Shintaro Munemasa

List of Publications by Year
in descending order

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72	5,846	101384	79541
papers	citations	36 h-index	73 g-index

76	76	76	5224
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CDPKs CPK6 and CPK3 Function in ABA Regulation of Guard Cell S-Type Anion- and Ca2+- Permeable Channels and Stomatal Closure. PLoS Biology, 2006, 4, e327.	2.6	523
2	Mechanisms of abscisic acid-mediated control of stomatal aperture. Current Opinion in Plant Biology, 2015, 28, 154-162.	3.5	438
3	MAP kinases MPK9 and MPK12 are preferentially expressed in guard cells and positively regulate ROS-mediated ABA signaling. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20520-20525.	3.3	368
4	Diverse Stomatal Signaling and the Signal Integration Mechanism. Annual Review of Plant Biology, 2015, 66, 369-392.	8.6	321
5	The coronatine-insensitive 1 Mutation Reveals the Hormonal Signaling Interaction between Abscisic Acid and Methyl Jasmonate in Arabidopsis Guard Cells. Specific Impairment of Ion Channel Activation and Second Messenger Production. Plant Physiology, 2007, 143, 1398-1407.	2.3	319
6	Involvement of extracellular oxidative burst in salicylic acidâ€induced stomatal closure in Arabidopsis. Plant, Cell and Environment, 2011, 34, 434-443.	2.8	292
7	Plant hormone regulation of abiotic stress responses. Nature Reviews Molecular Cell Biology, 2022, 23, 680-694.	16.1	279
8	MAP3Kinase-dependent SnRK2-kinase activation is required for abscisic acid signal transduction and rapid osmotic stress response. Nature Communications, 2020, 11, 12.	5.8	202
9	Involvement of Endogenous Abscisic Acid in Methyl Jasmonate-Induced Stomatal Closure in Arabidopsis Â Â. Plant Physiology, 2011, 156, 430-438.	2.3	189
10	Calcium specificity signaling mechanisms in abscisic acid signal transduction in Arabidopsis guard cells. ELife, 2015, 4, .	2.8	172
11	Mechanism of Stomatal Closure in Plants Exposed to Drought and Cold Stress. Advances in Experimental Medicine and Biology, 2018, 1081, 215-232.	0.8	161
12	Closing Plant Stomata Requires a Homolog of an Aluminum-Activated Malate Transporter. Plant and Cell Physiology, 2010, 51, 354-365.	1.5	159
13	Chemical Genetics Reveals Negative Regulation of Abscisic Acid Signaling by a Plant Immune Response Pathway. Current Biology, 2011, 21, 990-997.	1.8	152
14	The Arabidopsis Calcium-Dependent Protein Kinase, CPK6, Functions as a Positive Regulator of Methyl Jasmonate Signaling in Guard Cells Â Â. Plant Physiology, 2011, 155, 553-561.	2.3	144
15	Identification of Cyclic GMP-Activated Nonselective Ca2+-Permeable Cation Channels and Associated CNGC5 and CNGC6 Genes in Arabidopsis Guard Cells Â Â. Plant Physiology, 2013, 163, 578-590.	2.3	111
16	Guard Cell Salicylic Acid Signaling Is Integrated into Abscisic Acid Signaling via the Ca²⁺/CPK-Dependent Pathway. Plant Physiology, 2018, 178, 441-450.	2.3	107
17	Identification of Open Stomata1-Interacting Proteins Reveals Interactions with Sucrose Non-fermenting1-Related Protein Kinases2 and with Type 2A Protein Phosphatases That Function in Abscisic Acid Responses. Plant Physiology, 2015, 169, 760-779.	2.3	100
18	Blue light and CO2 signals converge to regulate light-induced stomatal opening. Nature Communications, 2017, 8, 1284.	5.8	100

