Antonio Diaz-Espejo

List of Publications by Year
in descending order

73	6,776	76294 40	85498 71
papers	citations	h-index	g-index

74	74	74	5688
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mesophyll conductance to CO₂: current knowledge and future prospects. Plant, Cell and Environment, 2008, 31, 602-621.	2.8	926
2	Mesophyll diffusion conductance to CO2: An unappreciated central player in photosynthesis. Plant Science, 2012, 193-194, 70-84.	1.7	563
3	Rapid variations of mesophyll conductance in response to changes in CO₂ concentration around leaves. Plant, Cell and Environment, 2007, 30, 1284-1298.	2.8	486
4	Diffusional conductances to CO2 as a target for increasing photosynthesis and photosynthetic water-use efficiency. Photosynthesis Research, 2013, 117, 45-59.	1.6	305
5	Role of mesophyll diffusion conductance in constraining potential photosynthetic productivity in the field. Journal of Experimental Botany, 2009, 60, 2249-2270.	2.4	271
6	Analysis of leakage in IRGA's leaf chambers of open gas exchange systems: quantification and its effects in photosynthesis parameterization. Journal of Experimental Botany, 2007, 58, 1533-1543.	2.4	226
7	Photosynthetic limitations in Mediterranean plants: A review. Environmental and Experimental Botany, 2014, 103, 12-23.	2.0	206
8	Mesophyll conductance to CO₂ and Rubisco as targets for improving intrinsic water use efficiency in C₃ plants. Plant, Cell and Environment, 2016, 39, 965-982.	2.8	186
9	Heat-pulse measurements of sap flow in olives for automating irrigation: tests, root flow and diagnostics of water stress. Agricultural Water Management, 2001, 51, 99-123.	2.4	169
10	Regulation of photosynthesis and stomatal and mesophyll conductance under water stress and recovery in olive trees: correlation with gene expression of carbonic anhydrase and aquaporins. Journal of Experimental Botany, 2014, 65, 3143-3156.	2.4	167
11	Mesophyll conductance to CO 2 in Arabidopsis thaliana. New Phytologist, 2007, 175, 501-511.	3.5	138
12	Importance of mesophyll diffusion conductance in estimation of plant photosynthesis in the field. Journal of Experimental Botany, 2009, 60, 2271-2282.	2.4	137
13	Water relations and gas exchange in olive trees under regulated deficit irrigation and partial rootzone drying. Plant and Soil, 2006, 284, 273-291.	1.8	134
14	Most stomatal closure in woody species under moderate drought can be explained by stomatal responses to leaf turgor. Plant, Cell and Environment, 2016, 39, 2014-2026.	2.8	133
15	The use of sap flow measurements for scheduling irrigation in olive, apple and Asian pear trees and in grapevines. Plant and Soil, 2008, 305, 91-104.	1.8	122
16	Rapid hydraulic recovery in <scp>E</scp>ucalyptus pauciflora after drought: linkages between stem hydraulics and leaf gas exchange. Plant, Cell and Environment, 2014, 37, 617-626.	2.8	112
17	A regulated deficit irrigation strategy for hedgerow olive orchards with high plant density. Plant and Soil, 2013, 372, 279-295.	1.8	110
18	Seasonal evolution of diffusional limitations and photosynthetic capacity in olive under drought. Plant, Cell and Environment, 2007, 30, 922-933.	2.8	107

