

Michael Knoblauch

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

2,829
citations

218677

26
h-index

189892

50
g-index

54
all docs

54
docs citations

54
times ranked

2207
citing authors

#	ARTICLE	IF	CITATIONS
1	Sieve Tubes in Action. <i>Plant Cell</i> , 1998, 10, 35-50.	6.6	302
2	Reversible Calcium-Regulated Stopcocks in Legume Sieve Tubes [W]. <i>Plant Cell</i> , 2001, 13, 1221-1230.	6.6	198
3	Sieve Tube Geometry in Relation to Phloem Flow. <i>Plant Cell</i> , 2010, 22, 579-593.	6.6	183
4	Phloem unloading in Arabidopsis roots is convective and regulated by the phloem-pole pericycle. <i>ELife</i> , 2017, 6, .	6.0	181
5	A galinstan expansion femtosyringe for microinjection of eukaryotic organelles and prokaryotes. <i>Nature Biotechnology</i> , 1999, 17, 906-909.	17.5	155
6	Phloem Ultrastructure and Pressure Flow: Sieve-Element-Occlusion-Related Agglomerations Do Not Affect Translocation. <i>Plant Cell</i> , 2011, 23, 4428-4445.	6.6	150
7	ATP-independent contractile proteins from plants. <i>Nature Materials</i> , 2003, 2, 600-603.	27.5	143
8	Testing the Münch hypothesis of long distance phloem transport in plants. <i>ELife</i> , 2016, 5, .	6.0	137
9	Sieve elements caught in the act. <i>Trends in Plant Science</i> , 2002, 7, 126-132.	8.8	129
10	Münch, morphology, microfluidics - our structural problem with the phloem. <i>Plant, Cell and Environment</i> , 2010, 33, no-no.	5.7	91
11	Modeling the Hydrodynamics of Phloem Sieve Plates. <i>Frontiers in Plant Science</i> , 2012, 3, 151.	3.6	80
12	The structure of the phloem “ still more questions than answers. <i>Plant Journal</i> , 2012, 70, 147-156.	5.7	77
13	GFP Tagging of Sieve Element Occlusion (SEO) Proteins Results in Green Fluorescent Forisomes. <i>Plant and Cell Physiology</i> , 2008, 49, 1699-1710.	3.1	76
14	Multispectral Phloem-Mobile Probes: Properties and Applications. <i>Plant Physiology</i> , 2015, 167, 1211-1220.	4.8	66
15	Sphingolipid biosynthesis modulates plasmodesmal ultrastructure and phloem unloading. <i>Nature Plants</i> , 2019, 5, 604-615.	9.3	65
16	Arabidopsis P-Protein Filament Formation Requires Both AtSEOR1 and AtSEOR2. <i>Plant and Cell Physiology</i> , 2012, 53, 1033-1042.	3.1	64
17	SEORious business: structural proteins in sieve tubes and their involvement in sieve element occlusion. <i>Journal of Experimental Botany</i> , 2014, 65, 1879-1893.	4.8	60
18	Maintenance of carbohydrate transport in tall trees. <i>Nature Plants</i> , 2017, 3, 965-972.	9.3	59

