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	In preprints: new insights into root stem cells and their diversity. Development (Cambridge), 2022, 149, .	2.5	0
2	Transcriptional reprogramming during floral fate acquisition. IScience, 2022, 25, 104683.	4.1	2
3	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
4	Cell-by-cell dissection of phloem development links a maturation gradient to cell specialization. Science, 2021, 374, eaba5531.	12.6	60
5	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
6	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
7	Computational Tools for Serial Block Electron Microscopy Reveal Plasmodesmata Distributions and Wall Environments. Plant Physiology, 2020, 184, 53-64.	4.8	12
8	Synchronization of developmental, molecular and metabolic aspects of sourceâ€“sink interactions. Nature Plants, 2020, 6, 55-66.	9.3	107
9	Cuscuta, the Merchant of Proteins. Molecular Plant, 2020, 13, 533-535.	8.3	0
10	ELIMÃ„KI Locus Is Required for Vertical Proprioceptive Response in Birch Trees. Current Biology, 2020, 30, 589-599.e5.	3.9	24
11	SHORTROOT-Mediated Intercellular Signals Coordinate Phloem Development in Arabidopsis Roots. Plant Cell, 2020, 32, 1519-1535.	6.6	30
12	Multiple C2 domains and transmembrane region proteins (<scp>MCTP</scp> s) tether membranes at plasmodesmata. EMBO Reports, 2019, 20, e47182.	4.5	92
13	Plant Genetics: Advances in Regeneration Pathways. Current Biology, 2019, 29, R702-R704.	3.9	3
14	Transcriptional regulatory framework for vascular cambium development in Arabidopsis roots. Nature Plants, 2019, 5, 1033-1042.	9.3	81
15	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
16	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
17	DOF2.1 Controls Cytokinin-Dependent Vascular Cell Proliferation Downstream of TMO5/LHW. Current Biology, 2019, 29, 520-529.e6.	3.9	80
18	Sieve Plate Pores in the Phloem and the Unknowns of Their Formation. Plants, 2019, 8, 25.	3.5	25

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19	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
20	Sphingolipid biosynthesis modulates plasmodesmal ultrastructure and phloem unloading. Nature Plants, 2019, 5, 604-615.	9.3	65
21	The Dynamics of Cambial Stem Cell Activity. Annual Review of Plant Biology, 2019, 70, 293-319.	18.7	122
22	Tissueâ€specific study across the stem reveals the chemistry and transcriptome dynamics of birch bark. New Phytologist, 2019, 222, 1816-1831.	7.3	56
23	Coded Acoustic Microscopy to Study Wood Mechanics and Development. , 2019, , .		2
24	Mobile PEAR transcription factors integrate positional cues to prime cambial growth. Nature, 2019, 565, 490-494.	27.8	195
25	Photoperiodic control of seasonal growth is mediated by ABA acting on cell-cell communication. Science, 2018, 360, 212-215.	12.6	272
26	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
27	Phloem differentiation: an integrative model for cell specification. Journal of Plant Research, 2018, 131, 31-36.	2.4	25
28	Plant Vascular Tissuesâ€"Connecting Tissue Comes in All Shapes. Plants, 2018, 7, 109.	3.5	16
29	Interactions between callose and cellulose revealed through the analysis of biopolymer mixtures. Nature Communications, 2018, 9, 4538.	12.8	47
30	Strigolactone- and Karrikin-Independent SMXL Proteins Are Central Regulators of Phloem Formation. Current Biology, 2017, 27, 1241-1247.	3.9	117
31	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
32	Genome sequencing and population genomic analyses provide insights into the adaptive landscape of silver birch. Nature Genetics, 2017, 49, 904-912.	21.4	221
33	Shootâ€"Root Communication in Flowering Plants. Current Biology, 2017, 27, R973-R978.	3.9	74
34	Plant Vasculature: Selective Membrane-to-Microtubule Tethering Patterns the Xylem Cell Wall. Current Biology, 2017, 27, R842-R844.	3.9	5
35	Genetic Networks in Plant Vascular Development. Annual Review of Genetics, 2017, 51, 335-359.	7.6	66
36	Differentiation of conductive cells: a matter of life and death. Current Opinion in Plant Biology, 2017, 35, 23-29.	7.1	57

