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List of Publications by Year
in descending order

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108 papers	5,805 citations	76294 40 h-index	85498 71 g-index
112 all docs	112 docs citations	112 times ranked	5569 citing authors

#	Article	IF	Citations
1	Revisiting the Source of Wilt Symptoms: X-Ray Microcomputed Tomography Provides Direct Evidence ThatRalstoniaBiomass Clogs Xylem Vessels. PhytoFrontiers, 2022, 2, 41-51.	0.8	18
2	Root pressureâ€“volume curve traits capture rootstock drought tolerance. Annals of Botany, 2022, 129, 389-402.	1.4	13
3	Spatialâ€“temporal modeling of root zone soil moisture dynamics in a vineyard using machine learning and remote sensing. Irrigation Science, 2022, 40, 761-777.	1.3	15
4	Desiccation of the leaf mesophyll and its implications for CO₂ diffusion and light processing. Plant, Cell and Environment, 2022, 45, 1362-1381.	2.8	15
5	Impact of advection on two-source energy balance (TSEB) canopy transpiration parameterization for vineyards in the California Central Valley. Irrigation Science, 2022, 40, 575-591.	1.3	11
6	Detecting short-term stress and recovery events in a vineyard using tower-based remote sensing of photochemical reflectance index (PRI). Irrigation Science, 2022, 40, 683-696.	1.3	10
7	LAI estimation across California vineyards using sUAS multi-seasonal multi-spectral, thermal, and elevation information and machine learning. Irrigation Science, 2022, 40, 731-759.	1.3	14
8	Evapotranspiration uncertainty at micrometeorological scales: the impact of the eddy covariance energy imbalance and correction methods. Irrigation Science, 2022, 40, 445-461.	1.3	10
9	Application of a remote-sensing three-source energy balance model to improve evapotranspiration partitioning in vineyards. Irrigation Science, 2022, 40, 593-608.	1.3	11
10	Inter-annual variability of land surface fluxes across vineyards: the role of climate, phenology, and irrigation management. Irrigation Science, 2022, 40, 463-480.	1.3	5
11	Vine water status mapping with multispectral UAV imagery and machine learning. Irrigation Science, 2022, 40, 715-730.	1.3	12
12	Improving the spatiotemporal resolution of remotely sensed ET information for water management through Landsat, Sentinel-2, ECOSTRESS and VIIRS data fusion. Irrigation Science, 2022, 40, 609-634.	1.3	10
13	Structural and functional leaf diversity lead to variability in photosynthetic capacity across a range of Juglans regia genotypes. Plant, Cell and Environment, 2022, 45, 2351-2365.	2.8	8
14	Differences in grapevine rootstock sensitivity and recovery from drought are linked to fine root cortical lacunae and root tip function. New Phytologist, 2021, 229, 272-283.	3.5	50
15	Xylella fastidiosa causes transcriptional shifts that precede tylose formation and starch depletion in xylem. Molecular Plant Pathology, 2021, 22, 175-188.	2.0	21
16	Modification of a gas exchange system to measure active and passive chlorophyll fluorescence simultaneously under field conditions. AoB PLANTS, 2021, 13, plaa066.	1.2	10
17	Xylem network connectivity and embolism spread in grapevine(Vitis viniferaL.). Plant Physiology, 2021, 186, 373-387.	2.3	32
18	Evapotranspiration partitioning assessment using a machine-learning-based leaf area index and the two-source energy balance model with sUAV information. , 2021, 11747, .		4

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19	Inherent and Stress-Induced Responses of Fine Root Morphology and Anatomy in Commercial Grapevine Rootstocks with Contrasting Drought Resistance. Plants, 2021, 10, 1121.	1.6	6
