

Graham Noctor

List of Publications by Year in descending order

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103
papers

31,338
citations

10986

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docs citations

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times ranked

20456
citing authors

#	ARTICLE	IF	CITATIONS
1	PROTEIN PHOSPHATASE 2A- <i>B</i> ³ Controls <i>Botrytis cinerea</i> Resistance and Developmental Leaf Senescence. <i>Plant Physiology</i> , 2020, 182, 1161-1181.	4.8	25
2	Glutathione-dependent denitrosation of GSNOR1 promotes oxidative signalling downstream of H ₂ O ₂ . <i>Plant, Cell and Environment</i> , 2020, 43, 1175-1191.	5.7	22
3	Redox Homeostasis and Signaling in a Higher-CO ₂ World. <i>Annual Review of Plant Biology</i> , 2020, 71, 157-182.	18.7	58
4	Analyzing the Function of Catalase and the Ascorbate-Glutathione Pathway in H ₂ O ₂ Processing: Insights from an Experimentally Constrained Kinetic Model. <i>Antioxidants and Redox Signaling</i> , 2019, 30, 1238-1268.	5.4	39
5	Cytosolic Isocitrate Dehydrogenase from <i>Arabidopsis thaliana</i> Is Regulated by Glutathionylation. <i>Antioxidants</i> , 2019, 8, 16.	5.1	21
6	Analysis of catalase mutants underscores the essential role of <i>CATALASE2</i> for plant growth and day length-dependent oxidative signalling. <i>Plant, Cell and Environment</i> , 2019, 42, 688-700.	5.7	37
7	ROS-related redox regulation and signaling in plants. <i>Seminars in Cell and Developmental Biology</i> , 2018, 80, 3-12.	5.0	581
8	Viewing oxidative stress through the lens of oxidative signalling rather than damage. <i>Biochemical Journal</i> , 2017, 474, 877-883.	3.7	214
9	Cytosolic and Chloroplastic DHARs Cooperate in Oxidative Stress-Driven Activation of the Salicylic Acid Pathway. <i>Plant Physiology</i> , 2017, 174, 956-971.	4.8	72
10	Measurement of Transcripts Associated with Photorespiration and Related Redox Signaling. <i>Methods in Molecular Biology</i> , 2017, 1653, 17-29.	0.9	3
11	Functional analysis of the role of hydrogen sulfide in the regulation of dark-induced leaf senescence in <i>Arabidopsis</i> . <i>Scientific Reports</i> , 2017, 7, 2615.	3.3	30
12	Glutathione oxidation in response to intracellular H ₂ O ₂ : Key but overlapping roles for dehydroascorbate reductases. <i>Plant Signaling and Behavior</i> , 2017, 12, e1356531.	2.4	33
13	Climate Change, CO ₂ , and Defense: The Metabolic, Redox, and Signaling Perspectives. <i>Trends in Plant Science</i> , 2017, 22, 857-870.	8.8	74
14	Intracellular Redox Compartmentation and ROS-Related Communication in Regulation and Signaling. <i>Plant Physiology</i> , 2016, 171, 1581-1592.	4.8	288
15	Stress-triggered redox signalling: what's in pROspect?. <i>Plant, Cell and Environment</i> , 2016, 39, 951-964.	5.7	293
16	Recent Progress in Understanding the Role of Reactive Oxygen Species in Plant Cell Signaling. <i>Plant Physiology</i> , 2016, 171, 1535-1539.	4.8	199
17	High CO ₂ primes plant biotic stress defences through redox-linked pathways. <i>Plant Physiology</i> , 2016, 172, pp.01129.2016.	4.8	69
18	SHORT-ROOT Deficiency Alleviates the Cell Death Phenotype of the <i>Arabidopsis catalase2</i> Mutant under Photorespiration-Promoting Conditions. <i>Plant Cell</i> , 2016, 28, 1844-1859.	6.6	42

