Peter K Hepler

List of Publications by Year
in descending order

102	11,833	14655 66	34986 98
papers	citations	h-index	g-index

102	102	102	6301
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Gland cell responses to feeding in Drosera capensis, a carnivorous plant. Protoplasma, 2021, 258, 1291-1306.	2.1	12
2	Apical pollen tube wall curvature correlates with growth and indicates localized changes in the yielding of the cell wall. Protoplasma, 2021, 258, 1347-1358.	2.1	7
3	Interplay between Ions, the Cytoskeleton, and Cell Wall Properties during Tip Growth. Plant Physiology, 2018, 176, 28-40.	4.8	65
4	Microtubule cross-linking activity of She1 ensures spindle stability for spindle positioning. Journal of Cell Biology, 2017, 216, 2759-2775.	5.2	9
5	Perturbation Analysis of Calcium, Alkalinity and Secretion during Growth of Lily Pollen Tubes. Plants, 2017, 6, 3.	3.5	19
6	Introduction 10th International Botanical Microscopy Meeting Special Issue. Journal of Microscopy, 2016, 263, 127-128.	1.8	1
7	The Cytoskeleton and Its Regulation by Calcium and Protons. Plant Physiology, 2016, 170, 3-22.	4.8	96
8	The pollen tube clear zone: Clues to the mechanism of polarized growth. Journal of Integrative Plant Biology, 2015, 57, 79-92.	8.5	99
9	The Apical Actin Fringe Contributes to Localized Cell Wall Deposition and Polarized Growth in the Lily Pollen Tube Â Â. Plant Physiology, 2014, 166, 139-151.	4.8	71
10	Some retrospectives on early studies of plant microtubules. Plant Journal, 2013, 75, 189-201.	5.7	6
11	Control of Cell Wall Extensibility during Pollen Tube Growth. Molecular Plant, 2013, 6, 998-1017.	8.3	134
12	Calcium entry into pollen tubes. Trends in Plant Science, 2012, 17, 32-38.	8.8	101
13	Pollen tube energetics: respiration, fermentation and the race to the ovule. AoB PLANTS, 2011, 2011, plr019.	2.3	54
14	Propidium Iodide Competes with Ca2+ to Label Pectin in Pollen Tubes and Arabidopsis Root Hairs Â Â. Plant Physiology, 2011, 157, 175-187.	4.8	118
15	Calcium at the Cell Wallâ€Cytoplast Interface. Journal of Integrative Plant Biology, 2010, 52, 147-160.	8.5	130
16	Oscillatory Growth in Lily Pollen Tubes Does Not Require Aerobic Energy Metabolism. Plant Physiology, 2010, 152, 736-746.	4.8	37
17	Under pressure, cell walls set the pace. Trends in Plant Science, 2010, 15, 363-369.	8.8	106
18	Exocytosis Precedes and Predicts the Increase in Growth in Oscillating Pollen Tubes. Plant Cell, 2009, 21, 3026-3040.	6.6	137

