

# Stphane D Lemaire

## 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.

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	Atypical Iron-Sulfur Cluster Binding, Redox Activity and Structural Properties of Glutaredoxin 2. <i>Antioxidants</i> , <b>2021</b> , 10,	7.1	3
99	Crystal structure of chloroplastic thioredoxin z defines a type-specific target recognition. <i>Plant Journal</i> , <b>2021</b> , 107, 434-447	6.9	3
98	Structural and Functional insights into nitrosoglutathione reductase from <i>Chlamydomonas reinhardtii</i> . <i>Redox Biology</i> , <b>2021</b> , 38, 101806	11.3	4
97	Scientific contributions of Pierre Gadal and his lab A tribute to Pierre Gadal (1938-2019). <i>Advances in Botanical Research</i> , <b>2021</b> , 41-127	2.2	
96	The ATG4 protease integrates redox and stress signals to regulate autophagy. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 3340-3351	7	2
95	Blasticidin S Deaminase: A New Efficient Selectable Marker for. <i>Frontiers in Plant Science</i> , <b>2020</b> , 11, 242	6.2	6
94	High-Resolution Crystal Structure of Chloroplastic Ribose-5-Phosphate Isomerase From -An Enzyme Involved in the Photosynthetic Calvin-Benson Cycle. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	2
93	Redox Modification of the Iron-Sulfur Glutaredoxin GRXS17 Activates Holdase Activity and Protects Plants from Heat Stress. <i>Plant Physiology</i> , <b>2020</b> , 184, 676-692	6.6	14
92	Secondary Metabolites from the Culture of the Marine-derived Fungus PC 362H and Evaluation of the Anticancer Activity of Its Metabolite Hyalodendrin. <i>Marine Drugs</i> , <b>2020</b> , 18,	6	5
91	Detection of IgG directed against a recombinant form of Epstein-Barr virus BALF0/1 protein in patients with nasopharyngeal carcinoma. <i>Protein Expression and Purification</i> , <b>2019</b> , 162, 44-50	2	2
90	and phosphoribulokinase crystal structures complete the redox structural proteome of the Calvin-Benson cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 8048-8053	11.5	10
89	The Synthetic Biology Toolkit for Photosynthetic Microorganisms. <i>Plant Physiology</i> , <b>2019</b> , 181, 14-27	6.6	22
88	Molecular characterization of telomeres and telomerase mutants. <i>Life Science Alliance</i> , <b>2019</b> , 2,	5.8	7
87	Glutathionylation primes soluble glyceraldehyde-3-phosphate dehydrogenase for late collapse into insoluble aggregates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 26057-26065	11.5	16
86	When Unity Is Strength: The Strategies Used by to Survive Environmental Stresses. <i>Cells</i> , <b>2019</b> , 8,	7.9	16
85	Structural and Biochemical Insights into the Reactivity of Thioredoxin h1 from. <i>Antioxidants</i> , <b>2019</b> , 8,	7.1	6
84	Nitric Oxide Remodels the Photosynthetic Apparatus upon S-Starvation in. <i>Plant Physiology</i> , <b>2019</b> , 179, 718-731	6.6	31

83	Redox Homeostasis in Photosynthetic Organisms: Novel and Established Thiol-Based Molecular Mechanisms. <i>Antioxidants and Redox Signaling</i> , <b>2019</b> , 31, 155-210	8.4	45
82	MinOmics, an Integrative and Immersive Tool for Multi-Omics Analysis. <i>Journal of Integrative Bioinformatics</i> , <b>2018</b> , 15,	3.8	15
81	Pyrenoid functions revealed by proteomics in <i>Chlamydomonas reinhardtii</i> . <i>PLoS ONE</i> , <b>2018</b> , 13, e0185039.	3.7	38
80	Crystal Structure of Chloroplastic Thioredoxin f2 from Reveals Distinct Surface Properties. <i>Antioxidants</i> , <b>2018</b> , 7,	7.1	11