20	Ecologically driven selection of nonstructural carbohydrate storage in oak trees. New Phytologist, 2021, 232, 567-578.	3.5	9
21	Determining Evapotranspiration by Using Combination Equation Models with Sentinel-2 Data and Comparison with Thermal-Based Energy Balance in a California Irrigated Vineyard. Remote Sensing, 2021, 13, 3720.	1.8	13
22	Functional hydraulic sectoring in grapevines as evidenced by sap flow, dye infusion, leaf removal and micro-computed tomography. AoB PLANTS, 2021, 13, plab003.	1.2	14
23	Maximum CO₂diffusion inside leaves is limited by the scaling of cell size and genome size. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20203145.	1.2	52
24	Microbial response to copper oxide nanoparticles in soils is controlled by land use rather than copper fate. Environmental Science: Nano, 2021, 8, 3560-3576.	2.2	7
25	Anatomical and hydraulic responses to desiccation in emergent conifer seedlings. American Journal of Botany, 2020, 107, 1177-1188.	0.8	5
26	Predicting Stomatal Closure and Turgor Loss in Woody Plants Using Predawn and Midday Water Potential. Plant Physiology, 2020, 184, 881-894.	2.3	39
27	Digitally deconstructing leaves in 3D using Xâ€ray microcomputed tomography and machine learning. Applications in Plant Sciences, 2020, 8, e11380.	0.8	23
28	Extreme heat effects on perennial crops and strategies for sustaining future production. Plant Science, 2020, 295, 110397.	1.7	36
29	A comparative study on physiological responses to drought in walnut genotypes (RX1, Vlach, VX211) commercially available as rootstocks. Trees - Structure and Function, 2020, 34, 665-678.	0.9	17
30	Coordinated decline of leaf hydraulic and stomatal conductances under drought is not linked to leaf xylem embolism for different grapevine cultivars. Journal of Experimental Botany, 2020, 71, 7286-7300.	2.4	18
31	Modeling vegetative vigour in grapevine: unraveling underlying mechanisms. Heliyon, 2020, 6, e05708.	1.4	2
32	Comparison of a stand-alone surface renewal method to weighing lysimetry and eddy covariance for determining vineyard evapotranspiration and vine water stress. Irrigation Science, 2019, 37, 737-749.	1.3	11
33	Functional Status of Xylem Through Time. Annual Review of Plant Biology, 2019, 70, 407-433.	8.6	79
34	Comparison of vineyard evapotranspiration estimates from surface renewal using measured and modelled energy balance components in the GRAPEX project. Irrigation Science, 2019, 37, 333-343.	1.3	4
35	Spatiotemporal Coupling of Vessel Cavitation and Discharge of Stored Xylem Water in a Tree Sapling. Plant Physiology, 2019, 179, 1658-1668.	2.3	39
36	An intercomparison of radiation partitioning models in vineyard canopies. Irrigation Science, 2019, 37, 239-252.	1.3	18

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37	In vivo pressure gradient heterogeneity increases flow contribution of small diameter vessels in grapevine. Nature Communications, 2019, 10, 5645.	5.8	41
38	Differences in hydraulic traits of grapevine rootstocks are not conferred to a common Vitis vinifera scion. Functional Plant Biology, 2019, 46, 228.	1.1	16
39	Crop Water Stress Index of an irrigated vineyard in the Central Valley of California. Irrigation Science, 2019, 37, 297-313.	1.3	21
40	Response and Recovery of Grapevine to Water Deficit: From Genes to Physiology. Compendium of Plant Genomes, 2019, , 223-245.	0.3	8
41	Water uptake can occur through woody portions of roots and facilitates localized embolism repair in grapevine. New Phytologist, 2018, 218, 506-516.	3.5	28
