Steffen Vanneste

List of Publications by Year in descending order

78 papers	11,797 citations	57758 44 h-index	71685 76 g-index
114 all docs	114 docs citations	114 times ranked	9460 citing authors

#	Article	IF	Citations
1	Auxin: A Trigger for Change in Plant Development. Cell, 2009, 136, 1005-1016.	28.9	1,102
2	The auxin influx carrier LAX3 promotes lateral root emergence. Nature Cell Biology, 2008, 10, 946-954.	10.3	715
3	Ethylene Regulates Root Growth through Effects on Auxin Biosynthesis and Transport-Dependent Auxin Distribution. Plant Cell, 2007, 19, 2197-2212.	6.6	682
4	Functional redundancy of PIN proteins is accompanied by auxin-dependent cross-regulation of PIN expression. Development (Cambridge), 2005, 132, 4521-4531.	2.5	574
5	Auxin-dependent regulation of lateral root positioning in the basal meristem of Arabidopsis. Development (Cambridge), 2007, 134, 681-690.	2.5	540
6	Auxin-Mediated Cell Cycle Activation during Early Lateral Root Initiation. Plant Cell, 2002, 14, 2339-2351.	6.6	523
7	Cytokinins Act Directly on Lateral Root Founder Cells to Inhibit Root Initiation. Plant Cell, 2008, 19, 3889-3900.	6.6	498
8	A Novel Aux/IAA28 Signaling Cascade Activates GATA23-Dependent Specification of Lateral Root Founder Cell Identity. Current Biology, 2010, 20, 1697-1706.	3.9	431
9	ABP1 Mediates Auxin Inhibition of Clathrin-Dependent Endocytosis in Arabidopsis. Cell, 2010, 143, 111-121.	28.9	386
10	Flowering-time genes modulate meristem determinacy and growth form in Arabidopsis thaliana. Nature Genetics, 2008, 40, 1489-1492.	21.4	353
11	Receptor-Like Kinase ACR4 Restricts Formative Cell Divisions in the Arabidopsis Root. Science, 2008, 322, 594-597.	12.6	342
12	PIN Polarity Maintenance by the Cell Wall in Arabidopsis. Current Biology, 2011, 21, 338-343.	3.9	336
13	Cell Cycle Progression in the Pericycle Is Not Sufficient for SOLITARY ROOT/IAA14-Mediated Lateral Root Initiation in Arabidopsis thaliana Â. Plant Cell, 2005, 17, 3035-3050.	6.6	309
14	Clathrin Mediates Endocytosis and Polar Distribution of PIN Auxin Transporters inArabidopsisÂ. Plant Cell, 2011, 23, 1920-1931.	6.6	291
15	Bimodular auxin response controls organogenesis in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2705-2710.	7.1	271
16	Lateral Root Initiation or the Birth of a New Meristem. Plant Molecular Biology, 2006, 60, 871-887.	3.9	248
17	The TPLATE Adaptor Complex Drives Clathrin-Mediated Endocytosis in Plants. Cell, 2014, 156, 691-704.	28.9	238
18	Molecular and Environmental Regulation of Root Development. Annual Review of Plant Biology, 2019, 70, 465-488.	18.7	224

