Stphane D Lemaire

List of Publications by Citations

100 papers	11,429 citations	45 h-index	106 g-index
111 ext. papers	13,020 ext. citations	6.6 avg, IF	5.5 L-index

#	Paper	IF	Citations
100	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy*, **2016**, 12, 1-222	10.2	3838
99	The Chlamydomonas genome reveals the evolution of key animal and plant functions. *Science*, **2007** , 318, 245-50	33.3	1969
98	The role of glutathione in photosynthetic organisms: emerging functions for glutaredoxins and glutathionylation. *Annual Review of Plant Biology*, **2008**, 59, 143-66	30.7	420
97	Redox regulation of the Calvin-Benson cycle: something old, something new. *Frontiers in Plant Science*, **2013**, 4, 470	6.2	232
96	New thioredoxin targets in the unicellular photosynthetic eukaryote Chlamydomonas reinhardtii. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 7475-80	11.5	217
95	Thioredoxins in chloroplasts. *Current Genetics*, **2007**, 51, 343-65	2.9	170
94	Glutathionylation of chloroplast thioredoxin f is a redox signaling mechanism in plants. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 16478-83	11.5	158
93	Reactive oxygen species and autophagy in plants and algae. *Plant Physiology*, **2012**, 160, 156-64	6.6	154
92	Poplar peroxiredoxin Q. A thioredoxin-linked chloroplast antioxidant functional in pathogen defense. *Plant Physiology*, **2004**, 134, 1027-38	6.6	150
91	The Nac2 gene of Chlamydomonas encodes a chloroplast TPR-like protein involved in psbD mRNA stability. *EMBO Journal*, **2000**, 19, 3366-76	13	135
90	Redox regulation in photosynthetic organisms: focus on glutathionylation. *Antioxidants and Redox Signaling*, **2012**, 16, 567-86	8.4	125
89	The glutaredoxin family in oxygenic photosynthetic organisms. *Photosynthesis Research*, **2004**, 79, 305-18	3.7	120
88	Characterization of Mbb1, a nucleus-encoded tetratricopeptide-like repeat protein required for expression of the chloroplast psbB/psbT/psbH gene cluster in Chlamydomonas reinhardtii. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 14813-8	11.5	110
87	Birth of a Photosynthetic Chassis: A MoClo Toolkit Enabling Synthetic Biology in the Microalga Chlamydomonas reinhardtii. *ACS Synthetic Biology*, **2018**, 7, 2074-2086	5.7	109
86	Pattern of expression and substrate specificity of chloroplast ferredoxins from Chlamydomonas reinhardtii. *Journal of Biological Chemistry*, **2009**, 284, 25867-78	5.4	108
85	Biochemical characterization of glutaredoxins from Chlamydomonas reinhardtii reveals the unique properties of a chloroplastic CGFS-type glutaredoxin. *Journal of Biological Chemistry*, **2008**, 283, 8868-76	5.4	108
84	Plant cytoplasmic GAPDH: redox post-translational modifications and moonlighting properties. *Frontiers in Plant Science*, **2013**, 4, 450	6.2	107

