Elison B Blancaflor

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Overexpression of WXP1, a putative Medicago truncatula AP2 domain-containing transcription factor gene, increases cuticular wax accumulation and enhances drought tolerance in transgenic alfalfa (Medicago sativa). Plant Journal, 2005, 42, 689-707.	5.7	388
2	Mapping the Functional Roles of Cap Cells in the Response of Arabidopsis Primary Roots to Gravity1. Plant Physiology, 1998, 116, 213-222.	4.8	321
3	Plant Gravitropism. Unraveling the Ups and Downs of a Complex Process. Plant Physiology, 2003, 133, 1677-1690.	4.8	301
4	Colocalization of l-Phenylalanine Ammonia-Lyase and Cinnamate 4-Hydroxylase for Metabolic Channeling in Phenylpropanoid Biosynthesis. Plant Cell, 2004, 16, 3098-3109.	6.6	291
5	Microtubules regulate tip growth and orientation in root hairs ofArabidopsis thaliana. Plant Journal, 1999, 17, 657-665.	5.7	278
6	Medicago truncatula and Glomus intraradices gene expression in cortical cells harboring arbuscules in the arbuscular mycorrhizal symbiosis. BMC Plant Biology, 2009, 9, 10.	3.6	277
7	Root traits as drivers of plant and ecosystem functioning: current understanding, pitfalls and future research needs. New Phytologist, 2021, 232, 1123-1158.	7.3	277
8	Root Traits and Phenotyping Strategies for Plant Improvement. Plants, 2015, 4, 334-355.	3.5	274
9	Auxin, actin and growth of the Arabidopsis thaliana primary root. Plant Journal, 2007, 50, 514-528.	5.7	259
10	Changes in Root Cap pH Are Required for the Gravity Response of the Arabidopsis Root. Plant Cell, 2001, 13, 907-921.	6.6	253
11	Spatial coordination of aluminium uptake, production of reactive oxygen species, callose production and wall rigidification in maize roots. Plant, Cell and Environment, 2006, 29, 1309-1318.	5.7	237
12	Functional analysis of the Arabidopsis PHT4 family of intracellular phosphate transporters. New Phytologist, 2008, 177, 889-898.	7.3	234
13	A starting guide to root ecology: strengthening ecological concepts and standardising root classification, sampling, processing and trait measurements. New Phytologist, 2021, 232, 973-1122.	7.3	216
14	Alterations in the Cytoskeleton Accompany Aluminum-Induced Growth Inhibition and Morphological Changes in Primary Roots of Maize1. Plant Physiology, 1998, 118, 159-172.	4.8	181
15	The Tobacco Mosaic Virus 126-Kilodalton Protein, a Constituent of the Virus Replication Complex, Alone or within the Complex Aligns with and Traffics along Microfilaments. Plant Physiology, 2005, 138, 1853-1865.	4.8	179
16	TCP1 Modulates Brassinosteroid Biosynthesis by Regulating the Expression of the Key Biosynthetic Gene<i>DWARF4</i>in<i>Arabidopsis thaliana</i>Â Â. Plant Cell, 2010, 22, 1161-1173.	6.6	178
17	The Potato Virus X TGBp2 Movement Protein Associates with Endoplasmic Reticulum-Derived Vesicles during Virus Infection. Plant Physiology, 2005, 138, 1877-1895.	4.8	152
18	Functional Analysis of the Cellulose Synthase-Like Genes <i>CSLD1</i>, <i>CSLD2</i>, and <i>CSLD4</i> in Tip-Growing Arabidopsis Cells. Plant Physiology, 2008, 148, 1238-1253.	4.8	142

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19	Improved imaging of actin filaments in transgenic <i>Arabidopsis</i> plants expressing a green fluorescent protein fusion to the Câ€•and Nâ€termini of the fimbrin actinâ€binding domain 2. New Phytologist, 2008, 177, 525-536.	7.3	140
20	Green fluorescent protein fusions toArabidopsisfimbrin 1 for spatio-temporal imaging of F-actin dynamics in roots. Cytoskeleton, 2004, 59, 79-93.	4.4	129
21	From Model to Crop: Functional Analysis of a <i>STAY-GREEN</i> Gene in the Model Legume <i>Medicago truncatula</i> and Effective Use of the Gene for Alfalfa Improvement Â Â. Plant Physiology, 2011, 157, 1483-1496.	4.8	124
22	Enhanced Gravitropism of Roots with a Disrupted Cap Actin Cytoskeleton. Plant Physiology, 2003, 131, 1360-1373.	4.8	120
