Clare Hawkins

List of Publications by Year
in descending order

120 papers	8,259 citations	44042 48 h-index	48277 88 g-index
124 all docs	124 docs citations	124 times ranked	8185 citing authors

#	Article	IF	Citations
1	Generation and propagation of radical reactions on proteins. Biochimica Et Biophysica Acta - Bioenergetics, 2001, 1504, 196-219.	0.5	616
2	Hypochlorite-induced oxidation of amino acids, peptides and proteins. Amino Acids, 2003, 25, 259-274.	1.2	518
3	Mammalian Heme Peroxidases: From Molecular Mechanisms to Health Implications. Antioxidants and Redox Signaling, 2008, 10, 1199-1234.	2.5	490
4	Quantification of protein modification by oxidants. Free Radical Biology and Medicine, 2009, 46, 965-988.	1.3	398
5	Hypochlorite-induced damage to proteins: formation of nitrogen-centred radicals from lysine residues and their role in protein fragmentation. Biochemical Journal, 1998, 332, 617-625.	1.7	279
6	Detection, identification, and quantification of oxidative protein modifications. Journal of Biological Chemistry, 2019, 294, 19683-19708.	1.6	250
7	Singlet-oxygen-mediated amino acid and protein oxidation: Formation of tryptophan peroxides and decomposition products. Free Radical Biology and Medicine, 2009, 47, 92-102.	1.3	213
8	Singlet Oxygenâ€"mediated Protein Oxidation: Evidence for the Formation of Reactive Side Chain Peroxides on Tyrosine ResiduesÂ¶. Photochemistry and Photobiology, 2002, 76, 35.	1.3	179
9	The Role of Myeloperoxidase in Biomolecule Modification, Chronic Inflammation, and Disease. Antioxidants and Redox Signaling, 2020, 32, 957-981.	2.5	173
10	Hypochlorite-Induced Damage to DNA, RNA, and Polynucleotides:â€‰ Formation of Chloramines and Nitrogen-Centered Radicals. Chemical Research in Toxicology, 2002, 15, 83-92.	1.7	170
11	Hypochlorite-induced oxidation of proteins in plasma: formation of chloramines and nitrogen-centred radicals and their role in protein fragmentation. Biochemical Journal, 1999, 340, 539-548.	1.7	169
12	Detection and characterisation of radicals in biological materials using EPR methodology. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 708-721.	1.1	161
13	Reactions and reactivity of myeloperoxidase-derived oxidants: Differential biological effects of hypochlorous and hypothiocyanous acids. Free Radical Research, 2012, 46, 975-995.	1.5	137
14	Sensitizer-mediated photooxidation of histidine residues: Evidence for the formation of reactive side-chain peroxides. Free Radical Biology and Medicine, 2006, 40, 698-710.	1.3	120
15	Hypochlorous Acid-Mediated Oxidation of Lipid Components and Antioxidants Present in Low-Density Lipoproteins:Â Absolute Rate Constants, Product Analysis, and Computational Modeling. Chemical Research in Toxicology, 2003, 16, 439-449.	1.7	117
16	Nitrogen monoxide (NO)-mediated iron release from cells is linked to NO-induced glutathione efflux via multidrug resistance-associated protein 1. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7670-7675.	3.3	117
17	Direct detection and identification of radicals generated during the hydroxyl radical-induced degradation of hyaluronic acid and related materials. Free Radical Biology and Medicine, 1996, 21, 275-290.	1.3	110
18	Degradation of Hyaluronic Acid, Poly- and Mono-Saccharides, and Model Compounds by Hypochlorite: Evidence for Radical Intermediates and Fragmentation. Free Radical Biology and Medicine, 1998, 24, 1396-1410.	1.3	110

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19	What Are the Plasma Targets of the Oxidant Hypochlorous Acid? A Kinetic Modeling Approach. Chemical Research in Toxicology, 2009, 22, 807-817.	1.7	109
