

Yizhou Wang

List of Publications by Year in descending order

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Version: 2024-02-01

29
papers

1,734
citations

304743

22
h-index

552781

26
g-index

30
all docs

30
docs citations

30
times ranked

2194
citing authors

#	ARTICLE	IF	CITATIONS
1	Optogenetic manipulation of stomatal kinetics improves carbon assimilation, water use, and growth. <i>Science</i> , 2019, 363, 1456-1459.	12.6	205
2	Molecular Evolution of Grass Stomata. <i>Trends in Plant Science</i> , 2017, 22, 124-139.	8.8	202
3	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
4	Evolutionary Conservation of ABA Signaling for Stomatal Closure. <i>Plant Physiology</i> , 2017, 174, 732-747.	4.8	158
5	Nitrate reductase mutation alters potassium nutrition as well as nitric oxide-mediated control of guard cell ion channels in <i>Arabidopsis</i> . <i>New Phytologist</i> , 2016, 209, 1456-1469.	7.3	93
6	The <i>Arabidopsis</i> R-SNARE VAMP721 Interacts with KAT1 and KC1 K ⁺ Channels to Moderate K ⁺ Current at the Plasma Membrane. <i>Plant Cell</i> , 2015, 27, 1697-1717.	6.6	84
7	Systems Dynamic Modeling of a Guard Cell Cl ⁻ Channel Mutant Uncovers an Emergent Homeostatic Network Regulating Stomatal Transpiration. <i>Plant Physiology</i> , 2012, 160, 1956-1967.	4.8	83
8	PYR/PYL/RCAR Abscisic Acid Receptors Regulate K ⁺ and Cl ⁻ Channels through Reactive Oxygen Species-Mediated Activation of Ca ²⁺ Channels at the Plasma Membrane of Intact <i>Arabidopsis</i> Guard Cells. <i>Plant Physiology</i> , 2013, 163, 566-577.	4.8	82
9	Guard Cell Starch Degradation Yields Glucose for Rapid Stomatal Opening in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2020, 32, 2325-2344.	6.6	62
10	Systems Analysis of Guard Cell Membrane Transport for Enhanced Stomatal Dynamics and Water Use Efficiency. <i>Plant Physiology</i> , 2014, 164, 1593-1599.	4.8	57
11	HvAKT2 and HvHAK1 confer drought tolerance in barley through enhanced leaf mesophyll H ⁺ homeostasis. <i>Plant Biotechnology Journal</i> , 2020, 18, 1683-1696.	8.3	54
12	A vesicle-trafficking protein commandeers Kv channel voltage sensors for voltage-dependent secretion. <i>Nature Plants</i> , 2015, 1, 15108.	9.3	53
13	An Optimal Frequency in Ca ²⁺ Oscillations for Stomatal Closure Is an Emergent Property of Ion Transport in Guard Cells. <i>Plant Physiology</i> , 2016, 170, 33-42.	4.8	51
14	Exploring emergent properties in cellular homeostasis using OnGuard to model K ⁺ and other ion transport in guard cells. <i>Journal of Plant Physiology</i> , 2014, 171, 770-778.	3.5	49
15	Modelling water use efficiency in a dynamic environment: An example using <i>Arabidopsis thaliana</i> . <i>Plant Science</i> , 2016, 251, 65-74.	3.6	42
16	Anion channel sensitivity to cytosolic organic acids implicates a central role for oxaloacetate in integrating ion flux with metabolism in stomatal guard cells. <i>Biochemical Journal</i> , 2011, 439, 161-170.	3.7	40
17	Unexpected Connections between Humidity and Ion Transport Discovered Using a Model to Bridge Guard Cell-to-Leaf Scales. <i>Plant Cell</i> , 2017, 29, 2921-2939.	6.6	39
18	An ATP binding cassette transporter HvABC25 confers aluminum detoxification in wild barley. <i>Journal of Hazardous Materials</i> , 2021, 401, 123371.	12.4	33

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19	Loss of nitrate reductases NIA1 and NIA2 impairs stomatal closure by altering genes of core ABA signaling components in Arabidopsis. <i>Plant Signaling and Behavior</i> , 2016, 11, e1183088.	2.4	32
20	Overexpression of HvAKT1 improves drought tolerance in barley by regulating root ion homeostasis and ROS and NO signaling. <i>Journal of Experimental Botany</i> , 2020, 71, 6587-6600.	4.8	31
21	Guard cell endomembrane Ca ²⁺ -ATPases underpin a "carbon memory"™ of photosynthetic assimilation that impacts on water-use efficiency. <i>Nature Plants</i> , 2021, 7, 1301-1313.	9.3	28
22	Global Sensitivity Analysis of OnGuard Models Identifies Key Hubs for Transport Interaction in Stomatal Dynamics. <i>Plant Physiology</i> , 2017, 174, 680-688.	4.8	23
23	HvPAA1 Encodes a P-Type ATPase, a Novel Gene for Cadmium Accumulation and Tolerance in Barley (<i>Hordeum vulgare</i> L.). <i>International Journal of Molecular Sciences</i> , 2019, 20, 1732.	4.1	20
24	An miR156-regulated nucleobase-ascorbate transporter 2 confers cadmium tolerance via enhanced anti-oxidative capacity in barley. <i>Journal of Advanced Research</i> , 2023, 44, 23-37.	9.5	11
25	Mechanistic Insights into Potassium-Conferred Drought Stress Tolerance in Cultivated and Tibetan Wild Barley: Differential Osmoregulation, Nutrient Retention, Secondary Metabolism and Antioxidative Defense Capacity. <i>International Journal of Molecular Sciences</i> , 2021, 22, 13100.	4.1	7
26	The conceptual approach to quantitative modeling of guard cells. <i>Plant Signaling and Behavior</i> , 2013, 8, e22747.	2.4	2
27	Optimized Protocol for OnGuard2 Software in Studying Guard Cell Membrane Transport and Stomatal Physiology. <i>Frontiers in Plant Science</i> , 2020, 11, 131.	3.6	0
28	Emergent Oscillatory Properties in Modelling Ion Transport of Guard Cells. , 2015, , 323-342.		0
29	Editorial: Transport and Membrane Traffic in Stomatal Biology. <i>Frontiers in Plant Science</i> , 2022, 13, .	3.6	0