42	In vivo quantification of plant starch reserves at micrometer resolution using Xâ€ray micro<scp>CT</scp> imaging and machine learning. New Phytologist, 2018, 218, 1260-1269.	3.5	38
43	In vivo visualization of the final stages of xylem vessel refilling in grapevine (Vitis) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	3.5	56
44	The Causes of Leaf Hydraulic Vulnerability and Its Influence on Gas Exchange in Arabidopsis thaliana. Plant Physiology, 2018, 178, 1584-1601.	2.3	50
45	The Grape Remote Sensing Atmospheric Profile and Evapotranspiration Experiment. Bulletin of the American Meteorological Society, 2018, 99, 1791-1812.	1.7	88
46	Variations in xylem embolism susceptibility under drought between intact saplings of three walnut species. Tree Physiology, 2018, 38, 1180-1192.	1.4	25
47	Beyond Porosity: 3D Leaf Intercellular Airspace Traits That Impact Mesophyll Conductance. Plant Physiology, 2018, 178, 148-162.	2.3	75
48	Copper oxide nanoparticle effects on root growth and hydraulic conductivity of two vegetable crops. Plant and Soil, 2018, 431, 333-345.	1.8	32
49	Outside-Xylem Vulnerability, Not Xylem Embolism, Controls Leaf Hydraulic Decline during Dehydration. Plant Physiology, 2017, 173, 1197-1210.	2.3	195
50	Aquaporins and Root Water Uptake. Signaling and Communication in Plants, 2017, , 133-153.	0.5	47
51	Excess Diffuse Light Absorption in Upper Mesophyll Limits CO₂ Drawdown and Depresses Photosynthesis. Plant Physiology, 2017, 174, 1082-1096.	2.3	28
52	In Vivo Tracking of Copper-64 Radiolabeled Nanoparticles in Lactuca sativa. Environmental Science & Technology, 2017, 51, 12537-12546.	4.6	23
53	Storage Compartments for Capillary Water Rarely Refill in an Intact Woody Plant Â. Plant Physiology, 2017, 175, 1649-1660.	2.3	31
54	Water Management of Irrigated Cabernet Sauvignon Grapevines in Semi-Arid Areas. American Journal of Enology and Viticulture, 2017, 68, 458-467.	0.9	6

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55	The bias of a twoâ€dimensional view: comparing twoâ€dimensional and threeâ€dimensional mesophyll surface area estimates using noninvasive imaging. New Phytologist, 2017, 215, 1609-1622.	3.5	57
56	Leaf vein xylem conduit diameter influences susceptibility to embolism and hydraulic decline. New Phytologist, 2017, 213, 1076-1092.	3.5	102
57	Bark water uptake promotes localized hydraulic recovery in coastal redwood crown. Plant, Cell and Environment, 2016, 39, 320-328.	2.8	84
58	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
59	Mechanical Failure of Fine Root Cortical Cells Initiates Plant Hydraulic Decline during Drought. Plant Physiology, 2016, 172, 1669-1678.	2.3	120
60	In Situ Visualization of the Dynamics in Xylem Embolism Formation and Removal in the Absence of Root Pressure: A Study on Excised Grapevine Stems Â. Plant Physiology, 2016, 171, 1024-1036.	2.3	85
61	Effects of Various Vineyard Floor Management Techniques on Weed Community Shifts and Grapevine Water Relations. American Journal of Enology and Viticulture, 2016, 67, 153-162.	0.9	24
62	Synchrotron Xâ€ray microtomography of xylem embolism in Sequoia sempervirens saplings during cycles of drought and recovery. New Phytologist, 2015, 205, 1095-1105.	3.5	127
63	Direct X-Ray Microtomography Observation Confirms the Induction of Embolism upon Xylem Cutting under Tension. Plant Physiology, 2015, 167, 40-43.	2.3	156
64	Differential responses of grapevine rootstocks to water stress are associated with adjustments in fine root hydraulic physiology and suberization. Journal of Experimental Botany, 2015, 66, 6069-6078.	2.4	71
