Zhenbiao Yang

List of Publications by Citations

143 papers	11,679 citations	56 h-index	107 g-index
157 ext. papers	13,531 ext. citations	10.5 avg, IF	6.37 L-index

#	Paper	IF	Citations
143	Analysis of the small GTPase gene superfamily of Arabidopsis. *Plant Physiology*, **2003**, 131, 1191-208	6.6	499
142	Arabidopsis interdigitating cell growth requires two antagonistic pathways with opposing action on cell morphogenesis. *Cell*, **2005**, 120, 687-700	56.2	449
141	Control of pollen tube tip growth by a Rop GTPase-dependent pathway that leads to tip-localized calcium influx. *Plant Cell*, **1999**, 11, 1731-42	11.6	393
140	The CLAVATA1 receptor-like kinase requires CLAVATA3 for its assembly into a signaling complex that includes KAPP and a Rho-related protein. *Plant Cell*, **1999**, 11, 393-406	11.6	381
139	Cell surface- and rho GTPase-based auxin signaling controls cellular interdigitation in Arabidopsis. *Cell*, **2010**, 143, 99-110	56.2	377
138	Rop GTPase-dependent dynamics of tip-localized F-actin controls tip growth in pollen tubes. *Journal of Cell Biology*, **2001**, 152, 1019-32	7.3	369
137	ABP1 mediates auxin inhibition of clathrin-dependent endocytosis in Arabidopsis. *Cell*, **2010**, 143, 111-21	56.2	344
136	The Arabidopsis Rop2 GTPase is a positive regulator of both root hair initiation and tip growth. *Plant Cell*, **2002**, 14, 763-76	11.6	343
135	Small GTPases: versatile signaling switches in plants. *Plant Cell*, **2002**, 14 Suppl, S375-88	11.6	334
134	RopGAP4-dependent Rop GTPase rheostat control of Arabidopsis oxygen deprivation tolerance. *Science*, **2002**, 296, 2026-8	33.3	304
133	The ROP2 GTPase controls the formation of cortical fine F-actin and the early phase of directional cell expansion during Arabidopsis organogenesis. *Plant Cell*, **2002**, 14, 777-94	11.6	294
132	A Rho family GTPase controls actin dynamics and tip growth via two counteracting downstream pathways in pollen tubes. *Journal of Cell Biology*, **2005**, 169, 127-38	7.3	267
131	Brassinosteroids interact with auxin to promote lateral root development in Arabidopsis. *Plant Physiology*, **2004**, 134, 1624-31	6.6	266
130	A small-molecule screen identifies L-kynurenine as a competitive inhibitor of TAA1/TAR activity in ethylene-directed auxin biosynthesis and root growth in Arabidopsis. *Plant Cell*, **2011**, 23, 3944-60	11.6	248
129	Cell polarity signaling in Arabidopsis. *Annual Review of Cell and Developmental Biology*, **2008**, 24, 551-75	12.6	211
128	Endosidin1 defines a compartment involved in endocytosis of the brassinosteroid receptor BRI1 and the auxin transporters PIN2 and AUX1. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 8464-9	11.5	205
127	Cell surface ABP1-TMK auxin-sensing complex activates ROP GTPase signaling. *Science*, **2014**, 343, 1025-8	33.3	196

126	NADPH oxidase-dependent reactive oxygen species formation required for root hair growth depends on ROP GTPase. *Journal of Experimental Botany*, **2007**, 58, 1261-70	7	183
125	Members of a novel class of Arabidopsis Rho guanine nucleotide exchange factors control Rho GTPase-dependent polar growth. *Plant Cell*, **2006**, 18, 366-81	11.6	182
124	Rho-GTPase-dependent filamentous actin dynamics coordinate vesicle targeting and exocytosis during tip growth. *Journal of Cell Biology*, **2008**, 181, 1155-68	7.3	179
123	A ROP GTPase signaling pathway controls cortical microtubule ordering and cell expansion in Arabidopsis. *Current Biology*, **2009**, 19, 1827-32	6.3	174
122	The Rop GTPase switch controls multiple developmental processes in Arabidopsis. *Plant Physiology*, **2001**, 126, 670-84	6.6	174
