Jaume Flexas

List of Publications by Year
in descending order

266	37,132	3933 88	3323 184
papers	citations	h-index	g-index

324	324	324	25023
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The worldwide leaf economics spectrum. Nature, 2004, 428, 821-827.	27.8	6,489
2	Photosynthesis under drought and salt stress: regulation mechanisms from whole plant to cell. Annals of Botany, 2009, 103, 551-560.	2.9	2,950
3	Drought-inhibition of Photosynthesis in C3 Plants: Stomatal and Non-stomatal Limitations Revisited. Annals of Botany, 2002, 89, 183-189.	2.9	1,197
4	Diffusive and Metabolic Limitations to Photosynthesis under Drought and Salinity in C 3 Plants. Plant Biology, 2004, 6, 269-279.	3.8	1,095
5	Mesophyll conductance to CO₂: current knowledge and future prospects. Plant, Cell and Environment, 2008, 31, 602-621.	5.7	926
6	Regulation of Photosynthesis of C3 Plants in Response to Progressive Drought: Stomatal Conductance as a Reference Parameter. Annals of Botany, 2002, 89, 895-905.	2.9	795
7	Linking chlorophyll a fluorescence to photosynthesis for remote sensing applications: mechanisms and challenges. Journal of Experimental Botany, 2014, 65, 4065-4095.	4.8	770
8	Keeping a positive carbon balance under adverse conditions: responses of photosynthesis and respiration to water stress. Physiologia Plantarum, 2006, 127, 343-352.	5.2	601
9	Effects of drought on photosynthesis in grapevines under field conditions: an evaluation of stomatal and mesophyll limitations. Functional Plant Biology, 2002, 29, 461.	2.1	567
10	Mesophyll diffusion conductance to CO2: An unappreciated central player in photosynthesis. Plant Science, 2012, 193-194, 70-84.	3.6	563
11	Resistances along the CO2 diffusion pathway inside leaves. Journal of Experimental Botany, 2009, 60, 2235-2248.	4.8	492
12	Rapid variations of mesophyll conductance in response to changes in CO₂ concentration around leaves. Plant, Cell and Environment, 2007, 30, 1284-1298.	5.7	486
13	Photosynthetic limitations in response to water stress and recovery in Mediterranean plants with different growth forms. New Phytologist, 2007, 175, 81-93.	7.3	462
14	Is photosynthesis limited by decreased Rubisco activity and RuBP content under progressive water stress?. New Phytologist, 2004, 162, 671-681.	7.3	400
15	UAVs challenge to assess water stress for sustainable agriculture. Agricultural Water Management, 2015, 153, 9-19.	5.6	388
16	Tobacco aquaporin NtAQP1 is involved in mesophyll conductance to CO2inÂvivo. Plant Journal, 2006, 48, 427-439.	5.7	384
17	Decreased Rubisco activity during water stress is not induced by decreased relative water content but related to conditions of low stomatal conductance and chloroplast CO 2 concentration. New Phytologist, 2006, 172, 73-82.	7.3	359
18	From leaf to whole-plant water use efficiency (WUE) in complex canopies: Limitations of leaf WUE as a selection target. Crop Journal, 2015, 3, 220-228.	5.2	358

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19	Importance of leaf anatomy in determining mesophyll diffusion conductance to CO2 across species: quantitative limitations and scaling up by models. Journal of Experimental Botany, 2013, 64, 2269-2281.	4.8	348
20	Drought-induced changes in development and function of grapevine (Vitis spp.) organs and in their hydraulic and non-hydraulic interactions at the whole-plant level: a physiological and molecular update. Functional Plant Biology, 2010, 37, 98.	2.1	326
21	Diffusional conductances to CO2 as a target for increasing photosynthesis and photosynthetic water-use efficiency. Photosynthesis Research, 2013, 117, 45-59.	2.9	305
22	Photosynthesis limitations during water stress acclimation and recovery in the drought-adapted Vitis hybrid Richter-110 (V. berlandieriÃ—V. rupestris). Journal of Experimental Botany, 2009, 60, 2361-2377.	4.8	294
23	Estimating mesophyll conductance to CO2: methodology, potential errors, and recommendations. Journal of Experimental Botany, 2009, 60, 2217-2234.	4.8	289
