

Eva Benková

List of Publications by Year in descending order

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69
papers

17,785
citations

41344

49
h-index

91884

69
g-index

74
all docs

74
docs citations

74
times ranked

10868
citing authors

#	ARTICLE	IF	CITATIONS
1	Local, Efflux-Dependent Auxin Gradients as a Common Module for Plant Organ Formation. <i>Cell</i> , 2003, 115, 591-602.	28.9	2,313
2	Lateral relocation of auxin efflux regulator PIN3 mediates tropism in Arabidopsis. <i>Nature</i> , 2002, 415, 806-809.	27.8	1,299
3	Nitrate-Regulated Auxin Transport by NRT1.1 Defines a Mechanism for Nutrient Sensing in Plants. <i>Developmental Cell</i> , 2010, 18, 927-937.	7.0	870
4	PIN Proteins Perform a Rate-Limiting Function in Cellular Auxin Efflux. <i>Science</i> , 2006, 312, 914-918.	12.6	805
5	AtPIN4 Mediates Sink-Driven Auxin Gradients and Root Patterning in Arabidopsis. <i>Cell</i> , 2002, 108, 661-673.	28.9	763
6	Polar PIN Localization Directs Auxin Flow in Plants. <i>Science</i> , 2006, 312, 883-883.	12.6	754
7	The auxin influx carrier LAX3 promotes lateral root emergence. <i>Nature Cell Biology</i> , 2008, 10, 946-954.	10.3	715
8	Ethylene Regulates Root Growth through Effects on Auxin Biosynthesis and Transport-Dependent Auxin Distribution. <i>Plant Cell</i> , 2007, 19, 2197-2212.	6.6	682
9	Arabidopsis lateral root development: an emerging story. <i>Trends in Plant Science</i> , 2009, 14, 399-408.	8.8	681
10	Functional redundancy of PIN proteins is accompanied by auxin-dependent cross-regulation of PIN expression. <i>Development (Cambridge)</i> , 2005, 132, 4521-4531.	2.5	574
11	Auxin acts as a local morphogenetic trigger to specify lateral root founder cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 8790-8794.	7.1	527
12	Cytokinins Act Directly on Lateral Root Founder Cells to Inhibit Root Initiation. <i>Plant Cell</i> , 2008, 19, 3889-3900.	6.6	498
13	The Arabidopsis BODENLOS gene encodes an auxin response protein inhibiting MONOPTEROS-mediated embryo patterning. <i>Genes and Development</i> , 2002, 16, 1610-1615.	5.9	485
14	Hormonal Interactions in the Regulation of Plant Development. <i>Annual Review of Cell and Developmental Biology</i> , 2012, 28, 463-487.	9.4	480
15	Subcellular homeostasis of phytohormone auxin is mediated by the ER-localized PIN5 transporter. <i>Nature</i> , 2009, 459, 1136-1140.	27.8	462
16	Canalization of auxin flow by Aux/IAA-ARF-dependent feedback regulation of PIN polarity. <i>Genes and Development</i> , 2006, 20, 2902-2911.	5.9	395
17	A Mutually Inhibitory Interaction between Auxin and Cytokinin Specifies Vascular Pattern in Roots. <i>Current Biology</i> , 2011, 21, 917-926.	3.9	359
18	Cytokinin regulates root meristem activity via modulation of the polar auxin transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 4284-4289.	7.1	340