65	Grapevine species from varied native habitats exhibit differences in embolism formation/repair associated with leaf gas exchange and root pressure. Plant, Cell and Environment, 2015, 38, 1503-1513.	2.8	85
66	Water Transport Properties of the Grape Pedicel during Fruit Development: Insights into Xylem Anatomy and Function Using Microtomography. Plant Physiology, 2015, 168, 1590-1602.	2.3	48
67	Patterns of drought-induced embolism formation and spread in living walnut saplings visualized using X-ray microtomography. Tree Physiology, 2015, 35, 744-755.	1.4	53
68	Genes Expressed in Grapevine Leaves Reveal Latent Wood Infection by the Fungal Pathogen Neofusicoccum parvum. PLoS ONE, 2015, 10, e0121828.	1.1	44
69	Evaluating the potential of a novel dual heat-pulse sensor to measure volumetric water use in grapevines under a range of flow conditions. Functional Plant Biology, 2014, 41, 874.	1.1	27
70	Calcium partitioning and allocation and blossom-end rot development in tomato plants in response to whole-plant and fruit-specific abscisic acid treatments. Journal of Experimental Botany, 2014, 65, 235-247.	2.4	68
71	Cover Crops and Tillage in a Mature Merlot Vineyard Show Few Effects on Grapevines. American Journal of Enology and Viticulture, 2013, 64, 515-521.	0.9	28
72	Analysis of HRCT-derived xylem network reveals reverse flow in some vessels. Journal of Theoretical Biology, 2013, 333, 146-155.	0.8	25

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73	Xylem vessel relays contribute to radial connectivity in grapevine stems (Vitis vinifera and V.) Tj ETQq1 1 0.784314 rgBT /Over	0.8	66
74	Maintenance of xylem Network Transport Capacity: A Review of Embolism Repair in Vascular Plants. Frontiers in Plant Science, 2013, 4, 108.	1.7	248
75	In Vivo Visualizations of Drought-Induced Embolism Spread in Vitis vinifera Â Â Â. Plant Physiology, 2013, 161, 1820-1829.	2.3	179
76	Water Uptake along the Length of Grapevine Fine Roots: Developmental Anatomy, Tissue-Specific Aquaporin Expression, and Pathways of Water Transport Â Â. Plant Physiology, 2013, 163, 1254-1265.	2.3	109
77	Genomic <scp>DNA</scp>â€based absolute quantification of gene expression in Vitis. Physiologia Plantarum, 2013, 148, 334-343.	2.6	4
78	Using High Resolution Computed Tomography to Visualize the Three Dimensional Structure and Function of Plant Vasculature. Journal of Visualized Experiments, 2013, , .	0.2	32
79	Surface Renewal: An Advanced Micrometeorological Method for Measuring and Processing Field-Scale Energy Flux Density Data. Journal of Visualized Experiments, 2013, , e50666.	0.2	7
80	The relationship between root hydraulics and scion vigour across Vitis rootstocks: what role do root aquaporins play?. Journal of Experimental Botany, 2012, 63, 6445-6455.	2.4	103
81	X-ray micro-tomography at the Advanced Light Source. Proceedings of SPIE, 2012, , .	0.8	54
82	Structure Function Analysis of Two-Scale Scalar Ramps. Part II: Ramp Characteristics and Surface Renewal Flux Estimation. Boundary-Layer Meteorology, 2012, 145, 27-44.	1.2	35
83	Structure Function Analysis of Two-Scale Scalar Ramps. Part I: Theory and Modelling. Boundary-Layer Meteorology, 2012, 145, 5-25.	1.2	31
84	Centrifuge technique consistently overestimates vulnerability to water stressâ€induced cavitation in grapevines as confirmed with highâ€resolution computed tomography. New Phytologist, 2012, 196, 661-665.	3.5	50
85	Evaluating the Potential of Well Profiling Technology to Limit Irrigation Water Salinity in California Vineyards. Applied Engineering in Agriculture, 2012, 28, 657-664.	0.3	0
86	Influence of atmospheric and climatic change on plantâ€“pathogen interactions. Plant Pathology, 2011, 60, 54-69.	1.2	181