24	Water relations and stomatal characteristics of Mediterranean plants with different growth forms and leaf habits: responses to water stress and recovery. Plant and Soil, 2007, 290, 139-155.	3.7	277
25	Role of mesophyll diffusion conductance in constraining potential photosynthetic productivity in the field. Journal of Experimental Botany, 2009, 60, 2249-2270.	4.8	271
26	Steady-state chlorophyll fluorescence (Fs) measurements as a tool to follow variations of net CO2 assimilation and stomatal conductance during water-stress in C3 plants. Physiologia Plantarum, 2002, 114, 231-240.	5.2	269
27	Physiological tools for irrigation scheduling in grapevine (Vitis vinifera L.). Agriculture, Ecosystems and Environment, 2005, 106, 159-170.	5.3	265
28	Water stress induces different levels of photosynthesis and electron transport rate regulation in grapevines. Plant, Cell and Environment, 1999, 22, 39-48.	5.7	256
29	Aquaporins and plant water balance. Plant, Cell and Environment, 2008, 31, 658-666.	5.7	256
30	Triple Loss of Function of Protein Phosphatases Type 2C Leads to Partial Constitutive Response to Endogenous Abscisic Acid Â Â Â. Plant Physiology, 2009, 150, 1345-1355.	4.8	252
31	Effects of Water Stress on Respiration in Soybean Leaves. Plant Physiology, 2005, 139, 466-473.	4.8	245
32	Rubisco specificity factor tends to be larger in plant species from drier habitats and in species with persistent leaves. Plant, Cell and Environment, 2005, 28, 571-579.	5.7	241
33	Understanding down-regulation of photosynthesis under water stress: future prospects and searching for physiological tools for irrigation management. Annals of Applied Biology, 2004, 144, 273-283.	2.5	240
34	Improving water use efficiency in grapevines: potential physiological targets for biotechnological improvement. Australian Journal of Grape and Wine Research, 2010, 16, 106-121.	2.1	235
35	A ten-year study on the physiology of two Spanish grapevine cultivars under field conditions: effects of water availability from leaf photosynthesis to grape yield and quality. Functional Plant Biology, 2003, 30, 607.	2.1	228
36	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.	4.8	226

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37	Prospects for crop production under drought: research priorities and future directions. Annals of Applied Biology, 2005, 147, 211-226.	2.5	216
38	Photosynthetic limitations in Mediterranean plants: A review. Environmental and Experimental Botany, 2014, 103, 12-23.	4.2	206
39	Leaf gas exchange, carbon isotope discrimination, and grain yield in contrasting rice genotypes subjected to water deficits during the reproductive stage. Journal of Experimental Botany, 2009, 60, 2325-2339.	4.8	204
40	Improving water use efficiency of vineyards in semi-arid regions. A review. Agronomy for Sustainable Development, 2015, 35, 499-517.	5.3	202
41	A new instrument for passive remote sensing1. Measurements of sunlight-induced chlorophyll fluorescence. Remote Sensing of Environment, 2004, 91, 186-197.	11.0	199
42	Leaf mesophyll conductance and leaf hydraulic conductance: an introduction to their measurement and coordination. Journal of Experimental Botany, 2013, 64, 3965-3981.	4.8	189
43	Energy dissipation in C3 plants under drought. Functional Plant Biology, 2002, 29, 1209.	2.1	187
44	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.	5.7	186
45	Aquaporin expression in response to different water stress intensities and recovery in Richter-110 (Vitis sp.): relationship with ecophysiological status. Planta, 2007, 226, 671-681.	3.2	170
46	Steady-State and Maximum Chlorophyll Fluorescence Responses to Water Stress in Grapevine Leaves. Remote Sensing of Environment, 2000, 73, 283-297.	11.0	168
47	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.	4.8	167
48	A new instrument for passive remote sensing: 2. Measurement of leaf and canopy reflectance changes at 531 nm and their relationship with photosynthesis and chlorophyll fluorescence. Remote Sensing of Environment, 2004, 91, 175-185.	11.0	165