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19	Oxidative stress and antioxidative systems: recipes for successful data collection and interpretation. <i>Plant, Cell and Environment</i> , 2016, 39, 1140-1160.	5.7	278
20	The ROS Wheel: Refining ROS Transcriptional Footprints. <i>Plant Physiology</i> , 2016, 171, 1720-1733.	4.8	137
21	Keeping a cool head: gene networks underlying chilling-induced male sterility in rice. <i>Plant, Cell and Environment</i> , 2015, 38, 1252-1254.	5.7	12
22	Analysis of the roles of the Arabidopsis peroxisomal isocitrate dehydrogenase in leaf metabolism and oxidative stress. <i>Environmental and Experimental Botany</i> , 2015, 114, 22-29.	4.2	19
23	Lighting the fuse on toxic TNT. <i>Science</i> , 2015, 349, 1052-1053.	12.6	13
24	The metabolomics of oxidative stress. <i>Phytochemistry</i> , 2015, 112, 33-53.	2.9	199
25	The protein phosphatase subunit PP2A ²¹³ is required to suppress day length-dependent pathogenesis responses triggered by intracellular oxidative stress. <i>New Phytologist</i> , 2014, 202, 145-160.	7.3	66
26	The secondary metabolism glycosyltransferases UGT73B3 and UGT73B5 are components of redox status in resistance of Arabidopsis to <i>Pseudomonas syringae</i> pv. <i>tomato</i> . <i>Plant, Cell and Environment</i> , 2014, 37, 1114-1129.	5.7	80
27	The Roles of Reactive Oxygen Metabolism in Drought: Not So Cut and Dried. <i>Plant Physiology</i> , 2014, 164, 1636-1648.	4.8	519
28	Analysis of cytosolic isocitrate dehydrogenase and glutathione reductase 1 in photoperiod-influenced responses to ozone using Arabidopsis knockout mutants. <i>Plant, Cell and Environment</i> , 2013, 36, 1981-1991.	5.7	23
29	Regulation of basal and oxidative stress-triggered jasmonic acid-related gene expression by glutathione. <i>Plant, Cell and Environment</i> , 2013, 36, 1135-1146.	5.7	137
30	Functional Analysis of Arabidopsis Mutants Points to Novel Roles for Glutathione in Coupling H ₂ O ₂ to Activation of Salicylic Acid Accumulation and Signaling. <i>Antioxidants and Redox Signaling</i> , 2013, 18, 2106-2121.	5.4	234
31	Redox Signaling in Plants. <i>Antioxidants and Redox Signaling</i> , 2013, 18, 2087-2090.	5.4	314
32	Missing links in understanding redox signaling via thiol/disulfide modulation: how is glutathione oxidized in plants?. <i>Frontiers in Plant Science</i> , 2013, 4, 477.	3.6	75
33	Regulating the Redox Gatekeeper: Vacuolar Sequestration Puts Glutathione Disulfide in Its Place. <i>Plant Physiology</i> , 2013, 163, 665-671.	4.8	60
34	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. <i>Journal of Experimental Botany</i> , 2013, 64, 3605-3614.	4.8	23
35	Glutathione-dependent phytohormone responses. <i>Plant Signaling and Behavior</i> , 2013, 8, e24181.	2.4	21
36	Photosynthesis, photorespiration, and light signalling in defence responses. <i>Journal of Experimental Botany</i> , 2012, 63, 1619-1636.	4.8	330

