Pascal Rey

List of Publications by Year
in descending order

66 papers	4,608 citations	87888 38 h-index	102487 66 g-index
67 all docs	67 docs citations	67 times ranked	4257 citing authors

#	Article	IF	Citations
1	Vitamin E Protects against Photoinhibition and Photooxidative Stress in Arabidopsis thaliana. Plant Cell, 2005, 17, 3451-3469.	6.6	446
2	Plant Glutathione Peroxidases Are Functional Peroxiredoxins Distributed in Several Subcellular Compartments and Regulated during Biotic and Abiotic Stresses. Plant Physiology, 2006, 142, 1364-1379.	4.8	329
3	Plant thioredoxins are key actors in the oxidative stress response. Trends in Plant Science, 2006, 11, 329-334.	8.8	305
4	The Plastidic 2-Cysteine Peroxiredoxin Is a Target for a Thioredoxin Involved in the Protection of the Photosynthetic Apparatus against Oxidative Damage. Plant Cell, 2002, 14, 1417-1432.	6.6	184
5	Vitamin E is essential for the tolerance of <i>Arabidopsis thaliana</i> to metalâ€induced oxidative stress. Plant, Cell and Environment, 2008, 31, 244-257.	5.7	167
6	The Arabidopsis Plastidic Methionine Sulfoxide Reductase B Proteins. Sequence and Activity Characteristics, Comparison of the Expression with Plastidic Methionine Sulfoxide Reductase A, and Induction by Photooxidative Stress. Plant Physiology, 2005, 138, 909-922.	4.8	154
7	Analysis of the proteins targeted by CDSP32, a plastidic thioredoxin participating in oxidative stress responses. Plant Journal, 2004, 41, 31-42.	5.7	143
8	Over-expression of a pepper plastid lipid-associated protein in tobacco leads to changes in plastid ultrastructure and plant development upon stress. Plant Journal, 2000, 21, 483-494.	5.7	124
9	Plant methionine sulfoxide reductase A and B multigenic families. Photosynthesis Research, 2006, 89, 247-262.	2.9	123
10	Regeneration Mechanisms of Arabidopsis thaliana Methionine Sulfoxide Reductases B by Glutaredoxins and Thioredoxins. Journal of Biological Chemistry, 2009, 284, 18963-18971.	3.4	120
11	Protein-Repairing Methionine Sulfoxide Reductases in Photosynthetic Organisms: Gene Organization, Reduction Mechanisms, and Physiological Roles. Molecular Plant, 2009, 2, 202-217.	8.3	108
12	Potato Plants Lacking the CDSP32 Plastidic Thioredoxin Exhibit Overoxidation of the BAS1 2-Cysteine Peroxiredoxin and Increased Lipid Peroxidation in Thylakoids under Photooxidative Stress. Plant Physiology, 2003, 132, 1335-1343.	4.8	105
13	Thioredoxin m4 Controls Photosynthetic Alternative Electron Pathways in Arabidopsis Â Â. Plant Physiology, 2012, 161, 508-520.	4.8	100
14	A novel thioredoxin-like protein located in the chloroplast is induced by water deficit in Solanum tuberosum L. plants. Plant Journal, 2002, 13, 97-107.	5.7	99
15	Accumulation of plastid lipidâ€associated proteins (fibrillin/CDSP34) upon oxidative stress, ageing and biotic stress in Solanaceae and in response to drought in other species. Journal of Experimental Botany, 2001, 52, 1545-1554.	4.8	98
16	The Arabidopsis thaliana sulfiredoxin is a plastidic cysteine-sulfinic acid reductase involved in the photooxidative stress response. Plant Journal, 2007, 49, 505-514.	5.7	98
17	Evidence for participation of the methionine sulfoxide reductase repair system in plant seed longevity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3633-3638.	7.1	97
18	Involvement of thiol-based mechanisms in plant development. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1479-1496.	2.4	93

