Michael Broberg Palmgren

List of Publications by Year
in descending order

181 papers	17,935 citations	14655 66 h-index	13771 129 g-index
222 all docs	222 docs citations	222 times ranked	13614 citing authors

#	Article	IF	Citations
1	A long way ahead: understanding and engineering plant metal accumulation. Trends in Plant Science, 2002, 7, 309-315.	8.8	1,083
2	Evolution of Substrate Specificities in the P-Type ATPase Superfamily. Journal of Molecular Evolution, 1998, 46, 84-101.	1.8	830
3	PLANTPLASMAMEMBRANEH+-ATPases: Powerhouses for Nutrient Uptake. Annual Review of Plant Biology, 2001, 52, 817-845.	14.3	744
4	P-Type ATPases. Annual Review of Biophysics, 2011, 40, 243-266.	10.0	558
5	Root Plasma Membrane Transporters Controlling K+/Na+ Homeostasis in Salt-Stressed Barley. Plant Physiology, 2007, 145, 1714-1725.	4.8	458
6	Plant proton pumps. FEBS Letters, 2007, 581, 2204-2214.	2.8	450
7	Zinc biofortification of cereals: problems and solutions. Trends in Plant Science, 2008, 13, 464-473.	8.8	446
8	Energization of Plant Cell Membranes by H+-Pumping ATPases: Regulation and Biosynthesis. Plant Cell, 1999, 11, 677-689.	6.6	433
9	Inventory of the Superfamily of P-Type Ion Pumps in Arabidopsis. Plant Physiology, 2001, 126, 696-706.	4.8	402
10	Plasma Membrane H + -ATPase Regulation in the Center of Plant Physiology. Molecular Plant, 2016, 9, 323-337.	8.3	391
11	Arabidopsis Protein Kinase PKS5 Inhibits the Plasma Membrane H+-ATPase by Preventing Interaction with 14-3-3 Protein. Plant Cell, 2007, 19, 1617-1634.	6.6	388
12	Crystal structure of the plasma membrane proton pump. Nature, 2007, 450, 1111-1114.	27.8	359
13	A structural overview of the plasma membrane Na+,K+-ATPase and H+-ATPase ion pumps. Nature Reviews Molecular Cell Biology, 2011, 12, 60-70.	37.0	345
14	Genomic Comparison of P-Type ATPase Ion Pumps in Arabidopsis and Rice. Plant Physiology, 2003, 132, 618-628.	4.8	320
15	Binding of 14-3-3 Protein to the Plasma Membrane H+-ATPase AHA2 Involves the Three C-terminal Residues Tyr946-Thr-Val and Requires Phosphorylation of Thr947. Journal of Biological Chemistry, 1999, 274, 36774-36780.	3.4	311
16	Plant ABC Transporters Enable Many Unique Aspects of a Terrestrial Plant's Lifestyle. Molecular Plant, 2016, 9, 338-355.	8.3	302
17	A plant plasma membrane Ca2+ pump is required for normal pollen tube growth and fertilization. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9502-9507.	7.1	293
18	Energization of Transport Processes in Plants. Roles of the Plasma Membrane H+-ATPase. Plant Physiology, 2004, 136, 2475-2482.	4.8	290

#	Article	IF	Citations
19	Transcriptome analysis of root transporters reveals participation of multiple gene families in the response to cation stress. Plant Journal, 2003, 35, 675-692.	5.7	286
20	Temporal Analysis of Sucrose-induced Phosphorylation Changes in Plasma Membrane Proteins of Arabidopsis. Molecular and Cellular Proteomics, 2007, 6, 1711-1726.	3.8	251
21	RIN4 Functions with Plasma Membrane H+-ATPases to Regulate Stomatal Apertures during Pathogen Attack. PLoS Biology, 2009, 7, e1000139.	5.6	240
22	The 14-3-3 protein interacts directly with the C-terminal region of the plant plasma membrane H(+)-ATPase.. Plant Cell, 1997, 9, 1805-1814.	6.6	218
23	Evolution of P-type ATPases. Biochimica Et Biophysica Acta - Bioenergetics, 1998, 1365, 37-45.	1.0	206
24	Calcium Efflux Systems in Stress Signaling and Adaptation in Plants. Frontiers in Plant Science, 2011, 2, 85.	3.6	206
25	Are we ready for back-to-nature crop breeding?. Trends in Plant Science, 2015, 20, 155-164.	8.8	203
26	The <i>Arabidopsis</i> Chaperone J3 Regulates the Plasma Membrane H+-ATPase through Interaction with the PKS5 Kinase Â. Plant Cell, 2010, 22, 1313-1332.	6.6	200
