

Toshinori Kinoshita

List of Publications by Year in descending order

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119
papers

10,056
citations

36303

51
h-index

38395

95
g-index

129
all docs

129
docs citations

129
times ranked

8777
citing authors

#	ARTICLE	IF	CITATIONS
1	Phosphorylation of RNA Polymerase II by CDKC;2 Maintains the Arabidopsis Circadian Clock Period. <i>Plant and Cell Physiology</i> , 2022, 63, 450-462.	3.1	10
2	Identification of stomatal-regulating molecules from de novo arylamine collection through aromatic C ¹⁴ H amination. <i>Scientific Reports</i> , 2022, 12, 949.	3.3	5
3	Editorial: Stomatal Biology and Beyond. <i>Frontiers in Plant Science</i> , 2022, 13, 848811.	3.6	0
4	Mechanosensory trichome cells evoke a mechanical stimuli ¹ induced immune response in <i>Arabidopsis thaliana</i> . <i>Nature Communications</i> , 2022, 13, 1216.	12.8	43
5	Type 2C protein phosphatase clade D family members dephosphorylate guard cell plasma membrane H ⁺ -ATPase. <i>Plant Physiology</i> , 2022, 188, 2228-2240.	4.8	15
6	Plasma membrane H ⁺ -ATPase overexpression increases rice yield via simultaneous enhancement of nutrient uptake and photosynthesis. <i>Nature Communications</i> , 2021, 12, 735.	12.8	97
7	Chemical control of stomatal function and development. <i>Current Opinion in Plant Biology</i> , 2021, 60, 102010.	7.1	13
8	An Affordable Image-Analysis Platform to Accelerate Stomatal Phenotyping During Microscopic Observation. <i>Frontiers in Plant Science</i> , 2021, 12, 715309.	3.6	3
9	Protease Inhibitor-Dependent Inhibition of Light-Induced Stomatal Opening. <i>Frontiers in Plant Science</i> , 2021, 12, 735328.	3.6	1
10	Molecular basis of plasma membrane H ⁺ -ATPase function and potential application in the agricultural production. <i>Plant Physiology and Biochemistry</i> , 2021, 168, 10-16.	5.8	13
11	Identification of Genes Preferentially Expressed in Stomatal Guard Cells of <i>Arabidopsis thaliana</i> and Involvement of the Aluminum-Activated Malate Transporter 6 Vacuolar Malate Channel in Stomatal Opening. <i>Frontiers in Plant Science</i> , 2021, 12, 744991.	3.6	5
12	Cell surface and intracellular auxin signalling for H ⁺ fluxes in root growth. <i>Nature</i> , 2021, 599, 273-277.	27.8	128
13	TMK-based cell-surface auxin signalling activates cell-wall acidification. <i>Nature</i> , 2021, 599, 278-282.	27.8	125
14	Overexpression of Plasma Membrane H ⁺ -ATPase in Guard Cells Enhances Light-Induced Stomatal Opening, Photosynthesis, and Plant Growth in Hybrid Aspen. <i>Frontiers in Plant Science</i> , 2021, 12, 766037.	3.6	8
15	Promotion and Upregulation of a Plasma Membrane Proton-ATPase Strategy: Principles and Applications. <i>Frontiers in Plant Science</i> , 2021, 12, 749337.	3.6	3
16	Identification of Abscisic Acid-Dependent Phosphorylated Basic Helix-Loop-Helix Transcription Factors in Guard Cells of <i>Vicia faba</i> by Mass Spectrometry. <i>Frontiers in Plant Science</i> , 2021, 12, 735271.	3.6	3
17	Raf-like kinases CBC1 and CBC2 negatively regulate stomatal opening by negatively regulating plasma membrane H ⁺ -ATPase phosphorylation in <i>Arabidopsis</i> . <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 88-98.	2.9	16
18	Overexpression of BUNDLE SHEATH DEFECTIVE 2 improves the efficiency of photosynthesis and growth in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2020, 102, 129-137.	5.7	13

