Toshinori Kinoshita

List of Publications by Year
in descending order

119	10,056	36303	38395
papers	citations	51 h-index	95 g-index

129	129	129	8777
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Insights into Land Plant Evolution Garnered from the Marchantia polymorpha Genome. Cell, 2017, 171, 287-304.e15.	28.9	973
2	phot1 and phot2 mediate blue light regulation of stomatal opening. Nature, 2001, 414, 656-660.	27.8	841
3	Light Regulation of Stomatal Movement. Annual Review of Plant Biology, 2007, 58, 219-247.	18.7	732
4	Binding of brassinosteroids to the extracellular domain of plant receptor kinase BRI1. Nature, 2005, 433, 167-171.	27.8	555
5	Auxin Activates the Plasma Membrane H+-ATPase by Phosphorylation during Hypocotyl Elongation in Arabidopsis Â Â. Plant Physiology, 2012, 159, 632-641.	4.8	285
6	Probing strigolactone receptors in Striga hermonthica with fluorescence. Science, 2015, 349, 864-868.	12.6	230
7	Direct Repression of Evening Genes by CIRCADIAN CLOCK-ASSOCIATED1 in the Arabidopsis Circadian Clock. Plant Cell, 2016, 28, 696-711.	6.6	227
8	Blue light-induced autophosphorylation of phototropin is a primary step for signaling. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5626-5631.	7.1	223
9	Phototropins Promote Plant Growth in Response to Blue Light in Low Light Environments. Plant Cell, 2005, 17, 1120-1127.	6.6	214
10	FLOWERING LOCUS T Regulates Stomatal Opening. Current Biology, 2011, 21, 1232-1238.	3.9	185
11	Blue Light Regulation of Stomatal Opening and the Plasma Membrane H⁺-ATPase. Plant Physiology, 2017, 174, 531-538.	4.8	181
12	Overexpression of plasma membrane H ⁺ -ATPase in guard cells promotes light-induced stomatal opening and enhances plant growth. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 533-538.	7.1	179
13	Modulation of an RNA-binding protein by abscisic-acid-activated protein kinase. Nature, 2002, 418, 793-797.	27.8	169
14	An ABA-increased interaction of the PYL6 ABA receptor with MYC2 Transcription Factor: A putative link of ABA and JA signaling. Scientific Reports, 2016, 6, 28941.	3.3	155
15	Biochemical Characterization of Plasma Membrane H+-ATPase Activation in Guard Cell Protoplasts of Arabidopsis thaliana in Response to Blue Light. Plant and Cell Physiology, 2005, 46, 955-963.	3.1	154
16	Blue-Light- and Phosphorylation-Dependent Binding of a 14-3-3 Protein to Phototropins in Stomatal Guard Cells of Broad Bean. Plant Physiology, 2003, 133, 1453-1463.	4.8	149
17	Inhibition of Blue Light-Dependent H+ Pumping by Abscisic Acid through Hydrogen Peroxide-Induced Dephosphorylation of the Plasma Membrane H+-ATPase in Guard Cell Protoplasts. Plant Physiology, 2004, 136, 4150-4158.	4.8	149
18	Leaf Positioning of Arabidopsis in Response to Blue Light. Molecular Plant, 2008, 1, 15-26.	8.3	141

