Robert Turgeon

List of Publications by Citations

89 papers	5,796 citations	45 h-index	75 g-index
92 ext. papers	6,461 ext. citations	7.6 avg, IF	5.91 L-index

#	Paper	IF	Citations
89	The developmental dynamics of the maize leaf transcriptome. *Nature Genetics*, **2010**, 42, 1060-7	36.3	550
88	Phloem transport: cellular pathways and molecular trafficking. *Annual Review of Plant Biology*, **2009**, 60, 207-21	30.7	330
87	A comprehensive picture of phloem loading strategies. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 14162-7	11.5	281
86	Sieve elements and companion cells-traffic control centers of the phloem. *Plant Cell*, **1999**, 11, 739-50	11.6	268
85	Minor vein structure and sugar transport in Arabidopsis thaliana. *Planta*, **2000**, 211, 105-11	4.7	176
84	Structural and metabolic transitions of C4 leaf development and differentiation defined by microscopy and quantitative proteomics in maize. *Plant Cell*, **2010**, 22, 3509-42	11.6	173
83	Comparative analyses of C□and C□photosynthesis in developing leaves of maize and rice. *Nature Biotechnology*, **2014**, 32, 1158-65	44.5	160
82	Phloem loading and plasmodesmata. *Trends in Plant Science*, **1996**, 1, 418-423	13.1	154
81	Allocation, stress tolerance and carbon transport in plants: how does phloem physiology affect plant ecology?. *Plant, Cell and Environment*, **2016**, 39, 709-25	8.4	120
80	Graft transmission of a floral stimulant derived from CONSTANS. *Plant Physiology*, **2004**, 135, 2271-8	6.6	119
79	The role of phloem loading reconsidered. *Plant Physiology*, **2010**, 152, 1817-23	6.6	115
78	Anatomical and photosynthetic acclimation to the light environment in species with differing mechanisms of phloem loading. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 12968-73	11.5	115
77	Raffinose oligosaccharide concentrations measured in individual cell and tissue types in Cucumis melo L. leaves: implications for phloem loading. *Planta*, **1996**, 198, 614-622	4.7	106
76	Movement of virus and photoassimilate in the phloem: a comparative analysis. *BioEssays*, **1993**, 15, 741-8	4.1	97
75	Identification of phloem involved in assimilate loading in leaves by the activity of the galactinol synthase promoter. *Plant Physiology*, **2000**, 123, 929-37	6.6	92
74	Symplastic continuity between companion cells and the translocation stream: long-distance transport is controlled by retention and retrieval mechanisms in the phloem. *Plant Physiology*, **2003**, 131, 1518-28	6.6	89
73	The puzzle of phloem pressure. *Plant Physiology*, **2010**, 154, 578-81	6.6	87

72	Scarecrow plays a role in establishing Kranz anatomy in maize leaves. *Plant and Cell Physiology*, **2012**, 53, 2030-7	4.9	84
71	Symplastic continuity between mesophyll and companion cells in minor veins of mature Cucurbita pepo L. leaves. *Planta*, **1989**, 179, 24-31	4.7	83
70	Leaf development and phloem transport in Cucurbita pepo: Transition from import to export. *Planta*, **1973**, 113, 179-91	4.7	83
69	The evolution of minor vein phloem and phloem loading. *American Journal of Botany*, **2001**, 88, 1331-1339	2.7	82
68	Phloem Loading in Coleus blumei in the Absence of Carrier-Mediated Uptake of Export Sugar from the Apoplast. *Plant Physiology*, **1990**, 94, 1244-9	6.6	81
67	Phloem loading. A reevaluation of the relationship between plasmodesmatal frequencies and loading strategies. *Plant Physiology*, **2004**, 136, 3795-803	6.6	80
66	A morphometric analysis of the phloem-unloading pathway in developing tobacco leaves. *Planta*, **1988**, 176, 307-18	4.7	75
65	Phloem loading in Verbascum phoeniceum L. depends on the synthesis of raffinose-family oligosaccharides. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 19619-24	11.5	72
64	The intermediary cell: Minor-vein anatomy and raffinose oligosaccharide synthesis in the Scrophulariaceae. *Planta*, **1993**, 191, 446	4.7	69
63	Ultrastructure of minor veins inCucurbita pepo leaves. *Protoplasma*, **1975**, 83, 217-232	3.4	69
62	Phloem loading strategies and water relations in trees and herbaceous plants. *Plant Physiology*, **2011**, 157, 1518-27	6.6	68
61	Role of light and jasmonic acid signaling in regulating foliar phloem cell wall ingrowth development. *New Phytologist*, **2007**, 173, 722-731	9.8	68
60	The origin and composition of cucurbit "phloem" exudate. *Plant Physiology*, **2012**, 158, 1873-82	6.6	67
59	Transport of sucrose, not hexose, in the phloem. *Journal of Experimental Botany*, **2012**, 63, 4315-20	7	65
58	Phloem Loading: How Leaves Gain Their Independence. *BioScience*, **2006**, 56, 15	5.7	65
57	The evidence for symplastic Phloem loading. *Plant Physiology*, **1991**, 96, 349-54	6.6	63
56	Transfer cells and solute uptake in minor veins of Pisum sativum leaves. *Planta*, **1991**, 186, 2-12	4.7	62
55	Localization of galactinol, raffinose, and stachyose synthesis in Cucurbita pepo leaves. *Planta*, **1992**, 188, 354-61	4.7	60

