Tomoo Shimada

List of Publications by Year
in descending order

89 papers	7,033 citations	44069 48 h-index	62596 80 g-index
91 all docs	91 docs citations	91 times ranked	6649 citing authors

#	Article	IF	Citations
1	Stomagen positively regulates stomatal density in Arabidopsis. Nature, 2010, 463, 241-244.	27.8	382
2	A rapid and nonâ€destructive screenable marker, FAST, for identifying transformed seeds of <i>Arabidopsis thaliana</i>. Plant Journal, 2010, 61, 519-528.	5.7	325
3	Transport of Storage Proteins to Protein Storage Vacuoles Is Mediated by Large Precursor-Accumulating Vesicles. Plant Cell, 1998, 10, 825-836.	6.6	307
4	Myosin-dependent endoplasmic reticulum motility and F-actin organization in plant cells. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6894-6899.	7.1	306
5	CRISPR/Cas9-Mediated Targeted Mutagenesis in the Liverwort Marchantia polymorpha L.. Plant and Cell Physiology, 2014, 55, 475-481.	3.1	262
6	Vacuolar sorting receptor for seed storage proteins in Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 16095-16100.	7.1	235
7	Why green fluorescent fusion proteins have not been observed in the vacuoles of higher plants. Plant Journal, 2003, 35, 545-555.	5.7	226
8	Enhancement of leaf photosynthetic capacity through increased stomatal density in Arabidopsis. New Phytologist, 2013, 198, 757-764.	7.3	223
9	A Proteinase-Storing Body that Prepares for Cell Death or Stresses in the Epidermal Cells of Arabidopsis. Plant and Cell Physiology, 2001, 42, 894-899.	3.1	208
10	Vacuolar Processing Enzymes Are Essential for Proper Processing of Seed Storage Proteins in Arabidopsis thaliana. Journal of Biological Chemistry, 2003, 278, 32292-32299.	3.4	189
11	A novel role for oleosins in freezing tolerance of oilseeds in <i>Arabidopsis thaliana</i>. Plant Journal, 2008, 55, 798-809.	5.7	184
12	An Endoplasmic Reticulum-Derived Structure That Is Induced under Stress Conditions in Arabidopsis. Plant Physiology, 2002, 130, 1807-1814.	4.8	147
13	Efficient CRISPR/Cas9-based genome editing and its application to conditional genetic analysis in Marchantia polymorpha. PLoS ONE, 2018, 13, e0205117.	2.5	141
14	Characterization of Organelles in the Vacuolar-Sorting Pathway by Visualization with GFP in Tobacco BY-2 Cells. Plant and Cell Physiology, 2000, 41, 993-1001.	3.1	138
15	AtVPS29, a Putative Component of a Retromer Complex, is Required for the Efficient Sorting of Seed Storage Proteins. Plant and Cell Physiology, 2006, 47, 1187-1194.	3.1	135
16	KATAMARI1/MURUS3 Is a Novel Golgi Membrane Protein That Is Required for Endomembrane Organization in Arabidopsis. Plant Cell, 2005, 17, 1764-1776.	6.6	134
17	Vacuolar Processing Enzyme Responsible for Maturation of Seed Proteins. Journal of Plant Physiology, 1995, 145, 632-640.	3.5	125
18	Identification and Dynamics of <i>Arabidopsis</i> Adaptor Protein-2 Complex and Its Involvement in Floral Organ Development. Plant Cell, 2013, 25, 2958-2969.	6.6	121