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37	Companion cells: a diamond in the rough. Journal of Experimental Botany, 2017, 68, 71-78.	4.8	38
38	Phloem unloading in Arabidopsis roots is convective and regulated by the phloem-pole pericycle. ELife, 2017, 6, .	6.0	181
39	Cytokinin and Auxin Display Distinct but Interconnected Distribution and Signaling Profiles to Stimulate Cambial Activity. Current Biology, 2016, 26, 1990-1997.	3.9	170
40	Symplastic communication in organ formation and tissue patterning. Current Opinion in Plant Biology, 2016, 29, 21-28.	7.1	68
41	Plant vascular development: from early specification to differentiation. Nature Reviews Molecular Cell Biology, 2016, 17, 30-40.	37.0	195
42	Wood development: Growth through knowledge. Nature Plants, 2015, 1, .	9.3	5
43	Xylem development â€“ from the cradle to the grave. New Phytologist, 2015, 207, 519-535.	7.3	112
44	<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
45	Vascular Cambium Development. The Arabidopsis Book, 2015, 13, e0177.	0.5	108
46	<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
47	Plasmodesmata: Channels for Intercellular Signaling During Plant Growth and Development. Methods in Molecular Biology, 2015, 1217, 3-24.	0.9	27
48	Phloem development: Current knowledge and future perspectives. American Journal of Botany, 2014, 101, 1393-1402.	1.7	44
49	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
50	Plasmodesmata-mediated intercellular signaling during plant growth and development. Frontiers in Plant Science, 2014, 5, 44.	3.6	34
51	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
52	Tryptophan-dependent auxin biosynthesis is required for HD-ZIP III-mediated xylem patterning. Development (Cambridge), 2014, 141, 1250-1259.	2.5	85
53	Cytokinin signalling inhibitory fields provide robustness to phyllotaxis. Nature, 2014, 505, 417-421.	27.8	236
54	The formation of wood and its control. Current Opinion in Plant Biology, 2014, 17, 56-63.	7.1	126

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55	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
56	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
57	<i>Arabidopsis</i> NAC45/86 direct sieve element morphogenesis culminating in enucleation. Science, 2014, 345, 933-937.	12.6	173
58	Molecular Control of Cell Specification and Cell Differentiation During Procambial Development. Annual Review of Plant Biology, 2014, 65, 607-638.	18.7	73
59	Programmed Cell Death: New Role in Trimming the Root Tips. Current Biology, 2014, 24, R374-R376.	3.9	3
60	Genetic and hormonal regulation of cambial development. Physiologia Plantarum, 2013, 147, 36-45.	5.2	66
61	Symplastic Intercellular Connectivity Regulates Lateral Root Patterning. Developmental Cell, 2013, 26, 136-147.	7.0	216
62	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
63	Crossing paths: cytokinin signalling and crosstalk. Development (Cambridge), 2013, 140, 1373-1383.	2.5	200
64	The Plant Vascular System: Evolution, Development and Functions^F. Journal of Integrative Plant Biology, 2013, 55, 294-388.	8.5	553
65	Phloem: the integrative avenue for resource distribution, signaling, and defense. Frontiers in Plant Science, 2013, 4, 471.	3.6	18
66	Gene Regulatory Networks during Arabidopsis Root Vascular Development. International Journal of Plant Sciences, 2013, 174, 1090-1097.	1.3	4
67	Cell-to-cell communication via plasmodesmata in vascular plants. Cell Adhesion and Migration, 2013, 7, 27-32.	2.7	49
68	Stem cell function during plant vascular development. EMBO Journal, 2012, 32, 178-193.	7.8	200
69	Plant Development: How Long Is a Root?. Current Biology, 2012, 22, R919-R921.	3.9	4
70	Towards optimizing wood development in bioenergy trees. New Phytologist, 2012, 194, 46-53.	7.3	52
71	The role of mobile small RNA species during root growth and development. Current Opinion in Cell Biology, 2012, 24, 211-216.	5.4	42
72	Callose Biosynthesis Regulates Symplastic Trafficking during Root Development. Developmental Cell, 2011, 21, 1144-1155.	7.0	394

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73	<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
74	Sending mixed messages: auxin-cytokinin crosstalk in roots. Current Opinion in Plant Biology, 2011, 14, 10-16.	7.1	103
75	A Mutually Inhibitory Interaction between Auxin and Cytokinin Specifies Vascular Pattern in Roots. Current Biology, 2011, 21, 917-926.	3.9	359
76	Phloem-Transported Cytokinin Regulates Polar Auxin Transport and Maintains Vascular Pattern in the Root Meristem. Current Biology, 2011, 21, 927-932.	3.9	231
77	Enhanced cytokinin signaling stimulates cell proliferation in cambium of Populus. BMC Proceedings, 2011, 5, .	1.6	1
78	Arabidopsis as a model for wood formation. Current Opinion in Biotechnology, 2011, 22, 293-299.	6.6	91
79	Bisymmetry in the embryonic root is dependent on cotyledon number and position. Plant Signaling and Behavior, 2011, 6, 1837-1840.	2.4	12
80	Cell-to-cell communication in vascular morphogenesis. Current Opinion in Plant Biology, 2010, 13, 59-65.	7.1	26
81	Plant Development: Early Events in Lateral Root Initiation. Current Biology, 2010, 20, R843-R845.	3.9	13
82	Cell signalling by microRNA165/6 directs gene dose-dependent root cell fate. Nature, 2010, 465, 316-321.	27.8	739
83	Shootward and rootward: peak terminology for plant polarity. Trends in Plant Science, 2010, 15, 593-594.	8.8	39
84	Vascular Pattern Formation in Plants. Current Topics in Developmental Biology, 2010, 91, 221-265.	2.2	53
85	Wood Formation in Populus. , 2010, , 201-224.		33
86	Hormone interactions during vascular development. Plant Molecular Biology, 2009, 69, 347-360.	3.9	76
87	Stem cell function during plant vascular development. Seminars in Cell and Developmental Biology, 2009, 20, 1097-1106.	5.0	78
88	Chapter 1 Cytokinin Signaling During Root Development. International Review of Cell and Molecular Biology, 2009, 276, 1-48.	3.2	26
89	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
90	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