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19	Stomatal immunity against fungal invasion comprises not only chitin-induced stomatal closure but also chitosan-induced guard cell death. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 20932-20942.	7.1	43
20	CIPK23 regulates blue light-dependent stomatal opening in <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2020, 104, 679-692.	5.7	18
21	DNA methylation is reconfigured at the onset of reproduction in rice shoot apical meristem. <i>Nature Communications</i> , 2020, 11, 4079.	12.8	42
22	Training instance segmentation neural network with synthetic datasets for crop seed phenotyping. <i>Communications Biology</i> , 2020, 3, 173.	4.4	81
23	Role of Proton Motive Force in Photoinduction of Cytoplasmic Streaming in <i>Vallisneria</i> Mesophyll Cells. <i>Plants</i> , 2020, 9, 376.	3.5	4
24	Inhibition of light-induced stomatal opening by allyl isothiocyanate does not require guard cell cytosolic Ca ²⁺ signaling. <i>Journal of Experimental Botany</i> , 2020, 71, 2922-2932.	4.8	14
25	Flowering time control in rice by introducing <i>Arabidopsis</i> clock-associated PSEUDO-RESPONSE REGULATOR 5. <i>Bioscience, Biotechnology and Biochemistry</i> , 2020, 84, 970-979.	1.3	19
26	Phototropin2 Contributes to the Chloroplast Avoidance Response at the Chloroplast-Plasma Membrane Interface. <i>Plant Physiology</i> , 2020, 183, 304-316.	4.8	17
27	Regulation of stomatal opening and histone modification by photoperiod in <i>Arabidopsis thaliana</i> . <i>Scientific Reports</i> , 2019, 9, 10054.	3.3	16
28	Structure-function study of a novel inhibitor of the casein kinase 1 family in <i>Arabidopsis thaliana</i> . <i>Plant Direct</i> , 2019, 3, e00172.	1.9	15
29	3,4-Dibromo-7-Azaindole Modulates <i>Arabidopsis</i> Circadian Clock by Inhibiting Casein Kinase 1 Activity. <i>Plant and Cell Physiology</i> , 2019, 60, 2360-2368.	3.1	17
30	Fluence rate dependence of red light-induced phosphorylation of plasma membrane H ⁺ -ATPase in stomatal guard cells. <i>Plant Signaling and Behavior</i> , 2019, 14, 1561107.	2.4	8
31	Casein kinase 1 family regulates PRR5 and TOC1 in the <i>Arabidopsis</i> circadian clock. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11528-11536.	7.1	77
32	Plasma Membrane-Associated Ca ²⁺ -Binding Protein PCaP1 is Involved in Root Hydrotropism of <i>Arabidopsis thaliana</i> . <i>Plant and Cell Physiology</i> , 2019, 60, 1331-1341.	3.1	26
33	Pinstatic Acid Promotes Auxin Transport by Inhibiting PIN Internalization. <i>Plant Physiology</i> , 2019, 180, 1152-1165.	4.8	21
34	Evolutionary Insight into the Clock-Associated PRR5 Transcriptional Network of Flowering Plants. <i>Scientific Reports</i> , 2019, 9, 2983.	3.3	13
35	Pathogen-induced pH changes regulate the growth-defense balance in plants. <i>EMBO Journal</i> , 2019, 38, e101822.	7.8	65
36	Excess Pyrophosphate within Guard Cells Delays Stomatal Closure. <i>Plant and Cell Physiology</i> , 2019, 60, 875-887.	3.1	14