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19	Control of seed dormancy and germination by DOG1-AHG1 PP2C phosphatase complex via binding to heme. Nature Communications, 2018, 9, 2132.	12.8	138
20	Cytosolic Concentration of Ca 2+ Regulates the Plasma Membrane H + -ATPase in Guard Cells of Fava Bean. Plant Cell, 1995, 7, 1333.	6.6	134
21	Cell surface and intracellular auxin signalling for H+ fluxes in root growth. Nature, 2021, 599, 273-277.	27.8	128
22	TMK-based cell-surface auxin signalling activates cell-wall acidification. Nature, 2021, 599, 278-282.	27.8	125
23	Protein phosphatase 1 positively regulates stomatal opening in response to blue light in Vicia faba. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13549-13554.	7.1	120
24	Involvement of Calmodulin and Calmodulin-Dependent Myosin Light Chain Kinase in Blue Light-Dependent H⁺ Pumping by Guard Cell Protoplasts from Vicia faba L.. Plant Physiology, 1992, 99, 1416-1421.	4.8	115
25	Immunohistochemical Detection of Blue Light-Induced Phosphorylation of the Plasma Membrane H+-ATPase in Stomatal Guard Cells. Plant and Cell Physiology, 2011, 52, 1238-1248.	3.1	110
26	Analysis of the Phosphorylation Level in Guard-Cell Plasma Membrane H+-ATPase in Response to Fusicoccin. Plant and Cell Physiology, 2001, 42, 424-432.	3.1	109
27	Chemical hijacking of auxin signaling with an engineered auxinâ€“TIR1 pair. Nature Chemical Biology, 2018, 14, 299-305.	8.0	107
28	The Plasma Membrane H⁺-ATPase AHA1 Plays a Major Role in Stomatal Opening in Response to Blue Light. Plant Physiology, 2016, 171, 2731-2743.	4.8	101
29	A femtomolar-range suicide germination stimulant for the parasitic plant Striga hermonthica. Science, 2018, 362, 1301-1305.	12.6	101
30	Biochemical Evidence for the Requirement of 14-3-3 Protein Binding in Activation of the Guard-cell Plasma Membrane H+-ATPase by Blue Light. Plant and Cell Physiology, 2002, 43, 1359-1365.	3.1	100
31	bHLH Transcription Factors That Facilitate K ⁺ Uptake During Stomatal Opening Are Repressed by Abscisic Acid Through Phosphorylation. Science Signaling, 2013, 6, ra48.	3.6	97
32	Plasma membrane H+-ATPase overexpression increases rice yield via simultaneous enhancement of nutrient uptake and photosynthesis. Nature Communications, 2021, 12, 735.	12.8	97
33	Biochemical Characterization of In Vitro Phosphorylation and Dephosphorylation of the Plasma Membrane H+-ATPase. Plant and Cell Physiology, 2010, 51, 1186-1196.	3.1	94
34	Loss of function at RAE2 , a previously unidentified EPFL, is required for awnlessness in cultivated Asian rice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8969-8974.	7.1	94
35	Specific Binding of vf14-3-3a Isoform to the Plasma Membrane H+-ATPase in Response to Blue Light and Fusicoccin in Guard Cells of Broad Bean. Plant Physiology, 2001, 125, 1115-1125.	4.8	89
36	Abscisic Acid Suppresses Hypocotyl Elongation by Dephosphorylating Plasma Membrane H+-ATPase in Arabidopsis thaliana. Plant and Cell Physiology, 2014, 55, 845-853.	3.1	85

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37	Guard-Cell Chloroplasts Provide ATP Required for H+ Pumping in the Plasma Membrane and Stomatal Opening. Plant and Cell Physiology, 2001, 42, 795-802.	3.1	83
38	Training instance segmentation neural network with synthetic datasets for crop seed phenotyping. Communications Biology, 2020, 3, 173.	4.4	81
39	Casein kinase 1 family regulates PRR5 and TOC1 in the Arabidopsis circadian clock. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11528-11536.	7.1	77
40	Mg-chelatase H subunit affects ABA signaling in stomatal guard cells, but is not an ABA receptor in Arabidopsis thaliana. Journal of Plant Research, 2011, 124, 527-538.	2.4	73
41	TWIN SISTER OF FT, GIGANTEA, and CONSTANS Have a Positive But Indirect Effect on Blue Light-Induced Stomatal Opening in Arabidopsis Â Â. Plant Physiology, 2013, 162, 1529-1538.	4.8	71
42	A transgene encoding a blue-light receptor, phot1, restores blue-light responses in the Arabidopsis phot1 phot2 double mutant. Journal of Experimental Botany, 2004, 55, 517-523.	4.8	70
43	Red Light-Induced Phosphorylation of Plasma Membrane H⁺-ATPase in Stomatal Guard Cells. Plant Physiology, 2018, 178, 838-849.	4.8	70
44	Photosynthesis Activates Plasma Membrane H⁺-ATPase via Sugar Accumulation. Plant Physiology, 2016, 171, 580-589.	4.8	69
45	The Câ€terminal kinase fragment of Arabidopsis phototropin 2 triggers constitutive phototropin responses. Plant Journal, 2007, 51, 862-873.	5.7	66
46	Pathogenâ€induced<scp>pH</scp>changes regulate the growthâ€defense balance in plants. EMBO Journal, 2019, 38, e101822.	7.8	65
47	Functional Analyses of the Activation Loop of Phototropin2 in Arabidopsis Â Â. Plant Physiology, 2011, 156, 117-128.	4.8	64
48	Nitric Oxide Inhibits Blue Light-Specific Stomatal Opening Via Abscisic Acid Signaling Pathways in Vicia Guard Cells. Plant and Cell Physiology, 2007, 48, 715-723.	3.1	63
49	Improvement of Arabidopsis Biomass and Cold, Drought and Salinity Stress Tolerance by Modified Circadian Clock-Associated PSEUDO-RESPONSE REGULATORs. Plant and Cell Physiology, 2016, 57, 1085-1097.	3.1	60
50	Difference in Abscisic Acid Perception Mechanisms between Closure Induction and Opening Inhibition of Stomata Â Â. Plant Physiology, 2013, 163, 600-610.	4.8	58
51	Stimulation of phosphorus uptake by ammonium nutrition involves plasma membrane H+ ATPase in rice roots. Plant and Soil, 2012, 357, 205-214.	3.7	56
52	A Raf-like protein kinase BHP mediates blue light-dependent stomatal opening. Scientific Reports, 2017, 7, 45586.	3.3	55
53	New Insights into the Regulation of Stomatal Opening by Blue Light and Plasma Membrane H+-ATPase. International Review of Cell and Molecular Biology, 2011, 289, 89-115.	3.2	52
54	Possible Involvement of Phototropins in Leaf Movement of Kidney Bean in Response to Blue Light. Plant Physiology, 2005, 138, 1994-2004.	4.8	46

