YkÃ¤ Helariutta

List of Publications by Year
in descending order

125 papers	18,924 citations	18482 62 h-index	17592 121 g-index
142 all docs	142 docs citations	142 times ranked	15021 citing authors

#	Article	IF	Citations
1	The Genome of Black Cottonwood, <i>Populus trichocarpa</i> (Torr. & Gray). Science, 2006, 313, 1596-1604.	12.6	3,945
2	The SHORT-ROOT Gene Controls Radial Patterning of the Arabidopsis Root through Radial Signaling. Cell, 2000, 101, 555-567.	28.9	1,007
3	The SCARECROW Gene Regulates an Asymmetric Cell Division That Is Essential for Generating the Radial Organization of the Arabidopsis Root. Cell, 1996, 86, 423-433.	28.9	998
4	Cell signalling by microRNA165/6 directs gene dose-dependent root cell fate. Nature, 2010, 465, 316-321.	27.8	739
5	In planta functions of the Arabidopsis cytokinin receptor family. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8821-8826.	7.1	610
6	The Plant Vascular System: Evolution, Development and Functions^F. Journal of Integrative Plant Biology, 2013, 55, 294-388.	8.5	553
7	Cytokinin Signaling and Its Inhibitor AHP6 Regulate Cell Fate During Vascular Development. Science, 2006, 311, 94-98.	12.6	530
8	A novel two-component hybrid molecule regulates vascular morphogenesis of the Arabidopsis root. Genes and Development, 2000, 14, 2938-2943.	5.9	499
9	APL regulates vascular tissue identity in Arabidopsis. Nature, 2003, 426, 181-186.	27.8	425
10	Callose Biosynthesis Regulates Symplastic Trafficking during Root Development. Developmental Cell, 2011, 21, 1144-1155.	7.0	394
11	Molecular analysis of SCARECROW function reveals a radial patterning mechanism common to root and shoot. Development (Cambridge), 2000, 127, 595-603.	2.5	368
12	A Mutually Inhibitory Interaction between Auxin and Cytokinin Specifies Vascular Pattern in Roots. Current Biology, 2011, 21, 917-926.	3.9	359
13	Identification of factors required for m⁶A mRNA methylation in <i>Arabidopsis</i> reveals a role for the conserved E3 ubiquitin ligase HAKAI. New Phytologist, 2017, 215, 157-172.	7.3	301
14	Photoperiodic control of seasonal growth is mediated by ABA acting on cell-cell communication. Science, 2018, 360, 212-215.	12.6	272
15	Cytokinin signaling regulates cambial development in poplar. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20032-20037.	7.1	245
16	Cytokinin signalling inhibitory fields provide robustness to phyllotaxis. Nature, 2014, 505, 417-421.	27.8	236
17	Phloem-Transported Cytokinin Regulates Polar Auxin Transport and Maintains Vascular Pattern in the Root Meristem. Current Biology, 2011, 21, 927-932.	3.9	231
18	Genome sequencing and population genomic analyses provide insights into the adaptive landscape of silver birch. Nature Genetics, 2017, 49, 904-912.	21.4	221

