Madia Trujillo

List of Publications by Year
in descending order

73 papers	5,318 citations	70961 41 h-index	95083 68 g-index
75 all docs	75 docs citations	75 times ranked	5532 citing authors

#	ARTICLE	IF	CITATIONS
1	Peroxynitrite Reaction with Carbon Dioxide/Bicarbonate: Kinetics and Influence on Peroxynitrite-Mediated Oxidations. Archives of Biochemistry and Biophysics, 1996, 333, 49-58.	1.4	546
2	Biochemistry of Peroxynitrite and Protein Tyrosine Nitration. Chemical Reviews, 2018, 118, 1338-1408.	23.0	404
3	Factors Affecting Protein Thiol Reactivity and Specificity in Peroxide Reduction. Chemical Research in Toxicology, 2011, 24, 434-450.	1.7	244
4	Interplay between oxidant species and energy metabolism. Redox Biology, 2016, 8, 28-42.	3.9	241
5	Reactivity of hydrogen sulfide with peroxynitrite and other oxidants of biological interest. Free Radical Biology and Medicine, 2011, 50, 196-205.	1.3	199
6	The peroxidase and peroxynitrite reductase activity of human erythrocyte peroxiredoxin 2. Archives of Biochemistry and Biophysics, 2009, 484, 146-154.	1.4	175
7	Xanthine Oxidase-mediated Decomposition of S-Nitrosothiols. Journal of Biological Chemistry, 1998, 273, 7828-7834.	1.6	167
8	Peroxynitrite Reaction with the Reduced and the Oxidized Forms of Lipoic Acid: New Insights into the Reaction of Peroxynitrite with Thiols. Archives of Biochemistry and Biophysics, 2002, 397, 91-98.	1.4	161
9	Multiple thioredoxin-mediated routes to detoxify hydroperoxides in Mycobacterium tuberculosis. Archives of Biochemistry and Biophysics, 2004, 423, 182-191.	1.4	151
10	Pre-steady state kinetic characterization of human peroxiredoxin 5: Taking advantage of Trp84 fluorescence increase upon oxidation. Archives of Biochemistry and Biophysics, 2007, 467, 95-106.	1.4	149
11	Inactivation of human Cu,Zn superoxide dismutase by peroxynitrite and formation of histidinyl radical. Free Radical Biology and Medicine, 2004, 37, 813-822.	1.3	124
12	Kinetics of Peroxiredoxins and their Role in the Decomposition of Peroxynitrite. Sub-Cellular Biochemistry, 2007, 44, 83-113.	1.0	115
13	Trypanosoma brucei and Trypanosoma cruzi Tryparedoxin Peroxidases Catalytically Detoxify Peroxynitrite via Oxidation of Fast Reacting Thiols. Journal of Biological Chemistry, 2004, 279, 34175-34182.	1.6	114
14	Detection and quantification of nitric oxideâ€“derived oxidants in biological systems. Journal of Biological Chemistry, 2019, 294, 14776-14802.	1.6	110
15	One- and two-electron oxidation of thiols: mechanisms, kinetics and biological fates. Free Radical Research, 2016, 50, 150-171.	1.5	109
16	Thiol and Sulfenic Acid Oxidation of AhpE, the One-Cysteine Peroxiredoxin from <i>Mycobacterium tuberculosis</i>: Kinetics, Acidity Constants, and Conformational Dynamics. Biochemistry, 2009, 48, 9416-9426.	1.2	104
17	Trypanothione: A unique bis-glutathionyl derivative in trypanosomatids. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 3199-3216.	1.1	100
18	Peroxynitrite Detoxification and Its Biologic Implications. Antioxidants and Redox Signaling, 2008, 10, 1607-1620.	2.5	90

