Petra Dietrich

List of Publications by Year
in descending order

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45 papers	3,360 citations	159585 30 h-index	233421 45 g-index
47 all docs	47 docs citations	47 times ranked	3024 citing authors

#	Article	IF	Citations
1	GORK, a delayed outward rectifier expressed in guard cells of Arabidopsis thaliana , is a K+ -selective, K+ -sensing ion channel. FEBS Letters, 2000, 486, 93-98.	2.8	296
2	KAT1 is not essential for stomatal opening. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 2917-2921.	7.1	226
3	Aluminum Activates a Citrate-Permeable Anion Channel in the Aluminum-Sensitive Zone of the Maize Root Apex. A Comparison Between an Aluminum- Sensitive and an Aluminum-Resistant Cultivar. Plant Physiology, 2001, 126, 397-410.	4.8	168
4	Cytosolic abscisic acid activates guard cell anion channels without preceding Ca2+ signals. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4203-4208.	7.1	166
5	Loss of the vacuolar cation channel, AtTPC1, does not impair Ca²⁺ signals induced by abiotic and biotic stresses. Plant Journal, 2008, 53, 287-299.	5.7	164
6	AUX1-mediated root hair auxin influx governs SCFTIR1/AFB-type Ca2+ signaling. Nature Communications, 2018, 9, 1174.	12.8	160
7	AtGLR3.4, a glutamate receptor channel-like gene is sensitive to touch and cold. Planta, 2005, 222, 418-427.	3.2	156
8	Blue light activates calcium-permeable channels in Arabidopsis mesophyll cells via the phototropin signaling pathway. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1456-1461.	7.1	155
9	Malate-sensitive anion channels enable guard cells to sense changes in the ambient CO2 concentration. Plant Journal, 1994, 6, 741-748.	5.7	143
10	AtTPK4, an Arabidopsis tandem-pore K+ channel, poised to control the pollen membrane voltage in a pH- and Ca2+-dependent manner. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15621-15626.	7.1	137
11	Molecular basis of plant-specific acid activation of K+ uptake channels. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 4806-4810.	7.1	133
12	The role of ion channels in lightâ€dependent stomatal opening. Journal of Experimental Botany, 2001, 52, 1959-1967.	4.8	100
13	Salt-dependent regulation of a CNG channel subfamily in Arabidopsis. BMC Plant Biology, 2009, 9, 140.	3.6	95
14	An IQ Domain Mediates the Interaction with Calmodulin in a Plant Cyclic Nucleotide-Gated Channel. Plant and Cell Physiology, 2013, 54, 573-584.	3.1	94
15	Ca2+-Dependent and -Independent Abscisic Acid Activation of Plasma Membrane Anion Channels in Guard Cells of Nicotiana tabacum Â. Plant Physiology, 2007, 143, 28-37.	4.8	79
16	Arabidopsis INOSITOL TRANSPORTER2 Mediates H⁺ Symport of Different Inositol Epimers and Derivatives across the Plasma Membrane. Plant Physiology, 2007, 145, 1395-1407.	4.8	68
17	Differential contribution of EFâ€hands to the Ca²⁺â€dependent activation in the plant twoâ€pore channel TPC1. Plant Journal, 2011, 68, 424-432.	5.7	68
18	Channel-mediated high-affinity K+ uptake into guard cells from Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 3298-3302.	7.1	66