87	Automated analysis of threeâ€dimensional xylem networks using highâ€resolution computed tomography. New Phytologist, 2011, 191, 1168-1179.	3.5	122
88	Sugar and abscisic acid signaling orthologs are activated at the onset of ripening in grape. Planta, 2010, 232, 219-234.	1.6	183
89	Combined effects of elevated CO2 and natural climatic variation on leaf spot diseases of redbud and sweetgum trees. Environmental Pollution, 2010, 158, 108-114.	3.7	37
90	Measurement of vulnerability to water stress-induced cavitation in grapevine: a comparison of four techniques applied to a long-vesseled species. Plant, Cell and Environment, 2010, 33, no-no.	2.8	175

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91	Water uptake and hydraulic redistribution across large woody root systems to 20â€ƒm depth. Plant, Cell and Environment, 2010, 33, 2132-2148.	2.8	147
92	Elevated atmospheric carbon dioxide and ozone alter soybean diseases at SoyFACE. Global Change Biology, 2010, 16, 320-330.	4.2	113
93	The role of tyloses in crown hydraulic failure of mature walnut trees afflicted by apoplexy disorder. Tree Physiology, 2010, 30, 761-772.	1.4	35
94	The Dynamics of Embolism Repair in Xylem: In Vivo Visualizations Using High-Resolution Computed Tomography Â Â Â. Plant Physiology, 2010, 154, 1088-1095.	2.3	335
95	Hydraulic disruption and passive migration by a bacterial pathogen in oak tree xylem. Journal of Experimental Botany, 2008, 59, 2649-2657.	2.4	42
96	Aquaporinâ€mediated changes in hydraulic conductivity of deep tree roots accessed via caves. Plant, Cell and Environment, 2007, 30, 1411-1421.	2.8	82
97	Elevated CO2 reduces disease incidence and severity of a red maple fungal pathogen via changes in host physiology and leaf chemistry. Global Change Biology, 2005, 11, 1828-1836.	4.2	100
98	Variation in xylem structure and function in stems and roots of trees to 20Âm depth. New Phytologist, 2004, 163, 507-517.	3.5	243
99	Photosynthetic Responses of a Temperate Liana toXylella fastidiosaInfection and Water Stress. Journal of Phytopathology, 2004, 152, 9-20.	0.5	22
100	Gas exchange responses of a desert herbaceous perennial to variable sunlight in contrasting microhabitats. Journal of Arid Environments, 2004, 58, 439-449.	1.2	4
101	Response of three eastern tree species to supplemental UV-B radiation: leaf chemistry and gas exchange. Agricultural and Forest Meteorology, 2003, 120, 219-228.	1.9	65
102	Interactive effects of water stress and xylem-limited bacterial infection on the water relations of a host vine. Journal of Experimental Botany, 2003, 54, 419-430.	2.4	99
103	<title>Effects of UV-B radiation on phenolic composition and deposition patterns and leaf physiology in three Eastern tree species</title>. , 2002, , .		1
104	Effects of Water Stress on Symptomatology and Growth of Parthenocissus quinquefolia Infected by Xylella fastidiosa. Plant Disease, 2001, 85, 1160-1164.	0.7	89
105	Interactive effects of water stress and xylemâ€limited bacterial infection on the water relations of a host vine. , 0, .		4
106	Influence ofÂmodelingÂdomain and meteorological forcingÂdataÂonÂdaily evapotranspiration estimates from aÂShuttleworthâ€“Wallace modelÂusingÂSentinel-2 surface reflectance data. Irrigation Science, 0, , 1.	1.3	4
107	Application of the vineyard data assimilation (VIDA) system to vineyard root-zone soil moisture monitoring in the California Central Valley. Irrigation Science, 0, , 1.	1.3	6
108	Evaluating different metrics from the thermal-based two-source energy balance model for monitoring grapevine water stress. Irrigation Science, 0, , .	1.3	4