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19	Polar Localization of the NIP5;1 Boric Acid Channel Is Maintained by Endocytosis and Facilitates Boron Transport in Arabidopsis Roots. Plant Cell, 2017, 29, 824-842.	6.6	107
20	Arabidopsis VPS35, a Retromer Component, is Required for Vacuolar Protein Sorting and Involved in Plant Growth and Leaf Senescence. Plant and Cell Physiology, 2008, 49, 142-156.	3.1	105
21	Ectopic Expression of an Esterase, Which is a Candidate for the Unidentified Plant Cutinase, Causes Cuticular Defects in Arabidopsis thaliana. Plant and Cell Physiology, 2010, 51, 123-131.	3.1	105
22	Multiple Functional Proteins Are Produced by Cleaving Asn-Gln Bonds of a Single Precursor by Vacuolar Processing Enzyme. Journal of Biological Chemistry, 1999, 274, 2563-2570.	3.4	98
23	Leaf Oil Body Functions as a Subcellular Factory for the Production of a Phytoalexin in Arabidopsis. Plant Physiology, 2014, 164, 105-118.	4.8	98
24	The ER Body, a Novel Endoplasmic Reticulum-Derived Structure in Arabidopsis. Plant and Cell Physiology, 2003, 44, 661-666.	3.1	92
25	GNOM-LIKE1/ERMO1 and SEC24a/ERMO2 Are Required for Maintenance of Endoplasmic Reticulum Morphology in<i>Arabidopsis thaliana</i>Â. Plant Cell, 2009, 21, 3672-3685.	6.6	92
26	AtVAM3 is Required for Normal Specification of Idioblasts, Myrosin Cells. Plant and Cell Physiology, 2006, 47, 164-175.	3.1	91
27	Vacuolar Processing Enzyme of Soybean That Converts Proproteins to the Corresponding Mature Forms. Plant and Cell Physiology, 1994, 35, 713-718.	3.1	87
28	Arabidopsis Vacuolar Sorting Mutants (green fluorescent seed) Can Be Identified Efficiently by Secretion of Vacuole-Targeted Green Fluorescent Protein in Their Seeds. Plant Cell, 2007, 19, 597-609.	6.6	87
29	A VPE family supporting various vacuolar functions in plants. Physiologia Plantarum, 2005, 123, 369-375.	5.2	86
30	Spatiotemporal Secretion of PEROXIDASE36 Is Required for Seed Coat Mucilage Extrusion in <i>Arabidopsis</i> Â. Plant Cell, 2013, 25, 1355-1367.	6.6	85
31	Arabidopsis KAM2/GRV2 Is Required for Proper Endosome Formation and Functions in Vacuolar Sorting and Determination of the Embryo Growth Axis. Plant Cell, 2007, 19, 320-332.	6.6	83
32	The Novel Nuclear Envelope Protein KAKU4 Modulates Nuclear Morphology in<i>Arabidopsis</i>Â. Plant Cell, 2014, 26, 2143-2155.	6.6	81
33	MAIGO2 Is Involved in Exit of Seed Storage Proteins from the Endoplasmic Reticulum in Arabidopsis thaliana. Plant Cell, 2007, 18, 3535-3547.	6.6	79
34	The AP-1 Âµ Adaptin is Required for KNOLLE Localization at the Cell Plate to Mediate Cytokinesis in Arabidopsis. Plant and Cell Physiology, 2013, 54, 838-847.	3.1	79
35	A Vacuolar Sorting Receptor PV72 on the Membrane of Vesicles that Accumulate Precursors of Seed Storage Proteins (PAC Vesicles). Plant and Cell Physiology, 2002, 43, 1086-1095.	3.1	74
36	The Adaptor Complex AP-4 Regulates Vacuolar Protein Sorting at the trans-Golgi Network by Interacting with VACUOLAR SORTING RECEPTOR1. Plant Physiology, 2016, 170, 211-219.	4.8	72

