Eustaquio Gil-PelegrÃ-n

List of Publications by Year
in descending order

105 papers	4,519 citations	70961 41 h-index	118652 62 g-index
106 all docs	106 docs citations	106 times ranked	4640 citing authors

#	Article	IF	Citations
1	Climate-change-driven growth decline of European beech forests. Communications Biology, 2022, 5, 163.	2.0	89
2	Summer and winter can equally stress holm oak (Quercus ilex L.) in Mediterranean areas: A physiological view. Flora: Morphology, Distribution, Functional Ecology of Plants, 2022, 290, 152058.	0.6	8
3	Cell-level anatomy explains leaf age-dependent declines in mesophyll conductance and photosynthetic capacity in the evergreen Mediterranean oak Quercus ilex subsp. rotundifolia. Tree Physiology, 2022, , .	1.4	2
4	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?. Forests, 2022, 13, 965.	0.9	3
5	Contact-less, non-resonant and high-frequency ultrasonic technique: Towards a universal tool for plant leaf study. Computers and Electronics in Agriculture, 2022, 199, 107160.	3.7	4
6	Foliar water and solute absorption: an update. Plant Journal, 2021, 105, 870-883.	2.8	65
7	Deciduous and evergreen oaks show contrasting adaptive responses in leaf mass per area across environments. New Phytologist, 2021, 230, 521-534.	3.5	38
8	Contrasting functional strategies following severe drought in two Mediterranean oaks with different leaf habit:Quercus fagineaandQuercus ilexsubsp.rotundifolia. Tree Physiology, 2021, 41, 371-387.	1.4	17
9	Mechanisms of Adaptation of Trees and Shrubs to Dry and Hot Environments. Forests, 2021, 12, 1080.	0.9	0
10	Leaf vein density enhances vascular redundancy instead of carbon uptake at the expense of increasing water leaks in oaks. Environmental and Experimental Botany, 2021, 188, 104527.	2.0	3
11	Minimum Leaf Conductance (gmin) Is Higher in the Treeline of Pinus uncinata Ram. in the Pyrenees: Michaelisâ€™ Hypothesis Revisited. Frontiers in Plant Science, 2021, 12, 786933.	1.7	3
12	Day length regulates seasonal patterns of stomatal conductance in Quercus species. Plant, Cell and Environment, 2020, 43, 28-39.	2.8	10
13	Cuticular wax coverage and its transpiration barrier properties in Quercus coccifera L. leaves: does the environment matter?. Tree Physiology, 2020, 40, 827-840.	1.4	22
14	Living in Drylands: Functional Adaptations of Trees and Shrubs to Cope with High Temperatures and Water Scarcity. Forests, 2020, 11, 1028.	0.9	52
15	Elevated atmospheric CO 2 modifies responses to waterâ€stress and flowering of Mediterranean desert truffle mycorrhizal shrubs. Physiologia Plantarum, 2020, 170, 537-549.	2.6	6
16	Revisiting the Functional Basis of Sclerophylly Within the Leaf Economics Spectrum of Oaks: Different Roads to Rome. Current Forestry Reports, 2020, 6, 260-281.	3.4	26
17	Hydraulic and photosynthetic limitations prevail over root nonâ€structural carbohydrate reserves as drivers of resprouting in two Mediterranean oaks. Plant, Cell and Environment, 2020, 43, 1944-1957.	2.8	24
18	Surface Density of the Spongy and Palisade Parenchyma Layers of Leaves Extracted From Wideband Ultrasonic Resonance Spectra. Frontiers in Plant Science, 2020, 11, 695.	1.7	7

