Matsuo Uemura

List of Publications by Year
in descending order

116 papers	6,703 citations	81839 39 h-index	64755 79 g-index
122 all docs	122 docs citations	122 times ranked	5627 citing authors

#	Article	IF	Citations
1	Identification of 33 Rice Aquaporin Genes and Analysis of Their Expression and Function. Plant and Cell Physiology, 2005, 46, 1568-1577.	1.5	527
2	Cold Acclimation of Arabidopsis thaliana (Effect on Plasma Membrane Lipid Composition and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702	2.3	497
3	Constitutive expression of the cold-regulated Arabidopsis thaliana COR15a gene affects both chloroplast and protoplast freezing tolerance. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 13404-13409.	3.3	380
4	Mode of action of the COR15a gene on the freezing tolerance of Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 14570-14575.	3.3	379
5	Auxin Response in<i>Arabidopsis</i>under Cold Stress: Underlying Molecular Mechanisms Â. Plant Cell, 2010, 21, 3823-3838.	3.1	292
6	A Contrast of the Plasma Membrane Lipid Composition of Oat and Rye Leaves in Relation to Freezing Tolerance. Plant Physiology, 1994, 104, 479-496.	2.3	250
7	Mass spectrometric approach for identifying putative plasma membrane proteins ofArabidopsisleaves associated with cold acclimation. Plant Journal, 2003, 36, 141-154.	2.8	241
8	Responses of the plasma membrane to low temperatures. Physiologia Plantarum, 2006, 126, 81-89.	2.6	212
9	Lipid Composition of Plasma Membranes and Tonoplasts Isolated from Etiolated Seedlings of Mung Bean (<i>Vigna radiata</i> L.). Plant Physiology, 1986, 82, 807-812.	2.3	196
10	Partition of Membrane Particles in Aqueous Two-Polymer Phase System and Its Practical Use for Purification of Plasma Membranes from Plants. Plant Physiology, 1983, 72, 105-114.	2.3	168
11	Involvement of Plasma Membrane Alterations in Cold Acclimation of Winter Rye Seedlings (<i>Secale) Tj ETQq1 1 0.784314 rgBT /Overl	2.3	158
12	Alterations in Detergent-Resistant Plasma Membrane Microdomains in Arabidopsis thaliana During Cold Acclimation. Plant and Cell Physiology, 2009, 50, 341-359.	1.5	145
13	A Comparison of Freezing Injury in Oat and Rye: Two Cereals at the Extremes of Freezing Tolerance. Plant Physiology, 1994, 104, 467-478.	2.3	144
14	Protein and Lipid Compositions of Isolated Plasma Membranes from Orchard Grass (Dactylis) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 T	2.3	143
15	Calcium-Dependent Freezing Tolerance in <i>Arabidopsis</i> Involves Membrane Resealing via Synaptotagmin SYT1. Plant Cell, 2009, 20, 3389-3404.	3.1	139
16	Tissue and Cell-Specific Localization of Rice Aquaporins and Their Water Transport Activities. Plant and Cell Physiology, 2008, 49, 30-39.	1.5	123
17	Plant plasma membrane proteomics for improving cold tolerance. Frontiers in Plant Science, 2013, 4, 90.	1.7	115
18	Transformation of the cryobehavior of rye protoplasts by modification of the plasma membrane lipid composition. Proceedings of the National Academy of Sciences of the United States of America, 1988, 85, 9026-9030.	3.3	103