49	The photosynthetic capacity in 35 ferns and fern allies: mesophyll <scp>CO</scp>₂ diffusion as a key trait. New Phytologist, 2016, 209, 1576-1590.	7.3	163
50	A putative role for TIP and PIP aquaporins in dynamics of leaf hydraulic and stomatal conductances in grapevine under water stress and reâ€watering. Plant, Cell and Environment, 2013, 36, 828-843.	5.7	159
51	Expanding knowledge of the <scp>R</scp>ubisco kinetics variability in plant species: environmental and evolutionary trends. Plant, Cell and Environment, 2014, 37, 1989-2001.	5.7	155
52	Differential coordination of stomatal conductance, mesophyll conductance, and leaf hydraulic conductance in response to changing light across species. Plant, Cell and Environment, 2018, 41, 436-450.	5.7	155
53	Light-saturated photosynthetic rate in high-nitrogen rice (Oryza sativa L.) leaves is related to chloroplastic CO2 concentration. Journal of Experimental Botany, 2009, 60, 2351-2360.	4.8	154
54	The role of mesophyll conductance during water stress and recovery in tobacco (Nicotiana) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td	4.8	154

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55	Physiological and morphological adaptations in relation to water use efficiency in Mediterranean accessions of Solanum lycopersicum. Plant, Cell and Environment, 2011, 34, 245-260.	5.7	152
56	Influence of leaf dry mass per area, CO2, and irradiance on mesophyll conductance in sclerophylls. Journal of Experimental Botany, 2009, 60, 2303-2314.	4.8	145
57	Relationships of Leaf Net Photosynthesis, Stomatal Conductance, and Mesophyll Conductance to Primary Metabolism: A Multispecies Meta-Analysis Approach. Plant Physiology, 2016, 171, 265-279.	4.8	142
58	Rubisco activity in Mediterranean species is regulated by the chloroplastic CO2 concentration under water stress. Journal of Experimental Botany, 2011, 62, 653-665.	4.8	141
59	Mesophyll conductance to CO 2 in Arabidopsis thaliana. New Phytologist, 2007, 175, 501-511.	7.3	138
60	Importance of mesophyll diffusion conductance in estimation of plant photosynthesis in the field. Journal of Experimental Botany, 2009, 60, 2271-2282.	4.8	137
61	Stomatal and mesophyll conductances to CO₂ are the main limitations to photosynthesis in sugar beet (Beta vulgaris) plants grown with excess zinc. New Phytologist, 2010, 187, 145-158.	7.3	134
62	Analysis of the Relative Increase in Photosynthetic O2 Uptake When Photosynthesis in Grapevine Leaves Is Inhibited following Low Night Temperatures and/or Water Stress. Plant Physiology, 1999, 121, 675-684.	4.8	130
63	Variability in water use efficiency at the leaf level among Mediterranean plants with different growth forms. Plant and Soil, 2009, 317, 17-29.	3.7	130
64	Stomatal and non-stomatal limitations of photosynthesis under water stress in field-grown grapevines. Functional Plant Biology, 1999, 26, 421.	2.1	130
65	Lessons from crop plants struggling with salinity. Plant Science, 2014, 226, 2-13.	3.6	129
66	Genetic variability of photosynthesis and water use in Balearic grapevine cultivars. Annals of Applied Biology, 2001, 138, 353-361.	2.5	127
67	Photosynthetic responses to water deficit in six Mediterranean sclerophyll species: possible factors explaining the declining distribution of Rhamnus ludovici-salvatoris, an endemic Balearic species. Tree Physiology, 2002, 22, 687-697.	3.1	127
68	Leaf anatomy mediates coordination of leaf hydraulic conductance and mesophyll conductance to <scp>CO</scp>₂ in Oryza. New Phytologist, 2017, 213, 572-583.	7.3	126
69	Adjustments of water use efficiency by stomatal regulation during drought and recovery in the droughtâ€adapted Vitis hybrid Richterâ€110 (V.â€ƒberlandieriâ€ƒÂ—â€ƒV.â€ƒrupestris). Physiologia Plantarum, 2008, 134, 313-323.	5.2	124
70	Opportunities for improving leaf water use efficiency under climate change conditions. Plant Science, 2014, 226, 108-119.	3.6	124
71	Variation in Rubisco content and activity under variable climatic factors. Photosynthesis Research, 2013, 117, 73-90.	2.9	123