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19	Role of PIN-mediated auxin efflux in apical hook development of <i>Arabidopsis thaliana</i> . Development (Cambridge), 2010, 137, 607-617.	2.5	297
20	Cytokinin Modulates Endocytic Trafficking of PIN1 Auxin Efflux Carrier to Control Plant Organogenesis. Developmental Cell, 2011, 21, 796-804.	7.0	268
21	Cytokinin cross-talking during biotic and abiotic stress responses. Frontiers in Plant Science, 2013, 4, 451.	3.6	251
22	ARF GEF-Dependent Transcytosis and Polar Delivery of PIN Auxin Carriers in Arabidopsis. Current Biology, 2008, 18, 526-531.	3.9	250
23	The auxin influx carriers AUX1 and LAX3 are involved in auxin-ethylene interactions during apical hook development in <i>Arabidopsis thaliana</i> seedlings. Development (Cambridge), 2010, 137, 597-606.	2.5	226
24	Immunocytochemical techniques for whole-mount in situ protein localization in plants. Nature Protocols, 2006, 1, 98-103.	12.0	201
25	The Transcription Factors BEL1 and SPL Are Required for Cytokinin and Auxin Signaling During Ovule Development in <i>Arabidopsis</i> . Plant Cell, 2012, 24, 2886-2897.	6.6	186
26	Polarization of PIN3-dependent auxin transport for hypocotyl gravitropic response in <i>Arabidopsis thaliana</i> . Plant Journal, 2011, 67, 817-826.	5.7	171
27	Spatiotemporal Regulation of Lateral Root Organogenesis in <i>Arabidopsis</i> by Cytokinin. Plant Cell, 2012, 24, 3967-3981.	6.6	162
28	Cytokinin Controls Polarity of PIN1-Dependent Auxin Transport during Lateral Root Organogenesis. Current Biology, 2014, 24, 1031-1037.	3.9	152
29	Auxin reflux between the endodermis and pericycle promotes lateral root initiation. EMBO Journal, 2012, 32, 149-158.	7.8	148
30	Hormone interactions at the root apical meristem. Plant Molecular Biology, 2009, 69, 383-396.	3.9	141
31	An Auxin Transport Mechanism Restricts Positive Orthogravitropism in Lateral Roots. Current Biology, 2013, 23, 817-822.	3.9	134
32	Inhibition of cell expansion by rapid ABP1-mediated auxin effect on microtubules. Nature, 2014, 516, 90-93.	27.8	129
33	Live tracking of moving samples in confocal microscopy for vertically grown roots. ELife, 2017, 6, .	6.0	123
34	Inositol Trisphosphate-Induced Ca ²⁺ Signaling Modulates Auxin Transport and PIN Polarity. Developmental Cell, 2011, 20, 855-866.	7.0	121
35	Lateral root organogenesis "from cell to organ. Current Opinion in Plant Biology, 2010, 13, 677-683.	7.1	114
36	Lateral root emergence in <i>Arabidopsis</i> is dependent on transcription factor LBD29 regulating auxin influx carrier <i>LAX3</i> . Development (Cambridge), 2016, 143, 3340-9.	2.5	111

