Michael Knoblauch

List of Publications by Year
in descending order

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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	Proteomics of isolated sieve tubes from Nicotiana tabacum: sieve elementâ€“specific proteins reveal differentiation of the endomembrane system. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112755119.	7.1	7
2	Diversity of funnel plasmodesmata in angiosperms: the impact of geometry on plasmodesmal resistance. Plant Journal, 2022, 110, 707-719.	5.7	4
3	Sugar loading is not required for phloem sap flow in maize plants. Nature Plants, 2022, 8, 171-180.	9.3	23
4	How MÃ¼nch's adaptation of Pfeffer's circulating water flow became the pressure-flow theory, and the resulting problems â€” A historical perspective. Journal of Plant Physiology, 2022, 272, 153672.	3.5	1
5	Plasmodesmata and the problems with size: Interpreting the confusion. Journal of Plant Physiology, 2021, 257, 153341.	3.5	22
6	Under salt stress guard cells rewire ion transport and abscisic acid signaling. New Phytologist, 2021, 231, 1040-1055.	7.3	23
7	Maize <i>Brittle Stalk2-Like3</i>, encoding a COBRA protein, functions in cell wall formation and carbohydrate partitioning. Plant Cell, 2021, 33, 3348-3366.	6.6	17
8	Sieve elements rapidly develop â€˜nacreous wallsâ€™ following injury â˜' a common wounding response?. Plant Journal, 2020, 102, 797-808.	5.7	7
9	The diffusive injection micropipette (DIMP). Journal of Plant Physiology, 2020, 244, 153060.	3.5	8
10	Aspartate Residues in a Forisome-Forming SEO Protein Are Critical for Protein Body Assembly and Ca2+ Responsiveness. Plant and Cell Physiology, 2020, 61, 1699-1710.	3.1	5
11	Symplasmic phloem unloading and radial post-phloem transport via vascular rays in tuberous roots of Manihot esculenta. Journal of Experimental Botany, 2019, 70, 5559-5573.	4.8	39
12	Sphingolipid biosynthesis modulates plasmodesmal ultrastructure and phloem unloading. Nature Plants, 2019, 5, 604-615.	9.3	65
13	Sieve-element differentiation and phloem sap contamination. Current Opinion in Plant Biology, 2018, 43, 43-49.	7.1	22
14	Protein structural biology using cell-free platform from wheat germ. Advanced Structural and Chemical Imaging, 2018, 4, 13.	4.0	21
15	Editorial overview: Physiology and metabolism: Phloem: a supracellular highway for the transport of sugars, signals, and pathogens. Current Opinion in Plant Biology, 2018, 43, iii-vii.	7.1	14
16	Non-dispersive phloem-protein bodies (NPBs) of Populus trichocarpa consist of a SEOR protein and do not respond to cell wounding and Ca2+. PeerJ, 2018, 6, e4665.	2.0	10
17	What actually is the MÃ¼nch hypothesis? A short history of assimilate transport by mass flow. Journal of Integrative Plant Biology, 2017, 59, 292-310.	8.5	34
18	Maintenance of carbohydrate transport in tall trees. Nature Plants, 2017, 3, 965-972.	9.3	59

