HervÃ© Cochard

List of Publications by Year
in descending order

238 papers	22,231 citations	7551 77 h-index	10424 139 g-index
244 all docs	244 docs citations	244 times ranked	11647 citing authors

#	Article	IF	Citations
1	Hydraulic failure and tree mortality: from correlation to causation. Trends in Plant Science, 2022, 27, 335-345.	4.3	47
2	Stomatal responses in grapevine become increasingly more tolerant to low water potentials throughout the growing season. Plant Journal, 2022, 109, 804-815.	2.8	19
3	Mechanisms of woody-plant mortality under rising drought, CO2 and vapour pressure deficit. Nature Reviews Earth & Environment, 2022, 3, 294-308.	12.2	163
4	Measuring xylem hydraulic vulnerability for long-vessel species: an improved methodology with the flow centrifugation technique. Annals of Forest Science, 2022, 79, .	0.8	6
5	Drought acclimation of Quercus ilex leaves improves tolerance to moderate drought but not resistance to severe water stress. Plant, Cell and Environment, 2022, 45, 1967-1984.	2.8	26
6	Hydraulic traits are coupled with plant anatomical traits under droughtâ€“rewatering cycles in Ginkgo biloba L.. Tree Physiology, 2022, 42, 1216-1227.	1.4	5
7	Variations in bark structural properties affect both water loss and carbon economics in neotropical savanna trees in the Cerrado region of Brazil. Journal of Ecology, 2022, 110, 1826-1843.	1.9	10
8	Nighttime transpiration represents a negligible part of water loss and does not increase the risk of water stress in grapevine. Plant, Cell and Environment, 2021, 44, 387-398.	2.8	33
9	Where do leaf water leaks come from? Tradeâ€offs underlying the variability in minimum conductance across tropical savanna species with contrasting growth strategies. New Phytologist, 2021, 229, 1415-1430.	3.5	34
10	Coordination of stem and leaf traits define different strategies to regulate water loss and tolerance ranges to aridity. New Phytologist, 2021, 230, 497-509.	3.5	49
11	Seasonal and long-term consequences of esca grapevine disease on stem xylem integrity. Journal of Experimental Botany, 2021, 72, 3914-3928.	2.4	16
12	Delayed effect of drought on xylem vulnerability to embolism in Fagus sylvatica. Canadian Journal of Forest Research, 2021, 51, 622-626.	0.8	7
13	SurEau: a mechanistic model of plant water relations under extreme drought. Annals of Forest Science, 2021, 78, 1.	0.8	40
14	RNAi suppression of DNA methylation affects the drought stress response and genome integrity in transgenic poplar. New Phytologist, 2021, 232, 80-97.	3.5	31
15	Using electrical resistivity tomography to detect wetwood and estimate moisture content in silver fir (Abies alba Mill.). Annals of Forest Science, 2021, 78, 1.	0.8	9
16	Acclimation of hydraulic and morphological traits to water deficit delays hydraulic failure during simulated drought in poplar. Tree Physiology, 2021, 41, 2008-2021.	1.4	21
17	The interplay of hydraulic failure and cell vitality explains tree capacity to recover from drought. Physiologia Plantarum, 2021, 172, 247-257.	2.6	42
18	Overâ€accumulation of abscisic acid in transgenic tomato plants increases the risk of hydraulic failure. Plant, Cell and Environment, 2020, 43, 548-562.	2.8	24

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19	Water relations, photosynthesis, xylem embolism and accumulation of carbohydrates and cyclitols in two Eucalyptus species (E. camaldulensis and E. torquata) subjected to dehydrationâ€“rehydration cycle. Trees - Structure and Function, 2020, 34, 1439-1452.	0.9	11
20	Droughtâ€induced lacuna formation in the stem causes hydraulic conductance to decline before xylem embolism in Selaginella. New Phytologist, 2020, 227, 1804-1817.	3.5	18
21	The DroughtBox: A new tool for phenotyping residual branch conductance and its temperature dependence during drought. Plant, Cell and Environment, 2020, 43, 1584-1594.	2.8	26
22	Neither xylem collapse, cavitation, or changing leaf conductance drive stomatal closure in wheat. Plant, Cell and Environment, 2020, 43, 854-865.	2.8	59