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37	Plant catalases: Peroxisomal redox guardians. Archives of Biochemistry and Biophysics, 2012, 525, 181-194.	3.0	250
38	Chemical PARP Inhibition Enhances Growth of Arabidopsis and Reduces Anthocyanin Accumulation and the Activation of Stress Protective Mechanisms. PLoS ONE, 2012, 7, e37287.	2.5	47
39	Photosynthetic control of electron transport and the regulation of gene expression. Journal of Experimental Botany, 2012, 63, 1637-1661.	4.8	375
40	Day length is a key regulator of transcriptomic responses to both CO ₂ and H ₂ O ₂ in <i>Arabidopsis</i> . Plant, Cell and Environment, 2012, 35, 374-387.	5.7	83
41	Glutathione in plants: an integrated overview. Plant, Cell and Environment, 2012, 35, 454-484.	5.7	1,211
42	Managing the cellular redox hub in photosynthetic organisms. Plant, Cell and Environment, 2012, 35, 199-201.	5.7	95
43	AtRbohF is a crucial modulator of defence-associated metabolism and a key actor in the interplay between intracellular oxidative stress and pathogenesis responses in Arabidopsis. Plant Journal, 2012, 69, 613-627.	5.7	178
44	Inducible NAD overproduction in Arabidopsis alters metabolic pools and gene expression correlated with increased salicylate content and resistance to <i>Pst</i> AvrRpm1. Plant Journal, 2012, 70, 650-665.	5.7	95
45	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. Plant Physiology, 2011, 157, 256-268.	4.8	108
46	Biosynthesis of NAD and Its Manipulation in Plants. Advances in Botanical Research, 2011, , 153-201.	1.1	25
47	Glutathione. The Arabidopsis Book, 2011, 9, 1-32.	0.5	206
48	Increased intracellular H ₂ O ₂ availability preferentially drives glutathione accumulation in vacuoles and chloroplasts. Plant, Cell and Environment, 2011, 34, 21-32.	5.7	139
49	Acclimation to high CO ₂ in maize is related to water status and dependent on leaf rank. Plant, Cell and Environment, 2011, 34, 314-331.	5.7	33
50	Ascorbate and Glutathione: The Heart of the Redox Hub. Plant Physiology, 2011, 155, 2-18.	4.8	1,959
51	Respiration and nitrogen assimilation: targeting mitochondria-associated metabolism as a means to enhance nitrogen use efficiency. Journal of Experimental Botany, 2011, 62, 1467-1482.	4.8	236
52	The ZmASR1 Protein Influences Branched-Chain Amino Acid Biosynthesis and Maintains Kernel Yield in Maize under Water-Limited Conditions. Plant Physiology, 2011, 157, 917-936.	4.8	108
53	Conditional modulation of NAD levels and metabolite profiles in <i>Nicotiana sylvestris</i> by mitochondrial electron transport and carbon/nitrogen supply. Planta, 2010, 231, 1145-1157.	3.2	23
54	<i>Myo</i> -inositol abolishes salicylic acid-dependent cell death and pathogen defence responses triggered by peroxisomal hydrogen peroxide. New Phytologist, 2010, 188, 711-718.	7.3	97

