Elizabete Carmo-Silva

List of Publications by Year
in descending order

66 papers	3,933 citations	159585 30 h-index	128289 60 g-index
72 all docs	72 docs citations	72 times ranked	4125 citing authors

#	Article	IF	Citations
1	Rubiscosome gene expression is balanced across the hexaploid wheat genome. Photosynthesis Research, 2022, 152, 1-11.	2.9	5
2	Faster than expected Rubisco deactivation in shade reduces cowpea photosynthetic potential in variable light conditions. Nature Plants, 2022, 8, 118-124.	9.3	24
3	Phenotypic variation in photosynthetic traits in wheat grown under field versus glasshouse conditions. Journal of Experimental Botany, 2022, 73, 3221-3237.	4.8	9
4	Cowpea leaf width correlates with above ground biomass across diverse environments. , 2022, 4, .		5
5	A wiring diagram to integrate physiological traits of wheat yield potential. Nature Food, 2022, 3, 318-324.	14.0	27
6	Into the Shadows and Back into Sunlight: Photosynthesis in Fluctuating Light. Annual Review of Plant Biology, 2022, 73, 617-648.	18.7	66
7	Photoprotection and optimization of sucrose usage contribute to faster recovery of photosynthesis after water deficit at high temperatures in wheat. Physiologia Plantarum, 2021, 172, 615-628.	5.2	10
8	Heatâ€induced changes in the abundance of wheat Rubisco activase isoforms. New Phytologist, 2021, 229, 1298-1311.	7.3	45
9	A procedure to introduce point mutations into the Rubisco large subunit gene in wildâ€type plants. Plant Journal, 2021, 106, 876-887.	5.7	17
10	The relative abundance of wheat Rubisco activase isoforms is post-transcriptionally regulated. Photosynthesis Research, 2021, 148, 47-56.	2.9	14
11	Efficient Regulation of CO2 Assimilation Enables Greater Resilience to High Temperature and Drought in Maize. Frontiers in Plant Science, 2021, 12, 675546.	3.6	14
12	Photosynthesis across African cassava germplasm is limited by Rubisco and mesophyll conductance at steady state, but by stomatal conductance in fluctuating light. New Phytologist, 2020, 225, 2498-2512.	7.3	92
13	Generating and characterizing single- and multigene mutants of the Rubisco small subunit family in Arabidopsis. Journal of Experimental Botany, 2020, 71, 5963-5975.	4.8	16
14	Variation in key leaf photosynthetic traits across wheat wild relatives is accession dependent not species dependent. New Phytologist, 2020, 228, 1767-1780.	7.3	23
15	Measuring Rubisco activity: challenges and opportunities of NADH-linked microtiter plate-based and 14C-based assays. Journal of Experimental Botany, 2020, 71, 5302-5312.	4.8	12
16	During photosynthetic induction, biochemical and stomatal limitations differ between <i>Brassica</i> crops. Plant, Cell and Environment, 2020, 43, 2623-2636.	5.7	21
17	Maintenance of Photosynthesis as Leaves Age Improves Whole Plant Water Use Efficiency in an Australian Wheat Cultivar. Agronomy, 2020, 10, 1102.	3.0	3
18	Novel bacterial clade reveals origin of form I Rubisco. Nature Plants, 2020, 6, 1158-1166.	9.3	46

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19	CRISPR-Cas9-Mediated Mutagenesis of the Rubisco Small Subunit Family in Nicotiana tabacum. Frontiers in Genome Editing, 2020, 2, 605614.	5.2	19
20	An isoleucine residue acts as a thermal and regulatory switch in wheat Rubisco activase. Plant Journal, 2020, 103, 742-751.	5.7	46
21	Hybrid Cyanobacterial-Tobacco Rubisco Supports Autotrophic Growth and Procarboxysomal Aggregation. Plant Physiology, 2020, 182, 807-818.	4.8	23
22	Rubisco and carbonâ€concentrating mechanism coâ€evolution across chlorophyte and streptophyte green algae. New Phytologist, 2020, 227, 810-823.	7.3	28
23	Editorial overview: Harnessing genetic variation in metabolic traits to understand trait evolution and improve the sustainability of crop production. Current Opinion in Plant Biology, 2019, 49, A1-A3.	7.1	0
24	Overexpression of <i>ca1pase</i> Decreases Rubisco Abundance and Grain Yield in Wheat. Plant Physiology, 2019, 181, 471-479.	4.8	14
25	Stability of wheat grain yields over three field seasons in the UK. Food and Energy Security, 2019, 8, e00147.	4.3	18
26	A highâ€throughput transient expression system for rice. Plant, Cell and Environment, 2019, 42, 2057-2064.	5.7	53
27	Rubisco activation by wheat Rubisco activase isoform 2Î² is insensitive to inhibition by ADP. Biochemical Journal, 2019, 476, 2595-2606.	3.7	13
28	Suboptimal Acclimation of Photosynthesis to Light in Wheat Canopies. Plant Physiology, 2018, 176, 1233-1246.	4.8	67
29	Whole plant chamber to examine sensitivity of cereal gas exchange to changes in evaporative demand. Plant Methods, 2018, 14, 97.	4.3	21
30	Increasing metabolic potential: C-fixation. Essays in Biochemistry, 2018, 62, 109-118.	4.7	19
31	Dissecting Wheat Grain Yield Drivers in a Mapping Population in the UK. Agronomy, 2018, 8, 94.	3.0	17
32	Quantification of Photosynthetic Enzymes in Leaf Extracts by Immunoblotting. Methods in Molecular Biology, 2018, 1770, 215-227.	0.9	7
33	Extraction of RuBisCO to Determine Catalytic Constants. Methods in Molecular Biology, 2018, 1770, 229-238.	0.9	7
34	Spectrophotometric Determination of RuBisCO Activity and Activation State in Leaf Extracts. Methods in Molecular Biology, 2018, 1770, 239-250.	0.9	9
35	Rubisco small subunits from the unicellular green alga <i>Chlamydomonas</i> complement Rubiscoâ€deficient mutants of Arabidopsis. New Phytologist, 2017, 214, 655-667.	7.3	62
36	Uncertainty in measurements of the photorespiratory CO2 compensation point and its impact on models of leaf photosynthesis. Photosynthesis Research, 2017, 132, 245-255.	2.9	16

