Karin Schumacher

List of Publications by Year
in descending order

83 papers	12,608 citations	36203 51 h-index	54797 84 g-index
101 all docs	101 docs citations	101 times ranked	13815 citing authors

#	Article	IF	Citations
1	Auxin analog-induced Ca2+ signaling is independent of inhibition of endosomal aggregation in Arabidopsis roots. Journal of Experimental Botany, 2022, , .	2.4	4
2	An integrative view on vacuolar pH homeostasis in Arabidopsis thaliana: Combining mathematical modeling and experimentation. Plant Journal, 2021, 106, 1541-1556.	2.8	5
3	ClCd and ClCf act redundantly at the trans-Golgi network/early endosome and prevent acidification of the Golgi stack. Journal of Cell Science, 2021, 134, .	1.2	8
4	Distinct Roles of N-Terminal Fatty Acid Acylation of the Salinity-Sensor Protein SOS3. Frontiers in Plant Science, 2021, 12, 691124.	1.7	8
5	Ureide Permease 5 (AtUPS5) Connects Cell Compartments Involved in Ureide Metabolism. Plant Physiology, 2020, 182, 1310-1325.	2.3	11
6	Dual-Reporting Transcriptionally Linked Genetically Encoded Fluorescent Indicators Resolve the Spatiotemporal Coordination of Cytosolic Abscisic Acid and Second Messenger Dynamics in Arabidopsis. Plant Cell, 2020, 32, 2582-2601.	3.1	57
7	The biogenesis of CLEL peptides involves several processing events in consecutive compartments of the secretory pathway. ELife, 2020, 9, .	2.8	28
8	The Arabidopsis V-ATPase is localized to the TGN/EE via a seed plant-specific motif. ELife, 2020, 9, .	2.8	22
9	Multiple cyclic nucleotideâ€gated channels coordinate calcium oscillations and polar growth of root hairs. Plant Journal, 2019, 99, 910-923.	2.8	54
10	NHX-type Na+(K+)/H+ antiporters are required for TGN/EE trafficking and endosomal ion homeostasis inArabidopsis. Journal of Cell Science, 2019, 132, .	1.2	40
11	Pathogenâ€induced<scp>pH</scp>changes regulate the growthâ€defense balance in plants. EMBO Journal, 2019, 38, e101822.	3.5	65
12	Modulation of ABA responses by the protein kinase WNK8. FEBS Letters, 2019, 593, 339-351.	1.3	10
13	Distinct sets of tethering complexes, SNARE complexes, and Rab GTPases mediate membrane fusion at the vacuole in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2457-E2466.	3.3	114
14	Advances and current challenges in calcium signaling. New Phytologist, 2018, 218, 414-431.	3.5	423
15	Pumping up the volume â^' vacuole biogenesis in Arabidopsis thaliana. Seminars in Cell and Developmental Biology, 2018, 80, 106-112.	2.3	42
16	A rice Serine/Threonine receptor-like kinase regulates arbuscular mycorrhizal symbiosis at the peri-arbuscular membrane. Nature Communications, 2018, 9, 4677.	5.8	45
17	High Vâ€PPase activity is beneficial under high salt loads, but detrimental without salinity. New Phytologist, 2018, 219, 1421-1432.	3.5	37
18	Phosphoinositides control the localization of HOPS subunit VPS41, which together with VPS33 mediates vacuole fusion in plants. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8305-E8314.	3.3	34