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19	Southeastern Rear Edge Populations of Quercus suber L. Showed Two Alternative Strategies to Cope with Water Stress. Forests, 2020, 11, 1344.	0.9	5
20	Cuticular wax coverage and its transpiration barrier properties in Quercus coccifera L. leaves: does the environment matter?. Tree Physiology, 2019, , .	1.4	2
21	Instantaneous and non-destructive relative water content estimation from deep learning applied to resonant ultrasonic spectra of plant leaves. Plant Methods, 2019, 15, 128.	1.9	30
22	Biotic factors and increasing aridity shape the altitudinal shifts of marginal Pyrenean silver fir populations in Europe. Forest Ecology and Management, 2019, 432, 558-567.	1.4	18
23	In situ warming in the Antarctic: effects on growth and photosynthesis in Antarctic vascular plants. New Phytologist, 2018, 218, 1406-1418.	3.5	48
24	Delineating limits: Confronting predicted climatic suitability to field performance in mistletoe populations. Journal of Ecology, 2018, 106, 2218-2229.	1.9	12
25	Non-contact ultrasonic resonant spectroscopy resolves the elastic properties of layered plant tissues. Applied Physics Letters, 2018, 113, .	1.5	12
26	Chl Fluorescence Parameters and Leaf Reflectance Indices Allow Monitoring Changes in the Physiological Status of Quercus ilex L. under Progressive Water Deficit. Forests, 2018, 9, 400.	0.9	12
27	A trade-off between embolism resistance and bark thickness in conifers: are drought and fire adaptations antagonistic?. Plant Ecology and Diversity, 2018, 11, 253-258.	1.0	12
28	Cavitation Limits the Recovery of Gas Exchange after Severe Drought Stress in Holm Oak (Quercus ilex) Tj ETQq0 0 0 rgBT /Overlock 10	0.9	29
29	Cellâ€level anatomical characteristics explain high mesophyll conductance and photosynthetic capacity in sclerophyllous Mediterranean oaks. New Phytologist, 2017, 214, 585-596.	3.5	104
30	Changes of secondary metabolites in Pinus sylvestris L. needles under increasing soil water deficit. Annals of Forest Science, 2017, 74, 1.	0.8	29
31	Coordinated modifications in mesophyll conductance, photosynthetic potentials and leaf nitrogen contribute to explain the large variation in foliage net assimilation rates across Quercus ilex provenances. Tree Physiology, 2017, 37, 1084-1094.	1.4	30
32	Contrasting ecophysiological strategies related to drought: the case of a mixed stand of Scots pine (Pinus sylvestris) and a submediterranean oak (Quercus subpyrenaica). Tree Physiology, 2017, 37, 1478-1492.	1.4	43
33	Physico-chemical properties of plant cuticles and their functional and ecological significance. Journal of Experimental Botany, 2017, 68, 5293-5306.	2.4	156
34	Oaks and People: A Long Journey Together. Tree Physiology, 2017, , 1-11.	0.9	10
35	The Role of Mesophyll Conductance in Oak Photosynthesis: Among- and Within-Species Variability. Tree Physiology, 2017, , 303-325.	0.9	6
36	Physiological Keys for Natural and Artificial Regeneration of Oaks. Tree Physiology, 2017, , 453-511.	0.9	9

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37	Oaks Under Mediterranean-Type Climates: Functional Response to Summer Aridity. Tree Physiology, 2017, , 137-193.	0.9	20
38	Drought-Induced Oak Declineâ€"Factors Involved, Physiological Dysfunctions, and Potential Attenuation by Forestry Practices. Tree Physiology, 2017, , 419-451.	0.9	16
39	Ancient cell structural traits and photosynthesis in todayâ€™s environment. Journal of Experimental Botany, 2017, 68, 1389-1392.	2.4	32
40	Oaks Physiological Ecology. Exploring the Functional Diversity of Genus Quercus L.. Tree Physiology, 2017, , .	0.9	45
41	Photosynthetic limitations in two Antarctic vascular plants: importance of leaf anatomical traits and Rubisco kinetic parameters. Journal of Experimental Botany, 2017, 68, 2871-2883.	2.4	47
42	Positively selected amino acid replacements within the RuBisCO enzyme of oak trees are associated with ecological adaptations. PLoS ONE, 2017, 12, e0183970.	1.1	11
43	Ultrasonic Sensing of Plant Water Needs for Agriculture. Sensors, 2016, 16, 1089.	2.1	29
44	Living on the Edge: Contrasted Wood-Formation Dynamics in Fagus sylvatica and Pinus sylvestris under Mediterranean Conditions. Frontiers in Plant Science, 2016, 7, 370.	1.7	47
45	The Application of Leaf Ultrasonic Resonance to Vitis vinifera L. Suggests the Existence of a Diurnal Osmotic Adjustment Subjected to Photosynthesis. Frontiers in Plant Science, 2016, 7, 1601.	1.7	13
46	Leaf functional plasticity decreases the water consumption without further consequences for carbon uptake inQuercus cocciferaL. under Mediterranean conditions. Tree Physiology, 2016, 36, 356-367.	1.4	27
47	Light acclimation of photosynthesis in two closely related firs (Abies pinsapoBoiss. andAbies) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 300-310.	1.4	40
48	Leaf morphological and physiological adaptations of a deciduous oak (Quercus fagineaLam.) to the Mediterranean climate: a comparison with a closely related temperate species (Quercus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 29	1.4	52
49	Monitoring of Plant Light/Dark Cycles Using Air-coupled Ultrasonic Spectroscopy. Physics Procedia, 2015, 63, 91-96.	1.2	0
50	Evidence of vulnerability segmentation in a deciduous Mediterranean oak (Quercus subpyrenaica E. H.) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.9	23
51	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
52	Wettability, Polarity, and Water Absorption of Holm Oak Leaves: Effect of Leaf Side and Age. Plant Physiology, 2014, 166, 168-180.	2.3	151
53	Morphological and physiological divergences within Quercus ilex support the existence of different ecotypes depending on climatic dryness. Annals of Botany, 2014, 114, 301-313.	1.4	66
54	Monitoring Plant Response to Environmental Stimuli by Ultrasonic Sensing of the Leaves. Ultrasound in Medicine and Biology, 2014, 40, 2183-2194.	0.7	41

