Joseph G Dubrovsky

List of Publications by Year
in descending order

75 papers	4,444 citations	147801 31 h-index	110387 64 g-index
84 all docs	84 docs citations	84 times ranked	5157 citing authors

#	Article	IF	Citations
1	Auxin acts as a local morphogenetic trigger to specify lateral root founder cells. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8790-8794.	7.1	527
2	Phosphate Starvation Induces a Determinate Developmental Program in the Roots of Arabidopsis thaliana. Plant and Cell Physiology, 2005, 46, 174-184.	3.1	329
3	Ethyleneâ€"auxin interactions regulate lateral root initiation and emergence in <i>Arabidopsis thaliana</i>. Plant Journal, 2008, 55, 335-347.	5.7	260
4	Pericycle Cell Proliferation and Lateral Root Initiation in Arabidopsis. Plant Physiology, 2000, 124, 1648-1657.	4.8	233
5	An<i>AGAMOUS</i>-Related MADS-Box Gene,<i>XAL1</i>(<i>AGL12</i>), Regulates Root Meristem Cell Proliferation and Flowering Transition in Arabidopsis Â Â. Plant Physiology, 2008, 146, 1182-1192.	4.8	188
6	Lateral Root Initiation in Arabidopsis: Developmental Window, Spatial Patterning, Density and Predictability. Annals of Botany, 2006, 97, 903-915.	2.9	163
7	Early primordium morphogenesis during lateral root initiation in Arabidopsis thaliana. Planta, 2001, 214, 30-36.	3.2	155
8	The Arabidopsis homolog of trithorax, ATX1, binds phosphatidylinositol 5-phosphate, and the two regulate a common set of target genes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 6049-6054.	7.1	151
9	Apical organization and maturation of the cortex and vascular cylinder in<i>Arabidopsis thaliana</i> (Brassicaceae) roots. American Journal of Botany, 2002, 89, 908-920.	1.7	148
10	Longitudinal zonation pattern in plant roots: conflicts and solutions. Trends in Plant Science, 2013, 18, 237-243.	8.8	116
11	Determinate primary-root growth in seedlings of Sonoran Desert Cactaceae; its organization, cellular basis, and ecological significance. Planta, 1997, 203, 85-92.	3.2	103
12	Auxin minimum defines a developmental window for lateral root initiation. New Phytologist, 2011, 191, 970-983.	7.3	103
13	A morphogenetic trigger: is there an emerging concept in plant developmental biology?. Trends in Plant Science, 2009, 14, 189-193.	8.8	102
14	A no hydrotropic responseRoot Mutant that Responds Positively to Gravitropism in Arabidopsis1,. Plant Physiology, 2003, 131, 536-546.	4.8	100
15	Quantitative Analysis of Lateral Root Development: Pitfalls and How to Avoid Them. Plant Cell, 2012, 24, 4-14.	6.6	98
16	Auxin increases the hydrogen peroxide (H2O2) concentration in tomato (Solanum lycopersicum) root tips while inhibiting root growth. Annals of Botany, 2013, 112, 1107-1116.	2.9	89
17	The MADS transcription factor XAL2/AGL14 modulates auxin transport during Arabidopsis root development by regulating PIN expression. EMBO Journal, 2013, 32, 2884-2895.	7.8	87
18	Arabidopsis thaliana mitogen-activated protein kinase 6 is involved in seed formation and modulation of primary and lateral root development. Journal of Experimental Botany, 2014, 65, 169-183.	4.8	85