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55	Brassinosteroid Induces Phosphorylation of the Plasma Membrane H+-ATPase during Hypocotyl Elongation in Arabidopsis thaliana. Plant and Cell Physiology, 2019, 60, 935-944.	3.1	46
56	A Flowering Integrator, SOC1, Affects Stomatal Opening in Arabidopsis thaliana. Plant and Cell Physiology, 2015, 56, 640-649.	3.1	45
57	Dual Subcellular Distribution of Cytochrome b5 in Plant, Cauliflower, Cells. Journal of Biochemistry, 2003, 133, 115-121.	1.7	43
58	Stomatal immunity against fungal invasion comprises not only chitin-induced stomatal closure but also chitosan-induced guard cell death. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20932-20942.	7.1	43
59	Mechanosensory trichome cells evoke a mechanical stimuliâ€“induced immune response in Arabidopsis thaliana. Nature Communications, 2022, 13, 1216.	12.8	43
60	Protein Phosphorylation and Binding of a 14-3-3 Protein in Vicia Guard Cells in Response to ABA. Plant and Cell Physiology, 2007, 48, 1182-1191.	3.1	42
61	Characterization of the Plasma Membrane H+-ATPase in the Liverwort Marchantia polymorpha Â Â Â. Plant Physiology, 2012, 159, 826-834.	4.8	42
62	DNA methylation is reconfigured at the onset of reproduction in rice shoot apical meristem. Nature Communications, 2020, 11, 4079.	12.8	42
63	Auxin Influx Carrier AUX1 Confers Acid Resistance for Arabidopsis Root Elongation Through the Regulation of Plasma Membrane H⁺-ATPase. Plant and Cell Physiology, 2016, 57, 2194-2201.	3.1	40
64	GOLDEN 2-LIKE transcription factors for chloroplast development affect ozone tolerance through the regulation of stomatal movement. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4218-4223.	7.1	40
65	Oryza sativaH⁺-ATPase (OSA) is Involved in the Regulation of Dumbbell-Shaped Guard Cells of Rice. Plant and Cell Physiology, 2016, 57, 1220-1230.	3.1	37
66	Identification and Characterization of Compounds that Affect Stomatal Movements. Plant and Cell Physiology, 2018, 59, 1568-1580.	3.1	34
67	Overexpression of the Mg-chelatase H subunit in guard cells confers drought tolerance via promotion of stomatal closure in Arabidopsis thaliana. Frontiers in Plant Science, 2013, 4, 440.	3.6	30
68	Discovery of Shoot Branching Regulator Targeting Strigolactone Receptor DWARF14. ACS Central Science, 2018, 4, 230-234.	11.3	29
69	Brassinosteroid Involvement in Arabidopsis thaliana Stomatal Opening. Plant and Cell Physiology, 2017, 58, 1048-1058.	3.1	27
70	Inhibition of the Arabidopsis <scp>bHLH</scp> transcription factor by monomerization through abscisic acidâ€induced phosphorylation. Plant Journal, 2016, 87, 559-567.	5.7	26
71	Plasma Membrane-Associated Ca2+-Binding Protein PCaP1 is Involved in Root Hydrotropism of Arabidopsis thaliana. Plant and Cell Physiology, 2019, 60, 1331-1341.	3.1	26
72	Evolutionary appearance of the plasma membrane H⁺-ATPase containing a penultimate threonine in the bryophyte. Plant Signaling and Behavior, 2012, 7, 979-982.	2.4	25