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19	The phosphoinositide PI(3,5)P2 mediates activation of mammalian but not plant TPC proteins: functional expression of endolysosomal channels in yeast and plant cells. Cellular and Molecular Life Sciences, 2014, 71, 4275-4283.	5.4	63
20	Calmodulin as a Ca2+-Sensing Subunit of Arabidopsis Cyclic Nucleotide-Gated Channel Complexes. Plant and Cell Physiology, 2017, 58, 1208-1221.	3.1	58
21	Plant Cyclic Nucleotide-Gated Channels: New Insights on Their Functions and Regulation. Plant Physiology, 2020, 184, 27-38.	4.8	55
22	Kinase activity and calmodulin binding are essential for growth signaling by the phytosulfokine receptor <scp>PSKR</scp>1. Plant Journal, 2014, 78, 192-202.	5.7	54
23	Multiple cyclic nucleotideâ€gated channels coordinate calcium oscillations and polar growth of root hairs. Plant Journal, 2019, 99, 910-923.	5.7	54
24	Cation sensitivity and kinetics of guard-cell potassium channels differ among species. Planta, 1998, 205, 277-287.	3.2	49
25	Anions permeate and gate GCAC1, a voltageâ€dependent guard cell anion channel. Plant Journal, 1998, 15, 479-487.	5.7	49
26	A unified multi-kingdom Golden Gate cloning platform. Scientific Reports, 2019, 9, 10131.	3.3	45
27	An Nâ€Terminal Dileucine Motif Directs Twoâ€Pore Channels to the Tonoplast of Plant Cells. Traffic, 2012, 13, 1012-1022.	2.7	43
28	Protoplast-Esculin Assay as a New Method to Assay Plant Sucrose Transporters: Characterization of AtSUC6 and AtSUC7 Sucrose Uptake Activity in Arabidopsis Col-0 Ecotype. Frontiers in Plant Science, 2018, 9, 430.	3.6	43
29	Interconversion of fast and slow gating modes of GCAC1, a Guard Cell Anion Channel. Planta, 1994, 195, 301.	3.2	41
30	Plant K⁺ Channels: Similarity and Diversity. Botanica Acta, 1996, 109, 94-101.	1.6	40
31	Pronounced differences between the native K + channels and KAT1 and KST1 Î±-subunit homomers of guard cells. Planta, 1999, 207, 370-376.	3.2	40
32	A quantitative hypermorphic CNGC allele confers ectopic calcium flux and impairs cellular development. ELife, 2017, 6, .	6.0	30
33	The function of the two-pore channel TPC1 depends on dimerization of its carboxy-terminal helix. Cellular and Molecular Life Sciences, 2016, 73, 2565-2581.	5.4	28
34	Phosphatidylinositol-3,5-bisphosphate lipid-binding-induced activation of the human two-pore channel 2. Cellular and Molecular Life Sciences, 2018, 75, 3803-3815.	5.4	28
35	The Xanthomonas campestris pv. vesicatoria Type-3 Effector XopB Inhibits Plant Defence Responses by Interfering with ROS Production. PLoS ONE, 2016, 11, e0159107.	2.5	28
36	Histidine118 in the S2â€“S3 Linker Specifically Controls Activation of the KAT1 Channel Expressed in Xenopus Oocytes. Biophysical Journal, 2000, 78, 1255-1269.	0.5	27

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37	Parallel recordings of photosynthetic electron transport and K+-channel activity in single guard cells. Plant Journal, 2002, 32, 623-630.	5.7	25
38	Durotropic Growth of Pollen Tubes. Plant Physiology, 2020, 183, 558-569.	4.8	25
39	Novel PSI Domains in Plant and Animal H+-Inositol Symporters. Traffic, 2010, 11, 767-781.	2.7	16
40	Stringent control of cytoplasmic Ca2+ in guard cells of intact plants compared to their counterparts in epidermal strips or guard cell protoplasts. Protoplasma, 2008, 233, 61-72.	2.1	13
41	Nucleotides and Mg2+ Ions Differentially Regulate K+ Channels and Non-Selective Cation Channels Present in Cells Forming the Stomatal Complex. Plant and Cell Physiology, 2005, 46, 1682-1689.	3.1	11
42	The Cell Fate Controlling CLE40 Peptide Requires CNGCs to Trigger Highly Localized Ca2+ Transients inArabidopsis thalianaRoot Meristems. Plant and Cell Physiology, 2021, 62, 1290-1301.	3.1	7
43	Current Methods to Unravel the Functional Properties of Lysosomal Ion Channels and Transporters. Cells, 2022, 11, 921.	4.1	7
44	BiFC Assay to Detect Calmodulin Binding to Plant Receptor Kinases. Methods in Molecular Biology, 2017, 1621, 141-149.	0.9	3
45	Rapid depolarization and cytosolic calcium increase go handâ€inâ€hand in mesophyll cellsâ€™ ozone response. New Phytologist, 2021, 232, 1692-1702.	7.3	3