20	Hypochlorous Acid-Mediated Protein Oxidation:â€‰ How Important Are Chloramine Transfer Reactions and Protein Tertiary Structure?. Biochemistry, 2007, 46, 9853-9864.	1.2	101
21	Inactivation of Protease Inhibitors and Lysozyme by Hypochlorous Acid:â€‰ Role of Side-Chain Oxidation and Protein Unfolding in Loss of Biological Function. Chemical Research in Toxicology, 2005, 18, 1600-1610.	1.7	93
22	Hypochlorite and superoxide radicals can act synergistically to induce fragmentation of hyaluronan and chondroitin sulphates. Biochemical Journal, 2004, 381, 175-184.	1.7	92
23	Reaction of HOCl with amino acids and peptides: EPR evidence for rapid rearrangement and fragmentation reactions of nitrogen-centred radicals. Journal of the Chemical Society Perkin Transactions II, 1998, , 1937-1946.	0.9	88
24	Comparative reactivity of myeloperoxidase-derived oxidants with mammalian cells. Free Radical Biology and Medicine, 2014, 71, 240-255.	1.3	88
25	Hypochlorite-Mediated Fragmentation of Hyaluronan, Chondroitin Sulfates, and RelatedN-Acetyl Glycosamines:Â Evidence for Chloramide Intermediates, Free Radical Transfer Reactions, and Site-Specific Fragmentation. Journal of the American Chemical Society, 2003, 125, 13719-13733.	6.6	86
26	Reduced circulating oxidized LDL is associated with hypocholesterolemia and enhanced thiol status in Gilbert syndrome. Free Radical Biology and Medicine, 2012, 52, 2120-2127.	1.3	81
27	Oxidative damage to collagen and related substrates by metal ion/hydrogen peroxide systems: random attack or site-specific damage?. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 1997, 1360, 84-96.	1.8	80
28	EPR Spin trapping of protein radicals. Free Radical Biology and Medicine, 2004, 36, 1072-1086.	1.3	80
29	EPR studies on the selectivity of hydroxyl radical attack on amino acids and peptides. Journal of the Chemical Society Perkin Transactions II, 1998, , 2617-2622.	0.9	79
30	Photo-oxidation of cells generates long-lived intracellular protein peroxides. Free Radical Biology and Medicine, 2003, 34, 637-647.	1.3	77
31	Ability of Hypochlorous Acid and <i>N</i>-Chloramines to Chlorinate DNA and Its Constituents. Chemical Research in Toxicology, 2010, 23, 1293-1302.	1.7	77
32	Hypothiocyanous acid is a more potent inducer of apoptosis and protein thiol depletion in murine macrophage cells than hypochlorous acid or hypobromous acid. Biochemical Journal, 2008, 414, 271-280.	1.7	76
33	Hypothiocyanous Acid: Benign or Deadly?. Chemical Research in Toxicology, 2012, 25, 263-273.	1.7	76
34	Hypochlorite-Induced Damage to Nucleosides:â€‰ Formation of Chloramines and Nitrogen-Centered Radicals. Chemical Research in Toxicology, 2001, 14, 1071-1081.	1.7	75
35	The role of hypothiocyanous acid (HOSCN) in biological systems. Free Radical Research, 2009, 43, 1147-1158.	1.5	74
36	The myeloperoxidase-derived oxidant HOSCN inhibits protein tyrosine phosphatases and modulates cell signalling via the mitogen-activated protein kinase (MAPK) pathway in macrophages. Biochemical Journal, 2010, 430, 161-169.	1.7	73

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37	Glutathionylation Mediates Angiotensin IIâ€“Induced eNOS Uncoupling, Amplifying NADPH Oxidaseâ€Dependent Endothelial Dysfunction. Journal of the American Heart Association, 2014, 3, e000731.	1.6	73
38	Role of myeloperoxidase and oxidant formation in the extracellular environment in inflammation-induced tissue damage. Free Radical Biology and Medicine, 2021, 172, 633-651.	1.3	73
39	Relative reactivities ofN-chloramines and hypochlorous acid with human plasma constituents. Free Radical Biology and Medicine, 2001, 30, 526-536.	1.3	69