23	Lack of vulnerability segmentation in four angiosperm tree species: evidence from direct X-ray microtomography observation. Annals of Forest Science, 2020, 77, 1.	0.8	26
24	The sequence and thresholds of leaf hydraulic traits underlying grapevine varietal differences in drought tolerance. Journal of Experimental Botany, 2020, 71, 4333-4344.	2.4	67
25	Hanging by a thread? Forests and drought. Science, 2020, 368, 261-266.	6.0	431
26	Mitigating the open vessel artefact in centrifuge-based measurement of embolism resistance. Tree Physiology, 2019, 39, 143-155.	1.4	17
27	On the minimum leaf conductance: its role in models of plant water use, and ecological and environmental controls. New Phytologist, 2019, 221, 693-705.	3.5	228
28	Measuring the pulse of trees; using the vascular system to predict tree mortality in the 21st century. , 2019, 7, coz046.		15
29	Exploring the Hydraulic Failure Hypothesis of Esca Leaf Symptom Formation. Plant Physiology, 2019, 181, 1163-1174.	2.3	32
30	Native-source climate determines the Douglas-fir potential of adaptation to drought. Forest Ecology and Management, 2019, 444, 9-20.	1.4	24
31	Aquaporins and water control in drought-stressed poplar leaves: A glimpse into the extraxylem vascular territories. Environmental and Experimental Botany, 2019, 162, 25-37.	2.0	19
32	Large hydraulic safety margins protect Neotropical canopy rainforest tree species against hydraulic failure during drought. Annals of Forest Science, 2019, 76, 1.	0.8	39
33	Adjustments and coordination of hydraulic, leaf and stem traits along a water availability gradient. New Phytologist, 2019, 223, 632-646.	3.5	184
34	A Structure Shaped by Fire, but Also Water: Ecological Consequences of the Variability in Bark Properties Across 31 Species From the Brazilian Cerrado. Frontiers in Plant Science, 2019, 10, 1718.	1.7	36
35	Tree differences in primary and secondary growth drive convergent scaling in leaf area to sapwood area across Europe. New Phytologist, 2018, 218, 1383-1392.	3.5	18
36	Variation in xylem vulnerability to embolism in European beech from geographically marginal populations. Tree Physiology, 2018, 38, 173-185.	1.4	93

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37	Is There Variability for Xylem Vulnerability to Cavitation in Walnut Tree Cultivars and Species (Juglans) Tj ETQq1 1 0.784314 rgBT /Ove	0.5	14
38	PtxtPME1 and homogalacturonans influence xylem hydraulic properties in poplar. Physiologia Plantarum, 2018, 163, 502-515.	2.6	6
39	Iso/Anisohydry: A Plantâ€“Environment Interaction Rather Than a Simple Hydraulic Trait. Trends in Plant Science, 2018, 23, 112-120.	4.3	243
40	Quantifying in situ phenotypic variability in the hydraulic properties of four tree species across their distribution range in Europe. PLoS ONE, 2018, 13, e0196075.	1.1	25
41	The Causes of Leaf Hydraulic Vulnerability and Its Influence on Gas Exchange in Arabidopsis thaliana. Plant Physiology, 2018, 178, 1584-1601.	2.3	50
42	An inconvenient truth about xylem resistance to embolism in the model species for refilling Laurus nobilis L.. Annals of Forest Science, 2018, 75, 1.	0.8	53
43	Embolism and mechanical resistances play a key role in dehydration tolerance of a perennial grass Dactylis glomerata L.. Annals of Botany, 2018, 122, 325-336.	1.4	28
44	Drivers of apoplastic freezing in gymnosperm and angiosperm branches. Ecology and Evolution, 2018, 8, 333-343.	0.8	16
45	Xylem resistance to embolism: presenting a simple diagnostic test for the open vessel artefact. New Phytologist, 2017, 215, 489-499.	3.5	56
46	Grapevine acclimation to water deficit: the adjustment of stomatal and hydraulic conductance differs from petiole embolism vulnerability. Planta, 2017, 245, 1091-1104.	1.6	55
47	Plant resistance to drought depends on timely stomatal closure. Ecology Letters, 2017, 20, 1437-1447.	3.0	486
48	Differences in functional and xylem anatomical features allow Cistus species to co-occur and cope differently with drought in the Mediterranean region. Tree Physiology, 2017, 37, 755-766.	1.4	22