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19	Multiparameter imaging of calcium and abscisic acid and highâ€resolution quantitative calcium measurements using Râ€GECO1â€mTurquoise in Arabidopsis. New Phytologist, 2017, 216, 303-320.	3.5	105
20	Editorial overview: Cell biology: Membrane dynamics â€“ being at the right place at the right time. Current Opinion in Plant Biology, 2017, 40, iii-iv.	3.5	1
21	Mitochondrial uncouplers inhibit clathrin-mediated endocytosis largely through cytoplasmic acidification. Nature Communications, 2016, 7, 11710.	5.8	98
22	Actin-dependent vacuolar occupancy of the cell determines auxin-induced growth repression. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 452-457.	3.3	130
23	V-ATPase activity in the TGN/EE is required for exocytosis and recycling in Arabidopsis. Nature Plants, 2015, 1, 15094.	4.7	127
24	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
25	Cytosolic Ca2+ Signals Enhance the Vacuolar Ion Conductivity of Bulging Arabidopsis Root Hair Cells. Molecular Plant, 2015, 8, 1665-1674.	3.9	33
26	Live Cell Imaging with R-GECO1 Sheds Light on flg22- and Chitin-Induced Transient [Ca 2+] cyt Patterns in Arabidopsis. Molecular Plant, 2015, 8, 1188-1200.	3.9	150
27	Job Sharing in the Endomembrane System: Vacuolar Acidification Requires the Combined Activity of V-ATPase and V-PPase. Plant Cell, 2015, 27, 3383-3396.	3.1	92
28	A receptor-like protein mediates the response to pectin modification by activating brassinosteroid signaling. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15261-15266.	3.3	143
29	Control of vacuolar dynamics and regulation of stomatal aperture by tonoplast potassium uptake. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1806-14.	3.3	171
30	The vacuolar calcium sensors <scp>CBL</scp>2 and <scp>CBL</scp>3 affect seed size and embryonic development in Arabidopsis thaliana. Plant Journal, 2014, 78, 146-156.	2.8	46
31	pH in the plant endomembrane system â€” an import and export business. Current Opinion in Plant Biology, 2014, 22, 71-76.	3.5	75
32	Programmed Cell Death Controlled by ANAC033/SOMBRERO Determines Root Cap Organ Size in Arabidopsis. Current Biology, 2014, 24, 931-940.	1.8	200
33	Protein Delivery to Vacuole Requires SAND Protein-Dependent Rab GTPase Conversion for MVB-Vacuole Fusion. Current Biology, 2014, 24, 1383-1389.	1.8	144
34	The Endoplasmic Reticulum Is the Main Membrane Source for Biogenesis of the Lytic Vacuole inArabidopsisÂ. Plant Cell, 2013, 25, 3434-3449.	3.1	162
35	PDMP induces rapid changes in vacuole morphology in Arabidopsis root cells. Journal of Experimental Botany, 2013, 64, 529-540.	2.4	11
36	Ca²⁺ Imaging in Plants Using Genetically Encoded Yellow Cameleon Ca²⁺ Indicators. Cold Spring Harbor Protocols, 2013, 2013, pdb.top066183.	0.2	18

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37	Live Cell Imaging of Cytoplasmic and Nuclear Ca²⁺ Dynamics in Arabidopsis Roots. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot073031.	0.2	19
38	Fluorescent Dye Based Measurement of Vacuolar pH and K+. Bio-protocol, 2013, 3, .	0.2	4
39	Luminal and Cytosolic pH Feedback on Proton Pump Activity and ATP Affinity of V-type ATPase from Arabidopsis. Journal of Biological Chemistry, 2012, 287, 8986-8993.	1.6	36
40	Isolation and proteomic analysis of the SYP61 compartment reveal its role in exocytic trafficking in Arabidopsis. Cell Research, 2012, 22, 413-424.	5.7	211
41	Regulation of the V-type ATPase by redox modulation. Biochemical Journal, 2012, 448, 243-251.	1.7	28
42	Degradation of the antiviral component ARGONAUTE1 by the autophagy pathway. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15942-15946.	3.3	251
43	Lack of the Golgi phosphate transporter PHT4;6 causes strong developmental defects, constitutively activated disease resistance mechanisms and altered intracellular phosphate compartmentation in Arabidopsis. Plant Journal, 2012, 72, 732-744.	2.8	49
44	FRETâ€based genetically encoded sensors allow highâ€resolution live cell imaging of Ca²⁺ dynamics. Plant Journal, 2012, 69, 181-192.	2.8	235
45	Patterns of plant subcellular responses to successful oomycete infections reveal differences in host cell reprogramming and endocytic trafficking. Cellular Microbiology, 2012, 14, 682-697.	1.1	111
46	Multivesicular Bodies Mature from the Trans-Golgi Network/Early Endosome in Arabidopsis Â. Plant Cell, 2011, 23, 3463-3481.	3.1	236
47	V-ATPases: Rotary Engines for Transport and Traffic. Signaling and Communication in Plants, 2011, , 293-312.	0.5	2
48	The V-ATPase: small cargo, large effects. Current Opinion in Plant Biology, 2010, 13, 724-730.	3.5	135
49	Functional analysis of Arabidopsis V-ATPase subunit VHA-E isoforms. European Journal of Cell Biology, 2010, 89, 152-156.	1.6	19
50	A ubiquitin-10 promoter-based vector set for fluorescent protein tagging facilitates temporal stability and native protein distribution in transient and stable expression studies. Plant Journal, 2010, 64, 355-365.	2.8	499
51	Arabidopsis V-ATPase activity at the tonoplast is required for efficient nutrient storage but not for sodium accumulation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3251-3256.	3.3	280
52	Endocytic and Secretory Traffic in Arabidopsis Merge in the Trans-Golgi Network/Early Endosome, an Independent and Highly Dynamic Organelle. Plant Cell, 2010, 22, 1344-1357.	3.1	435
53	Pausing of Golgi Bodies on Microtubules Regulates Secretion of Cellulose Synthase Complexes in Arabidopsis Â. Plant Cell, 2009, 21, 1141-1154.	3.1	437
54	Cell biology. Current Opinion in Plant Biology, 2009, 12, 651-652.	3.5	2