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19	Specificity of thioredoxins and glutaredoxins as electron donors to two distinct classes of Arabidopsis plastidial methionine sulfoxide reductases B. FEBS Letters, 2007, 581, 4371-4376.	2.8	89
20	Molecular characterization of CDSP 34, a chloroplastic protein induced by water deficit inSolanum tuberosumL. plants, and regulation ofCDSP 34expression by ABA and high illumination. Plant Journal, 1998, 16, 257-262.	5.7	85
21	Involvement of CDSP 32, a drought-induced thioredoxin, in the response to oxidative stress in potato plants. FEBS Letters, 2000, 467, 245-248.	2.8	81
22	Arabidopsis Glutaredoxin S17 and Its Partner, the Nuclear Factor Y Subunit C11/Negative Cofactor 2Î±, Contribute to Maintenance of the Shoot Apical Meristem under Long-Day Photoperiod. Plant Physiology, 2015, 167, 1643-1658.	4.8	78
23	Expression of SK3-type dehydrin in transporting organs is associated with cold acclimation in Solanum species. Planta, 2006, 224, 205-221.	3.2	77
24	Characterization of a novel drought-induced 34-kDa protein located in the thylakoids ofSolanum tuberosum L. plants. Planta, 1996, 198, 471-479.	3.2	75
25	Arabidopsis thaliana plastidial methionine sulfoxide reductases B, MSRBs, account for most leaf peptide MSR activity and are essential for growth under environmental constraints through a role in the preservation of photosystem antennae. Plant Journal, 2010, 61, 271-282.	5.7	75
26	Tocotrienols, the Unsaturated Forms of Vitamin E, Can Function as Antioxidants and Lipid Protectors in Tobacco Leaves. Plant Physiology, 2008, 147, 764-778.	4.8	71
27	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.	3.4	66
28	Physiological Roles of Plant Methionine Sulfoxide Reductases in Redox Homeostasis and Signaling. Antioxidants, 2018, 7, 114.	5.1	65
29	Expression of KS-type dehydrins is primarily regulated by factors related to organ type and leaf developmental stage during vegetative growth. Planta, 2004, 218, 878-885.	3.2	60
30	A drought-sensitive barley variety displays oxidative stress and strongly increased contents in low-molecular weight antioxidant compounds during water deficit compared to a tolerant variety. Journal of Plant Physiology, 2013, 170, 633-645.	3.5	51
31	Functional analysis and expression characteristics of chloroplastic Prx IIE. Physiologia Plantarum, 2008, 133, 599-610.	5.2	50
32	The mitochondrial type II peroxiredoxin from poplar. Physiologia Plantarum, 2007, 129, 196-206.	5.2	49
33	Efficiency of biochemical protection against toxic effects of accumulated salt differentiates Thellungiella halophila from Arabidopsis thaliana. Journal of Plant Physiology, 2007, 164, 375-384.	3.5	48
34	Involvement of thioredoxin y2 in the preservation of leaf methionine sulfoxide reductase capacity and growth under high light. Plant, Cell and Environment, 2013, 36, 670-682.	5.7	47
35	Effects of low temperature, high salinity and exogenous ABA on the synthesis of two chloroplastic drought-induced proteins in Solanum tuberosum. Physiologia Plantarum, 1996, 97, 123-131.	5.2	44
36	Involvement of <i>Arabidopsis</i> glutaredoxin S14 in the maintenance of chlorophyll content. Plant, Cell and Environment, 2017, 40, 2319-2332.	5.7	44