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19	Phloem unloading in Arabidopsis roots is convective and regulated by the phloem-pole pericycle. ELife, 2017, 6, .	6.0	181
20	Symplasmic mass flow and sieve tubes in algae and plants. Perspectives in Phycology, 2017, 4, 93-101.	1.9	1
21	Testing the MÃ¼nch hypothesis of long distance phloem transport in plants. ELife, 2016, 5, .	6.0	137
22	Think outside the sieve element!. Plant, Cell and Environment, 2016, 39, 707-708.	5.7	4
23	<i>In situ</i> microscopy reveals reversible cell wall swelling in kelp sieve tubes: one mechanism for turgor generation and flow control?. Plant, Cell and Environment, 2016, 39, 1727-1736.	5.7	16
24	The gelatinous extracellular matrix facilitates transport studies in kelp: visualization of pressure-induced flow reversal across sieve plates. Annals of Botany, 2016, 117, 599-606.	2.9	10
25	Investigation of Structure-Function Relationship of Long-Distance Transport in Plants: New Imaging Tools to Answer Old Questions. Microscopy and Microanalysis, 2015, 21, 1491-1492.	0.4	2
26	Multispectral Phloem-Mobile Probes: Properties and Applications. Plant Physiology, 2015, 167, 1211-1220.	4.8	66
27	SEORious business: structural proteins in sieve tubes and their involvement in sieve element occlusion. Journal of Experimental Botany, 2014, 65, 1879-1893.	4.8	60
28	Pico Gauges for Minimally Invasive Intracellular Hydrostatic Pressure Measurements Â Â Â. Plant Physiology, 2014, 166, 1271-1279.	4.8	29
29	Long-distance translocation of photosynthates: a primer. Photosynthesis Research, 2013, 117, 189-196.	2.9	23
30	Modeling the Hydrodynamics of Phloem Sieve Plates. Frontiers in Plant Science, 2012, 3, 151.	3.6	80
31	Arabidopsis P-Protein Filament Formation Requires Both AtSEOR1 and AtSEOR2. Plant and Cell Physiology, 2012, 53, 1033-1042.	3.1	64
32	Forisome performance in artificial sieve tubes. Plant, Cell and Environment, 2012, 35, 1419-1427.	5.7	41
33	The structure of the phloem â€" still more questions than answers. Plant Journal, 2012, 70, 147-156.	5.7	77
34	Phloem Ultrastructure and Pressure Flow: Sieve-Element-Occlusion-Related Agglomerations Do Not Affect Translocation. Plant Cell, 2011, 23, 4428-4445.	6.6	150
35	Legume phylogeny and the evolution of a unique contractile apparatus that regulates phloem transport. American Journal of Botany, 2010, 97, 797-808.	1.7	28
36	Sieve Tube Geometry in Relation to Phloem Flow. Plant Cell, 2010, 22, 579-593.	6.6	183

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37	MÃ¼nch, morphology, microfluidics - our structural problem with the phloem. Plant, Cell and Environment, 2010, 33, no-no.	5.7	91
38	Anisotropic contraction in forisomes: Simple models won't fit. Cytoskeleton, 2008, 65, 368-378.	4.4	19
39	GFP Tagging of Sieve Element Occlusion (SEO) Proteins Results in Green Fluorescent Forisomes. Plant and Cell Physiology, 2008, 49, 1699-1710.	3.1	76
40	Research note: Reversible birefringence suggests a role for molecular self-assembly in forisome contractility. Functional Plant Biology, 2007, 34, 302.	2.1	14
41	Prospective energy densities in the forisome, a new smart material. Materials Science and Engineering C, 2006, 26, 104-112.	7.3	24
42	The geometry of the forisome-sieve element-sieve plate complex in the phloem of Vicia faba L. leaflets. Journal of Experimental Botany, 2006, 57, 3091-3098.	4.8	36
43	Forisomes, a novel type of Ca2+-dependent contractile protein motor. Cytoskeleton, 2004, 58, 137-142.	4.4	47
44	ATP-independent contractile proteins from plants. Nature Materials, 2003, 2, 600-603.	27.5	143
45	Sieve elements caught in the act. Trends in Plant Science, 2002, 7, 126-132.	8.8	129
46	Reversible Calcium-Regulated Stopcocks in Legume Sieve Tubes [W]. Plant Cell, 2001, 13, 1221-1230.	6.6	198
47	Sieve element and companion cell: the story of the comatose patient and the hyperactive nurse. Functional Plant Biology, 2000, 27, 477.	2.1	37
48	A galinstan expansion femtosyringe for microinjection of eukaryotic organelles and prokaryotes. Nature Biotechnology, 1999, 17, 906-909.	17.5	155
49	Sieve Tubes in Action. Plant Cell, 1998, 10, 35-50.	6.6	302