

JosÃ© Javier Peguero-Pina

List of Publications by Year in descending order

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72
papers

2,838
citations

185998
28
h-index

182168
51
g-index

74
all docs

74
docs citations

74
times ranked

3574
citing authors

#	ARTICLE	IF	CITATIONS
1	Mesophyll diffusion conductance to CO ₂ : An unappreciated central player in photosynthesis. <i>Plant Science</i> , 2012, 193-194, 70-84.	1.7	563
2	Physico-chemical properties of plant cuticles and their functional and ecological significance. <i>Journal of Experimental Botany</i> , 2017, 68, 5293-5306.	2.4	156
3	Wettability, Polarity, and Water Absorption of Holm Oak Leaves: Effect of Leaf Side and Age. <i>Plant Physiology</i> , 2014, 166, 168-180.	2.3	151
4	Photochemistry, remotely sensed physiological reflectance index and de-epoxidation state of the xanthophyll cycle in <i>Quercus coccifera</i> under intense drought. <i>Oecologia</i> , 2008, 156, 1-11.	0.9	117
5	Cell-level anatomical characteristics explain high mesophyll conductance and photosynthetic capacity in sclerophyllous Mediterranean oaks. <i>New Phytologist</i> , 2017, 214, 585-596.	3.5	104
6	Leaf anatomical properties in relation to differences in mesophyll conductance to CO ₂ and photosynthesis in two related Mediterranean <i>Abies</i> species. <i>Plant, Cell and Environment</i> , 2012, 35, 2121-2129.	2.8	99
7	Differential photosynthetic performance and photoprotection mechanisms of three Mediterranean evergreen oaks under severe drought stress. <i>Functional Plant Biology</i> , 2009, 36, 453.	1.1	75
8	Relationship between ultrasonic properties and structural changes in the mesophyll during leaf dehydration. <i>Journal of Experimental Botany</i> , 2011, 62, 3637-3645.	2.4	71
9	Morphological and physiological divergences within <i>Quercus ilex</i> support the existence of different ecotypes depending on climatic dryness. <i>Annals of Botany</i> , 2014, 114, 301-313.	1.4	66
10	Air-coupled broadband ultrasonic spectroscopy as a new non-invasive and non-contact method for the determination of leaf water status. <i>Journal of Experimental Botany</i> , 2010, 61, 1385-1391.	2.4	62
11	Physiological performance of silver-fir (<i>Abies alba</i> Mill.) populations under contrasting climates near the south-western distribution limit of the species. <i>Flora: Morphology, Distribution, Functional Ecology of Plants</i> , 2007, 202, 226-236.	0.6	55
12	Leaf morphological and physiological adaptations of a deciduous oak (<i>Quercus faginea</i> Lam.) to the Mediterranean climate: a comparison with a closely related temperate species (<i>Quercus</i>)	0.0	0
13	Living in Drylands: Functional Adaptations of Trees and Shrubs to Cope with High Temperatures and Water Scarcity. <i>Forests</i> , 2020, 11, 1028.	0.9	52
14	Noncontact and noninvasive study of plant leaves using air-coupled ultrasounds. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	50
15	Microwave I-band (1730MHz) accurately estimates the relative water content in poplar leaves. A comparison with a near infrared water index (R1300/R1450). <i>Agricultural and Forest Meteorology</i> , 2011, 151, 827-832.	1.9	49
16	<i>In situ</i> warming in the Antarctic: effects on growth and photosynthesis in Antarctic vascular plants. <i>New Phytologist</i> , 2018, 218, 1406-1418.	3.5	48
17	Photosynthetic limitations in two Antarctic vascular plants: importance of leaf anatomical traits and Rubisco kinetic parameters. <i>Journal of Experimental Botany</i> , 2017, 68, 2871-2883.	2.4	47
18	Effects of iron chlorosis and iron resupply on leaf xylem architecture, water relations, gas exchange and stomatal performance of field-grown peach (<i>Prunus persica</i>). <i>Physiologia Plantarum</i> , 2010, 138, 48-59.	2.6	45