49	Leaf vein xylem conduit diameter influences susceptibility to embolism and hydraulic decline. New Phytologist, 2017, 213, 1076-1092.	3.5	102
50	A synthesis of radial growth patterns preceding tree mortality. Global Change Biology, 2017, 23, 1675-1690.	4.2	394
51	Osmolality and Non-Structural Carbohydrate Composition in the Secondary Phloem of Trees across a Latitudinal Gradient in Europe. Frontiers in Plant Science, 2016, 7, 726.	1.7	60
52	Desiccation and Mortality Dynamics in Seedlings of Different European Beech (Fagus sylvatica L.) Populations under Extreme Drought Conditions. Frontiers in Plant Science, 2016, 7, 751.	1.7	72
53	Indirect Evidence for Genetic Differentiation in Vulnerability to Embolism in Pinus halepensis. Frontiers in Plant Science, 2016, 7, 768.	1.7	49
54	Plasticity in Vulnerability to Cavitation of Pinus canariensis Occurs Only at the Driest End of an Aridity Gradient. Frontiers in Plant Science, 2016, 7, 769.	1.7	60

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55	Ear Rachis Xylem Occlusion and Associated Loss in Hydraulic Conductance Coincide with the End of Grain Filling for Wheat. Frontiers in Plant Science, 2016, 7, 920.	1.7	11
56	Are needles of Pinus pinaster more vulnerable to xylem embolism than branches? New insights from Xâ€ray computed tomography. Plant, Cell and Environment, 2016, 39, 860-870.	2.8	74
57	Grapevine petioles are more sensitive to drought induced embolism than stems: evidence from in vivo MRI and microcomputed tomography observations of hydraulic vulnerability segmentation. Plant, Cell and Environment, 2016, 39, 1886-1894.	2.8	82
58	VvPIP2;4N aquaporin involvement in controlling leaf hydraulic capacitance and resistance in grapevine. Physiologia Plantarum, 2016, 158, 284-296.	2.6	18
59	Weak tradeoff between xylem safety and xylemâ€specific hydraulic efficiency across the world's woody plant species. New Phytologist, 2016, 209, 123-136.	3.5	466
60	On research priorities to advance understanding of the safetyâ€“efficiency tradeoff in xylem. New Phytologist, 2016, 211, 1156-1158.	3.5	21
61	Evidence for Hydraulic Vulnerability Segmentation and Lack of Xylem Refilling under Tension. Plant Physiology, 2016, 172, 1657-1668.	2.3	132
62	Direct observation and modelling of embolism spread between xylem conduits: a case study in Scots pine. Plant, Cell and Environment, 2016, 39, 2774-2785.	2.8	27
63	Testing the â€˜microbubble effectâ€™ using the Cavitron technique to measure xylem water extraction curves. AoB PLANTS, 2016, 8, .	1.2	21
64	Herbaceous angiosperms are not more vulnerable to drought-induced embolism than angiosperm trees. Plant Physiology, 2016, 172, pp.00829.2016.	2.3	70
65	Low intra-tree variability in resistance to embolism in four Pinaceae species. Annals of Forest Science, 2016, 73, 681-689.	0.8	19
66	Noninvasive Measurement of Vulnerability to Drought-Induced Embolism by X-Ray Microtomography. Plant Physiology, 2016, 170, 273-282.	2.3	133
67	Short-time xylem relaxation results in reliable quantification of embolism in grapevine petioles and sheds new light on their hydraulic strategy. Tree Physiology, 2016, 36, 748-755.	1.4	24
68	Balancing the risks of hydraulic failure and carbon starvation: a twig scale analysis in declining <scp>S</scp>cots pine. Plant, Cell and Environment, 2015, 38, 2575-2588.	2.8	79
69	Direct X-Ray Microtomography Observation Confirms the Induction of Embolism upon Xylem Cutting under Tension. Plant Physiology, 2015, 167, 40-43.	2.3	156
70	Stem xylem resistance to cavitation is related to xylem structure but not to growth and water-use efficiency at the within-population level inPopulus nigraL.. Journal of Experimental Botany, 2015, 66, 4643-4652.	2.4	41
71	Vulnerability to droughtâ€induced cavitation in poplars: synthesis and future opportunities. Plant, Cell and Environment, 2015, 38, 1233-1251.	2.8	44
72	Extreme Aridity Pushes Trees to Their Physical Limits. Plant Physiology, 2015, 168, 804-807.	2.3	51

