Graham Noctor

List of Articles by Year
in descending order

119 PR articles	27,808 PR citations	8894 70 PR h-index	18507 117 g-index
138 documents	33086 doc citations	8742 76 h-index	26548 citing authors

#	Article	IF	Citations
1	Cytosolic Monodehydroascorbate Reductase 2 Promotes Oxidative Stress Signaling in Arabidopsis. Plant, Cell and Environment, 2025, 48, 4966-4982.	6.5	2
2	Chloroplast thiol redox dynamics through the lens of genetically encoded biosensors. Journal of Experimental Botany, 2024, 75, 5312-5324.	5.1	6
3	Redox regulation of epigenetic and epitranscriptomic gene regulatory pathways in plants. Journal of Experimental Botany, 2024, 75, 4459-4475.	5.1	5
4	Glutathione: a key modulator of plant defence and metabolism through multiple mechanisms. Journal of Experimental Botany, 2024, 75, 4549-4572.	5.1	72
5	Exploring the puzzle of reactive oxygen species acting on root hair cells. Journal of Experimental Botany, 2024, 75, 4589-4598.	5.1	11
6	Mapping the redox regulatory landscape: a bit of history and a look to the future. Journal of Experimental Botany, 2024, 75, 4453-4458.	5.1	1
7	Metabolite modification in oxidative stress responses: A case study of two defense hormones. Free Radical Biology and Medicine, 2023, 196, 145-155.	3.7	5
8	Redox-mediated responses to high temperature in plants. Journal of Experimental Botany, 2023, 74, 2489-2507.	5.1	38
9	Sâ€Nitrosylation of the histone deacetylase HDA19 stimulates its activity to enhance plant stress tolerance in Arabidopsis. Plant Journal, 2023, 114, 836-854.	6.2	30
10	Thioredoxins m regulate plastid glucose-6-phosphate dehydrogenase activity in Arabidopsis roots under salt stress. Frontiers in Plant Science, 2023, 14, .	4.1	5
11	Impact of high atmospheric carbon dioxide on the biotic stress response of the model cereal species Brachypodium distachyon. Frontiers in Plant Science, 2023, 14, .	4.1	3
12	Molecular basis of priming-induced acquired tolerance to multiple abiotic stresses in plants. Journal of Experimental Botany, 2022, 73, 3355-3371.	5.1	63
13	Plant redox biologyâ€"on the move. Plant Physiology, 2021, 186, 1-3.	5.5	5
14	The proline cycle as an eukaryotic redox valve. Journal of Experimental Botany, 2021, 72, 6856-6866.	5.1	44
15	PROTEIN PHOSPHATASE 2A-Bâ€²<i>Î³</i> Controls <i>Botrytis cinerea</i> Resistance and Developmental Leaf Senescence. Plant Physiology, 2020, 182, 1161-1181.	5.5	32
16	A glutathione-dependent control of the indole butyric acid pathway supports Arabidopsis root system adaptation to phosphate deprivation. Journal of Experimental Botany, 2020, 71, 4843-4857.	5.1	38
17	Glutathioneâ€dependent denitrosation of GSNOR1 promotes oxidative signalling downstream of H2O2. Plant, Cell and Environment, 2020, 43, 1175-1191.	6.5	39
18	Redox Homeostasis and Signaling in a Higher-CO2 World. Annual Review of Plant Biology, 2020, 71, 157-182.	24.5	101

#	Article	IF	Citations
19	Analyzing the Function of Catalase and the Ascorbateâ€"Glutathione Pathway in H₂O₂Processing: Insights from an Experimentally Constrained Kinetic Model. Antioxidants and Redox Signaling, 2019, 30, 1238-1268.	6.3	68
20	Insights into the function of NADPH thioredoxin reductase C (NTRC) based on identification of NTRC-interacting proteins in vivo. Journal of Experimental Botany, 2019, 70, 5787-5798.	5.1	41
21	Cytosolic Isocitrate Dehydrogenase from Arabidopsis thaliana Is Regulated by Glutathionylation. Antioxidants, 2019, 8, 16.	5.8	29