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37	Higher Stomatal Density Improves Photosynthetic Induction and Biomass Production in Arabidopsis Under Fluctuating Light. Frontiers in Plant Science, 2020, 11, 589603.	3.6	69
38	Calcium-mediated Association of a Putative Vacuolar Sorting Receptor PV72 with a Propeptide of 2S Albumin. Journal of Biological Chemistry, 2002, 277, 8708-8715.	3.4	64
39	An ER-Localized Form of PV72, a Seed-Specific Vacuolar Sorting Receptor, Interferes the Transport of an NPIR-Containing Proteinase in Arabidopsis Leaves. Plant and Cell Physiology, 2004, 45, 9-17.	3.1	64
40	Positive and negative peptide signals control stomatal density. Cellular and Molecular Life Sciences, 2011, 68, 2081-2088.	5.4	63
41	<scp>GFS</scp>9/<scp>TT</scp>9 contributes to intracellular membrane trafficking and flavonoid accumulation in <i><scp>A</scp>rabidopsis thaliana</i>. Plant Journal, 2014, 80, 410-423.	5.7	63
42	Diversity and Formation of Endoplasmic Reticulum-Derived Compartments in Plants. Are These Compartments Specific to Plant Cells?. Plant Physiology, 2004, 136, 3435-3439.	4.8	61
43	Polar Localization of the Borate Exporter BOR1 Requires AP2-Dependent Endocytosis. Plant Physiology, 2019, 179, 1569-1580.	4.8	58
44	Leaf Endoplasmic Reticulum Bodies Identified in Arabidopsis Rosette Leaves Are Involved in Defense against Herbivory. Plant Physiology, 2019, 179, 1515-1524.	4.8	58
45	C-Terminal KDEL Sequence of A KDEL-Tailed Cysteine Proteinase (Sulfhydryl-Endopeptidase) Is Involved in Formation of KDEL Vesicle and in Efficient Vacuolar Transport of Sulfhydryl-Endopeptidase. Plant Physiology, 2003, 132, 1892-1900.	4.8	56
46	Endoplasmic reticulum-resident proteins are constitutively transported to vacuoles for degradation. Plant Journal, 2004, 39, 393-402.	5.7	53
47	MAIGO5 Functions in Protein Export from Golgi-Associated Endoplasmic Reticulum Exit Sites in<i>Arabidopsis</i>Â. Plant Cell, 2013, 25, 4658-4675.	6.6	53
48	Endosomal proteases facilitate the fusion of endosomes with vacuoles at the final step of the endocytotic pathway. Plant Journal, 2005, 41, 888-898.	5.7	52
49	Vacuolar SNAREs Function in the Formation of the Leaf Vascular Network by Regulating Auxin Distribution. Plant and Cell Physiology, 2009, 50, 1319-1328.	3.1	52
50	FAMA Is an Essential Component for the Differentiation of Two Distinct Cell Types, Myrosin Cells and Guard Cells, in<i>Arabidopsis</i>Â. Plant Cell, 2014, 26, 4039-4052.	6.6	50
51	Chloroplast Cpn20 forms a tetrameric structure inArabidopsis thaliana. Plant Journal, 1999, 17, 467-477.	5.7	46
52	Chloroplasts Have a Novel Cpn10 in Addition to Cpn20 as Co-chaperonins in Arabidopsis thaliana. Journal of Biological Chemistry, 2001, 276, 29688-29694.	3.4	46
53	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
54	Myosin XI-Dependent Formation of Tubular Structures from Endoplasmic Reticulum Isolated from Tobacco Cultured BY-2 Cells Â Â. Plant Physiology, 2011, 156, 129-143.	4.8	46

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55	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
56	Structural and functional relationships between plasmodesmata and plant endoplasmic reticulumâ€"plasma membrane contact sites consisting of three synaptotagmins. New Phytologist, 2020, 226, 798-808.	7.3	40
57	<scp>MAG</scp>2 and three <scp>MAG</scp>2â€<scp>INTERACTING PROTEIN</scp>s form an <scp>ER</scp>â€localized complex to facilitate storage protein transport in <i>Arabidopsis thaliana</i>. Plant Journal, 2013, 76, 781-791.	5.7	34
58	MAG4/Atp115 is a Golgi-Localized Tethering Factor that Mediates Efficient Anterograde Transport in Arabidopsis. Plant and Cell Physiology, 2010, 51, 1777-1787.	3.1	33
59	CONTINUOUS VASCULAR RING (COV1) is a trans-Golgi Network-Localized Membrane Protein Required for Golgi Morphology and Vacuolar Protein Sorting. Plant and Cell Physiology, 2014, 55, 764-772.	3.1	32
60	A Novel Membrane Protein That Is Transported to Protein Storage Vacuoles via Precursor-Accumulating Vesicles. Plant Cell, 2001, 13, 2361-2372.	6.6	31
61	Phosphorylation of the C Terminus of RHD3 Has a Critical Role in Homotypic ER Membrane Fusion in Arabidopsis. Plant Physiology, 2016, 170, 867-880.	4.8	31
62	BEACH-Domain Proteins Act Together in a Cascade to Mediate Vacuolar Protein Trafficking and Disease Resistance in Arabidopsis. Molecular Plant, 2015, 8, 389-398.	8.3	27
63	Synaptotagmin-Associated Endoplasmic Reticulum-Plasma Membrane Contact Sites Are Localized to Immobile ER Tubules. Plant Physiology, 2018, 178, 641-653.	4.8	27
64	HIGH STEROL ESTER 1 is a key factor in plant sterol homeostasis. Nature Plants, 2019, 5, 1154-1166.	9.3	26
65	The Plant Endomembrane Systemâ€"A Complex Network Supporting Plant Development and Physiology. Plant and Cell Physiology, 2014, 55, 667-671.	3.1	25
66	Involvement of Adapter Protein Complex 4 in Hypersensitive Cell Death Induced by Avirulent Bacteria. Plant Physiology, 2018, 176, 1824-1834.	4.8	25
67	FAMA: A Molecular Link between Stomata and Myrosin Cells. Trends in Plant Science, 2016, 21, 861-871.	8.8	24
68	Transport of Storage Proteins to Protein Storage Vacuoles Is Mediated by Large Precursor-Accumulating Vesicles. Plant Cell, 1998, 10, 825.	6.6	22
69	An ABC transporter B family protein, ABCB19, is required for cytoplasmic streaming and gravitropism of the inflorescence stems. Plant Signaling and Behavior, 2016, 11, e1010947.	2.4	21
70	Isolation and characterization of a cDNA encoding mitochondrial chaperonin 10 from Arabidopsis thaliana by functional complementation of an Escherichia coli groES mutant. Plant Journal, 1996, 10, 1119-1125.	5.7	18
71	A directionâ€selective localâ€thresholding method, <scp>DSLT</scp>, in combination with a dyeâ€based method for automated threeâ€dimensional segmentation of cells and airspaces in developing leaves. Plant Journal, 2015, 81, 357-366.	5.7	15
72	The AP-1 Complex is Required for Proper Mucilage Formation in Arabidopsis Seeds. Plant and Cell Physiology, 2018, 59, 2331-2338.	3.1	15

