

Adrian Hills

List of Publications by Year in descending order

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Version: 2024-02-01

27
papers

2,239
citations

361413

20
h-index

552781

26
g-index

28
all docs

28
docs citations

28
times ranked

2493
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitric oxide regulates K ⁺ and Cl ⁻ channels in guard cells through a subset of abscisic acid-evoked signaling pathways. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11116-11121.	7.1	371
2	EZâ€R<scp>hizo</scp>: integrated software for the fast and accurate measurement of root system architecture. <i>Plant Journal</i> , 2009, 57, 945-956.	5.7	228
3	Molecular Evolution of Grass Stomata. <i>Trends in Plant Science</i> , 2017, 22, 124-139.	8.8	202
4	Evolutionary Conservation of ABA Signaling for Stomatal Closure. <i>Plant Physiology</i> , 2017, 174, 732-747.	4.8	158
5	OnGuard, a Computational Platform for Quantitative Kinetic Modeling of Guard Cell Physiology Â Â. <i>Plant Physiology</i> , 2012, 159, 1026-1042.	4.8	153
6	Evolution of chloroplast retrograde signaling facilitates green plant adaptation to land. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 5015-5020.	7.1	138
7	Systems Dynamic Modeling of the Stomatal Guard Cell Predicts Emergent Behaviors in Transport, Signaling, and Volume Control Â Â. <i>Plant Physiology</i> , 2012, 159, 1235-1251.	4.8	136
8	Dynamic regulation of guard cell anion channels by cytosolic free Ca ²⁺ concentration and protein phosphorylation. <i>Plant Journal</i> , 2010, 61, 816-825.	5.7	115
9	Nitrate reductase mutation alters potassium nutrition as well as nitric oxideâ€mediated control of guard cell ion channels in <i>Arabidopsis</i>. <i>New Phytologist</i> , 2016, 209, 1456-1469.	7.3	93
10	Systems Dynamic Modeling of a Guard Cell Clâˆ Channel Mutant Uncovers an Emergent Homeostatic Network Regulating Stomatal Transpiration Â Â. <i>Plant Physiology</i> , 2012, 160, 1956-1967.	4.8	83
11	PYR/PYL/RCAR Abscisic Acid Receptors Regulate K ⁺ and Clâˆ Channels through Reactive Oxygen Species-Mediated Activation of Ca ²⁺ Channels at the Plasma Membrane of Intact Arabidopsis Guard Cells Â Â. <i>Plant Physiology</i> , 2013, 163, 566-577.	4.8	82
12	Guard Cell Starch Degradation Yields Glucose for Rapid Stomatal Opening in Arabidopsis. <i>Plant Cell</i> , 2020, 32, 2325-2344.	6.6	62
13	Systems Analysis of Guard Cell Membrane Transport for Enhanced Stomatal Dynamics and Water Use Efficiency Â Â. <i>Plant Physiology</i> , 2014, 164, 1593-1599.	4.8	57
14	A vesicle-trafficking protein commandeers Kv channel voltage sensors for voltage-dependent secretion. <i>Nature Plants</i> , 2015, 1, 15108.	9.3	53
15	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
16	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
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	EZ-Root-VIS: A Software Pipeline for the Rapid Analysis and Visual Reconstruction of Root System Architecture. <i>Plant Physiology</i> , 2018, 177, 1368-1381.	4.8	38

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19	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
20	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
21	A constraint “relaxation” recovery mechanism for stomatal dynamics. <i>Plant, Cell and Environment</i> , 2019, 42, 2399-2410.	5.7	23
22	Communication between the Plasma Membrane and Tonoplast Is an Emergent Property of Ion Transport. <i>Plant Physiology</i> , 2020, 182, 1833-1835.	4.8	21
23	What can mechanistic models tell us about guard cells, photosynthesis, and water use efficiency?. <i>Trends in Plant Science</i> , 2022, 27, 166-179.	8.8	18
24	Protocol: optimised electrophysiological analysis of intact guard cells from Arabidopsis. <i>Plant Methods</i> , 2012, 8, 15.	4.3	13
25	Predicting the unexpected in stomatal gas exchange: not just an open-and-shut case. <i>Biochemical Society Transactions</i> , 2020, 48, 881-889.	3.4	3
26	The conceptual approach to quantitative modeling of guard cells. <i>Plant Signaling and Behavior</i> , 2013, 8, e22747.	2.4	2
27	Bridging Scales from Protein Function to Whole-Plant Water Relations with the OnGuard Platform. , 2018, , 69-86.		0