27	The ACA4 Gene of Arabidopsis Encodes a Vacuolar Membrane Calcium Pump That Improves Salt Tolerance in Yeast. Plant Physiology, 2000, 124, 1814-1827.	4.8	194
28	Acridine orange as a probe for measuring pH gradients across membranes: Mechanism and limitations. Analytical Biochemistry, 1991, 192, 316-321.	2.4	186
29	Sealed Inside-Out and Right-Side-Out Plasma Membrane Vesicles. Plant Physiology, 1990, 92, 871-880.	4.8	184
30	Molecular aspects of higher plant P-type Ca2+-ATPases. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1465, 52-78.	2.6	178
31	Many rivers to cross: the journey of zinc from soil to seed. Frontiers in Plant Science, 2014, 5, 30.	3.6	160
32	Lysophosphatidylcholine Stimulates ATP Dependent Proton Accumulation in Isolated Oat Root Plasma Membrane Vesicles. Plant Physiology, 1989, 90, 1009-1014.	4.8	156
33	ECA3, a Golgi-Localized P2A-Type ATPase, Plays a Crucial Role in Manganese Nutrition in Arabidopsis. Plant Physiology, 2008, 146, 116-128.	4.8	155
34	Chilling Tolerance in Arabidopsis Involves ALA1, a Member of a New Family of Putative Aminophospholipid Translocases. Plant Cell, 2000, 12, 2441-2453.	6.6	148
35	Pumping with plant P-type ATPases. Journal of Experimental Botany, 1999, 50, 883-893.	4.8	147
36	A Novel Calmodulin-regulated Ca2+-ATPase (ACA2) from Arabidopsis with an N-terminal Autoinhibitory Domain. Journal of Biological Chemistry, 1998, 273, 1099-1106.	3.4	143

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37	Evolution of Plant P-Type ATPases. Frontiers in Plant Science, 2012, 3, 31.	3.6	132
38	Modulation of plasma membrane H+-ATPase from oat roots by lysophosphatidylcholine, free fatty acids and phospholipase A2. Physiologia Plantarum, 1988, 74, 11-19.	5.2	131
39	The <i>Arabidopsis</i> P4-ATPase ALA3 Localizes to the Golgi and Requires a Î²-Subunit to Function in Lipid Translocation and Secretory Vesicle Formation. Plant Cell, 2008, 20, 658-676.	6.6	129
40	P-type ATPases as drug targets: Tools for medicine and science. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 207-220.	1.0	129
41	A CRISPR way for accelerating improvement of food crops. Nature Food, 2020, 1, 200-205.	14.0	125
42	Regulation of plant plasma membrane H+-ATPase activity. Physiologia Plantarum, 1991, 83, 314-323.	5.2	123
43	14-3-3 proteins activate a plant calcium-dependent protein kinase (CDPK). FEBS Letters, 1998, 430, 381-384.	2.8	122
44	At-ACA8 Encodes a Plasma Membrane-Localized Calcium-ATPase of Arabidopsis with a Calmodulin-Binding Domain at the N Terminus. Plant Physiology, 2000, 123, 1495-1506.	4.8	120
45	Accelerating the Domestication of New Crops: Feasibility and Approaches. Trends in Plant Science, 2017, 22, 373-384.	8.8	117
46	Phosphorylation of SOS3-Like Calcium-Binding Proteins by Their Interacting SOS2-Like Protein Kinases Is a Common Regulatory Mechanism in Arabidopsis Â Â. Plant Physiology, 2011, 156, 2235-2243.	4.8	116
47	The 14-3-3 Protein Interacts Directly with the C-Terminal Region of the Plant Plasma Membrane H + -ATPase. Plant Cell, 1997, 9, 1805.	6.6	113
48	Receptor kinaseâ€mediated control of primary active proton pumping at the plasma membrane. Plant Journal, 2014, 80, 951-964.	5.7	112
49	A bimodular mechanism of calcium control in eukaryotes. Nature, 2012, 491, 468-472.	27.8	110
50	Proton Gradients and Plant Growth: Role of the Plasma Membrane H+-ATPase. Advances in Botanical Research, 1998, , 1-70.	1.1	107
51	P4-ATPases: lipid flippases in cell membranes. Pflugers Archiv European Journal of Physiology, 2014, 466, 1227-1240.	2.8	104
