Fernando Antunes

List of Publications by Year
in descending order

87 papers	6,175 citations	101543 36 h-index	66911 78 g-index
95 all docs	95 docs citations	95 times ranked	8407 citing authors

#	Article	IF	Citations
1	Hydrogen peroxide sensing, signaling and regulation of transcription factors. Redox Biology, 2014, 2, 535-562.	9.0	688
2	Voltage-dependent Anion Channels Control the Release of the Superoxide Anion from Mitochondria to Cytosol. Journal of Biological Chemistry, 2003, 278, 5557-5563.	3.4	611
3	Estimation of H2 O2 gradients across biomembranes. FEBS Letters, 2000, 475, 121-126.	2.8	438
4	Lysosomal enzymes promote mitochondrial oxidant production, cytochrome c release and apoptosis. FEBS Journal, 2003, 270, 3778-3786.	0.2	249
5	Apoptosis induced by exposure to a low steady-state concentration of H2O2 is a consequence of lysosomal rupture. Biochemical Journal, 2001, 356, 549-555.	3.7	246
6	European contribution to the study of ROS: A summary of the findings and prospects for the future from the COST action BM1203 (EU-ROS). Redox Biology, 2017, 13, 94-162.	9.0	242
7	Cellular titration of apoptosis with steady state concentrations of H2O2: submicromolar levels of H2O2 induce apoptosis through fenton chemistry independent of the cellular thiol state. Free Radical Biology and Medicine, 2001, 30, 1008-1018.	2.9	217
8	Role of Hydrogen Peroxide in NF-Î°B Activation: From Inducer to Modulator. Antioxidants and Redox Signaling, 2009, 11, 2223-2243.	5.4	208
9	Tools for kinetic modeling of biochemical networks. Nature Biotechnology, 2006, 24, 667-672.	17.5	180
10	The Roles of Peroxiredoxin and Thioredoxin in Hydrogen Peroxide Sensing and in Signal Transduction. Molecules and Cells, 2016, 39, 65-71.	2.6	174
11	Apoptosis induced by exposure to a low steady-state concentration of H2O2 is a consequence of lysosomal rupture. Biochemical Journal, 2001, 356, 549.	3.7	170
12	On the mechanism and biology of cytochrome oxidase inhibition by nitric oxide. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16774-16779.	7.1	169
13	Decrease of H2O2 Plasma Membrane Permeability during Adaptation to H2O2 in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2004, 279, 6501-6506.	3.4	139
14	Relative contributions of heart mitochondria glutathione peroxidase and catalase to H2O2 detoxification in in vivo conditions. Free Radical Biology and Medicine, 2002, 33, 1260-1267.	2.9	136
15	Lipid peroxidation in mitochondrial inner membranes. I. An integrative kinetic model. Free Radical Biology and Medicine, 1996, 21, 917-943.	2.9	128
16	Quantitative biology of hydrogen peroxide signaling. Redox Biology, 2017, 13, 1-7.	9.0	116
17	A Quantitative Study of NF-Î°B Activation by H2O2: Relevance in Inflammation and Synergy with TNF-Î±. Journal of Immunology, 2007, 178, 3893-3902.	0.8	114
18	On the antioxidant activity of melatonin. Free Radical Biology and Medicine, 1999, 26, 117-128.	2.9	110