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19	Organ identity genes and modified patterns of flower development inGerbera hybrida(Asteraceae). Plant Journal, 1999, 17, 51-62.	5.7	220
20	Symplastic Intercellular Connectivity Regulates Lateral Root Patterning. Developmental Cell, 2013, 26, 136-147.	7.0	216
21	Stem cell function during plant vascular development. EMBO Journal, 2012, 32, 178-193.	7.8	200
22	Crossing paths: cytokinin signalling and crosstalk. Development (Cambridge), 2013, 140, 1373-1383.	2.5	200
23	Plant vascular development: from early specification to differentiation. Nature Reviews Molecular Cell Biology, 2016, 17, 30-40.	37.0	195
24	Mobile PEAR transcription factors integrate positional cues to prime cambial growth. Nature, 2019, 565, 490-494.	27.8	195
25	Cytokinins Regulate a Bidirectional Phosphorelay Network in Arabidopsis. Current Biology, 2006, 16, 1116-1122.	3.9	194
26	New pathway to polyketides in plants. Nature, 1998, 396, 387-390.	27.8	186
27	Phloem unloading in Arabidopsis roots is convective and regulated by the phloem-pole pericycle. ELife, 2017, 6, .	6.0	181
28	<i>Arabidopsis</i> NAC45/86 direct sieve element morphogenesis culminating in enucleation. Science, 2014, 345, 933-937.	12.6	173
29	Cytokinin and Auxin Display Distinct but Interconnected Distribution and Signaling Profiles to Stimulate Cambial Activity. Current Biology, 2016, 26, 1990-1997.	3.9	170
30	Diarch Symmetry of the Vascular Bundle in Arabidopsis Root Encompasses the Pericycle and Is Reflected in Distich Lateral Root Initiation. Plant Physiology, 2008, 146, 140-148.	4.8	163
31	Molecular analysis of SCARECROW function reveals a radial patterning mechanism common to root and shoot. Development (Cambridge), 2000, 127, 595-603.	2.5	155
32	Cloning of cDNA coding for dihydroflavonol-4-reductase (DFR) and characterization of dfr expression in the corollas of Gerbera hybrida var. Regina (Compositae). Plant Molecular Biology, 1993, 22, 183-193.	3.9	151
33	The formation of wood and its control. Current Opinion in Plant Biology, 2014, 17, 56-63.	7.1	126
34	GEG Participates in the Regulation of Cell and Organ Shape during Corolla and Carpel Development in Gerbera hybrida. Plant Cell, 1999, 11, 1093-1104.	6.6	125
35	The Dynamics of Cambial Stem Cell Activity. Annual Review of Plant Biology, 2019, 70, 293-319.	18.7	122
36	Strigolactone- and Karrikin-Independent SMXL Proteins Are Central Regulators of Phloem Formation. Current Biology, 2017, 27, 1241-1247.	3.9	117

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37	Xylem development â€“ from the cradle to the grave. New Phytologist, 2015, 207, 519-535.	7.3	112
38	Vascular Cambium Development. The Arabidopsis Book, 2015, 13, e0177.	0.5	108
39	Synchronization of developmental, molecular and metabolic aspects of sourceâ€“sink interactions. Nature Plants, 2020, 6, 55-66.	9.3	107
40	Sending mixed messages: auxin-cytokinin crosstalk in roots. Current Opinion in Plant Biology, 2011, 14, 10-16.	7.1	103
41	A Weed for Wood? Arabidopsis as a Genetic Model for Xylem Development: Figure 1.. Plant Physiology, 2004, 135, 653-659.	4.8	102
42	Chalcone synthase-like genes active during corolla development are differentially expressed and encode enzymes with different catalytic properties in Gerbera hybrida (Asteraceae). Plant Molecular Biology, 1995, 28, 47-60.	3.9	99
43	Integration of hormonal signaling networks and mobile microRNAs is required for vascular patterning in <i>Arabidopsis</i> roots. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 857-862.	7.1	98
44	Class I KNOX transcription factors promote differentiation of cambial derivatives into xylem fibers in the <i>Arabidopsis</i> hypocotyl. Development (Cambridge), 2014, 141, 4311-4319.	2.5	97
45	Molecular Analysis of the SCARECROW Gene in Maize Reveals a Common Basis for Radial Patterning in Diverse Meristems. Plant Cell, 2000, 12, 1307-1318.	6.6	95
46	Duplication and functional divergence in the chalcone synthase gene family of Asteraceae: evolution with substrate change and catalytic simplification.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 9033-9038.	7.1	94
47	Multiple C2 domains and transmembrane region proteins (<scp>MCTP</scp> s) tether membranes at plasmodesmata. EMBO Reports, 2019, 20, e47182.	4.5	92
48	Phloem and xylem specification: pieces of the puzzle emerge. Current Opinion in Plant Biology, 2005, 8, 512-517.	7.1	91
49	Arabidopsis as a model for wood formation. Current Opinion in Biotechnology, 2011, 22, 293-299.	6.6	91
50	<i>AINTEGUMENTA</i> and the D-type cyclin <i>CYCD3;1</i> regulate root secondary growth and respond to cytokinins. Biology Open, 2015, 4, 1229-1236.	1.2	89
51	Signs of change: hormone receptors that regulate plant development. Development (Cambridge), 2006, 133, 1857-1869.	2.5	85
52	Tryptophan-dependent auxin biosynthesis is required for HD-ZIP III-mediated xylem patterning. Development (Cambridge), 2014, 141, 1250-1259.	2.5	85
53	<scp>GRIM REAPER</scp> peptide binds to receptor kinase <scp>PRK</scp> 5 to trigger cell death in <i>Arabidopsis</i>. EMBO Journal, 2015, 34, 55-66.	7.8	83
54	Transcriptional regulatory framework for vascular cambium development in Arabidopsis roots. Nature Plants, 2019, 5, 1033-1042.	9.3	81