22	Analysis of catalase mutants underscores the essential role of <scp>CATALASE2</scp> for plant growth and day lengthâ€dependent oxidative signalling. Plant, Cell and Environment, 2019, 42, 688-700.	6.5	57
23	ROS-related redox regulation and signaling in plants. Seminars in Cell and Developmental Biology, 2018, 80, 3-12.	5.4	750
24	Cytosolic and Chloroplastic DHARs Cooperate in Oxidative Stress-Driven Activation of the Salicylic Acid Pathway. Plant Physiology, 2017, 174, 956-971.	5.5	98
25	Functional analysis of the role of hydrogen sulfide in the regulation of dark-induced leaf senescence in Arabidopsis. Scientific Reports, 2017, 7, .	3.4	41
26	Glutathione oxidation in response to intracellular H2O2: Key but overlapping roles for dehydroascorbate reductases. Plant Signaling and Behavior, 2017, 12, e1356531.	3.3	41
27	Climate Change, CO 2 , and Defense: The Metabolic, Redox, and Signaling Perspectives. Trends in Plant Science, 2017, 22, 857-870.	11.6	90
28	Intracellular Redox Compartmentation and ROS-Related Communication in Regulation and Signaling. Plant Physiology, 2016, 171, 1581-1592.	5.5	367
29	Stressâ€triggered redox signalling: what's in pROSpect?. Plant, Cell and Environment, 2016, 39, 951-964.	6.5	347
30	Recent Progress in Understanding the Role of Reactive Oxygen Species in Plant Cell Signaling. Plant Physiology, 2016, 171, 1535-1539.	5.5	233
31	High CO2 primes plant biotic stress defences through redox-linked pathways. Plant Physiology, 2016, , pp.01129.2016.	5.5	75
32	SHORT-ROOT Deficiency Alleviates the Cell Death Phenotype of the Arabidopsis catalase2 Mutant under Photorespiration-Promoting Conditions. Plant Cell, 2016, 28, 1844-1859.	7.6	49
33	Oxidative stress and antioxidative systems: recipes for successful data collection and interpretation. Plant, Cell and Environment, 2016, 39, 1140-1160.	6.5	358
34	The ROS Wheel: Refining ROS Transcriptional Footprints. Plant Physiology, 2016, 171, 1720-1733.	5.5	154
35	Analysis of the roles of the Arabidopsis peroxisomal isocitrate dehydrogenase in leaf metabolism and oxidative stress. Environmental and Experimental Botany, 2015, 114, 22-29.	4.7	19
36	The metabolomics of oxidative stress. Phytochemistry, 2015, 112, 33-53.	3.1	230

#	Article	IF	Citations
37	The protein phosphatase subunit PP2Aâ€Bâ€²Î³ is required to suppress day lengthâ€dependent pathogenesis responses triggered by intracellular oxidative stress. New Phytologist, 2014, 202, 145-160.	8.1	70
38	The secondary metabolism glycosyltransferases UGT73B3 and UGT73B5 are components of redox status in resistance of Arabidopsis to Pseudomonas syringae pv. tomato. Plant, Cell and Environment, 2014, 37, 1114-1129.	6.5	94
39	The Roles of Reactive Oxygen Metabolism in Drought: Not So Cut and Dried Â Â. Plant Physiology, 2014, 164, 1636-1648.	5.5	649
40	Analysis of cytosolic isocitrate dehydrogenase and glutathione reductase 1 in photoperiodâ€influenced responses to ozone using Arabidopsis knockout mutants. Plant, Cell and Environment, 2013, 36, 1981-1991.	6.5	26
41	Regulation of basal and oxidative stressâ€triggered jasmonic acidâ€related gene expression by glutathione. Plant, Cell and Environment, 2013, 36, 1135-1146.	6.5	150
42	Functional Analysis of Arabidopsis Mutants Points to Novel Roles for Glutathione in Coupling H_2O_2 to Activation of Salicylic Acid Accumulation and Signaling. Antioxidants and Redox Signaling, 2013, 18, 2106-2121.	6.3	256