72	Leaf mesophyll diffusion conductance in 35 Australian sclerophylls covering a broad range of foliage structural and physiological variation. Journal of Experimental Botany, 2009, 60, 2433-2449.	4.8	121

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73	Differences among grapevine cultivars in their stomatal behavior and water use efficiency under progressive water stress. Agricultural Water Management, 2016, 164, 91-99.	5.6	118
74	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.	2.0	117
75	Light and CO2 do not affect the mesophyll conductance to CO2 diffusion in wheat leaves. Journal of Experimental Botany, 2009, 60, 2291-2301.	4.8	117
76	Evergreens favored by higher responsiveness to increased CO2. Trends in Ecology and Evolution, 2011, 26, 136-142.	8.7	115
77	Variability of water use efficiency in grapevines. Environmental and Experimental Botany, 2014, 103, 148-157.	4.2	112
78	Diffusional limitations explain the lower photosynthetic capacity of ferns as compared with angiosperms in a common garden study. Plant, Cell and Environment, 2015, 38, 448-460.	5.7	112
79	Anisohydric behaviour in grapevines results in better performance under moderate water stress and recovery than isohydric behaviour. Plant and Soil, 2012, 359, 335-349.	3.7	111
80	Down-regulation of photosynthesis by drought under field conditions in grapevine leaves. Functional Plant Biology, 1998, 25, 893.	2.1	110
81	The Mediterranean evergreen Quercus ilex and the semi-deciduous Cistus albidus differ in their leaf gas exchange regulation and acclimation to repeated drought and re-watering cycles. Journal of Experimental Botany, 2011, 62, 5207-5216.	4.8	109
82	Water-use efficiency in grapevine cultivars grown under controlled conditions: effects of water stress at the leaf and whole-plant level. Australian Journal of Grape and Wine Research, 2012, 18, 164-172.	2.1	108
83	Cellâ€level anatomical characteristics explain high mesophyll conductance and photosynthetic capacity in sclerophyllous Mediterranean oaks. New Phytologist, 2017, 214, 585-596.	7.3	104
84	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.	4.8	100
85	Photosynthesis Optimized across Land Plant Phylogeny. Trends in Plant Science, 2019, 24, 947-958.	8.8	100
86	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.	5.7	99
87	Genetic improvement of leaf photosynthesis and intrinsic water use efficiency in C3 plants: Why so much little success?. Plant Science, 2016, 251, 155-161.	3.6	99
88	Stomatal and non-stomatal limitations to photosynthesis in seedlings and saplings of Mediterranean species pre-conditioned and aged in nurseries: Different response to water stress. Environmental and Experimental Botany, 2012, 75, 235-247.	4.2	95
89	Environmental stimuli and physiological responses: The current view on electrical signalling. Environmental and Experimental Botany, 2015, 114, 15-21.	4.2	91
90	Seasonal patterns and control of gas exchange in local populations of the Mediterranean evergreen shrub Pistacia lentiscus L.. Acta Oecologica, 2001, 22, 33-43.	1.1	90

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91	The impact of blue light on leaf mesophyll conductance. Journal of Experimental Botany, 2009, 60, 2283-2290.	4.8	88
92	Response of leaf respiration to water stress in Mediterranean species with different growth forms. Journal of Arid Environments, 2007, 68, 206-222.	2.4	86
93	Mesophyll conductance to CO2 transport estimated by two independent methods: effect of variable CO2 concentration and abscisic acid. Journal of Experimental Botany, 2009, 60, 2315-2323.	4.8	85
94	Relationship between Maximum Leaf Photosynthesis, Nitrogen Content and Specific Leaf Area in Balearic Endemic and Nonâ€endemic Mediterranean Species. Annals of Botany, 2003, 92, 215-222.	2.9	84
95	Analysis of the virusâ€induced inhibition of photosynthesis in malmsey grapevines. New Phytologist, 2003, 160, 403-412.	7.3	81
96	In vivo cytochrome and alternative pathway respiration in leaves of Arabidopsis thaliana plants with altered alternative oxidase under different light conditions. Plant, Cell and Environment, 2011, 34, 1373-1383.	5.7	79