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55	Agrobacterium-Mediated Transfer of Antisense Chalcone Synthase cDNA to Gerbera hybrida Inhibits Flower Pigmentation. Nature Biotechnology, 1993, 11, 508-511.	17.5	80
56	DOF2.1 Controls Cytokinin-Dependent Vascular Cell Proliferation Downstream of TMO5/LHW. Current Biology, 2019, 29, 520-529.e6.	3.9	80
57	Stem cell function during plant vascular development. Seminars in Cell and Developmental Biology, 2009, 20, 1097-1106.	5.0	78
58	Hormone interactions during vascular development. Plant Molecular Biology, 2009, 69, 347-360.	3.9	76
59	Shootâ€"Root Communication in Flowering Plants. Current Biology, 2017, 27, R973-R978.	3.9	74
60	Transgene inactivation inPetunia hybrida is influenced by the properties of the foreign gene. Molecular Genetics and Genomics, 1995, 248, 649-656.	2.4	73
61	Molecular Control of Cell Specification and Cell Differentiation During Procambial Development. Annual Review of Plant Biology, 2014, 65, 607-638.	18.7	73
62	A bHLH transcription factor mediates organ, region and flower type specific signals on dihydroflavonol-4-reductase (dfr) gene expression in the inflorescence of Gerbera hybrida(Asteraceae). Plant Journal, 1998, 16, 93-99.	5.7	71
63	CHOLINE TRANSPORTER-LIKE1 is required for sieve plate development to mediate long-distance cell-to-cell communication. Nature Communications, 2014, 5, 4276.	12.8	69
64	Symplastic communication in organ formation and tissue patterning. Current Opinion in Plant Biology, 2016, 29, 21-28.	7.1	68
65	Genetic and hormonal regulation of cambial development. Physiologia Plantarum, 2013, 147, 36-45.	5.2	66
66	Genetic Networks in Plant Vascular Development. Annual Review of Genetics, 2017, 51, 335-359.	7.6	66
67	Sphingolipid biosynthesis modulates plasmodesmal ultrastructure and phloem unloading. Nature Plants, 2019, 5, 604-615.	9.3	65
68	Cell-by-cell dissection of phloem development links a maturation gradient to cell specialization. Science, 2021, 374, eaba5531.	12.6	60
69	Differentiation of conductive cells: a matter of life and death. Current Opinion in Plant Biology, 2017, 35, 23-29.	7.1	57
70	Tissueâ€specific study across the stem reveals the chemistry and transcriptome dynamics of birch bark. New Phytologist, 2019, 222, 1816-1831.	7.3	56
71	Vascular Pattern Formation in Plants. Current Topics in Developmental Biology, 2010, 91, 221-265.	2.2	53
72	Towards optimizing wood development in bioenergy trees. New Phytologist, 2012, 194, 46-53.	7.3	52

