Zhenbiao Yang

List of Publications by Year
in descending order

146	14,698	19636 61	20343 116
papers	citations	h-index	g-index

157	157	157	8805
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analysis of the Small GTPase Gene Superfamily of Arabidopsis. Plant Physiology, 2003, 131, 1191-1208.	2.3	570
2	Arabidopsis Interdigitating Cell Growth Requires Two Antagonistic Pathways with Opposing Action on Cell Morphogenesis. Cell, 2005, 120, 687-700.	13.5	517
3	Cell Surface- and Rho GTPase-Based Auxin Signaling Controls Cellular Interdigitation in Arabidopsis. Cell, 2010, 143, 99-110.	13.5	454
4	Control of Pollen Tube Tip Growth by a Rop GTPaseâ€"Dependent Pathway That Leads to Tip-Localized Calcium Influx. Plant Cell, 1999, 11, 1731-1742.	3.1	447
5	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, 393-405.	3.1	403
6	ROP Gtpaseâ€"Dependent Dynamics of Tip-Localized F-Actin Controls Tip Growth in Pollen Tubes. Journal of Cell Biology, 2001, 152, 1019-1032.	2.3	394
7	Small GTPases. Plant Cell, 2002, 14, S375-S388.	3.1	394
8	The Arabidopsis Rop2 GTPase Is a Positive Regulator of Both Root Hair Initiation and Tip Growth. Plant Cell, 2002, 14, 763-776.	3.1	393
9	ABP1 Mediates Auxin Inhibition of Clathrin-Dependent Endocytosis in Arabidopsis. Cell, 2010, 143, 111-121.	13.5	386
10	A Small-Molecule Screen Identifies<scp>l</scp>-Kynurenine as a Competitive Inhibitor of TAA1/TAR Activity in Ethylene-Directed Auxin Biosynthesis and Root Growth in<i>Arabidopsis</i>Â Â. Plant Cell, 2011, 23, 3944-3960.	3.1	364
11	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, 777-794.	3.1	346
12	RopGAP4-Dependent Rop GTPase Rheostat Control of Arabidopsis Oxygen Deprivation Tolerance. Science, 2002, 296, 2026-2028.	6.0	344
13	A Rho family GTPase controls actin dynamics and tip growth via two counteracting downstream pathways in pollen tubes. Journal of Cell Biology, 2005, 169, 127-138.	2.3	314
14	Brassinosteroids Interact with Auxin to Promote Lateral Root Development in Arabidopsis. Plant Physiology, 2004, 134, 1624-1631.	2.3	306
15	Cell Surface ABP1-TMK Auxin-Sensing Complex Activates ROP GTPase Signaling. Science, 2014, 343, 1025-1028.	6.0	276
16	Cell Polarity Signaling in <i>Arabidopsis</i>. Annual Review of Cell and Developmental Biology, 2008, 24, 551-575.	4.0	250
17	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, 8464-8469.	3.3	226
18	Members of a Novel Class of Arabidopsis Rho Guanine Nucleotide Exchange Factors Control Rho GTPase-Dependent Polar Growth. Plant Cell, 2006, 18, 366-381.	3.1	220