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73	A Super Strong Engineered Auxinâ€“TIR1 Pair. Plant and Cell Physiology, 2018, 59, 1538-1544.	3.1	25
74	Isolation of a Protein Interacting with Vfphot1a in Guard Cells of Vicia faba Â. Plant Physiology, 2005, 138, 1615-1626.	4.8	24
75	Abscisic Acid Induces Rapid Subnuclear Reorganization in Guard Cells. Plant Physiology, 2004, 134, 1327-1331.	4.8	23
76	Biochemical Characterization of Calcineurin B-Like-Interacting Protein Kinase in Vicia Guard Cells. Plant and Cell Physiology, 2010, 51, 408-421.	3.1	21
77	Mg-chelatase I subunit 1 and Mg-protoporphyrin IX methyltransferase affect the stomatal aperture in Arabidopsis thaliana. Journal of Plant Research, 2014, 127, 553-563.	2.4	21
78	Pinstatic Acid Promotes Auxin Transport by Inhibiting PIN Internalization. Plant Physiology, 2019, 180, 1152-1165.	4.8	21
79	Flowering time control in rice by introducing Arabidopsis clock-associated PSEUDO-RESPONSE REGULATOR 5. Bioscience, Biotechnology and Biochemistry, 2020, 84, 970-979.	1.3	19
80	CIPK23 regulates blue lightâ€dependent stomatal opening in Arabidopsis thaliana. Plant Journal, 2020, 104, 679-692.	5.7	18
81	3,4-Dibromo-7-Azaindole Modulates Arabidopsis Circadian Clock by Inhibiting Casein Kinase 1 Activity. Plant and Cell Physiology, 2019, 60, 2360-2368.	3.1	17
82	Phototropin2 Contributes to the Chloroplast Avoidance Response at the Chloroplast-Plasma Membrane Interface. Plant Physiology, 2020, 183, 304-316.	4.8	17
83	Functional characterization of a constitutively active kinase variant of Arabidopsis phototropin 1. Journal of Biological Chemistry, 2017, 292, 13843-13852.	3.4	16
84	Regulation of stomatal opening and histone modification by photoperiod in Arabidopsis thaliana. Scientific Reports, 2019, 9, 10054.	3.3	16
85	Raf-like kinases CBC1 and CBC2 negatively regulate stomatal opening by negatively regulating plasma membrane H+-ATPase phosphorylation in Arabidopsis. Photochemical and Photobiological Sciences, 2020, 19, 88-98.	2.9	16
86	Structureâ€“function study of a novel inhibitor of the casein kinase 1 family in Arabidopsis thaliana. Plant Direct, 2019, 3, e00172.	1.9	15
87	Type 2C protein phosphatase clade D family members dephosphorylate guard cell plasma membrane H+-ATPase. Plant Physiology, 2022, 188, 2228-2240.	4.8	15
88	Crosstalk between blue-light- and aba-signaling pathways in stomatal guard cells. Plant Signaling and Behavior, 2011, 6, 1662-1664.	2.4	14
89	Excess Pyrophosphate within Guard Cells Delays Stomatal Closure. Plant and Cell Physiology, 2019, 60, 875-887.	3.1	14
90	Inhibition of light-induced stomatal opening by allyl isothiocyanate does not require guard cell cytosolic Ca2+ signaling. Journal of Experimental Botany, 2020, 71, 2922-2932.	4.8	14