54	Structural and functional heterogeneity in phloem loading and transport. *Frontiers in Plant Science*, **2013**, 4, 244	6.2	59
53	Leaf development and phloem transport in Cucurbita pepo: Carbon economy. *Planta*, **1975**, 123, 53-62	4.7	58
52	Phloem loading strategies in three plant species that transport sugar alcohols. *Plant Physiology*, **2009**, 149, 1601-8	6.6	56
51	Secondary plasmodesmata formation in the minor-vein phloem of Cucumis melo L. and Cucurbita pepo L.. *Planta*, **1996**, 199, 425	4.7	55
50	Symplastic phloem loading in poplar. *Plant Physiology*, **2014**, 166, 306-13	6.6	51
49	Phloem loading, plant growth form, and climate. *Protoplasma*, **2011**, 248, 153-63	3.4	51
48	Downregulating the sucrose transporter VpSUT1 in Verbascum phoeniceum does not inhibit phloem loading. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 18849-54	11.5	50
47	Photosynthetic acclimation in the context of structural constraints to carbon export from leaves. *Photosynthesis Research*, **2007**, 94, 455-66	3.7	49
46	Leaf development and phloem transport in Cucurbita pepo: Maturation of the minor veins. *Planta*, **1976**, 129, 265-9	4.7	48
45	Functional and phylogenetic analyses of a conserved regulatory program in the phloem of minor veins. *Plant Physiology*, **2003**, 133, 1229-39	6.6	47
44	Elucidation of the Mechanisms of Long-Distance mRNA Movement in a /Tomato Heterograft System. *Plant Physiology*, **2018**, 177, 745-758	6.6	44
43	Different Patterns of Vein Loading of Exogenous [C]Sucrose in Leaves of Pisum sativum and Coleus blumei. *Plant Physiology*, **1988**, 87, 179-82	6.6	44
42	Mechanisms of phloem loading. *Current Opinion in Plant Biology*, **2018**, 43, 71-75	9.9	43
41	The geminivirus nuclear shuttle protein NSP inhibits the activity of AtNSI, a vascular-expressed Arabidopsis acetyltransferase regulated with the sink-to-source transition. *Plant Physiology*, **2006**, 140, 1317-30	6.6	43
40	Termination of nutrient import and development of vein loading capacity in albino tobacco leaves. *Plant Physiology*, **1984**, 76, 45-8	6.6	41
39	Phloem transport of antirrhinoside, an iridoid glycoside, inAsarina scandens (Scrophulariaceae). *Journal of Chemical Ecology*, **1995**, 21, 1781-8	2.7	39
38	Activation of sucrose transport in defoliated Lolium perenne L.: an example of apoplastic phloem loading plasticity. *Plant and Cell Physiology*, **2009**, 50, 1329-44	4.9	38
37	Sucrose transporter plays a role in phloem loading in CMV-infected melon plants that are defined as symplastic loaders. *Plant Journal*, **2011**, 66, 366-74	6.9	37