52	A calmodulin-stimulated Ca2+ -ATPase from plant vacuolar membranes with a putative regulatory domain at its N-terminus 1. FEBS Letters, 1997, 400, 324-328.	2.8	99
53	Plasma membrane H⁺â€ATPaseâ€dependent citrate exudation from cluster roots of phosphateâ€deficient white lupin. Plant, Cell and Environment, 2009, 32, 465-475.	5.7	99
54	The Binding Site for Regulatory 14-3-3 Protein in Plant Plasma Membrane H+-ATPase. Journal of Biological Chemistry, 2003, 278, 42266-42272.	3.4	96

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55	Protons and how they are transported by proton pumps. Pflugers Archiv European Journal of Physiology, 2009, 457, 573-579.	2.8	96
56	Molecular Dissection of the C-Terminal Regulatory Domain of the Plant Plasma Membrane H+-ATPase AHA2:â€‰ Mapping of Residues that When Altered Give Rise to an Activated Enzyme. Biochemistry, 1999, 38, 7227-7234.	2.5	94
57	Feasibility of new breeding techniques for organic farming. Trends in Plant Science, 2015, 20, 426-434.	8.8	94
58	Effect of detergents on the H+-ATPase activity of inside-out and right-side-out plant plasma membrane vesicles. Biochimica Et Biophysica Acta - Biomembranes, 1990, 1021, 133-140.	2.6	93
59	An H⁺-ATPase Assay: Proton Pumping and ATPase Activity Determined Simultaneously in the Same Sample. Plant Physiology, 1990, 94, 882-886.	4.8	90
60	A lipid switch unlocks Parkinsonâ€™s disease-associated ATP13A2. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9040-9045.	7.1	87
61	Pollen development and fertilization in Arabidopsis is dependent on the MALE GAMETOGENESIS IMPAIRED ANTHERS gene encoding a Type V P-type ATPase. Genes and Development, 2005, 19, 2757-2769.	5.9	86
62	Intracellular Targeting Signals and Lipid Specificity Determinants of the ALA/ALIS P₄-ATPase Complex Reside in the Catalytic ALA Î±-Subunit. Molecular Biology of the Cell, 2010, 21, 791-801.	2.1	84
63	Plasma membrane H+-ATPases sustain pollen tube growth and fertilization. Nature Communications, 2020, 11, 2395.	12.8	80
64	A Combined Zinc/Cadmium Sensor and Zinc/Cadmium Export Regulator in a Heavy Metal Pump. Journal of Biological Chemistry, 2010, 285, 31243-31252.	3.4	73
65	Metabolic Modulation of Transport Coupling Ratio in Yeast Plasma Membrane H+-ATPase. Journal of Biological Chemistry, 1995, 270, 19659-19667.	3.4	71
66	A phospholipid uptake system in the model plant Arabidopsis thaliana. Nature Communications, 2015, 6, 7649.	12.8	71
67	Two-dimensional crystallization of a membrane protein on a detergent-resistant lipid monolayer 1 1Edited by R. Huber. Journal of Molecular Biology, 2001, 308, 639-647.	4.2	68
68	Cellular function and pathological role of ATP13A2 and related P-type transport ATPases in Parkinson's disease and other neurological disorders. Frontiers in Molecular Neuroscience, 2014, 7, 48.	2.9	68
69	Modified plant plasma membrane H+-ATPase with improved transport coupling efficiency identified by mutant selection in yeast. Plant Journal, 1996, 10, 451-458.	5.7	67
70	Complementation in situ of the yeast plasma membrane H+-ATPase genepmalby an H+-ATPase gene from a heterologous species. FEBS Letters, 1993, 317, 216-222.	2.8	66
71	Roadmap for Accelerated Domestication of an Emerging Perennial Grain Crop. Trends in Plant Science, 2020, 25, 525-537.	8.8	65
72	Structure and mechanism of ATP-dependent phospholipid transporters. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 461-475.	2.4	64

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73	Flippases: still more questions than answers. Cellular and Molecular Life Sciences, 2008, 65, 3119-3125.	5.4	62
74	Mother-plant-mediated pumping of zinc into the developing seed. Nature Plants, 2016, 2, 16036.	9.3	62