40	Reaction of protein chloramines with DNA and nucleosides: evidence for the formation of radicals, proteinâ€“DNA cross-links and DNA fragmentation. Biochemical Journal, 2002, 365, 605-615.	1.7	66
41	Hypochlorite-induced oxidation of proteins in plasma: formation of chloramines and nitrogen-centred radicals and their role in protein fragmentation. Biochemical Journal, 1999, 340, 539.	1.7	64
42	Acetaminophen (paracetamol) inhibits myeloperoxidase-catalyzed oxidant production and biological damage at therapeutically achievable concentrations. Biochemical Pharmacology, 2010, 79, 1156-1164.	2.0	59
43	The iron complex of Dp44mT is redox-active and induces hydroxyl radical formation: An EPR study. Journal of Inorganic Biochemistry, 2010, 104, 1224-1228.	1.5	59
44	High plasma thiocyanate levels in smokers are a key determinant of thiol oxidation induced by myeloperoxidase. Free Radical Biology and Medicine, 2011, 51, 1815-1822.	1.3	59
45	Myeloperoxidase-derived oxidants modify apolipoprotein A-I and generate dysfunctional high-density lipoproteins: comparison of hypothiocyanous acid (HOSCN) with hypochlorous acid (HOCl). Biochemical Journal, 2013, 449, 531-542.	1.7	55
46	Hypochlorous acid-mediated modification of proteins and its consequences. Essays in Biochemistry, 2020, 64, 75-86.	2.1	53
47	Hypochlorite- and Hypobromite-Mediated Radical Formation and Its Role in Cell Lysis. Archives of Biochemistry and Biophysics, 2001, 395, 137-145.	1.4	51
48	The Role of Aromatic Amino Acid Oxidation, Protein Unfolding, and Aggregation in the Hypobromous Acid-Induced Inactivation of Trypsin Inhibitor and Lysozyme. Chemical Research in Toxicology, 2005, 18, 1669-1677.	1.7	51
49	Identification of Plasma Proteins That Are Susceptible to Thiol Oxidation by Hypochlorous Acid and <i>N</i>-Chloramines. Chemical Research in Toxicology, 2008, 21, 1832-1840.	1.7	51
50	Molecular Alterations in a Mouse Cardiac Model of Friedreich Ataxia. American Journal of Pathology, 2017, 187, 2858-2875.	1.9	51
51	Nitric Oxide Storage and Transport in Cells Are Mediated by Glutathione S-Transferase P1-1 and Multidrug Resistance Protein 1 via Dinitrosyl Iron Complexes. Journal of Biological Chemistry, 2012, 287, 607-618.	1.6	50
52	Hypochlorite-induced oxidation of thiols: Formation of thiyl radicals and the role of sulfenyl chlorides as intermediates. Free Radical Research, 2000, 33, 719-729.	1.5	48
53	Inactivation of thiol-dependent enzymes by hypothiocyanous acid: role of sulfenyl thiocyanate and sulfenic acid intermediates. Free Radical Biology and Medicine, 2012, 52, 1075-1085.	1.3	48
54	The role of reactive N-bromo species and radical intermediates in hypobromous acid-induced protein oxidation. Free Radical Biology and Medicine, 2005, 39, 900-912.	1.3	47

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55	Role of Mitochondrial Reactive Oxygen Species in the Activation of Cellular Signals, Molecules, and Function. Handbook of Experimental Pharmacology, 2016, 240, 439-456.	0.9	46
56	The Potent and Novel Thiosemicarbazone Chelators Di-2-pyridylketone-4,4-dimethyl-3-thiosemicarbazone and 2-Benzoylpyridine-4,4-dimethyl-3-thiosemicarbazone Affect Crucial Thiol Systems Required for Ribonucleotide Reductase Activity. Molecular Pharmacology, 2011, 79, 921-931.	1.0	44
57	Respiratory dysfunction in myotonic dystrophy type 1: A systematic review. Neuromuscular Disorders, 2019, 29, 198-212.	0.3	44
58	Superoxide radicals can act synergistically with hypochlorite to induce damage to proteins. FEBS Letters, 2002, 510, 41-44.	1.3	42