23	The Cytoskeleton and Gravitropism in Higher Plants. Journal of Plant Growth Regulation, 2002, 21, 120-136.	5.1	118
24	The promotion of gravitropism inArabidopsisroots upon actin disruption is coupled with the extended alkalinization of the columella cytoplasm and a persistent lateral auxin gradient. Plant Journal, 2004, 39, 113-125.	5.7	118
25	SCAR Mediates Light-Induced Root Elongation in<i>Arabidopsis</i>through Photoreceptors and Proteasomes Â. Plant Cell, 2011, 23, 3610-3626.	6.6	115
26	Transcriptional response of <i>Arabidopsis</i> seedlings during spaceflight reveals peroxidase and cell wall remodeling genes associated with root hair development. American Journal of Botany, 2015, 102, 21-35.	1.7	106
27	The Potato virus X TGBp3 protein associates with the ER network for virus cell-to-cell movement. Virology, 2003, 309, 135-151.	2.4	96
28	AtCHX13 Is a Plasma Membrane K+ Transporter Â Â. Plant Physiology, 2008, 148, 796-807.	4.8	94
29	Differential effects of two phospholipase D inhibitors, 1-butanol and N-acylethanolamine, on in vivo cytoskeletal organization and Arabidopsis seedling growth. Protoplasma, 2005, 226, 109-123.	2.1	92
30	Regulation of plant gravity sensing and signaling by the actin cytoskeleton. American Journal of Botany, 2013, 100, 143-152.	1.7	88
31	Complex regulation of Arabidopsis AGR1/PIN2-mediated root gravitropic response and basipetal auxin transport by cantharidin-sensitive protein phosphatases. Plant Journal, 2005, 42, 188-200.	5.7	87
32	The potato virus x TGBp2 protein association with the endoplasmic reticulum plays a role in but is not sufficient for viral cell-to-cell movement. Virology, 2003, 312, 35-48.	2.4	84
33	The Organization of the Actin Cytoskeleton in Vertical and Graviresponding Primary Roots of Maize. Plant Physiology, 1997, 113, 1447-1455.	4.8	83
34	Elevated levels of N-lauroylethanolamine, an endogenous constituent of desiccated seeds, disrupt normal root development in Arabidopsis thaliana seedlings. Planta, 2003, 217, 206-217.	3.2	80
35	Manipulation of Arabidopsis fatty acid amide hydrolase expression modifies plant growth and sensitivity to N-acylethanolamines. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12197-12202.	7.1	77
36	Microtubule organization in root cells ofMedicago truncatula during development of an arbuscular mycorrhizal symbiosis withGlomus versiforme. Protoplasma, 2001, 217, 154-165.	2.1	76

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37	Demonstration of prominent actin filaments in the root columella. Planta, 2001, 212, 392-403.	3.2	76
38	Subcellular targeting and interactions among the Potato virus X TGB proteins. Virology, 2007, 367, 375-389.	2.4	76
39	RhizoVision Crown: An Integrated Hardware and Software Platform for Root Crown Phenotyping. Plant Phenomics, 2020, 2020, 3074916.	5.9	74
40	Time course and auxin sensitivity of cortical microtubule reorientation in maize roots. Protoplasma, 1995, 185, 72-82.	2.1	70
41	Fluorescence Resonance Energy Transfer-Sensitized Emission of Yellow Cameleon 3.60 Reveals Root Zone-Specific Calcium Signatures in Arabidopsis in Response to Aluminum and Other Trivalent Cations. Plant Physiology, 2010, 152, 1442-1458.	4.8	68
42	The <i>N</i>â€Acylethanolamineâ€Mediated Regulatory Pathway in Plants. Chemistry and Biodiversity, 2007, 4, 1933-1955.	2.1	67
43	<i>N</i>-Acylethanolamine Metabolism Interacts with Abscisic Acid Signaling in<i>Arabidopsis thaliana</i>Seedlings. Plant Cell, 2007, 19, 2454-2469.	6.6	64
44	<i>N</i>â€Acylethanolamines: lipid metabolites with functions in plant growth and development. Plant Journal, 2014, 79, 568-583.	5.7	60
45	Overexpression of a fatty acid amide hydrolase compromises innate immunity in Arabidopsis. Plant Journal, 2008, 56, 336-349.	5.7	58
46	Growth and Microtubule Orientation of Zea mays Roots Subjected to Osmotic Stress. International Journal of Plant Sciences, 1995, 156, 774-783.	1.3	57