75	Tonoplast-localized Ca ²⁺ pumps regulate Ca ²⁺ signals during pattern-triggered immunity in <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18849-18857.	7.1	62
76	A Novel Mechanism of P-type ATPase Autoinhibition Involving Both Termini of the Protein. Journal of Biological Chemistry, 2010, 285, 7344-7350.	3.4	61
77	Phosphosite Mapping of P-type Plasma Membrane H+-ATPase in Homologous and Heterologous Environments. Journal of Biological Chemistry, 2012, 287, 4904-4913.	3.4	60
78	Potassium as an Intrinsic Uncoupler of the Plasma Membrane H+-ATPase*. Journal of Biological Chemistry, 2006, 281, 38285-38292.	3.4	59
79	Phylogenetic analysis of P5 P-type ATPases, a eukaryotic lineage of secretory pathway pumps. Molecular Phylogenetics and Evolution, 2008, 46, 619-634.	2.7	58
80	The Plant Plasma Membrane Ca2+ Pump ACA8 Contains Overlapping as Well as Physically Separated Autoinhibitory and Calmodulin-binding Domains. Journal of Biological Chemistry, 2006, 281, 1058-1065.	3.4	57
81	Barley HvHMA1 Is a Heavy Metal Pump Involved in Mobilizing Organellar Zn and Cu and Plays a Role in Metal Loading into Grains. PLoS ONE, 2012, 7, e49027.	2.5	56
82	C-Terminal Deletion Analysis of Plant Plasma Membrane H + -ATPase: Yeast as a Model System for Solute Transport across the Plant Plasma Membrane. Plant Cell, 1995, 7, 1655.	6.6	54
83	Prospects for the accelerated improvement of the resilient crop quinoa. Journal of Experimental Botany, 2020, 71, 5333-5347.	4.8	49
84	Abolishment of Proton Pumping and Accumulation in the E1P Conformational State of a Plant Plasma Membrane H+-ATPase by Substitution of a Conserved Aspartyl Residue in Transmembrane Segment 6. Journal of Biological Chemistry, 2000, 275, 39167-39173.	3.4	48
85	Two plant Ca2+ pumps expressed in stomatal guard cells show opposite expression patterns during cold stress. Physiologia Plantarum, 2005, 124, 278-283.	5.2	48
86	Phospholipid flipping involves a central cavity in P4 ATPases. Scientific Reports, 2017, 7, 17621.	3.3	48
87	Parkinson disease related ATP13A2 evolved early in animal evolution. PLoS ONE, 2018, 13, e0193228.	2.5	47
88	Pumping with plant P-type ATPases. Journal of Experimental Botany, 1999, 50, 883-893.	4.8	47
89	Evolution and a revised nomenclature of P4 ATPases, a eukaryotic family of lipid flippases. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 1135-1151.	2.6	46
90	Channelrhodopsin-mediated optogenetics highlights a central role of depolarization-dependent plant proton pumps. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20920-20925.	7.1	46

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91	Structural divergence between the two subgroups of P5 ATPases. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 846-855.	1.0	44
92	Regulation of Plant Plasma Membrane H+- and Ca2+-ATPases by Terminal Domains. Journal of Bioenergetics and Biomembranes, 2005, 37, 369-374.	2.3	43
93	Expression of the sarcoplasmic reticulum Ca2+-ATPase in yeast. FEBS Letters, 1994, 354, 117-122.	2.8	41
94	Plasma membrane Ca²⁺ transporters mediate virusâ€induced acquired resistance to oxidative stress. Plant, Cell and Environment, 2011, 34, 406-417.	5.7	41
95	Conserved Asp684 in Transmembrane Segment M6 of the Plant Plasma Membrane P-type Proton Pump AHA2 Is a Molecular Determinant of Proton Translocation. Journal of Biological Chemistry, 2003, 278, 17845-17851.	3.4	40
96	Towards defining the substrate of orphan P5A-ATPases. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 524-535.	2.4	40
97	Evidence for multiple receptors mediating RALFâ€triggered Ca²⁺ signaling and proton pump inhibition. Plant Journal, 2020, 104, 433-446.	5.7	40
98	GRF-GIF Chimeras Boost Plant Regeneration. Trends in Plant Science, 2021, 26, 201-204.	8.8	38
