Gabriel Schaaf

List of Publications by Year
in descending order

47 papers	3,781 citations	218677 26 h-index	214800 47 g-index
57 all docs	57 docs citations	57 times ranked	4091 citing authors

#	Article	IF	Citations
1	The Arabidopsis Major Intrinsic Protein NIP5;1 Is Essential for Efficient Boron Uptake and Plant Development under Boron Limitation. Plant Cell, 2006, 18, 1498-1509.	6.6	619
2	ZmYS1 Functions as a Proton-coupled Symporter for Phytosiderophore- and Nicotianamine-chelated Metals. Journal of Biological Chemistry, 2004, 279, 9091-9096.	3.4	351
3	Plant plasma membrane water channels conduct the signalling molecule H2O2. Biochemical Journal, 2008, 414, 53-61.	3.7	259
4	Plant flavones enrich rhizosphere Oxalobacteraceae to improve maize performance under nitrogen deprivation. Nature Plants, 2021, 7, 481-499.	9.3	247
5	Functional Anatomy of Phospholipid Binding andÂRegulation of Phosphoinositide Homeostasis by Proteins of the Sec14 Superfamily. Molecular Cell, 2008, 29, 191-206.	9.7	210
6	AtIREG2 Encodes a Tonoplast Transport Protein Involved in Iron-dependent Nickel Detoxification in Arabidopsis thaliana Roots. Journal of Biological Chemistry, 2006, 281, 25532-25540.	3.4	194
7	The Sec14 superfamily and mechanisms for crosstalk between lipid metabolism and lipid signaling. Trends in Biochemical Sciences, 2010, 35, 150-160.	7.5	182
8	A Putative Function for the Arabidopsis Feâ€"Phytosiderophore Transporter Homolog AtYSL2 in Fe and Zn Homeostasis. Plant and Cell Physiology, 2005, 46, 762-774.	3.1	163
9	VIH2 Regulates the Synthesis of Inositol Pyrophosphate InsP₈ and Jasmonate-Dependent Defenses in Arabidopsis. Plant Cell, 2015, 27, 1082-1097.	6.6	153
10	Iron Acquisition by Phytosiderophores Contributes to Cadmium Tolerance. Plant Physiology, 2007, 143, 1761-1773.	4.8	122
11	Two bifunctional inositol pyrophosphate kinases/phosphatases control plant phosphate homeostasis. ELife, 2019, 8, .	6.0	118
12	The Diverse Biological Functions of Phosphatidylinositol Transfer Proteins in Eukaryotes. Critical Reviews in Biochemistry and Molecular Biology, 2006, 41, 21-49.	5.2	93
13	Different Transport Mechanisms in Plant and Human AMT/Rh-type Ammonium Transporters. Journal of General Physiology, 2006, 127, 133-144.	1.9	89
14	Analysis of inositol phosphate metabolism by capillary electrophoresis electrospray ionization mass spectrometry. Nature Communications, 2020, 11, 6035.	12.8	69
15	Phosphatidylinositol transfer proteins and cellular nanoreactors for lipid signaling. Nature Chemical Biology, 2006, 2, 576-583.	8.0	65
16	In Vitro Analysis of Î±-Amanitin-Resistant Transcription from the rRNA, Procyclic Acidic Repetitive Protein, and Variant Surface Glycoprotein Gene Promoters in <i>Trypanosoma brucei</i>. Molecular and Cellular Biology, 1999, 19, 5466-5473.	2.3	58
17	Local Polarity and Hydrogen Bonding Inside the Sec14p Phospholipid-Binding Cavity: High-Field Multi-Frequency Electron Paramagnetic Resonance Studies. Biophysical Journal, 2007, 92, 3686-3695.	0.5	53
18	<i>Arabidopsis</i> ITPK1 and ITPK2 Have an Evolutionarily Conserved Phytic Acid Kinase Activity. ACS Chemical Biology, 2019, 14, 2127-2133.	3.4	53