#	Article	IF	Citations
19	Interactive effects of soil water deficit and air vapour pressure deficit on mesophyll conductance to CO2 in Vitis vinifera and Olea europaea. Journal of Experimental Botany, 2009, 60, 2391-2405.	2.4	100
20	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
21	Modeling photosynthesis in olive leaves under drought conditions. Tree Physiology, 2006, 26, 1445-1456.	1.4	89
22	Field Variability of Invading Populations of Spartina densiflora Brong. in Different Habitats of the Odiel Marshes (SW Spain). Estuarine, Coastal and Shelf Science, 2001, 52, 515-527.	0.9	84
23	Role of hydraulic and chemical signals in leaves, stems and roots in the stomatal behaviour of olive trees under water stress and recovery conditions. Tree Physiology, 2015, 35, 415-424.	1.4	74
24	Stomatal and mesophyll conductances to CO2 in different plant groups: Underrated factors for predicting leaf photosynthesis responses to climate change?. Plant Science, 2014, 226, 41-48.	1.7	72
25	Type-fthioredoxins have a role in the short-term activation of carbon metabolism and their loss affects growth under short-day conditions inArabidopsis thaliana. Journal of Experimental Botany, 2016, 67, 1951-1964.	2.4	70
26	Shoot hydraulic characteristics, plant water status and stomatal response in olive trees under different soil water conditions. Plant and Soil, 2013, 373, 77-87.	1.8	69
27	Online-monitoring of tree water stress in a hedgerow olive orchard using the leaf patch clamp pressure probe. Agricultural Water Management, 2011, 100, 25-35.	2.4	64
28	Steps toward an improvement in process-based models of water use by fruit trees: A case study in olive. Agricultural Water Management, 2012, 114, 37-49.	2.4	62
29	The dynamics of radial sap flux density reflects changes in stomatal conductance in response to soil and air water deficit. Agricultural and Forest Meteorology, 2016, 218-219, 92-101.	1.9	58
30	Effects of crown development on leaf irradiance, leaf morphology and photosynthetic capacity in a peach tree. Tree Physiology, 2002, 22, 929-938.	1.4	56
31	Plasticity of vulnerability to leaf hydraulic dysfunction during acclimation to drought in grapevines: an osmoticâ€mediated process. Physiologia Plantarum, 2015, 153, 381-391.	2.6	53
32	Chloride as macronutrient increases water use efficiency by anatomicallyâ€driven reduced stomatal conductance and increased mesophyll diffusion to CO 2. Plant Journal, 2019, 99, 815-831.	2.8	53
33	Role of leaf hydraulic conductance in the regulation of stomatal conductance in almond and olive in response to water stress. Tree Physiology, 2016, 36, 725-735.	1.4	52
34	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 13	1.4	52
35	The diurnal course of soil moisture as measured by various dielectric sensors: Effects of soil temperature and the implications for evaporation estimates. Journal of Hydrology, 2006, 321, 147-162.	2.3	50
36	Photosynthetic limitations by water deficit: Effect on fruit and olive oil yield, leaf area and trunk diameter and its potential use to control vegetative growth of super-high density olive orchards. Agricultural Water Management, 2017, 184, 9-18.	2.4	50

#	Article	IF	Citations
37	Differences in water-use-efficiency between two Vitis vinifera cultivars (Grenache and Tempranillo) explained by the combined response of stomata to hydraulic and chemical signals during water stress. Agricultural Water Management, 2015, 156, 1-9.	2.4	49
38	Leaf patch clamp pressure probe measurements on olive leaves in a nearly turgorless state. Plant Biology, 2012, 14, 666-674.	1.8	47
39	Adsorption of Water Vapor by Bare Soil in an Olive Grove in Southern Spain. Journal of Hydrometeorology, 2006, 7, 1011-1027.	0.7	45
40	Assessing plant water status in a hedgerow olive orchard from thermography at plant level. Agricultural Water Management, 2017, 188, 50-60.	2.4	42
41	Disentangling the contributions of ontogeny and water stress to photosynthetic limitations in almond trees. Plant, Cell and Environment, 2011, 34, 962-979.	2.8	41
42	Rubisco catalytic properties optimized for present and future climatic conditions. Plant Science, 2014, 226, 61-70.	1.7	41
43	Effect of a regulated deficit irrigation strategy in a hedgerow â€˜Arbequinaâ€™ olive orchard on the mesocarp fatty acid composition and desaturase gene expression with respect to olive oil quality. Agricultural Water Management, 2018, 204, 100-106.	2.4	41
44	Leaf water potential measurements using the pressure chamber: Synthetic testing of assumptions towards best practices for precision and accuracy. Plant, Cell and Environment, 2022, 45, 2037-2061.	2.8	40
45	Concomitant measurements of stem sap flow and leaf turgor pressure in olive trees using the leaf patch clamp pressure probe. Agricultural Water Management, 2012, 114, 50-58.	2.4	37
46	Is stomatal conductance optimized over both time and space in plant crowns? A field test in grapevine (V itis vinifera). Plant, Cell and Environment, 2014, 37, 2707-2721.	2.8	37
47	Use of maximum trunk diameter measurements to detect water stress in mature â€˜Arbequinaâ€™ olive trees under deficit irrigation. Agricultural Water Management, 2011, 98, 1813-1821.	2.4	36
48	The effect of strobilurins on leaf gas exchange, water use efficiency and ABA content in grapevine under field conditions. Journal of Plant Physiology, 2012, 169, 379-386.	1.6	36
49	Potential and limitations of improving olive orchard design and management through modelling. Plant Biosystems, 2008, 142, 130-137.	0.8	35
50	Assessing water stress in a hedgerow olive orchard from sap flow and trunk diameter measurements. Irrigation Science, 2013, 31, 729-746.	1.3	35
51	Changes in sediment phosphate composition of seasonal ponds during filling. Hydrobiologia, 1999, 392, 21-28.	1.0	33
52	Partitioning changes in photosynthetic rate into contributions from different variables. Plant, Cell and Environment, 2015, 38, 1200-1211.	2.8	33
53	Reporting estimates of maximum potential electron transport rate. New Phytologist, 2015, 205, 14-17.	3.5	33
54	Virgin olive oil quality of hedgerow â€˜Arbequinaâ€™ olive trees under deficit irrigation. Journal of the Science of Food and Agriculture, 2017, 97, 1018-1026.	1.7	33