47	Cortical Actin Filaments Potentially Interact with Cortical Microtubules in Regulating Polarity of Cell Expansion in Primary Roots of Maize (Zea mays L.). Journal of Plant Growth Regulation, 2000, 19, 406-414.	5.1	56
48	The Folylpolyglutamate Synthetase Plastidial Isoform Is Required for Postembryonic Root Development in Arabidopsis Â Â. Plant Physiology, 2011, 155, 1237-1251.	4.8	54
49	Fluorescent proteinâ€based reporters of the actin cytoskeleton in living plant cells: Fluorophore variant, actin binding domain, and promoter considerations. Cytoskeleton, 2014, 71, 311-327.	2.0	54
50	In Spite of Induced Multiple Defense Responses, Tomato Plants Infected with Cucumber mosaic virus and D Satellite RNA Succumb to Systemic Necrosis. Molecular Plant-Microbe Interactions, 2003, 16, 467-476.	2.6	52
51	A Class I ADP-Ribosylation Factor GTPase-Activating Protein Is Critical for Maintaining Directional Root Hair Growth in Arabidopsis Â Â. Plant Physiology, 2008, 147, 1659-1674.	4.8	52
52	AGD1, a class 1 ARFâ€GAP, acts in common signaling pathways with phosphoinositide metabolism and the actin cytoskeleton in controlling Arabidopsis root hair polarity. Plant Journal, 2012, 69, 1064-1076.	5.7	52
53	Developmental anatomy and auxin response of lateral root formation in Ceratopteris richardii. Journal of Experimental Botany, 2004, 55, 685-693.	4.8	48
54	The actin cytoskeleton is a suppressor of the endogenous skewing behaviour of <i><scp>A</scp>rabidopsis</i> primary roots in microgravity. Plant Biology, 2014, 16, 142-150.	3.8	47

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55	Fatty acid amide lipid mediators in plants. Plant Science, 2010, 178, 411-419.	3.6	42
56	Divergence and Redundancy in CSLD2 and CSLD3 Function During Arabidopsis Thaliana Root Hair and Female Gametophyte Development. Frontiers in Plant Science, 2012, 3, 111.	3.6	40
57	The microtubule cytoskeleton does not integrate auxin transport and gravitropism in maize roots. Physiologia Plantarum, 1999, 105, 729-738.	5.2	39
58	HLB1 Is a Tetratricopeptide Repeat Domain-Containing Protein That Operates at the Intersection of the Exocytic and Endocytic Pathways at the TGN/EE in Arabidopsis. Plant Cell, 2016, 28, 746-769.	6.6	38
59	Plant cell biology in the new millennium: new tools and new insights. American Journal of Botany, 2000, 87, 1547-1560.	1.7	37
60	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
61	Overexpression of Fatty Acid Amide Hydrolase Induces Early Flowering in Arabidopsis thaliana. Frontiers in Plant Science, 2012, 3, 32.	3.6	32
62	Ethanolamide Oxylipins of Linolenic Acid Can Negatively Regulate <i>Arabidopsis</i> Seedling Development Â. Plant Cell, 2013, 25, 3824-3840.	6.6	32
63	A Comparison of Hydroponics, Soil, and Root Staining Methods for Evaluation of Aluminum Tolerance in Medicago truncatula (Barrel Medic) Germplasm. Crop Science, 2007, 47, 321-328.	1.8	29
64	Loss of function of folylpolyglutamate synthetase 1 reduces lignin content and improves cell wall digestibility in Arabidopsis. Biotechnology for Biofuels, 2015, 8, 224.	6.2	27
65	Lipoxygenaseâ€derived 9â€hydro(pero)xides of linoleoylethanolamide interact with <scp>ABA</scp> signaling to arrest root development during Arabidopsis seedling establishment. Plant Journal, 2015, 82, 315-327.	5.7	25
66	Laser ablation of root cap cells: Implications for models of graviperception. Advances in Space Research, 1999, 24, 731-738.	2.6	24
67	Organization and Function of the Actin Cytoskeleton in Developing Root Cells. International Review of Cytology, 2006, 252, 219-264.	6.2	24
68	Mutations in Arabidopsis Fatty Acid Amide Hydrolase Reveal That Catalytic Activity Influences Growth but Not Sensitivity to Abscisic Acid or Pathogens. Journal of Biological Chemistry, 2009, 284, 34065-34074.	3.4	24