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55	Cytosolic NADP-dependent isocitrate dehydrogenase contributes to redox homeostasis and the regulation of pathogen responses in <i>Arabidopsis</i> leaves. <i>Plant, Cell and Environment</i> , 2010, 33, 1112-23.	5.7	107
56	The differential spatial distribution of secondary metabolites in <i>Arabidopsis</i> leaves reacting hypersensitively to <i>Pseudomonas syringae</i> pv. <i>tomato</i> is dependent on the oxidative burst. <i>Journal of Experimental Botany</i> , 2010, 61, 3355-3370.	4.8	56
57	Peroxisomal Hydrogen Peroxide Is Coupled to Biotic Defense Responses by ISOCHORISMATE SYNTHASE1 in a Daylength-Related Manner. <i>Plant Physiology</i> , 2010, 153, 1692-1705.	4.8	202
58	Catalase function in plants: a focus on <i>Arabidopsis</i> mutants as stress-mimic models. <i>Journal of Experimental Botany</i> , 2010, 61, 4197-4220.	4.8	736
59	<i>Arabidopsis</i> 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. <i>Plant Physiology</i> , 2010, 153, 1144-1160.	4.8	328
60	Redox Regulation in Photosynthetic Organisms: Signaling, Acclimation, and Practical Implications. <i>Antioxidants and Redox Signaling</i> , 2009, 11, 861-905.	5.4	1,199
61	H ₂ O ₂ -Activated Up-Regulation of Glutathione in <i>Arabidopsis</i> Involves Induction of Genes Encoding Enzymes Involved in Cysteine Synthesis in the Chloroplast. <i>Molecular Plant</i> , 2009, 2, 344-356.	8.3	131
62	Cotranslational Proteolysis Dominates Glutathione Homeostasis to Support Proper Growth and Development. <i>Plant Cell</i> , 2009, 21, 3296-3314.	6.6	38
63	Photorespiratory Metabolism: Genes, Mutants, Energetics, and Redox Signaling. <i>Annual Review of Plant Biology</i> , 2009, 60, 455-484.	18.7	518
64	Mitochondrial respiratory pathways modulate nitrate sensing and nitrogen-dependent regulation of plant architecture in <i>Nicotiana sylvestris</i> . <i>Plant Journal</i> , 2008, 54, 976-992.	5.7	58
65	Why are literature data for H ₂ O ₂ contents so variable? A discussion of potential difficulties in the quantitative assay of leaf extracts. <i>Journal of Experimental Botany</i> , 2008, 59, 135-146.	4.8	131
66	Mitochondrial redox biology and homeostasis in plants. <i>Trends in Plant Science</i> , 2007, 12, 125-134.	8.8	445
67	Shape-shifters building bridges? Stromules, matrixules and metabolite channelling in photorespiration. <i>Trends in Plant Science</i> , 2007, 12, 381-383.	8.8	12
68	A plate reader method for the measurement of NAD, NADP, glutathione, and ascorbate in tissue extracts: Application to redox profiling during <i>Arabidopsis</i> rosette development. <i>Analytical Biochemistry</i> , 2007, 363, 58-69.	2.4	401
69	Conditional oxidative stress responses in the <i>Arabidopsis</i> photorespiratory mutant <i>cat2</i> demonstrate that redox state is a key modulator of daylength-dependent gene expression, and define photoperiod as a crucial factor in the regulation of H ₂ O ₂ -induced cell death. <i>Plant Journal</i> , 2007, 52, 640-657.	5.7	394
70	The thioredoxin-independent isoform of chloroplastic glyceraldehyde-3-phosphate dehydrogenase is selectively regulated by glutathionylation. <i>FEBS Journal</i> , 2007, 274, 212-226.	4.7	114
71	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. <i>Metabolomics</i> , 2007, 3, 161-174.	3.0	71
72	Metabolic signalling in defence and stress: the central roles of soluble redox couples. <i>Plant, Cell and Environment</i> , 2006, 29, 409-425.	5.7	418

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73	NAD(P) synthesis and pyridine nucleotide cycling in plants and their potential importance in stress conditions. <i>Journal of Experimental Botany</i> , 2006, 57, 1603-1620.	4.8	224
74	Oxidant and antioxidant signalling in plants: a re-evaluation of the concept of oxidative stress in a physiological context. <i>Plant, Cell and Environment</i> , 2005, 28, 1056-1071.	5.7	1,529
75	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> , 2005, 102, 16478-16483.	7.1	177
76	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. <i>Plant Physiology</i> , 2005, 139, 64-78.	4.8	185
77	Redox Homeostasis and Antioxidant Signaling: A Metabolic Interface between Stress Perception and Physiological Responses. <i>Plant Cell</i> , 2005, 17, 1866-1875.	6.6	2,408
78	Intercellular Distribution of Glutathione Synthesis in Maize Leaves and Its Response to Short-Term Chilling. <i>Plant Physiology</i> , 2004, 134, 1662-1671.	4.8	110
79	Redox sensing and signalling associated with reactive oxygen in chloroplasts, peroxisomes and mitochondria. <i>Physiologia Plantarum</i> , 2003, 119, 355-364.	5.2	1,110
80	Leaf Vitamin C Contents Modulate Plant Defense Transcripts and Regulate Genes That Control Development through Hormone Signaling[W]. <i>Plant Cell</i> , 2003, 15, 939-951.	6.6	454
81	Leaf Mitochondria Modulate Whole Cell Redox Homeostasis, Set Antioxidant Capacity, and Determine Stress Resistance through Altered Signaling and Diurnal Regulation. <i>Plant Cell</i> , 2003, 15, 1212-1226.	6.6	492
82	Use of mitochondrial electron transport mutants to evaluate the effects of redox state on photosynthesis, stress tolerance and the integration of carbon/nitrogen metabolism. <i>Journal of Experimental Botany</i> , 2003, 55, 49-57.	4.8	102
83	Functional Mitochondrial Complex I Is Required by Tobacco Leaves for Optimal Photosynthetic Performance in Photorespiratory Conditions and during Transients. <i>Plant Physiology</i> , 2003, 131, 264-275.	4.8	278
84	Markers and signals associated with nitrogen assimilation in higher plants. <i>Journal of Experimental Botany</i> , 2003, 54, 585-593.	4.8	266
85	Drought and Oxidative Load in the Leaves of C3 Plants: a Predominant Role for Photorespiration?. <i>Annals of Botany</i> , 2002, 89, 841-850.	2.9	538
86	Are leaf hydrogen peroxide concentrations commonly overestimated? The potential influence of artefactual interference by tissue phenolics and ascorbate. <i>Plant Physiology and Biochemistry</i> , 2002, 40, 501-507.	5.8	204
87	Coördination of leaf minor amino acid contents in crop species: significance and interpretation. <i>Journal of Experimental Botany</i> , 2002, 53, 939-945.	4.8	91
88	Interactions between biosynthesis, compartmentation and transport in the control of glutathione homeostasis and signalling. <i>Journal of Experimental Botany</i> , 2002, 53, 1283-1304.	4.8	726
89	Low Ascorbic Acid in the <i>vtc-1</i> Mutant of Arabidopsis Is Associated with Decreased Growth and Intracellular Redistribution of the Antioxidant System. <i>Plant Physiology</i> , 2001, 127, 426-435.	4.8	251
90	Tansley Review No. 112. <i>New Phytologist</i> , 2000, 146, 359-388.	7.3	851