59	Tryptophan residues are targets in hypothiocyanous acid-mediated protein oxidation. Biochemical Journal, 2008, 416, 441-452.	1.7	41
60	Comparative reactivity of the myeloperoxidase-derived oxidants hypochlorous acid and hypothiocyanous acid with human coronary artery endothelial cells. Free Radical Biology and Medicine, 2013, 65, 1352-1362.	1.3	41
61	Cellular effects of peptide and protein hydroperoxides. Free Radical Biology and Medicine, 2010, 48, 1071-1078.	1.3	40
62	Singlet oxygen-mediated protein oxidation: evidence for the formation of reactive peroxides. Redox Report, 2000, 5, 159-161.	1.4	38
63	Inhibition of myeloperoxidase- and neutrophil-mediated oxidant production by tetraethyl and tetramethyl nitroxides. Free Radical Biology and Medicine, 2014, 70, 96-105.	1.3	34
64	Î²3 Adrenergic Stimulation Restores Nitric Oxide/Redox Balance and Enhances Endothelial Function in Hyperglycemia. Journal of the American Heart Association, 2016, 5, .	1.6	34
65	Cellular targets of the myeloperoxidase-derived oxidant hypothiocyanous acid (HOSCN) and its role in the inhibition of glycolysis in macrophages. Free Radical Biology and Medicine, 2016, 94, 88-98.	1.3	33
66	Low-density lipoprotein modified by myeloperoxidase oxidants induces endothelial dysfunction. Redox Biology, 2017, 13, 623-632.	3.9	33
67	Identification of proteins susceptible to thiol oxidation in endothelial cells exposed to hypochlorous acid and N-chloramines. Biochemical and Biophysical Research Communications, 2012, 425, 157-161.	1.0	32
68	A Nitric Oxide Storage and Transport System That Protects Activated Macrophages from Endogenous Nitric Oxide Cytotoxicity. Journal of Biological Chemistry, 2016, 291, 27042-27061.	1.6	32
69	Hypochlorous acid oxidizes methionine and tryptophan residues in myoglobin. Free Radical Biology and Medicine, 2008, 45, 789-798.	1.3	31
70	Bilirubin scavenges chloramines and inhibits myeloperoxidase-induced protein/lipid oxidation in physiologically relevant hyperbilirubinemic serum. Free Radical Biology and Medicine, 2015, 86, 259-268.	1.3	31
71	Identification of radicals from hyaluronan (hyaluronic acid) and cross-linked derivatives using electron paramagnetic resonance spectroscopy. Carbohydrate Polymers, 1999, 38, 17-22.	5.1	30
72	Hypochlorous acid-modified extracellular matrix contributes to the behavioral switching of human coronary artery smooth muscle cells. Free Radical Biology and Medicine, 2019, 134, 516-526.	1.3	30

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73	Catalytic oxidant scavenging by selenium-containing compounds: Reduction of selenoxides and N-chloramines by thiols and redox enzymes. Redox Biology, 2017, 12, 872-882.	3.9	29
74	Selenomethionine supplementation reduces lesion burden, improves vessel function and modulates the inflammatory response within the setting of atherosclerosis. Redox Biology, 2020, 29, 101409.	3.9	29
75	Role of hypochlorous acid (HOCl) and other inflammatory mediators in the induction of macrophage extracellular trap formation. Free Radical Biology and Medicine, 2018, 129, 25-34.	1.3	28
76	Oxidation of human plasma fibronectin by inflammatory oxidants perturbs endothelial cell function. Free Radical Biology and Medicine, 2019, 136, 118-134.	1.3	28
77	Hypochlorite-induced oxidation of proteins in plasma: formation of chloramines and nitrogen-centred radicals and their role in protein fragmentation. Biochemical Journal, 1999, 340 (Pt) Tj ETQq1 1 0.784314 rg BT /Overlo	1.7	27
78	Cellular effects of photogenerated oxidants and long-lived, reactive, hydroperoxide photoproducts. Free Radical Biology and Medicine, 2010, 49, 1505-1515.	1.3	26