#	Article	IF	Citations
19	Lifeact-mEGFP Reveals a Dynamic Apical F-Actin Network in Tip Growing Plant Cells. PLoS ONE, 2009, 4, e5744.	2.5	196
20	Magnitude and Direction of Vesicle Dynamics in Growing Pollen Tubes Using Spatiotemporal Image Correlation Spectroscopy and Fluorescence Recovery after Photobleaching Â Â. Plant Physiology, 2008, 147, 1646-1658.	4.8	167
21	Pollen Tube Growth Oscillations and Intracellular Calcium Levels Are Reversibly Modulated by Actin Polymerization. Plant Physiology, 2008, 146, 1611-1621.	4.8	176
22	Sperm Delivery in Flowering Plants: The Control of Pollen Tube Growth. BioScience, 2007, 57, 835-844.	4.9	13
23	Differential organelle movement on the actin cytoskeleton in lily pollen tubes. Cytoskeleton, 2007, 64, 217-232.	4.4	108
24	Imaging the actin cytoskeleton in growing pollen tubes. Sexual Plant Reproduction, 2006, 19, 51-62.	2.2	65
25	Silencing of the tobacco pollen pectin methylesterase NtPPME1 results in retarded in vivo pollen tube growth. Planta, 2006, 223, 736-745.	3.2	75
26	Oscillatory Increases in Alkalinity Anticipate Growth and May Regulate Actin Dynamics in Pollen Tubes of Lily. Plant Cell, 2006, 18, 2182-2193.	6.6	112
27	NAD(P)H Oscillates in Pollen Tubes and Is Correlated with Tip Growth. Plant Physiology, 2006, 142, 1460-1468.	4.8	119
28	Calcium: A Central Regulator of Plant Growth and Development. Plant Cell, 2005, 17, 2142-2155.	6.6	871
29	Actin polymerization promotes the reversal of streaming in the apex of pollen tubes. Cytoskeleton, 2005, 61, 112-127.	4.4	82
30	Enhanced fixation reveals the apical cortical fringe of actin filaments as a consistent feature of the pollen tube. Planta, 2005, 221, 95-104.	3.2	214
31	Pectin Methylesterases and Pectin Dynamics in Pollen Tubes. Plant Cell, 2005, 17, 3219-3226.	6.6	309
32	Pectin Methylesterase, a Regulator of Pollen Tube Growth. Plant Physiology, 2005, 138, 1334-1346.	4.8	324
33	Aberrant Cell Plate Formation in the Arabidopsis thalianamicrotubule organization 1 Mutant. Plant and Cell Physiology, 2005, 46, 671-675.	3.1	37
34	Calcium gradients in conifer pollen tubes; dynamic properties differ from those seen in angiosperms. Journal of Experimental Botany, 2005, 56, 2619-2628.	4.8	50
35	UV-A Induces Two Calcium Waves in Physcomitrella patens. Plant and Cell Physiology, 2005, 46, 1226-1236.	3.1	36
36	Calmodulin activity and cAMP signalling modulate growth and apical secretion in pollen tubes. Plant Journal, 2004, 38, 887-897.	5.7	82

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37	Profilin inhibits pollen tube growth through actin-binding, but not poly-l-proline-binding. Planta, 2004, 218, 906-915.	3.2	27
38	The role of actin filaments in the gravitropic response of snapdragon flowering shoots. Planta, 2003, 216, 1034-1042.	3.2	30
39	Control of pollen tube growth: role of ion gradients and fluxes. New Phytologist, 2003, 159, 539-563.	7.3	339
40	Effect of extracellular calcium, pH and borate on growth oscillations in Lilium formosanum pollen tubes. Journal of Experimental Botany, 2003, 54, 65-72.	4.8	101
41	Plant 115-kDa Actin-Filament Bundling Protein, P-115-ABP, is a Homologue of Plant Villin and is Widely Distributed in Cells. Plant and Cell Physiology, 2003, 44, 1088-1099.	3.1	74
42	The Regulation of Actin Organization by Actin-Depolymerizing Factor in Elongating Pollen Tubes[W]. Plant Cell, 2002, 14, 2175-2190.	6.6	230
43	Roles for kinesin and myosin during cytokinesis. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 761-766.	4.0	33
44	Rab2 GTPase Regulates Vesicle Trafficking between the Endoplasmic Reticulum and the Golgi Bodies and Is Important to Pollen Tube Growth[W]. Plant Cell, 2002, 14, 945-962.	6.6	178
45	Actomyosin promotes cell plate alignment and late lateral expansion in Tradescantia stamen hair cells. Planta, 2002, 214, 683-693.	3.2	85
46	Involvement of extracellular calcium influx in the self-incompatibility response ofPapaver rhoeas. Plant Journal, 2002, 29, 333-345.	5.7	105
47	Polarized Cell Growth in Higher Plants. Annual Review of Cell and Developmental Biology, 2001, 17, 159-187.	9.4	670
48	Calcium signalling in pollen of Papaver rhoeas undergoing the self-incompatibility (SI) response. Sexual Plant Reproduction, 2001, 14, 105-110.	2.2	7
49	Inositol 1,4,5 trisphosphate is inactivated by a 5-phosphatase in stamen hair cells of Tradescantia. Planta, 2001, 213, 518-524.	3.2	3
50	Actin Polymerization Is Essential for Pollen Tube Growth. Molecular Biology of the Cell, 2001, 12, 2534-2545.	2.1	280
51	Cellular oscillations and the regulation of growth: the pollen tube paradigm. BioEssays, 2001, 23, 86-94.	2.5	62
52	The Kinesin-Like Calmodulin Binding Protein Is Differentially Involved in Cell Division. Plant Cell, 2000, 12, 979.	6.6	0
53	Cellular oscillations and the regulation of growth: the pollen tube paradigm. BioEssays, 2000, 23, 86-94.	2.5	146
54	Plant GTPases: the Rhos in bloom. Trends in Cell Biology, 2000, 10, 141-146.	7.9	88