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19	<i>Klebsormidium flaccidum</i>, a charophycean green alga, exhibits cold acclimation that is closely associated with compatible solute accumulation and ultrastructural changes. Plant, Cell and Environment, 2008, 31, 872-885.	2.8	101
20	Proteomics of the rice cell: systematic identification of the protein populations in subcellular compartments. Molecular Genetics and Genomics, 2004, 271, 566-576.	1.0	99
21	Cold Stress-Induced Acclimation in Rice is Mediated by Root-Specific Aquaporins. Plant and Cell Physiology, 2012, 53, 1445-1456.	1.5	90
22	Freezing Sensitivity in the sfr4 Mutant of Arabidopsis Is Due to Low Sugar Content and Is Manifested by Loss of Osmotic Responsiveness. Plant Physiology, 2003, 131, 1800-1807.	2.3	83
23	Cold Acclimation in Plants: Relationship Between the Lipid Composition and the Cryostability of the Plasma Membrane. Journal of Plant Research, 1999, 112, 245-254.	1.2	82
24	Modification of the intracellular sugar content alters the incidence of freeze-induced membrane lesions of protoplasts isolated from Arabidopsis thaliana leaves. Plant, Cell and Environment, 2003, 26, 1083-1096.	2.8	82
25	Properties of Plasma Membrane Isolated from Chilling-Sensitive Etiolated Seedlings of <i>Vigna radiata</i> L.. Plant Physiology, 1986, 80, 152-160.	2.3	79
26	Analysis of Differential Expression Patterns of mRNA and Protein During Cold-acclimation and De-acclimation in Arabidopsis. Molecular and Cellular Proteomics, 2014, 13, 3602-3611.	2.5	78
27	Arabidopsis Synaptotagmin SYT1, a Type I Signal-anchor Protein, Requires Tandem C2 Domains for Delivery to the Plasma Membrane. Journal of Biological Chemistry, 2010, 285, 23165-23176.	1.6	71
28	Isolation and Identification of Plasma Membrane from Light-Grown Winter Rye Seedlings (Secale) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	2.3	68
29	Effect of Cold Acclimation on the Lipid Composition of the Inner and Outer Membrane of the Chloroplast Envelope Isolated from Rye Leaves. Plant Physiology, 1997, 114, 1493-1500.	2.3	65
30	Proline synthesis, physiological responses and biomass yield of eggplants during and after repetitive soil moisture stress. Scientia Horticulturae, 2005, 103, 387-402.	1.7	64
31	Phylogenetic footprint of the plant clock system in angiosperms: evolutionary processes of Pseudo-Response Regulators. BMC Evolutionary Biology, 2010, 10, 126.	3.2	64
32	Molecular phylogeny and expression of poplar circadian clock genes, <i>LHY1</i> and<i> LHY2</i>. New Phytologist, 2009, 181, 808-819.	3.5	63
33	Comparison of Plasma Membrane Proteomic Changes of Arabidopsis Suspension-Cultured Cells (T87) Tj ETQq1 1 0.784314 rgBT /Overl Cell Physiology, 2012, 53, 543-554.	1.5	58
34	Studies on Freezing Injury in Plant Cells. Plant Physiology, 1986, 80, 187-195.	2.3	52
35	Lipid profiles of detergent resistant fractions of the plasma membrane in oat and rye in association with cold acclimation and freezing tolerance. Cryobiology, 2016, 72, 123-134.	0.3	52
36	Relative abundance of Î”⁵â€sterols in plasma membrane lipids of rootâ€tip cells correlates with aluminum tolerance of rice. Physiologia Plantarum, 2009, 135, 73-83.	2.6	51

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37	Cold acclimation is accompanied by complex responses of glycosylphosphatidylinositol (GPI)-anchored proteins in Arabidopsis. Journal of Experimental Botany, 2016, 67, 5203-5215.	2.4	48
38	Temporal proteomics of Arabidopsis plasma membrane during cold- and de-acclimation. Journal of Proteomics, 2019, 197, 71-81.	1.2	45
39	Changes of Detergent-Resistant Plasma Membrane Proteins in Oat and Rye during Cold Acclimation: Association with Differential Freezing Tolerance. Journal of Proteome Research, 2013, 12, 4998-5011.	1.8	43
40	Detergent-resistant Plasma Membrane Proteome in Oat and Rye: Similarities and Dissimilarities between Two Monocotyledonous Plants. Journal of Proteome Research, 2012, 11, 1654-1665.	1.8	40
41	Effect of Cold Acclimation on the Incidence of Two Forms of Freezing Injury in Protoplasts Isolated from Rye Leaves. Plant Physiology, 1989, 91, 1131-1137.	2.3	39
42	Effects of COR6.6 and COR15am Polypeptides Encoded by COR (Cold-Regulated) Genes of Arabidopsis thaliana on the Freeze-Induced Fusion and Leakage of Liposomes. Plant Physiology, 1996, 111, 313-327.	2.3	39
43	The Distinct Functional Roles of the Inner and Outer Chloroplast Envelope of Pea (<i>Pisum) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	1.8	37
44	Proteomic analysis reveals that tomato interaction with plant growth promoting bacteria is highly determined by ethylene perception. Journal of Plant Physiology, 2018, 220, 43-59.	1.6	36
45	A Shotgun Proteomic Approach Reveals That Fe Deficiency Causes Marked Changes in the Protein Profiles of Plasma Membrane and Detergent-Resistant Microdomain Preparations from <i>Beta vulgaris</i> Roots. Journal of Proteome Research, 2016, 15, 2510-2524.	1.8	35
46	Temperature-Triggered Periodical Thermogenic Oscillations in Skunk Cabbage (Symplocarpus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382	1.5	34
47	Tissue-specific changes in apoplastic proteins and cell wall structure during cold acclimation of winter wheat crowns. Journal of Experimental Botany, 2018, 69, 1221-1234.	2.4	34
48	Regulation of Sugar and Storage Oil Metabolism by Phytochrome during De-etiolation. Plant Physiology, 2020, 182, 1114-1129.	2.3	29
49	Isolation and Characterization of Tonoplast from Chilling-Sensitive Etiolated Seedlings of Vigna radiata L.. Plant Physiology, 1986, 80, 161-166.	2.3	27
50	Higher sterol content regulated by CYP51 with concomitant lower phospholipid content in membranes is a common strategy for aluminium tolerance in several plant species. Journal of Experimental Botany, 2015, 66, 907-918.	2.4	27
51	Quality and microbial evaluation of fresh-cut apples during 10 days of supercooled storage. Food Control, 2021, 126, 108014.	2.8	27
52	Detergent-resistant plasma membrane proteome to elucidate microdomain functions in plant cells. Frontiers in Plant Science, 2013, 4, 27.	1.7	26
53	Plasma Membrane Aquaporin Members PIPs Act in Concert to Regulate Cold Acclimation and Freezing Tolerance Responses in Arabidopsis thaliana. Plant and Cell Physiology, 2020, 61, 787-802.	1.5	26
54	Structural requirements for the perception of ambient temperature signals in homeothermic heat production of skunk cabbage (Symlocarpus foetidus). Plant, Cell and Environment, 2003, 26, 783-788.	2.8	24