69	ERULUS Is a Plasma Membrane-Localized Receptor-Like Kinase That Specifies Root Hair Growth by Maintaining Tip-Focused Cytoplasmic Calcium Oscillations. Plant Cell, 2018, 30, 1173-1177.	6.6	24
70	TDNAscan: A Software to Identify Complete and Truncated T-DNA Insertions. Frontiers in Genetics, 2019, 10, 685.	2.3	24
71	Imaging of plant current pathways for non-invasive root Phenotyping using a newly developed electrical current source density approach. Plant and Soil, 2020, 450, 567-584.	3.7	24
72	The ARP2/3 complex, acting cooperatively with Class I formins, modulates penetration resistance in Arabidopsis against powdery mildew invasion. Plant Cell, 2021, 33, 3151-3175.	6.6	23

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73	<i>N</i> -Acylethanolamine (NAE) inhibits growth in <i>Arabidopsis thaliana</i> seedlings via ABI3-dependent and -independent pathways. Plant Signaling and Behavior, 2011, 6, 671-679.	2.4	22
74	Two Chloroplast-Localized Proteins: AtNHR2A and AtNHR2B, Contribute to Callose Deposition During Nonhost Disease Resistance in <i>Arabidopsis</i>. Molecular Plant-Microbe Interactions, 2018, 31, 1280-1290.	2.6	22
75	Migration of sperm cells during pollen tube elongation in Arabidopsis thaliana: behavior during transport, maturation and upon dissociation of male germ unit associations. Planta, 2011, 233, 325-332.	3.2	20
76	The Nodule-Specific PLAT Domain Protein NPD1 Is Required for Nitrogen-Fixing Symbiosis. Plant Physiology, 2019, 180, 1480-1497.	4.8	20
77	Plant Actin Cytoskeleton: New Functions from Old Scaffold. Plant Cell Monographs, 2018, , 103-137.	0.4	20
78	Combining loss of function of FOLYLPOLYGLUTAMATE SYNTHETASE1 and CAFFEOYL-COA 3-O-METHYLTRANSFERASE1 for lignin reduction and improved saccharification efficiency in Arabidopsis thaliana. Biotechnology for Biofuels, 2019, 12, 108.	6.2	18
79	The promotive effect of latrunculin B on maize root gravitropism is concentration dependent. Advances in Space Research, 2003, 31, 2215-2220.	2.6	17
80	Collection and Analysis of Expressed Sequence Tags Derived from Laser Capture Microdissected Switchgrass (Panicum virgatum L. Alamo) Vascular Tissues. Bioenergy Research, 2010, 3, 278-294.	3.9	15
81	Multiple Domains in MtENOD8 Protein Including the Signal Peptide Target It to The Symbiosome Â Â. Plant Physiology, 2012, 159, 299-310.	4.8	15
82	Synthesis of Phenoxyacyl-Ethanolamides and Their Effects on Fatty Acid Amide Hydrolase Activity. Journal of Biological Chemistry, 2014, 289, 9340-9351.	3.4	15
83	Overlapping and divergent signaling pathways for ARK1 and AGD1 in the control of root hair polarity in Arabidopsis thaliana. Frontiers in Plant Science, 2013, 4, 528.	3.6	14
84	Fluorescence Imaging of the Cytoskeleton in Plant Roots. Methods in Molecular Biology, 2016, 1365, 139-153.	0.9	14
85	Cell Type-Specific Imaging of Calcium Signaling in Arabidopsis thaliana Seedling Roots Using GCaMP3. International Journal of Molecular Sciences, 2020, 21, 6385.	4.1	13
86	Sample Preparation for Fluorescence Imaging of the Cytoskeleton in Fixed and Living Plant Roots. Methods in Molecular Biology, 2009, 586, 157-169.	0.9	13
87	Malonylation of Glucosylated N-Lauroylethanolamine A NEW PATHWAY THAT DETERMINES N-ACYLETHANOLAMINE METABOLIC FATE IN PLANTS. Journal of Biological Chemistry, 2016, 291, 27112-27121.	3.4	12
88	Small acidic protein 1 and SCF TIR 1 ubiquitin proteasome pathway act in concert to induce 2,4â€dichlorophenoxyacetic acidâ€mediated alteration of actin in Arabidopsis roots. Plant Journal, 2017, 89, 940-956.	5.7	12
89	Deletion analysis of AGD1 reveals domains crucial for its plasma membrane recruitment and function in root hair polarity. Journal of Cell Science, 2017, 131, .	2.0	11
90	Spatial and temporal localization of SPIRRIG and WAVE/SCAR reveal roles for these proteins in actin-mediated root hair development. Plant Cell, 2021, 33, 2131-2148.	6.6	11

