Arun Sampathkumar

List of Publications by Year
in descending order

39 papers	2,532 citations	331670 21 h-index	315739 38 g-index
46 all docs	46 docs citations	46 times ranked	2809 citing authors

#	Article	IF	Citations
1	Subcellular and supracellular mechanical stress prescribes cytoskeleton behavior in Arabidopsis cotyledon pavement cells. ELife, 2014, 3, e01967.	6.0	323
2	POM-POM2/CELLULOSE SYNTHASE INTERACTING1 Is Essential for the Functional Association of Cellulose Synthase and Microtubules inArabidopsisÂ Â. Plant Cell, 2012, 24, 163-177.	6.6	252
3	Identification of a cellulose synthase-associated protein required for cellulose biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12866-12871.	7.1	228
4	Patterning and Lifetime of Plasma Membrane-Localized Cellulose Synthase Is Dependent on Actin Organization in Arabidopsis Interphase Cells Â. Plant Physiology, 2013, 162, 675-688.	4.8	171
5	CHITINASE-LIKE1/POM-POM1 and Its Homolog CTL2 Are Glucan-Interacting Proteins Important for Cellulose Biosynthesis in Arabidopsis. Plant Cell, 2012, 24, 589-607.	6.6	158
6	Live Cell Imaging Reveals Structural Associations between the Actin and Microtubule Cytoskeleton in Arabidopsis Â Â. Plant Cell, 2011, 23, 2302-2313.	6.6	151
7	Physical Forces Regulate Plant Development and Morphogenesis. Current Biology, 2014, 24, R475-R483.	3.9	146
8	Visualization of cellulose synthases in Arabidopsis secondary cell walls. Science, 2015, 350, 198-203.	12.6	132
9	Hitting the Wallâ€"Sensing and Signaling Pathways Involved in Plant Cell Wall Remodeling in Response to Abiotic Stress. Plants, 2018, 7, 89.	3.5	110
10	An epidermis-driven mechanism positions and scales stem cell niches in plants. Science Advances, 2016, 2, e1500989.	10.3	109
11	Microtubule-Mediated Wall Anisotropy Contributes to Leaf Blade Flattening. Current Biology, 2020, 30, 3972-3985.e6.	3.9	69
12	Selective autophagy regulates heat stress memory in Arabidopsis by NBR1-mediated targeting of HSP90.1 and ROF1. Autophagy, 2021, 17, 2184-2199.	9.1	68
13	FamNet: A Framework to Identify Multiplied Modules Driving Pathway Expansion in Plants. Plant Physiology, 2016, 170, 1878-1894.	4.8	63
14	Getting into shape: the mechanics behind plant morphogenesis. Current Opinion in Plant Biology, 2018, 46, 25-31.	7.1	53
15	A moonlighting role for enzymes of glycolysis in the co-localization of mitochondria and chloroplasts. Nature Communications, 2020, 11, 4509.	12.8	47
16	Laying down the bricks: logistic aspects of cell wall biosynthesis. Current Opinion in Plant Biology, 2008, 11, 647-652.	7.1	45
17	Cell wall modification by the xyloglucan endotransglucosylase/hydrolase <scp>XTH19</scp> influences freezing tolerance after cold and subâ€zero acclimation. Plant, Cell and Environment, 2021, 44, 915-930.	5.7	43
18	Primary wall cellulose synthase regulates shoot apical meristem mechanics and growth. Development (Cambridge), 2019, 146, .	2.5	36

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19	EPSIN1 and MTV1 define functionally overlapping but molecularly distinct trans -Golgi network subdomains in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25880-25889.	7.1	36
20	Mechanical feedback-loop regulation of morphogenesis in plants. Development (Cambridge), 2020, 147, .	2.5	34
21	KATANIN and CLASP function at different spatial scales to mediate microtubule response to mechanical stress in Arabidopsis cotyledons. Current Biology, 2021, 31, 3262-3274.e6.	3.9	31
22	Pod indehiscence in common bean is associated with the fine regulation ofPvMYB26. Journal of Experimental Botany, 2021, 72, 1617-1633.	4.8	29
23	Long-term single-cell imaging and simulations of microtubules reveal principles behind wall patterning during proto-xylem development. Nature Communications, 2021, 12, 669.	12.8	26
24	Chloroplast translational regulation uncovers nonessential photosynthesis genes as key players in plant cold acclimation. Plant Cell, 2022, 34, 2056-2079.	6.6	25
25	Cytoskeleton Architecture Regulates Glycolysis Coupling Cellular Metabolism to Mechanical Cues. Trends in Biochemical Sciences, 2020, 45, 637-638.	7.5	24
26	2â€²,3â€²-cAMP treatment mimics the stress molecular response in Arabidopsis thaliana. Plant Physiology, 2022, 188, 1966-1978.	4.8	21
27	A network-based framework for shape analysis enables accurate characterization of leaf epidermal cells. Nature Communications, 2021, 12, 458.	12.8	14
28	Subcellular Localization of Seed-Expressed LEA_4 Proteins Reveals Liquid-Liquid Phase Separation for LEA9 and for LEA48 Homo- and LEA42-LEA48 Heterodimers. Biomolecules, 2021, 11, 1770.	4.0	13
29	AtRsgA from Arabidopsis thaliana is important for maturation of the small subunit of the chloroplast ribosome. Plant Journal, 2018, 96, 404-420.	5.7	9
30	Quantitative analyses of the plant cytoskeleton reveal underlying organizational principles. Journal of the Royal Society Interface, 2014, 11, 20140362.	3.4	7
31	Quantification of Cytoskeletal Dynamics in Timeâ€Lapse Recordings. Current Protocols in Plant Biology, 2019, 4, e20091.	2.8	7
32	Autophagy complements metalloprotease FtsH6 in degrading plastid heat shock protein HSP21 during heat stress recovery. Journal of Experimental Botany, 2021, , .	4.8	6
33	De-etiolation-induced protein 1 (DEIP1) mediates assembly of the cytochrome b6f complex in Arabidopsis. Nature Communications, 2022, 13, .	12.8	6
34	Long-term live-cell imaging techniques for visualizing pavement cell morphogenesis. Methods in Cell Biology, 2020, 160, 365-380.	1.1	5
35	Live Cell Imaging of the Cytoskeleton and Cell Wall Enzymes in Plant Cells. Methods in Molecular Biology, 2015, 1242, 133-141.	0.9	5
36	Plant Biology: Bending of Plant Organs. Current Biology, 2020, 30, R402-R405.	3.9	4

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37	The Plasma Membrane and the Cell Wall. Plant Cell Monographs, 2011, , 57-85.	0.4	2
38	Live Cell Imaging of Microtubule Cytoskeleton and Micromechanical Manipulation of the Arabidopsis Shoot Apical Meristem. Journal of Visualized Experiments, 2020, , .	0.3	2
39	Insights into the Cell Wall and Cytoskeletal Regulation by Mechanical Forces in Plants. Plant Cell Monographs, 2019, , 23-36.	0.4	0