Ottoline Leyser

List of Publications by Year
in descending order

117	20,891	13099 68	22832 112
papers	citations	h-index	g-index

131	131	131	12339
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Arabidopsis F-box protein TIR1 is an auxin receptor. Nature, 2005, 435, 446-451.	27.8	1,525
2	An Auxin-Dependent Distal Organizer of Pattern and Polarity in the Arabidopsis Root. Cell, 1999, 99, 463-472.	28.9	1,233
3	Auxin regulates SCFTIR1-dependent degradation of AUX/IAA proteins. Nature, 2001, 414, 271-276.	27.8	1,205
4	Signal integration in the control of shoot branching. Nature Reviews Molecular Cell Biology, 2011, 12, 211-221.	37.0	647
5	Nitrate and phosphate availability and distribution have different effects on root system architecture ofArabidopsis. Plant Journal, 2002, 29, 751-760.	5.7	573
6	MAX4 and RMS1 are orthologous dioxygenase-like genes that regulate shoot branching in Arabidopsis and pea. Genes and Development, 2003, 17, 1469-1474.	5.9	550
7	MAX3/CCD7 Is a Carotenoid Cleavage Dioxygenase Required for the Synthesis of a Novel Plant Signaling Molecule. Current Biology, 2004, 14, 1232-1238.	3.9	525
8	Root gravitropism requires lateral root cap and epidermal cells for transport and response to a mobile auxin signal. Nature Cell Biology, 2005, 7, 1057-1065.	10.3	514
9	MAX1 Encodes a Cytochrome P450 Family Member that Acts Downstream of MAX3/4 to Produce a Carotenoid-Derived Branch-Inhibiting Hormone. Developmental Cell, 2005, 8, 443-449.	7.0	481
10	Auxin Signaling. Plant Physiology, 2018, 176, 465-479.	4.8	476
11	The Arabidopsis MAX Pathway Controls Shoot Branching by Regulating Auxin Transport. Current Biology, 2006, 16, 553-563.	3.9	424
12	Strigolactones Are Transported through the Xylem and Play a Key Role in Shoot Architectural Response to Phosphate Deficiency in Nonarbuscular Mycorrhizal Host Arabidopsis Â Â Â. Plant Physiology, 2011, 155, 974-987.	4.8	417
13	Auxin, cytokinin and the control of shoot branching. Annals of Botany, 2011, 107, 1203-1212.	2.9	404
14	Mutations in the AXR3 gene of Arabidopsis result in altered auxin response including ectopic expression from the SAUR-AC1 promoter. Plant Journal, 1996, 10, 403-413.	5.7	392
15	MAX2 participates in an SCF complex which acts locally at the node to suppress shoot branching. Plant Journal, 2007, 50, 80-94.	5.7	384
16	Changes in Auxin Response from Mutations in an AUX/IAA Gene. Science, 1998, 279, 1371-1373.	12.6	377
17	Interactions between Auxin and Strigolactone in Shoot Branching Control. Plant Physiology, 2009, 151, 400-412.	4.8	358
18	Strigolactone Can Promote or Inhibit Shoot Branching by Triggering Rapid Depletion of the Auxin Efflux Protein PIN1 from the Plasma Membrane. PLoS Biology, 2013, 11, e1001474.	5.6	345