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19	Allyl isothiocyanate (AITC) induces stomatal closure in Arabidopsis. Plant, Cell and Environment, 2011, 34, 1900-1906.	2.8	93
20	Abscisic acid-independent stomatal CO ₂ signal transduction pathway and convergence of CO ₂ and ABA signaling downstream of OST1 kinase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9971-E9980.	3.3	91
21	Roles of AtTPC1, Vacuolar Two Pore Channel 1, in Arabidopsis Stomatal Closure. Plant and Cell Physiology, 2010, 51, 302-311.	1.5	86
22	Roles of RCN1, Regulatory A Subunit of Protein Phosphatase 2A, in Methyl Jasmonate Signaling and Signal Crosstalk between Methyl Jasmonate and Abscisic Acid. Plant and Cell Physiology, 2008, 49, 1396-1401.	1.5	84
23	Yeast Elicitor-Induced Stomatal Closure and Peroxidase-Mediated ROS Production in Arabidopsis. Plant and Cell Physiology, 2010, 51, 1915-1921.	1.5	75
24	Cytosolic Alkalization and Cytosolic Calcium Oscillation in Arabidopsis Guard Cells Response to ABA and MeJA. Plant and Cell Physiology, 2010, 51, 1721-1730.	1.5	72
25	L-Met Activates Arabidopsis GLR Ca2+ Channels Upstream of ROS Production and Regulates Stomatal Movement. Cell Reports, 2016, 17, 2553-2561.	2.9	71
26	Negative regulation of abscisic acid-induced stomatal closure by glutathione in Arabidopsis. Journal of Plant Physiology, 2011, 168, 2048-2055.	1.6	68
27	Methyl jasmonate signaling and signal crosstalk between methyl jasmonate and abscisic acid in guard cells. Plant Signaling and Behavior, 2011, 6, 939-941.	1.2	67
28	Chitosan-Induced Stomatal Closure Accompanied by Peroxidase-Mediated Reactive Oxygen Species Production inArabidopsis. Bioscience, Biotechnology and Biochemistry, 2010, 74, 2313-2315.	0.6	65
29	Phytocytokine signalling reopens stomata in plant immunity and water loss. Nature, 2022, 605, 332-339.	13.7	64
30	Regulation of reactive oxygen species-mediated abscisic acid signaling in guard cells and drought tolerance by glutathione. Frontiers in Plant Science, 2013, 4, 472.	1.7	60
31	Calcium-Dependent Protein Kinase CPK6 Positively Functions in Induction by Yeast Elicitor of Stomatal Closure and Inhibition by Yeast Elicitor of Light-Induced Stomatal Opening in Arabidopsis Â. Plant Physiology, 2013, 163, 591-599.	2.3	57
32	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.	3.3	43
33	Involvement of OST1 Protein Kinase and PYR/PYL/RCAR Receptors in Methyl Jasmonate-Induced Stomatal Closure in Arabidopsis Guard Cells. Plant and Cell Physiology, 2016, 57, 1779-1790.	1.5	42
34	Reactive Carbonyl Species Mediate ABA Signaling in Guard Cells. Plant and Cell Physiology, 2016, 57, 2552-2563.	1.5	42
35	Inhibition of phosphatidylinositide 3-kinase ameliorates antiproliferation by benzyl isothiocyanate in human colon cancer cells. Biochemical and Biophysical Research Communications, 2017, 491, 209-216.	1.0	39
36	Reactive Carbonyl Species Function as Signal Mediators Downstream of H2O2 Production and Regulate [Ca2+]cyt Elevation in ABA Signal Pathway in Arabidopsis Guard Cells. Plant and Cell Physiology, 2019, 60, 1146-1159.	1.5	39

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37	A role for calciumâ€dependent protein kinases in differential CO₂â€and ABAâ€controlled stomatal closing and low CO₂â€induced stomatal opening in Arabidopsis. New Phytologist, 2021, 229, 2765-2779.	3.5	38
