

Zhenbiao Yang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Regulation of immune receptor kinase plasma membrane nanoscale organization by a plant peptide hormone and its receptors.. <i>ELife</i> , 2022 , 11,	8.9	4
142	A new mechanism by which environmental hazardous substances enhance their toxicities to plants. <i>Journal of Hazardous Materials</i> , 2022 , 421, 126802	12.8	0
141	Mechano-transduction via the pectin-FERONIA complex activates ROP6 GTPase signaling in Arabidopsis pavement cell morphogenesis. <i>Current Biology</i> , 2021 ,	6.3	5
140	Arabidopsis pavement cell morphogenesis requires FERONIA binding to pectin for activation of ROP GTPase signaling. <i>Current Biology</i> , 2021 ,	6.3	8
139	TMK-based cell-surface auxin signalling activates cell-wall acidification. <i>Nature</i> , 2021 , 599, 278-282	50.4	12
138	The long noncoding RNA FRILAIR regulates strawberry fruit ripening by functioning as a noncanonical target mimic. <i>PLoS Genetics</i> , 2021 , 17, e1009461	6	4
137	Membrane receptor-mediated mechano-transduction maintains cell integrity during pollen tube growth within the pistil. <i>Developmental Cell</i> , 2021 , 56, 1030-1042.e6	10.2	10
136	Lanthanum(III) triggers AtrbohD- and jasmonic acid-dependent systemic endocytosis in plants. <i>Nature Communications</i> , 2021 , 12, 4327	17.4	2
135	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. <i>Ecotoxicology and Environmental Safety</i> , 2021 , 221, 112429	7	5
134	New Insights into Stress-Induced EOCimene Biosynthesis in Tea () Leaves during Oolong Tea Processing. <i>Journal of Agricultural and Food Chemistry</i> , 2021 , 69, 11656-11664	5.7	2
133	Metabolite signatures of diverse Camellia sinensis tea populations. <i>Nature Communications</i> , 2020 , 11, 5586	17.4	23
132	Unlocking the mechanisms behind the formation of interlocking pavement cells. <i>Current Opinion in Plant Biology</i> , 2020 , 57, 142-154	9.9	9
131	Endocytosis in microcystis aeruginosa accelerates the synthesis of microcystins in the presence of lanthanum(III). <i>Harmful Algae</i> , 2020 , 93, 101791	5.3	7
130	Exocytosis and endocytosis: coordinating and fine-tuning the polar tip growth domain in pollen tubes. <i>Journal of Experimental Botany</i> , 2020 , 71, 2428-2438	7	18
129	Non-targeted metabolomics analysis reveals dynamic changes of volatile and non-volatile metabolites during oolong tea manufacture. <i>Food Research International</i> , 2020 , 128, 108778	7	22
128	Rho GTPase ROP1 Interactome Analysis Reveals Novel ROP1-Associated Pathways for Pollen Tube Polar Growth in Arabidopsis. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	2
127	Auxin-induced signaling protein nanoclustering contributes to cell polarity formation. <i>Nature Communications</i> , 2020 , 11, 3914	17.4	30

126	Measuring Exocytosis Rate in Arabidopsis Pollen Tubes Using Corrected Fluorescence Recovery After Photoconversion (cFRAPc) Technique. <i>Methods in Molecular Biology</i> , 2020 , 2160, 293-306	1.4	0
125	A living plant cell-based biosensor for real-time monitoring invisible damage of plant cells under heavy metal stress. <i>Science of the Total Environment</i> , 2019 , 697, 134097	10.2	12
124	Arabinogalactan protein-rare earth element complexes activate plant endocytosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 14349-14357	11.5	25
123	Quinoa: In Perspective of Global Challenges. <i>Agronomy</i> , 2019 , 9, 176	3.6	17