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19	Determinate Root Growth and Meristem Maintenance in Angiosperms. Annals of Botany, 2007, 101, 319-340.	2.9	84
20	Auxin-induced inhibition of lateral root initiation contributes to root system shaping in Arabidopsis thaliana. Plant Journal, 2010, 64, 740-752.	5.7	76
21	Mutations in the Diageotropica (Dgt) gene uncouple patterned cell division during lateral root initiation from proliferative cell division in the pericycle. Plant Journal, 2006, 46, 436-447.	5.7	69
22	The lateral root initiation index: an integrative measure of primordium formation. Annals of Botany, 2009, 103, 807-817.	2.9	69
23	ARABIDOPSIS HOMOLOG of TRITHORAX1 (ATX1) is required for cell production, patterning, and morphogenesis in root development. Journal of Experimental Botany, 2014, 65, 6373-6384.	4.8	66
24	Estimation of the Cell-Cycle Duration in the Root Apical Meristem: A Model of Linkage between Cell-Cycle Duration, Rate of Cell Production, and Rate of Root Growth. International Journal of Plant Sciences, 1997, 158, 757-763.	1.3	63
25	Lateral Root Primordium Morphogenesis in Angiosperms. Frontiers in Plant Science, 2019, 10, 206.	3.6	61
26	Seed hydration memory in Sonoran Desert cacti and its ecological implication. American Journal of Botany, 1996, 83, 624-632.	1.7	60
27	Root growth, developmental changes in the apex, and hydraulic conductivity for Opuntia ficus-indica during drought. New Phytologist, 1998, 138, 75-82.	7.3	57
28	The cyclophilin A DIAGEOTROPICA gene affects auxin transport in both root and shoot to control lateral root formation. Development (Cambridge), 2015, 142, 712-21.	2.5	57
29	Neutral Red as a Probe for Confocal Laser Scanning Microscopy Studies of Plant Roots. Annals of Botany, 2006, 97, 1127-1138.	2.9	55
30	Azospirillum spp. participation in dry matter partitioning in grasses at the whole plant level. Biology and Fertility of Soils, 1996, 23, 435-440.	4.3	43
31	The root indeterminacyâ€toâ€determinacy developmental switch is operated through a folateâ€dependent pathway in <i><scp>A</scp>rabidopsis thaliana</i>. New Phytologist, 2014, 202, 1223-1236.	7.3	34
32	From one cell to many: Morphogenetic field of lateral root founder cells in <i>Arabidopsis thaliana</i> is built by gradual recruitment. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20943-20949.	7.1	34
33	Longitudinal zonation pattern in<i>Arabidopsis</i>root tip defined by a multiple structural change algorithm. Annals of Botany, 2016, 118, 763-776.	2.9	30
34	Seed Hydration Memory in Sonoran Desert Cacti and Its Ecological Implication. American Journal of Botany, 1996, 83, 624.	1.7	30
35	Arabidopsis thaliana as a model system for the study of the effect of inoculation by azospirillum brasilense Sp-245 on root hair growth. Soil Biology and Biochemistry, 1994, 26, 1657-1664.	8.8	29
36	The Nitric Oxide Production in the Moss Physcomitrella patens Is Mediated by Nitrate Reductase. PLoS ONE, 2015, 10, e0119400.	2.5	29

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37	Apical meristem organization and lack of establishment of the quiescent center in Cactaceae roots with determinate growth. Planta, 2003, 217, 849-857.	3.2	27
38	Water deficit accelerates determinate developmental program of the primary root and does not affect lateral root initiation in a Sonoran Desert cactus (<i>Pachycereus pringlei</i>, Cactaceae). American Journal of Botany, 2003, 90, 823-831.	1.7	27
39	Inception of maleness: auxin contribution to flower masculinization in the dioecious cactus Opuntia stenopetala. Planta, 2012, 236, 225-238.	3.2	27
40	Unique Cellular Organization in the Oldest Root Meristem. Current Biology, 2016, 26, 1629-1633.	3.9	26
41	Discontinuous Hydration as a Facultative Requirement for Seed Germination in Two Cactus Species of the Sonoran Desert. Journal of the Torrey Botanical Society, 1998, 125, 33.	0.3	25
42	Cellular and molecular bases of lateral root initiation and morphogenesis. Current Opinion in Plant Biology, 2022, 65, 102115.	7.1	22
43	Developmental programmed cell death in primary roots of Sonoran Desert Cactaceae. American Journal of Botany, 2005, 92, 1590-1594.	1.7	20
44	Determinate primary root growth as an adaptation to aridity in Cactaceae: towards an understanding of the evolution and genetic control of the trait. Annals of Botany, 2013, 112, 239-252.	2.9	19
45	Determinate primary-root growth in seedlings of Sonoran Desert Cactaceae; its organization, cellular basis, and ecological significance. Planta, 1997, 203, 85-92.	3.2	18
46	The origins of the quiescent centre concept. New Phytologist, 2015, 206, 493-496.	7.3	16
47	At-Hook Motif Nuclear Localised Protein 18 as a Novel Modulator of Root System Architecture. International Journal of Molecular Sciences, 2020, 21, 1886.	4.1	16
48	Cell Cycle Duration in the Root Meristem of Sonoran Desert Cactaceae as Estimated by Cell-flow and Rate-of-cell-production Methods. Annals of Botany, 1998, 81, 619-624.	2.9	14
49	Global analysis of an exponential model of cell proliferation for estimation of cell cycle duration in the root apical meristem of angiosperms. Annals of Botany, 2018, 122, 811-822.	2.9	14
50	Transcriptomics insights into the genetic regulation of root apical meristem exhaustion and determinate primary root growth in Pachycereus pringlei (Cactaceae). Scientific Reports, 2018, 8, 8529.	3.3	14
51	Robust root growth in altered hydrotropic response1 (ahr1) mutant of Arabidopsis is maintained by high rate of cell production at low water potential gradient. Journal of Plant Physiology, 2017, 208, 102-114.	3.5	13
52	Root stem cell niche maintenance and apical meristem activity critically depend on THREONINE SYNTHASE1. Journal of Experimental Botany, 2019, 70, 3835-3849.	4.8	12
53	The barrier function of plant roots: biological bases for selective uptake and avoidance of soil compounds. Functional Plant Biology, 2020, 47, 383.	2.1	12
54	Lateral Root Initiation. , 2017, , 256-264.		11