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55	Genetic and environmental characterization of Abies alba Mill. populations at its western rear edge. Pirineos, 2014, 169, e007.	0.6	9
56	The reflectivity in the Sâ€band and the broadband ultrasonic spectroscopy as new tools for the study of water relations in Vitis vinifera L.. Physiologia Plantarum, 2013, 148, 512-521.	2.6	43
57	Physiological and Proteomic Analyses of Drought Stress Response in Holm Oak Provenances. Journal of Proteome Research, 2013, 12, 5110-5123.	1.8	53
58	Stomatal encryption by epicuticular waxes as a plastic trait modifying gas exchange in a Mediterranean evergreen species (Quercus coccifera L.). Plant, Cell and Environment, 2013, 36, 579-589.	2.8	29
59	Shear waves in vegetal tissues at ultrasonic frequencies. Applied Physics Letters, 2013, 102, .	1.5	43
60	Differences in the leaf functional traits of six beech (Fagus sylvatica L.) populations are reflected in their response to water limitation. Environmental and Experimental Botany, 2013, 87, 110-119.	2.0	56
61	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. Tree Physiology, 2013, 33, 695-700.	1.4	15
62	Three pools of zeaxanthin in Quercus coccifera leaves during light transitions with different roles in rapidly reversible photoprotective energy dissipation and photoprotection. Journal of Experimental Botany, 2013, 64, 1649-1661.	2.4	38
63	Differences in hydraulic architecture between mesic and xeric Pinus pinaster populations at the seedling stage. Tree Physiology, 2012, 32, 1442-1457.	1.4	47
64	Shear waves in plant leaves at ultrasonic frequencies: Shear properties of vegetal tissues. , 2012, , .		3
65	Air-coupled ultrasonic resonant spectroscopy for the study of the relationship between plant leaves' elasticity and their water content. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 319-325.	1.7	30
66	Aridity promotes differences in proline and phytohormone levels in Pinus pinaster populations from contrasting environments. Trees - Structure and Function, 2012, 26, 799-808.	0.9	26
67	Leaf anatomical properties in relation to differences in mesophyll conductance to CO₂ and photosynthesis in two related Mediterranean Abies species. Plant, Cell and Environment, 2012, 35, 2121-2129.	2.8	99
68	Microwave l-band (1730MHz) accurately estimates the relative water content in poplar leaves. A comparison with a near infrared water index (R1300/R1450). Agricultural and Forest Meteorology, 2011, 151, 827-832.	1.9	49
69	Synergistic effects of past historical logging and drought on the decline of Pyrenean silver fir forests. Forest Ecology and Management, 2011, 262, 759-769.	1.4	144
70	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
71	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
72	Studies of variability in Holm oak (Quercus ilex subsp. ballota [Desf.] Samp.) through acorn protein profile analysis. Journal of Proteomics, 2011, 74, 1244-1255.	1.2	63