122	Arabinogalactan Proteins Are the Possible Extracellular Molecules for Binding Exogenous Cerium(III) in the Acidic Environment Outside Plant Cells. <i>Frontiers in Plant Science</i> , 2019 , 10, 153	6.2	3
121	Defensive Responses of Tea Plants () Against Tea Green Leafhopper Attack: A Multi-Omics Study. <i>Frontiers in Plant Science</i> , 2019 , 10, 1705	6.2	29
120	The Rho-family GTPase controls rice grain size and yield by regulating cell division. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 16121-16126	11.5	19
119	Spatiotemporal dynamics of a reaction-diffusion model of pollen tube tip growth. <i>Journal of Mathematical Biology</i> , 2019 , 79, 1319-1355	2	5
118	Non-targeted metabolomics reveals distinct chemical compositions among different grades of Bai Mudan white tea. <i>Food Chemistry</i> , 2019 , 277, 289-297	8.5	41
117	The glucosinolate regulation in plant: A new view on lanthanum stimulating the growth of plant. <i>Journal of Rare Earths</i> , 2019 , 37, 555-564	3.7	3
116	Direct imaging of how lanthanides break the normal evolution of plants. <i>Journal of Inorganic Biochemistry</i> , 2018 , 182, 158-169	4.2	6
115	Insights into Tissue-specific Specialized Metabolism in Tieguanyin Tea Cultivar by Untargeted Metabolomics. <i>Molecules</i> , 2018 , 23,	4.8	11
114	Glycolysis regulates pollen tube polarity via Rho GTPase signaling. <i>PLoS Genetics</i> , 2018 , 14, e1007373	6	15
113	Metabolite Profiling of 14 Wuyi Rock Tea Cultivars Using UPLC-QTOF MS and UPLC-QqQ MS Combined with Chemometrics. <i>Molecules</i> , 2018 , 23,	4.8	40
112	ROP/RAC GTPases 2018 , 64-99		1
111	The Microtubule-Associated Protein IQ67 DOMAIN5 Modulates Microtubule Dynamics and Pavement Cell Shape. <i>Plant Physiology</i> , 2018 , 177, 1555-1568	6.6	24
110	The REN4 rheostat dynamically coordinates the apical and lateral domains of Arabidopsis pollen tubes. <i>Nature Communications</i> , 2018 , 9, 2573	17.4	23
109	GTPase ROP2 binds and promotes activation of target of rapamycin, TOR, in response to auxin. <i>EMBO Journal</i> , 2017 , 36, 886-903	13	94

108	Exocytosis-coordinated mechanisms for tip growth underlie pollen tube growth guidance. <i>Nature Communications</i> , 2017 , 8, 1687	17.4	43
107	Salicylic Acid Regulates Pollen Tip Growth through an NPR3/NPR4-Independent Pathway. <i>Molecular Plant</i> , 2016 , 9, 1478-1491	14.4	24
106	Vitronectin-like protein is a first line of defense against lanthanum (III) stress in Arabidopsis leaf cells. <i>Environmental and Experimental Botany</i> , 2016 , 130, 86-94	5.9	14
105	Measuring Exocytosis Rate Using Corrected Fluorescence Recovery After Photoconversion. <i>Traffic</i> , 2016 , 17, 554-64	5.7	14
104	Endosidin2 targets conserved exocyst complex subunit EXO70 to inhibit exocytosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E41-50	11.5	88
103	Epigenetic Modifications and Plant Hormone Action. <i>Molecular Plant</i> , 2016 , 9, 57-70	14.4	109
102	Transcriptomic Analysis of Responses to Imbalanced Carbon: Nitrogen Availabilities in Rice Seedlings. <i>PLoS ONE</i> , 2016 , 11, e0165732	3.7	11
101	Understanding pollen tube growth dynamics using the Unscented Kalman Filter. <i>Pattern Recognition Letters</i> , 2016 , 72, 100-108	4.7	4
100	Genome Sequencing of Arabidopsis abp1-5 Reveals Second-Site Mutations That May Affect Phenotypes. <i>Plant Cell</i> , 2015 , 27, 1820-6	11.6	32