83	Regeneration mechanisms of Arabidopsis thaliana methionine sulfoxide reductases B by glutaredoxins and thioredoxins. *Journal of Biological Chemistry*, **2009**, 284, 18963-71	5.4	107
82	Glutathionylation in the photosynthetic model organism Chlamydomonas reinhardtii: a proteomic survey. *Molecular and Cellular Proteomics*, **2012**, 11, M111.014142	7.6	107
81	Prompt and easy activation by specific thioredoxins of calvin cycle enzymes of Arabidopsis thaliana associated in the GAPDH/CP12/PRK supramolecular complex. *Molecular Plant*, **2009**, 2, 259-69	14.4	103
80	Glutathionylation of cytosolic glyceraldehyde-3-phosphate dehydrogenase from the model plant Arabidopsis thaliana is reversed by both glutaredoxins and thioredoxins in vitro. *Biochemical Journal*, **2012**, 445, 337-47	3.8	100
79	The thioredoxin-independent isoform of chloroplastic glyceraldehyde-3-phosphate dehydrogenase is selectively regulated by glutathionylation. *FEBS Journal*, **2007**, 274, 212-26	5.7	98
78	In vivo targets of S-thiolation in Chlamydomonas reinhardtii. *Journal of Biological Chemistry*, **2008**, 283, 21571-8	5.4	96
77	Thioredoxins, glutaredoxins, and glutathionylation: new crosstalks to explore. *Photosynthesis Research*, **2006**, 89, 225-45	3.7	93
76	The peroxiredoxin and glutathione peroxidase families in Chlamydomonas reinhardtii. *Genetics*, **2008**, 179, 41-57	4	85
75	Mechanisms of nitrosylation and denitrosylation of cytoplasmic glyceraldehyde-3-phosphate dehydrogenase from Arabidopsis thaliana. *Journal of Biological Chemistry*, **2013**, 288, 22777-89	5.4	83
74	Cysteine-153 is required for redox regulation of pea chloroplast fructose-1,6-bisphosphatase. *FEBS Letters*, **1997**, 401, 143-7	3.8	83
73	The emerging roles of protein glutathionylation in chloroplasts. *Plant Science*, **2012**, 185-186, 86-96	5.3	80
72	The yeast autophagy protease Atg4 is regulated by thioredoxin. *Autophagy*, **2014**, 10, 1953-64	10.2	74
71	Heavy-metal regulation of thioredoxin gene expression in chlamydomonas reinhardtii. *Plant Physiology*, **1999**, 120, 773-8	6.6	72
70	Structure-function relationship of the chloroplastic glutaredoxin S12 with an atypical WCSYS active site. *Journal of Biological Chemistry*, **2009**, 284, 9299-310	5.4	71
69	Characterization of thioredoxin y, a new type of thioredoxin identified in the genome of Chlamydomonas reinhardtii. *FEBS Letters*, **2003**, 543, 87-92	3.8	71
68	Methods for analysis of protein glutathionylation and their application to photosynthetic organisms. *Molecular Plant*, **2009**, 2, 218-35	14.4	65
67	Plant thioredoxin CDSP32 regenerates 1-cys methionine sulfoxide reductase B activity through the direct reduction of sulfenic acid. *Journal of Biological Chemistry*, **2010**, 285, 14964-14972	5.4	61
66	Photosynthetic electron flow affects H2O2 signaling by inactivation of catalase in Chlamydomonas reinhardtii. *Planta*, **2008**, 228, 1055-66	4.7	60

65	Oxidative stress contributes to autophagy induction in response to endoplasmic reticulum stress in Chlamydomonas reinhardtii. *Plant Physiology*, **2014**, 166, 997-1008	6.6	58
64	The single mutation Trp35-->Ala in the 35-40 redox site of Chlamydomonas reinhardtii thioredoxin h affects its biochemical activity and the pH dependence of C36-C39 1H-13C NMR. *FEBS Journal*, **1998**, 255, 185-95		58
63	Protein S-nitrosylation in photosynthetic organisms: A comprehensive overview with future perspectives. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2016**, 1864, 952-66	4	56
62	First proteomic study of S-glutathionylation in cyanobacteria. *Journal of Proteome Research*, **2015**, 14, 59-71	5.6	54
61	Insight into protein S-nitrosylation in Chlamydomonas reinhardtii. *Antioxidants and Redox Signaling*, **2014**, 21, 1271-84	8.4	53
60	The Chlamydomonas reinhardtii proteins Ccp1 and Ccp2 are required for long-term growth, but are not necessary for efficient photosynthesis, in a low-CO2 environment. *Plant Molecular Biology*, **2004**, 56, 125-32	4.6	53
59	Glutaredoxin s12: unique properties for redox signaling. *Antioxidants and Redox Signaling*, **2012**, 16, 17-38	8.4	51
58	NADP-malate dehydrogenase from unicellular green alga Chlamydomonas reinhardtii. A first step toward redox regulation?. *Plant Physiology*, **2005**, 137, 514-21	6.6	48
57	Chlamydomonas proteomics. *Current Opinion in Microbiology*, **2009**, 12, 285-91	7.9	47
56	Down-regulation of catalase activity allows transient accumulation of a hydrogen peroxide signal in Chlamydomonas reinhardtii. *Plant, Cell and Environment*, **2013**, 36, 1204-13	8.4	46
55	The thioredoxin superfamily in Chlamydomonas reinhardtii. *Photosynthesis Research*, **2004**, 82, 203-20	3.7	45
54	High-level expression of recombinant pea chloroplast fructose-1,6-bisphosphatase and mutagenesis of its regulatory site. *FEBS Journal*, **1995**, 229, 675-81		45
53	Redox Homeostasis in Photosynthetic Organisms: Novel and Established Thiol-Based Molecular Mechanisms. *Antioxidants and Redox Signaling*, **2019**, 31, 155-210	8.4	45
52	Control of Autophagy in Chlamydomonas Is Mediated through Redox-Dependent Inactivation of the ATG4 Protease. *Plant Physiology*, **2016**, 172, 2219-2234	6.6	41
51	The Deep Thioredoxome in Chlamydomonas reinhardtii: New Insights into Redox Regulation. *Molecular Plant*, **2017**, 10, 1107-1125	14.4	40
50	Biochemical characterization of glutaredoxins from Chlamydomonas reinhardtii: kinetics and specificity in deglutathionylation reactions. *FEBS Letters*, **2010**, 584, 2242-8	3.8	40
49	Characterization of Arabidopsis Mutants for the Variable Subunit of Ferredoxin:thioredoxin Reductase. *Photosynthesis Research*, **2004**, 79, 265-74	3.7	40
48	Effect of pH on the oxidation-reduction properties of thioredoxins. *Biochemistry*, **2003**, 42, 14877-84	3.2	40