99	A Putative Plant Aminophospholipid Flippase, the Arabidopsis P4 ATPase ALA1, Localizes to the Plasma Membrane following Association with a Î²-Subunit. PLoS ONE, 2012, 7, e33042.	2.5	37
100	The P5A ATPase Spf1p is stimulated by phosphatidylinositol 4-phosphate and influences cellular sterol homeostasis. Molecular Biology of the Cell, 2019, 30, 1069-1084.	2.1	37
101	Loss of the Arabidopsis thaliana P4-ATPase ALA3 Reduces Adaptability to Temperature Stresses and Impairs Vegetative, Pollen, and Ovule Development. PLoS ONE, 2013, 8, e62577.	2.5	37
102	<i>Arabidopsis</i> ABCG28 is required for the apical accumulation of reactive oxygen species in growing pollen tubes. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12540-12549.	7.1	36
103	Roles of plasma membrane proton ATPases AHA2 and AHA7 in normal growth of roots and root hairs in <scp><i>Arabidopsis thaliana</i></scp>. Physiologia Plantarum, 2019, 166, 848-861.	5.2	36
104	The plasma membrane H⁺â€ATPase, a simple polypeptide with a long history. Yeast, 2019, 36, 201-210.	1.7	34
105	Loss of the Arabidopsis thaliana P4-ATPases ALA6 and ALA7 impairs pollen fitness and alters the pollen tube plasma membrane. Frontiers in Plant Science, 2015, 6, 197.	3.6	33
106	Specific Activation of the Plant P-type Plasma Membrane H+-ATPase by Lysophospholipids Depends on the Autoinhibitory N- and C-terminal Domains. Journal of Biological Chemistry, 2015, 290, 16281-16291.	3.4	33
107	Purification of a Histidine-Tagged Plant Plasma Membrane H+-ATPase Expressed in Yeast. Protein Expression and Purification, 1998, 12, 29-37.	1.3	32
108	Post-translational Modification of Plant Plasma Membrane H+-ATPase as a Requirement for Functional Complementation of a Yeast Transport Mutant. Journal of Biological Chemistry, 2002, 277, 6353-6358.	3.4	32

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109	A putative proton binding site of plasma membrane H+-ATPase identified through homology modelling. FEBS Letters, 2001, 494, 6-10.	2.8	30
110	Large scale expression, purification and 2D crystallization of recombinant plant plasma membrane H+-ATPase. Journal of Molecular Biology, 2001, 309, 465-476.	4.2	29
111	Lipid-conjugated fluorescent pH sensors for monitoring pH changes in reconstituted membrane systems. Analyst, The, 2015, 140, 6313-6320.	3.5	29
112	AS3MT-mediated tolerance to arsenic evolved by multiple independent horizontal gene transfers from bacteria to eukaryotes. PLoS ONE, 2017, 12, e0175422.	2.5	29
113	Catch You on the Flip Side: A Critical Review of Flippase Mutant Phenotypes. Trends in Plant Science, 2019, 24, 468-478.	8.8	29
114	Proton and calcium pumping P-type ATPases and their regulation of plant responses to the environment. Plant Physiology, 2021, 187, 1856-1875.	4.8	29
115	Mechanism of proton transport by plant plasma membrane proton ATPases. Journal of Plant Research, 2003, 116, 507-515.	2.4	28
116	Capturing of host DNA by a plant retroelement: Bs1 encodes plasma membrane H+-ATPase domains. Plant Molecular Biology, 1994, 25, 137-140.	3.9	26
117	Large-scale purification of the proton pumping pyrophosphatase from Thermotoga maritima: A â€œHot-Solveâ€•method for isolation of recombinant thermophilic membrane proteins. Biochimica Et Biophysica Acta - Biomembranes, 2005, 1716, 69-76.	2.6	25
118	The transport mechanism of P4 ATPase lipid flippases. Biochemical Journal, 2020, 477, 3769-3790.	3.7	25
119	Protein phosphatase 2A scaffolding subunit A interacts with plasma membrane H+-ATPase C-terminus in the same region as 14-3-3 protein. Physiologia Plantarum, 2006, 128, 334-340.	5.2	24