43	Missing links in understanding redox signaling via thiol/disulfide modulation: how is glutathione oxidized in plants?. Frontiers in Plant Science, 2013, 4, .	4.1	88
44	Regulating the Redox Gatekeeper: Vacuolar Sequestration Puts Glutathione Disulfide in Its Place Â. Plant Physiology, 2013, 163, 665-671.	5.5	65
45	Analysis of knockout mutants suggests that Arabidopsis NADP-MALIC ENZYME2 does not play an essential role in responses to oxidative stress of intracellular or extracellular origin. Journal of Experimental Botany, 2013, 64, 3605-3614.	5.1	26
46	Photosynthesis, photorespiration, and light signalling in defence responses. Journal of Experimental Botany, 2012, 63, 1619-1636.	5.1	366
47	Plant catalases: Peroxisomal redox guardians. Archives of Biochemistry and Biophysics, 2012, 525, 181-194.	2.8	291
48	Chemical PARP Inhibition Enhances Growth of Arabidopsis and Reduces Anthocyanin Accumulation and the Activation of Stress Protective Mechanisms. PLoS ONE, 2012, 7, e37287.	2.3	52
49	Photosynthetic control of electron transport and the regulation of gene expression. Journal of Experimental Botany, 2012, 63, 1637-1661.	5.1	437
50	Day length is a key regulator of transcriptomic responses to both CO2and H2O2inArabidopsis. Plant, Cell and Environment, 2012, 35, 374-387.	6.5	90
51	Glutathione in plants: an integrated overview. Plant, Cell and Environment, 2012, 35, 454-484.	6.5	1,428
52	Managing the cellular redox hub in photosynthetic organisms. Plant, Cell and Environment, 2012, 35, 199-201.	6.5	102
53	AtRbohF is a crucial modulator of defenceâ€associated metabolism and a key actor in the interplay between intracellular oxidative stress and pathogenesis responses in Arabidopsis. Plant Journal, 2012, 69, 613-627.	6.2	197
54	Inducible NAD overproduction in Arabidopsis alters metabolic pools and gene expression correlated with increased salicylate content and resistance to Pstâ€AvrRpm1. Plant Journal, 2012, 70, 650-665.	6.2	104

#	Article	IF	Citations
55	Perturbations of Amino Acid Metabolism Associated with Glyphosate-Dependent Inhibition of Shikimic Acid Metabolism Affect Cellular Redox Homeostasis and Alter the Abundance of Proteins Involved in Photosynthesis and Photorespiration Â Â. Plant Physiology, 2011, 157, 256-268.	5.5	126
56	Glutathione. The Arabidopsis Book, 2011, 9, 1-32.	1.0	235
57	Increased intracellular H2O2 availability preferentially drives glutathione accumulation in vacuoles and chloroplasts. Plant, Cell and Environment, 2011, 34, 21-32.	6.5	147
58	Acclimation to high CO2 in maize is related to water status and dependent on leaf rank. Plant, Cell and Environment, 2011, 34, 314-331.	6.5	37
59	Ascorbate and Glutathione: The Heart of the Redox Hub. Plant Physiology, 2011, 155, 2-18.	5.5	2,266
60	Respiration and nitrogen assimilation: targeting mitochondria-associated metabolism as a means to enhance nitrogen use efficiency. Journal of Experimental Botany, 2011, 62, 1467-1482.	5.1	266
61	The ZmASR1 Protein Influences Branched-Chain Amino Acid Biosynthesis and Maintains Kernel Yield in Maize under Water-Limited Conditions Â Â. Plant Physiology, 2011, 157, 917-936.	5.5	118
62	Conditional modulation of NAD levels and metabolite profiles in Nicotiana sylvestris by mitochondrial electron transport and carbon/nitrogen supply. Planta, 2010, 231, 1145-1157.	3.3	25
63	Myoâ€inositol abolishes salicylic acidâ€dependent cell death and pathogen defence responses triggered by peroxisomal hydrogen peroxide. New Phytologist, 2010, 188, 711-718.	8.1	106