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37	Brassinosteroid Induces Phosphorylation of the Plasma Membrane H ⁺ -ATPase during Hypocotyl Elongation in <i>Arabidopsis thaliana</i> . <i>Plant and Cell Physiology</i> , 2019, 60, 935-944.	3.1	46
38	Characterization of Ethylene-mediated Curling of Japanese Radish (<i>Raphanus sativus</i> var.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Td (Science, 2019, 54, 1896-1901.	1.0	0
39	Identification and Characterization of Compounds that Affect Stomatal Movements. <i>Plant and Cell Physiology</i> , 2018, 59, 1568-1580.	3.1	34
40	Discovery of Shoot Branching Regulator Targeting Strigolactone Receptor DWARF14. <i>ACS Central Science</i> , 2018, 4, 230-234.	11.3	29
41	Chemical hijacking of auxin signaling with an engineered auxinâ€“TIR1 pair. <i>Nature Chemical Biology</i> , 2018, 14, 299-305.	8.0	107
42	A femtomolar-range suicide germination stimulant for the parasitic plant <i>Striga hermonthica</i> . <i>Science</i> , 2018, 362, 1301-1305.	12.6	101
43	Plant Chemical Biology. <i>Plant and Cell Physiology</i> , 2018, 59, 1483-1486.	3.1	11
44	A Super Strong Engineered Auxinâ€“TIR1 Pair. <i>Plant and Cell Physiology</i> , 2018, 59, 1538-1544.	3.1	25
45	Red Light-Induced Phosphorylation of Plasma Membrane H ⁺ -ATPase in Stomatal Guard Cells. <i>Plant Physiology</i> , 2018, 178, 838-849.	4.8	70
46	Control of seed dormancy and germination by DOG1-AHG1 PP2C phosphatase complex via binding to heme. <i>Nature Communications</i> , 2018, 9, 2132.	12.8	138
47	Brassinosteroid Involvement in <i>Arabidopsis thaliana</i> Stomatal Opening. <i>Plant and Cell Physiology</i> , 2017, 58, 1048-1058.	3.1	27
48	Blue Light Regulation of Stomatal Opening and the Plasma Membrane H ⁺ -ATPase. <i>Plant Physiology</i> , 2017, 174, 531-538.	4.8	181
49	A Raf-like protein kinase BHP mediates blue light-dependent stomatal opening. <i>Scientific Reports</i> , 2017, 7, 45586.	3.3	55
50	Insights into Land Plant Evolution Garnered from the <i>Marchantia polymorpha</i> Genome. <i>Cell</i> , 2017, 171, 287-304.e15.	28.9	973
51	Functional characterization of a constitutively active kinase variant of <i>Arabidopsis</i> phototropin 1. <i>Journal of Biological Chemistry</i> , 2017, 292, 13843-13852.	3.4	16
52	Molecular actions of two synthetic brassinosteroids, iso-carbaBL and 6-deoxoBL, which cause altered physiological activities between <i>Arabidopsis</i> and rice. <i>PLoS ONE</i> , 2017, 12, e0174015.	2.5	9
53	Measurement of Stomatal Conductance in Rice. <i>Bio-protocol</i> , 2017, 7, e2226.	0.4	4
54	Inhibition of the <i>Arabidopsis</i> bHLH transcription factor by monomerization through abscisic acidâ€“induced phosphorylation. <i>Plant Journal</i> , 2016, 87, 559-567.	5.7	26

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55	An ABA-increased interaction of the PYL6 ABA receptor with MYC2 Transcription Factor: A putative link of ABA and JA signaling. <i>Scientific Reports</i> , 2016, 6, 28941.	3.3	155
56	Photosynthesis Activates Plasma Membrane H ⁺ -ATPase via Sugar Accumulation. <i>Plant Physiology</i> , 2016, 171, 580-589.	4.8	69
57	Loss of function at <i>RAE2</i> , a previously unidentified EPFL, is required for awnlessness in cultivated Asian rice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 8969-8974.	7.1	94
58	Auxin Influx Carrier AUX1 Confers Acid Resistance for Arabidopsis Root Elongation Through the Regulation of Plasma Membrane H ⁺ -ATPase. <i>Plant and Cell Physiology</i> , 2016, 57, 2194-2201.	3.1	40
59	The Plasma Membrane H ⁺ -ATPase AHA1 Plays a Major Role in Stomatal Opening in Response to Blue Light. <i>Plant Physiology</i> , 2016, 171, 2731-2743.	4.8	101
60	<i>Oryza sativa</i> H ⁺ -ATPase (OSA) is Involved in the Regulation of Dumbbell-Shaped Guard Cells of Rice. <i>Plant and Cell Physiology</i> , 2016, 57, 1220-1230.	3.1	37
61	Improvement of Arabidopsis Biomass and Cold, Drought and Salinity Stress Tolerance by Modified Circadian Clock-Associated PSEUDO-RESPONSE REGULATORS. <i>Plant and Cell Physiology</i> , 2016, 57, 1085-1097.	3.1	60
62	GOLDEN 2-LIKE transcription factors for chloroplast development affect ozone tolerance through the regulation of stomatal movement. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 4218-4223.	7.1	40
63	Direct Repression of Evening Genes by CIRCADIAN CLOCK-ASSOCIATED1 in the Arabidopsis Circadian Clock. <i>Plant Cell</i> , 2016, 28, 696-711.	6.6	227
64	Measurement of ATP Hydrolytic Activity of Plasma Membrane H ⁺ -ATPase from Arabidopsis thaliana Leaves. <i>Bio-protocol</i> , 2016, 6, .	0.4	4
65	ζ ^o âϕfâ%â«â~¼â™â,æ ^o —â”é—é—%â^¶â¾j. <i>Kagaku To Seibutsu</i> , 2015, 53, 608-613.	0.0	0
66	A Flowering Integrator, SOC1, Affects Stomatal Opening in Arabidopsis thaliana. <i>Plant and Cell Physiology</i> , 2015, 56, 640-649.	3.1	45
67	Modeling Strategies for Plant Survival, Growth and Reproduction. <i>Plant and Cell Physiology</i> , 2015, 56, 583-585.	3.1	7
68	Stomatal function has an element of hysteresis. <i>New Phytologist</i> , 2015, 205, 455-457.	7.3	9
69	Probing strigolactone receptors in <i>Striga hermonthica</i> with fluorescence. <i>Science</i> , 2015, 349, 864-868.	12.6	230
70	Abscisic Acid Suppresses Hypocotyl Elongation by Dephosphorylating Plasma Membrane H ⁺ -ATPase in Arabidopsis thaliana. <i>Plant and Cell Physiology</i> , 2014, 55, 845-853.	3.1	85
71	Overexpression of plasma membrane H ⁺ -ATPase in guard cells promotes light-induced stomatal opening and enhances plant growth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 533-538.	7.1	179
72	Multiple Roles of the Plasma Membrane H ⁺ -ATPase and Its Regulation. <i>The Enzymes</i> , 2014, 35, 191-211.	1.7	9