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37	Phenotyping of field-grown wheat in the UK highlights contribution of light response of photosynthesis and flag leaf longevity to grain yield. Journal of Experimental Botany, 2017, 68, 3473-3486.	4.8	153
38	Rubisco and Rubisco Activase Play an Important Role in the Biochemical Limitations of Photosynthesis in Rice, Wheat, and Maize under High Temperature and Water Deficit. Frontiers in Plant Science, 2017, 8, 490.	3.6	240
39	Investigation of the Influence of Leaf Thickness on Canopy Reflectance and Physiological Traits in Upland and Pima Cotton Populations. Frontiers in Plant Science, 2017, 8, 1405.	3.6	22
40	Photosynthetic improvement of wheat plants. Burleigh Dodds Series in Agricultural Science, 2017, , 101-112.	0.2	1
41	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
42	Towards engineering carboxysomes into C3 plants. Plant Journal, 2016, 87, 38-50.	5.7	75
43	Surveying Rubisco diversity and temperature response to improve crop photosynthetic efficiency. Plant Physiology, 2016, 172, pp.00750.2016.	4.8	108
44	Heat tolerance in a wild <i>Oryza</i> species is attributed to maintenance of Rubisco activation by a thermally stable Rubisco activase ortholog. New Phytologist, 2016, 211, 899-911.	7.3	80
45	Rubisco catalytic properties of wild and domesticated relatives provide scope for improving wheat photosynthesis. Journal of Experimental Botany, 2016, 67, 1827-1838.	4.8	93
46	TaER Expression Is Associated with Transpiration Efficiency Traits and Yield in Bread Wheat. PLoS ONE, 2015, 10, e0128415.	2.5	21
47	Dynamic response of plant chlorophyll fluorescence to light, water and nutrient availability. Functional Plant Biology, 2015, 42, 746.	2.1	42
48	Proximal hyperspectral sensing and data analysis approaches for field-based plant phenomics. Computers and Electronics in Agriculture, 2015, 118, 225-236.	7.7	66
49	Optimizing <scp>R</scp>ubisco and its regulation for greater resource use efficiency. Plant, Cell and Environment, 2015, 38, 1817-1832.	5.7	279
50	Development and evaluation of a field-based high-throughput phenotyping platform. Functional Plant Biology, 2014, 41, 68.	2.1	316
51	Activation of interspecies-hybrid Rubisco enzymes to assess different models for the Rubiscoâ€"Rubisco activase interaction. Photosynthesis Research, 2013, 117, 557-566.	2.9	30
52	The Regulatory Properties of Rubisco Activase Differ among Species and Affect Photosynthetic Induction during Light Transitions Â Â. Plant Physiology, 2013, 161, 1645-1655.	4.8	183
53	Rubisco activity and regulation as targets for crop improvement. Journal of Experimental Botany, 2013, 64, 717-730.	4.8	335
54	Rubisco activity is associated with photosynthetic thermotolerance in a wild rice (<i>Oryza) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td	5.2	59

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55	The temperature response of CO2 assimilation, photochemical activities and Rubisco activation in Camelina sativa, a potential bioenergy crop with limited capacity for acclimation to heat stress. Planta, 2012, 236, 1433-1445.	3.2	48
56	Decreased CO2 availability and inactivation of Rubisco limit photosynthesis in cotton plants under heat and drought stress in the field. Environmental and Experimental Botany, 2012, 83, 1-11.	4.2	200
57	The activity of Rubiscoâ€™s molecular chaperone, Rubisco activase, in leaf extracts. Photosynthesis Research, 2011, 108, 143-155.	2.9	66
58	Isolation and Compositional Analysis of a CP12-Associated Complex of Calvin Cycle Enzymes from Nicotiana tabacum. Protein and Peptide Letters, 2011, 18, 618-624.	0.9	20
59	Rubisco activities, properties, and regulation in three different C4 grasses under drought. Journal of Experimental Botany, 2010, 61, 2355-2366.	4.8	59
60	Grasses of different C₄ subtypes reveal leaf traits related to drought tolerance in their natural habitats: Changes in structure, water potential, and amino acid content. American Journal of Botany, 2009, 96, 1222-1235.	1.7	61
61	Effects of rapidly imposed water deficit on photosynthetic parameters of three C₄ grasses. Photosynthetica, 2009, 47, 304-308.	1.7	22
62	Drought stress increases the production of 5-hydroxynorvaline in two C4 grasses. Phytochemistry, 2009, 70, 664-671.	2.9	27
63	The activities of PEP carboxylase and the C4 acid decarboxylases are little changed by drought stress in three C4 grasses of different subtypes. Photosynthesis Research, 2008, 97, 223-233.	2.9	27
64	Photorespiration in C4grasses remains slow under drought conditions. Plant, Cell and Environment, 2008, 31, 925-940.	5.7	77
65	Photosynthetic responses of three C4 grasses of different metabolic subtypes to water deficit. Functional Plant Biology, 2007, 34, 204.	2.1	54
66	Rubisco regulation: a role for inhibitors. Journal of Experimental Botany, 2007, 59, 1569-1580.	4.8	232