

Zhen-Ming Pei

List of Publications by Year in descending order

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53
papers

8,751
citations

185998

28
h-index

168136

53
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58
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58
docs citations

58
times ranked

7996
citing authors

#	ARTICLE	IF	CITATIONS
1	Calcium channels activated by hydrogen peroxide mediate abscisic acid signalling in guard cells. <i>Nature</i> , 2000, 406, 731-734.	13.7	1,938
2	NADPH oxidase <i>AtrbohD</i> and <i>AtrbohF</i> genes function in ROS-dependent ABA signaling in <i>Arabidopsis</i> . <i>EMBO Journal</i> , 2003, 22, 2623-2633.	3.5	1,474
3	<i>OSCA1</i> mediates osmotic-stress-evoked Ca^{2+} increases vital for osmosensing in <i>Arabidopsis</i> . <i>Nature</i> , 2014, 514, 367-371.	13.7	590
4	Abscisic Acid Activation of Plasma Membrane Ca^{2+} Channels in Guard Cells Requires Cytosolic NAD(P)H and Is Differentially Disrupted Upstream and Downstream of Reactive Oxygen Species Production in <i>abi1-1</i> and <i>abi2-1</i> Protein Phosphatase 2C Mutants. <i>Plant Cell</i> , 2001, 13, 2513-2523.	3.1	530
5	Nitric Oxide Represses the <i>Arabidopsis</i> Floral Transition. <i>Science</i> , 2004, 305, 1968-1971.	6.0	508
6	Plant cell-surface GIPC sphingolipids sense salt to trigger Ca^{2+} influx. <i>Nature</i> , 2019, 572, 341-346.	13.7	341
7	Role of Farnesyltransferase in ABA Regulation of Guard Cell Anion Channels and Plant Water Loss. , 1998, 282, 287-290.		334
8	Hydrogen peroxide sensor <i>HPCA1</i> is an LRR receptor kinase in <i>Arabidopsis</i> . <i>Nature</i> , 2020, 578, 577-581.	13.7	334
9	Hydrogen sulphide enhances photosynthesis through promoting chloroplast biogenesis, photosynthetic enzyme expression, and thiol redox modification in <i>Spinacia oleracea</i> seedlings. <i>Journal of Experimental Botany</i> , 2011, 62, 4481-4493.	2.4	317
10	Plant "helper" immune receptors are Ca^{2+} -permeable nonselective cation channels. <i>Science</i> , 2021, 373, 420-425.	6.0	217
11	A cell surface receptor mediates extracellular Ca^{2+} sensing in guard cells. <i>Nature</i> , 2003, 425, 196-200.	13.7	216
12	Coupling Diurnal Cytosolic Ca^{2+} Oscillations to the CAS-IP3 Pathway in <i>Arabidopsis</i> . <i>Science</i> , 2007, 315, 1423-1426.	6.0	167
13	Abscisic Acid Activation of Plasma Membrane Ca^{2+} Channels in Guard Cells Requires Cytosolic NAD(P)H and Is Differentially Disrupted Upstream and Downstream of Reactive Oxygen Species Production in <i>abi1-1</i> and <i>abi2-1</i> Protein Phosphatase 2C Mutants. <i>Plant Cell</i> , 2001, 13, 2513-2523.	3.1	151
14	Molecular evolutionary and structural analysis of the cytosolic DNA sensor cGAS and STING. <i>Nucleic Acids Research</i> , 2014, 42, 8243-8257.	6.5	148
15	Exploring the Mechanism of <i>Physcomitrella patens</i> Desiccation Tolerance through a Proteomic Strategy. <i>Plant Physiology</i> , 2009, 149, 1739-1750.	2.3	130
16	Nitric oxide enhances salt secretion and Na^{+} sequestration in a mangrove plant, <i>Avicennia marina</i> , through increasing the expression of H^{+} -ATPase and Na^{+}/H^{+} antiporter under high salinity. <i>Tree Physiology</i> , 2010, 30, 1570-1585.	1.4	124
17	Cytokinins can act as suppressors of nitric oxide in <i>Arabidopsis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 1548-1553.	3.3	108
18	Calcium-sensing receptor regulates stomatal closure through hydrogen peroxide and nitric oxide in response to extracellular calcium in <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2012, 63, 177-190.	2.4	103