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73	Myrosin cells are differentiated directly from ground meristem cells and are developmentally independent of the vasculature in Arabidopsis leaves. Plant Signaling and Behavior, 2016, 11, e1150403.	2.4	13
74	Identification of Periplasmic Root-Cap Mucilage in Developing Columella Cells of Arabidopsis thaliana. Plant and Cell Physiology, 2019, 60, 1296-1303.	3.1	13
75	Myrosin Cell Development Is Regulated by Endocytosis Machinery and PIN1 Polarity in Leaf Primordia of<i>Arabidopsis thaliana</i>Â. Plant Cell, 2014, 26, 4448-4461.	6.6	12
76	Plant ESCRT protein ALIX coordinates with retromer complex in regulating receptor-mediated sorting of soluble vacuolar proteins. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200492119.	7.1	12
77	Inhibition of cell polarity establishment in stomatal asymmetric cell division using the chemical compound bubblin. Development (Cambridge), 2017, 144, 499-506.	2.5	11
78	Dynamic Capture and Release of Endoplasmic Reticulum Exit Sites by Golgi Stacks in Arabidopsis. IScience, 2020, 23, 101265.	4.1	11
79	Arabidopsis ECHIDNA protein is involved in seed coloration, protein trafficking to vacuoles, and vacuolar biogenesis. Journal of Experimental Botany, 2020, 71, 3999-4009.	4.8	10
80	A non-destructive screenable marker, OsFAST, for identifying transgenic rice seeds. Plant Signaling and Behavior, 2011, 6, 1454-1456.	2.4	9
81	Endoplasmic Reticulum (ER) Membrane Proteins (LUNAPARKs) are Required for Proper Configuration of the Cortical ER Network in Plant Cells. Plant and Cell Physiology, 2018, 59, 1931-1941.	3.1	8
82	Fluorescent protein-based imaging and tissue-specific RNA-seq analysis of Arabidopsis hydathodes. Journal of Experimental Botany, 2021, 72, 1260-1270.	4.8	8
83	Biogenesis of leaf endoplasmic reticulum body is regulated by both jasmonate-dependent and independent pathways. Plant Signaling and Behavior, 2019, 14, 1622982.	2.4	6
84	A Novel Membrane Protein That Is Transported to Protein Storage Vacuoles via Precursor-Accumulating Vesicles. Plant Cell, 2001, 13, 2361.	6.6	3
85	Spatiotemporal relationship between auxin dynamics and hydathode development in Arabidopsis leaf teeth. Plant Signaling and Behavior, 2021, , 1989216.	2.4	3
86	Selfâ€organizing researcher networks in the plant sciences. Plants People Planet, 2019, 1, 44-47.	3.3	2
87	Evaluation of Defective Endosomal Trafficking to the Vacuole by Monitoring Seed Storage Proteins in Arabidopsis thaliana. Methods in Molecular Biology, 2014, 1209, 131-142.	0.9	2
88	Subcellular localisation of an endoplasmic reticulum-plasma membrane tethering factor, SYNAPTOTAGMIN 1, is affected by fluorescent protein fusion. Plant Signaling and Behavior, 2018, 13, e1547577.	2.4	1
89	Isolation of Protein Storage Vacuoles and Their Membranes. Methods in Molecular Biology, 2017, 1511, 163-168.	0.9	0