JÃ©rÃ©my Couturier

List of Publications by Year
in descending order

53 papers	6,475 citations	201385 27 h-index	182168 51 g-index
56 all docs	56 docs citations	56 times ranked	8036 citing authors

#	Article	IF	Citations
1	The Genome of Black Cottonwood, Populus trichocarpa (Torr. & Gray). Science, 2006, 313, 1596-1604.	6.0	3,945
2	The expanded family of ammonium transporters in the perennial poplar plant. New Phytologist, 2007, 174, 137-150.	3.5	182
3	Glutaredoxins: roles in iron homeostasis. Trends in Biochemical Sciences, 2010, 35, 43-52.	3.7	181
4	The iron-sulfur cluster assembly machineries in plants: current knowledge and open questions. Frontiers in Plant Science, 2013, 4, 259.	1.7	160
5	Genome-wide analysis of plant glutaredoxin systems. Journal of Experimental Botany, 2006, 57, 1685-1696.	2.4	159
6	Evolution and diversity of glutaredoxins in photosynthetic organisms. Cellular and Molecular Life Sciences, 2009, 66, 2539-2557.	2.4	139
7	Glutathionylation of cytosolic glyceraldehyde-3-phosphate dehydrogenase from the model plant <i>Arabidopsis thaliana</i> is reversed by both glutaredoxins and thioredoxins <i>in vitro</i>. Biochemical Journal, 2012, 445, 337-347.	1.7	122
8	Cysteineâ€“based redox regulation and signaling in plants. Frontiers in Plant Science, 2013, 4, 105.	1.7	114
9	Involvement of thiol-based mechanisms in plant development. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1479-1496.	1.1	93
10	The roles of glutaredoxins ligating Feâ€“S clusters: Sensing, transfer or repair functions?. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 1513-1527.	1.9	92
11	Monothiol glutaredoxins and A-type proteins: partners in Feâ€“S cluster trafficking. Dalton Transactions, 2013, 42, 3107.	1.6	91
12	Arabidopsis Chloroplastic Glutaredoxin C5 as a Model to Explore Molecular Determinants for Iron-Sulfur Cluster Binding into Glutaredoxins. Journal of Biological Chemistry, 2011, 286, 27515-27527.	1.6	81
13	Structure-Function Relationship of the Chloroplastic Glutaredoxin S12 with an Atypical WCSYS Active Site. Journal of Biological Chemistry, 2009, 284, 9299-9310.	1.6	80
14	Roles and maturation of ironâ€“sulfur proteins in plastids. Journal of Biological Inorganic Chemistry, 2018, 23, 545-566.	1.1	79
15	<i>Arabidopsis thaliana</i> Nfu2 Accommodates [2Fe-2S] or [4Fe-4S] Clusters and Is Competent for <i>in Vitro</i> Maturation of Chloroplast [2Fe-2S] and [4Fe-4S] Cluster-Containing Proteins. Biochemistry, 2013, 52, 6633-6645.	1.2	77
16	Monothiol Glutaredoxinâ€“BolA Interactions: Redox Control of Arabidopsis thaliana BolA2 and SufE1. Molecular Plant, 2014, 7, 187-205.	3.9	70
17	Glutaredoxin S12: Unique Properties for Redox Signaling. Antioxidants and Redox Signaling, 2012, 16, 17-32.	2.5	62
18	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, 6779-6784.	3.3	60