120	A High-Yield Co-Expression System for the Purification of an Intact Drs2p-Cdc50p Lipid Flippase Complex, Critically Dependent on and Stabilized by Phosphatidylinositol-4-Phosphate. PLoS ONE, 2014, 9, e112176.	2.5	23
121	Why do plants lack sodium pumps and would they benefit from having one?. Functional Plant Biology, 2017, 44, 473.	2.1	23
122	Phosphorylation-independent interaction between 14-3-3 protein and the plant plasma membrane H+-ATPase. Biochemical Society Transactions, 2002, 30, 411-415.	3.4	21
123	Post-translational modification of barley 14-3-3A is isoform-specific and involves removal of the hypervariable C-terminus. Plant Molecular Biology, 2002, 50, 535-542.	3.9	19
124	Structural identification of cation binding pockets in the plasma membrane proton pump. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21400-21405.	7.1	19
125	Active Plasma Membrane P-type H+-ATPase Reconstituted into Nanodiscs Is a Monomer. Journal of Biological Chemistry, 2013, 288, 26419-26429.	3.4	18
126	Pseudohyphal growth in <i>Saccharomyces cerevisiae</i> involves protein kinase-regulated lipid flippases. Journal of Cell Science, 2020, 133, .	2.0	18

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127	Activation of the plant plasma membrane H+-ATPase. Is there a direct interaction between lysophosphatidylcholine and the C-terminal part of the enzyme?. FEBS Letters, 1996, 398, 48-52.	2.8	17
128	Ca2+ Induces Spontaneous Dephosphorylation of a Novel P5A-type ATPase. Journal of Biological Chemistry, 2012, 287, 28336-28348.	3.4	17
129	Demethoxycurcumin Is A Potent Inhibitor of P-Type ATPases from Diverse Kingdoms of Life. PLoS ONE, 2016, 11, e0163260.	2.5	17
130	Heterologous expression and purification of membrane-bound pyrophosphatases. Protein Expression and Purification, 2011, 79, 25-34.	1.3	16
131	Endomembrane Ca²⁺-ATPases play a significant role in virus-induced adaptation to oxidative stress. Plant Signaling and Behavior, 2011, 6, 1053-1056.	2.4	16
132	A Conserved Asparagine in a P-type Proton Pump Is Required for Efficient Gating of Protons. Journal of Biological Chemistry, 2013, 288, 9610-9618.	3.4	16
133	Accelerated Domestication of New Crops: Yield is Key. Plant and Cell Physiology, 2022, 63, 1624-1640.	3.1	16
134	Regulation of plant plasma membrane H+ ATPase activity. Physiologia Plantarum, 1991, 83, 314-323.	5.2	15
135	Deciphering the role of 14-3-3 proteins. Experimental Biology Online, 1998, 3, 1-17.	1.0	14
136	Transmembrane nine proteins in yeast and Arabidopsis affect cellular metal contents without changing vacuolar morphology. Physiologia Plantarum, 2010, 140, 355-367.	5.2	13
137	Epigenetic Repression of Male Gametophyte-Specific Genes in the Arabidopsis Sporophyte. Molecular Plant, 2013, 6, 1176-1186.	8.3	13
138	Current status of the multinational Arabidopsis community. Plant Direct, 2020, 4, e00248.	1.9	13
139	Predicted AS3MT Proteins Methylate Arsenic and Support Two Major Phylogenetic AS3MT Groups. Chemical Research in Toxicology, 2020, 33, 3041-3047.	3.3	13
140	Dynamic membranes: the multiple roles of P4 and P5 ATPases. Plant Physiology, 2021, 185, 619-631.	4.8	13
141	Studies of the plasma membrane H+-ATPase of yeast and plants. Biochemical Society Transactions, 1992, 20, 562-566.	3.4	12
142	P-Type H+- and Ca2+-ATPases in Plant Cells. Annals of the New York Academy of Sciences, 1997, 834, 77-87.	3.8	12
143	Metal Fluoride Inhibition of a P-type H+ Pump. Journal of Biological Chemistry, 2015, 290, 20396-20406.	3.4	12
144	The lipid head group is the key element for substrate recognition by the P4 ATPase ALA2: a phosphatidylserine flippase. Biochemical Journal, 2019, 476, 783-794.	3.7	12