#	Article	IF	Citations
55	Influence of partial soil wetting on water relation parameters of the olive tree. Agronomy for Sustainable Development, 2003, 23, 545-552.	0.8	33
56	Carbon losses by tillage under semi-arid Mediterranean rainfed agriculture (SW Spain). Spanish Journal of Agricultural Research, 2009, 7, 706.	0.3	33
57	Design and testing of an automatic irrigation controller for fruit tree orchards, based on sap flow measurements. Australian Journal of Agricultural Research, 2008, 59, 589.	1.5	31
58	Soil moisture dynamics in a hedgerow olive orchard under well-watered and deficit irrigation regimes: Assessment, prediction and scenario analysis. Agricultural Water Management, 2016, 164, 197-211.	2.4	31
59	Interspecific differences in temperature response of mesophyll conductance: food for thought on its origin and regulation. Plant, Cell and Environment, 2015, 38, 625-628.	2.8	29
60	Effects of water stress on fruit growth and water relations between fruits and leaves in a hedgerow olive orchard. Agricultural Water Management, 2018, 210, 32-40.	2.4	28
61	Illustration of micro-scale advection using grid-pattern mini-lysimeters. Agricultural and Forest Meteorology, 2005, 129, 39-52.	1.9	23
62	Sensitivity of olive leaf turgor to air vapour pressure deficit correlates with diurnal maximum stomatal conductance. Agricultural and Forest Meteorology, 2019, 272-273, 156-165.	1.9	23
63	Phosphorus inputs to wetlands following storm events after drought. Wetlands, 1999, 19, 318-326.	0.7	19
64	New challenges in modelling photosynthesis: temperature dependencies of <scp>R</scp>ubisco kinetics. Plant, Cell and Environment, 2013, 36, 2104-2107.	2.8	18
65	Relationships between fruit growth and oil accumulation with simulated seasonal dynamics of leaf gas exchange in the olive tree. Agricultural and Forest Meteorology, 2018, 256-257, 458-469.	1.9	18
66	Disentangling the link between leaf photosynthesis and turgor in fruit growth. Plant Journal, 2021, 107, 1788-1801.	2.8	18
67	Protection of the Photosynthetic Apparatus from Extreme Dehydration and Oxidative Stress in Seedlings of Transgenic Tobacco. PLoS ONE, 2012, 7, e51443.	1.1	18
68	Precision Irrigation in Olive (Olea europaea L.) Tree Orchards. , 2018, , 179-217.		13
69	Hydraulic Traits Emerge as Relevant Determinants of Growth Patterns in Wild Olive Genotypes Under Water Stress. Frontiers in Plant Science, 2019, 10, 291.	1.7	13
70	The phloemâ€“xylem consortium: until death do them part. Tree Physiology, 2017, 37, 847-850.	1.4	10
71	The Olive Tree Under Water Stress. , 2018, , 439-479.		10
72	Carbon supply and water status regulate fatty acid and triacylglycerol biosynthesis at transcriptional level in the olive mesocarp. Plant, Cell and Environment, 2022, 45, 2366-2380.	2.8	4

#	Article	IF	Citations
73	Editorial: Proceedings of Olivebioteq 2018 â€“ Olive Management, Biotechnology and Authenticity of Olive Products. Frontiers in Plant Science, 2020, 11, 860.	1.7	0