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19	Synthesis, Isomer Characterization, and Anti-Inflammatory Properties of Nitroarachidonate. Biochemistry, 2007, 46, 4645-4653.	1.2	81
20	Mechanistic Studies of Peroxynitrite-Mediated Tyrosine Nitration in Membranes Using the Hydrophobic Probe N-t-BOC-l-tyrosine tert-Butyl Ester. Biochemistry, 2006, 45, 6813-6825.	1.2	74
21	Lipid Peroxyl Radicals Mediate Tyrosine Dimerization and Nitration in Membranes. Chemical Research in Toxicology, 2010, 23, 821-835.	1.7	72
22	Catalysis of Peroxide Reduction by Fast Reacting Protein Thiols. Chemical Reviews, 2019, 119, 10829-10855.	23.0	68
23	Acidity and nucleophilic reactivity of glutathione persulfide. Journal of Biological Chemistry, 2020, 295, 15466-15481.	1.6	68
24	Reactive species and pathogen antioxidant networks during phagocytosis. Journal of Experimental Medicine, 2019, 216, 501-516.	4.2	67
25	Peroxynitrite formation from biochemical and cellular fluxes of nitric oxide and superoxide. Methods in Enzymology, 2002, 359, 353-366.	0.4	65
26	Sensitive detection and estimation of cell-derived peroxynitrite fluxes using fluorescein-boronate. Free Radical Biology and Medicine, 2016, 101, 284-295.	1.3	65
27	Kinetic Studies on Peroxynitrite Reduction by Peroxiredoxins. Methods in Enzymology, 2008, 441, 173-196.	0.4	63
28	Kinetics of reduction of tyrosine phenoxyl radicals by glutathione. Archives of Biochemistry and Biophysics, 2011, 506, 242-249.	1.4	62
29	Molecular Basis of the Mechanism of Thiol Oxidation by Hydrogen Peroxide in Aqueous Solution: Challenging the S_N2 Paradigm. Chemical Research in Toxicology, 2012, 25, 741-746.	1.7	61
30	Protective effect of diphenyl diselenide against peroxynitrite-mediated endothelial cell death: A comparison with ebselen. Nitric Oxide - Biology and Chemistry, 2013, 31, 20-30.	1.2	58
31	Reactions of desferrioxamine with peroxynitrite-derived carbonate and nitrogen dioxide radicals. Free Radical Biology and Medicine, 2004, 36, 471-483.	1.3	53
32	Tryparedoxin peroxidases from Trypanosoma cruzi: High efficiency in the catalytic elimination of hydrogen peroxide and peroxynitrite. Archives of Biochemistry and Biophysics, 2011, 507, 287-295.	1.4	53
33	Structural and Molecular Basis of the Peroxynitrite-mediated Nitration and Inactivation of Trypanosoma cruzi Iron-Superoxide Dismutases (Fe-SODs) A and B. Journal of Biological Chemistry, 2014, 289, 12760-12778.	1.6	51
34	Mycothiol/Mycoredoxin 1-dependent Reduction of the Peroxiredoxin AhpE from Mycobacterium tuberculosis. Journal of Biological Chemistry, 2014, 289, 5228-5239.	1.6	48
35	Nitration Transforms a Sensitive Peroxiredoxin 2 into a More Active and Robust Peroxidase. Journal of Biological Chemistry, 2014, 289, 15536-15543.	1.6	47
36	Chemistry and Redox Biology of Mycothiol. Antioxidants and Redox Signaling, 2018, 28, 487-504.	2.5	45

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37	Structural basis of redox-dependent modulation of galectin-1 dynamics and function. Glycobiology, 2014, 24, 428-441.	1.3	44
38	Rapid peroxynitrite reduction by human peroxiredoxin 3: Implications for the fate of oxidants in mitochondria. Free Radical Biology and Medicine, 2019, 130, 369-378.	1.3	44
39	The extraordinary catalytic ability of peroxiredoxins: a combined experimental and QM/MM study on the fast thiol oxidation step. Chemical Communications, 2014, 50, 10070-10073.	2.2	43
40	Ohr plays a central role in bacterial responses against fatty acid hydroperoxides and peroxynitrite. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E132-E141.	3.3	43
41	Peroxynitrite-derived carbonate and nitrogen dioxide radicals readily react with lipoic and dihydrolipoic acid. Free Radical Biology and Medicine, 2005, 39, 279-288.	1.3	42
42	The Mycobacterial Thioredoxin Peroxidase Can Act as a One-cysteine Peroxiredoxin. Journal of Biological Chemistry, 2006, 281, 20555-20566.	1.6	42
43	Hydroperoxide and peroxynitrite reductase activity of poplar thioredoxin-dependent glutathione peroxidase 5: kinetics, catalytic mechanism and oxidative inactivation. Biochemical Journal, 2012, 442, 369-380.	1.7	41
44	Insights into the mechanism of the reaction between hydrogen sulfide and peroxynitrite. Free Radical Biology and Medicine, 2015, 80, 93-100.	1.3	41
45	Plasmodium falciparum 2-Cys peroxiredoxin reacts with plasmoredoxin and peroxynitrite. Biological Chemistry, 2005, 386, 1129-36.	1.2	40
46	DksAâ€"DnaJ redox interactions provide a signal for the activation of bacterial RNA polymerase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11780-E11789.	3.3	39
47	Oxidizing substrate specificity of Mycobacterium tuberculosis alkyl hydroperoxide reductase E: kinetics and mechanisms of oxidation and overoxidation. Free Radical Biology and Medicine, 2011, 51, 464-473.	1.3	38
48	Redox-Active Sensing by Bacterial DksA Transcription Factors Is Determined by Cysteine and Zinc Content. MBio, 2016, 7, e02161-15.	1.8	37
49	Redox-sensitive GFP fusions for monitoring the catalytic mechanism and inactivation of peroxiredoxins in living cells. Redox Biology, 2018, 14, 549-556.	3.9	35
50	Kinetics of formation and reactivity of the persulfide in the one-cysteine peroxiredoxin from Mycobacterium tuberculosis. Journal of Biological Chemistry, 2019, 294, 13593-13605.	1.6	34
51	The superoxide radical switch in the biology of nitric oxide and peroxynitrite. Physiological Reviews, 2022, 102, 1881-1906.	13.1	32
52	Molecular basis of intramolecular electron transfer in proteins during radical-mediated oxidations: Computer simulation studies in model tyrosineâ€"cysteine peptides in solution. Archives of Biochemistry and Biophysics, 2012, 525, 82-91.	1.4	31
53	Mechanism of cysteine oxidation by peroxynitrite: An integrated experimental and theoretical study. Archives of Biochemistry and Biophysics, 2013, 539, 81-86.	1.4	30
54	Thiol redox biochemistry: insights from computer simulations. Biophysical Reviews, 2014, 6, 27-46.	1.5	29