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91	Evidence for Ca2+-dependent protein phosphorylation in vitro in guard cells from Vicia faba L.. Plant Science, 1995, 110, 173-180.	3.6	13
92	Evolutionary Insight into the Clock-Associated PRR5 Transcriptional Network of Flowering Plants. Scientific Reports, 2019, 9, 2983.	3.3	13
93	Overexpression of BUNDLE SHEATH DEFECTIVE 2 improves the efficiency of photosynthesis and growth in Arabidopsis. Plant Journal, 2020, 102, 129-137.	5.7	13
94	Chemical control of stomatal function and development. Current Opinion in Plant Biology, 2021, 60, 102010.	7.1	13
95	Molecular basis of plasma membrane H+-ATPase function and potential application in the agricultural production. Plant Physiology and Biochemistry, 2021, 168, 10-16.	5.8	13
96	Plant Chemical Biology. Plant and Cell Physiology, 2018, 59, 1483-1486.	3.1	11
97	Phosphorylation of RNA Polymerase II by CDKC;2 Maintains the Arabidopsis Circadian Clock Period. Plant and Cell Physiology, 2022, 63, 450-462.	3.1	10
98	Multiple Roles of the Plasma Membrane H+-ATPase and Its Regulation. The Enzymes, 2014, 35, 191-211.	1.7	9
99	Stomatal function has an element of hysteresis. New Phytologist, 2015, 205, 455-457.	7.3	9
100	Molecular actions of two synthetic brassinosteroids, iso-carbaBL and 6-deoxoBL, which cause altered physiological activities between Arabidopsis and rice. PLoS ONE, 2017, 12, e0174015.	2.5	9
101	Fluence rate dependence of red light-induced phosphorylation of plasma membrane H⁺-ATPase in stomatal guard cells. Plant Signaling and Behavior, 2019, 14, 1561107.	2.4	8
102	Overexpression of Plasma Membrane H+-ATPase in Guard Cells Enhances Light-Induced Stomatal Opening, Photosynthesis, and Plant Growth in Hybrid Aspen. Frontiers in Plant Science, 2021, 12, 766037.	3.6	8
103	Modeling Strategies for Plant Survival, Growth and Reproduction. Plant and Cell Physiology, 2015, 56, 583-585.	3.1	7
104	Identification of Genes Preferentially Expressed in Stomatal Guard Cells of Arabidopsis thaliana and Involvement of the Aluminum-Activated Malate Transporter 6 Vacuolar Malate Channel in Stomatal Opening. Frontiers in Plant Science, 2021, 12, 744991.	3.6	5
105	Identification of stomatal-regulating molecules from de novo arylamine collection through aromatic Câ€“H amination. Scientific Reports, 2022, 12, 949.	3.3	5
106	Abscisic acid receptor hole-in-one. Nature Chemical Biology, 2014, 10, 414-415.	8.0	4
107	Role of Proton Motive Force in Photoinduction of Cytoplasmic Streaming in Vallisneria Mesophyll Cells. Plants, 2020, 9, 376.	3.5	4
108	Measurement of ATP Hydrolytic Activity of Plasma Membrane H+-ATPase from Arabidopsis thaliana Leaves. Bio-protocol, 2016, 6, .	0.4	4

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109	Measurement of Stomatal Conductance in Rice. Bio-protocol, 2017, 7, e2226.	0.4	4
110	An Affordable Image-Analysis Platform to Accelerate Stomatal Phenotyping During Microscopic Observation. Frontiers in Plant Science, 2021, 12, 715309.	3.6	3
111	Promotion and Upregulation of a Plasma Membrane Proton-ATPase Strategy: Principles and Applications. Frontiers in Plant Science, 2021, 12, 749337.	3.6	3
112	Identification of Abscisic Acid-Dependent Phosphorylated Basic Helix-Loop-Helix Transcription Factors in Guard Cells of Vicia faba by Mass Spectrometry. Frontiers in Plant Science, 2021, 12, 735271.	3.6	3
113	Chapter 35 Analysis of the Light Signaling Pathway in Stomatal Guard Cells. Methods in Cell Biology, 1995, 49, 501-513.	1.1	1
114	Flowâ€limiting valve for <scp>ABA</scp> signalling in stomatal guard cells. New Phytologist, 2013, 200, 943-945.	7.3	1
115	Protease Inhibitor-Dependent Inhibition of Light-Induced Stomatal Opening. Frontiers in Plant Science, 2021, 12, 735328.	3.6	1
116	Dynamical feedback between circadian clock and carbohydrate availability explains adaptive response of starch metabolism to longer night. , 2012, , .		0
117	ç’°å¢ƒå‰µå‹•ã«å¯¾ã™ã‚‹æ——å”é–‹‰åˆ¶å¾¡. Kagaku To Seibutsu, 2015, 53, 608-613.	0.0	0
118	Characterization of Ethylene-mediated Curling of Japanese Radish (Raphanus sativus var.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (Science, 2019, 54, 1896-1901.	1.0	0
119	Editorial: Stomatal Biology and Beyond. Frontiers in Plant Science, 2022, 13, 848811.	3.6	0