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19	Transcript profiling of early lateral root initiation. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5146-5151.	7.1	190
20	Cyclic programmed cell death stimulates hormone signaling and root development in Arabidopsis. Science, 2016, 351, 384-387.	12.6	186
21	GOLVEN Secretory Peptides Regulate Auxin Carrier Turnover during Plant Gravitropic Responses. Developmental Cell, 2012, 22, 678-685.	7.0	182
22	Root Cap-Derived Auxin Pre-patterns the Longitudinal Axis of the Arabidopsis Root. Current Biology, 2015, 25, 1381-1388.	3.9	173
23	SCFTIR1/AFB-auxin signalling regulates PIN vacuolar trafficking and auxin fluxes during root gravitropism. EMBO Journal, 2012, 32, 260-274.	7.8	152
24	A map of cell typeâ€specific auxin responses. Molecular Systems Biology, 2013, 9, 688.	7.2	150
25	The Arabidopsis Synaptotagmin1 Is Enriched in Endoplasmic Reticulum-Plasma Membrane Contact Sites and Confers Cellular Resistance to Mechanical Stresses. Plant Physiology, 2015, 168, 132-143.	4.8	150
26	Bipolar Plasma Membrane Distribution of Phosphoinositides and Their Requirement for Auxin-Mediated Cell Polarity and Patterning inArabidopsisÂ. Plant Cell, 2014, 26, 2114-2128.	6.6	144
27	Cell surface and intracellular auxin signalling for H+ fluxes in root growth. Nature, 2021, 599, 273-277.	27.8	128
28	WOX5â€“IAA17 Feedback Circuit-Mediated Cellular Auxin Response Is Crucial for the Patterning of Root Stem Cell Niches in Arabidopsis. Molecular Plant, 2014, 7, 277-289.	8.3	125
29	Inositol Trisphosphate-Induced Ca2+ Signaling Modulates Auxin Transport and PIN Polarity. Developmental Cell, 2011, 20, 855-866.	7.0	121
30	A role for the root cap in root branching revealed by the non-auxin probe naxillin. Nature Chemical Biology, 2012, 8, 798-805.	8.0	118
31	Auxin transport and activity regulate stomatal patterning and development. Nature Communications, 2014, 5, 3090.	12.8	118
32	Developmental regulation of CYCA2s contributes to tissue-specific proliferation inArabidopsis. EMBO Journal, 2011, 30, 3430-3441.	7.8	113
33	Cytokinin response factors regulate PIN-FORMED auxin transporters. Nature Communications, 2015, 6, 8717.	12.8	108
34	Sequential induction of auxin efflux and influx carriers regulates lateral root emergence. Molecular Systems Biology, 2013, 9, 699.	7.2	104
35	Salicylic acid interferes with clathrin-mediated endocytic protein trafficking. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7946-7951.	7.1	101
36	Osmotic Stress Modulates the Balance between Exocytosis and Clathrin-Mediated Endocytosis in Arabidopsis thaliana. Molecular Plant, 2015, 8, 1175-1187.	8.3	95

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37	Ionic stress enhances ERâ€“PM connectivity via phosphoinositide-associated SYT1 contact site expansion in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1420-1429.	7.1	95
38	KIRA1 and ORESARA1 terminate flower receptivity by promoting cell death in the stigma of Arabidopsis. Nature Plants, 2018, 4, 365-375.	9.3	88
39	Calcium: The Missing Link in Auxin Action. Plants, 2013, 2, 650-675.	3.5	86
40	Functional characterization of the Arabidopsis transcription factor bZIP29 reveals its role in leaf and root development. Journal of Experimental Botany, 2016, 67, 5825-5840.	4.8	78
41	Transcriptional regulation of PIN genes by FOUR LIPS and MYB88 during Arabidopsis root gravitropism. Nature Communications, 2015, 6, 8822.	12.8	74
42	A coherent transcriptional feed-forward motif model for mediating auxin-sensitive PIN3 expression during lateral root development. Nature Communications, 2015, 6, 8821.	12.8	70
43	From shaping organelles to signalling platforms: the emerging functions of plant ERâ€“PM contact sites. Current Opinion in Plant Biology, 2017, 40, 89-96.	7.1	55
44	Cellular mechanisms for cargo delivery and polarity maintenance at different polar domains in plant cells. Cell Discovery, 2016, 2, 16018.	6.7	54
45	Retromer Subunits VPS35A and VPS29 Mediate Prevacuolar Compartment (PVC) Function in Arabidopsis. Molecular Plant, 2013, 6, 1849-1862.	8.3	47
46	An easy and versatile embedding method for transverse sections. Journal of Microscopy, 2004, 213, 76-80.	1.8	45
47	Synaptotagmins at the endoplasmic reticulumâ€“plasma membrane contact sites maintain diacylglycerol homeostasis during abiotic stress. Plant Cell, 2021, 33, 2431-2453.	6.6	41
48	Auxin regulation of cell cycle and its role during lateral root initiation. Physiologia Plantarum, 2005, 123, 139-146.	5.2	40
49	Auxin-Regulated Reversible Inhibition of TMK1 Signaling by MAKR2 Modulates the Dynamics of Root Gravitropism. Current Biology, 2021, 31, 228-237.e10.	3.9	39
50	Illuminating the hidden world of calcium ions in plants with a universe of indicators. Plant Physiology, 2021, 187, 550-571.	4.8	37
51	Calcium is an organizer of cell polarity in plants. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 2168-2172.	4.1	35
52	The CEP5 Peptide Promotes Abiotic Stress Tolerance, As Revealed by Quantitative Proteomics, and Attenuates the AUX/IAA Equilibrium in Arabidopsis. Molecular and Cellular Proteomics, 2020, 19, 1248-1262.	3.8	35
53	Pharmacological Strategies for Manipulating Plant Ca2+ Signalling. International Journal of Molecular Sciences, 2018, 19, 1506.	4.1	34
54	Rare earth elements induce cytoskeleton-dependent and PI4P-associated rearrangement of SYT1/SYT5 endoplasmic reticulumâ€“plasma membrane contact site complexes in Arabidopsis. Journal of Experimental Botany, 2020, 71, 3986-3998.	4.8	34