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37	Cytokinin response factors regulate PIN-FORMED auxin transporters. <i>Nature Communications</i> , 2015, 6, 8717.	12.8	108
38	Sequential induction of auxin efflux and influx carriers regulates lateral root emergence. <i>Molecular Systems Biology</i> , 2013, 9, 699.	7.2	104
39	Auxin minimum defines a developmental window for lateral root initiation. <i>New Phytologist</i> , 2011, 191, 970-983.	7.3	103
40	Sending mixed messages: auxin-cytokinin crosstalk in roots. <i>Current Opinion in Plant Biology</i> , 2011, 14, 10-16.	7.1	103
41	A morphogenetic trigger: is there an emerging concept in plant developmental biology?. <i>Trends in Plant Science</i> , 2009, 14, 189-193.	8.8	102
42	Nitrate Controls Root Development through Post-Transcriptional Regulation of the NRT1.1/NPF6.3 transporter/sensor. <i>Plant Physiology</i> , 2016, 172, pp.01047.2016.	4.8	94
43	Hierarchy of hormone action controlling apical hook development in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2011, 67, 622-634.	5.7	92
44	Re-activation of Stem Cell Pathways for Pattern Restoration in Plant Wound Healing. <i>Cell</i> , 2019, 177, 957-969.e13.	28.9	92
45	Cytokinin Response Factor 6 Represses Cytokinin-Associated Genes during Oxidative Stress. <i>Plant Physiology</i> , 2016, 172, pp.00415.2016.	4.8	85
46	Targeted cell elimination reveals an auxin-guided biphasic mode of lateral root initiation. <i>Genes and Development</i> , 2016, 30, 471-483.	5.9	82
47	A coherent transcriptional feed-forward motif model for mediating auxin-sensitive PIN3 expression during lateral root development. <i>Nature Communications</i> , 2015, 6, 8821.	12.8	70
48	Cytokinin fluoroprobe reveals multiple sites of cytokinin perception at plasma membrane and endoplasmic reticulum. <i>Nature Communications</i> , 2020, 11, 4285.	12.8	64
49	The <i>Arabidopsis</i> NRT1.1 transceptor coordinately controls auxin biosynthesis and transport to regulate root branching in response to nitrate. <i>Journal of Experimental Botany</i> , 2020, 71, 4480-4494.	4.8	64
50	Modulation of plant root growth by nitrogen source-defined regulation of polar auxin transport. <i>EMBO Journal</i> , 2021, 40, e106862.	7.8	60
51	A Model of Differential Growth-Guided Apical Hook Formation in Plants. <i>Plant Cell</i> , 2016, 28, 2464-2477.	6.6	53
52	Strategies of seedlings to overcome their sessile nature: auxin in mobility control. <i>Frontiers in Plant Science</i> , 2015, 6, 218.	3.6	35
53	SYNERGISTIC ON AUXIN AND CYTOKININ 1 positively regulates growth and attenuates soil pathogen resistance. <i>Nature Communications</i> , 2020, 11, 2170.	12.8	34
54	Dynamic infrared imaging analysis of apical hook development in <i>Arabidopsis</i> : the case of brassinosteroids. <i>New Phytologist</i> , 2014, 202, 1398-1411.	7.3	31

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55	All Roads Lead to Auxin: Post-translational Regulation of Auxin Transport by Multiple Hormonal Pathways. <i>Plant Communications</i> , 2020, 1, 100048.	7.7	31
56	Root gravity response module guides differential growth determining both root bending and apical hook formation. <i>Development (Cambridge)</i> , 2019, 146, .	2.5	24
57	Ethylene and Cytokinin: Partners in Root Growth Regulation. <i>Molecular Plant</i> , 2019, 12, 1312-1314.	8.3	22
58	Nitrate triggered phosphoproteome changes and a PIN2 phosphosite modulating root system architecture. <i>EMBO Reports</i> , 2021, 22, e51813.	4.5	22
59	Plant hormones in interactions with the environment. <i>Plant Molecular Biology</i> , 2016, 91, 597-597.	3.9	16
60	Spatiotemporal mechanisms of root branching. <i>Current Opinion in Genetics and Development</i> , 2017, 45, 82-89.	3.3	15
61	Phytohormone cytokinin guides microtubule dynamics during cell progression from proliferative to differentiated stage. <i>EMBO Journal</i> , 2020, 39, e104238.	7.8	15
62	Real-Time Analysis of the Apical Hook Development. <i>Methods in Molecular Biology</i> , 2017, 1497, 1-8.	0.9	14
63	Transporters and Mechanisms of Hormone Transport in Arabidopsis. <i>Advances in Botanical Research</i> , 2018, 87, 115-138.	1.1	12
64	Xyloglucan Remodeling Defines Auxin-Dependent Differential Tissue Expansion in Plants. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9222.	4.1	9
65	A coupled mechano-biochemical model for cell polarity guided anisotropic root growth. <i>ELife</i> , 2021, 10, .	6.0	8
66	Methodological Advances in Auxin and Cytokinin Biology. <i>Methods in Molecular Biology</i> , 2017, 1569, 1-29.	0.9	7
67	Design, synthesis and perception of fluorescently labeled isoprenoid cytokinins. <i>Phytochemistry</i> , 2018, 150, 1-11.	2.9	7
68	Real-time Analysis of Lateral Root Organogenesis in Arabidopsis. <i>Bio-protocol</i> , 2015, 5, .	0.4	6
69	Seedlingsâ€™ Strategy to Overcome a Soil Barrier. <i>Trends in Plant Science</i> , 2016, 21, 809-811.	8.8	4