121	The putative Arabidopsis arp2/3 complex controls leaf cell morphogenesis. *Plant Physiology*, **2003**, 132, 2034-44	6.6	164
120	Arabidopsis Rho-related GTPases: differential gene expression in pollen and polar localization in fission yeast. *Plant Physiology*, **1998**, 118, 407-17	6.6	163
119	A genome-wide analysis of Arabidopsis Rop-interactive CRIB motif-containing proteins that act as Rop GTPase targets. *Plant Cell*, **2001**, 13, 2841-56	11.6	160
118	ROP GTPase-dependent actin microfilaments promote PIN1 polarization by localized inhibition of clathrin-dependent endocytosis. *PLoS Biology*, **2012**, 10, e1001299	9.7	158
117	Rho GTPase signaling activates microtubule severing to promote microtubule ordering in Arabidopsis. *Current Biology*, **2013**, 23, 290-7	6.3	152
116	Phosphoinositides regulate clathrin-dependent endocytosis at the tip of pollen tubes in Arabidopsis and tobacco. *Plant Cell*, **2010**, 22, 4031-44	11.6	146
115	The Rop GTPase: an emerging signaling switch in plants. *Plant Molecular Biology*, **2000**, 44, 1-9	4.6	144
114	A ROP GTPase-dependent auxin signaling pathway regulates the subcellular distribution of PIN2 in Arabidopsis roots. *Current Biology*, **2012**, 22, 1319-25	6.3	143
113	ROP/RAC GTPase: an old new master regulator for plant signaling. *Current Opinion in Plant Biology*, **2004**, 7, 527-36	9.9	141
112	Phosphatidic acid induces leaf cell death in Arabidopsis by activating the Rho-related small G protein GTPase-mediated pathway of reactive oxygen species generation. *Plant Physiology*, **2004**, 134, 129-36	6.6	135
111	Plasma membrane-associated ROP10 small GTPase is a specific negative regulator of abscisic acid responses in Arabidopsis. *Plant Cell*, **2002**, 14, 2787-97	11.6	130
110	ROP GTPase regulation of pollen tube growth through the dynamics of tip-localized F-actin. *Journal of Experimental Botany*, **2003**, 54, 93-101	7	127
109	ABP1 and ROP6 GTPase signaling regulate clathrin-mediated endocytosis in Arabidopsis roots. *Current Biology*, **2012**, 22, 1326-32	6.3	123

108	ROP/RAC GTPase signaling. *Current Opinion in Plant Biology*, **2007**, 10, 490-4	9.9	122
107	Arabidopsis RopGAPs are a novel family of rho GTPase-activating proteins that require the Cdc42/Rac-interactive binding motif for rop-specific GTPase stimulation. *Plant Physiology*, **2000**, 124, 1625-36	6.6	117
106	Arabidopsis formin3 directs the formation of actin cables and polarized growth in pollen tubes. *Plant Cell*, **2009**, 21, 3868-84	11.6	112
105	Epigenetic Modifications and Plant Hormone Action. *Molecular Plant*, **2016**, 9, 57-70	14.4	109
104	A tip-localized RhoGAP controls cell polarity by globally inhibiting Rho GTPase at the cell apex. *Current Biology*, **2008**, 18, 1907-16	6.3	109
103	Clusters of bioactive compounds target dynamic endomembrane networks in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 17850-5	11.5	107
102	Rapid tip growth: insights from pollen tubes. *Seminars in Cell and Developmental Biology*, **2011**, 22, 816-24	7.5	105
101	The Rrop GTPase switch turns on polar growth in pollen. *Trends in Plant Science*, **2000**, 5, 298-303	13.1	105
100	New insights into Rho signaling from plant ROP/Rac GTPases. *Trends in Cell Biology*, **2012**, 22, 492-501	18.3	104
99	New views on the plant cytoskeleton. *Plant Physiology*, **2004**, 136, 3884-91	6.6	101
98	Signaling in pollen tube growth: crosstalk, feedback, and missing links. *Molecular Plant*, **2013**, 6, 1053-64	14.4	100
97	Tip growth: signaling in the apical dome. *Current Opinion in Plant Biology*, **2008**, 11, 662-71	9.9	100
96	GTPase ROP2 binds and promotes activation of target of rapamycin, TOR, in response to auxin. *EMBO Journal*, **2017**, 36, 886-903	13	94