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73	Relationship between ultrasonic properties and structural changes in the mesophyll during leaf dehydration. Journal of Experimental Botany, 2011, 62, 3637-3645.	2.4	71
74	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
75	Intraspecific Variation in Pinus Pinaster PSII Photochemical Efficiency in Response to Winter Stress and Freezing Temperatures. PLoS ONE, 2011, 6, e28772.	1.1	26
76	Phenotypic plasticity in Pinus pinaster Î´13C: environment modulates genetic variation. Annals of Forest Science, 2010, 67, 812-812.	0.8	44
77	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
78	Evaluation of unventilated treeshelters in the context of Mediterranean climate: Insights from a study on Quercus faginea seedlings assessed with a 3D architectural plant model. Ecological Engineering, 2010, 36, 517-526.	1.6	17
79	Effects of iron chlorosis and iron resupply on leaf xylem architecture, water relations, gas exchange and stomatal performance of field-grown peach (Prunus persica). Physiologia Plantarum, 2010, 138, 48-59.	2.6	45
80	Air-coupled broadband ultrasonic spectroscopy as a new non-invasive and non-contact method for the determination of leaf water status. Journal of Experimental Botany, 2010, 61, 1385-1391.	2.4	62
81	Self-shading in cork oak seedlings: Functional implications in heterogeneous light environments. Acta Oecologica, 2010, 36, 423-430.	0.5	6
82	Noncontact and noninvasive study of plant leaves using air-coupled ultrasounds. Applied Physics Letters, 2009, 95, .	1.5	50
83	Differential photosynthetic performance and photoprotection mechanisms of three Mediterranean evergreen oaks under severe drought stress. Functional Plant Biology, 2009, 36, 453.	1.1	75
84	Photosystem II efficiency of the palisade and spongy mesophyll in Quercus coccifera using adaxial/abaxial illumination and excitation light sources with wavelengths varying in penetration into the leaf tissue. Photosynthesis Research, 2009, 99, 49-61.	1.6	18
85	Photochemistry, remotely sensed physiological reflectance index and de-epoxidation state of the xanthophyll cycle in Quercus coccifera under intense drought. Oecologia, 2008, 156, 1-11.	0.9	117
86	Ã‰valuation des dÃ©gÃ¢ts du froid dans les troncs de Pinus sylvestris L. par la mesure de la fluorescence de la chlorophylle dans le chlorenchyme cortical de lâ€™Ã©corce. Annals of Forest Science, 2008, 65, 813-813.	0.8	20
87	Physiological performance of silver-fir (Abies alba Mill.) populations under contrasting climates near the south-western distribution limit of the species. Flora: Morphology, Distribution, Functional Ecology of Plants, 2007, 202, 226-236.	0.6	55
88	Crown architecture and leaf habit are associated with intrinsically different light-harvesting efficiencies inQuercusseedlings from contrasting environments. Annals of Forest Science, 2006, 63, 511-518.	0.8	12
89	Competitive effects of herbs onQuercus fagineaseedlings inferred from vulnerability curves and spatial-pattern analyses in a Mediterranean stand (Iberian System, northeast Spain). Ecoscience, 2006, 13, 378-387.	0.6	27
90	Morphological and functional variability in the root system ofQuercus ilexL. subject to confinement: consequences for afforestation. Annals of Forest Science, 2006, 63, 425-430.	0.8	50

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91	Radial-growth and wood-anatomical changes in overaged Quercus pyrenaica coppice stands: functional responses in a new Mediterranean landscape. Trees - Structure and Function, 2006, 20, 91-98.	0.9	98
92	The effect of low temperatures on the photosynthetic apparatus of Quercus ilex subsp. ballota at its lower and upper altitudinal limits in the Iberian peninsula and during a single freezing-thawing cycle. Trees - Structure and Function, 2005, 19, 99-108.	0.9	30
93	Frost resistance of seeds in Mediterranean oaks and the role of litter in the thermal protection of acorns. Annals of Forest Science, 2004, 61, 481-486.	0.8	11
94	EFFECTS OF A SEVERE DROUGHT ON GROWTH AND WOOD ANATOMICAL PROPERTIES OF QUERCUS FAGINEA. IAWA Journal, 2004, 25, 185-204.	2.7	109
95	Effects of a severe drought on Quercus ilex radial growth and xylem anatomy. Trees - Structure and Function, 2004, 18, 83-92.	0.9	205
96	Morphological and ecophysiological variation of the hybrid oak Quercus subpyrenaica (Q. faginea ï¿½ Q.) Tj ETQq0 0 0 rgBT /Overlock 1	0.9	36
97	Suitability of Drought-Preconditioning Techniques in Mediterranean Climate. Restoration Ecology, 2003, 11, 208-216.	1.4	99
98	The impact of a needleminer (Epinotia subsequana) outbreak on radial growth of silver fir (Abies alba) in the AragÃ³n Pyrenees: A dendrochronological assessment. Dendrochronologia, 2003, 21, 3-12.	1.0	21
99	Cavitation, stomatal conductance, and leaf dieback in seedlings of two coâ€•occurring Mediterranean shrubs during an intense drought. Journal of Experimental Botany, 2003, 54, 2015-2024.	2.4	206
100	Influence of cotyledon removal on early seedling growth in Quercus robur L.. Annals of Forest Science, 2003, 60, 69-73.	0.8	65
101	Functional groups in Quercus species derived from the analysis of pressureâ€“volume curves. Trees - Structure and Function, 2002, 16, 465-472.	0.9	138
102	Trichomes and photosynthetic pigment composition changes: responses of Quercus ilex subsp. ballota (Desf.) Samp. and Quercus coccifera L. to Mediterranean stress conditions. Trees - Structure and Function, 2002, 16, 504-510.	0.9	55
103	Relationship between hydraulic resistance and leaf morphology in broadleaf Quercus species: a new interpretation of leaf lobation. Trees - Structure and Function, 2001, 15, 341-345.	0.9	71
104	Marcescence and senescence in a submediterranean oak (Quercus subpyrenaica E.H. del Villar): photosynthetic characteristics and nutrient composition. Plant, Cell and Environment, 1996, 19, 685-694.	2.8	42
105	Land Reclamation by Reforestation in the Central Pyrenees. Mountain Research and Development, 1990, 10, 281.	0.4	45