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55	Systematic analysis of specific and nonspecific auxin effects on endocytosis and trafficking. Plant Physiology, 2021, 186, 1122-1142.	4.8	33
56	Enquiry into the Topology of Plasma Membrane-Localized PIN Auxin Transport Components. Molecular Plant, 2016, 9, 1504-1519.	8.3	28
57	The ins and outs of Ca2+ in plant endomembrane trafficking. Current Opinion in Plant Biology, 2017, 40, 131-137.	7.1	27
58	Ethylene-Mediated Regulation of A2-Type CYCLINs Modulates Hyponastic Growth in Arabidopsis Â. Plant Physiology, 2015, 169, 194-208.	4.8	22
59	Modulation of Arabidopsis root growth by specialized triterpenes. New Phytologist, 2021, 230, 228-243.	7.3	20
60	Identification of Novel Inhibitors of Auxin-Induced Ca²⁺ Signaling via a Plant-Based Chemical Screen. Plant Physiology, 2019, 180, 480-496.	4.8	18
61	CYCLIC NUCLEOTIDE-GATED ION CHANNEL 2 modulates auxin homeostasis and signaling. Plant Physiology, 2021, 187, 1690-1703.	4.8	18
62	A conserved but plant-specific CDK-mediated regulation of DNA replication protein A2 in the precise control of stomatal terminal division. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18126-18131.	7.1	16
63	Dissecting cholesterol and phytosterol biosynthesis via mutants and inhibitors. Journal of Experimental Botany, 2021, 72, 241-253.	4.8	16
64	Long-Term In Vivo Imaging of Luciferase-Based Reporter Gene Expression in Arabidopsis Roots. Methods in Molecular Biology, 2018, 1761, 177-190.	0.9	15
65	Arabidopsis Hypocotyl Adventitious Root Formation Is Suppressed by ABA Signaling. Genes, 2021, 12, 1141.	2.4	13
66	Deconstructing auxin sensing. Nature Chemical Biology, 2012, 8, 415-416.	8.0	12
67	Calcium Ion Dynamics in Roots: Imaging and Analysis. Methods in Molecular Biology, 2018, 1761, 115-130.	0.9	7
68	The mechanism of auxin transport in lateral root spacing. Molecular Plant, 2021, 14, 708-710.	8.3	7
69	Review: Membrane tethers control plasmodesmal function and formation. Plant Science, 2021, 304, 110800.	3.6	4
70	Auxin analog-induced Ca2+ signaling is independent of inhibition of endosomal aggregation in Arabidopsis roots. Journal of Experimental Botany, 2022, , .	4.8	4
71	Genetic Dissection of Light-Regulated Adventitious Root Induction in Arabidopsis thaliana Hypocotyls. International Journal of Molecular Sciences, 2022, 23, 5301.	4.1	4
72	Auxin Fuels the Cell Cycle Engine During Lateral Root Initiation. , 0, , 187-202.		3

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73	Endocytic Trafficking of PIN Proteins and Auxin Transport. , 2012, , 165-183.		2
74	Optimized Whole-Mount In Situ Immunolocalization for Arabidopsis thaliana Root Meristems and Lateral Root Primordia. Methods in Molecular Biology, 2018, 1761, 131-143.	0.9	2
75	Pericyclic versus Endodermal Lateral Roots: Which Came First?. Trends in Plant Science, 2020, 25, 727-729.	8.8	2
76	The for Novel Inhibitors of Auxin-Induced Ca2+ Signaling. Methods in Molecular Biology, 2021, 2213, 89-98.	0.9	1
77	Chemical Perturbation of Chloroplast Ca2+ Dynamics in Arabidopsis thaliana Suspension Cell Cultures and Seedlings. Methods in Molecular Biology, 2022, 2494, 149-158.	0.9	1
78	Constitutive Active CPK30 Interferes With Root Growth and Endomembrane Trafficking in Arabidopsis thaliana. Frontiers in Plant Science, 0, 13, .	3.6	1