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91	Cell signalling during vascular morphogenesis. Biochemical Society Transactions, 2007, 35, 152-155.	3.4	7
92	Expression of xyloglucan endotransglycosylases of Gerbera hybrida and Betula pendula in Pichia pastoris. Journal of Biotechnology, 2007, 130, 161-170.	3.8	7
93	Signs of change: hormone receptors that regulate plant development. Development (Cambridge), 2006, 133, 1857-1869.	2.5	85
94	Cytokinin Signaling and Its Inhibitor AHP6 Regulate Cell Fate During Vascular Development. Science, 2006, 311, 94-98.	12.6	530
95	The Genome of Black Cottonwood, <i>Populus trichocarpa</i> (Torr. & Gray). Science, 2006, 313, 1596-1604.	12.6	3,945
96	Cytokinins Regulate a Bidirectional Phosphorelay Network in Arabidopsis. Current Biology, 2006, 16, 1116-1122.	3.9	194
97	Phloem and xylem specification: pieces of the puzzle emerge. Current Opinion in Plant Biology, 2005, 8, 512-517.	7.1	91
98	A Weed for Wood? Arabidopsis as a Genetic Model for Xylem Development: Figure 1.. Plant Physiology, 2004, 135, 653-659.	4.8	102
99	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
100	Between Xylem and Phloem: The Genetic Control of Cambial Activity in Plants. Plant Biology, 2003, 5, 465-472.	3.8	15
101	APL regulates vascular tissue identity in Arabidopsis. Nature, 2003, 426, 181-186.	27.8	425
102	FLOWER DEVELOPMENT IN GERBERA HYBRIDA (ASTERACEAE). Acta Horticulturae, 2001, , 145-148.	0.2	0
103	TWO BIOACTIVE COMPOUNDS AND A NOVEL CHALCONE SYNTHASELIKE ENZYME IDENTIFIED IN GERBERA HYBRIDA. Acta Horticulturae, 2001, , 271-274.	0.2	5
104	A novel two-component hybrid molecule regulates vascular morphogenesis of the Arabidopsis root. Genes and Development, 2000, 14, 2938-2943.	5.9	499
105	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
106	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
107	The SHORT-ROOT Gene Controls Radial Patterning of the Arabidopsis Root through Radial Signaling. Cell, 2000, 101, 555-567.	28.9	1,007
108	Molecular analysis of SCARECROW function reveals a radial patterning mechanism common to root and shoot. Development (Cambridge), 2000, 127, 595-603.	2.5	368

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109	Molecular analysis of SCARECROW function reveals a radial patterning mechanism common to root and shoot. Development (Cambridge), 2000, 127, 595-603.	2.5	155
110	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
111	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
112	Organ identity genes and modified patterns of flower development inGerbera hybrida(Asteraceae). Plant Journal, 1999, 17, 51-62.	5.7	220
113	New pathway to polyketides in plants. Nature, 1998, 396, 387-390.	27.8	186
114	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
115	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
116	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
117	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
118	Transgene inactivation inPetunia hybrida is influenced by the properties of the foreign gene. Molecular Genetics and Genomics, 1995, 248, 649-656.	2.4	73
119	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
120	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
121	MOLECULAR ANALYSIS OF FLORAL ORGAN DIFFERENTIATION IN GERBERA HYBRIDA. Acta Horticulturae, 1995, , 16-18.	0.2	1
122	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
123	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
124	Agrobacterium-Mediated Transfer of Antisense Chalcone Synthase cDNA to Gerbera hybrida Inhibits Flower Pigmentation. Nature Biotechnology, 1993, 11, 508-511.	17.5	80
125	Vascular Morphogenesis during Root Development. , 0, , 39-63.		1