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19	Decreased cellular permeability to H2O2protectsSaccharomyces cerevisiaecells in stationary phase against oxidative stress. FEBS Letters, 2004, 578, 152-156.	2.8	101
20	Intracellular reactive oxygen species are essential for PI3K/Akt/mTOR-dependent IL-7-mediated viability of T-cell acute lymphoblastic leukemia cells. Leukemia, 2011, 25, 960-967.	7.2	101
21	Gel Domains in the Plasma Membrane of Saccharomyces cerevisiae. Journal of Biological Chemistry, 2011, 286, 5043-5054.	3.4	94
22	Human Aquaporin-5 Facilitates Hydrogen Peroxide Permeation Affecting Adaption to Oxidative Stress and Cancer Cell Migration. Cancers, 2019, 11, 932.	3.7	69
23	H2O2 induces rapid biophysical and permeability changes in the plasma membrane of Saccharomyces cerevisiae. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 1141-1147.	2.6	68
24	Measuring intracellular concentration of hydrogen peroxide with the use of genetically encoded H2O2 biosensor HyPer. Redox Biology, 2019, 24, 101200.	9.0	64
25	PHGPx and phospholipase A2/GPx: Comparative importance on the reduction of hydroperoxides in rat liver mitochondria. Free Radical Biology and Medicine, 1995, 19, 669-677.	2.9	63
26	Hydrogen peroxide metabolism and sensing in human erythrocytes: A validated kinetic model and reappraisal of the role of peroxiredoxin II. Free Radical Biology and Medicine, 2014, 74, 35-49.	2.9	62
27	Tuning Cellular Biological Functions Through the Controlled Release of NO from a Porous Tiâ€MOF. Angewandte Chemie - International Edition, 2020, 59, 5135-5143.	13.8	62
28	Analysis of the pathways of nitric oxide utilization in mitochondria. Free Radical Research, 2000, 33, 747-756.	3.3	60
29	On the Biologic Role of the Reaction of NO with Oxidized Cytochrome<i>c</i>Oxidase. Antioxidants and Redox Signaling, 2007, 9, 1569-1580.	5.4	56
30	Rat Aquaporin-5 Is pH-Gated Induced by Phosphorylation and Is Implicated in Oxidative Stress. International Journal of Molecular Sciences, 2016, 17, 2090.	4.1	56
31	Role of Glutathione Peroxidase and Phospholipid Hydroperoxide Glutathione Peroxidase in the Reduction of Lysophospholipid Hydroperoxides. Free Radical Biology and Medicine, 1997, 22, 871-883.	2.9	51
32	Activation of Nrf2 by H2O2. Methods in Enzymology, 2013, 528, 157-171.	1.0	50
33	Redox interactions of nitric oxide with dopamine and its derivatives. Toxicology, 2005, 208, 207-212.	4.2	49
34	Modulation of plasma membrane lipid profile and microdomains by H2O2 in Saccharomyces cerevisiae. Free Radical Biology and Medicine, 2009, 46, 289-298.	2.9	49
35	Vitamin B3 metal-organic frameworks as potential delivery vehicles for therapeutic nitric oxide. Acta Biomaterialia, 2017, 51, 66-74.	8.3	46
36	Composting kinetics in full-scale mechanicalâ€“biological treatment plants. Waste Management, 2010, 30, 1908-1921.	7.4	44