47	The complex regulation of ferredoxin/thioredoxin-related genes by light and the circadian clock. *Planta*, **1999**, 209, 221-229	4.7	40
46	The Synechocystis PCC6803 MerA-like enzyme operates in the reduction of both mercury and uranium under the control of the glutaredoxin 1 enzyme. *Journal of Bacteriology*, **2013**, 195, 4138-45	3.5	39
45	Chloroplast FBPase and SBPase are thioredoxin-linked enzymes with similar architecture but different evolutionary histories. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 6779-84	11.5	39
44	Pyrenoid functions revealed by proteomics in Chlamydomonas reinhardtii. *PLoS ONE*, **2018**, 13, e0185039	3.7	38
43	Putative role of the malate valve enzyme NADP-malate dehydrogenase in H2O2 signalling in Arabidopsis. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369, 20130228	5.8	38
42	Function and regulation of the glutathione peroxidase homologous gene GPXH/GPX5 in Chlamydomonas reinhardtii. *Plant Molecular Biology*, **2009**, 71, 569-83	4.6	37
41	The internal Cys-207 of sorghum leaf NADP-malate dehydrogenase can form mixed disulphides with thioredoxin. *FEBS Letters*, **1999**, 444, 165-9	3.8	37
40	Regulation by glutathionylation of isocitrate lyase from Chlamydomonas reinhardtii. *Journal of Biological Chemistry*, **2009**, 284, 36282-36291	5.4	36
39	Genome-wide analysis on Chlamydomonas reinhardtii reveals the impact of hydrogen peroxide on protein stress responses and overlap with other stress transcriptomes. *Plant Journal*, **2015**, 84, 974-988	6.9	35
38	Functional specialization of Chlamydomonas reinhardtii cytosolic thioredoxin h1 in the response to alkylation-induced DNA damage. *Eukaryotic Cell*, **2005**, 4, 262-73		34
37	Difference in the mechanisms of the cold and heat induced unfolding of thioredoxin h from Chlamydomonas reinhardtii: spectroscopic and calorimetric studies. *Biochemistry*, **2000**, 39, 11154-62	3.2	33
36	Nitric Oxide Remodels the Photosynthetic Apparatus upon S-Starvation in. *Plant Physiology*, **2019**, 179, 718-731	6.6	31
35	Chlamydomonas reinhardtii: a model organism for the study of the thioredoxin family. *Plant Physiology and Biochemistry*, **2003**, 41, 513-521	5.4	30
34	Thioredoxin-dependent redox regulation of chloroplastic phosphoglycerate kinase from Chlamydomonas reinhardtii. *Journal of Biological Chemistry*, **2014**, 289, 30012-24	5.4	29
33	Auxin-responsive genes AIR12 code for a new family of plasma membrane b-type cytochromes specific to flowering plants. *Plant Physiology*, **2009**, 150, 606-20	6.6	29
32	High-resolution crystal structure and redox properties of chloroplastic triosephosphate isomerase from Chlamydomonas reinhardtii. *Molecular Plant*, **2014**, 7, 101-20	14.4	26
31	The Synthetic Biology Toolkit for Photosynthetic Microorganisms. *Plant Physiology*, **2019**, 181, 14-27	6.6	22
30	Thioredoxin Ch1 of Chlamydomonas reinhardtii displays an unusual resistance toward one-electron oxidation. *FEBS Journal*, **2004**, 271, 3481-7		21