79	Birth of a Photosynthetic Chassis: A MoClo Toolkit Enabling Synthetic Biology in the Microalga <i>Chlamydomonas reinhardtii</i> . <i>ACS Synthetic Biology</i> , <b>2018</b> , 7, 2074-2086	5.7	109
78	Modulation of the specific glutathionylation of mitochondrial proteins in the yeast under basal and stress conditions. <i>Biochemical Journal</i> , <b>2017</b> , 474, 1175-1193	3.8	9
77	Structural basis for the magnesium-dependent activation of transketolase from <i>Chlamydomonas reinhardtii</i> . <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2017</b> , 1861, 2132-2145	4	7
76	Redox Control of Autophagy in Photosynthetic Organisms. <i>Progress in Botany Fortschritte Der Botanik</i> , <b>2017</b> , 75-88	0.6	
75	The Deep Thioredoxome in <i>Chlamydomonas reinhardtii</i> : New Insights into Redox Regulation. <i>Molecular Plant</i> , <b>2017</b> , 10, 1107-1125	14.4	40
74	Control of Autophagy in <i>Chlamydomonas</i> Is Mediated through Redox-Dependent Inactivation of the ATG4 Protease. <i>Plant Physiology</i> , <b>2016</b> , 172, 2219-2234	6.6	41
73	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). <i>Autophagy</i> , <b>2016</b> , 12, 1-222	10.2	3838
72	Protein S-nitrosylation in photosynthetic organisms: A comprehensive overview with future perspectives. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2016</b> , 1864, 952-66	4	56
71	A Light Switch Based on Protein S-Nitrosylation Fine-Tunes Photosynthetic Light Harvesting in <i>Chlamydomonas</i> . <i>Plant Physiology</i> , <b>2016</b> , 171, 821-32	6.6	21
70	Chloroplast FBPase and SBPase are thioredoxin-linked enzymes with similar architecture but different evolutionary histories. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 6779-84	11.5	39
69	Genome-wide analysis on <i>Chlamydomonas reinhardtii</i> reveals the impact of hydrogen peroxide on protein stress responses and overlap with other stress transcriptomes. <i>Plant Journal</i> , <b>2015</b> , 84, 974-988	6.9	35
68	First proteomic study of S-glutathionylation in cyanobacteria. <i>Journal of Proteome Research</i> , <b>2015</b> , 14, 59-71	5.6	54
67	Putative role of the malate valve enzyme NADP-malate dehydrogenase in H <sub>2</sub> O <sub>2</sub> signalling in <i>Arabidopsis</i> . <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2014</b> , 369, 20130228	5.8	38
66	Insight into protein S-nitrosylation in <i>Chlamydomonas reinhardtii</i> . <i>Antioxidants and Redox Signaling</i> , <b>2014</b> , 21, 1271-84	8.4	53

65	High-resolution crystal structure and redox properties of chloroplastic triosephosphate isomerase from <i>Chlamydomonas reinhardtii</i> . <i>Molecular Plant</i> , <b>2014</b> , 7, 101-20	14.4	26
64	Oxidative stress contributes to autophagy induction in response to endoplasmic reticulum stress in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , <b>2014</b> , 166, 997-1008	6.6	58
63	The yeast autophagy protease Atg4 is regulated by thioredoxin. <i>Autophagy</i> , <b>2014</b> , 10, 1953-64	10.2	74
62	In vitro characterization of bacterial and chloroplast Hsp70 systems reveals an evolutionary optimization of the co-chaperones for their Hsp70 partner. <i>Biochemical Journal</i> , <b>2014</b> , 460, 13-24	3.8	13
61	Cardiolipin at the heart of stress response across kingdoms. <i>Plant Signaling and Behavior</i> , <b>2014</b> , 9, e29228.5		5