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37	Antioxidant Activity of Vitamin E Determined in a Phospholipid Membrane by Product Studies:Â Avoiding Chain Transfer Reactions by Vitamin E Radicals. Journal of the American Chemical Society, 1997, 119, 5764-5765.	13.7	35
38	H2O2 Delivery to Cells. Methods in Enzymology, 2013, 526, 159-173.	1.0	35
39	Mitochondrial damage by nitric oxide is potentiated by dopamine in PC12 cells. Biochimica Et Biophysica Acta - Bioenergetics, 2002, 1556, 233-238.	1.0	34
40	Down-regulation of fatty acid synthase increases the resistance of Saccharomyces cerevisiae cells to H2O2. Free Radical Biology and Medicine, 2007, 43, 1458-1465.	2.9	28
41	Mitochondrial superoxide anion production and release into intermembrane space. Methods in Enzymology, 2002, 349, 271-280.	1.0	26
42	Modulation of NF-ÎºBâ€"Dependent Gene Expression by H₂O₂: A Major Role for a Simple Chemical Process in a Complex Biological Response. Antioxidants and Redox Signaling, 2009, 11, 2043-2053.	5.4	26
43	The Cellular Steady-State of H2O2. Methods in Enzymology, 2013, 527, 3-19.	1.0	26
44	Emerging Nitric Oxide and Hydrogen Sulfide Releasing Carriers for Skin Wound Healing Therapy. ChemMedChem, 2022, 17, .	3.2	24
45	Sepiolite based materials for storage and slow release of nitric oxide. New Journal of Chemistry, 2013, 37, 4052.	2.8	23
46	Clay based materials for storage and therapeutic release of nitric oxide. Journal of Materials Chemistry B, 2013, 1, 3287.	5.8	22
47	Redox Regulation of NF-ÎºB: From Basic to Clinical Research. Antioxidants and Redox Signaling, 2009, 11, 2055-2056.	5.4	21
48	Estimation of kinetic parameters related to biochemical interactions between hydrogen peroxide and signal transduction proteins. Frontiers in Chemistry, 2014, 2, 82.	3.6	21
49	Determination of the Î±-Tocopherol Inhibition Rate Constant for Peroxidation in Low-Density Lipoprotein. Chemical Research in Toxicology, 2002, 15, 870-876.	3.3	20
50	Using in vivo oxidation status of one- and two-component redox relays to determine H2O2 levels linked to signaling and toxicity. BMC Biology, 2018, 16, 61.	3.8	20
51	Microporous titanosilicates Cu2+â€" and Co2+â€"ETS-4 for storage and slow release of therapeutic nitric oxide. Journal of Materials Chemistry B, 2014, 2, 224-230.	5.8	19
52	The efficiency of antioxidants delivered by liposomal transfer. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1328, 1-12.	2.6	18
53	Glyceraldehyde-3-phosphate dehydrogenase is largely unresponsive to low regulatory levels of hydrogen peroxide in Saccharomyces cerevisiae. BMC Biochemistry, 2010, 11, 49.	4.4	18
54	The mechanism of cytochrome C oxidase inhibition by nitric oxide. Frontiers in Bioscience - Landmark, 2007, 12, 975.	3.0	18

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55	Cellular polarity in aging: role of redox regulation and nutrition. Genes and Nutrition, 2014, 9, 371.	2.5	17
56	Kinetic Modelling of in Vitro Lipid Peroxidation Experiments - 'Low Level' Validation of a Model of in Vivo Lipid Peroxidation. Free Radical Research, 1995, 23, 151-172.	3.3	14
57	Storage and delivery of nitric oxide by microporous titanosilicate ETS-10 and Al and Ga substituted analogues. Microporous and Mesoporous Materials, 2016, 229, 83-89.	4.4	14
58	New generation of nitric oxide-releasing porous materials: Assessment of their potential to regulate biological functions. Nitric Oxide - Biology and Chemistry, 2019, 90, 29-36.	2.7	14
59	Diagnosis of enzyme inhibition based on the degree of inhibition. Biochimica Et Biophysica Acta - General Subjects, 2003, 1624, 11-20.	2.4	13
60	<scp>l</scp>-Histidine-based organoclays for the storage and release of therapeutic nitric oxide. Journal of Materials Chemistry B, 2015, 3, 3556-3563.	5.8	13
61	A Comparison of Different Approaches to Quantify Nitric Oxide Release from NO-Releasing Materials in Relevant Biological Media. Molecules, 2020, 25, 2580.	3.8	13
62	Determination of propagation and termination rate constants by using an extension to the rotating-sector method: Application to PLPC and DLPC bilayers. International Journal of Chemical Kinetics, 1998, 30, 753-767.	1.6	12
63	A quantitative study of the cell-type specific modulation of c-Rel by hydrogen peroxide and TNF-Î±. Redox Biology, 2013, 1, 347-352.	9.0	12
64	Tuning Cellular Biological Functions Through the Controlled Release of NO from a Porous Tiâ€MOF. Angewandte Chemie, 2020, 132, 5173-5181.	2.0	12
65	Biphasic modulation of fatty acid synthase by hydrogen peroxide in Saccharomyces cerevisiae. Archives of Biochemistry and Biophysics, 2011, 515, 107-111.	3.0	11
66	H2O2 in the Induction of NF-ÎºB-Dependent Selective Gene Expression. Methods in Enzymology, 2013, 528, 173-188.	1.0	11
67	Cytotoxic effects of N'-formyl-2-(5-nitrothiophen-2-yl) benzothiazole-6-carbohydrazide in human breast tumor cells by induction of oxidative stress. Anticancer Research, 2012, 32, 2721-6.	1.1	11
68	Theoretical analysis of the kinetic performance of laboratory- and full-scale composting systems. Waste Management and Research, 2012, 30, 700-707.	3.9	9
69	The plasma membrane-enriched fraction proteome response during adaptation to hydrogen peroxide in<i>Saccharomyces cerevisiae</i>. Free Radical Research, 2012, 46, 1267-1279.	3.3	9
70	Synthetic cobalt clays for the storage and slow release of therapeutic nitric oxide. RSC Advances, 2016, 6, 41195-41203.	3.6	9
71	Structureâ€based virtual screening toward the discovery of novel inhibitors of the <scp>DNA</scp> repair activity of the human apurinic/apyrimidinic endonuclease 1. Chemical Biology and Drug Design, 2016, 88, 915-925.	3.2	9
72	The standard molar enthalpy of the base catalysed hydrolysis of methyl paraben revisited. Journal of Chemical Thermodynamics, 2016, 103, 176-180.	2.0	8