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19	A ROP GTPase Signaling Pathway Controls Cortical Microtubule Ordering and Cell Expansion in Arabidopsis. Current Biology, 2009, 19, 1827-1832.	1.8	216
20	NADPH oxidase-dependent reactive oxygen species formation required for root hair growth depends on ROP GTPase. Journal of Experimental Botany, 2007, 58, 1261-1270.	2.4	214
21	Rho-GTPaseâ€"dependent filamentous actin dynamics coordinate vesicle targeting and exocytosis during tip growth. Journal of Cell Biology, 2008, 181, 1155-1168.	2.3	211
22	Rho GTPase Signaling Activates Microtubule Severing to Promote Microtubule Ordering in Arabidopsis. Current Biology, 2013, 23, 290-297.	1.8	201
23	The Rop GTPase Switch Controls Multiple Developmental Processes in Arabidopsis. Plant Physiology, 2001, 126, 670-684.	2.3	196
24	ROP GTPase-Dependent Actin Microfilaments Promote PIN1 Polarization by Localized Inhibition of Clathrin-Dependent Endocytosis. PLoS Biology, 2012, 10, e1001299.	2.6	186
25	The Putative Arabidopsis Arp2/3 Complex Controls Leaf Cell Morphogenesis. Plant Physiology, 2003, 132, 2034-2044.	2.3	183
26	Arabidopsis Rho-Related GTPases: Differential Gene Expression in Pollen and Polar Localization in Fission Yeast. Plant Physiology, 1998, 118, 407-417.	2.3	182
27	A ROP GTPase-Dependent Auxin Signaling Pathway Regulates the Subcellular Distribution of PIN2 in Arabidopsis Roots. Current Biology, 2012, 22, 1319-1325.	1.8	177
28	A Genome-Wide Analysis of Arabidopsis Rop-Interactive CRIB Motifâ€"Containing Proteins That Act as Rop GTPase Targets. Plant Cell, 2001, 13, 2841-2856.	3.1	174
29	The Rop GTPase: an emerging signaling switch in plants. , 2000, 44, 1-9.		173
30	Phosphoinositides Regulate Clathrin-Dependent Endocytosis at the Tip of Pollen Tubes in<i>Arabidopsis</i>and Tobacco. Plant Cell, 2011, 22, 4031-4044.	3.1	165
31	<scp>GTP</scp> ase <scp>ROP</scp> 2 binds and promotes activation of target of rapamycin, <scp>TOR</scp> , in response to auxin. EMBO Journal, 2017, 36, 886-903.	3.5	157
32	ROP/RAC GTPase: an old new master regulator for plant signaling. Current Opinion in Plant Biology, 2004, 7, 527-536.	3.5	156
33	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, 129-136.	2.3	151
34	ROP GTPase regulation of pollen tube growth through the dynamics of tip-localized F-actin. Journal of Experimental Botany, 2003, 54, 93-101.	2.4	149
35	Plasma Membraneâ€"Associated ROP10 Small GTPase Is a Specific Negative Regulator of Abscisic Acid Responses in Arabidopsis. Plant Cell, 2002, 14, 2787-2797.	3.1	146
36	Epigenetic Modifications and Plant Hormone Action. Molecular Plant, 2016, 9, 57-70.	3.9	146

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37	ABP1 and ROP6 GTPase Signaling Regulate Clathrin-Mediated Endocytosis in Arabidopsis Roots. Current Biology, 2012, 22, 1326-1332.	1.8	145
38	A Tip-Localized RhoGAP Controls Cell Polarity by Globally Inhibiting Rho GTPase at the Cell Apex. Current Biology, 2008, 18, 1907-1916.	1.8	142
39	ROP/RAC GTPase signaling. Current Opinion in Plant Biology, 2007, 10, 490-494.	3.5	135
40	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, 1625-1636.	2.3	134
41	New insights into Rho signaling from plant ROP/Rac GTPases. Trends in Cell Biology, 2012, 22, 492-501.	3.6	130
42	AtPRK2 Promotes ROP1 Activation via RopGEFs in the Control of Polarized Pollen Tube Growth. Molecular Plant, 2013, 6, 1187-1201.	3.9	130
43	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.	3.3	129
44	<i>Arabidopsis</i>Formin3 Directs the Formation of Actin Cables and Polarized Growth in Pollen Tubes. Plant Cell, 2010, 21, 3868-3884.	3.1	127
45	Rapid tip growth: Insights from pollen tubes. Seminars in Cell and Developmental Biology, 2011, 22, 816-824.	2.3	125
46	TMK-based cell-surface auxin signalling activates cell-wall acidification. Nature, 2021, 599, 278-282.	13.7	125
47	Signaling in Pollen Tube Growth: Crosstalk, Feedback, and Missing Links. Molecular Plant, 2013, 6, 1053-1064.	3.9	124
48	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, 17850-17855.	3.3	122
49	New Views on the Plant Cytoskeleton. Plant Physiology, 2004, 136, 3884-3891.	2.3	111
50	The Rop GTPase switch turns on polar growth in pollen. Trends in Plant Science, 2000, 5, 298-303.	4.3	110
51	Tip growth: signaling in the apical dome. Current Opinion in Plant Biology, 2008, 11, 662-671.	3.5	110
52	Overproduction of stomatal lineage cells in Arabidopsis mutants defective in active DNA demethylation. Nature Communications, 2014, 5, 4062.	5.8	90
53	Metabolite Profiling of 14 Wuyi Rock Tea Cultivars Using UPLC-QTOF MS and UPLC-QqQ MS Combined with Chemometrics. Molecules, 2018, 23, 104.	1.7	90
54	A RHOse by any other name: a comparative analysis of animal and plant Rho GTPases. Cell Research, 2006, 16, 435-445.	5.7	87