36	Routine cryofixation of plant tissue by propane jet freezing for freeze substitution. *Journal of Electron Microscopy Technique*, **1991**, 19, 107-17		37
35	Passive phloem loading and long-distance transport in a synthetic tree-on-a-chip. *Nature Plants*, **2017**, 3, 17032	11.5	34
34	Phloem Loading through Plasmodesmata: A Biophysical Analysis. *Plant Physiology*, **2017**, 175, 904-915	6.6	33
33	Photoassimilate-transport characteristics of nonchlorophyllous and green tissue in variegated leaves of Coleus blumei Benth. *Planta*, **1988**, 175, 1-8	4.7	33
32	mRNA is synthesized in specialized companion cells in and Maryland Mammoth tobacco leaf veins. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 2830-2835	11.5	31
31	Phloem loading in the tulip tree. Mechanisms and evolutionary implications. *Plant Physiology*, **2001**, 125, 891-9	6.6	30
30	Short-root1 plays a role in the development of vascular tissue and kranz anatomy in maize leaves. *Molecular Plant*, **2014**, 7, 1388-1392	14.4	27
29	The secret phloem of pumpkins. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 13201-2	11.5	27
28	Current perspectives on plasmodesmata: structure and function. *Physiologia Plantarum*, **1991**, 83, 194-199	4.6	27
27	Sugar synthesis and phloem loading in Coleus blumei leaves. *Planta*, **1992**, 187, 388-94	4.7	25
26	Efflux of sucrose from minor veins of tobacco leaves. *Planta*, **1984**, 161, 120-8	4.7	25
25	Galactinol Synthase Gene Expression in Melon. *Journal of the American Society for Horticultural Science*, **2003**, 128, 8-15	2.3	25
24	The complex character of photosynthesis in cucumber fruit. *Journal of Experimental Botany*, **2017**, 68, 1625-1637	7	24
23	The scaling of the hydraulic architecture in poplar leaves. *New Phytologist*, **2017**, 214, 145-157	9.8	23
22	Effect of high-pressure freezing on plant microfilament bundles. *Journal of Microscopy*, **1992**, 165, 367-376	1.9	22
21	The Geminivirus BR1 Movement Protein Binds Single-Stranded DNA and Localizes to the Cell Nucleus. *Plant Cell*, **1994**, 6, 995	11.6	20
20	Optimization of trans-splicing ribozyme efficiency and specificity by in vivo genetic selection. *Nucleic Acids Research*, **2002**, 30, e141	20.1	19
19	Differentiation of wound vessel members without DNA synthesis, mitosis or cell division. *Nature*, **1975**, 257, 806-8	50.4	19

18	Physiological and Proteomic Responses of Mulberry Trees (L.) to Combined Salt and Drought Stress. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	17
17	The hydraulic architecture of Ginkgo leaves. *American Journal of Botany*, **2017**, 104, 1285-1298	2.7	15
16	Scintillation counting of 14C-labeled soluble and insoluble compounds in plant tissue. *Analytical Biochemistry*, **1988**, 169, 424-7	3.1	15
15	Quantitative Analysis of Photosynthate Unloading in Developing Seeds of Phaseolus vulgaris L. : II. Pathway and Turgor Sensitivity. *Plant Physiology*, **1992**, 99, 643-51	6.6	14
14	Transcriptomic and functional analysis of cucumber (Cucumis sativus L.) fruit phloem during early development. *Plant Journal*, **2018**, 96, 982-996	6.9	14
13	Amborella trichopoda, plasmodesmata, and the evolution of phloem loading. *Protoplasma*, **2011**, 248, 173-80	3.4	13
12	Effects of Host Plant Development and Genetic Determinants on the Long-Distance Movement of Cauliflower Mosaic Virus in Arabidopsis. *Plant Cell*, **1993**, 5, 191	11.6	11
11	Quantifying the Capacity of Phloem Loading in Leaf Disks with [C]Sucrose. *Bio-protocol*, **2017**, 7, e2658	0.9	6
10	Plasmodesmata and solute exchange in the phloem. *Functional Plant Biology*, **2000**, 27, 521	2.7	5
9	Assessing Rates of Long-distance Carbon Transport in by Collecting Phloem Exudations into EDTA Solutions after Photosynthetic Labeling with [C]CO. *Bio-protocol*, **2017**, 7, e2656	0.9	4
8	Assessing Long-distance Transport from Photosynthetic Source Leaves to Heterotrophic Sink Organs with [C]CO. *Bio-protocol*, **2017**, 7, e2657	0.9	4
7	Phloem Biology of the Cucurbitaceae. *Plant Genetics and Genomics: Crops and Models*, **2016**, 291-305	0.2	4
6	Environmental conditions, not sugar export efficiency, limit the length of conifer leaves. *Tree Physiology*, **2019**, 39, 312-319	4.2	3
5	Modeling SLiberibacter asiaticusSMovement Within Citrus Plants. *Phytopathology*, **2021**, PHYTO12200558R	3.8	3
4	Complexity untwined: The structure and function of cucumber (Cucumis sativus L.) shoot phloem. *Plant Journal*, **2021**, 106, 1163-1176	6.9	2
3	Export of Photosynthates from the Leaf. *Advances in Photosynthesis and Respiration*, **2018**, 55-79	1.7	2
2	Changes in Photosynthate Unloading from Perfused Seed Coats of Phaseolus vulgaris L. Induced by Osmoticum and Ethylenediaminetetraacetate (EDTA). *Journal of Experimental Botany*, **1992**, 43, 1235-1241	7	1
1	(126) Morphology and Physiology of Sugar Transport in Apple Leaves. *Hortscience: A Publication of the American Society for Hortcultural Science*, **2006**, 41, 1061E-1062	2.4	