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55	Calcium Signaling-Linked<i>CBF/DREB1</i>Gene Expression was Induced Depending on the Temperature Fluctuation in the Field: Views from the Natural Condition of Cold Acclimation. Plant and Cell Physiology, 2019, 60, 303-317.	1.5	24
56	Cryobehavior of the Plasma Membrane in Protoplasts Isolated from Cold-Acclimated Arabidopsis Leaves is Related to Surface Area Regulation. Plant and Cell Physiology, 2008, 49, 944-957.	1.5	23
57	<i>Allium fistulosum</i> as a novel system to investigate mechanisms of freezing resistance. Physiologia Plantarum, 2013, 147, 101-111.	2.6	23
58	Cryopreservation of In Vitro. Grown Apical Shoot Tips of Strawberry by Vitrification.. Plant Biotechnology, 2003, 20, 75-80.	0.5	22
59	Extracellular freezing-induced mechanical stress and surface area regulation on the plasma membrane in cold-acclimated plant cells. Plant Signaling and Behavior, 2009, 4, 231-233.	1.2	22
60	Effects of Fe and Mn deficiencies on the protein profiles of tomato (Solanum lycopersicum) xylem sap as revealed by shotgun analyses. Journal of Proteomics, 2018, 170, 117-129.	1.2	22
61	Magnesium inhibits cadmium translocation from roots to shoots, rather than the uptake from roots, in barley. Botany, 2015, 93, 345-351.	0.5	21
62	Dynamic compositional changes of detergent-resistant plasma membrane microdomains during plant cold acclimation. Plant Signaling and Behavior, 2010, 5, 1115-1118.	1.2	20
63	<scp>A</scp>rabidopsis dynaminâ€related protein 1<scp>E</scp> in sphingolipidâ€enriched plasma membrane domains is associated with the development of freezing tolerance. Plant Journal, 2015, 83, 501-514.	2.8	20
64	Large-Scale Phosphoproteomic Study of Arabidopsis Membrane Proteins Reveals Early Signaling Events in Response to Cold. International Journal of Molecular Sciences, 2020, 21, 8631.	1.8	19
65	Solute accumulation in heat seedlings during cold acclimation: contribution to increased freezing tolerance. Cryo-Letters, 2004, 25, 311-22.	0.1	19
66	Freezing Tolerance of Plant Cells: From the Aspect of Plasma Membrane and Microdomain. Advances in Experimental Medicine and Biology, 2018, 1081, 61-79.	0.8	18
67	Effect of Cold Acclimation on Membrane Lipid Composition and Freeze-Induced Membrane Destablization. , 1997, , 171-179.		18
68	Plasma Membrane Lipids Are the Powerful Components for Early Stage Aluminum Tolerance in Triticale. Soil Science and Plant Nutrition, 2005, 51, 701-704.	0.8	17
69	Characteristics of ultrasonic acoustic emissions from walnut branches during freezeâ€“thaw-induced embolism formation. Journal of Experimental Botany, 2015, 66, 1965-1975.	2.4	17
70	Effects of manganese toxicity on the protein profile of tomato (Solanum lycopersicum) roots as revealed by two complementary proteomic approaches, two-dimensional electrophoresis and shotgun analysis. Journal of Proteomics, 2018, 185, 51-63.	1.2	17
71	Cryopreservation of shoot apices of in-vitro grown gentian plants: comparison of vitrification and encapsulation-vitrification protocols. Cryo-Letters, 2004, 25, 167-76.	0.1	16
72	Characterization of growth-phase-specific responses to cold in Arabidopsis thaliana suspension-cultured cells. Plant, Cell and Environment, 2008, 31, 354-365.	2.8	14