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73	Immunolabelling of intervessel pits for polysaccharides and lignin helps in understanding their hydraulic properties in Populus tremulaâ€‰Ã—â€‰alba. Annals of Botany, 2015, 115, 187-199.	1.4	44
74	Variation in photosynthetic performance and hydraulic architecture across European beech (Fagus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 35, 34-46.	1.4	83
75	Acclimation of mechanical and hydraulic functions in trees: impact of the thigmomorphogenetic process. Frontiers in Plant Science, 2015, 6, 266.	1.7	58
76	Is acrotonic budburst pattern in spring a typical behavior of the low-chilling apple cultivar â€˜Evaâ€™ in mild winter conditions? An approach combining ex planta single-node cutting test and in planta bud water content during dormancy. Scientia Horticulturae, 2015, 188, 84-88.	1.7	6
77	Are the effects of winter temperatures on spring budburst mediated by the bud water status or related to a whole-shoot effect? Insights in the apple tree. Trees - Structure and Function, 2015, 29, 675-682.	0.9	2
78	<scp>X</scp>â€ray microtomography (microâ€<scp>CT</scp>): a reference technology for highâ€resolution quantification of xylem embolism in trees. Plant, Cell and Environment, 2015, 38, 201-206.	2.8	160
79	Tree shoot bending generates hydraulic pressure pulses: a new long-distance signal?. Journal of Experimental Botany, 2014, 65, 1997-2008.	2.4	22
80	Ultrasonic emissions reveal individual cavitation bubbles in water-stressed wood. Journal of the Royal Society Interface, 2014, 11, 20140480.	1.5	48
81	Coping with low light under high atmospheric dryness: shade acclimation in a Mediterranean conifer (Abies pinsapo Boiss.). Tree Physiology, 2014, 34, 1321-1333.	1.4	12
82	Leaf Shrinkage with Dehydration: Coordination with Hydraulic Vulnerability and Drought Tolerance Â Â Â. Plant Physiology, 2014, 164, 1772-1788.	2.3	175
83	Recent advances in tree hydraulics highlight the ecological significance of the hydraulic safety margin. New Phytologist, 2014, 203, 355-358.	3.5	158
84	Hydrolase treatments help unravel the function of intervessel pits in xylem hydraulics. Physiologia Plantarum, 2014, 150, 388-396.	2.6	14
85	Limited genetic variability and phenotypic plasticity detected for cavitation resistance in a <scp>M</scp>editerranean pine. New Phytologist, 2014, 201, 874-886.	3.5	170
86	Vulnerability to cavitation in Olea europaea currentâ€year shoots: further evidence of an openâ€vessel artifact associated with centrifuge and airâ€injection techniques. Physiologia Plantarum, 2014, 152, 465-474.	2.6	92
87	Physiological differences explain the coâ€existence of different regeneration strategies in Mediterranean ecosystems. New Phytologist, 2014, 201, 1277-1288.	3.5	90
88	Modelling the mechanical behaviour of pit membranes in bordered pits with respect to cavitation resistance in angiosperms. Annals of Botany, 2014, 114, 325-334.	1.4	59
89	Freeze-Thaw Stress: Effects of Temperature on Hydraulic Conductivity and Ultrasonic Activity in Ten Woody Angiosperms. Plant Physiology, 2014, 164, 992-998.	2.3	60
90	Strong leaf morphological, anatomical, and physiological responses of a subtropical woody bamboo (Sinarundinaria nitida) to contrasting light environments. Plant Ecology, 2014, 215, 97-109.	0.7	54

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91	How reliable are methods to assess xylem vulnerability to cavitation? The issue of 'open vessel' artifact in oaks. Tree Physiology, 2014, 34, 894-905.	1.4	78
92	The earliest wood and its hydraulic properties documented inc. 407-million-year-old fossils using synchrotron microtomography. Botanical Journal of the Linnean Society, 2014, 175, 423-437.	0.8	56
93	Gas flow in plant microfluidic networks controlled by capillary valves. Physical Review E, 2014, 89, 033019.	0.8	22
94	Hydraulic failure and repair are not routine in trees. Annals of Forest Science, 2013, 70, 659-661.	0.8	117
