	272
57	Isolation of Intact Vacuoles and Proteomic Analysis of Tonoplast from Suspension-Cultured Cells of Arabidopsis thaliana. Plant and Cell Physiology, 2004, 45, 672-683.	3.1	179
58	Rapid increase of vacuolar volume in response to salt stress. Planta, 2003, 216, 397-402.	3.2	114
59	Differences in Aquaporin Levels among Cell Types of Radish and Measurement of Osmotic Water Permeability of Individual Protoplasts. Plant and Cell Physiology, 2003, 44, 277-286.	3.1	51
60	Patch Clamp Analysis of a H+ Pump Heterologously Expressed in Giant Yeast Vacuoles. Journal of Biochemistry, 2003, 134, 615-623.	1.7	34
61	Aquaporin Isoforms Responsive to Salt and Water Stresses and Phytohormones in Radish Seedlings. Plant and Cell Physiology, 2002, 43, 1229-1237.	3.1	142
62	TONOPLASTTRANSPORTERS: Organization and Function. Annual Review of Plant Biology, 2001, 52, 469-497.	14.3	256
63	Low Aquaporin Content and Low Osmotic Water Permeability of the Plasma and Vacuolar Membranes of a CAM Plant Graptopetalum paraguayense: Comparison with Radish. Plant and Cell Physiology, 2001, 42, 1119-1129.	3.1	78
64	Expression and distribution of a vacuolar aquaporin in young and mature leaf tissues of Brassica napus in relation to water fluxes. Planta, 2001, 212, 270-278.	3.2	52
65	Specificity of the accumulation of mRNAs and proteins of the plasma membrane and tonoplast aquaporins in radish organs. Planta, 2001, 212, 294-304.	3.2	77
66	The protein storage vacuole. Journal of Cell Biology, 2001, 155, 991-1002.	5.2	169
67	Mutagenic Analysis of Functional Residues in Putative Substrate-binding Site and Acidic Domains of Vacuolar H+-Pyrophosphatase. Journal of Biological Chemistry, 2001, 276, 7654-7660.	3.4	97
68	Functional expression of mung bean Ca2+/H+ antiporter in yeast and its intracellular localization in the hypocotyl and tobacco cells. FEBS Journal, 2000, 267, 3090-3098.	0.2	65
69	Tissue Specificity of E Subunit Isoforms of Plant Vacuolar H+-ATPase and Existence of Isotype Enzymes. Journal of Biological Chemistry, 2000, 275, 6515-6522.	3.4	32
70	Purification, Properties, and Molecular Cloning of a Novel Ca2+-Binding Protein in Radish Vacuoles. Plant Physiology, 2000, 124, 1069-1078.	4.8	41
71	Vacuolar H+-pyrophosphatase. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1465, 37-51.	2.6	404
72	Properties and molecular cloning of Ca2+/H+ antiporter in the vacuolar membrane of mung bean. FEBS Journal, 1999, 262, 417-425.	0.2	64

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73	Molecular cloning and sequencing of the cDNA for vacuolar H+-pyrophosphatase from Chara corallina1The nucleotide sequence data reported in this paper will appear in the DDBJ/EMBL/GenBank nucleotide sequence databases with the accession number AB018529.1. Biochimica Et Biophysica Acta - Biomembranes, 1999, 1418, 245-250.	2.6	21
74	Molecular Cloning of Vacuolar H+-pyrophosphatase and Its Expression during the Development of Pear Fruit. Plant and Cell Physiology, 1999, 40, 900-904.	3.1	28
75	Molecular Cloning of Vacuolar H+-Pyrophosphatase and Its Developmental Expression in Growing Hypocotyl of Mung Bean1. Plant Physiology, 1998, 116, 589-597.	4.8	93
76	Genes Involved in Osmoregulation during Turgor-Driven Cell Expansion of Developing Cotton Fibers Are Differentially Regulated1. Plant Physiology, 1998, 116, 1539-1549.	4.8	177
77	The Activity of the Root Vacuolar H+-Pyrophosphatase in Rye Plants Grown under Conditions Deficient in Mineral Nutrients. Plant and Cell Physiology, 1998, 39, 890-894.	3.1	26
78	Molecular Cloning, Water Channel Activity and Tissue Specific Expression of Two Isoforms of Radish Vacuolar Aquaporin1. Plant and Cell Physiology, 1998, 39, 905-913.	3.1	81
79	Analysis of the Substrate Binding Site and Carboxyl Terminal Region of Vacuolar H+-Pyrophosphatase of Mung Bean with Peptide Antibodies. Journal of Biochemistry, 1997, 122, 883-889.	1.7	59
80	Changes in H+-Pumps and a Tonoplast Intrinsic Protein of Vacuolar Membranes during the Development of Pear Fruit. Plant and Cell Physiology, 1997, 38, 1039-1045.	3.1	79
81	Increased Expression of Vacuolar Aquaporin and H+-ATPase Related to Motor Cell Function in Mimosa pudica L. Plant Physiology, 1997, 114, 827-834.	4.8	120
82	Response of the plant root to aluminum stress: Analysis of the inhibition of the root elongation and changes in membrane function. Journal of Plant Research, 1996, 109, 99-105.	2.4	32
83	Proton pumps of the vacuolar membrane in growing plant cells. Journal of Plant Research, 1996, 109, 119-125.	2.4	47
84	Immunological detection of tonoplast polypeptides in the plasma membrane of pea cotyledons. Planta, 1996, 198, 95.	3.2	88
85	Accumulation of Vacuolar H+-Pyrophosphatase and H+-ATPase during Reformation of the Central Vacuole in Germinating Pumpkin Seeds. Plant Physiology, 1994, 106, 61-69.	4.8	95
86	Molecular Cloning of cDNA for Vacuolar Membrane Proton-Translocating Inorganic Pyrophosphatase in Hordeum vulgare. Biochemical and Biophysical Research Communications, 1993, 190, 1110-1114.	2.1	67
87	Characterization of the Major Integral Protein of Vacuolar Membrane. Plant Physiology, 1992, 98, 1248-1254.	4.8	114
88	Mechanism of the Decline in Vacuolar H+ -ATPase Activity in Mung Bean Hypocotyls during Chilling. Plant Physiology, 1992, 100, 718-722.	4.8	72
89	Dimeric structure of H+-translocating pyrophosphatase from pumpkin vacuolar membranes. FEBS Letters, 1991, 290, 177-180.	2.8	44
90	H+-translocating inorganic pyrophosphatase of plant vacuoles Inhibition by Ca2+, stabilization by Mg2+ and immunological comparison with other inorganic pyrophosphatases. FEBS Journal, 1991, 196, 11-17.	0.2	83

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91	Subunit composition of vacuolar membrane H+-ATPase from mung bean. FEBS Journal, 1990, 187, 745-751.	0.2	84
92	Oligomeric structure of H+-translocating inorganic pyrophosphatase of plant vacuoles. Biochemical and Biophysical Research Communications, 1990, 168, 1157-1162.	2.1	40
93	Molecular cloning and nucleotide sequence of cDNA for sporamin, the major soluble protein of sweet potato tuberous roots. Plant Molecular Biology, 1985, 5, 313-320.	3.9	67
94	Characterization of major proteins in sweet potato tuberous roots. Phytochemistry, 1985, 24, 1899-1902.	2.9	154
95	Purification and Properties of Glyoxysomal Lipase from Castor Bean. Plant Physiology, 1985, 79, 489-493.	4.8	55
96	Purification and characterization of sweet potato cytochrome c oxidase. Archives of Biochemistry and Biophysics, 1978, 187, 423-430.	3.0	56