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19	Magnesium Sensitizes Slow Vacuolar Channels to Physiological Cytosolic Calcium and Inhibits Fast Vacuolar Channels in Fava Bean Guard Cell Vacuoles. <i>Plant Physiology</i> , 1999, 121, 977-986.	2.3	98
20	Differential Abscisic Acid Regulation of Guard Cell Slow Anion Channels in Arabidopsis Wild-Type and <i>abi1</i> and <i>abi2</i> Mutants. <i>Plant Cell</i> , 1997, 9, 409.	3.1	84
21	Genome-wide survey and expression analysis of the OSCA gene family in rice. <i>BMC Plant Biology</i> , 2015, 15, 261.	1.6	78
22	L-Met Activates Arabidopsis GLR Ca ²⁺ Channels Upstream of ROS Production and Regulates Stomatal Movement. <i>Cell Reports</i> , 2016, 17, 2553-2561.	2.9	71
23	Improving the Measurement of Semantic Similarity between Gene Ontology Terms and Gene Products: Insights from an Edge- and IC-Based Hybrid Method. <i>PLoS ONE</i> , 2013, 8, e66745.	1.1	61
24	Effects of calcium on seed germination, seedling growth and photosynthesis of six forest tree species under simulated acid rain. <i>Tree Physiology</i> , 2011, 31, 402-413.	1.4	52
25	Early ABA Signaling Events in Guard Cells. <i>Journal of Plant Growth Regulation</i> , 2005, 24, 296-307.	2.8	51
26	Plasmonic Nanoprobes for in Vivo Multimodal Sensing and Bioimaging of MicroRNA within Plants. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 7743-7754.	4.0	42
27	Biotic and Abiotic Stresses Activate Different Ca ²⁺ Permeable Channels in Arabidopsis. <i>Frontiers in Plant Science</i> , 2017, 8, 83.	1.7	41
28	Expression of a Cs ⁺ -Resistant Guard Cell K ⁺ Channel Confers Cs ⁺ -Resistant, Light-Induced Stomatal Opening in Transgenic Arabidopsis. <i>Plant Cell</i> , 1997, 9, 1843.	3.1	37
29	Comparative Proteomic Analysis of Proteins in Response to Simulated Acid Rain in <i>Arabidopsis</i> . <i>Journal of Proteome Research</i> , 2011, 10, 2579-2589.	1.8	35
30	Proteome and calcium-related gene expression in <i>Pinus massoniana</i> needles in response to acid rain under different calcium levels. <i>Plant and Soil</i> , 2014, 380, 285-303.	1.8	31
31	Calcium and calcium receptor CAS promote <i>Arabidopsis thaliana</i> de-etiolation. <i>Physiologia Plantarum</i> , 2012, 144, 73-82.	2.6	30
32	A transient outward-rectifying K ⁺ channel current down-regulated by cytosolic Ca ²⁺ in Arabidopsis <i>thaliana</i> guard cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 6548-6553.	3.3	28
33	Relationship between NaCl- and H ₂ O ₂ -Induced Cytosolic Ca ²⁺ Increases in Response to Stress in Arabidopsis. <i>PLoS ONE</i> , 2013, 8, e76130.	1.1	28
34	Diurnal variation of nitric oxide emission flux from a mangrove wetland in Zhangjiang River Estuary, China. <i>Estuarine, Coastal and Shelf Science</i> , 2010, 90, 212-220.	0.9	27
35	The crosstalk between ABA, nitric oxide, hydrogen peroxide, and calcium in stomatal closing of <i>Arabidopsis thaliana</i> . <i>Biologia (Poland)</i> , 2017, 72, 1140-1146.	0.8	27
36	Comparative proteomic analysis of differentially expressed proteins in <i>Arabidopsis thaliana</i> tolerance to simulated acid rain. <i>Proteomics</i> , 2011, 11, 2079-2094.	1.3	24