95	Embolism resistance as a key mechanism to understand adaptive plant strategies. Current Opinion in Plant Biology, 2013, 16, 287-292.	3.5	181
96	Methods for measuring plant vulnerability to cavitation: a critical review. Journal of Experimental Botany, 2013, 64, 4779-4791.	2.4	319
97	Evaluation of the impact of frost resistances on potential altitudinal limit of trees. Tree Physiology, 2013, 33, 891-902.	1.4	69
98	The evolution and function of vessel and pit characters with respect to cavitation resistance across 10 Prunus species. Tree Physiology, 2013, 33, 684-694.	1.4	82
99	An overview of the hydraulic systems in early land plants. IAWA Journal, 2013, 34, 333-351.	2.7	14
100	Modulation of bud survival in Populus nigra sprouts in response to water stress-induced embolism. Tree Physiology, 2013, 33, 261-274.	1.4	28
101	Water stress-induced xylem hydraulic failure is a causal factor of tree mortality in beech and poplar. Annals of Botany, 2013, 112, 1431-1437.	1.4	175
102	Aquaporins and Leaf Hydraulics: Poplar Sheds New Light. Plant and Cell Physiology, 2013, 54, 1963-1975.	1.5	44
103	Xylem embolism threshold for catastrophic hydraulic failure in angiosperm trees. Tree Physiology, 2013, 33, 672-683.	1.4	406
104	Vulnerability to cavitation, hydraulic efficiency, growth and survival in an insular pine (Pinus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 T	1.4	76
105	Arabidopsis thaliana as a model species for xylem hydraulics: does size matter?. Journal of Experimental Botany, 2013, 64, 2295-2305.	2.4	46
106	Light-mediated Kleaf induction and contribution of both the PIP1s and PIP2s aquaporins in five tree species: walnut (Juglans regia) case study. Tree Physiology, 2012, 32, 423-434.	1.4	51
107	Hydraulic efficiency and safety of vascular and non-vascular components in Pinus pinaster leaves. Tree Physiology, 2012, 32, 1161-1170.	1.4	39
108	Global convergence in the vulnerability of forests to drought. Nature, 2012, 491, 752-755.	13.7	1,944

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109	Drought-induced embolism in current-year shoots of two Mediterranean evergreen oaks. Forest Ecology and Management, 2012, 285, 1-10.	1.4	35
110	Micro-evolutionary patterns of juvenile wood density in a pine species. Plant Ecology, 2012, 213, 1781-1792.	0.7	19
111	Drought and frost resistance of trees: a comparison of four species at different sites and altitudes. Annals of Forest Science, 2012, 69, 325-333.	0.8	42
112	Cork oak (Quercus suber L.) seedlings acclimate to elevated CO2 and water stress: photosynthesis, growth, wood anatomy and hydraulic conductivity. Trees - Structure and Function, 2012, 26, 1145-1157.	0.9	43
113	Early gene expression in the walnut tree occurring during stimulation of leaf hydraulic conductance by irradiance. Biologia Plantarum, 2012, 56, 657-666.	1.9	7
114	Could rapid diameter changes be facilitated by a variable hydraulic conductance?. Plant, Cell and Environment, 2012, 35, 150-157.	2.8	76
115	Plasmodesmatal pores in the torus of bordered pit membranes affect cavitation resistance of conifer xylem. Plant, Cell and Environment, 2012, 35, 1109-1120.	2.8	66
116	No trade-off between hydraulic and mechanical properties in several transgenic poplars modified for lignins metabolism. Environmental and Experimental Botany, 2012, 77, 185-195.	2.0	35
117	Understanding trait interactions and their impacts on growth in Scots pine branches across Europe. Functional Ecology, 2012, 26, 541-549.	1.7	52
118	Hydraulic efficiency and coordination with xylem resistance to cavitation, leaf function, and growth performance among eight unrelated Populus deltoidesÃ—Populus nigra hybrids. Journal of Experimental Botany, 2011, 62, 2093-2106.	2.4	63
119	Diurnal cycles of embolism formation and repair in petioles of grapevine (Vitis vinifera cv. Chasselas). Journal of Experimental Botany, 2011, 62, 3885-3894.	2.4	135
120	How reliable is the doubleâ€ended pressure sleeve technique for assessing xylem vulnerability to cavitation in woody angiosperms?. Physiologia Plantarum, 2011, 142, 205-210.	2.6	53