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91	Methods for Detection and Identification of F-Actin in Fixed and Permeabilized Plant Tissues. , 2000, , 601-618.		11
92	Threeâ€channel electrical impedance spectroscopy for fieldâ€scale root phenotyping. The Plant Phenome Journal, 2021, 4, e20021.	2.0	10
93	Plant Gravitropism: From Mechanistic Insights into Plant Function on Earth to Plants Colonizing Other Worlds. Methods in Molecular Biology, 2022, 2368, 1-41.	0.9	10
94	A phosphorusâ€limitation induced, functionally conserved DUF506 protein is a repressor of root hair elongation in plants. New Phytologist, 2022, 233, 1153-1171.	7.3	10
95	Effects of synthetic alkamides on Arabidopsis fatty acid amide hydrolase activity and plant development. Phytochemistry, 2015, 110, 58-71.	2.9	9
96	Brassinosteroids Inhibit Autotropic Root Straightening by Modifying Filamentous-Actin Organization and Dynamics. Frontiers in Plant Science, 2020, 11, 5.	3.6	9
97	A Novel Putative Microtubule-Associated Protein Is Involved in Arbuscule Development during Arbuscular Mycorrhiza Formation. Plant and Cell Physiology, 2021, 62, 306-320.	3.1	9
98	Delaying Seed Germination and Improving Seedling Fixation: Lessons Learned During Science and Payload Verification Tests for Advanced Plant EXperiments (APEX) 02-1 in Space. Gravitational and Space Research: Publication of the American Society for Gravitational and Space Research, 2014, 2, 54-67.	0.8	8
99	Crop breeding has increased the productivity and leaf wax n-alkane concentration in a series of five winter wheat cultivars developed over the last 60 years. Journal of Plant Physiology, 2019, 243, 153056.	3.5	7
100	Silencing Folylpolyglutamate Synthetase1 (FPGS1) in Switchgrass (Panicum virgatum L.) Improves Lignocellulosic Biofuel Production. Frontiers in Plant Science, 2020, 11, 843.	3.6	6
101	Similarities Between Endocannabinoid Signaling in Animal Systems and N-Acylethanolamine Metabolism in Plants. , 2006, , 205-219.		6
102	The plastidial folylpolyglutamate synthetase and root apical meristem maintenance. Plant Signaling and Behavior, 2011, 6, 751-754.	2.4	5
103	Fern Root Development. , 0, , 192-208.		4
104	Two Wheat Cultivars with Contrasting Post-Embryonic Root Biomass Differ in Shoot Re-Growth after Defoliation: Implications for Breeding Grazing Resilient Forages. Plants, 2019, 8, 470.	3.5	4
105	Seedling Chloroplast Responses Induced by N-Linolenoylethanolamine Require Intact G-Protein Complexes. Plant Physiology, 2020, 184, 459-477.	4.8	4
106	The Actomyosin System in Plant Cell Division: Lessons Learned from Microscopy and Pharmacology. Plant Cell Monographs, 2019, , 85-100.	0.4	4
107	A chemical genetic screen uncovers a small molecule enhancer of the N-acylethanolamine degrading enzyme, fatty acid amide hydrolase, in Arabidopsis. Scientific Reports, 2017, 7, 41121.	3.3	3
108	Imaging the Cytoskeleton in Living Plant Roots. Methods in Molecular Biology, 2022, 2364, 139-148.	0.9	2

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109	Interactions of Auxinic Compounds on Ca2+ Signaling and Root Growth in <i>Arabidopsis thaliana</i>. American Journal of Plant Sciences, 2015, 06, 2989-3000.	0.8	2
110	Chemical Genetics to Uncover Mechanisms Underlying Lipid-Mediated Signaling Events in. Methods in Molecular Biology, 2021, 2213, 3-16.	0.9	2
111	Mechanisms of Gravity Perception in Higher Plants. , 0, , 3-19.		1
112	Withdrawn as duplicate: Spatial and temporal localization of SPIRRIG and WAVE/SCAR reveal roles for these proteins in actin-mediated root hair development. Plant Cell, 2021, , .	6.6	0
113	Fatty Acid Amide Hydrolase and the Metabolism of N-Acylethanolamine Lipid Mediators in Plants. Plant Cell Monographs, 2010, , 293-306.	0.4	0
114	Geoelectrical investigation of the root-soil interaction. , 2018, , .		0
115	Similarities Between Endocannabinoid Signaling in Animal Systems and N-Acylethanolamine Metabolism in Plants. , 0, , 205-219.		0