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37	Emissions of nitric oxide from 79 plant species in response to simulated nitrogen deposition. <i>Environmental Pollution</i> , 2012, 160, 192-200.	3.7	23
38	Soil acidity reconstruction based on tree ring information of a dominant species <i>Abies fabri</i> in the subalpine forest ecosystems in southwest China. <i>Environmental Pollution</i> , 2010, 158, 3219-3224.	3.7	20
39	Osmotic stress alters circadian cytosolic Ca ²⁺ oscillations and OSCA1 is required in circadian gated stress adaptation. <i>Plant Signaling and Behavior</i> , 2020, 15, 1836883.	1.2	20
40	Background ion channel activities in <i>Arabidopsis</i> guard cells and review of ion channel regulation by protein phosphorylation events. <i>Journal of Experimental Botany</i> , 1998, 49, 319-328.	2.4	15
41	The changes of nitric oxide production during the growth of <i>Microcystis aeruginosa</i> . <i>Environmental Pollution</i> , 2011, 159, 3784-3792.	3.7	13
42	Short- and long-term effects of NaCl on physiological and biochemical characteristics in leaves of a true mangrove, <i>Kandelia candel</i> . <i>Russian Journal of Plant Physiology</i> , 2009, 56, 363-369.	0.5	11
43	Flg22-induced Ca ²⁺ increases undergo desensitization and resensitization. <i>Plant, Cell and Environment</i> , 2021, 44, 3793-3805.	2.8	11
44	OSCA1 is an osmotic specific sensor: a method to distinguish Ca ²⁺ -mediated osmotic and ionic perception. <i>New Phytologist</i> , 2022, 235, 1665-1678.	3.5	10
45	Microwave-assisted extraction and identification of polysaccharide from <i>Lycoris aurea</i> . <i>Chemistry of Natural Compounds</i> , 2009, 45, 474-477.	0.2	8
46	Effect of salinity on osmotic adjustment characteristics of <i>Kandelia candel</i> . <i>Russian Journal of Plant Physiology</i> , 2011, 58, 226-232.	0.5	8
47	Sensors Make Sense of Signaling. <i>Plant and Cell Physiology</i> , 2017, 58, 1121-1125.	1.5	6
48	Both NaCl and H ₂ O ₂ Long-Term Stresses Affect Basal Cytosolic Ca ²⁺ Levels but Only NaCl Alters Cytosolic Ca ²⁺ Signatures in <i>Arabidopsis</i> . <i>Frontiers in Plant Science</i> , 2018, 9, 1390.	1.7	5
49	Evolution of osmosensing OSCA1 Ca ²⁺ channel family coincident with plant transition from water to land. <i>Plant Genome</i> , 2022, 15, e20198.	1.6	5
50	Genome-wide identification and transcriptomic data exploring of the cytochrome P450 family in Chinese cabbage (<i>Brassica rapa</i> L. ssp. <i>pekinensis</i>). <i>Journal of Plant Interactions</i> , 2021, 16, 136-155.	1.0	4
51	GSK2193874 treatment at heatstroke onset reduced cell apoptosis in heatstroke mice. <i>Cellular and Molecular Biology</i> , 2018, 64, 36-42.	0.3	2
52	Sustenance of endothelial cell stability in septic mice through appropriate activation of transient receptor potential vanilloid-4. <i>Cellular and Molecular Biology</i> , 2018, 64, 80-85.	0.3	1
53	Calcium Signals and Their Regulation. , 0, , 137-162.		0