121	Genetic determinism of anatomical and hydraulic traits within an apple progeny. Plant, Cell and Environment, 2011, 34, 1276-1290.	2.8	38
122	Improvement to the air-injection technique to estimate xylem vulnerability to cavitation. Trees - Structure and Function, 2011, 25, 705-710.	0.9	23
123	Phenotypic plasticity in mesic populations of Pinus pinaster improves resistance to xylem embolism (P50) under severe drought. Trees - Structure and Function, 2011, 25, 1033-1042.	0.9	102
124	Embolism induced by winter drought may be critical for the survival of Pinus sylvestris L. near its southern distribution limit. Annals of Forest Science, 2011, 68, 565.	0.8	23
125	Genetic variation of xylem hydraulic properties shows that wood density is involved in adaptation to drought in Douglas-fir (Pseudotsuga menziesii (Mirb.)). Annals of Forest Science, 2011, 68, 747-757.	0.8	48
126	Genotypic variability and phenotypic plasticity of cavitation resistance in Fagus sylvatica L. across Europe. Tree Physiology, 2011, 31, 1175-1182.	1.4	159

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127	Hydraulic traits are associated with the distribution range of two closely related Mediterranean firs, Abies alba Mill. and Abies pinsapo Boiss.. Tree Physiology, 2011, 31, 1067-1075.	1.4	29
128	Water loss regulation in mature Hevea brasiliensis: effects of intermittent drought in the rainy season and hydraulic regulation. Tree Physiology, 2011, 31, 751-762.	1.4	55
129	Decline of Leaf Hydraulic Conductance with Dehydration: Relationship to Leaf Size and Venation Architecture Â Â. Plant Physiology, 2011, 156, 832-843.	2.3	318
130	Uniform Selection as a Primary Force Reducing Population Genetic Differentiation of Cavitation Resistance across a Species Range. PLoS ONE, 2011, 6, e23476.	1.1	129
131	Effect of Trunk Locations on Micro-Change of Trunk Girth in Mature Rubber Trees (Hevea brasiliensis). Asian Journal of Plant Sciences, 2011, 10, 140-146.	0.2	0
132	Are symplast tolerance to intense drought conditions and xylem vulnerability to cavitation coordinated? An integrated analysis of photosynthetic, hydraulic and leaf level processes in two Mediterranean drought-resistant species. Environmental and Experimental Botany, 2010, 69, 233-242.	2.0	73
133	Does sample length influence the shape of xylem embolism vulnerability curves? A test with the Cavitron spinning technique. Plant, Cell and Environment, 2010, 33, no-no.	2.8	103
134	Common trade-offs between xylem resistance to cavitation and other physiological traits do not hold among unrelated Populus deltoides Ã—Populus nigra hybrids. Plant, Cell and Environment, 2010, 33, no-no.	2.8	75
135	An overview of models of stomatal conductance at the leaf level. Plant, Cell and Environment, 2010, 33, no-no.	2.8	462
136	Mechanism of waterâ€stress induced cavitation in conifers: bordered pit structure and function support the hypothesis of seal capillaryâ€seeding. Plant, Cell and Environment, 2010, 33, 2101-2111.	2.8	216
137	Poplar vulnerability to xylem cavitation acclimates to drier soil conditions. Physiologia Plantarum, 2010, 139, 280-8.	2.6	90
138	The effects of sap ionic composition on xylem vulnerability to cavitation. Journal of Experimental Botany, 2010, 61, 275-285.	2.4	59
139	Transient thermal dissipation method of xylem sap flow measurement: multi-species calibration and field evaluation. Tree Physiology, 2010, 30, 139-148.	1.4	43
140	Calcium Is a Major Determinant of Xylem Vulnerability to Cavitation. Plant Physiology, 2010, 153, 1932-1939.	2.3	48
141	Limitation of the Cavitron technique by conifer pit aspiration. Journal of Experimental Botany, 2010, 61, 3385-3393.	2.4	30
142	Decoding Leaf Hydraulics with a Spatially Explicit Model: Principles of Venation Architecture and Implications for Its Evolution. American Naturalist, 2010, 175, 447-460.	1.0	146
143	Insights into xylem vulnerability to cavitation in Fagus sylvatica L.: phenotypic and environmental sources of variability. Tree Physiology, 2010, 30, 1448-1455.	1.4	74