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19	The reflectivity in the Sâ€band and the broadband ultrasonic spectroscopy as new tools for the study of water relations in <i>Vitis vinifera</i> L. <i>Physiologia Plantarum</i> , 2013, 148, 512-521.	2.6	43
20	Shear waves in vegetal tissues at ultrasonic frequencies. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	43
21	Monitoring Plant Response to Environmental Stimuli by Ultrasonic Sensing of the Leaves. <i>Ultrasound in Medicine and Biology</i> , 2014, 40, 2183-2194.	0.7	41
22	Light acclimation of photosynthesis in two closely related firs (<i>Abies pinsapo</i> Boiss. and <i>Abies</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 300-310.	1.4	40
23	Three pools of zeaxanthin in <i>Quercus coccifera</i> leaves during light transitions with different roles in rapidly reversible photoprotective energy dissipation and photoprotection. <i>Journal of Experimental Botany</i> , 2013, 64, 1649-1661.	2.4	38
24	Deciduous and evergreen oaks show contrasting adaptive responses in leaf mass per area across environments. <i>New Phytologist</i> , 2021, 230, 521-534.	3.5	38
25	Ancient cell structural traits and photosynthesis in todayâ€™s environment. <i>Journal of Experimental Botany</i> , 2017, 68, 1389-1392.	2.4	32
26	Air-coupled ultrasonic resonant spectroscopy for the study of the relationship between plant leaves' elasticity and their water content. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2012, 59, 319-325.	1.7	30
27	Coordinated modifications in mesophyll conductance, photosynthetic potentials and leaf nitrogen contribute to explain the large variation in foliage net assimilation rates across <i>Quercus ilex</i> provenances. <i>Tree Physiology</i> , 2017, 37, 1084-1094.	1.4	30
28	Instantaneous and non-destructive relative water content estimation from deep learning applied to resonant ultrasonic spectra of plant leaves. <i>Plant Methods</i> , 2019, 15, 128.	1.9	30
29	Hydraulic traits are associated with the distribution range of two closely related Mediterranean firs, <i>Abies alba</i> Mill. and <i>Abies pinsapo</i> Boiss.. <i>Tree Physiology</i> , 2011, 31, 1067-1075.	1.4	29
30	Stomatal encryption by epicuticular waxes as a plastic trait modifying gas exchange in a Mediterranean evergreen species (<i>Quercus coccifera</i> L.). <i>Plant, Cell and Environment</i> , 2013, 36, 579-589.	2.8	29
31	Ultrasonic Sensing of Plant Water Needs for Agriculture. <i>Sensors</i> , 2016, 16, 1089.	2.1	29
32	Changes of secondary metabolites in <i>Pinus sylvestris</i> L. needles under increasing soil water deficit. <i>Annals of Forest Science</i> , 2017, 74, 1.	0.8	29
33	Cavitation Limits the Recovery of Gas Exchange after Severe Drought Stress in Holm Oak (<i>Quercus ilex</i>) Tj ETQq1 1,0,784314,rgBT /Ove	0,9	29
34	Leaf functional plasticity decreases the water consumption without further consequences for carbon uptake in <i>Quercus coccifera</i> L. under Mediterranean conditions. <i>Tree Physiology</i> , 2016, 36, 356-367.	1.4	27
35	Revisiting the Functional Basis of Sclerophylly Within the Leaf Economics Spectrum of Oaks: Different Roads to Rome. <i>Current Forestry Reports</i> , 2020, 6, 260-281.	3.4	26
36	Hydraulic and photosynthetic limitations prevail over root nonâ€structural carbohydrate reserves as drivers of resprouting in two Mediterranean oaks. <i>Plant, Cell and Environment</i> , 2020, 43, 1944-1957.	2.8	24

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37	Embolism induced by winter drought may be critical for the survival of <i>Pinus sylvestris</i> L. near its southern distribution limit. <i>Annals of Forest Science</i> , 2011, 68, 565.	0.8	23
38	Drought Response in Forest Trees: From the Species to the Gene. , 2012, , 293-333.		23
39	Evidence of vulnerability segmentation in a deciduous Mediterranean oak (<i>Quercus subpyrenaica</i> E. H.) Tj ETQq1 1 0.784314 rgBT /OV 0.9 23	0.9	23
40	Cuticular wax coverage and its transpiration barrier properties in <i>Quercus coccifera</i> L. leaves: does the environment matter?. <i>Tree Physiology</i> , 2020, 40, 827-840.	1.4	22
41	Ã‰valuation des dÃ©gÃ¢ts du froid dans les troncs de <i>Pinus sylvestris</i> L. par la mesure de la fluorescence de la chlorophylle dans le chlorenchyme cortical de lâ€™Ã©corce. <i>Annals of Forest Science</i> , 2008, 65, 813-813.	0.8	20
42	Oaks Under Mediterranean-Type Climates: Functional Response to Summer Aridity. <i>Tree Physiology</i> , 2017, , 137-193.	0.9	20
43	Photosystem II efficiency of the palisade and spongy mesophyll in <i>Quercus coccifera</i> using adaxial/abaxial illumination and excitation light sources with wavelengths varying in penetration into the leaf tissue. <i>Photosynthesis Research</i> , 2009, 99, 49-61.	1.6	18
44	Evaluation of unventilated treeshelters in the context of Mediterranean climate: Insights from a study on <i>Quercus faginea</i> seedlings assessed with a 3D architectural plant model. <i>Ecological Engineering</i> , 2010, 36, 517-526.	1.6	17
45	Contrasting functional strategies following severe drought in two Mediterranean oaks with different leaf habit: <i>Quercus faginea</i> and <i>Quercus ilex</i> subsp. <i>rotundifolia</i> . <i>Tree Physiology</i> , 2021, 41, 371-387.	1.4	17
46	Ultrasonic spectroscopy allows a rapid determination of the relative water content at the turgor loss point: a comparison with pressure-volume curves in 13 woody species. <i>Tree Physiology</i> , 2013, 33, 695-700.	1.4	15
47	The Application of Leaf Ultrasonic Resonance to <i>Vitis vinifera</i> L. Suggests the Existence of a Diurnal Osmotic Adjustment Subjected to Photosynthesis. <i>Frontiers in Plant Science</i> , 2016, 7, 1601.	1.7	13
48	Coping with low light under high atmospheric dryness: shade acclimation in a Mediterranean conifer (<i>Abies pinsapo</i> Boiss.). <i>Tree Physiology</i> , 2014, 34, 1321-1333.	1.4	12
49	Delineating limits: Confronting predicted climatic suitability to field performance in mistletoe populations. <i>Journal of Ecology</i> , 2018, 106, 2218-2229.	1.9	12
50	Non-contact ultrasonic resonant spectroscopy resolves the elastic properties of layered plant tissues. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	12
51	Chl Fluorescence Parameters and Leaf Reflectance Indices Allow Monitoring Changes in the Physiological Status of <i>Quercus ilex</i> L. under Progressive Water Deficit. <i>Forests</i> , 2018, 9, 400.	0.9	12
52	Determination of plant leaves water status using air-coupled ultrasounds. , 2009, , .		11
53	Positively selected amino acid replacements within the RuBisCO enzyme of oak trees are associated with ecological adaptations. <i>PLoS ONE</i> , 2017, 12, e0183970.	1.1	11
54	Oaks and People: A Long Journey Together. <i>Tree Physiology</i> , 2017, , 1-11.	0.9	10