97	The PÃ©clet effect on leaf water enrichment correlates with leaf hydraulic conductance and mesophyll conductance for CO₂. Plant, Cell and Environment, 2012, 35, 611-625.	5.7	79
98	Differential tissue-specific expression of NtAQP1 in Arabidopsis thaliana reveals a role for this protein in stomatal and mesophyll conductance of CO2 under standard and salt-stress conditions. Planta, 2014, 239, 357-366.	3.2	76
99	Differential photosynthetic performance and photoprotection mechanisms of three Mediterranean evergreen oaks under severe drought stress. Functional Plant Biology, 2009, 36, 453.	2.1	75
100	Modulation of relative growth rate and its components by water stress in Mediterranean species with different growth forms. Oecologia, 2005, 145, 21-31.	2.0	73
101	Photosynthesis and photosynthetic efficiencies along the terrestrial plantâ€™s phylogeny: lessons for improving crop photosynthesis. Plant Journal, 2020, 101, 964-978.	5.7	73
102	From one side to two sides: the effects of stomatal distribution on photosynthesis. New Phytologist, 2020, 228, 1754-1766.	7.3	73
103	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.	3.6	72
104	Anatomical constraints to nonstomatal diffusion conductance and photosynthesis in lycophytes and bryophytes. New Phytologist, 2019, 222, 1256-1270.	7.3	72
105	Cell wall thickness and composition are involved in photosynthetic limitation. Journal of Experimental Botany, 2021, 72, 3971-3986.	4.8	71
106	Environmentally driven evolution of <scp>R</scp>ubisco and improved photosynthesis and growth within the <scp>C</scp>₃ genus <scp>L</scp>imonium (<scp>P</scp>lumbaginaceae). New Phytologist, 2014, 203, 989-999.	7.3	70
107	Variation in photosynthetic characteristics with growth form in a water-limited scenario: Implications for assimilation rates and water use efficiency in crops. Agricultural Water Management, 2019, 216, 457-472.	5.6	70
108	Effects of drought on light-energy dissipation mechanisms in high-light-acclimated, field-grown grapevines. Functional Plant Biology, 2002, 29, 1197.	2.1	69

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109	The diversity of 13C isotope discrimination in a Quercus robur full-sib family is associated with differences in intrinsic water use efficiency, transpiration efficiency, and stomatal conductance. Journal of Experimental Botany, 2009, 60, 2419-2431.	4.8	69
110	The Effects of Water Stress on Plant Respiration. , 2005, , 85-94.		67
111	Effects of drought stress and subsequent rewatering on photosynthetic and respiratory pathways in Nicotiana sylvestris wild type and the mitochondrial complex I-deficient CMSII mutant. Journal of Experimental Botany, 2010, 61, 765-775.	4.8	67
112	Allocation of the epidermis to stomata relates to stomatal physiological control: Stomatal factors involved in the evolutionary diversification of the angiosperms and development of amphistomaty. Environmental and Experimental Botany, 2018, 151, 55-63.	4.2	67
113	Stomatal and non-stomatal limitations of photosynthesis under water stress in field-grown grapevines. Functional Plant Biology, 2000, 27, 87.	2.1	63
114	Photoprotection processes under water stress and recovery in Mediterranean plants with different growth forms and leaf habits. Physiologia Plantarum, 2007, 130, 495-510.	5.2	63
115	Seasonal time-course of gradients of photosynthetic capacity and mesophyll conductance to CO2 across a beech (Fagus sylvatica L.) canopy. Journal of Experimental Botany, 2009, 60, 2407-2418.	4.8	63
116	Effect of mitochondrial genome rearrangement on respiratory activity, photosynthesis, photorespiration and energy status of MSC16 cucumber (Cucumis sativus) mutant. Physiologia Plantarum, 2007, 131, 527-541.	5.2	62
117	Variability of mesophyll conductance in grapevine cultivars under water stress conditions in relation to leaf anatomy and water use efficiency. Australian Journal of Grape and Wine Research, 2014, 20, 272-280.	2.1	62
118	Photosynthesis and photoprotection responses to water stress in the wild-extinct plant Lysimachia minoricensis. Environmental and Experimental Botany, 2007, 60, 308-317.	4.2	61