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55	Rac-Related GTP-Binding Protein in Elicitor-Induced Reactive Oxygen Generation by Suspension-Cultured Soybean Cells. Plant Physiology, 2000, 124, 725-732.	2.3	86
56	Pollen-tube tip growth requires a balance of lateral propagation and global inhibition of Rho-family GTPase activity. Journal of Cell Science, 2010, 123, 340-350.	1.2	80
57	Metabolite signatures of diverse Camellia sinensis tea populations. Nature Communications, 2020, 11, 5586.	5.8	78
58	Auxin: small molecule, big impact. Journal of Experimental Botany, 2018, 69, 133-136.	2.4	77
59	Signaling tip growth in plants. Current Opinion in Plant Biology, 1998, 1, 525-530.	3.5	76
60	Spatial control of plasma membrane domains: ROP GTPase-based symmetry breaking. Current Opinion in Plant Biology, 2012, 15, 601-607.	3.5	76
61	RHO GTPase in plants. Small GTPases, 2010, 1, 78-88.	0.7	73
62	Exocytosis-coordinated mechanisms for tip growth underlie pollen tube growth guidance. Nature Communications, 2017, 8, 1687.	5.8	71
63	Mechano-transduction via the pectin-FERONIA complex activates ROP6 GTPase signaling in Arabidopsis pavement cell morphogenesis. Current Biology, 2022, 32, 508-517.e3.	1.8	70
64	ACTIN-RELATED PROTEIN6 Regulates Female Meiosis by Modulating Meiotic Gene Expression in <i>Arabidopsis</i>. Plant Cell, 2014, 26, 1612-1628.	3.1	68
65	Non-targeted metabolomics reveals distinct chemical compositions among different grades of Bai Mudan white tea. Food Chemistry, 2019, 277, 289-297.	4.2	67
66	Arabidopsis pavement cell morphogenesis requires FERONIA binding to pectin for activation of ROP GTPase signaling. Current Biology, 2022, 32, 497-507.e4.	1.8	65
67	Defensive Responses of Tea Plants (Camellia sinensis) Against Tea Green Leafhopper Attack: A Multi-Omics Study. Frontiers in Plant Science, 2019, 10, 1705.	1.7	63
68	Phosphorylation switch modulates the interdigitated pattern of PIN1 localization and cell expansion in Arabidopsis leaf epidermis. Cell Research, 2011, 21, 970-978.	5.7	62
69	Non-targeted metabolomics analysis reveals dynamic changes of volatile and non-volatile metabolites during oolong tea manufacture. Food Research International, 2020, 128, 108778.	2.9	62
70	Rop GTPase: a master switch of cell polarity development in plants. Trends in Plant Science, 2001, 6, 545-547.	4.3	60
71	Auxin-induced signaling protein nanoclustering contributes to cell polarity formation. Nature Communications, 2020, 11, 3914.	5.8	58
72	The <i>Arabidopsis</i> Small G Protein ROP2 Is Activated by Light in Guard Cells and Inhibits Light-Induced Stomatal Opening. Plant Cell, 2008, 20, 75-87.	3.1	55

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73	HMG-CoA reductase and terpenoid phytoalexins: Molecular specialization within a complex pathway. Physiologia Plantarum, 1995, 93, 393-400.	2.6	52
74	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.	3.1	52
75	A Genomeâ€wide Functional Characterization of <i>Arabidopsis</i> Regulatory Calcium Sensors in Pollen Tubes. Journal of Integrative Plant Biology, 2009, 51, 751-761.	4.1	52
76	Arabinogalactan proteinâ€“rare earth element complexes activate plant endocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14349-14357.	3.3	52
77	The REN4 rheostat dynamically coordinates the apical and lateral domains of Arabidopsis pollen tubes. Nature Communications, 2018, 9, 2573.	5.8	50
78	Quinoa: In Perspective of Global Challenges. Agronomy, 2019, 9, 176.	1.3	49
79	The Microtubule-Associated Protein IQ67 DOMAIN5 Modulates Microtubule Dynamics and Pavement Cell Shape. Plant Physiology, 2018, 177, 1555-1568.	2.3	46
80	Membrane receptor-mediated mechano-transduction maintains cell integrity during pollen tube growth within the pistil. Developmental Cell, 2021, 56, 1030-1042.e6.	3.1	46
81	Regulation of immune receptor kinase plasma membrane nanoscale organization by a plant peptide hormone and its receptors. ELife, 2022, 11, .	2.8	44
82	Genome Sequencing of Arabidopsis <i>abp1-5</i> Reveals Second-Site Mutations That May Affect Phenotypes. Plant Cell, 2015, 27, 1820-1826.	3.1	42
83	Comparative expression profiling reveals gene functions in female meiosis and gametophyte development in Arabidopsis. Plant Journal, 2014, 80, 615-628.	2.8	40
84	The Rho-family GTPase <i>OsRac1</i> 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.	3.3	39
85	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.	0.5	39
86	A Putative Calciumâ€Permeable Cyclic Nucleotideâ€Gated Channel, CNGC18, Regulates Polarized Pollen Tube Growth. Journal of Integrative Plant Biology, 2007, 49, 1261-1270.	4.1	38
87	Exocytosis and endocytosis: coordinating and fine-tuning the polar tip growth domain in pollen tubes. Journal of Experimental Botany, 2020, 71, 2428-2438.	2.4	37
88	Auxin regulation of cell polarity in plants. Current Opinion in Plant Biology, 2015, 28, 144-153.	3.5	36
89	Salicylic Acid Regulates Pollen Tip Growth through an NPR3/NPR4-Independent Pathway. Molecular Plant, 2016, 9, 1478-1491.	3.9	36
90	Cell Polarity Signaling: Focus on Polar Auxin Transport. Molecular Plant, 2008, 1, 899-909.	3.9	34