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73	Abscisic acid receptor hole-in-one. <i>Nature Chemical Biology</i> , 2014, 10, 414-415.	8.0	4
74	Mg-chelatase I subunit 1 and Mg-protoporphyrin IX methyltransferase affect the stomatal aperture in <i>Arabidopsis thaliana</i> . <i>Journal of Plant Research</i> , 2014, 127, 553-563.	2.4	21
75	Difference in Abscisic Acid Perception Mechanisms between Closure Induction and Opening Inhibition of Stomata. <i>Plant Physiology</i> , 2013, 163, 600-610.	4.8	58
76	Overexpression of the Mg-chelatase H subunit in guard cells confers drought tolerance via promotion of stomatal closure in <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 2013, 4, 440.	3.6	30
77	<i>TWIN SISTER OF FT</i> , <i>GIGANTEA</i> , and <i>CONSTANS</i> Have a Positive But Indirect Effect on Blue Light-Induced Stomatal Opening in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2013, 162, 1529-1538.	4.8	71
78	bHLH Transcription Factors That Facilitate K ⁺ Uptake During Stomatal Opening Are Repressed by Abscisic Acid Through Phosphorylation. <i>Science Signaling</i> , 2013, 6, ra48.	3.6	97
79	Flow-limiting valve for ABA signalling in stomatal guard cells. <i>New Phytologist</i> , 2013, 200, 943-945.	7.3	1
80	Evolutionary appearance of the plasma membrane H ⁺ -ATPase containing a penultimate threonine in the bryophyte. <i>Plant Signaling and Behavior</i> , 2012, 7, 979-982.	2.4	25
81	Dynamical feedback between circadian clock and carbohydrate availability explains adaptive response of starch metabolism to longer night. , 2012, , .		0
82	Characterization of the Plasma Membrane H ⁺ -ATPase in the Liverwort <i>Marchantia polymorpha</i> . <i>Plant Physiology</i> , 2012, 159, 826-834.	4.8	42
83	Auxin Activates the Plasma Membrane H ⁺ -ATPase by Phosphorylation during Hypocotyl Elongation in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2012, 159, 632-641.	4.8	285
84	Stimulation of phosphorus uptake by ammonium nutrition involves plasma membrane H ⁺ ATPase in rice roots. <i>Plant and Soil</i> , 2012, 357, 205-214.	3.7	56
85	New Insights into the Regulation of Stomatal Opening by Blue Light and Plasma Membrane H ⁺ -ATPase. <i>International Review of Cell and Molecular Biology</i> , 2011, 289, 89-115.	3.2	52
86	FLOWERING LOCUS T Regulates Stomatal Opening. <i>Current Biology</i> , 2011, 21, 1232-1238.	3.9	185
87	Mg-chelatase H subunit affects ABA signaling in stomatal guard cells, but is not an ABA receptor in <i>Arabidopsis thaliana</i> . <i>Journal of Plant Research</i> , 2011, 124, 527-538.	2.4	73
88	Crosstalk between blue-light- and aba-signaling pathways in stomatal guard cells. <i>Plant Signaling and Behavior</i> , 2011, 6, 1662-1664.	2.4	14
89	Immunohistochemical Detection of Blue Light-Induced Phosphorylation of the Plasma Membrane H ⁺ -ATPase in Stomatal Guard Cells. <i>Plant and Cell Physiology</i> , 2011, 52, 1238-1248.	3.1	110
90	Functional Analyses of the Activation Loop of Phototropin2 in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2011, 156, 117-128.	4.8	64