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55	Physiological elevations in cytoplasmic free calcium by cold or ion injection result in transient closure of higher plant plasmodesmata. Planta, 2000, 210, 329-335.	3.2	123
56	The role of plant villin in the organization of the actin cytoskeleton, cytoplasmic streaming and the architecture of the transvacuolar strand in root hair cells of Hydrocharis. Planta, 2000, 210, 836-843.	3.2	127
57	The Kinesin-like Calmodulin Binding Protein Is Differentially Involved in Cell Division. Plant Cell, 2000, 12, 979-990.	6.6	110
58	Ion Changes in Legume Root Hairs Responding to Nod Factors. Plant Physiology, 2000, 123, 443-452.	4.8	95
59	Uncoupling secretion and tip growth in lily pollen tubes: evidence for the role of calcium in exocytosis. Plant Journal, 1999, 19, 379-386.	5.7	103
60	Rhizobium Nod factors induce increases in intracellular free calcium and extracellular calcium influxes in bean root hairs. Plant Journal, 1999, 19, 347-352.	5.7	116
61	Confocal fluorescence microscopy of plant cells. Protoplasma, 1998, 201, 121-157.	2.1	116
62	The structure of the transmitting tissue of Arabidopsis thaliana (L.) and the path of pollen tube growth. Sexual Plant Reproduction, 1998, 11, 49-59.	2.2	104
63	Effects of Yariv phenylglycoside on cell wall assembly in the lily pollen tube. Planta, 1998, 204, 450-458.	3.2	139
64	Rearrangement of Actin Microfilaments in Plant Root Hairs Responding to Rhizobium etli Nodulation Signals1. Plant Physiology, 1998, 116, 871-877.	4.8	180
65	Chapter 21 Methods for Studying Cell Division in Higher Plants. Methods in Cell Biology, 1998, 61, 413-437.	1.1	11
66	Probing the Plant Actin Cytoskeleton during Cytokinesis and Interphase by Profilin Microinjection. Plant Cell, 1997, 9, 1815.	6.6	34
67	Pollen Tube Growth and the Intracellular Cytosolic Calcium Gradient Oscillate in Phase while Extracellular Calcium Influx Is Delayed. Plant Cell, 1997, 9, 1999.	6.6	93
68	Tip growth in pollen tubes: calcium leads the way. Trends in Plant Science, 1997, 2, 79-80.	8.8	81
69	POLLEN GERMINATION AND TUBE GROWTH. Annual Review of Plant Biology, 1997, 48, 461-491.	14.3	669
70	Themet1 mutation inChlamydomonas reinhardtii causes arrest at mitotic metaphase with persisting p34cdc2-like H1 histone kinase activity that can promote mitosis when injected into higher-plant cells. Protoplasma, 1997, 199, 135-150.	2.1	7
71	Ratio-imaging of Ca2+i in the self-incompatibility response in pollen tubes of Papaver rhoeas. Plant Journal, 1997, 12, 1375-1386.	5.7	116
72	Characterization and localization of profilin in pollen grains and tubes ofLilium longiflorum. , 1997, 36, 323-338.		113