64	Cytosolic NADP-dependent isocitrate dehydrogenase contributes to redox homeostasis and the regulation of pathogen responses inArabidopsisleaves. Plant, Cell and Environment, 2010, , .	6.5	112
65	The differential spatial distribution of secondary metabolites in Arabidopsis leaves reacting hypersensitively to Pseudomonas syringae pv. tomato is dependent on the oxidative burst. Journal of Experimental Botany, 2010, 61, 3355-3370.	5.1	62
66	Peroxisomal Hydrogen Peroxide Is Coupled to Biotic Defense Responses by ISOCHORISMATE SYNTHASE1 in a Daylength-Related Manner Â Â Â. Plant Physiology, 2010, 153, 1692-1705.	5.5	224
67	Catalase function in plants: a focus on Arabidopsis mutants as stress-mimic models. Journal of Experimental Botany, 2010, 61, 4197-4220.	5.1	886
68	Arabidopsis GLUTATHIONE REDUCTASE1 Plays a Crucial Role in Leaf Responses to Intracellular Hydrogen Peroxide and in Ensuring Appropriate Gene Expression through Both Salicylic Acid and Jasmonic Acid Signaling Pathways Â Â Â. Plant Physiology, 2010, 153, 1144-1160.	5.5	362
69	Redox Regulation in Photosynthetic Organisms: Signaling, Acclimation, and Practical Implications. Antioxidants and Redox Signaling, 2009, 11, 861-905.	6.3	1,296
70	H2O2-Activated Up-Regulation of Glutathione in Arabidopsis Involves Induction of Genes Encoding Enzymes Involved in Cysteine Synthesis in the Chloroplast. Molecular Plant, 2009, 2, 344-356.	18.9	141
71	Cotranslational Proteolysis Dominates Glutathione Homeostasis to Support Proper Growth and Development Â. Plant Cell, 2009, 21, 3296-3314.	7.6	39
72	Photorespiratory Metabolism: Genes, Mutants, Energetics, and Redox Signaling. Annual Review of Plant Biology, 2009, 60, 455-484.	24.5	566

#	Article	IF	Citations
73	Mitochondrial respiratory pathways modulate nitrate sensing and nitrogenâ€dependent regulation of plant architecture in Nicotiana sylvestris. Plant Journal, 2008, 54, 976-992.	6.2	60
74	Why are literature data for H2O2 contents so variable? A discussion of potential difficulties in the quantitative assay of leaf extracts. Journal of Experimental Botany, 2008, 59, 135-146.	5.1	139
75	An evaluation of the costs of making specific secondary metabolites: Does the yield penalty incurred by host plant resistance to insects result from competition for resources?. International Journal of Pest Management, 2007, 53, 175-182.	1.7	17
76	Mitochondrial redox biology and homeostasis in plants. Trends in Plant Science, 2007, 12, 125-134.	11.6	470
77	Shape-shifters building bridges? Stromules, matrixules and metabolite channelling in photorespiration. Trends in Plant Science, 2007, 12, 381-383.	11.6	12
78	A plate reader method for the measurement of NAD, NADP, glutathione, and ascorbate in tissue extracts: Application to redox profiling during Arabidopsis rosette development. Analytical Biochemistry, 2007, 363, 58-69.	2.4	437
79	Conditional oxidative stress responses in the Arabidopsis photorespiratory mutant cat2 demonstrate that redox state is a key modulator of daylengthâ€dependent gene expression, and define photoperiod as a crucial factor in the regulation of H 2 O 2â€induced cell death. Plant Journal, 2007, 52, 640-657.	6.2	429
80	The thioredoxin-independent isoform of chloroplastic glyceraldehyde-3-phosphate dehydrogenase is selectively regulated by glutathionylation. FEBS Journal, 2007, 274, 212-226.	5.4	117