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91	Extracellular signals and receptor-like kinases regulating ROP GTPases in plants. Frontiers in Plant Science, 2014, 5, 449.	1.7	33
92	The long noncoding RNA FRILAIR regulates strawberry fruit ripening by functioning as a noncanonical target mimic. PLoS Genetics, 2021, 17, e1009461.	1.5	32
93	Developmental and environmental regulation of tissue- and cell-specific expression for a pea protein farnesyltransferase gene in transgenic plants. Plant Journal, 1997, 12, 921-930.	2.8	31
94	Cytokinin signaling regulates pavement cell morphogenesis in Arabidopsis. Cell Research, 2013, 23, 290-299.	5.7	31
95	The Cytoskeleton Becomes Multidisciplinary. Plant Physiology, 2004, 136, 3853-3854.	2.3	30
96	Unlocking the mechanisms behind the formation of interlocking pavement cells. Current Opinion in Plant Biology, 2020, 57, 142-154.	3.5	30
97	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.	3.9	29
98	Uniform auxin triggers the Rho GTPase-dependent formation of interdigitation patterns in pavement cells. Small GTPases, 2011, 2, 227-232.	0.7	27
99	Glycolysis regulates pollen tube polarity via Rho GTPase signaling. PLoS Genetics, 2018, 14, e1007373.	1.5	25
100	Carbonâ€“Nitrogen Interaction Modulates Plant Growth and Expression of Metabolic Genes in Rice. Journal of Plant Growth Regulation, 2013, 32, 575-584.	2.8	24
101	Insights into Tissue-specific Specialized Metabolism in Tieguanyin Tea Cultivar by Untargeted Metabolomics. Molecules, 2018, 23, 1817.	1.7	24
102	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.	3.1	23
103	Pavement cells: a model system for non-transcriptional auxin signalling and crosstalks: Fig. 1.. Journal of Experimental Botany, 2015, 66, 4957-4970.	2.4	23
104	Lanthanum(III) triggers AtrbohD- and jasmonic acid-dependent systemic endocytosis in plants. Nature Communications, 2021, 12, 4327.	5.8	23
105	Novel ABP1-TMK auxin sensing system controls ROP GTPase-mediated interdigitated cell expansion in <i>Arabidopsis</i>. Small GTPases, 2014, 5, e29711.	0.7	22
106	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.	2.0	22
107	Measuring Exocytosis Rate Using Corrected Fluorescence Recovery After Photoconversion. Traffic, 2016, 17, 554-564.	1.3	22
108	New Insights into Stress-Induced Î²-Ocimene Biosynthesis in Tea (<i>Camellia sinensis</i>) Leaves during Oolong Tea Processing. Journal of Agricultural and Food Chemistry, 2021, 69, 11656-11664.	2.4	21