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55	Mechanisms and consequences of protein cysteine oxidation: the role of the initial short-lived intermediates. Essays in Biochemistry, 2020, 64, 55-66.	2.1	28
56	PrxQ B from Mycobacterium tuberculosis is a monomeric, thioredoxin-dependent and highly efficient fatty acid hydroperoxide reductase. Free Radical Biology and Medicine, 2016, 101, 249-260.	1.3	23
57	Homolytic Pathways Drive Peroxynitrite-Dependent Trolox C Oxidation. Chemical Research in Toxicology, 2004, 17, 1377-1384.	1.7	22
58	Kinetics, subcellular localization, and contribution to parasite virulence of a <i>Trypanosoma cruzi</i> hybrid type A heme peroxidase (<i>Tc</i> APx-CcP). Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1326-E1335.	3.3	21
59	Kinetic studies of peroxiredoxin 6 from Arenicola marina: Rapid oxidation by hydrogen peroxide and peroxynitrite but lack of reduction by hydrogen sulfide. Archives of Biochemistry and Biophysics, 2011, 514, 1-7.	1.4	19
60	Antioxidant Therapies for Neurodegenerative Diseases: Mechanisms, Current Trends, and Perspectives. Oxidative Medicine and Cellular Longevity, 2012, 2012, 1-2.	1.9	19
61	Molecular Basis of Hydroperoxide Specificity in Peroxiredoxins: The Case of AhpE from <i>Mycobacterium tuberculosis</i>. Biochemistry, 2015, 54, 7237-7247.	1.2	18
62	Kinetics of oxidation of tyrosine by a model alkoxyl radical. Free Radical Research, 2012, 46, 1150-1156.	1.5	17
63	Impact of human galectin-1 binding to saccharide ligands on dimer dissociation kinetics and structure. Glycobiology, 2016, 26, 1317-1327.	1.3	16
64	Tyrosine oxidation and nitration in transmembrane peptides is connected to lipid peroxidation. Archives of Biochemistry and Biophysics, 2017, 622, 9-25.	1.4	14
65	Mechanisms and Biological Consequences of Peroxynitrite-Dependent Protein Oxidation and Nitration. , 2010, , 61-102.		12
66	Radiolysis Studies of Oxidation and Nitration of Tyrosine and Some Other Biological Targets by Peroxynitrite-Derived Radicals. International Journal of Molecular Sciences, 2022, 23, 1797.	1.8	6
67	Profiling the Site of Protein CoAlation and Coenzyme A Stabilization Interactions. Antioxidants, 2022, 11, 1362.	2.2	6
68	Special issue on â€œFree Radical and Redox Biochemistry of Thiolsâ€ Free Radical Research, 2016, 50, 123-125.	1.5	4
69	The effects of nitric oxide or oxygen on the stable products formed from the tyrosine phenoxyl radical. Free Radical Research, 2021, 55, 141-153.	1.5	4
70	Activation Parameters of a Peroxiredoxin From Mycobacterium Tuberculosis. Free Radical Biology and Medicine, 2011, 51, S150.	1.3	0
71	Thiol-Dependent Peroxidases in Mycobacterium tuberculosis Antioxidant Defense. , 2012, , .		0
72	In vivo observation of peroxiredoxins oligomerization dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18918-18920.	3.3	0

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73	Thiol- and selenol-based peroxidases: Structure and catalytic properties. , 2022, , 277-305.		0