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145	Large Scale Identification and Categorization of Protein Sequences Using Structured Logistic Regression. PLoS ONE, 2014, 9, e85139.	2.5	12
146	Substrate stabilization of lysophosphatidylcholine-solubilized plasma membrane H+-ATPase from oat roots. Physiologia Plantarum, 1988, 74, 20-25.	5.2	11
147	Purifying selection acts on coding and non-coding sequences of paralogous genes in Arabidopsis thaliana. BMC Genomics, 2016, 17, 456.	2.8	11
148	Heavy Metal Pumps in Plants: Structure, Function and Origin. Advances in Botanical Research, 2018, , 57-89.	1.1	11
149	Phylogenetic analysis of <scp>ABCG</scp> subfamily proteins in plants: functional clustering and coevolution with <scp>ABCGs</scp> of pathogens. Physiologia Plantarum, 2021, 172, 1422-1438.	5.2	11
150	Evolution of P2A and P5A ATPases: ancient gene duplications and the red algal connection to green plants revisited. Physiologia Plantarum, 2020, 168, 630-647.	5.2	11
151	The Lipid Flippases ALA4 and ALA5 Play Critical Roles in Cell Expansion and Plant Growth. Plant Physiology, 2020, 182, 2111-2125.	4.8	11
152	A Systematic Mutagenesis Study of Ile-282 in Transmembrane Segment M4 of the Plasma Membrane H+-ATPase. Journal of Biological Chemistry, 2005, 280, 21785-21790.	3.4	10
153	Isolation of native plasma membrane H⁺â€<scp>ATP</scp>ase (Pma1p) in both the active and basal activation states. FEBS Open Bio, 2018, 8, 774-783.	2.3	10
154	Towards single-cell ionomics: a novel micro-scaled method for multi-element analysis of nanogram-sized biological samples. Plant Methods, 2020, 16, 31.	4.3	10
155	LEGOâ€Inspired Drug Design: Unveiling a Class of Benzo[<i>d</i>]thiazoles Containing a 3,4â€Dihydroxyphenyl Moiety as Plasma Membrane H⁺â€ATPase Inhibitors. ChemMedChem, 2018, 13, 37-47.	3.2	9
156	A conserved, buried cysteine near the P-site is accessible to cysteine modifications and increases ROS stability in the P-type plasma membrane H+-ATPase. Biochemical Journal, 2021, 478, 619-632.	3.7	9
157	The quest for the central players governing pollen tube growth and guidance. Plant Physiology, 2021, 185, 682-693.	4.8	9
158	Activation of plant plasma membrane H+-ATPase by the non-ionic detergent Brij 58. Biochimica Et Biophysica Acta - Biomembranes, 1994, 1196, 93-96.	2.6	8
159	Expression, purification, crystallization and preliminary X-ray analysis of calmodulin in complex with the regulatory domain of the plasma-membrane Ca²⁺-ATPase ACA8. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 361-363.	0.7	8
160	Plasma Membrane ATPases. Plant Cell Monographs, 2011, , 177-192.	0.4	8
161	Reduction of the P5A-ATPase Spf1p phosphoenzyme by a Ca2+-dependent phosphatase. PLoS ONE, 2020, 15, e0232476.	2.5	8
162	Mechanism of Proton Pumping by Plant Plasma Membrane H⁺â€ATPase. Annals of the New York Academy of Sciences, 2003, 986, 188-197.	3.8	7

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163	Short-chain lipid-conjugated pH sensors for imaging of transporter activities in reconstituted systems and living cells. Analyst, The, 2019, 144, 3030-3037.	3.5	7
164	A cis -Regulatory Sequence Acts as a Repressor in the Arabidopsis thaliana SporophyteÂbut as an Activator in Pollen. Molecular Plant, 2017, 10, 775-778.	8.3	4
165	A potential pathway for flippase-facilitated glucosylceramide catabolism in plants. Plant Signaling and Behavior, 2020, 15, 1783486.	2.4	4
166	Transient Expression of P-type ATPases in Tobacco Epidermal Cells. Methods in Molecular Biology, 2016, 1377, 383-393.	0.9	4
167	Corrigendum to: Proton and calcium pumping P-type ATPases and their regulation of plant responses to the environment. Plant Physiology, 2022, 188, 2379-2381.	4.8	4
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