119	Acclimation of Rubisco specificity factor to drought in tobacco: discrepancies between in vitro and in vivo estimations. Journal of Experimental Botany, 2006, 57, 3659-3667.	4.8	60
120	Methodological advances: Using greenhouses to simulate climate change scenarios. Plant Science, 2014, 226, 30-40.	3.6	60
121	The apoplastic antioxidant system and altered cell wall dynamics influence mesophyll conductance and the rate of photosynthesis. Plant Journal, 2019, 99, 1031-1046.	5.7	60
122	Photosynthesis and photoinhibition in response to drought in a pubescent (var. minor) and a glabrous (var. palaui) variety of Digitalis minor. Environmental and Experimental Botany, 2007, 60, 105-111.	4.2	59
123	Modeling the Effects of Light and Sucrose on In Vitro Propagated Plants: A Multiscale System Analysis Using Artificial Intelligence Technology. PLoS ONE, 2014, 9, e85989.	2.5	59
124	Photosynthetic responses of soybean (Glycine max L.) to heatâ€induced electrical signalling are predominantly governed by modifications of mesophyll conductance for CO₂. Plant, Cell and Environment, 2013, 36, 542-552.	5.7	58
125	Growth, photosynthetic acclimation and yield quality in legumes under climate change simulations: An updated survey. Plant Science, 2014, 226, 22-29.	3.6	58
126	Possible link between photosynthesis and leaf modulus of elasticity among vascular plants: a new player in leaf traits relationships?. Ecology Letters, 2018, 21, 1372-1379.	6.4	55

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127	Plasticity of vulnerability to leaf hydraulic dysfunction during acclimation to drought in grapevines: an osmoticâ€mediated process. Physiologia Plantarum, 2015, 153, 381-391.	5.2	53
128	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 69	3.1	52
129	Mercurial inhibition of root hydraulic conductance in Vitis spp. rootstocks under water stress. Environmental and Experimental Botany, 2008, 63, 178-182.	4.2	51
130	Harpin Hpa1 Interacts with Aquaporin PIP1;4 to Promote the Substrate Transport and Photosynthesis in Arabidopsis. Scientific Reports, 2015, 5, 17207.	3.3	50
131	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.	5.6	49
132	Acclimation of Biochemical and Diffusive Components of Photosynthesis in Rice, Wheat, and Maize to Heat and Water Deficit: Implications for Modeling Photosynthesis. Frontiers in Plant Science, 2016, 7, 1719.	3.6	49
133	Alterations in primary and secondary metabolism in Vitis vinifera â€˜MalvasÃa de Banyalbufarâ€™ upon infection withÂGrapevine leafrollâ€associated virus 3. Physiologia Plantarum, 2016, 157, 442-452.	5.2	49
134	Gas exchange and hydraulics during drought in crops: who drives whom?. Journal of Experimental Botany, 2018, 69, 3791-3795.	4.8	49
135	Carbon balance in grapevines under different soil water supply: importance of whole plant respiration. Australian Journal of Grape and Wine Research, 2012, 18, 308-318.	2.1	47
136	Responses of leaf night transpiration to drought stress in Vitis vinifera L.. Agricultural Water Management, 2013, 118, 50-58.	5.6	47
137	Leaf respiration in darkness and in the light under pre-industrial, current and elevated atmospheric CO2 concentrations. Plant Science, 2014, 226, 120-130.	3.6	47
138	Assessment of the role of silicon in the Cu-tolerance of the C4 grass Spartina densiflora. Journal of Plant Physiology, 2015, 178, 74-83.	3.5	47
139	Salinity tolerance is related to cyanideâ€resistant alternative respiration in Medicago truncatula under sudden severe stress. Plant, Cell and Environment, 2016, 39, 2361-2369.	5.7	46
140	Impacts of rising tropospheric ozone on photosynthesis and metabolite levels on field grown soybean. Plant Science, 2014, 226, 147-161.	3.6	45
141	Arbuscular Mycorrhizal Symbiosis with Arundo donax Decreases Root Respiration and Increases Both Photosynthesis and Plant Biomass Accumulation. Plant, Cell and Environment, 2017, 40, 1115-1126.	5.7	45