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73	Aquaporins in developing rice grains. Bioscience, Biotechnology and Biochemistry, 2015, 79, 1422-1429.	0.6	14
74	Shotgun Proteomics of Plant Plasma Membrane and Microdomain Proteins Using Nano-LC-MS/MS. Methods in Molecular Biology, 2014, 1072, 481-498.	0.4	14
75	Parallel Effects of Freezing and Osmotic Stress on the ATPase Activity and Protein Composition of the Plasma Membrane of Winter Rye Seedlings. Plant Physiology, 1989, 91, 961-969.	2.3	13
76	Proteomic Approaches to Identify Cold-Regulated Plasma Membrane Proteins. Methods in Molecular Biology, 2014, 1166, 159-170.	0.4	12
77	Sucrose phosphate phosphatase in the green alga Klebsormidium flaccidum (Streptophyta) lacks an extensive C-terminal domain and differs from that of land plants. Planta, 2012, 235, 851-861.	1.6	10
78	Effects of Excess Manganese on the Xylem Sap Protein Profile of Tomato (Solanum lycopersicum) as Revealed by Shotgun Proteomic Analysis. International Journal of Molecular Sciences, 2020, 21, 8863.	1.8	10
79	Cadmium sorption to plasma membrane isolated from barley roots is impeded by copper association onto membranes. Plant Science, 2011, 180, 300-305.	1.7	9
80	Plasma Membrane Proteomics of Arabidopsis Suspension-Cultured Cells Associated with Growth Phase Using Nano-LC-MS/MS. Methods in Molecular Biology, 2018, 1696, 185-194.	0.4	9
81	Plasma membrane proteome analyses of Arabidopsis thaliana suspension-cultured cells during cold or ABA treatment: Relationship with freezing tolerance and growth phase. Journal of Proteomics, 2020, 211, 103528.	1.2	9
82	Comparison of response of two C3 species to leaf water relation, proline synthesis, gas exchange and water use under periodic water stress. Journal of Plant Biology, 2004, 47, 33-41.	0.9	8
83	Roles of cell walls and intracellular contents in supercooling capability of xylem parenchyma cells of boreal trees. Physiologia Plantarum, 2013, 148, 25-35.	2.6	8
84	Effects of the blue lightâ€"cryptochrome system on the early process of cold acclimation of Arabidopsis thaliana. Environmental and Experimental Botany, 2021, 183, 104340.	2.0	8
85	Decreased R:FR Ratio in Incident White Light Affects the Composition of Barley Leaf Lipidome and Freezing Tolerance in a Temperature-Dependent Manner. International Journal of Molecular Sciences, 2020, 21, 7557.	1.8	7
86	Changes in the Plasma Membrane from Arabidopsis Thaliana within One Week of Cold Acclimation. , 2002, , 181-194.		6
87	Mechanical Properties and Viability of Japanese Radish Cylinders immersed in Sodium Chloride Solutions. Biosystems Engineering, 2005, 92, 335-340.	1.9	6
88	Cryopreservation of shoot tips of endangered Hayachine-usuyukiso (Leontopodium hayachinense) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Utilisation, 2008, 6, 164-166.	0.4	6
89	The <i>Brachypodium distachyon</i> cold-acclimated plasma membrane proteome is primed for stress resistance. G3: Genes, Genomes, Genetics, 2021, 11, .	0.8	6
90	In Planta Monitoring of Cold-Responsive Promoter Activity Reveals a Distinctive Photoperiodic Response in Cold Acclimation. Plant and Cell Physiology, 2021, 62, 43-52.	1.5	5