#	Article	IF	Citations
19	ITPK1 is an InsP6/ADP phosphotransferase that controls phosphate signaling in Arabidopsis. Molecular Plant, 2021, 14, 1864-1880.	8.3	51
20	<i>Trans</i>-Golgi Network and Endosome Dynamics Connect Ceramide Homeostasis with Regulation of the Unfolded Protein Response and TOR Signaling in Yeast. Molecular Biology of the Cell, 2008, 19, 4785-4803.	2.1	47
21	A Putative Role for the Vacuolar Calcium/Manganese Proton AntiporterAtCAX2in Heavy Metal Detoxification. Plant Biology, 2002, 4, 612-618.	3.8	46
22	Sec14-nodulin proteins and the patterning of phosphoinositide landmarks for developmental control of membrane morphogenesis. Molecular Biology of the Cell, 2015, 26, 1764-1781.	2.1	44
23	Inositol Polyphosphate Binding Specificity of the Jasmonate Receptor Complex. Plant Physiology, 2016, 171, 2364-2370.	4.8	40
24	A 1-phytase type III effector interferes with plant hormone signaling. Nature Communications, 2017, 8, 2159.	12.8	40
25	Arabidopsis Phospholipase C3 is Involved in Lateral Root Initiation and ABA Responses in Seed Germination and Stomatal Closure. Plant and Cell Physiology, 2018, 59, 469-486.	3.1	39
26	Prometabolites of 5â€Diphosphoâ€<i>myo</i>â€inositol Pentakisphosphate. Angewandte Chemie - International Edition, 2015, 54, 9622-9626.	13.8	38
27	Resurrection of a functional phosphatidylinositol transfer protein from a pseudo-Sec14 scaffold by directed evolution. Molecular Biology of the Cell, 2011, 22, 892-905.	2.1	31
28	The regulation of cell polarity by lipid transfer proteins of the SEC14 family. Current Opinion in Plant Biology, 2017, 40, 158-168.	7.1	29
29	Crystallization and preliminary X-ray diffraction analysis of phospholipid-bound Sfh1p, a member of theSaccharomyces cerevisiaeSec14p-like phosphatidylinositol transfer protein family. Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 1156-1160.	0.7	28
30	Target Identification and Mechanism of Action of Picolinamide and Benzamide Chemotypes with Antifungal Properties. Cell Chemical Biology, 2018, 25, 279-290.e7.	5.2	28
31	Thoughts on Sec14-like nanoreactors and phosphoinositide signaling. Advances in Biological Regulation, 2012, 52, 115-121.	2.3	23
32	Deep Learning for Non-Invasive Diagnosis of Nutrient Deficiencies in Sugar Beet Using RGB Images. Sensors, 2020, 20, 5893.	3.8	22
33	Physiological and biochemical characterization of metal-phytosiderophore transport in graminaceous species. Soil Science and Plant Nutrition, 2004, 50, 989-995.	1.9	20
34	Arabidopsis inositol polyphosphate kinases IPK1 and ITPK1 modulate crosstalk between SA-dependent immunity and phosphate-starvation responses. Plant Cell Reports, 2022, 41, 347-363.	5.6	20
35	Iron transport in plants: Future research in view of a plant nutritionist and a molecular biologist. Soil Science and Plant Nutrition, 2004, 50, 1003-1012.	1.9	19
36	The Chemistry of Phospholipid Binding by the Saccharomyces cerevisiae Phosphatidylinositol Transfer Protein Sec14p as Determined by EPR Spectroscopy. Journal of Biological Chemistry, 2006, 281, 34897-34908.	3.4	19

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37	Crystallization and preliminary X-ray diffraction analysis of Sfh3, a member of the Sec14 protein superfamily. Acta Crystallographica Section F: Structural Biology Communications, 2011, 67, 1239-1243.	0.7	12
38	Influence of ions on the unfolding of the spermatozoa of the rock shrimp,Rhynchocinetes typus. The Journal of Experimental Zoology, 1996, 274, 358-364.	1.4	8
39	Sphingolipid metabolism in trans-golgi/endosomal membranes and the regulation of intracellular homeostatic processes in eukaryotic cells. Advances in Enzyme Regulation, 2010, 50, 339-348.	2.6	8
40	Crop response to P fertilizer omission under a changing climate - Experimental and modeling results over 115 years of a long-term fertilizer experiment. Field Crops Research, 2021, 268, 108174.	5.1	8
41	Stable Isotope Phosphate Labelling of Diverse Metabolites is Enabled by a Family of ¹⁸Oâ€Phosphoramidites**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	8
42	Analyses of Inositol Phosphates and Phosphoinositides by Strong Anion Exchange (SAX)-HPLC. Methods in Molecular Biology, 2021, 2295, 365-378.	0.9	5
43	Extraction and Quantification of Soluble, Radiolabeled Inositol Polyphosphates from Different Plant Species using SAX-HPLC. Journal of Visualized Experiments, 2020, , .	0.3	5
44	Root Growth and Architecture of Wheat and Brachypodium Vary in Response to Algal Fertilizer in Soil and Solution. Agronomy, 2022, 12, 285.	3.0	4
45	<i>Arabidopsis</i> PFA-DSP-Type Phosphohydrolases Target Specific Inositol Pyrophosphate Messengers. Biochemistry, 2022, 61, 1213-1227.	2.5	4
46	A blueprint for functional engineering: Single point mutations reconstitute phosphatidylinositol presentation in a pseudo-Sec14 protein. Communicative and Integrative Biology, 2011, 4, 674-678.	1.4	2
47	Role of Electrostatic and Hydrogen Bonding Environment in Sequestering Lipids from Membranes Into the Sec14 Protein Cavity. Biophysical Journal, 2011, 100, 552a-553a.	0.5	0