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19	Rice cytochrome P450 MAX1 homologs catalyze distinct steps in strigolactone biosynthesis. Nature Chemical Biology, 2014, 10, 1028-1033.	8.0	340
20	SMAX1-LIKE/D53 Family Members Enable Distinct MAX2-Dependent Responses to Strigolactones and Karrikins in Arabidopsis. Plant Cell, 2015, 27, 3143-3159.	6.6	339
21	Micrografting techniques for testing long-distance signalling inArabidopsis. Plant Journal, 2002, 32, 255-262.	5.7	334
22	Control of bud activation by an auxin transport switch. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17431-17436.	7.1	319
23	Strigolactones enhance competition between shoot branches by dampening auxin transport. Development (Cambridge), 2010, 137, 2905-2913.	2.5	318
24	SHOOT BRANCHING. Annual Review of Plant Biology, 2005, 56, 353-374.	18.7	307
25	Hormonal control of shoot branching. Journal of Experimental Botany, 2007, 59, 67-74.	4.8	282
26	Rapid Degradation of Auxin/Indoleacetic Acid Proteins Requires Conserved Amino Acids of Domain II and Is Proteasome Dependent. Plant Cell, 2001, 13, 2349-2360.	6.6	260
27	Degradation of Aux/IAA proteins is essential for normal auxin signalling. Plant Journal, 2000, 21, 553-562.	5.7	254
28	The hormonal regulation of axillary bud growth in Arabidopsis. Plant Journal, 2000, 24, 159-169.	5.7	253
29	Dynamic Integration of Auxin Transport and Signalling. Current Biology, 2006, 16, R424-R433.	3.9	248
30	A plantâ€™s diet, surviving in a variable nutrient environment. Science, 2020, 368, .	12.6	241
31	The control of shoot branching: an example of plant information processing. Plant, Cell and Environment, 2009, 32, 694-703.	5.7	218
32	A Developmental Framework for Graft Formation and Vascular Reconnection in Arabidopsis thaliana. Current Biology, 2015, 25, 1306-1318.	3.9	218
33	Auxin transport through non-hair cells sustains root-hair development. Nature Cell Biology, 2009, 11, 78-84.	10.3	212
34	Regulation of shoot branching by auxin. Trends in Plant Science, 2003, 8, 541-545.	8.8	211
35	MOLECULARGENETICS OFAUXINSIGNALING. Annual Review of Plant Biology, 2002, 53, 377-398.	18.7	206
36	Strigolactones and the control of plant development: lessons from shoot branching. Plant Journal, 2014, 79, 607-622.	5.7	203

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37	Auxin Acts in Xylem-Associated or Medullary Cells to Mediate Apical Dominance. Plant Cell, 2003, 15, 495-507.	6.6	187
38	Hormonal Interactions in the Control of Arabidopsis Hypocotyl Elongation. Plant Physiology, 2000, 124, 553-562.	4.8	177
39	Auxin-induced SCFTIR1-Aux/IAA interaction involves stable modification of the SCFTIR1 complex. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12381-12386.	7.1	176
40	The Identification of Genes Involved in the Stomatal Response to Reduced Atmospheric Relative Humidity. Current Biology, 2006, 16, 882-887.	3.9	171
41	The Arabidopsis <i>MALE MEIOCYTE DEATH1</i> Gene Encodes a PHD-Finger Protein That Is Required for Male Meiosis. Plant Cell, 2003, 15, 1281-1295.	6.6	168
42	Identification of cis-Elements That Regulate Gene Expression during Initiation of Axillary Bud Outgrowth in Arabidopsis. Plant Physiology, 2005, 138, 757-766.	4.8	163
43	Strigolactone regulates shoot development through a core signalling pathway. Biology Open, 2016, 5, 1806-1820.	1.2	153
44	AXR3 and SHY2 interact to regulate root hair development. Development (Cambridge), 2003, 130, 5769-5777.	2.5	149
45	Promoter methylation and progressive transgene inactivation inArabidopsis. Plant Molecular Biology, 1992, 20, 103-112.	3.9	139
46	Natural variation of rice strigolactone biosynthesis is associated with the deletion of two <i>MAX1</i> orthologs. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2379-2384.	7.1	138
47	Structural plasticity of D3â€"D14 ubiquitin ligase in strigolactone signalling. Nature, 2018, 563, 652-656.	27.8	138
48	Cytokinin is required for escape but not release from auxin mediated apical dominance. Plant Journal, 2015, 82, 874-886.	5.7	136
49	Connective Auxin Transport in the Shoot Facilitates Communication between Shoot Apices. PLoS Biology, 2016, 14, e1002446.	5.6	133
50	Cytokinin Targets Auxin Transport to Promote Shoot Branching. Plant Physiology, 2018, 177, 803-818.	4.8	131
51	Hormonally controlled expression of the Arabidopsis MAX4 shoot branching regulatory gene. Plant Journal, 2005, 44, 569-580.	5.7	126
52	Auxin Distribution and Plant Pattern Formation: How Many Angels Can Dance on the Point of PIN?. Cell, 2005, 121, 819-822.	28.9	126
53	SMAX1-LIKE7 signals from the nucleus to regulate shoot development in Arabidopsis via partially EAR motif-independent mechanisms. Plant Cell, 2016, 28, tpc.00286.2016.	6.6	117
54	Strigolactone regulation of shoot branching in chrysanthemum (Dendranthema grandiflorum). Journal of Experimental Botany, 2010, 61, 3069-3078.	4.8	115