99	Auxin regulation of cell polarity in plants. <i>Current Opinion in Plant Biology</i> , 2015 , 28, 144-53	9.9	30
98	Pavement cells: a model system for non-transcriptional auxin signalling and crosstalks. <i>Journal of Experimental Botany</i> , 2015 , 66, 4957-70	7	20
97	Cell surface ABP1-TMK auxin-sensing complex activates ROP GTPase signaling. <i>Science</i> , 2014 , 343, 1025-33	33.3	196
96	Comparative expression profiling reveals gene functions in female meiosis and gametophyte development in Arabidopsis. <i>Plant Journal</i> , 2014 , 80, 615-28	6.9	34
95	The Regulation of Cell Shape Formation by ROP-dependent Auxin Signaling 2014 , 164-189		
94	ACTIN-RELATED PROTEIN6 Regulates Female Meiosis by Modulating Meiotic Gene Expression in Arabidopsis. <i>Plant Cell</i> , 2014 , 26, 1612-1628	11.6	54
93	Overproduction of stomatal lineage cells in Arabidopsis mutants defective in active DNA demethylation. <i>Nature Communications</i> , 2014 , 5, 4062	17.4	60
92	Novel ABP1-TMK auxin sensing system controls ROP GTPase-mediated interdigitated cell expansion in Arabidopsis. <i>Small GTPases</i> , 2014 , 5,	2.7	16
91	Extracellular signals and receptor-like kinases regulating ROP GTPases in plants. <i>Frontiers in Plant Science</i> , 2014 , 5, 449	6.2	29

90	Rho GTPase signaling activates microtubule severing to promote microtubule ordering in Arabidopsis. <i>Current Biology</i> , 2013 , 23, 290-7	6.3	152
89	Carbon-Nitrogen Interaction Modulates Plant Growth and Expression of Metabolic Genes in Rice. <i>Journal of Plant Growth Regulation</i> , 2013 , 32, 575-584	4.7	17
88	Signaling in pollen tube growth: crosstalk, feedback, and missing links. <i>Molecular Plant</i> , 2013 , 6, 1053-64	14.4	100
87	AtPRK2 promotes ROP1 activation via RopGEFs in the control of polarized pollen tube growth. <i>Molecular Plant</i> , 2013 , 6, 1187-201	14.4	91
86	Cytokinin signaling regulates pavement cell morphogenesis in Arabidopsis. <i>Cell Research</i> , 2013 , 23, 290-9	4.7	24
85	Signaling mechanisms integrating carbon and nitrogen utilization in plants. <i>Frontiers in Biology</i> , 2012 , 7, 548-556		6
84	A ROP GTPase-dependent auxin signaling pathway regulates the subcellular distribution of PIN2 in Arabidopsis roots. <i>Current Biology</i> , 2012 , 22, 1319-25	6.3	143
83	ABP1 and ROP6 GTPase signaling regulate clathrin-mediated endocytosis in Arabidopsis roots. <i>Current Biology</i> , 2012 , 22, 1326-32	6.3	123
82	New insights into Rho signaling from plant ROP/Rac GTPases. <i>Trends in Cell Biology</i> , 2012 , 22, 492-501	18.3	104
81	Spatial control of plasma membrane domains: ROP GTPase-based symmetry breaking. <i>Current Opinion in Plant Biology</i> , 2012 , 15, 601-7	9.9	66
80	Endocytic signaling in leaves and roots: same rules different players. <i>Frontiers in Plant Science</i> , 2012 , 3, 219	6.2	9
79	ROP GTPase-dependent actin microfilaments promote PIN1 polarization by localized inhibition of clathrin-dependent endocytosis. <i>PLoS Biology</i> , 2012 , 10, e1001299	9.7	158
78	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. <i>Plant Cell</i> , 2011 , 23, 3944-60	11.6	248
77	Rapid tip growth: insights from pollen tubes. <i>Seminars in Cell and Developmental Biology</i> , 2011 , 22, 816-24	4.5	105
76	Uniform auxin triggers the Rho GTPase-dependent formation of interdigitation patterns in pavement cells. <i>Small GTPases</i> , 2011 , 2, 227-232	2.7	21