29	A Light Switch Based on Protein S-Nitrosylation Fine-Tunes Photosynthetic Light Harvesting in Chlamydomonas. *Plant Physiology*, **2016**, 171, 821-32	6.6	21
28	Primary structure determinants of the pH- and temperature-dependent aggregation of thioredoxin. *BBA - Proteins and Proteomics*, **2000**, 1476, 311-23		19
27	The activity of the Synechocystis PCC6803 AbrB2 regulator of hydrogen production can be post-translationally controlled through glutathionylation. *International Journal of Hydrogen Energy*, **2013**, 38, 13547-13555	6.7	18
26	Glutathionylation primes soluble glyceraldehyde-3-phosphate dehydrogenase for late collapse into insoluble aggregates. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 26057-26065	11.5	16
25	When Unity Is Strength: The Strategies Used by to Survive Environmental Stresses. *Cells*, **2019**, 8,	7.9	16
24	MinOmics, an Integrative and Immersive Tool for Multi-Omics Analysis. *Journal of Integrative Bioinformatics*, **2018**, 15,	3.8	15
23	Redox Modification of the Iron-Sulfur Glutaredoxin GRXS17 Activates Holdase Activity and Protects Plants from Heat Stress. *Plant Physiology*, **2020**, 184, 676-692	6.6	14
22	In vitro characterization of bacterial and chloroplast Hsp70 systems reveals an evolutionary optimization of the co-chaperones for their Hsp70 partner. *Biochemical Journal*, **2014**, 460, 13-24	3.8	13
21	Plant thioredoxin gene expression: control by light, circadian clock, and heavy metals. *Methods in Enzymology*, **2002**, 347, 412-21	1.7	12
20	Crystal Structure of Chloroplastic Thioredoxin f2 from Reveals Distinct Surface Properties. *Antioxidants*, **2018**, 7,	7.1	11
19	and phosphoribulokinase crystal structures complete the redox structural proteome of the Calvin-Benson cycle. *Proceedings of the National Academy of Sciences of the United States of America* , **2019**, 116, 8048-8053	11.5	10
18	Modulation of the specific glutathionylation of mitochondrial proteins in the yeast under basal and stress conditions. *Biochemical Journal*, **2017**, 474, 1175-1193	3.8	9
17	Structural basis for the magnesium-dependent activation of transketolase from Chlamydomonas reinhardtii. *Biochimica Et Biophysica Acta - General Subjects*, **2017**, 1861, 2132-2145	4	7
16	Molecular characterization of telomeres and telomerase mutants. *Life Science Alliance*, **2019**, 2,	5.8	7
15	Blasticidin S Deaminase: A New Efficient Selectable Marker for. *Frontiers in Plant Science*, **2020**, 11, 242	6.2	6
14	Chapter 12 Glutathionylation in Photosynthetic Organisms. *Advances in Botanical Research*, **2009**, 363-402	2.2	6
13	Structural and Biochemical Insights into the Reactivity of Thioredoxin h1 from. *Antioxidants*, **2019**, 8,	7.1	6
12	Cardiolipin at the heart of stress response across kingdoms. *Plant Signaling and Behavior*, **2014**, 9, e29228	2.5	5

11	Secondary Metabolites from the Culture of the Marine-derived Fungus PC 362H and Evaluation of the Anticancer Activity of Its Metabolite Hyalodendrin. *Marine Drugs*, **2020**, 18,	6	5
10	Structural and functional insights into nitrosoglutathione reductase from Chlamydomonas reinhardtii. *Redox Biology*, **2021**, 38, 101806	11.3	4
9	Atypical Iron-Sulfur Cluster Binding, Redox Activity and Structural Properties of Glutaredoxin 2. *Antioxidants*, **2021**, 10,	7.1	3
8	Crystal structure of chloroplastic thioredoxin z defines a type-specific target recognition. *Plant Journal*, **2021**, 107, 434-447	6.9	3
7	Detection of IgG directed against a recombinant form of Epstein-Barr virus BALF0/1 protein in patients with nasopharyngeal carcinoma. *Protein Expression and Purification*, **2019**, 162, 44-50	2	2
6	Redox response of iron-sulfur glutaredoxin GRXS17 activates its holdase activity to protect plants from heat stress		2
5	High-Resolution Crystal Structure of Chloroplastic Ribose-5-Phosphate Isomerase from -An Enzyme Involved in the Photosynthetic Calvin-Benson Cycle. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	2
4	The ATG4 protease integrates redox and stress signals to regulate autophagy. *Journal of Experimental Botany*, **2021**, 72, 3340-3351	7	2
3	Analysis of light/dark synchronization of cell-wall-less Chlamydomonas reinhardtii (Chlorophyta) cells by flow cytometry. *European Journal of Phycology*, **1999**, 34, 279-286	2.2	1
2	Redox Control of Autophagy in Photosynthetic Organisms. *Progress in Botany Fortschritte Der Botanik*, **2017**, 75-88	0.6	
1	Scientific contributions of Pierre Gadal and his labA tribute to Pierre Gadal (1938–2019). *Advances in Botanical Research*, **2021**, 41-127	2.2	