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109	Dynamic Localization of Rop GTPases to the Tonoplast during Vacuole Development. Plant Physiology, 2001, 125, 241-251.	2.3	20
110	Transcriptomic Analysis of Responses to Imbalanced Carbon: Nitrogen Availabilities in Rice Seedlings. PLoS ONE, 2016, 11, e0165732.	1.1	19
111	GABA, a New Player in the Plant Mating Game. Developmental Cell, 2003, 5, 185-186.	3.1	17
112	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.	2.9	15
113	Spatiotemporal dynamics of a reaction-diffusion model of pollen tube tip growth. Journal of Mathematical Biology, 2019, 79, 1319-1355.	0.8	13
114	Endocytic signaling pathways in leaves and roots; same players different rules. Frontiers in Plant Science, 2012, 3, 219.	1.7	11
115	Direct imaging of how lanthanides break the normal evolution of plants. Journal of Inorganic Biochemistry, 2018, 182, 158-169.	1.5	11
116	Endocytosis in microcystis aeruginosa accelerates the synthesis of microcystins in the presence of lanthanum(III). Harmful Algae, 2020, 93, 101791.	2.2	11
117	The glucosinolate regulation in plant: A new view on lanthanum stimulating the growth of plant. Journal of Rare Earths, 2019, 37, 555-564.	2.5	10
118	A new mechanism by which environmental hazardous substances enhance their toxicities to plants. Journal of Hazardous Materials, 2022, 421, 126802.	6.5	10
119	CamelliA-based simultaneous imaging of Ca2+ dynamics in subcellular compartments. Plant Physiology, 2022, 188, 2253-2271.	2.3	8
120	Signaling mechanisms integrating carbon and nitrogen utilization in plants. Frontiers in Biology, 2012, 7, 548-556.	0.7	7
121	Understanding pollen tube growth dynamics using the Unscented Kalman Filter. Pattern Recognition Letters, 2016, 72, 100-108.	2.6	6
122	Rho GTPase ROP1 Interactome Analysis Reveals Novel ROP1-Associated Pathways for Pollen Tube Polar Growth in Arabidopsis. International Journal of Molecular Sciences, 2020, 21, 7033.	1.8	6
123	Arabinogalactan Proteins Are the Possible Extracellular Molecules for Binding Exogenous Cerium(III) in the Acidic Environment Outside Plant Cells. Frontiers in Plant Science, 2019, 10, 153.	1.7	5
124	Reactive Oxygen Signaling in Plants. , 0, , 189-201.		4
125	ROP/RAC GTPases. , 0, , 64-99.		4
126	Lipid-Mediated Signaling. , 0, , 202-243.		4

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127	Measuring Exocytosis Rate in Arabidopsis Pollen Tubes Using Corrected Fluorescence Recovery After Photoconversion (cFRAPc) Technique. Methods in Molecular Biology, 2020, 2160, 293-306.	0.4	4
128	Phytochromes A1 and B1 have distinct functions in the photoperiodic control of flowering in the obligate long-day plant Nicotiana sylvestris. Plant, Cell and Environment, 2006, 29, 1673-1685.	2.8	3
129	Mitogen-Activated Protein Kinase Cascades in Plant Intracellular Signaling. , 0, , 100-136.		3
130	Editorial overview: Cell biology: From signals to cell shape and function. Current Opinion in Plant Biology, 2015, 28, iv-vi.	3.5	3
131	Plant growth: A matter of WAK seeing the wall and talking to BRI1. Current Biology, 2022, 32, R564-R566.	1.8	3
132	Molecular cloning of an endo-pectate lyase gene from Erwinia carotovora subsp. atroseptica. Physiological and Molecular Plant Pathology, 1987, 31, 325-335.	1.3	2
133	Celebrating Plant Cells: A Special Issue on Plant Cell Biology. Journal of Integrative Plant Biology, 2007, 49, 1089-1090.	4.1	2
134	The Molecular Networks of Abiotic Stress Signaling. , 0, , 388-416.		2
135	The Cytoskeleton and Signal Transduction: Role and Regulation of Plant Actin- and Microtubule-Binding Proteins. , 0, , 244-272.		2
136	Transmembrane Receptors in Plants: Receptor Kinases and their Ligands. , 0, , 1-29.		1
137	The PCI Complexes and the Ubiquitin Proteasome System (UPS) in Plant Development. , 0, , 273-306.		1
138	Guard Cell Signaling. , 0, , 362-387.		1
139	The Microtubule-Associated Protein IQ67 DOMAIN5 Modulates Microtubule Dynamics and Pavement Cell Shape. , 0, .		1
140	ROP/RAC GTPases. , 0, , 64-99.		1
141	Heterotrimeric G-Protein-Coupled Signaling in Higher Plants. , 0, , 30-63.		0
142	Signaling by Protein Phosphorylation in Cell Division. , 0, , 336-361.		0
143	Paradigms and Networks for Intracellular Calcium Signaling in Plant Cells. , 0, , 163-188.		0
144	Calcium Signals and Their Regulation. , 0, , 137-162.		0

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145	Signaling between the Organelles and the Nucleus. , 0, , 307-335.		0
146	Zhenbiao Yang. Current Biology, 2014, 24, R10-R12.	1.8	0