#	ARTICLE	IF	CITATIONS
19	Forisomes, a novel type of Ca ²⁺ -dependent contractile protein motor. <i>Cytoskeleton</i> , 2004, 58, 137-142.	4.4	47
20	Forisome performance in artificial sieve tubes. <i>Plant, Cell and Environment</i> , 2012, 35, 1419-1427.	5.7	41
21	Symplasmic phloem unloading and radial post-phloem transport via vascular rays in tuberous roots of <i>Manihot esculenta</i> . <i>Journal of Experimental Botany</i> , 2019, 70, 5559-5573.	4.8	39
22	Sieve element and companion cell: the story of the comatose patient and the hyperactive nurse. <i>Functional Plant Biology</i> , 2000, 27, 477.	2.1	37
23	The geometry of the forisome-sieve element-sieve plate complex in the phloem of <i>Vicia faba</i> L. leaflets. <i>Journal of Experimental Botany</i> , 2006, 57, 3091-3098.	4.8	36
24	What actually is the Münch hypothesis? A short history of assimilate transport by mass flow. <i>Journal of Integrative Plant Biology</i> , 2017, 59, 292-310.	8.5	34
25	Pico Gauges for Minimally Invasive Intracellular Hydrostatic Pressure Measurements. <i>Plant Physiology</i> , 2014, 166, 1271-1279.	4.8	29
26	Legume phylogeny and the evolution of a unique contractile apparatus that regulates phloem transport. <i>American Journal of Botany</i> , 2010, 97, 797-808.	1.7	28
27	Prospective energy densities in the forisome, a new smart material. <i>Materials Science and Engineering C</i> , 2006, 26, 104-112.	7.3	24
28	Long-distance translocation of photosynthates: a primer. <i>Photosynthesis Research</i> , 2013, 117, 189-196.	2.9	23
29	Under salt stress guard cells rewire ion transport and abscisic acid signaling. <i>New Phytologist</i> , 2021, 231, 1040-1055.	7.3	23
30	Sugar loading is not required for phloem sap flow in maize plants. <i>Nature Plants</i> , 2022, 8, 171-180.	9.3	23
31	Sieve-element differentiation and phloem sap contamination. <i>Current Opinion in Plant Biology</i> , 2018, 43, 43-49.	7.1	22
32	Plasmodesmata and the problems with size: Interpreting the confusion. <i>Journal of Plant Physiology</i> , 2021, 257, 153341.	3.5	22
33	Protein structural biology using cell-free platform from wheat germ. <i>Advanced Structural and Chemical Imaging</i> , 2018, 4, 13.	4.0	21
34	Anisotropic contraction in forisomes: Simple models won't fit. <i>Cytoskeleton</i> , 2008, 65, 368-378.	4.4	19
35	Maize <i>Brittle Stalk2-Like3</i> , encoding a COBRA protein, functions in cell wall formation and carbohydrate partitioning. <i>Plant Cell</i> , 2021, 33, 3348-3366.	6.6	17
36	<i>In situ</i> microscopy reveals reversible cell wall swelling in kelp sieve tubes: one mechanism for turgor generation and flow control?. <i>Plant, Cell and Environment</i> , 2016, 39, 1727-1736.	5.7	16

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37	Editorial overview: Physiology and metabolism: Phloem: a supracellular highway for the transport of sugars, signals, and pathogens. <i>Current Opinion in Plant Biology</i> , 2018, 43, iii-vii.	7.1	14
38	Research note: Reversible birefringence suggests a role for molecular self-assembly in forisome contractility. <i>Functional Plant Biology</i> , 2007, 34, 302.	2.1	14
39	The gelatinous extracellular matrix facilitates transport studies in kelp: visualization of pressure-induced flow reversal across sieve plates. <i>Annals of Botany</i> , 2016, 117, 599-606.	2.9	10
40	Non-dispersive phloem-protein bodies (NPBs) of <i>Populus trichocarpa</i> consist of a SEOR protein and do not respond to cell wounding and Ca ²⁺ . <i>PeerJ</i> , 2018, 6, e4665.	2.0	10
41	The diffusive injection micropipette (DIMP). <i>Journal of Plant Physiology</i> , 2020, 244, 153060.	3.5	8
42	Sieve elements rapidly develop "nacreous walls" following injury – a common wounding response?. <i>Plant Journal</i> , 2020, 102, 797-808.	5.7	7
43	Proteomics of isolated sieve tubes from <i>Nicotiana tabacum</i> : sieve element-specific proteins reveal differentiation of the endomembrane system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2112755119.	7.1	7
44	Aspartate Residues in a Forisome-Forming SEO Protein Are Critical for Protein Body Assembly and Ca ²⁺ Responsiveness. <i>Plant and Cell Physiology</i> , 2020, 61, 1699-1710.	3.1	5
45	Think outside the sieve element!. <i>Plant, Cell and Environment</i> , 2016, 39, 707-708.	5.7	4
46	Diversity of funnel plasmodesmata in angiosperms: the impact of geometry on plasmodesmal resistance. <i>Plant Journal</i> , 2022, 110, 707-719.	5.7	4
47	Investigation of Structure-Function Relationship of Long-Distance Transport in Plants: New Imaging Tools to Answer Old Questions. <i>Microscopy and Microanalysis</i> , 2015, 21, 1491-1492.	0.4	2
48	Symplasmic mass flow and sieve tubes in algae and plants. <i>Perspectives in Phycology</i> , 2017, 4, 93-101.	1.9	1
49	How Münch's adaptation of Pfeffer's circulating water flow became the pressure-flow theory, and the resulting problems – A historical perspective. <i>Journal of Plant Physiology</i> , 2022, 272, 153672.	3.5	1