38	Eukaryotic lipid metabolic pathway is essential for functional chloroplasts and CO ₂ and light responses in Arabidopsis guard cells. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9038-9043.	3.3	32
39	Nuclear factor-kappaB sensitizes to benzyl isothiocyanate-induced antiproliferation in p53-deficient colorectal cancer cells. Cell Death and Disease, 2014, 5, e1534-e1534.	2.7	31
40	Calcium and EGTA Alleviate Cadmium Toxicity in Germinating Chickpea Seeds. Journal of Plant Growth Regulation, 2016, 35, 1064-1073.	2.8	30
41	Ethylene Inhibits Methyl Jasmonate-Induced Stomatal Closure by Modulating Guard Cell Slow-Type Anion Channel Activity via the OPEN STOMATA 1/SnRK2.6 Kinase-Independent Pathway in Arabidopsis. Plant and Cell Physiology, 2019, 60, 2263-2271.	1.5	28
42	Negative Regulation of Methyl Jasmonate-Induced Stomatal Closure by Glutathione in Arabidopsis. Journal of Plant Growth Regulation, 2013, 32, 208-215.	2.8	26
43	Neither Endogenous Abscisic Acid nor Endogenous Jasmonate Is Involved in Salicylic Acid-, Yeast Elicitor-, or Chitosan-Induced Stomatal Closure inArabidopsis thaliana. Bioscience, Biotechnology and Biochemistry, 2013, 77, 1111-1113.	0.6	25
44	Endogenous abscisic acid is involved in methyl jasmonate-induced reactive oxygen species and nitric oxide production but not in cytosolic alkalization in Arabidopsis guard cells. Journal of Plant Physiology, 2013, 170, 1212-1215.	1.6	24
45	Calcium and ethylene glycol tetraacetic acid mitigate toxicity and alteration of gene expression associated with cadmium stress in chickpea (Cicer arietinum L.) shoots. Protoplasma, 2021, 258, 849-861.	1.0	23
46	Reactive Carbonyl Species Mediate Methyl Jasmonate-Induced Stomatal Closure. Plant and Cell Physiology, 2020, 61, 1788-1797.	1.5	21
47	FIA functions as an early signal component of abscisic acid signal cascade in Vicia faba guard cells. Journal of Experimental Botany, 2012, 63, 1357-1365.	2.4	20
48	3,4-Dihydroxyphenylacetic acid is a potential aldehyde dehydrogenase inducer in murine hepatoma Hepa1c1c7 cells. Bioscience, Biotechnology and Biochemistry, 2017, 81, 1978-1983.	0.6	19
49	Open Stomata 1 Kinase is Essential for Yeast Elicitor-Induced Stomatal Closure in Arabidopsis. Plant and Cell Physiology, 2015, 56, 1239-1248.	1.5	18
50	Benzyl isothiocyanate ameliorates acetaldehyde-induced cytotoxicity by enhancing aldehyde dehydrogenase activity in murine hepatoma Hepa1c1c7 cells. Food and Chemical Toxicology, 2017, 108, 305-313.	1.8	17
51	Oxalic Acid Mitigates Cadmium Toxicity in Cicer arietinum L. Germinating Seeds by Maintaining the Cellular Redox Homeostasis. Journal of Plant Growth Regulation, 2022, 41, 697-709.	2.8	17
52	Cyclic adenosine 5â€²â€diphosphoribose (<scp>cADPR</scp>) cyclic guanosine 3â€²,5â€²â€monophosphate positively function in Ca²⁺ elevation in methyl jasmonateâ€induced stomatal closure, <scp>cADPR</scp> is required for methyl jasmonateâ€induced ROS accumulation NO production in guard cells. Plant Biology, 2014, 16, 1140-1144.	1.8	14
53	Chitosan signaling in guard cells requires endogenous salicylic acid. Bioscience, Biotechnology and Biochemistry, 2017, 81, 1536-1541.	0.6	13
54	The Myrosinases TGG1 and TGG2 Function Redundantly in Reactive Carbonyl Species Signaling in Arabidopsis Guard Cells. Plant and Cell Physiology, 2020, 61, 967-977.	1.5	13