81	A comparative study of amino acid measurement in leaf extracts by gas chromatography-time of flight-mass spectrometry and high performance liquid chromatography with fluorescence detection. Metabolomics, 2007, 3, 161-174.	2.8	72
82	Metabolic signalling in defence and stress: the central roles of soluble redox couples. Plant, Cell and Environment, 2006, 29, 409-425.	6.5	444
83	NAD(P) synthesis and pyridine nucleotide cycling in plants and their potential importance in stress conditions. Journal of Experimental Botany, 2006, 57, 1603-1620.	5.1	236
84	Oxidant and antioxidant signalling in plants: a re-evaluation of the concept of oxidative stress in a physiological context. Plant, Cell and Environment, 2005, 28, 1056-1071.	6.5	1,654
85	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, 16478-16483.	7.5	187
86	Mitochondria-Driven Changes in Leaf NAD Status Exert a Crucial Influence on the Control of Nitrate Assimilation and the Integration of Carbon and Nitrogen Metabolism. Plant Physiology, 2005, 139, 64-78.	5.5	187
87	Redox Homeostasis and Antioxidant Signaling: A Metabolic Interface between Stress Perception and Physiological Responses. Plant Cell, 2005, 17, 1866-1875.	7.6	2,671
88	Intercellular Distribution of Glutathione Synthesis in Maize Leaves and Its Response to Short-Term Chilling. Plant Physiology, 2004, 134, 1662-1671.	5.5	111
89	Redox sensing and signalling associated with reactive oxygen in chloroplasts, peroxisomes and mitochondria. Physiologia Plantarum, 2003, 119, 355-364.	3.6	1,183
90	Leaf Vitamin C Contents Modulate Plant Defense Transcripts and Regulate Genes That Control Development through Hormone Signaling[W]. Plant Cell, 2003, 15, 939-951.	7.6	480

#	Article	IF	Citations
91	Leaf Mitochondria Modulate Whole Cell Redox Homeostasis, Set Antioxidant Capacity, and Determine Stress Resistance through Altered Signaling and Diurnal Regulation. Plant Cell, 2003, 15, 1212-1226.	7.6	510
92	Use of mitochondrial electron transport mutants to evaluate the effects of redox state on photosynthesis, stress tolerance and the integration of carbon/nitrogen metabolism. Journal of Experimental Botany, 2003, 55, 49-57.	5.1	103
93	Functional Mitochondrial Complex I Is Required by Tobacco Leaves for Optimal Photosynthetic Performance in Photorespiratory Conditions and during Transients. Plant Physiology, 2003, 131, 264-275.	5.5	296
94	Markers and signals associated with nitrogen assimilation in higher plants. Journal of Experimental Botany, 2003, 54, 585-593.	5.1	279
95	Drought and Oxidative Load in the Leaves of C3 Plants: a Predominant Role for Photorespiration?. Annals of Botany, 2002, 89, 841-850.	3.1	591
96	Are leaf hydrogen peroxide concentrations commonly overestimated? The potential influence of artefactual interference by tissue phenolics and ascorbate. Plant Physiology and Biochemistry, 2002, 40, 501-507.	5.5	215
97	Coâ€ordination of leaf minor amino acid contents in crop species: significance and interpretation. Journal of Experimental Botany, 2002, 53, 939-945.	5.1	92
98	Interactions between biosynthesis, compartmentation and transport in the control of glutathione homeostasis and signalling. Journal of Experimental Botany, 2002, 53, 1283-1304.	5.1	754
99	Low Ascorbic Acid in the vtc-1 Mutant of Arabidopsis Is Associated with Decreased Growth and Intracellular Redistribution of the Antioxidant System. Plant Physiology, 2001, 127, 426-435.	5.5	258
100	Tansley Review No. 112. New Phytologist, 2000, 146, 359-388.	8.1	909