144	Comparative impacts of water stress on the leaf anatomy of a drought-resistant and a drought-sensitive olive cultivar. Journal of Horticultural Science and Biotechnology, 2010, 85, 289-294.	0.9	113

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145	Hydraulic Failure Defines the Recovery and Point of Death in Water-Stressed Conifers. Plant Physiology, 2009, 149, 575-584.	2.3	604
146	Hydraulic properties of naturally regenerated beech saplings respond to canopy opening. Tree Physiology, 2009, 29, 1395-1405.	1.4	15
147	New Insights into the Mechanisms of Water-Stress-Induced Cavitation in Conifers. Plant Physiology, 2009, 151, 949-954.	2.3	97
148	Capacitive effect of cavitation in xylem conduits: results from a dynamic model. Plant, Cell and Environment, 2009, 32, 10-21.	2.8	115
149	Hydraulic adjustment of Scots pine across Europe. New Phytologist, 2009, 184, 353-364.	3.5	337
150	Variation of wood density and hydraulic properties of Douglas-fir (Pseudotsuga menziesii (Mirb.)) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5 257, 182-189.	1.4	53
151	Apple shoot architecture: evidence for strong variability of bud size and composition and hydraulics within a branching zone. New Phytologist, 2008, 178, 798-807.	3.5	27
152	Water relations and drought-induced embolism in olive (Olea europaea) varieties 'Meski' and 'Chemlali' during severe drought. Tree Physiology, 2008, 28, 971-976.	1.4	69
153	Is xylem cavitation resistance a relevant criterion for screening drought resistance among Prunus species?. Journal of Plant Physiology, 2008, 165, 976-982.	1.6	111
154	Bud development and hydraulics: An innovative way to forecast shoot architecture. Communicative and Integrative Biology, 2008, 1, 9-10.	0.6	1
155	Xylem vulnerability to cavitation varies among poplar and willow clones and correlates with yield. Tree Physiology, 2007, 27, 1761-1767.	1.4	106
156	Effects of shoot bending on lateral fate and hydraulics: invariant and changing traits across five apple genotypes. Journal of Experimental Botany, 2007, 58, 4018-4018.	2.4	3
157	Effects of shoot bending on lateral fate and hydraulics: invariant and changing traits across five apple genotypes. Journal of Experimental Botany, 2007, 58, 3537-3547.	2.4	29
158	Embolism Formation during Freezing in the Wood of Picea abies Â. Plant Physiology, 2007, 143, 60-67.	2.3	82
159	Stomatal regulation and xylem cavitation in Clementine (Citrus clementinaHort) under drought conditions. Journal of Horticultural Science and Biotechnology, 2007, 82, 845-848.	0.9	17
160	Putative Role of Aquaporins in Variable Hydraulic Conductance of Leaves in Response to Light. Plant Physiology, 2007, 143, 122-133.	2.3	277
161	Cavitation in plants at low temperature: is sap transport limited by the tensile strength of water as expected from Briggsâ€™ Zâ€tube experiment?. New Phytologist, 2007, 173, 571-575.	3.5	19
162	Cavitation in trees. Comptes Rendus Physique, 2006, 7, 1018-1026.	0.3	134

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163	ROLE OF WATER AND CARBON IN TREE STEM DIAMETER VARIATIONS: A DOUBLE-GIRDLING EXPERIMENT. Acta Horticulturae, 2005, , 269-273.	0.1	2
164	WINTER BIOLOGY IN WALNUT TREE: FREEZING TOLERANCE BY COLD ACCLIMATION AND EMBOLISM REPAIR. Acta Horticulturae, 2005, , 241-249.	0.1	5
165	Evaluation of a new centrifuge technique for rapid generation of xylem vulnerability curves. Physiologia Plantarum, 2005, 124, 410-418.	2.6	260
166	Cavitation vulnerability in roots and shoots: does Populus euphratica Oliv., a poplar from arid areas of Central Asia, differ from other poplar species?. Journal of Experimental Botany, 2005, 56, 2003-2010.	2.4	135
167	Hydraulic architecture correlates with bud organogenesis and primary shoot growth in beech (Fagus) Tj ETQq1 1 0.784314 rgBT /Ove	1.4	55
168	Interspecific variation in xylem vulnerability to cavitation among tropical tree and shrub species. Tree Physiology, 2005, 25, 1553-1562.	1.4	67
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