142	Ectopic Expression of CDF3 Genes in Tomato Enhances Biomass Production and Yield under Salinity Stress Conditions. Frontiers in Plant Science, 2017, 8, 660.	3.6	45
143	Average daily light interception determines leaf water use efficiency among different canopy locations in grapevine. Agricultural Water Management, 2012, 114, 4-10.	5.6	44
144	Leaf anatomy does not explain apparent shortâ€term responses of mesophyll conductance to light and CO₂ in tobacco. Physiologia Plantarum, 2019, 165, 604-618.	5.2	44

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145	Improving Estimates of Gross Primary Productivity by Assimilating Solarâ€Induced Fluorescence Satellite Retrievals in a Terrestrial Biosphere Model Using a Processâ€Based SIF Model. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3281-3306.	3.0	44
146	Effects of elevated O3 exposure on seed yield, N concentration and photosynthesis of nine soybean cultivars (Glycine max (L.) Merr.) in Northeast China. Plant Science, 2014, 226, 172-181.	3.6	43
147	Rubisco catalytic properties optimized for present and future climatic conditions. Plant Science, 2014, 226, 61-70.	3.6	41
148	Variation in leaf longevity of Pistacia lentiscus and its relationship to sex and drought stress inferred from leaf delta13C. Functional Ecology, 1997, 11, 282-289.	3.6	40
149	Effect of water stress on partitioning of 14C-labelled photosynthates in Vitis vinifera. Functional Plant Biology, 2004, 31, 697.	2.1	40
150	Photosynthesis limitations in three fern species. Physiologia Plantarum, 2013, 149, 599-611.	5.2	40
151	Light acclimation of photosynthesis in two closely related firs (Abies pinsapoBoiss. andAbies) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 300-310.	3.1	40
152	It Is Hot in the Sun: Antarctic Mosses Have High Temperature Optima for Photosynthesis Despite Cold Climate. Frontiers in Plant Science, 2020, 11, 1178.	3.6	40
153	Changes of alternative oxidase activity, capacity and protein content in leaves of Cucumis sativus wildâ€type and MSC16 mutant grown under different light intensities. Physiologia Plantarum, 2009, 137, 419-426.	5.2	38
154	Leaf economics spectrum in rice: leaf anatomical, biochemical, and physiological trait trade-offs. Journal of Experimental Botany, 2018, 69, 5599-5609.	4.8	38
155	Seasonal and inter-annual variations of gas exchange in thirteen woody species along a climatic gradient in the Mediterranean island of Mallorca. Flora: Morphology, Distribution, Functional Ecology of Plants, 2009, 204, 169-181.	1.2	37
156	Biochemical acclimation, stomatal limitation and precipitation patterns underlie decreases in photosynthetic stimulation of soybean (Glycine max) at elevated [CO2] and temperatures under fully open air field conditions. Plant Science, 2014, 226, 136-146.	3.6	37
157	Integrative field scale phenotyping for investigating metabolic components of water stress within a vineyard. Plant Methods, 2017, 13, 90.	4.3	37
158	Cell wall composition strongly influences mesophyll conductance in gymnosperms. Plant Journal, 2020, 103, 1372-1385.	5.7	37
159	Mesophyll conductance: the leaf corridors for photosynthesis. Biochemical Society Transactions, 2020, 48, 429-439.	3.4	37
160	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.	3.5	36
161	Unravelling the inÂvivo regulation and metabolic role of the alternative oxidase pathway in C₃ species under photoinhibitory conditions. New Phytologist, 2016, 212, 66-79.	7.3	36
162	Genes and gene clusters related to genotype and drought-induced variation in saccharification potential, lignin content and wood anatomical traits in Populus nigraâ€. Tree Physiology, 2018, 38, 320-339.	3.1	35

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163	Adaptation of a PAM-fluorometer for remote sensing of chlorophyll fluorescence. Photosynthesis Research, 2001, 68, 113-120.	2.9	33
164	Shade and drought growth conditions strongly impact dynamic responses of stomata to variations in irradiance in Nicotiana tabacum. Environmental and Experimental Botany, 2018, 153, 188-197.	4.2	32
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