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73	Cell-to-cell communication via plasmodesmata in vascular plants. Cell Adhesion and Migration, 2013, 7, 27-32.	2.7	49
74	Interactions between callose and cellulose revealed through the analysis of biopolymer mixtures. Nature Communications, 2018, 9, 4538.	12.8	47
75	Phloem development: Current knowledge and future perspectives. American Journal of Botany, 2014, 101, 1393-1402.	1.7	44
76	The role of mobile small RNA species during root growth and development. Current Opinion in Cell Biology, 2012, 24, 211-216.	5.4	42
77	Structural Imaging of Native Cryo-Preserved Secondary Cell Walls Reveals the Presence of Macrofibrils and Their Formation Requires Normal Cellulose, Lignin and Xylan Biosynthesis. Frontiers in Plant Science, 2019, 10, 1398.	3.6	40
78	Shootward and rootward: peak terminology for plant polarity. Trends in Plant Science, 2010, 15, 593-594.	8.8	39
79	<i>Arabidopsis Lateral Root Development 3</i> is essential for early phloem development and function, and hence for normal root system development. Plant Journal, 2011, 68, 455-467.	5.7	38
80	Characterization of cytokinin signaling and homeostasis gene families in two hardwood tree species: Populus trichocarpa and Prunus persica. BMC Genomics, 2013, 14, 885.	2.8	38
81	Companion cells: a diamond in the rough. Journal of Experimental Botany, 2017, 68, 71-78.	4.8	38
82	Transcription factors <scp>PRE</scp>3 and <scp>WOX</scp>11 are involved in the formation of new lateral roots from secondary growth taproot in <i>A.Âthaliana</i>. Plant Biology, 2018, 20, 426-432.	3.8	38
83	Plasmodesmata-mediated intercellular signaling during plant growth and development. Frontiers in Plant Science, 2014, 5, 44.	3.6	34
84	A corolla-and carpel-abundant, non-specific lipid transfer protein gene is expressed in the epidermis and parenchyma of Gerbera hybrida var. Regina (Compositae). Plant Molecular Biology, 1994, 26, 971-978.	3.9	33
85	Wood Formation in Populus. , 2010, , 201-224.		33
86	SHORTROOT-Mediated Intercellular Signals Coordinate Phloem Development in Arabidopsis Roots. Plant Cell, 2020, 32, 1519-1535.	6.6	30
87	Transformation of antisense constructs of the chalcone synthase gene superfamily into Gerbera hybrida: differential effect on the expression of family members. Molecular Breeding, 1996, 2, 41.	2.1	29
88	Plasmodesmata: Channels for Intercellular Signaling During Plant Growth and Development. Methods in Molecular Biology, 2015, 1217, 3-24.	0.9	27
89	Chapter 1 Cytokinin Signaling During Root Development. International Review of Cell and Molecular Biology, 2009, 276, 1-48.	3.2	26
90	Cell-to-cell communication in vascular morphogenesis. Current Opinion in Plant Biology, 2010, 13, 59-65.	7.1	26