60	Thioredoxin-dependent redox regulation of chloroplastic phosphoglycerate kinase from <i>Chlamydomonas reinhardtii</i> . <i>Journal of Biological Chemistry</i> , <b>2014</b> , 289, 30012-24	5.4	29
59	The <i>Synechocystis</i> PCC6803 MerA-like enzyme operates in the reduction of both mercury and uranium under the control of the glutaredoxin 1 enzyme. <i>Journal of Bacteriology</i> , <b>2013</b> , 195, 4138-45	3.5	39
58	The activity of the <i>Synechocystis</i> PCC6803 AbrB2 regulator of hydrogen production can be post-translationally controlled through glutathionylation. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 13547-13555	6.7	18
57	Mechanisms of nitrosylation and denitrosylation of cytoplasmic glyceraldehyde-3-phosphate dehydrogenase from <i>Arabidopsis thaliana</i> . <i>Journal of Biological Chemistry</i> , <b>2013</b> , 288, 22777-89	5.4	83
56	Redox regulation of the Calvin-Benson cycle: something old, something new. <i>Frontiers in Plant Science</i> , <b>2013</b> , 4, 470	6.2	232
55	Down-regulation of catalase activity allows transient accumulation of a hydrogen peroxide signal in <i>Chlamydomonas reinhardtii</i> . <i>Plant, Cell and Environment</i> , <b>2013</b> , 36, 1204-13	8.4	46
54	Plant cytoplasmic GAPDH: redox post-translational modifications and moonlighting properties. <i>Frontiers in Plant Science</i> , <b>2013</b> , 4, 450	6.2	107
53	Reactive oxygen species and autophagy in plants and algae. <i>Plant Physiology</i> , <b>2012</b> , 160, 156-64	6.6	154
52	Redox regulation in photosynthetic organisms: focus on glutathionylation. <i>Antioxidants and Redox Signaling</i> , <b>2012</b> , 16, 567-86	8.4	125
51	Glutaredoxin s12: unique properties for redox signaling. <i>Antioxidants and Redox Signaling</i> , <b>2012</b> , 16, 17-38.4		51
50	The emerging roles of protein glutathionylation in chloroplasts. <i>Plant Science</i> , <b>2012</b> , 185-186, 86-96	5.3	80
49	Glutathionylation of cytosolic glyceraldehyde-3-phosphate dehydrogenase from the model plant <i>Arabidopsis thaliana</i> is reversed by both glutaredoxins and thioredoxins in vitro. <i>Biochemical Journal</i> , <b>2012</b> , 445, 337-47	3.8	100
48	Glutathionylation in the photosynthetic model organism <i>Chlamydomonas reinhardtii</i> : a proteomic survey. <i>Molecular and Cellular Proteomics</i> , <b>2012</b> , 11, M111.014142	7.6	107

47	Plant thioredoxin CDSP32 regenerates 1-cys methionine sulfoxide reductase B activity through the direct reduction of sulfenic acid. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 14964-14972	5.4	61
46	Biochemical characterization of glutaredoxins from <i>Chlamydomonas reinhardtii</i> : kinetics and specificity in deglutathionylation reactions. <i>FEBS Letters</i> , <b>2010</b> , 584, 2242-8	3.8	40
45	Methods for analysis of protein glutathionylation and their application to photosynthetic organisms. <i>Molecular Plant</i> , <b>2009</b> , 2, 218-35	14.4	65
44	Chapter 12 Glutathionylation in Photosynthetic Organisms. <i>Advances in Botanical Research</i> , <b>2009</b> , 363-403	2.2	6
43	Auxin-responsive genes AIR12 code for a new family of plasma membrane b-type cytochromes specific to flowering plants. <i>Plant Physiology</i> , <b>2009</b> , 150, 606-20	6.6	29
42	Pattern of expression and substrate specificity of chloroplast ferredoxins from <i>Chlamydomonas reinhardtii</i> . <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 25867-78	5.4	108