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55	Auxin and Strigolactone Signaling Are Required for Modulation of Arabidopsis Shoot Branching by Nitrogen Supply Â Â. Plant Physiology, 2014, 166, 384-395.	4.8	112
56	Paralogous Radiations of PIN Proteins with Multiple Origins of Noncanonical PIN Structure. Molecular Biology and Evolution, 2014, 31, 2042-2060.	8.9	111
57	The fall and rise of apical dominance. Current Opinion in Genetics and Development, 2005, 15, 468-471.	3.3	110
58	Shoot branching. Current Opinion in Plant Biology, 2004, 7, 73-78.	7.1	109
59	<i>BRC1</i>expression regulates bud activation potential, but is not necessary or sufficient for bud growth inhibition in Arabidopsis. Development (Cambridge), 2017, 144, 1661-1673.	2.5	106
60	Root system architecture determines fitness in anArabidopsismutant in competition for immobile phosphate ions but not for nitrate ions. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 2017-2022.	2.6	101
61	Canalization: what the flux?. Trends in Genetics, 2014, 30, 41-48.	6.7	99
62	Something on the Side: Axillary Meristems and Plant Development. Plant Molecular Biology, 2006, 60, 843-854.	3.9	98
63	Strigolactone signalling: standing on the shoulders of DWARFs. Current Opinion in Plant Biology, 2014, 22, 7-13.	7.1	98
64	A Role for<i>MORE AXILLARY GROWTH1</i>(<i>MAX1</i>) in Evolutionary Diversity in Strigolactone Signaling Upstream of<i>MAX2</i>Â Â Â Â. Plant Physiology, 2013, 161, 1885-1902.	4.8	89
65	Three ancient hormonal cues co-ordinate shoot branching in a moss. ELife, 2015, 4, .	6.0	84
66	Auxin, Self-Organisation, and the Colonial Nature of Plants. Current Biology, 2011, 21, R331-R337.	3.9	83
67	Roots are branching out in patches. Trends in Plant Science, 1998, 3, 203-204.	8.8	78
68	Plant Development: Auxin in Loops. Current Biology, 2005, 15, R208-R210.	3.9	75
69	The Power of Auxin in Plants: Figure 1.. Plant Physiology, 2010, 154, 501-505.	4.8	73
70	Auxin signalling: the beginning, the middle and the end. Current Opinion in Plant Biology, 2001, 4, 382-386.	7.1	65
71	<i>FHY3</i> promotes shoot branching and stress tolerance in Arabidopsis in an <i>AXR1</i>â€dependent manner. Plant Journal, 2012, 71, 907-920.	5.7	64
72	Characterization of Terfestatin A, a New Specific Inhibitor for Auxin Signaling. Plant Physiology, 2005, 139, 779-789.	4.8	60

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73	Cell wall composition contributes to the control of transpiration efficiency in Arabidopsis thaliana. Plant Journal, 2010, 64, 679-686.	5.7	57
74	Auxin: Lessons from a mutant weed. Physiologia Plantarum, 1997, 100, 407-414.	5.2	53
75	Novel phytohormones involved in long-range signaling. Current Opinion in Plant Biology, 2007, 10, 473-476.	7.1	50
76	Interactions between Axillary Branches of Arabidopsis. Molecular Plant, 2008, 1, 388-400.	8.3	50
77	Developmental Plasticity in Plants. Cold Spring Harbor Symposia on Quantitative Biology, 2012, 77, 63-73.	1.1	50
78	Connective auxin transport contributes to strigolactone-mediated shoot branching control independent of the transcription factor BRC1. PLoS Genetics, 2019, 15, e1008023.	3.5	50
79	The pea branching RMS2 gene encodes the PsAFB4/5 auxin receptor and is involved in an auxin-strigolactone regulation loop. PLoS Genetics, 2017, 13, e1007089.	3.5	45
80	Developmental mechanisms underlying variable, invariant and plastic phenotypes. Annals of Botany, 2016, 117, 733-748.	2.9	44
81	Cross-species functional diversity within the PIN auxin efflux protein family. ELife, 2017, 6, .	6.0	44
82	SLOW MOTION Is Required for Within-Plant Auxin Homeostasis and Normal Timing of Lateral Organ Initiation at the Shoot Meristem in<i>Arabidopsis</i>Â Â. Plant Cell, 2010, 22, 335-348.	6.6	43
83	Shootward and rootward: peak terminology for plant polarity. Trends in Plant Science, 2010, 15, 593-594.	8.8	39
84	PLANT SCIENCE: Auxin Transport, but in Which Direction?. Science, 2006, 312, 858-860.	12.6	38
85	A computational model of auxin and pH dynamics in a single plant cell. Journal of Theoretical Biology, 2012, 296, 84-94.	1.7	32
86	The Tinkerbell (Tink) Mutation Identifies the Dual-Specificity MAPK Phosphatase INDOLE-3-BUTYRIC ACID-RESPONSE5 (IBR5) as a Novel Regulator of Organ Size in Arabidopsis. PLoS ONE, 2015, 10, e0131103.	2.5	30
87	Natural variation in Arabidopsis shoot branching plasticity in response to nitrate supply affects fitness. PLoS Genetics, 2019, 15, e1008366.	3.5	29
88	A molecular basis for auxin action. Seminars in Cell and Developmental Biology, 1999, 10, 131-137.	5.0	28
89	Strigolactones and Shoot Branching: A New Trick for a Young Dog. Developmental Cell, 2008, 15, 337-338.	7.0	28
90	Auxin signalling: Protein stability as a versatile control target. Current Biology, 1998, 8, R305-R307.	3.9	25