101	Antisense Suppression of 2-Cysteine Peroxiredoxin in Arabidopsis Specifically Enhances the Activities and Expression of Enzymes Associated with Ascorbate Metabolism But Not Glutathione Metabolism. Plant Physiology, 2000, 124, 823-832.	5.5	175
102	Homeostasis of adenylate status during photosynthesis in a fluctuating environment. Journal of Experimental Botany, 2000, 51, 347-356.	5.1	119
103	Peroxide processing in photosynthesis: antioxidant coupling and redox signalling. Philosophical Transactions of the Royal Society B: Biological Sciences, 2000, 355, 1465-1475.	3.7	217
104	Photorespiratory glycine enhances glutathione accumulation in both the chloroplastic and cytosolic compartments. Journal of Experimental Botany, 1999, 50, 1157-1167.	5.1	93
105	ASCORBATE AND GLUTATHIONE: Keeping Active Oxygen Under Control. Annual Review of Plant Biology, 1998, 49, 249-279.	0.0	4,941
106	Manipulation of Glutathione and Amino Acid Biosynthesis in the Chloroplast. Plant Physiology, 1998, 118, 471-482.	5.5	193
107	Glutathione: biosynthesis, metabolism and relationship to stress tolerance explored in transformed plants. Journal of Experimental Botany, 1998, 49, 623-647.	5.1	455
108	Simultaneous Measurement of Foliar Glutathione, Î³-Glutamylcysteine, and Amino Acids by High-Performance Liquid Chromatography: Comparison with Two Other Assay Methods for Glutathione. Analytical Biochemistry, 1998, 264, 98-110.	2.4	185

#	Article	IF	Citations
109	L'oxygÃ¨ne: bienfait ou danger pour les plantes?. Biofutur, 1997, 1997, 27-29.	0.0	3
110	The role of glycine in determining the rate of glutathione synthesis in poplar. Possible implications for glutathione production during stress. Physiologia Plantarum, 1997, 100, 255-263.	3.6	97
111	Light-dependent modulation of foliar glutathione synthesis and associated amino acid metabolism in poplar overexpressing Î³-glutamylcysteine synthetase. Planta, 1997, 202, 357-369.	3.3	82
112	Modification of thiol contents in poplars (Populus tremula Ã— P. alba) overexpressing enzymes involved in glutathione synthesis. Planta, 1997, 203, 362-372.	3.3	119
113	Modulation of Î”pH-dependent nonphotochemical quenching of chlorophyll fluorescence in spinach chloroplasts. Biochimica Et Biophysica Acta - Bioenergetics, 1993, 1183, 339-344.	0.9	85
114	pH dependent chlorophyll fluorescence quenching in spinach thylakoids from light treated or dark adapted leaves. Photosynthesis Research, 1992, 31, 11-19.	3.4	85
115	The relationship between zeaxanthin, energy-dependent quenching of chlorophyll fluorescence, and trans-thylakoid pH gradient in isolated chloroplasts. Biochimica Et Biophysica Acta - Bioenergetics, 1991, 1057, 320-330.	0.9	182
116	Uncoupler titration of energy-dependent chlorophyll fluorescence quenching and Photosystem II Photochemical yield in intact pea chloroplasts. Biochimica Et Biophysica Acta - Bioenergetics, 1990, 1016, 228-234.	0.9	34
117	Thiol modulation of the thylakoid ATPase. Lack of oxidation of the enzyme in the presence of Î”Î¼H+ in vivo and a possible explanation of the physiological requirement for thiol regulation of the enzyme. Biochimica Et Biophysica Acta - Bioenergetics, 1988, 935, 53-60.	0.9	20
118	Effects of Elevated CO₂ on Bean Pod Mottle Virus Infection in Both Incompatible and Compatible Interactions With <i>Phaseolus vulgaris</i> L. Plant, Cell and Environment, 0, , .	6.5	1
119	A Coupled GSH/GSNOR System Denitrosylates TRXh5 to Allow Activation of SA Signalling by Oxidative Stress. Plant, Cell and Environment, 0, 49, 2691-2705.	6.5	0