75	Phosphorylation switch modulates the interdigitated pattern of PIN1 localization and cell expansion in Arabidopsis leaf epidermis. <i>Cell Research</i> , 2011 , 21, 970-8	24.7	50
74	Clusters of bioactive compounds target dynamic endomembrane networks in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 17850-5	11.5	107
73	Pollen-tube tip growth requires a balance of lateral propagation and global inhibition of Rho-family GTPase activity. <i>Journal of Cell Science</i> , 2010 , 123, 340-50	5.3	65

72	RHO GTPase in plants: Conservation and invention of regulators and effectors. <i>Small GTPases</i> , 2010 , 1, 78-88	2.7	50
71	Cell surface- and rho GTPase-based auxin signaling controls cellular interdigitation in Arabidopsis. <i>Cell</i> , 2010 , 143, 99-110	56.2	377
70	ABP1 mediates auxin inhibition of clathrin-dependent endocytosis in Arabidopsis. <i>Cell</i> , 2010 , 143, 111-215	56.2	344
69	Phosphoinositides regulate clathrin-dependent endocytosis at the tip of pollen tubes in Arabidopsis and tobacco. <i>Plant Cell</i> , 2010 , 22, 4031-44	11.6	146
68	Arabidopsis formin3 directs the formation of actin cables and polarized growth in pollen tubes. <i>Plant Cell</i> , 2009 , 21, 3868-84	11.6	112
67	A ROP GTPase signaling pathway controls cortical microtubule ordering and cell expansion in Arabidopsis. <i>Current Biology</i> , 2009 , 19, 1827-32	6.3	174
66	A genome-wide functional characterization of Arabidopsis regulatory calcium sensors in pollen tubes. <i>Journal of Integrative Plant Biology</i> , 2009 , 51, 751-61	8.3	46
65	A tip-localized RhoGAP controls cell polarity by globally inhibiting Rho GTPase at the cell apex. <i>Current Biology</i> , 2008 , 18, 1907-16	6.3	109
64	Tip growth: signaling in the apical dome. <i>Current Opinion in Plant Biology</i> , 2008 , 11, 662-71	9.9	100
63	Cell polarity signaling in Arabidopsis. <i>Annual Review of Cell and Developmental Biology</i> , 2008 , 24, 551-75	12.6	211
62	The Arabidopsis small G protein ROP2 is activated by light in guard cells and inhibits light-induced stomatal opening. <i>Plant Cell</i> , 2008 , 20, 75-87	11.6	49
61	Endosidin1 defines a compartment involved in endocytosis of the brassinosteroid receptor BRI1 and the auxin transporters PIN2 and AUX1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 8464-9	11.5	205
60	Cell polarity signaling: focus on polar auxin transport. <i>Molecular Plant</i> , 2008 , 1, 899-909	14.4	25
59	Rho-GTPase-dependent filamentous actin dynamics coordinate vesicle targeting and exocytosis during tip growth. <i>Journal of Cell Biology</i> , 2008 , 181, 1155-68	7.3	179
58	A Putative Calcium-Permeable Cyclic Nucleotide-Gated Channel, CNGC18, Regulates Polarized Pollen Tube Growth. <i>Journal of Integrative Plant Biology</i> , 2007 , 49, 1261-1270	8.3	31
57	Celebrating Plant Cells: A Special Issue on Plant Cell Biology. <i>Journal of Integrative Plant Biology</i> , 2007 , 49, 1089-1090	8.3	1
56	ROP/RAC GTPase signaling. <i>Current Opinion in Plant Biology</i> , 2007 , 10, 490-4	9.9	122
55	NADPH oxidase-dependent reactive oxygen species formation required for root hair growth depends on ROP GTPase. <i>Journal of Experimental Botany</i> , 2007 , 58, 1261-70	7	183

54	Members of a novel class of Arabidopsis Rho guanine nucleotide exchange factors control Rho GTPase-dependent polar growth. <i>Plant Cell</i> , 2006 , 18, 366-81	11.6	182