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91	Antisense Suppression of 2-Cysteine Peroxiredoxin in Arabidopsis Specifically Enhances the Activities and Expression of Enzymes Associated with Ascorbate Metabolism But Not Glutathione Metabolism. <i>Plant Physiology</i> , 2000, 124, 823-832.	4.8	172
92	Regulation of assimilate partitioning in leaves. <i>Functional Plant Biology</i> , 2000, 27, 507.	2.1	18
93	Homeostasis of adenylate status during photosynthesis in a fluctuating environment. <i>Journal of Experimental Botany</i> , 2000, 51, 347-356.	4.8	117
94	Peroxide processing in photosynthesis: antioxidant coupling and redox signalling. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2000, 355, 1465-1475.	4.0	207
95	Photorespiratory glycine enhances glutathione accumulation in both the chloroplastic and cytosolic compartments. <i>Journal of Experimental Botany</i> , 1999, 50, 1157-1167.	4.8	88
96	PLANT BIOLOGY:Leaves in the Dark See the Light. <i>Science</i> , 1999, 284, 599-601.	12.6	85
97	ASCORBATE AND GLUTATHIONE: Keeping Active Oxygen Under Control. <i>Annual Review of Plant Biology</i> , 1998, 49, 249-279.	14.3	4,661
98	Manipulation of Glutathione and Amino Acid Biosynthesis in the Chloroplast. <i>Plant Physiology</i> , 1998, 118, 471-482.	4.8	190
99	Simultaneous Measurement of Foliar Glutathione, $\hat{1}^3$ -Glutamylcysteine, and Amino Acids by High-Performance Liquid Chromatography: Comparison with Two Other Assay Methods for Glutathione. <i>Analytical Biochemistry</i> , 1998, 264, 98-110.	2.4	172
100	The role of glycine in determining the rate of glutathione synthesis in poplar. Possible implications for glutathione production during stress. <i>Physiologia Plantarum</i> , 1997, 100, 255-263.	5.2	91
101	Light-dependent modulation of foliar glutathione synthesis and associated amino acid metabolism in poplar overexpressing $\hat{1}^3$ -glutamylcysteine synthetase. <i>Planta</i> , 1997, 202, 357-369.	3.2	76
102	Modification of thiol contents in poplars (<i>Populus tremula</i> Å— <i>P. alba</i>) overexpressing enzymes involved in glutathione synthesis. <i>Planta</i> , 1997, 203, 362-372.	3.2	117
103	pH dependent chlorophyll fluorescence quenching in spinach thylakoids from light treated or dark adapted leaves. <i>Photosynthesis Research</i> , 1992, 31, 11-19.	2.9	79