95	AtPRK2 promotes ROP1 activation via RopGEFs in the control of polarized pollen tube growth. *Molecular Plant*, **2013**, 6, 1187-201	14.4	91
94	Endosidin2 targets conserved exocyst complex subunit EXO70 to inhibit exocytosis. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E41-50	11.5	88
93	Rac-related GTP-binding protein in elicitor-induced reactive oxygen generation by suspension-cultured soybean cells. *Plant Physiology*, **2000**, 124, 725-32	6.6	75
92	A RHOse by any other name: a comparative analysis of animal and plant Rho GTPases. *Cell Research*, **2006**, 16, 435-45	24.7	70
91	Signaling tip growth in plants. *Current Opinion in Plant Biology*, **1998**, 1, 525-30	9.9	69

90	Spatial control of plasma membrane domains: ROP GTPase-based symmetry breaking. *Current Opinion in Plant Biology*, **2012**, 15, 601-7	9.9	66
89	Pollen-tube tip growth requires a balance of lateral propagation and global inhibition of Rho-family GTPase activity. *Journal of Cell Science*, **2010**, 123, 340-50	5.3	65
88	Overproduction of stomatal lineage cells in Arabidopsis mutants defective in active DNA demethylation. *Nature Communications*, **2014**, 5, 4062	17.4	60
87	ACTIN-RELATED PROTEIN6 Regulates Female Meiosis by Modulating Meiotic Gene Expression in Arabidopsis. *Plant Cell*, **2014**, 26, 1612-1628	11.6	54
86	RHO GTPase in plants: Conservation and invention of regulators and effectors. *Small GTPases*, **2010** , 1, 78-88	2.7	50
85	Phosphorylation switch modulates the interdigitated pattern of PIN1 localization and cell expansion in Arabidopsis leaf epidermis. *Cell Research*, **2011**, 21, 970-8	24.7	50
84	The Arabidopsis small G protein ROP2 is activated by light in guard cells and inhibits light-induced stomatal opening. *Plant Cell*, **2008**, 20, 75-87	11.6	49
83	HMG-CoA reductase and terpenoid phytoalexins: Molecular specialization within a complex pathway. *Physiologia Plantarum*, **1995**, 93, 393-400	4.6	49
82	A genome-wide functional characterization of Arabidopsis regulatory calcium sensors in pollen tubes. *Journal of Integrative Plant Biology*, **2009**, 51, 751-61	8.3	46
81	Exocytosis-coordinated mechanisms for tip growth underlie pollen tube growth guidance. *Nature Communications*, **2017**, 8, 1687	17.4	43
80	Localization of a Rho GTPase Implies a Role in Tip Growth and Movement of the Generative Cell in Pollen Tubes. *Plant Cell*, **1996**, 8, 293	11.6	42
79	Non-targeted metabolomics reveals distinct chemical compositions among different grades of Bai Mudan white tea. *Food Chemistry*, **2019**, 277, 289-297	8.5	41
78	Metabolite Profiling of 14 Wuyi Rock Tea Cultivars Using UPLC-QTOF MS and UPLC-QqQ MS Combined with Chemometrics. *Molecules*, **2018**, 23,	4.8	40
77	Comparative expression profiling reveals gene functions in female meiosis and gametophyte development in Arabidopsis. *Plant Journal*, **2014**, 80, 615-28	6.9	34
76	Genome Sequencing of Arabidopsis abp1-5 Reveals Second-Site Mutations That May Affect Phenotypes. *Plant Cell*, **2015**, 27, 1820-6	11.6	32
75	Modification of Plant Architecture in Chrysanthemum by Ectopic Expression of the Tobacco Phytochrome B1 Gene. *Journal of the American Society for Horticultural Science*, **2001**, 126, 19-26	2.3	32
74	A Putative Calcium-Permeable Cyclic Nucleotide-Gated Channel, CNGC18, Regulates Polarized Pollen Tube Growth. *Journal of Integrative Plant Biology*, **2007**, 49, 1261-1270	8.3	31
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72	Developmental and environmental regulation of tissue- and cell-specific expression for a pea protein farnesyltransferase gene in transgenic plants. *Plant Journal*, **1997**, 12, 921-30	6.9	30