53	Phytochromes A1 and B1 have distinct functions in the photoperiodic control of flowering in the obligate long-day plant <i>Nicotiana sylvestris</i> . <i>Plant, Cell and Environment</i> , 2006 , 29, 1673-85	8.4	3
52	A RHOse by any other name: a comparative analysis of animal and plant Rho GTPases. <i>Cell Research</i> , 2006 , 16, 435-45	24.7	70
51	Arabidopsis interdigitating cell growth requires two antagonistic pathways with opposing action on cell morphogenesis. <i>Cell</i> , 2005 , 120, 687-700	56.2	449
50	A Rho family GTPase controls actin dynamics and tip growth via two counteracting downstream pathways in pollen tubes. <i>Journal of Cell Biology</i> , 2005 , 169, 127-38	7.3	267
49	New views on the plant cytoskeleton. <i>Plant Physiology</i> , 2004 , 136, 3884-91	6.6	101
48	Phosphatidic acid induces leaf cell death in Arabidopsis by activating the Rho-related small G protein GTPase-mediated pathway of reactive oxygen species generation. <i>Plant Physiology</i> , 2004 , 134, 129-36	6.6	135
47	Brassinosteroids interact with auxin to promote lateral root development in Arabidopsis. <i>Plant Physiology</i> , 2004 , 134, 1624-31	6.6	266
46	ROP/RAC GTPase: an old new master regulator for plant signaling. <i>Current Opinion in Plant Biology</i> , 2004 , 7, 527-36	9.9	141
45	ROP GTPase regulation of pollen tube growth through the dynamics of tip-localized F-actin. <i>Journal of Experimental Botany</i> , 2003 , 54, 93-101	7	127
44	Analysis of the small GTPase gene superfamily of Arabidopsis. <i>Plant Physiology</i> , 2003 , 131, 1191-208	6.6	499
43	GABA, a new player in the plant mating game. <i>Developmental Cell</i> , 2003 , 5, 185-6	10.2	14
42	The putative Arabidopsis arp2/3 complex controls leaf cell morphogenesis. <i>Plant Physiology</i> , 2003 , 132, 2034-44	6.6	164
41	The Arabidopsis Rop2 GTPase is a positive regulator of both root hair initiation and tip growth. <i>Plant Cell</i> , 2002 , 14, 763-76	11.6	343
40	The ROP2 GTPase controls the formation of cortical fine F-actin and the early phase of directional cell expansion during Arabidopsis organogenesis. <i>Plant Cell</i> , 2002 , 14, 777-94	11.6	294
39	Plasma membrane-associated ROP10 small GTPase is a specific negative regulator of abscisic acid responses in Arabidopsis. <i>Plant Cell</i> , 2002 , 14, 2787-97	11.6	130
38	Small GTPases: versatile signaling switches in plants. <i>Plant Cell</i> , 2002 , 14 Suppl, S375-88	11.6	334
37	RopGAP4-dependent Rop GTPase rheostat control of Arabidopsis oxygen deprivation tolerance. <i>Science</i> , 2002 , 296, 2026-8	33.3	304

36	A genome-wide analysis of Arabidopsis Rop-interactive CRIB motif-containing proteins that act as Rop GTPase targets. <i>Plant Cell</i> , 2001 , 13, 2841-56	11.6	160
35	Dynamic localization of rop GTPases to the tonoplast during vacuole development. <i>Plant Physiology</i> , 2001 , 125, 241-51	6.6	19
34	Rop GTPase-dependent dynamics of tip-localized F-actin controls tip growth in pollen tubes. <i>Journal of Cell Biology</i> , 2001 , 152, 1019-32	7.3	369
33	The Rop GTPase switch controls multiple developmental processes in Arabidopsis. <i>Plant Physiology</i> , 2001 , 126, 670-84	6.6	174
32	Modification of Plant Architecture in Chrysanthemum by Ectopic Expression of the Tobacco Phytochrome B1 Gene. <i>Journal of the American Society for Horticultural Science</i> , 2001 , 126, 19-26	2.3	32