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73	Storage and delivery of H2S by microporous and mesoporous materials. Microporous and Mesoporous Materials, 2021, 320, 111093.	4.4	8
74	Diagnosis and optimization of the composting process in full-scale mechanical-biological treatment plants. Waste Management and Research, 2011, 29, 565-573.	3.9	7
75	Chitosan Biocomposites for the Adsorption and Release of H2S. Materials, 2021, 14, 6701.	2.9	6
76	Kinetics of the base catalysed hydrolysis of methyl paraben revisited: Implications for determination of the effective volume of flow-microcalorimeters used to study cell cultures. Thermochimica Acta, 2018, 659, 82-88.	2.7	4
77	Potential antitumour and pro-oxidative effects of (E)-methyl 2-(7-chloroquinolin-4-ylthio)-3-(4-hydroxyphenyl) acrylate (QNACR). Journal of Enzyme Inhibition and Medicinal Chemistry, 2013, 28, 1300-1306.	5.2	3
78	Is the Peroxiredoxin 2/Thioredoxin/Thioredoxin Reductase system in human erythrocytes designed for redox signaling?. Free Radical Biology and Medicine, 2014, 75, S24.	2.9	3
79	Development of Polycaprolactoneâ€“Zeolite Nanoporous Composite Films for Topical Therapeutic Release of Different Gasotransmitters. ACS Applied Nano Materials, 2022, 5, 9230-9240.	5.0	3
80	Reaction of Ubiquinols with Nitric Oxide. , 1999, , 143-163.		1
81	Data Processing to Probe the Cellular Hydrogen Peroxide Landscape. Methods in Molecular Biology, 2022, 2385, 153-160.	0.9	1
82	Sphingolipid-Enriched Microdomains in the Plasma Membrane of Saccharomyces Cerevisiae: Ergosterol-Free Â«Lipid RaftsÂ» in the Gel Phase. Biophysical Journal, 2012, 102, 27a.	0.5	0
83	Is the Peroxiredoxin 2 / Thioredoxin / Thioredoxin Reductase System in Human Erythrocytes Evolutionarily Designed for Hydrogen Peroxide-Mediated Signaling?. Free Radical Biology and Medicine, 2013, 65, S161.	2.9	0
84	Is Peroxiredoxin IIâ€™s peroxidase activity strongly inhibited in human erythrocytes?. Free Radical Biology and Medicine, 2014, 75, S23-S24.	2.9	0
85	Metabolism of Superoxide Radicals and Hydrogen Peroxide in Mitochondria. Oxidative Stress and Disease, 2015, , 3-28.	0.3	0
86	Noncoding RNAs as Critical Players in Regulatory Accuracy, Redox Signaling, and Immune Cell Functions. , 2017, , 215-284.		0
87	Improved therapeutic nitric oxide delivery by microporous Cu-bearing titanosilicate. Microporous and Mesoporous Materials, 2021, 322, 111154.	4.4	0