## Luca Dall Osto

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

73
papers

4,535
citations

37
h-index

67
g-index

77
ext. papers

5,235
ext. citations

6.7
avg, IF

L-index

#	Paper	IF	Citations
73	Improving light harvesting <b>2022</b> , 135-159		
72	Supramolecular assembly of chloroplast NADH dehydrogenase-like complex with photosystem I from Arabidopsis thaliana <i>Molecular Plant</i> , <b>2022</b> ,	14.4	2
71	Harnessing the Algal Chloroplast for Heterologous Protein Production Microorganisms, 2022, 10,	4.9	3
70	Loss of a single chlorophyll in CP29 triggers re-organization of the Photosystem II supramolecular assembly <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2022</b> , 148555	4.6	O
69	The role of light-harvesting complex I in excitation-energy transfer from LHCII to photosystem I in Arabidopsis. <i>Plant Physiology</i> , <b>2021</b> ,	6.6	1
68	High Carotenoid Mutants of Show Enhanced Biomass Yield under High Irradiance. <i>Plants</i> , <b>2021</b> , 10,	4.5	4
67	Dissipation of Light Energy Absorbed in Excess: The Molecular Mechanisms. <i>Annual Review of Plant Biology</i> , <b>2021</b> , 72, 47-76	30.7	18
66	A microalgal-based preparation with synergistic cellulolytic and detoxifying action towards chemical-treated lignocellulose. <i>Plant Biotechnology Journal</i> , <b>2021</b> , 19, 124-137	11.6	5
65	Effect of lhcsr gene dosage on oxidative stress and light use efficiency by Chlamydomonas reinhardtii cultures. <i>Journal of Biotechnology</i> , <b>2021</b> , 328, 12-22	3.7	2
64	A chimeric hydrolase-PTXD transgene enables chloroplast-based heterologous protein expression and non-sterile cultivation of Chlamydomonas reinhardtii. <i>Algal Research</i> , <b>2021</b> , 59, 102429	5	1
63	Identification of a pigment cluster catalysing fast photoprotective quenching response in CP29. <i>Nature Plants</i> , <b>2020</b> , 6, 303-313	11.5	10
62	Potential and Challenges of Improving Photosynthesis in Algae. <i>Plants</i> , <b>2020</b> , 9,	4.5	31
61	Cell Synchronization Enhances Nuclear Transformation and Genome Editing Cas9 Enabling Homologous Recombination in. <i>ACS Synthetic Biology</i> , <b>2020</b> , 9, 2840-2850	5.7	9
60	Optimized Cas9 expression systems for highly efficient Arabidopsis genome editing facilitate isolation of complex alleles in a single generation. <i>Functional and Integrative Genomics</i> , <b>2020</b> , 20, 151-16	3 <sup>.8</sup>	23
59	Monomeric light harvesting complexes enhance excitation energy transfer from LHCII to PSII and control their lateral spacing in thylakoids. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2020</b> , 1861, 1480	035	6
58	A Phosphite Dehydrogenase Variant with Promiscuous Access to Nicotinamide Cofactor Pools Sustains Fast Phosphite-Dependent Growth of Transplastomic. <i>Plants</i> , <b>2020</b> , 9,	4.5	9
57	Combined resistance to oxidative stress and reduced antenna size enhance light-to-biomass conversion efficiency in cultures. <i>Biotechnology for Biofuels</i> , <b>2019</b> , 12, 221	7.8	24

