H Jochen Schenk

List of Publications by Year
in descending order

40 papers	4,756 citations	218677 26 h-index	289244 40 g-index
45 all docs	45 docs citations	45 times ranked	5274 citing authors

#	Article	IF	Citations
1	A crucial phase in plants â€“ it's a gas, gas, gas!. New Phytologist, 2022, 233, 1556-1559.	7.3	6
2	Plant sizes and shapes above and belowground and their interactions with climate. New Phytologist, 2022, 235, 1032-1056.	7.3	45
3	Nanoparticles are linked to polar lipids in xylem sap of temperate angiosperm species. Tree Physiology, 2022, , .	3.1	3
4	Positive pressure in xylem and its role in hydraulic function. New Phytologist, 2021, 230, 27-45.	7.3	39
5	Lipids in xylem sap of woody plants across the angiosperm phylogeny. Plant Journal, 2021, 105, 1477-1494.	5.7	27
6	Pore constrictions in intervessel pit membranes provide a mechanistic explanation for xylem embolism resistance in angiosperms. New Phytologist, 2021, 230, 1829-1843.	7.3	63
7	Not all lipids in xylem conduits are artefacts. A reply to Yamagishi et al.. IAWA Journal, 2021, 42, 384-385.	1.0	3
8	Within-tree variability and sample storage effects of bordered pit membranes in xylem of Acer pseudoplatanus. Trees - Structure and Function, 2020, 34, 61-71.	1.9	31
9	High porosity with tiny pore constrictions and unbending pathways characterize the 3D structure of intervessel pit membranes in angiosperm xylem. Plant, Cell and Environment, 2020, 43, 116-130.	5.7	60
10	Cavitation in lipid bilayers poses strict negative pressure stability limit in biological liquids. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10733-10739.	7.1	16
11	Dynamic surface tension of xylem sap lipids. Tree Physiology, 2020, 40, 433-444.	3.1	30
12	The stability enigma of hydraulic vulnerability curves: addressing the link between hydraulic conductivity and drought-induced embolism. Tree Physiology, 2019, 39, 1646-1664.	3.1	22
13	Function and three-dimensional structure of intervessel pit membranes in angiosperms: a review. IAWA Journal, 2019, 40, 673-702.	2.7	66
14	Vesselâ€associated cells in angiosperm xylem: Highly specialized living cells at the symplastâ€“apoplast boundary. American Journal of Botany, 2018, 105, 151-160.	1.7	55
15	From the sap's perspective: The nature of vessel surfaces in angiosperm xylem. American Journal of Botany, 2018, 105, 172-185.	1.7	43
16	Wood: Biology of a living tissue. American Journal of Botany, 2018, 105, 139-141.	1.7	2
17	Xylem Surfactants Introduce a New Element to the Cohesion-Tension Theory. Plant Physiology, 2017, 173, 1177-1196.	4.8	110
18	Dissolved atmospheric gas in xylem sap measured with membrane inlet mass spectrometry. Plant, Cell and Environment, 2016, 39, 944-950.	5.7	29

#	Article	IF	Citations
19	INTERVESSEL PIT MEMBRANE THICKNESS AS A KEY DETERMINANT OF EMBOLISM RESISTANCE IN ANGIOSPERM XYLEM. IAWA Journal, 2016, 37, 152-171.	2.7	169
20	On the ascent of sap in the presence of bubbles. American Journal of Botany, 2015, 102, 1561-1563.	1.7	44
21	Nanobubbles: a new paradigm for air-seeding in xylem. Trends in Plant Science, 2015, 20, 199-205.	8.8	138
22	Mind the bubbles: achieving stable measurements of maximum hydraulic conductivity through woody plant samples. Journal of Experimental Botany, 2011, 62, 1119-1132.	4.8	50
23	Integration of vessel traits, wood density, and height in angiosperm shrubs and trees. American Journal of Botany, 2011, 98, 915-922.	1.7	59
24	Evolutionary Ecology of Plant Signals and Toxins: A Conceptual Framework. Signaling and Communication in Plants, 2010, , 1-19.	0.7	9
25	Wood anatomy and wood density in shrubs: Responses to varying aridity along transcontinental transects. American Journal of Botany, 2009, 96, 1388-1398.	1.7	169
26	Hydraulically integrated or modular? Comparing wholeâ€plantâ€level hydraulic systems between two desert shrub species with different growth forms. New Phytologist, 2009, 183, 142-152.	7.3	28
27	Soil depth, plant rooting strategies and speciesâ€™ niches. New Phytologist, 2008, 178, 223-225.	7.3	93
28	Hydraulic integration and shrub growth form linked across continental aridity gradients. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11248-11253.	7.1	146
29	The Shallowest Possible Water Extraction Profile: A Null Model for Global Root Distributions. Vadose Zone Journal, 2008, 7, 1119-1124.	2.2	107
30	Root competition: beyond resource depletion. Journal of Ecology, 2006, 94, 725-739.	4.0	420
31	Vertical Vegetation Structure Below Ground: Scaling from Root to Globe. , 2005, , 341-373.		46
32	Mapping the global distribution of deep roots in relation to climate and soil characteristics. Geoderma, 2005, 126, 129-140.	5.1	287
33	Spatial ecology of a small desert shrub on adjacent geological substrates. Journal of Ecology, 2003, 91, 383-395.	4.0	76
34	DEFINING A PLANT'S BELOWGROUND ZONE OF INFLUENCE. Ecology, 2003, 84, 2313-2321.	3.2	195
35	THE GLOBAL BIOGEOGRAPHY OF ROOTS. Ecological Monographs, 2002, 72, 311-328.	5.4	816
36	Rooting depths, lateral root spreads and belowâ€ground/aboveâ€ground allometries of plants in waterâ€limited ecosystems. Journal of Ecology, 2002, 90, 480-494.	4.0	1,081

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37	The Global Biogeography of Roots. Ecological Monographs, 2002, 72, 311.	5.4	26
38	On the sectional nomenclature of Suaeda (Chenopodiaceae). Taxon, 2001, 50, 857-873.	0.7	16
39	Clonal splitting in desert shrubs. Plant Ecology, 1999, 141, 41-52.	1.6	50
40	Leaf anatomy and subgeneric affiliations of C3 and C4 species of Suaeda (Chenopodiaceae) in North America. American Journal of Botany, 1997, 84, 1198-1210.	1.7	39