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37	Characterization of the Arabidopsis thaliana 2-Cys peroxiredoxin interactome. Plant Science, 2016, 252, 30-41.	3.6	43
38	Immunocytolocalization of CDSP 32 and CDSP 34, two chloroplastic drought-induced stress proteins in Solanum tuberosum plants. Plant Physiology and Biochemistry, 1999, 37, 305-312.	5.8	42
39	Atypical Thioredoxins in Poplar: The Glutathione-Dependent Thioredoxin-Like 2.1 Supports the Activity of Target Enzymes Possessing a Single Redox Active Cysteine Â. Plant Physiology, 2012, 159, 592-605.	4.8	39
40	Interplay between circadian rhythm, time of the day and osmotic stress constraints in the regulation of the expression of a Solanum Double B-box gene. Annals of Botany, 2014, 113, 831-842.	2.9	39
41	Effects of low temperature, high salinity and exogenous ABA on the synthesis of two chloroplastic drought-induced proteins in Solanum tuberosum. Physiologia Plantarum, 1996, 97, 123-131.	5.2	37
42	Affinity Chromatography: A Valuable Strategy to Isolate Substrates of Methionine Sulfoxide Reductases?. Antioxidants and Redox Signaling, 2012, 16, 79-84.	5.4	33
43	Overexpression of plastidial thioredoxins f and m differentially alters photosynthetic activity and response to oxidative stress in tobacco plants. Frontiers in Plant Science, 2013, 4, 390.	3.6	31
44	Studies on the reducing systems for plant and animal thioredoxin-independent methionine sulfoxide reductases B. Biochemical and Biophysical Research Communications, 2007, 361, 629-633.	2.1	26
45	PSII-S gene expression, photosynthetic activity and abundance of plastid thioredoxin-related and lipid-associated proteins during chilling stress in Solanum species differing in freezing resistance. Physiologia Plantarum, 2001, 113, 72-78.	5.2	25
46	Differential responses to salinity of two Atriplex halimus populations in relation to organic solutes and antioxidant systems involving thiol reductases. Journal of Plant Physiology, 2012, 169, 1445-1453.	3.5	25
47	The organ-dependent abundance of a Solanum lipid transfer protein is up-regulated upon osmotic constraints and associated with cold acclimation ability. Journal of Experimental Botany, 2008, 59, 2191-2203.	4.8	24
48	Physiological relevance of plant 2â€Cys peroxiredoxin overoxidation level and oligomerization status. Plant, Cell and Environment, 2016, 39, 103-119.	5.7	21
49	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.	3.6	19
50	Redox signaling through zinc activates the radiation response in Deinococcus bacteria. Scientific Reports, 2021, 11, 4528.	3.3	18
51	Atrazine and diuron resistant plants from photoautotrophic protoplast-derived cultures of Nicotiana plumbaginifolia. Plant Cell Reports, 1990, 9, 241-4.	5.6	15
52	<i>Solanum tuberosum ZPR1</i> encodes a lightâ€regulated nuclear DNAâ€binding protein adjusting the circadian expression of <i>StBBX24</i> to light cycle. Plant, Cell and Environment, 2017, 40, 424-440.	5.7	13
53	Photorespiratory Properties of Mesophyll Protoplasts of Nicotiana plumbaginifolia. Plant Physiology, 1989, 89, 762-767.	4.8	12
54	Evidence for post-translational control in the expression of a gene encoding a plastidic thioredoxin during leaf development in Solanum tuberosum plants. Plant Physiology and Biochemistry, 2003, 41, 303-308.	5.8	12

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55	The abundance of a single domain cyclophilin in Solanaceae is regulated as a function of organ type and high temperature and not by other environmental constraints. Physiologia Plantarum, 2007, 131, 387-398.	5.2	12
56	Establishment and characterization of photoautotrophic protoplast-derived cultures ofNicotiana plumbaginifolia. Plant Cell Reports, 1989, 8, 234-237.	5.6	9
57	Effects of CO₂-Enrichment and of Aminoacetonitrile on Growth and Photosynthesis of Photoautotrophic Calli of <i>Nicotiana plumbaginifolia</i>. Plant Physiology, 1990, 93, 549-554.	4.8	9
58	Expression and characterization of a barley phosphatidylinositol transfer protein structurally homologous to the yeast Sec14p protein. Plant Science, 2016, 246, 98-111.	3.6	9
59	Variability in the redox status of plant 2-Cys peroxiredoxins in relation to species and light cycle. Journal of Experimental Botany, 2019, 70, 5003-5016.	4.8	9
60	Integration of MsrB1 and MsrB2 in the Redox Network during the Development of Orthodox and Recalcitrant Acer Seeds. Antioxidants, 2020, 9, 1250.	5.1	7
61	Peptide-Bound Methionine Sulfoxide (MetO) Levels and MsrB2 Abundance Are Differentially Regulated during the Desiccation Phase in Contrasted Acer Seeds. Antioxidants, 2020, 9, 391.	5.1	7
62	Plastidial and cytosolic thiol reductases participate in the control of stomatal functioning. Plant, Cell and Environment, 2021, 44, 1417-1435.	5.7	7
63	Cell-type specific expression of three rice genes GOS2, GOS5 and GOS9. Plant Molecular Biology, 1993, 23, 889-894.	3.9	6
64	Thiol Reductases in Deinococcus Bacteria and Roles in Stress Tolerance. Antioxidants, 2022, 11, 561.	5.1	4
65	Involvement of the MetO/Msr System in Two Acer Species That Display Contrasting Characteristics during Germination. International Journal of Molecular Sciences, 2020, 21, 9197.	4.1	3
66	Contribution of functional genomics to identify the genetic basis of waterâ€deficit tolerance in barley and the related molecular mechanisms. Journal of Agronomy and Crop Science, 2021, 207, 913-935.	3.5	3