## (2014-2019)

56	Microsecond and millisecond dynamics in the photosynthetic protein LHCSR1 observed by single-molecule correlation spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 11247-11252	11.5	25
55	Design of a highly thermostable hemicellulose-degrading blend from Thermotoga neapolitana for the treatment of lignocellulosic biomass. <i>Journal of Biotechnology</i> , <b>2019</b> , 296, 42-52	3.7	14
54	Functional analysis of LHCSR1, a protein catalyzing NPQ in mosses, by heterologous expression in Arabidopsis thaliana. <i>Photosynthesis Research</i> , <b>2019</b> , 142, 249-264	3.7	4
53	Light harvesting complex I is essential for Photosystem II photoprotection under variable light conditions in Arabidopsis thaliana. <i>Environmental and Experimental Botany</i> , <b>2018</b> , 154, 89-98	5.9	1
52	Loss of LHCI system affects LHCII re-distribution between thylakoid domains upon state transitions. <i>Photosynthesis Research</i> , <b>2018</b> , 135, 251-261	3.7	10
51	Biomass from microalgae: the potential of domestication towards sustainable biofactories. <i>Microbial Cell Factories</i> , <b>2018</b> , 17, 173	6.4	101
50	A LHCB9-dependent photosystem I megacomplex induced under low light in Physcomitrella patens. <i>Nature Plants</i> , <b>2018</b> , 4, 910-919	11.5	20
49	Two mechanisms for dissipation of excess light in monomeric and trimeric light-harvesting complexes. <i>Nature Plants</i> , <b>2017</b> , 3, 17033	11.5	95
48	A Light Harvesting Complex-Like Protein in Maintenance of Photosynthetic Components in. <i>Plant Physiology</i> , <b>2017</b> , 174, 2419-2433	6.6	18
47	Single-molecule spectroscopy of LHCSR1 protein dynamics identifies two distinct states responsible for multi-timescale photosynthetic photoprotection. <i>Nature Chemistry</i> , <b>2017</b> , 9, 772-778	17.6	57
46	LHCII can substitute for LHCI as an antenna for photosystem I but with reduced light-harvesting capacity. <i>Nature Plants</i> , <b>2016</b> , 2, 16131	11.5	18
45	Differential Roles of Carotenes and Xanthophylls in Photosystem I Photoprotection. <i>Biochemistry</i> , <b>2016</b> , 55, 3636-49	3.2	33
44	An In Vivo Quantitative Comparison of Photoprotection in Arabidopsis Xanthophyll Mutants. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 841	6.2	20
43	Time-Resolved Investigation of Molecular Components Involved in the Induction of [Formula: see text] High Affinity Transport System in Maize Roots. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 1657	6.2	28
42	Biogenesis of light harvesting proteins. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2015</b> , 1847, 861-71	4.6	51
41	Long-term acclimatory response to excess excitation energy: evidence for a role of hydrogen peroxide in the regulation of photosystem II antenna size. <i>Journal of Experimental Botany</i> , <b>2015</b> , 66, 715	7-64	28
40	Action spectra of photosystems II and I and quantum yield of photosynthesis in leaves in State 1. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2014</b> , 1837, 315-25	4.6	53
39	Fluorescence F 0 of photosystems II and I in developing C3 and C 4 leaves, and implications on regulation of excitation balance. <i>Photosynthesis Research</i> , <b>2014</b> , 122, 41-56	3.7	16

38	On the origin of a slowly reversible fluorescence decay component in the Arabidopsis npq4 mutant. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2014</b> , 369, 20130221	5.8	43
37	Disturbed excitation energy transfer in Arabidopsis thaliana mutants lacking minor antenna complexes of photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2014</b> , 1837, 1981-1988	4.6	24
36	Domestication of the green alga Chlorella sorokiniana: reduction of antenna size improves light-use efficiency in a photobioreactor. <i>Biotechnology for Biofuels</i> , <b>2014</b> , 7, 157	7.8	98
35	Photoprotective Mechanisms: Carotenoids <b>2014</b> , 393-435		9
34	Interaction between avoidance of photon absorption, excess energy dissipation and zeaxanthin synthesis against photooxidative stress in Arabidopsis. <i>Plant Journal</i> , <b>2013</b> , 76, 568-79	6.9	96
33	Zeaxanthin binds to light-harvesting complex stress-related protein to enhance nonphotochemical quenching in Physcomitrella patens. <i>Plant Cell</i> , <b>2013</b> , 25, 3519-34	11.6	93
32	The Arabidopsis nox mutant lacking carotene hydroxylase activity reveals a critical role for xanthophylls in photosystem I biogenesis. <i>Plant Cell</i> , <b>2013</b> , 25, 591-608	11.6	28
31	Evolution and functional properties of photosystem II light harvesting complexes in eukaryotes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2012</b> , 1817, 143-57	4.6	120
30	Zeaxanthin protects plant photosynthesis by modulating chlorophyll triplet yield in specific light-harvesting antenna subunits. <i>Journal of Biological Chemistry</i> , <b>2012</b> , 287, 41820-34	5.4	92
29	Role of xanthophylls in light harvesting in green plants: a spectroscopic investigation of mutant LHCII and Lhcb pigment-protein complexes. <i>Journal of Physical Chemistry B</i> , <b>2012</b> , 116, 3834-49	3.4	39
28	The Arabidopsis szl1 mutant reveals a critical role of Etarotene in photosystem I photoprotection. <i>Plant Physiology</i> , <b>2012</b> , 159, 1745-58	6.6	94
27	A quadruple mutant of Arabidopsis reveals a Etarotene hydroxylation activity for LUT1/CYP97C1 and a regulatory role of xanthophylls on determination of the PSI/PSII ratio. <i>BMC Plant Biology</i> , <b>2012</b> , 12, 50	5.3	28
26	Reactive oxygen species and transcript analysis upon excess light treatment in wild-type Arabidopsis thaliana vs a photosensitive mutant lacking zeaxanthin and lutein. <i>BMC Plant Biology</i> , <b>2011</b> , 11, 62	5.3	81
25	Quenching in Arabidopsis thaliana mutants lacking monomeric antenna proteins of photosystem II. Journal of Biological Chemistry, <b>2011</b> , 286, 36830-40	5.4	42
24	Arabidopsis mutants deleted in the light-harvesting protein Lhcb4 have a disrupted photosystem II macrostructure and are defective in photoprotection. <i>Plant Cell</i> , <b>2011</b> , 23, 2659-79	11.6	105
23	Enhanced photoprotection by protein-bound vs free xanthophyll pools: a comparative analysis of chlorophyll b and xanthophyll biosynthesis mutants. <i>Molecular Plant</i> , <b>2010</b> , 3, 576-93	14.4	136
22	Effect of antenna-depletion in Photosystem II on excitation energy transfer in Arabidopsis thaliana. <i>Biophysical Journal</i> , <b>2010</b> , 98, 922-31	2.9	92
21	Dynamics of zeaxanthin binding to the photosystem II monomeric antenna protein Lhcb6 (CP24) and modulation of its photoprotection properties. <i>Archives of Biochemistry and Biophysics</i> , <b>2010</b> , 504, 67-77	4.1	39