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73	Cytokinesis in Higher Plants. Cell, 1996, 84, 821-824.	28.9	319
74	Actin in living and fixed characean internodal cells: identification of a cortical array of fine actin strands and chloroplast actin rings. Protoplasma, 1996, 190, 25-38.	2.1	48
75	PLANT MITOSIS PROMOTING FACTOR DISASSEMBLES THE MICROTUBULE PREPROPHASE BAND AND ACCELERATES PROPHASE PROGRESSION IN TRADESCANTIA. Cell Biology International, 1996, 20, 275-287.	3.0	86
76	Enforced growth-rate fluctuation causes pectin ring formation in the cell wall of Lilium longiflorum pollen tubes. Planta, 1996, 200, 41.	3.2	64
77	Dynamics of microfilaments are similar, but distinct from microtubules during cytokinesis in living, dividing plant cells. Cytoskeleton, 1993, 24, 151-155.	4.4	86
78	Microinjection of fluorescent brain tubulin reveals dynamic properties of cortical microtubules in living plant cells. Cytoskeleton, 1993, 24, 205-213.	4.4	80
79	Inhibitors of cell division and protoplasmic streaming fail to cause a detectable effect on intracellular calcium levels in stamen-hair cells of Tradescantia virginiana L.. Planta, 1992, 186, 361-6.	3.2	12
80	Free ca2+ gradient in growing pollen tubes of <i>lilium</i>. Journal of Cell Science, 1992, 101, 7-12.	2.0	247
81	Distribution of membranes and the cytoskeleton during cell plate formation in pollen mother cells of <i>Tradescantia</i>. Journal of Cell Science, 1991, 100, 717-728.	2.0	45
82	Fluorescence microscopic localization of actin in pollen tubes: Comparison of actin antibody and phalloidin staining. Cytoskeleton, 1989, 12, 216-224.	4.4	102
83	Symplastic continuity between mesophyll and companion cells in minor veins of mature Cucurbita pepo L. leaves. Planta, 1989, 179, 24-31.	3.2	91
84	Intracellular pH does not change during phytochrome-mediated spore germination in Onoclea. Developmental Biology, 1986, 113, 97-103.	2.0	4
85	Red Light Stimulates an Increase in Intracellular Calcium in the Spores of <i>Onoclea sensibilis</i>. Plant Physiology, 1985, 77, 8-11.	4.8	70
86	The Atomic Composition of Onoclea sensibilis Spores. American Fern Journal, 1985, 75, 12.	0.3	12
87	The role of calcium ions in phytochrome-mediated germination of spores of Onoclea sensibilis L.. Planta, 1984, 160, 12-20.	3.2	110
88	Membranes in the Mitotic Apparatus: Their Structure and Function. International Review of Cytology, 1984, 90, 169-238.	6.2	109
89	Calcium Ionophore A23187 Stimulates Cytokinin-Like Mitosis in Funaria. Science, 1982, 217, 943-945.	12.6	123
90	Microtubules and secondary wall deposition in xylem: The effects of isopropylN-phenylcarbamate. Protoplasma, 1976, 87, 91-111.	2.1	37

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91	Plant Microtubules. , 1976, , 147-187.		7
92	Is P-protein actin-like?-not yet. Planta, 1975, 125, 261-271.	3.2	24
93	The control of the plane of division during stomatal differentiation in Allium. Chromosoma, 1974, 46, 297-326.	2.2	124
94	The control of the plane of division during stomatal differentiation in Allium. Chromosoma, 1974, 46, 327-341.	2.2	88
95	Cytochemical localization of peroxidase activity in wound vessel members of Coleus. Canadian Journal of Botany, 1972, 50, 977-983.	1.1	76
96	The role of microtubules in vessel member differentiation inColeus. Protoplasma, 1971, 72, 213-236.	2.1	118
97	INTERMICROTUBULE BRIDGES IN MITOTIC SPINDLE APPARATUS. Journal of Cell Biology, 1970, 45, 438-444.	5.2	131
98	LIGNIFICATION DURING SECONDARY WALL FORMATION IN COLEUS: AN ELECTRON MICROSCOPIC STUDY. American Journal of Botany, 1970, 57, 85-96.	1.7	117
99	Lignification During Secondary Wall Formation in Coleus: An Electron Microscopic Study. American Journal of Botany, 1970, 57, 85.	1.7	54
100	MICROTUBULES AND EARLY STAGES OF CELL-PLATE FORMATION IN THE ENDOSPERM OF HAEMANTHUS KATHERINAE BAKER. Journal of Cell Biology, 1968, 38, 437-446.	5.2	180
101	MICROTUBULES AND FIBRILS IN THE CYTOPLASM OF COLEUS CELLS UNDERGOING SECONDARY WALL DEPOSITION. Journal of Cell Biology, 1964, 20, 529-533.	5.2	212
102	Ions and Pollen Tube Growth. , 0, , 47-69.		24