

Domingo Sancho-Knapik

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

1,846
citations

236925

25
h-index

276875

41
g-index

59
all docs

59
docs citations

59
times ranked

2395
citing authors

#	ARTICLE	IF	CITATIONS
1	Physico-chemical properties of plant cuticles and their functional and ecological significance. <i>Journal of Experimental Botany</i> , 2017, 68, 5293-5306.	4.8	156
2	Wettability, Polarity, and Water Absorption of Holm Oak Leaves: Effect of Leaf Side and Age. <i>Plant Physiology</i> , 2014, 166, 168-180.	4.8	151
3	Cell-level anatomical characteristics explain high mesophyll conductance and photosynthetic capacity in sclerophyllous Mediterranean oaks. <i>New Phytologist</i> , 2017, 214, 585-596.	7.3	104
4	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.	5.7	99
5	Differential photosynthetic performance and photoprotection mechanisms of three Mediterranean evergreen oaks under severe drought stress. <i>Functional Plant Biology</i> , 2009, 36, 453.	2.1	75
6	Relationship between ultrasonic properties and structural changes in the mesophyll during leaf dehydration. <i>Journal of Experimental Botany</i> , 2011, 62, 3637-3645.	4.8	71
7	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.	2.9	66
8	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.	4.8	62
9	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>)	1.0784314	40
10	Living in Drylands: Functional Adaptations of Trees and Shrubs to Cope with High Temperatures and Water Scarcity. <i>Forests</i> , 2020, 11, 1028.	2.1	52
11	Noncontact and noninvasive study of plant leaves using air-coupled ultrasounds. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	50
12	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.	4.8	49
13	In situ warming in the Antarctic: effects on growth and photosynthesis in Antarctic vascular plants. <i>New Phytologist</i> , 2018, 218, 1406-1418.	7.3	48
14	The reflectivity in the S-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.	5.2	43
15	Shear waves in vegetal tissues at ultrasonic frequencies. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	43
16	Monitoring Plant Response to Environmental Stimuli by Ultrasonic Sensing of the Leaves. <i>Ultrasound in Medicine and Biology</i> , 2014, 40, 2183-2194.	1.5	41
17	Light acclimation of photosynthesis in two closely related firs (<i>Abies pinsapo</i> Boiss. and <i>Abies</i>)	3.1	40
18	Deciduous and evergreen oaks show contrasting adaptive responses in leaf mass per area across environments. <i>New Phytologist</i> , 2021, 230, 521-534.	7.3	38

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19	Ancient cell structural traits and photosynthesis in today's environment. <i>Journal of Experimental Botany</i> , 2017, 68, 1389-1392.	4.8	32
20	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.	3.0	30
21	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.	3.1	30
22	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.	4.3	30
23	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.	3.1	29
24	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.	5.7	29
25	Ultrasonic Sensing of Plant Water Needs for Agriculture. <i>Sensors</i> , 2016, 16, 1089.	3.8	29
26	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.	2.0	29
27	Cavitation Limits the Recovery of Gas Exchange after Severe Drought Stress in Holm Oak (<i>Quercus ilex</i>) <i>Tj ETQq1 1,0,784314,rgBT /O</i>	2.1	29
28	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.	3.1	27
29	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.	7.4	26
30	Hydraulic and photosynthetic limitations prevail over root non-structural carbohydrate reserves as drivers of resprouting in two Mediterranean oaks. <i>Plant, Cell and Environment</i> , 2020, 43, 1944-1957.	5.7	24
31	Evidence of vulnerability segmentation in a deciduous Mediterranean oak (<i>Quercus subpyrenaica</i> E. H.) <i>Tj ETQq1 1 0,784314,rgBT /O</i>	1.9	28
32	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.	3.1	22
33	Oaks Under Mediterranean-Type Climates: Functional Response to Summer Aridity. <i>Tree Physiology</i> , 2017, , 137-193.	2.5	20
34	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.	3.1	17
35	Drought-Induced Oak Decline—Factors Involved, Physiological Dysfunctions, and Potential Attenuation by Forestry Practices. <i>Tree Physiology</i> , 2017, , 419-451.	2.5	16
36	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.	3.1	15

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37	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.	3.6	13
38	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.	3.1	12
39	Non-contact ultrasonic resonant spectroscopy resolves the elastic properties of layered plant tissues. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	12
40	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.	2.1	12
41	Determination of plant leaves water status using air-coupled ultrasounds. , 2009, , .		11
42	Positively selected amino acid replacements within the RuBisCO enzyme of oak trees are associated with ecological adaptations. <i>PLoS ONE</i> , 2017, 12, e0183970.	2.5	11
43	Oaks and People: A Long Journey Together. <i>Tree Physiology</i> , 2017, , 1-11.	2.5	10
44	Day length regulates seasonal patterns of stomatal conductance in <i>Quercus</i> species. <i>Plant, Cell and Environment</i> , 2020, 43, 28-39.	5.7	10
45	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
46	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.	1.2	8
47	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.	3.6	7
48	The Role of Mesophyll Conductance in Oak Photosynthesis: Among- and Within-Species Variability. <i>Tree Physiology</i> , 2017, , 303-325.	2.5	6
49	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.	2.1	5
50	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.	7.7	4
51	Shear waves in plant leaves at ultrasonic frequencies: Shear properties of vegetal tissues. , 2012, , .		3
52	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.	4.2	3
53	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.	3.6	3
54	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.	2.1	3

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55	Cuticular wax coverage and its transpiration barrier properties in <i>Quercus coccifera</i> L. leaves: does the environment matter?. <i>Tree Physiology</i> , 2019, , .	3.1	2
56	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
57	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, , .	3.1	2
58	Monitoring of Plant Light/Dark Cycles Using Air-coupled Ultrasonic Spectroscopy. <i>Physics Procedia</i> , 2015, 63, 91-96.	1.2	0