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55	The mechanism of SO₂â€induced stomatal closure differs from O₃ and CO₂ responses and is mediated by nonapoptotic cell death in guard cells. Plant, Cell and Environment, 2019, 42, 437-447.	2.8	12
56	Effects of calcium and EGTA on thiol homeostasis and defense-related enzymes in Cd-exposed chickpea roots. Acta Physiologiae Plantarum, 2018, 40, 1.	1.0	11
57	Exogenous proline enhances antioxidant enzyme activities but does not mitigate growth inhibition by selenate stress in tobacco BY-2 cells. Bioscience, Biotechnology and Biochemistry, 2020, 84, 2281-2292.	0.6	11
58	Methyl-Î²-cyclodextrin potentiates the BITC-induced anti-cancer effect through modulation of the Akt phosphorylation in human colorectal cancer cells. Bioscience, Biotechnology and Biochemistry, 2018, 82, 2158-2167.	0.6	10
59	Inhibition by acrolein of light-induced stomatal opening through inhibition of inward-rectifying potassium channels in Arabidopsis thaliana. Bioscience, Biotechnology and Biochemistry, 2015, 79, 59-62.	0.6	8
60	Salicylic acid receptor NPR1 is involved in guard cell chitosan signaling. Bioscience, Biotechnology and Biochemistry, 2020, 84, 963-969.	0.6	8
61	Purification of the functional plant membrane channel KAT1. Biochemical and Biophysical Research Communications, 2008, 374, 465-469.	1.0	7
62	K252a-sensitive protein kinases but not okadaic acid-sensitive protein phosphatases regulate methyl jasmonate-induced cytosolic Ca2+ oscillation in guard cells of Arabidopsis thaliana. Journal of Plant Physiology, 2011, 168, 1901-1908.	1.6	7
63	Exogenous proline enhances the sensitivity of Tobacco BY-2 cells to arsenate. Bioscience, Biotechnology and Biochemistry, 2017, 81, 1726-1731.	0.6	7
64	A novel tag-free probe for targeting molecules interacting with a flavonoid catabolite. Biochemistry and Biophysics Reports, 2016, 7, 240-245.	0.7	6
65	Galloylated Catechins as Potent Inhibitors of Angiotensin Converting Enzyme. Food Science and Technology Research, 2016, 22, 847-851.	0.3	5
66	Benzyl isothiocyanate ameliorates lipid accumulation in 3T3-L1 preadipocytes during adipocyte differentiation. Bioscience, Biotechnology and Biochemistry, 2018, 82, 2130-2139.	0.6	5
67	Stomatal response to isothiocyanates inArabidopsis thaliana. Journal of Experimental Botany, 2020, 71, 6921-6931.	2.4	5
68	Interaction of intracellular hydrogen peroxide accumulation with nitric oxide production in abscisic acid signaling in guard cells. Bioscience, Biotechnology and Biochemistry, 2020, 84, 1418-1426.	0.6	4
69	White rice ethanol extract is qualitatively, but not quantitatively, equivalent to that of brown rice as an antioxidant source. Bioscience, Biotechnology and Biochemistry, 2021, 85, 2161-2168.	0.6	4
70	Green Tea Catechins, (â^')â€Catechin Gallate, and (â^')â€Gallocatechin Gallate are Potent Inhibitors ofÂABAâ€induced Stomatal Closure. Advanced Science, 2022, 9, e2201403.	5.6	4
71	Modulation of frequency and height of cytosolic calcium spikes by plasma membrane anion channels in guard cells. Bioscience, Biotechnology and Biochemistry, 2021, 85, 2003-2010.	0.6	1
72	ELEVATION OF CYTOSOLIC CALCIUM IN GUARD CELLS. Journal of Environmental Science for Sustainable Society, 2021, 10, MR02_p5-MR02_p8.	0.1	0