79	Separation, detection, and quantification of hydroperoxides formed at side-chain and backbone sites on amino acids, peptides, and proteins. Free Radical Biology and Medicine, 2008, 45, 1279-1289.	1.3	25
80	Binding of myeloperoxidase to the extracellular matrix of smooth muscle cells and subsequent matrix modification. Scientific Reports, 2020, 10, 666.	1.6	25
81	Comparative reactivity of the myeloperoxidase-derived oxidants HOCl and HOSCN with low-density lipoprotein (LDL): Implications for foam cell formation in atherosclerosis. Archives of Biochemistry and Biophysics, 2015, 573, 40-51.	1.4	24
82	Changes in mitochondrial homeostasis and redox status in astronauts following long stays in space. Scientific Reports, 2016, 6, 39015.	1.6	24
83	Cross-linking of lens crystallin proteins induced by tryptophan metabolites and metal ions: implications for cataract development. Free Radical Research, 2016, 50, 1116-1130.	1.5	23
84	Absolute quantitative analysis of intact and oxidized amino acids by LC-MS without prior derivatization. Redox Biology, 2020, 36, 101586.	3.9	23
85	Singlet Oxygen-mediated Protein Oxidation: Evidence for the Formation of Reactive Side Chain Peroxides on Tyrosine ResiduesÂ¶. Photochemistry and Photobiology, 2002, 76, 35-46.	1.3	22
86	Reactivity of selenium-containing compounds with myeloperoxidase-derived chlorinating oxidants: Second-order rate constants and implications for biological damage. Free Radical Biology and Medicine, 2015, 84, 279-288.	1.3	22
87	Cellular responses to radical propagation from ion-implanted plasma polymer surfaces. Applied Surface Science, 2018, 456, 701-710.	3.1	21
88	8-Chloroadenosine induces apoptosis in human coronary artery endothelial cells through the activation of the unfolded protein response. Redox Biology, 2019, 26, 101274.	3.9	21
89	Modulation of hypochlorous acid (HOCl) induced damage to vascular smooth muscle cells by thiocyanate and selenium analogues. Redox Biology, 2021, 41, 101873.	3.9	21
90	Plasma Synthesis of Carbon-Based Nanocarriers for Linker-Free Immobilization of Bioactive Cargo. ACS Applied Nano Materials, 2018, 1, 580-594.	2.4	20

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91	Human Indoleamine 2,3-Dioxygenase 1 Is an Efficient Mammalian Nitrite Reductase. Biochemistry, 2019, 58, 974-986.	1.2	19
92	The role of the myeloperoxidase-derived oxidant hypothiocyanous acid (HOSCN) in the induction of mitochondrial dysfunction in macrophages. Redox Biology, 2020, 36, 101602.	3.9	18
93	Role of thiocyanate in the modulation of myeloperoxidase-derived oxidant induced damage to macrophages. Redox Biology, 2020, 36, 101666.	3.9	17
94	Role of macrophage extracellular traps in innate immunity and inflammatory disease. Biochemical Society Transactions, 2022, 50, 21-32.	1.6	16
95	Amino acid, peptide, and protein hydroperoxides and their decomposition products modify the activity of the 26S proteasome. Free Radical Biology and Medicine, 2011, 50, 389-399.	1.3	15
96	CCâ€chemokine class inhibition attenuates pathological angiogenesis while preserving physiological angiogenesis. FASEB Journal, 2017, 31, 1179-1192.	0.2	15
97	A pivotal role for NF-Î°B in the macrophage inflammatory response to the myeloperoxidase oxidant hypothiocyanous acid. Archives of Biochemistry and Biophysics, 2018, 642, 23-30.	1.4	14
98	Assessing the Efficacy of Dietary Selenomethionine Supplementation in the Setting of Cardiac Ischemia/Reperfusion Injury. Antioxidants, 2019, 8, 546.	2.2	14
