MikaÃ«l Lucas

List of Publications by Year
in descending order

34 papers	2,583 citations	394421 19 h-index	501196 28 g-index
37 all docs	37 docs citations	37 times ranked	3500 citing authors

#	Article	IF	Citations
1	Lateral root development in Arabidopsis: fifty shades of auxin. Trends in Plant Science, 2013, 18, 450-458.	8.8	536
2	Auxin regulates aquaporin function to facilitate lateral root emergence. Nature Cell Biology, 2012, 14, 991-998.	10.3	323
3	Lateral root morphogenesis is dependent on the mechanical properties of the overlaying tissues. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5229-5234.	7.1	233
4	Flux-Based Transport Enhancement as a Plausible Unifying Mechanism for Auxin Transport in Meristem Development. PLoS Computational Biology, 2008, 4, e1000207.	3.2	182
5	SHORT-ROOT Regulates Primary, Lateral, and Adventitious Root Development in Arabidopsis Â Â Â. Plant Physiology, 2011, 155, 384-398.	4.8	163
6	Auxin fluxes in the root apex co-regulate gravitropism and lateral root initiation. Journal of Experimental Botany, 2008, 59, 55-66.	4.8	134
7	The circadian clock rephases during lateral root organ initiation in Arabidopsis thaliana. Nature Communications, 2015, 6, 7641.	12.8	119
8	Inference of the Arabidopsis Lateral Root Gene Regulatory Network Suggests a Bifurcation Mechanism That Defines Primordia Flanking and Central Zones. Plant Cell, 2015, 27, 1368-1388.	6.6	105
9	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
10	Characterization of Pearl Millet Root Architecture and Anatomy Reveals Three Types of Lateral Roots. Frontiers in Plant Science, 2016, 7, 829.	3.6	79
11	Auxin Carriers Localization Drives Auxin Accumulation in Plant Cells Infected by <i>Frankia</i> in <i>Casuarina glauca</i> Actinorhizal Nodules. Plant Physiology, 2010, 154, 1372-1380.	4.8	75
12	An Auxin Transport-Based Model of Root Branching in Arabidopsis thaliana. PLoS ONE, 2008, 3, e3673.	2.5	74
13	Plant systems biology: network matters. Plant, Cell and Environment, 2011, 34, 535-553.	5.7	70
14	The roots of future rice harvests. Rice, 2014, 7, 29.	4.0	57
15	PUCHI regulates very long chain fatty acid biosynthesis during lateral root and callus formation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14325-14330.	7.1	46
16	Vertex-element models for anisotropic growth of elongated plant organs. Frontiers in Plant Science, 2013, 4, 233.	3.6	42
17	The Spring of Systems Biology-Driven Breeding. Trends in Plant Science, 2018, 23, 706-720.	8.8	37
18	Virtual Plants Need Water Too: Functional-Structural Root System Models in the Context of Drought Tolerance Breeding. Frontiers in Plant Science, 2017, 8, 1577.	3.6	30

#	Article	IF	Citations
19	A New Phenotyping Pipeline Reveals Three Types of Lateral Roots and a Random Branching Pattern in Two Cereals. Plant Physiology, 2018, 177, 896-910.	4.8	27
20	Inhibition of Auxin Signaling in <i>Frankia</i> Species-Infected Cells in <i>Casuarina glauca</i> Nodules Leads to Increased Nodulation. Plant Physiology, 2015, 167, 1149-1157.	4.8	25
21	Development of a model estimating root length density from root impacts on a soil profile in pearl millet (Pennisetum glaucum (L.) R. Br). Application to measure root system response to water stress in field conditions. PLoS ONE, 2019, 14, e0214182.	2.5	21
22	Rhizobial root hair infection requires auxin signaling. Trends in Plant Science, 2015, 20, 332-334.	8.8	20
23	Role of auxin during intercellular infection of Discaria trinervis by Frankia. Frontiers in Plant Science, 2014, 5, 399.	3.6	19
24	A multi-scale model of the interplay between cell signalling and hormone transport in specifying the root meristem of Arabidopsis thaliana. Journal of Theoretical Biology, 2016, 404, 182-205.	1.7	19
25	Inference of the gene regulatory network acting downstream of <scp>CROWN ROOTLESSÂ</scp>1 in rice reveals a regulatory cascade linking genes involved in auxin signaling, crown root initiation, and root meristem specification and maintenance. Plant Journal, 2019, 100, 954-968.	5.7	13
26	Phenotyping and modeling of root hydraulic architecture reveal critical determinants of axial water transport. Plant Physiology, 0, , .	4.8	12
27	PUCHI represses early meristem formation in developing lateral roots of <i>Arabidopsis thaliana</i>. Journal of Experimental Botany, 2022, 73, 3496-3510.	4.8	11
28	Transcriptome profiling of laser-captured crown root primordia reveals new pathways activated during early stages of crown root formation in rice. PLoS ONE, 2020, 15, e0238736.	2.5	7
29	The Dicot Root as a Model System for Studying Organogenesis. Methods in Molecular Biology, 2013, 959, 45-67.	0.9	4
30	Postembryonic in Plants: Experimental Induction of New Shoot and Root Organs. Methods in Molecular Biology, 2022, 2395, 79-95.	0.9	0
31	Plant : Lessons from. Methods in Molecular Biology, 2022, 2395, 1-12.	0.9	0
32	Future Challenges in Plant. Methods in Molecular Biology, 2022, 2395, 325-337.	0.9	0
33	Plant Systems Biology: Further Reading and Resources. Methods in Molecular Biology, 2022, 2395, 339-346.	0.9	0
34	How to Use the to Infer Gene Regulatory Networks from Transcriptomic Data. Methods in Molecular Biology, 2022, 2395, 13-31.	0.9	0