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55	Arabidopsis has Two Functional Orthologs of the Yeast Vâ€ATPase Assembly Factor Vma21p. Traffic, 2008, 9, 1618-1628.	1.3	15
56	The Endosomal System of Plants: Charting New and Familiar Territories. Plant Physiology, 2008, 147, 1482-1492.	2.3	223
57	Reduced V-ATPase Activity in thetrans-Golgi Network Causes Oxylipin-Dependent Hypocotyl Growth Inhibition inArabidopsisÂ. Plant Cell, 2008, 20, 1088-1100.	3.1	117
58	Targeting of Vacuolar Membrane Localized Members of the TPK Channel Family. Molecular Plant, 2008, 1, 938-949.	3.9	68
59	Endosomal signaling of plant steroid receptor kinase BRI1. Genes and Development, 2007, 21, 1598-1602.	2.7	349
60	Plant neurobiology: no brain, no gain?. Trends in Plant Science, 2007, 12, 135-136.	4.3	146
61	Plant proton pumps. FEBS Letters, 2007, 581, 2204-2214.	1.3	450
62	Function of the anion transporter AtCLC-d in the trans-Golgi network. Plant Journal, 2007, 50, 466-474.	2.8	115
63	Plant Cytokinesis Requires De Novo Secretory Trafficking but Not Endocytosis. Current Biology, 2007, 17, 2047-2053.	1.8	158
64	A WNK kinase binds and phosphorylates V-ATPase subunit C. FEBS Letters, 2006, 580, 932-939.	1.3	114
65	Vacuolar H+-ATPase Activity Is Required for Endocytic and Secretory Trafficking in Arabidopsis. Plant Cell, 2006, 18, 715-730.	3.1	789
66	Endomembrane proton pumps: connecting membrane and vesicle transport. Current Opinion in Plant Biology, 2006, 9, 595-600.	3.5	54
67	Evidence for major structural changes in subunit C of the vacuolar ATPase due to nucleotide binding. FEBS Letters, 2005, 579, 1961-1967.	1.3	51
68	PvUPS1, an Allantoin Transporter in Nodulated Roots of French Bean. Plant Physiology, 2004, 134, 664-675.	2.3	78
69	Visualization of protein interactions in living plant cells using bimolecular fluorescence complementation. Plant Journal, 2004, 40, 428-438.	2.8	1,514
70	Essential role of the V-ATPase in male gametophyte development. Plant Journal, 2004, 41, 117-124.	2.8	106
71	Arabidopsis vacuolar H+-ATPase subunit E isoform 1 is required for Golgi organization and vacuole function in embryogenesis. Plant Journal, 2004, 41, 125-132.	2.8	81
72	Expression pattern of a nuclear encoded mitochondrial arginine-ornithine translocator gene from Arabidopsis. BMC Plant Biology, 2003, 3, 1.	1.6	76

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73	Identification of an Arabidopsis mitochondrial succinate-fumarate translocator. FEBS Letters, 2003, 534, 87-92.	1.3	56
74	A Novel Superfamily of Transporters for Allantoin and Other Oxo Derivatives of Nitrogen Heterocyclic Compounds in Arabidopsis. Plant Cell, 2002, 14, 847-856.	3.1	100
75	A simple nomenclature for a complex proton pump: VHA genes encode the vacuolar H+-ATPase. Trends in Plant Science, 2002, 7, 157-161.	4.3	189
76	Re-orientation and integration of the classical and interspecific linkage maps of the long arm of tomato chromosome 7. Theoretical and Applied Genetics, 2001, 103, 443-454.	1.8	9
77	A defined range of guard cell calcium oscillation parameters encodes stomatal movements. Nature, 2001, 411, 1053-1057.	13.7	531
78	Comparative Sequence Analysis Reveals Extensive Microcolinearity in the Lateral Suppressor Regions of the Tomato, Arabidopsis, and Capsella Genomes. Plant Cell, 2001, 13, 979-988.	3.1	116
79	Brassinosteroid signal transduction: still casting the actors. Current Opinion in Plant Biology, 2000, 3, 79-84.	3.5	124
80	Alteration of Stimulus-Specific Guard Cell Calcium Oscillations and Stomatal Closing in Arabidopsis det3 Mutant. Science, 2000, 289, 2338-2342.	6.0	467
81	The Lateral suppressor (Ls) gene of tomato encodes a new member of the VHIID protein family. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 290-295.	3.3	386
82	The Arabidopsis det3 mutant reveals a central role for the vacuolar H+-ATPase in plant growth and development. Genes and Development, 1999, 13, 3259-3270.	2.7	285
83	Genetic and physical mapping of the lateral suppressor (ls) locus in tomato. Molecular Genetics and Genomics, 1995, 246, 761-766.	2.4	21