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91	Mutation of the cytosolic ribosomal protein-encoding RPS10B gene affects shoot meristematic function in Arabidopsis. BMC Plant Biology, 2012, 12, 160.	3.6	25
92	Computer simulation: The imaginary friend of auxin transport biology. BioEssays, 2010, 32, 828-835.	2.5	23
93	An ABA-GA bistable switch can account for natural variation in the variability of Arabidopsis seed germination time. ELife, 2021, 10, .	6.0	23
94	Plant hormones: Ins and outs of auxin transport. Current Biology, 1999, 9, R8-R10.	3.9	22
95	Using Arabidopsis to Study Shoot Branching in Biomass Willow Â Â Â. Plant Physiology, 2013, 162, 800-811.	4.8	22
96	An axis of auxin. Nature, 2003, 426, 132-135.	27.8	19
97	Auxin and strigolactones in shoot branching: intimately connected?. Biochemical Society Transactions, 2010, 38, 717-722.	3.4	19
98	Moving beyond the GM Debate. PLoS Biology, 2014, 12, e1001887.	5.6	18
99	SCF-Mediated Proteolysis and Negative Regulation in Ethylene Signaling. Cell, 2003, 115, 647-648.	28.9	14
100	pax1-1 partially suppresses gain-of-function mutations in Arabidopsis AXR3/IAA17. BMC Plant Biology, 2007, 7, 20.	3.6	14
101	The Auxin Question: A Philosophical Overview. , 2014, , 3-19.		14
102	Grafting. , 2006, 323, 39-44.		13
103	Functional screening of willow alleles in A rabidopsis combined with QTL mapping in willow (S alix) identifies S x MAX 4 as a coppicing response gene. Plant Biotechnology Journal, 2014, 12, 480-491.	8.3	13
104	GARNet, the Genomic Arabidopsis Resource Network. Trends in Plant Science, 2002, 7, 145-147.	8.8	10
105	KAI2 regulates seedling development by mediating lightâ€induced remodelling of auxin transport. New Phytologist, 2022, 235, 126-140.	7.3	9
106	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
107	Grafting in Arabidopsis. Methods in Molecular Biology, 2014, 1062, 155-163.	0.9	8
108	Auxin. Current Biology, 2001, 11, R728.	3.9	4

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109	Auxin: Lessons from a mutant weed. Physiologia Plantarum, 1997, 100, 407-414.	5.2	3
110	Rapid Degradation of Auxin/Indoleacetic Acid Proteins Requires Conserved Amino Acids of Domain II and Is Proteasome Dependent. Plant Cell, 2001, 13, 2349.	6.6	3
111	Mutagenesis. , 2000, 141, 133-144.		2
112	Ottoline Leyser: The beauty of plant genetics. Journal of Cell Biology, 2014, 204, 284-285.	5.2	1
113	Network trade-offs and homeostasis in Arabidopsis shoot architectures. PLoS Computational Biology, 2019, 15, e1007325.	3.2	1
114	Response to Prof Tomescu. Plant Molecular Biology, 2006, 62, 483-483.	3.9	0
115	Pattern formation and developmental mechanisms. Current Opinion in Genetics and Development, 2008, 18, 285-286.	3.3	0
116	Ottoline Leyser. Current Biology, 2012, 22, R253-R255.	3.9	0
117	Functional Genomics at the Arabidopsis Meeting. Yeast, 2000, 1, 235-237.	1.7	0