41	Prompt and easy activation by specific thioredoxins of calvin cycle enzymes of <i>Arabidopsis thaliana</i> associated in the GAPDH/CP12/PRK supramolecular complex. <i>Molecular Plant</i> , <b>2009</b> , 2, 259-69	14.4	103
40	Structure-function relationship of the chloroplastic glutaredoxin S12 with an atypical WCSYS active site. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 9299-310	5.4	71
39	Regulation by glutathionylation of isocitrate lyase from <i>Chlamydomonas reinhardtii</i> . <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 36282-36291	5.4	36
38	Function and regulation of the glutathione peroxidase homologous gene GPXH/GPX5 in <i>Chlamydomonas reinhardtii</i> . <i>Plant Molecular Biology</i> , <b>2009</b> , 71, 569-83	4.6	37
37	Regeneration mechanisms of <i>Arabidopsis thaliana</i> methionine sulfoxide reductases B by glutaredoxins and thioredoxins. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 18963-71	5.4	107
36	<i>Chlamydomonas</i> proteomics. <i>Current Opinion in Microbiology</i> , <b>2009</b> , 12, 285-91	7.9	47
35	The peroxiredoxin and glutathione peroxidase families in <i>Chlamydomonas reinhardtii</i> . <i>Genetics</i> , <b>2008</b> , 179, 41-57	4	85
34	Biochemical characterization of glutaredoxins from <i>Chlamydomonas reinhardtii</i> reveals the unique properties of a chloroplastic CGFS-type glutaredoxin. <i>Journal of Biological Chemistry</i> , <b>2008</b> , 283, 8868-76	5.4	108
33	In vivo targets of S-thiolation in <i>Chlamydomonas reinhardtii</i> . <i>Journal of Biological Chemistry</i> , <b>2008</b> , 283, 21571-8	5.4	96
32	Photosynthetic electron flow affects H <sub>2</sub> O <sub>2</sub> signaling by inactivation of catalase in <i>Chlamydomonas reinhardtii</i> . <i>Planta</i> , <b>2008</b> , 228, 1055-66	4.7	60
31	The role of glutathione in photosynthetic organisms: emerging functions for glutaredoxins and glutathionylation. <i>Annual Review of Plant Biology</i> , <b>2008</b> , 59, 143-66	30.7	420
30	The thioredoxin-independent isoform of chloroplastic glyceraldehyde-3-phosphate dehydrogenase is selectively regulated by glutathionylation. <i>FEBS Journal</i> , <b>2007</b> , 274, 212-26	5.7	98

29	The Chlamydomonas genome reveals the evolution of key animal and plant functions. <i>Science</i> , <b>2007</b> , 318, 245-50	33.3	1969
28	Thioredoxins in chloroplasts. <i>Current Genetics</i> , <b>2007</b> , 51, 343-65	2.9	170
27	Thioredoxins, glutaredoxins, and glutathionylation: new crosstalks to explore. <i>Photosynthesis Research</i> , <b>2006</b> , 89, 225-45	3.7	93
26	Glutathionylation of chloroplast thioredoxin f is a redox signaling mechanism in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 16478-83	11.5	158
25	NADP-malate dehydrogenase from unicellular green alga Chlamydomonas reinhardtii. A first step toward redox regulation?. <i>Plant Physiology</i> , <b>2005</b> , 137, 514-21	6.6	48
24	Functional specialization of Chlamydomonas reinhardtii cytosolic thioredoxin h1 in the response to alkylation-induced DNA damage. <i>Eukaryotic Cell</i> , <b>2005</b> , 4, 262-73		34
23	Poplar peroxiredoxin Q. A thioredoxin-linked chloroplast antioxidant functional in pathogen defense. <i>Plant Physiology</i> , <b>2004</b> , 134, 1027-38	6.6	150
22	Thioredoxin Ch1 of Chlamydomonas reinhardtii displays an unusual resistance toward one-electron oxidation. <i>FEBS Journal</i> , <b>2004</b> , 271, 3481-7		21