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91	Biochemical Characterization of In Vitro Phosphorylation and Dephosphorylation of the Plasma Membrane H ⁺ -ATPase. <i>Plant and Cell Physiology</i> , 2010, 51, 1186-1196.	3.1	94
92	Biochemical Characterization of Calcineurin B-Like-Interacting Protein Kinase in <i>Vicia</i> Guard Cells. <i>Plant and Cell Physiology</i> , 2010, 51, 408-421.	3.1	21
93	Blue light-induced autophosphorylation of phototropin is a primary step for signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 5626-5631.	7.1	223
94	Leaf Positioning of <i>Arabidopsis</i> in Response to Blue Light. <i>Molecular Plant</i> , 2008, 1, 15-26.	8.3	141
95	Protein Phosphorylation and Binding of a 14-3-3 Protein in <i>Vicia</i> Guard Cells in Response to ABA. <i>Plant and Cell Physiology</i> , 2007, 48, 1182-1191.	3.1	42
96	Nitric Oxide Inhibits Blue Light-Specific Stomatal Opening Via Abscisic Acid Signaling Pathways in <i>Vicia</i> Guard Cells. <i>Plant and Cell Physiology</i> , 2007, 48, 715-723.	3.1	63
97	Light Regulation of Stomatal Movement. <i>Annual Review of Plant Biology</i> , 2007, 58, 219-247.	18.7	732
98	The C-terminal kinase fragment of <i>Arabidopsis</i> phototropin 2 triggers constitutive phototropin responses. <i>Plant Journal</i> , 2007, 51, 862-873.	5.7	66
99	Protein phosphatase 1 positively regulates stomatal opening in response to blue light in <i>Vicia faba</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 13549-13554.	7.1	120
100	Binding of brassinosteroids to the extracellular domain of plant receptor kinase BRI1. <i>Nature</i> , 2005, 433, 167-171.	27.8	555
101	Biochemical Characterization of Plasma Membrane H ⁺ -ATPase Activation in Guard Cell Protoplasts of <i>Arabidopsis thaliana</i> in Response to Blue Light. <i>Plant and Cell Physiology</i> , 2005, 46, 955-963.	3.1	154
102	Isolation of a Protein Interacting with Vphot1a in Guard Cells of <i>Vicia faba</i> . <i>Plant Physiology</i> , 2005, 138, 1615-1626.	4.8	24
103	Phototropins Promote Plant Growth in Response to Blue Light in Low Light Environments. <i>Plant Cell</i> , 2005, 17, 1120-1127.	6.6	214
104	Possible Involvement of Phototropins in Leaf Movement of Kidney Bean in Response to Blue Light. <i>Plant Physiology</i> , 2005, 138, 1994-2004.	4.8	46
105	A transgene encoding a blue-light receptor, phot1, restores blue-light responses in the <i>Arabidopsis</i> phot1 phot2 double mutant. <i>Journal of Experimental Botany</i> , 2004, 55, 517-523.	4.8	70
106	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. <i>Plant Physiology</i> , 2004, 136, 4150-4158.	4.8	149
107	Abscisic Acid Induces Rapid Subnuclear Reorganization in Guard Cells. <i>Plant Physiology</i> , 2004, 134, 1327-1331.	4.8	23
108	Blue-Light- and Phosphorylation-Dependent Binding of a 14-3-3 Protein to Phototropins in Stomatal Guard Cells of Broad Bean. <i>Plant Physiology</i> , 2003, 133, 1453-1463.	4.8	149

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109	Dual Subcellular Distribution of Cytochrome b5 in Plant, Cauliflower, Cells. Journal of Biochemistry, 2003, 133, 115-121.	1.7	43
110	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
111	Modulation of an RNA-binding protein by abscisic-acid-activated protein kinase. Nature, 2002, 418, 793-797.	27.8	169
112	phot1 and phot2 mediate blue light regulation of stomatal opening. Nature, 2001, 414, 656-660.	27.8	841
113	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
114	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
115	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
116	Chapter 35 Analysis of the Light Signaling Pathway in Stomatal Guard Cells. Methods in Cell Biology, 1995, 49, 501-513.	1.1	1
117	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
118	Evidence for Ca ²⁺ -dependent protein phosphorylation in vitro in guard cells from <i>Vicia faba</i> L.. Plant Science, 1995, 110, 173-180.	3.6	13
119	Involvement of Calmodulin and Calmodulin-Dependent Myosin Light Chain Kinase in Blue Light-Dependent H ⁺ Pumping by Guard Cell Protoplasts from <i>Vicia faba</i> L.. Plant Physiology, 1992, 99, 1416-1421.	4.8	115