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55	Day length regulates seasonal patterns of stomatal conductance in <i>Quercus</i> species. <i>Plant, Cell and Environment</i> , 2020, 43, 28-39.	2.8	10
56	Genetic and environmental characterization of <i>Abies alba</i> Mill. populations at its western rear edge. <i>Pirineos</i> , 2014, 169, e007.	0.6	9
57	Summer and winter can equally stress holm oak (<i>Quercus ilex</i> L.) in Mediterranean areas: A physiological view. <i>Flora: Morphology, Distribution, Functional Ecology of Plants</i> , 2022, 290, 152058.	0.6	8
58	Surface Density of the Spongy and Palisade Parenchyma Layers of Leaves Extracted From Wideband Ultrasonic Resonance Spectra. <i>Frontiers in Plant Science</i> , 2020, 11, 695.	1.7	7
59	Self-shading in cork oak seedlings: Functional implications in heterogeneous light environments. <i>Acta Oecologica</i> , 2010, 36, 423-430.	0.5	6
60	The Role of Mesophyll Conductance in Oak Photosynthesis: Among- and Within-Species Variability. <i>Tree Physiology</i> , 2017, , 303-325.	0.9	6
61	Photoprotective Mechanisms in the Genus <i>Quercus</i> in Response to Winter Cold and Summer Drought. <i>Tree Physiology</i> , 2017, , 361-391.	0.9	6
62	Elevated atmospheric CO ₂ modifies responses to water stress and flowering of Mediterranean desert truffle mycorrhizal shrubs. <i>Physiologia Plantarum</i> , 2020, 170, 537-549.	2.6	6
63	Southeastern Rear Edge Populations of <i>Quercus suber</i> L. Showed Two Alternative Strategies to Cope with Water Stress. <i>Forests</i> , 2020, 11, 1344.	0.9	5
64	Contact-less, non-resonant and high-frequency ultrasonic technique: Towards a universal tool for plant leaf study. <i>Computers and Electronics in Agriculture</i> , 2022, 199, 107160.	3.7	4
65	Shear waves in plant leaves at ultrasonic frequencies: Shear properties of vegetal tissues. , 2012, , .		3
66	Leaf vein density enhances vascular redundancy instead of carbon uptake at the expense of increasing water leaks in oaks. <i>Environmental and Experimental Botany</i> , 2021, 188, 104527.	2.0	3
67	Minimum Leaf Conductance (g _{min}) Is Higher in the Treeline of <i>Pinus uncinata</i> Ram. in the Pyrenees: Michaelis-Menten Hypothesis Revisited. <i>Frontiers in Plant Science</i> , 2021, 12, 786933.	1.7	3
68	Changes in the Abundance of Monoterpenes from Breathable Air of a Mediterranean Conifer Forest: When Is the Best Time for a Human Healthy Leisure Activity?. <i>Forests</i> , 2022, 13, 965.	0.9	3
69	Cuticular wax coverage and its transpiration barrier properties in <i>Quercus coccifera</i> L. leaves: does the environment matter?. <i>Tree Physiology</i> , 2019, , .	1.4	2
70	Change in the terpenoid profile and secondary growth in declining stands of <i>Pinus sylvestris</i> L. under mediterranean influence as a response to local factors. <i>Pirineos</i> , 2014, 169, e003.	0.6	2
71	Cell-level anatomy explains leaf age-dependent declines in mesophyll conductance and photosynthetic capacity in the evergreen Mediterranean oak <i>Quercus ilex</i> subsp. <i>rotundifolia</i> . <i>Tree Physiology</i> , 2022, , .	1.4	2
72	Monitoring of Plant Light/Dark Cycles Using Air-coupled Ultrasonic Spectroscopy. <i>Physics Procedia</i> , 2015, 63, 91-96.	1.2	0