21	Characterization of Arabidopsis Mutants for the Variable Subunit of Ferredoxin:thioredoxin Reductase. <i>Photosynthesis Research</i> , <b>2004</b> , 79, 265-74	3.7	40
20	The glutaredoxin family in oxygenic photosynthetic organisms. <i>Photosynthesis Research</i> , <b>2004</b> , 79, 305-18	3.7	120
19	The Chlamydomonas reinhardtii proteins Ccp1 and Ccp2 are required for long-term growth, but are not necessary for efficient photosynthesis, in a low-CO <sub>2</sub> environment. <i>Plant Molecular Biology</i> , <b>2004</b> , 56, 125-32	4.6	53
18	The thioredoxin superfamily in Chlamydomonas reinhardtii. <i>Photosynthesis Research</i> , <b>2004</b> , 82, 203-20	3.7	45
17	New thioredoxin targets in the unicellular photosynthetic eukaryote Chlamydomonas reinhardtii. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 7475-80	11.5	217
16	Chlamydomonas reinhardtii: a model organism for the study of the thioredoxin family. <i>Plant Physiology and Biochemistry</i> , <b>2003</b> , 41, 513-521	5.4	30
15	Effect of pH on the oxidation-reduction properties of thioredoxins. <i>Biochemistry</i> , <b>2003</b> , 42, 14877-84	3.2	40
14	Characterization of thioredoxin y, a new type of thioredoxin identified in the genome of Chlamydomonas reinhardtii. <i>FEBS Letters</i> , <b>2003</b> , 543, 87-92	3.8	71
13	Plant thioredoxin gene expression: control by light, circadian clock, and heavy metals. <i>Methods in Enzymology</i> , <b>2002</b> , 347, 412-21	1.7	12
12	Primary structure determinants of the pH- and temperature-dependent aggregation of thioredoxin. <i>BBA - Proteins and Proteomics</i> , <b>2000</b> , 1476, 311-23		19

11	The Nac2 gene of Chlamydomonas encodes a chloroplast TPR-like protein involved in psbD mRNA stability. <i>EMBO Journal</i> , <b>2000</b> , 19, 3366-76	13	135
10	Characterization of Mbb1, a nucleus-encoded tetratricopeptide-like repeat protein required for expression of the chloroplast psbB/psbT/psbH gene cluster in Chlamydomonas reinhardtii. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2000</b> , 97, 14813-8	11.5	110
9	Difference in the mechanisms of the cold and heat induced unfolding of thioredoxin h from Chlamydomonas reinhardtii: spectroscopic and calorimetric studies. <i>Biochemistry</i> , <b>2000</b> , 39, 11154-62	3.2	33
8	Analysis of light/dark synchronization of cell-wall-less Chlamydomonas reinhardtii (Chlorophyta) cells by flow cytometry. <i>European Journal of Phycology</i> , <b>1999</b> , 34, 279-286	2.2	1
7	Heavy-metal regulation of thioredoxin gene expression in chlamydomonas reinhardtii. <i>Plant Physiology</i> , <b>1999</b> , 120, 773-8	6.6	72
6	The complex regulation of ferredoxin/thioredoxin-related genes by light and the circadian clock. <i>Planta</i> , <b>1999</b> , 209, 221-229	4.7	40
5	The internal Cys-207 of sorghum leaf NADP-malate dehydrogenase can form mixed disulphides with thioredoxin. <i>FEBS Letters</i> , <b>1999</b> , 444, 165-9	3.8	37
4	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. <i>FEBS Journal</i> , <b>1998</b> , 255, 185-95		58
3	Cysteine-153 is required for redox regulation of pea chloroplast fructose-1,6-bisphosphatase. <i>FEBS Letters</i> , <b>1997</b> , 401, 143-7	3.8	83
2	High-level expression of recombinant pea chloroplast fructose-1,6-bisphosphatase and mutagenesis of its regulatory site. <i>FEBS Journal</i> , <b>1995</b> , 229, 675-81		45
1	Redox response of iron-sulfur glutaredoxin GRXS17 activates its holdase activity to protect plants from heat stress		2