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91	Phloem differentiation: an integrative model for cell specification. Journal of Plant Research, 2018, 131, 31-36.	2.4	25
92	Sieve Plate Pores in the Phloem and the Unknowns of Their Formation. Plants, 2019, 8, 25.	3.5	25
93	ELIMÃ„KI Locus Is Required for Vertical Proprioceptive Response in Birch Trees. Current Biology, 2020, 30, 589-599.e5.	3.9	24
94	VISUAL-CC system uncovers the role of GSK3 as an orchestrator of vascular cell type ratio in plants. Communications Biology, 2020, 3, 184.	4.4	19
95	Phloem: the integrative avenue for resource distribution, signaling, and defense. Frontiers in Plant Science, 2013, 4, 471.	3.6	18
96	Plant Vascular Tissuesâ€"Connecting Tissue Comes in All Shapes. Plants, 2018, 7, 109.	3.5	16
97	Gerbera hybrida (Asteraceae) imposes regulation at several anatomical levels during inflorescence development on the gene for dihydroflavonol-4-reductase. Plant Molecular Biology, 1995, 28, 935-941.	3.9	15
98	Between Xylem and Phloem: The Genetic Control of Cambial Activity in Plants. Plant Biology, 2003, 5, 465-472.	3.8	15
99	Differential regulation of auxin and cytokinin during the secondary vascular tissue regeneration in <i>Populus</i> trees. New Phytologist, 2019, 224, 188-201.	7.3	15
100	Plant Development: Early Events in Lateral Root Initiation. Current Biology, 2010, 20, R843-R845.	3.9	13
101	Peptide encoding <i>Populus CLV3/ESRâ€RELATED 47</i> (<i>PttCLE47</i>) promotes cambial development and secondary xylem formation in hybrid aspen. New Phytologist, 2020, 226, 75-85.	7.3	13
102	Bisymmetry in the embryonic root is dependent on cotyledon number and position. Plant Signaling and Behavior, 2011, 6, 1837-1840.	2.4	12
103	Computational Tools for Serial Block Electron Microscopy Reveal Plasmodesmata Distributions and Wall Environments. Plant Physiology, 2020, 184, 53-64.	4.8	12
104	Callose accumulation in specific phloem cell types reduces axillary bud growth in <i>Arabidopsis thaliana</i>. New Phytologist, 2021, 231, 516-523.	7.3	8
105	Cell signalling during vascular morphogenesis. Biochemical Society Transactions, 2007, 35, 152-155.	3.4	7
106	Expression of xyloglucan endotransglycosylases of Gerbera hybrida and Betula pendula in Pichia pastoris. Journal of Biotechnology, 2007, 130, 161-170.	3.8	7
107	GEG Participates in the Regulation of Cell and Organ Shape during Corolla and Carpel Development in Gerbera hybrida. Plant Cell, 1999, 11, 1093.	6.6	6
108	General Approach for the Liquid-Phase Fragment Synthesis of Orthogonally Protected Naturally Occurring Polyamines and Applications Thereof. Journal of Organic Chemistry, 2019, 84, 15118-15130.	3.2	6

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109	TWO BIOACTIVE COMPOUNDS AND A NOVEL CHALCONE SYNTHASELIKE ENZYME IDENTIFIED IN GERBERA HYBRIDA. Acta Horticulturae, 2001, , 271-274.	0.2	5
110	Wood development: Growth through knowledge. Nature Plants, 2015, 1, .	9.3	5
111	Plant Vasculature: Selective Membrane-to-Microtubule Tethering Patterns the Xylem Cell Wall. Current Biology, 2017, 27, R842-R844.	3.9	5
112	Plant Development: How Long Is a Root?. Current Biology, 2012, 22, R919-R921.	3.9	4
113	Gene Regulatory Networks during Arabidopsis Root Vascular Development. International Journal of Plant Sciences, 2013, 174, 1090-1097.	1.3	4
114	Programmed Cell Death: New Role in Trimming the Root Tips. Current Biology, 2014, 24, R374-R376.	3.9	3
115	Plant Genetics: Advances in Regeneration Pathways. Current Biology, 2019, 29, R702-R704.	3.9	3
116	Coded Acoustic Microscopy to Study Wood Mechanics and Development. , 2019, , .		2
117	Transcriptional reprogramming during floral fate acquisition. IScience, 2022, 25, 104683.	4.1	2
118	MOLECULAR ANALYSIS OF FLORAL ORGAN DIFFERENTIATION IN GERBERA HYBRIDA. Acta Horticulturae, 1995, , 16-18.	0.2	1
119	Molecular Analysis of the SCARECROW Gene in Maize Reveals a Common Basis for Radial Patterning in Diverse Meristems. Plant Cell, 2000, 12, 1307.	6.6	1
120	Vascular Morphogenesis during Root Development. , 0, , 39-63.		1
121	Enhanced cytokinin signaling stimulates cell proliferation in cambium of Populus. BMC Proceedings, 2011, 5, .	1.6	1
122	FLOWER DEVELOPMENT IN GERBERA HYBRIDA (ASTERACEAE). Acta Horticulturae, 2001, , 145-148.	0.2	0
123	Plant vascular development â€“ connective tissue connecting scientists: updates and trends at the <scp>PVB</scp> 2013 conference. Physiologia Plantarum, 2014, 151, 119-125.	5.2	0
124	Cuscuta, the Merchant of Proteins. Molecular Plant, 2020, 13, 533-535.	8.3	0
125	In preprints: new insights into root stem cells and their diversity. Development (Cambridge), 2022, 149, .	2.5	0