31	Arabidopsis RopGAPs are a novel family of rho GTPase-activating proteins that require the Cdc42/Rac-interactive binding motif for rop-specific GTPase stimulation. <i>Plant Physiology</i> , 2000 , 124, 1625-36	6.6	117
30	The Rop GTPase: an emerging signaling switch in plants. <i>Plant Molecular Biology</i> , 2000 , 44, 1-9	4.6	144
29	Rac-related GTP-binding protein in elicitor-induced reactive oxygen generation by suspension-cultured soybean cells. <i>Plant Physiology</i> , 2000 , 124, 725-32	6.6	75
28	The Rop GTPase switch turns on polar growth in pollen. <i>Trends in Plant Science</i> , 2000 , 5, 298-303	13.1	105
27	Control of pollen tube tip growth by a Rop GTPase-dependent pathway that leads to tip-localized calcium influx. <i>Plant Cell</i> , 1999 , 11, 1731-42	11.6	393
26	The CLAVATA1 receptor-like kinase requires CLAVATA3 for its assembly into a signaling complex that includes KAPP and a Rho-related protein. <i>Plant Cell</i> , 1999 , 11, 393-406	11.6	381
25	The CLAVATA1 Receptor-Like Kinase Requires CLAVATA3 for Its Assembly into a Signaling Complex That Includes KAPP and a Rho-Related Protein. <i>Plant Cell</i> , 1999 , 11, 393	11.6	8
24	Signaling tip growth in plants. <i>Current Opinion in Plant Biology</i> , 1998 , 1, 525-30	9.9	69
23	Arabidopsis Rho-related GTPases: differential gene expression in pollen and polar localization in fission yeast. <i>Plant Physiology</i> , 1998 , 118, 407-17	6.6	163
22	Developmental and environmental regulation of tissue- and cell-specific expression for a pea protein farnesyltransferase gene in transgenic plants. <i>Plant Journal</i> , 1997 , 12, 921-30	6.9	30
21	Localization of a Rho GTPase Implies a Role in Tip Growth and Movement of the Generative Cell in Pollen Tubes. <i>Plant Cell</i> , 1996 , 8, 293	11.6	42
20	HMG-CoA reductase and terpenoid phytoalexins: Molecular specialization within a complex pathway. <i>Physiologia Plantarum</i> , 1995 , 93, 393-400	4.6	49
19	Molecular cloning of an endo-pectate lyase gene from <i>Erwinia carotovora</i> subsp. <i>atroseptica</i> . <i>Physiological and Molecular Plant Pathology</i> , 1987 , 31, 325-335	2.6	2

18	Reactive Oxygen Signaling in Plants189-201	4
17	Heterotrimeric G-Protein-Coupled Signaling in Higher Plants30-63	
16	Mitogen-Activated Protein Kinase Cascades in Plant Intracellular Signaling100-136	3
15	The Molecular Networks of Abiotic Stress Signaling388-416	1
14	ROP/RAC GTPases64-99	4
13	Signaling by Protein Phosphorylation in Cell Division336-361	
12	Paradigms and Networks for Intracellular Calcium Signaling in Plant Cells163-188	
11	Calcium Signals and Their Regulation137-162	
10	Transmembrane Receptors in Plants: Receptor Kinases and their Ligands1-29	1
9	The Cytoskeleton and Signal Transduction: Role and Regulation of Plant Actin- and Microtubule-Binding Proteins244-272	2
8	Signaling between the Organelles and the Nucleus307-335	
7	The PCI Complexes and the Ubiquitin Proteasome System (UPS) in Plant Development273-306	1
6	Guard Cell Signaling362-387	1
5	Lipid-Mediated Signaling202-243	3
4	The Microtubule-Associated Protein IQ67 DOMAIN5 Modulates Microtubule Dynamics and Pavement Cell Shape	0
3	ROP/RAC GTPases64	1
2	FERONIA β sensing of cell wall pectin activates ROP GTPase signaling in Arabidopsis	16
1	TMK-based cell surface auxin signaling activates cell wall acidification in Arabidopsis	2