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19	Regulation of Differentiation of Nitrogen-Fixing Bacteria by Microsymbiont Targeting of Plant Thioredoxin s1. Current Biology, 2017, 27, 250-256.	1.8	51
20	Two <i>Sinorhizobium meliloti</i> glutaredoxins regulate iron metabolism and symbiotic bacteroid differentiation. Environmental Microbiology, 2013, 15, 795-810.	1.8	46
21	Monothiol Glutaredoxins Can Bind Linear [Fe₃S₄]⁺ and [Fe₄S₄]²⁺ Clusters in Addition to [Fe₂S₂]²⁺ Clusters: Spectroscopic Characterization and Functional Implications. Journal of the American Chemical Society, 2013, 135, 15153-15164.	6.6	42
22	PtAAP11, a high affinity amino acid transporter specifically expressed in differentiating xylem cells of poplar. Journal of Experimental Botany, 2010, 61, 1671-1682.	2.4	41
23	Structural and Spectroscopic Insights into BolA-Glutaredoxin Complexes. Journal of Biological Chemistry, 2014, 289, 24588-24598.	1.6	41
24	Glutamine, arginine and the amino acid transporter Pt-CAT11 play important roles during senescence in poplar. Annals of Botany, 2010, 105, 1159-1169.	1.4	38
25	Engineered mutated glutaredoxins mimicking peculiar plant class III glutaredoxins bind ironâ€“sulfur centers and possess reductase activity. Biochemical and Biophysical Research Communications, 2010, 403, 435-441.	1.0	32
26	The chloroplastic thiol reducing systems: dual functions in the regulation of carbohydrate metabolism and regeneration of antioxidant enzymes, emphasis on the poplar redoxin equipment. Photosynthesis Research, 2010, 104, 75-99.	1.6	31
27	Toward a refined classification of class I dithiol glutaredoxins from poplar: biochemical basis for the definition of two subclasses. Frontiers in Plant Science, 2013, 4, 518.	1.7	30
28	Rhodanese domain-containing sulfurtransferases: multifaceted proteins involved in sulfur trafficking in plants. Journal of Experimental Botany, 2019, 70, 4139-4154.	2.4	25
29	Ironâ€“sulfur protein NFU2 is required for branched-chain amino acid synthesis in Arabidopsis roots. Journal of Experimental Botany, 2019, 70, 1875-1889.	2.4	25
30	Identification of client ironâ€“sulfur proteins of the chloroplastic NFU2 transfer protein in Arabidopsis thaliana. Journal of Experimental Botany, 2020, 71, 4171-4187.	2.4	25
31	Glutathioneâ€•and glutaredoxinâ€dependent reduction of methionine sulfoxide reductase A. FEBS Letters, 2012, 586, 3894-3899.	1.3	24
32	Mitochondrial Arabidopsis thaliana TRXo Isoforms Bind an Ironâ€“Sulfur Cluster and Reduce NFU Proteins In Vitro. Antioxidants, 2018, 7, 142.	2.2	22
33	The plastidial Arabidopsis thaliana NFU1 protein binds and delivers [4Fe-4S] clusters to specific client proteins. Journal of Biological Chemistry, 2020, 295, 1727-1742.	1.6	20
34	Atypical protein disulfide isomerases (PDI): Comparison of the molecular and catalytic properties of poplar PDI-A and PDI-M with PDI-L1A. PLoS ONE, 2017, 12, e0174753.	1.1	20
35	Function and maturation of the Feâ€“S center in dihydroxyacid dehydratase from Arabidopsis. Journal of Biological Chemistry, 2018, 293, 4422-4433.	1.6	19
36	Is There a Role for Glutaredoxins and BOLAs in the Perception of the Cellular Iron Status in Plants?. Frontiers in Plant Science, 2019, 10, 712.	1.7	19

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37	Arabidopsis thaliana 3-mercaptopyruvate sulfurtransferases interact with and are protected by reducing systems. Journal of Biological Chemistry, 2021, 296, 100429.	1.6	18
38	The thioredoxin-mediated recycling of Arabidopsis thaliana GRXS16 relies on a conserved C-terminal cysteine. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 426-436.	1.1	17
39	Novel insights into the diversity of the sulfurtransferase family in photosynthetic organisms with emphasis on oak. New Phytologist, 2020, 226, 967-977.	3.5	14
40	X-ray structures of Nfs2, the plastidial cysteine desulfurase fromArabidopsis thaliana. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 1180-1185.	0.4	13
41	The Arabidopsis Mitochondrial Glutaredoxin GRXS15 Provides [2Fe-2S] Clusters for ISCA-Mediated [4Fe-4S] Cluster Maturation. International Journal of Molecular Sciences, 2020, 21, 9237.	1.8	12
42	[4Fe-4S] cluster trafficking mediated by Arabidopsis mitochondrial ISCA and NFU proteins. Journal of Biological Chemistry, 2020, 295, 18367-18378.	1.6	11
43	Putative roles of glutaredoxin-BolA holo-heterodimers in plants. Plant Signaling and Behavior, 2014, 9, e28564.	1.2	10
44	Occurrence, Evolution and Specificities of Iron-Sulfur Proteins and Maturation Factors in Chloroplasts from Algae. International Journal of Molecular Sciences, 2021, 22, 3175.	1.8	10
45	In the Absence of Thioredoxins, What Are the Reductants for Peroxiredoxins in <i>Thermotoga maritima</i>?. Antioxidants and Redox Signaling, 2013, 18, 1613-1622.	2.5	9
46	In Vitro Alkylation Methods for Assessing the Protein Redox State. Methods in Molecular Biology, 2017, 1653, 51-64.	0.4	6
47	Atypical Iron-Sulfur Cluster Binding, Redox Activity and Structural Properties of Chlamydomonas reinhardtii Glutaredoxin 2. Antioxidants, 2021, 10, 803.	2.2	3
48	The cytosolic Arabidopsis thaliana cysteine desulfurase ABA3 delivers sulfur to the sulfurtransferase STR18. Journal of Biological Chemistry, 2022, 298, 101749.	1.6	3
49	Chapter 13 Glutaredoxin. Advances in Botanical Research, 2009, 52, 405-436.	0.5	2
50	Structural and functional characterization of tree proteins involved in redox regulation: a new frontier in forest science. Annals of Forest Science, 2016, 73, 119-134.	0.8	1
51	<i>Sinorhizobium meliloti</i>YrbA binds divalent metal cations using two conserved histidines. Bioscience Reports, 2020, 40, .	1.1	0
52	Structural Insights into a Fusion Protein between a Glutaredoxin-like and a Ferredoxin-Disulfide Reductase Domain from an Extremophile Bacterium. Inorganics, 2022, 10, 24.	1.2	0
53	A Redox-Sensitive Cysteine Is Required for PIN1At Function. Frontiers in Plant Science, 2021, 12, 735423.	1.7	0