99	Role of Myeloperoxidase Oxidants in the Modulation of Cellular Lysosomal Enzyme Function: A Contributing Factor to Macrophage Dysfunction in Atherosclerosis?. PLoS ONE, 2016, 11, e0168844.	1.1	12
100	Chasing great paths of Helmut Sies â€œOxidative Stressâ€. Archives of Biochemistry and Biophysics, 2016, 595, 54-60.	1.4	11
101	Characterization of the cellular effects of myeloperoxidase-derived oxidants on H9c2 cardiac myoblasts. Archives of Biochemistry and Biophysics, 2019, 665, 132-142.	1.4	11
102	Modification of Cys residues in human thioredoxin-1 by p-benzoquinone causes inhibition of its catalytic activity and activation of the ASK1/p38-MAPK signalling pathway. Redox Biology, 2020, 29, 101400.	3.9	11
103	Myeloperoxidase-derived damage to human plasma fibronectin: Modulation by protein binding and thiocyanate ions (SCNâˆ'). Redox Biology, 2020, 36, 101641.	3.9	11
104	Oral pre-treatment with thiocyanate (SCNâˆ') protects against myocardial ischaemiaâ€"reperfusion injury in rats. Scientific Reports, 2021, 11, 12712.	1.6	11
105	A Role for Chlorinated Nucleosides in the Perturbation of Macrophage Function and Promotion of Inflammation. Chemical Research in Toxicology, 2019, 32, 1223-1234.	1.7	10
106	The synthesis and use of a15N and2H isotopically-labelled derivative of the spin-trap 3, 5-dibromo-4-nitrosobenzenesulphonic acid. Redox Report, 1996, 2, 407-410.	1.4	9
107	8-Chloroadenosine Alters the Metabolic Profile and Downregulates Antioxidant and DNA Damage Repair Pathways in Macrophages. Chemical Research in Toxicology, 2020, 33, 402-413.	1.7	9
108	Influence of plasma halide, pseudohalide and nitrite ions on myeloperoxidase-mediated protein and extracellular matrix damage. Free Radical Biology and Medicine, 2022, 188, 162-174.	1.3	9

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109	Detection of intermediates formed on reaction of Hyaluronic acid and related materials with the hydroxyl radical. Biochemical Society Transactions, 1995, 23, 248S-248S.	1.6	8
110	Manganese superoxide dismutase promotes interaction of actin, S100A4 and Talin, and enhances rat gastric tumor cell invasion. Journal of Clinical Biochemistry and Nutrition, 2015, 57, 13-20.	0.6	8
111	Hypochlorite-induced damage to red blood cells: evidence for the formation of nitrogen-centred radicals. Redox Report, 2000, 5, 57-59.	1.4	7
112	Role of cyanate in the induction of vascular dysfunction during uremia: more than protein carbamylation?. Kidney International, 2014, 86, 875-877.	2.6	7
113	Tryptophan oxidation in proteins exposed to thiocyanate-derived oxidants. Archives of Biochemistry and Biophysics, 2014, 564, 1-11.	1.4	7
114	Protein carbamylation: a key driver of vascular calcification during chronic kidney disease. Kidney International, 2018, 94, 12-14.	2.6	7
115	In Vitro Stimulation and Visualization of Extracellular Trap Release in Differentiated Human Monocyte-derived Macrophages. Journal of Visualized Experiments, 2019, , .	0.2	7
116	Role of myeloperoxidase-derived oxidants in the induction of vascular smooth muscle cell damage. Free Radical Biology and Medicine, 2021, 166, 165-177.	1.3	7
117	Myeloperoxidase Modulates Hydrogen Peroxide Mediated Cellular Damage in Murine Macrophages. Antioxidants, 2020, 9, 1255.	2.2	6
118	Chlorination and Nitration of DNA and Nucleic Acid Components. , 2007, , 14-39.		5
119	A therapeutic role for selenoprotein T in reducing ischaemia/reperfusion injury in the heart?. Acta Physiologica, 2018, 223, e13106.	1.8	2
120	Mammalian heme peroxidases: From innate immunity to pathology and extracellular matrix biosynthesis. Archives of Biochemistry and Biophysics, 2018, 655, 55.	1.4	2