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70	Defensive Responses of Tea Plants () Against Tea Green Leafhopper Attack: A Multi-Omics Study. *Frontiers in Plant Science*, **2019**, 10, 1705	6.2	29
69	Extracellular signals and receptor-like kinases regulating ROP GTPases in plants. *Frontiers in Plant Science*, **2014**, 5, 449	6.2	29
68	Arabinogalactan protein-rare earth element complexes activate plant endocytosis. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 14349-14357	11.5	25
67	Cell polarity signaling: focus on polar auxin transport. *Molecular Plant*, **2008**, 1, 899-909	14.4	25
66	Salicylic Acid Regulates Pollen Tip Growth through an NPR3/NPR4-Independent Pathway. *Molecular Plant*, **2016**, 9, 1478-1491	14.4	24
65	Cytokinin signaling regulates pavement cell morphogenesis in Arabidopsis. *Cell Research*, **2013**, 23, 290-9	24.7	24
64	The Microtubule-Associated Protein IQ67 DOMAIN5 Modulates Microtubule Dynamics and Pavement Cell Shape. *Plant Physiology*, **2018**, 177, 1555-1568	6.6	24
63	Metabolite signatures of diverse Camellia sinensis tea populations. *Nature Communications*, **2020**, 11, 5586	17.4	23
62	The REN4 rheostat dynamically coordinates the apical and lateral domains of Arabidopsis pollen tubes. *Nature Communications*, **2018**, 9, 2573	17.4	23
61	Non-targeted metabolomics analysis reveals dynamic changes of volatile and non-volatile metabolites during oolong tea manufacture. *Food Research International*, **2020**, 128, 108778	7	22
60	Uniform auxin triggers the Rho GTPase-dependent formation of interdigitation patterns in pavement cells. *Small GTPases*, **2011**, 2, 227-232	2.7	21
59	Pavement cells: a model system for non-transcriptional auxin signalling and crosstalks. *Journal of Experimental Botany*, **2015**, 66, 4957-70	7	20
58	The Rho-family GTPase controls rice grain size and yield by regulating cell division. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 16121-16126	11.5	19
57	Dynamic localization of rop GTPases to the tonoplast during vacuole development. *Plant Physiology* , **2001**, 125, 241-51	6.6	19
56	Exocytosis and endocytosis: coordinating and fine-tuning the polar tip growth domain in pollen tubes. *Journal of Experimental Botany*, **2020**, 71, 2428-2438	7	18
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53	Novel ABP1-TMK auxin sensing system controls ROP GTPase-mediated interdigitated cell expansion in Arabidopsis. *Small GTPases*, **2014**, 5,	2.7	16
52	FERONIA–sensing of cell wall pectin activates ROP GTPase signaling in Arabidopsis		16
51	Glycolysis regulates pollen tube polarity via Rho GTPase signaling. *PLoS Genetics*, **2018**, 14, e1007373	6	15
50	Vitronectin-like protein is a first line of defense against lanthanum (III) stress in Arabidopsis leaf cells. *Environmental and Experimental Botany*, **2016**, 130, 86-94	5.9	14
49	Measuring Exocytosis Rate Using Corrected Fluorescence Recovery After Photoconversion. *Traffic*, **2016**, 17, 554-64	5.7	14
48	GABA, a new player in the plant mating game. *Developmental Cell*, **2003**, 5, 185-6	10.2	14
47	A living plant cell-based biosensor for real-time monitoring invisible damage of plant cells under heavy metal stress. *Science of the Total Environment*, **2019**, 697, 134097	10.2	12
46	TMK-based cell-surface auxin signalling activates cell-wall acidification. *Nature*, **2021**, 599, 278-282	50.4	12
45	Insights into Tissue-specific Specialized Metabolism in Tieguanyin Tea Cultivar by Untargeted Metabolomics. *Molecules*, **2018**, 23,	4.8	11
44	Transcriptomic Analysis of Responses to Imbalanced Carbon: Nitrogen Availabilities in Rice Seedlings. *PLoS ONE*, **2016**, 11, e0165732	3.7	11