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55	Bioaccumulation of heavy metals and As in maize (Zea mays L) grown close to mine tailings strongly impacts plant development. Ecotoxicology, 2022, 31, 447-467.	2.4	11
56	Regeneration of roots from callus reveals stability of the developmental program for determinate root growth in Sonoran Desert Cactaceae. Plant Cell Reports, 2007, 26, 547-557.	5.6	10
57	Apical meristem exhaustion during determinate primary root growth in the moots koom 1 mutant of Arabidopsis thaliana. Planta, 2011, 234, 1163-1177.	3.2	10
58	Heuristic Aspect of the Lateral Root Initiation Index: A Case Study of the Role of Nitric Oxide in Root Branching. Applications in Plant Sciences, 2013, 1, 1300029.	2.1	10
59	Genetic and Phenotypic Analysis of Lateral Root Development in Arabidopsis thaliana. Methods in Molecular Biology, 2018, 1761, 47-75.	0.9	9
60	The quiescent centre of the root apical meristem: conceptual developments from Clowes to modern times. Journal of Experimental Botany, 2021, 72, 6687-6707.	4.8	8
61	Interkingdom Comparison of Threonine Metabolism for Stem Cell Maintenance in Plants and Animals. Frontiers in Cell and Developmental Biology, 2021, 9, 672545.	3.7	7
62	Systemic Phytotoxic Impact of as-Prepared Carbon Nanotubes in Long-Term Assays: A Case Study of <I>Parodia ayopayana</I> (Cactaceae). Science of Advanced Materials, 2013, 5, 1337-1345.	0.7	7
63	Celebrating 50 years of the cell cycle. Nature, 2003, 426, 759-759.	27.8	6
64	Determinate Primary Root Growth in Stenocereus gummosus (Cactaceae). , 1997, , 13-20.		6
65	Live Plant Cell Tracking: Fiji plugin to analyze cell proliferation dynamics and understand morphogenesis. Plant Physiology, 2022, 188, 846-860.	4.8	5
66	Azospirillum spp. participation in dry matter partitioning in grasses at the whole plant level. Biology and Fertility of Soils, 1996, 23, 435-440.	4.3	4
67	Visualization of the radicle within tee axis of developing and germinating Brassica napus L. embryos. Environmental and Experimental Botany, 1995, 35, 93-104.	4.2	3
68	A Squash Preparation Method for Root Meristem Field Studies. Biotechnic and Histochemistry, 1998, 73, 92-96.	1.3	3
69	Transgenic callus of Nicotiana glauca stably expressing a fungal laccase maintains its growth in presence of organic contaminants. Plant Cell, Tissue and Organ Culture, 2019, 138, 311-324.	2.3	3
70	The quiescent centre and root apical meristem: organization and function. Journal of Experimental Botany, 2021, 72, 6673-6678.	4.8	3
71	Radiomimetic Effect of Cisplatin on Cucumber Root Development: the Relationship between Cell Division and Cell Growth. Annals of Botany, 1993, 72, 143-149.	2.9	2
72	Gall-like malformations in a columnar cactusPachycereus pringleiin southern Baja California, their morphology and appearance in populations. Journal of Arid Environments, 1996, 33, 201-210.	2.4	2

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73	Editorial: Root Branching: From Lateral Root Primordium Initiation and Morphogenesis to Function. Frontiers in Plant Science, 2019, 10, 1462.	3.6	2
74	Inconsistencies in the root biology terminology: Letâ€™s communicate better. Plant and Soil, 2022, 476, 713-720.	3.7	2
75	Lateral Root Initiation in Arabidopsis: Developmental Window, Spatial Patterning, Density and Predictability. Annals of Botany, 2006, 98, 1115-1115.	2.9	0