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91	Evaluation of Electrical and Physiological Properties of Supercooled Fresh Cut Spinach. Journal of the Japanese Society for Food Science and Technology, 2019, 66, 335-340.	0.1	5
92	Effects of Fe and Mn Deficiencies on the Root Protein Profiles of Tomato (Solanum lycopersicum) Using Two-Dimensional Electrophoresis and Label-Free Shotgun Analyses. International Journal of Molecular Sciences, 2022, 23, 3719.	1.8	5
93	A New and Simple Technique for the Isolation of Plasma Membrane Lipids from Root-Tips. Soil Science and Plant Nutrition, 2005, 51, 135-139.	0.8	4
94	Plant strategies for survival in changing environment. Physiologia Plantarum, 2013, 147, 1-3.	2.6	4
95	Isolation of Plasma Membrane and Plasma Membrane Microdomains. Methods in Molecular Biology, 2017, 1511, 199-212.	0.4	4
96	Cryopreservation of Plant Genetic Resources. Advances in Experimental Medicine and Biology, 2018, 1081, 355-369.	0.8	4
97	Assessing the supercooling of fresh-cut onions at â˘'5Â°C using electrical impedance analysis. Food Quality and Safety, 2020, 4, 55-58.	0.6	4
98	Redesigning Crops for Increased Tolerance to Freezing Stress. , 1993, , 697-714.		4
99	Chilling Tolerance and Field Performance of an F1 Cooking Tomato Cultivar, Nitaki-Koma, Relative to Its Parents. Breeding Science, 2006, 56, 269-276.	0.9	2
100	Confocal cryomicroscopic analysis and cryodynamics of endoplasmic reticulum in herbaceous plant cells. Environmental and Experimental Botany, 2014, 106, 44-51.	2.0	2
101	Proteins Associated with Oxidative Burst and Cell Wall Strengthening Accumulate During Citrus-Xanthomonas Non-Host Interaction. Plant Molecular Biology Reporter, 2015, 33, 1349-1360.	1.0	2
102	Season specificity in the coldâ€induced calcium signal and the volatile chemicals in the atmosphere. Physiologia Plantarum, 2020, 168, 803-818.	2.6	2
103	A single seed treatment mediated through reactive oxygen species increases germination, growth performance, and abiotic stress tolerance in Arabidopsis and rice. Bioscience, Biotechnology and Biochemistry, 2020, 84, 2597-2608.	0.6	2
104	Proteomic Approaches to Identify Cold-Regulated Plasma. Methods in Molecular Biology, 2020, 2156, 171-186.	0.4	2
105	Using Synchrotron FTIR and Confocal Cryomicroscopy to Explore Mechanisms of Cold Acclimation and Freezing Resistance Using a Single Cell Layer of Allium fistulosum L. , 2013, , 165-177.		2
106	Change in Density of Japanese Radish Cylinders Immersed in NaCl Solution and Its Mathematical Model.. Journal of the Japanese Society for Food Science and Technology, 2000, 47, 439-444.	0.1	1
107	Data on xylem sap proteins from Mn- and Fe-deficient tomato plants obtained using shotgun proteomics. Data in Brief, 2018, 17, 512-516.	0.5	1
108	Changes in Antioxidative Enzyme Activities and Physicochemical Properties of Tomato Fruits during Post-harvest Ripening. Environmental Control in Biology, 2008, 46, 147-153.	0.3	1

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109	Shotgun Proteomics of Plant Plasma Membrane and Microdomain Proteins Using Nano-LC-MS/MS. Methods in Molecular Biology, 2020, 2139, 89-106.	0.4	1
110	Effect of Supercooled Storage on Maintaining the Quality of Fresh-cut Pear. Journal of the Japanese Society for Food Science and Technology, 2021, 68, 455-463.	0.1	1
111	A comparison of freezing vs hypertonic stress on the ATPase activity and protein composition of the plasma membrane of winter rye seedlings. Cryobiology, 1987, 24, 557-558.	0.3	0
112	Cell Viability of Japanese Radish Cylinders Immersed in Hypertonic Solutions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 149-154.	0.4	0
113	Akira Sakai (1920â€"2012). Cryobiology, 2013, 66, 1-2.	0.3	0
114	Freeze-substitution transmission electron microscopy of gentian shoot tips cryopreserved at ultra low temperatures. Plant Biotechnology, 2018, 35, 335-340.	0.5	0
115	Cold Sensing in Cold Acclimation Process: for Understanding the Season Sensing of Plants. Seibutsu Butsuri, 2020, 60, 098-101.	0.0	0
116	Study on Moisture Content Changes during Atmospheric Freeze Drying of Fresh-cut Japanese Radish and its Quality after Drying and Rehydration. Journal of the Japanese Society for Food Science and Technology, 2021, 68, 464-470.	0.1	0