43	Membrane receptor-mediated mechano-transduction maintains cell integrity during pollen tube growth within the pistil. *Developmental Cell*, **2021**, 56, 1030-1042.e6	10.2	10
42	Unlocking the mechanisms behind the formation of interlocking pavement cells. *Current Opinion in Plant Biology*, **2020**, 57, 142-154	9.9	9
41	Endocytic signaling in leaves and roots: same rules different players. *Frontiers in Plant Science*, **2012** , 3, 219	6.2	9
40	The CLAVATA1 Receptor-Like Kinase Requires CLAVATA3 for Its Assembly into a Signaling Complex That Includes KAPP and a Rho-Related Protein. *Plant Cell*, **1999**, 11, 393	11.6	8
39	Arabidopsis pavement cell morphogenesis requires FERONIA binding to pectin for activation of ROP GTPase signaling. *Current Biology*, **2021**,	6.3	8
38	Endocytosis in microcystis aeruginosa accelerates the synthesis of microcystins in the presence of lanthanum(III). *Harmful Algae*, **2020**, 93, 101791	5.3	7
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36	Signaling mechanisms integrating carbon and nitrogen utilization in plants. *Frontiers in Biology*, **2012**, 7, 548-556		6
35	Spatiotemporal dynamics of a reaction-diffusion model of pollen tube tip growth. *Journal of Mathematical Biology*, **2019**, 79, 1319-1355	2	5
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33	Low-dose lanthanum activates endocytosis, aggravating accumulation of lanthanum or/and lead and disrupting homeostasis of essential elements in the leaf cells of four edible plants. *Ecotoxicology and Environmental Safety*, **2021**, 221, 112429	7	5
32	Reactive Oxygen Signaling in Plants189-201		4
31	ROP/RAC GTPases64-99		4
30	Regulation of immune receptor kinase plasma membrane nanoscale organization by a plant peptide hormone and its receptors.. *ELife*, **2022**, 11,	8.9	4
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22	The Cytoskeleton and Signal Transduction: Role and Regulation of Plant Actin- and Microtubule-Binding Proteins244-272		2
21	Molecular cloning of an endo-pectate lyase gene from Erwinia carotovora subsp. atroseptica. *Physiological and Molecular Plant Pathology*, **1987**, 31, 325-335	2.6	2
20	Rho GTPase ROP1 Interactome Analysis Reveals Novel ROP1-Associated Pathways for Pollen Tube Polar Growth in Arabidopsis. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	2
19	TMK-based cell surface auxin signaling activates cell wall acidification in Arabidopsis		2

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16	The Molecular Networks of Abiotic Stress Signaling388-416		1
15	Transmembrane Receptors in Plants: Receptor Kinases and their Ligands1-29		1
14	The PCI Complexes and the Ubiquitin Proteasome System (UPS) in Plant Development273-306		1
13	Guard Cell Signaling362-387		1
12	Celebrating Plant Cells: A Special Issue on Plant Cell Biology. *Journal of Integrative Plant Biology*, **2007**, 49, 1089-1090	8.3	1
11	ROP/RAC GTPases64		1
10	ROP/RAC GTPases **2018**, 64-99		1
9	The Microtubule-Associated Protein IQ67 DOMAIN5 Modulates Microtubule Dynamics and Pavement Cell Shape		0
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7	Measuring Exocytosis Rate in Arabidopsis Pollen Tubes Using Corrected Fluorescence Recovery After Photoconversion (cFRAPc) Technique. *Methods in Molecular Biology*, **2020**, 2160, 293-306	1.4	0
6	The Regulation of Cell Shape Formation by ROP-dependent Auxin Signaling **2014**, 164-189		
5	Heterotrimeric G-Protein-Coupled Signaling in Higher Plants30-63		
4	Signaling by Protein Phosphorylation in Cell Division336-361		
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