## (2003-2010)

20	Regulation of plant light harvesting by thermal dissipation of excess energy. <i>Biochemical Society Transactions</i> , <b>2010</b> , 38, 651-60	5.1	111
19	Light-induced dissociation of an antenna hetero-oligomer is needed for non-photochemical quenching induction. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 15255-66	5.4	242
18	Improper excess light energy dissipation in Arabidopsis results in a metabolic reprogramming. <i>BMC Plant Biology</i> , <b>2009</b> , 9, 12	5.3	62
17	Investigating energy partitioning during photosynthesis using an expanded quantum yield convention. <i>Chemical Physics</i> , <b>2009</b> , 357, 151-158	2.3	24
16	Photoprotection in the antenna complexes of photosystem II: role of individual xanthophylls in chlorophyll triplet quenching. <i>Journal of Biological Chemistry</i> , <b>2008</b> , 283, 6184-92	5.4	156
15	Minor antenna proteins CP24 and CP26 affect the interactions between photosystem II subunits and the electron transport rate in grana membranes of Arabidopsis. <i>Plant Cell</i> , <b>2008</b> , 20, 1012-28	11.6	149
14	The light stress-induced protein ELIP2 is a regulator of chlorophyll synthesis in Arabidopsis thaliana. <i>Plant Journal</i> , <b>2007</b> , 50, 795-809	6.9	108
13	Contrasting behavior of higher plant photosystem I and II antenna systems during acclimation. Journal of Biological Chemistry, <b>2007</b> , 282, 8947-58	5.4	224
12	Different roles of alpha- and beta-branch xanthophylls in photosystem assembly and photoprotection. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 35056-68	5.4	113
11	The Arabidopsis aba4-1 mutant reveals a specific function for neoxanthin in protection against photooxidative stress. <i>Plant Cell</i> , <b>2007</b> , 19, 1048-64	11.6	141
10	Zeaxanthin has enhanced antioxidant capacity with respect to all other xanthophylls in Arabidopsis leaves and functions independent of binding to PSII antennae. <i>Plant Physiology</i> , <b>2007</b> , 145, 1506-20	6.6	301
9	Lutein is needed for efficient chlorophyll triplet quenching in the major LHCII antenna complex of higher plants and effective photoprotection in vivo under strong light. <i>BMC Plant Biology</i> , <b>2006</b> , 6, 32	5.3	193
8	Nonphotochemical quenching of chlorophyll fluorescence in Chlamydomonas reinhardtii. <i>Biochemistry</i> , <b>2006</b> , 45, 1490-8	3.2	74
7	Elucidation of the beta-carotene hydroxylation pathway in Arabidopsis thaliana. <i>FEBS Letters</i> , <b>2006</b> , 580, 4718-22	3.8	58
6	A mechanism of nonphotochemical energy dissipation, independent from PsbS, revealed by a conformational change in the antenna protein CP26. <i>Plant Cell</i> , <b>2005</b> , 17, 1217-32	11.6	195
5	A zeaxanthin-independent nonphotochemical quenching mechanism localized in the photosystem II core complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 12375-80	11.5	123
4	The effect of zeaxanthin as the only xanthophyll on the structure and function of the photosynthetic apparatus in Arabidopsis thaliana. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 13878-88	5.4	123
3	Carotenoid to chlorophyll energy transfer in light harvesting complex II from Arabidopsis thaliana probed by femtosecond fluorescence upconversion. <i>Chemical Physics Letters</i> , <b>2003</b> , 379, 305-313	2.5	53

Mechanistic aspects of the xanthophyll dynamics in higher plant thylakoids. *Physiologia Plantarum*, **2003**, 119, 347-354

4.6 84

Optimized Cas9 expression systems for highly efficient Arabidopsis genome editing facilitate isolation of complex alleles in a single generation

1