

# Fernando Antunes

## List of Publications by Year in descending order

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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  | Emerging Nitric Oxide and Hydrogen Sulfide Releasing Carriers for Skin Wound Healing Therapy. ChemMedChem, 2022, 17, .   | 3.2  | 24        |
| 2  | Data Processing to Probe the Cellular Hydrogen Peroxide Landscape. Methods in Molecular Biology, 2022, 2385, 153-160.  | 0.9  | 1         |
| 3  | Development of Polycaprolactone-Zeolite Nanoporous Composite Films for Topical Therapeutic Release of Different Gasotransmitters. ACS Applied Nano Materials, 2022, 5, 9230-9240.  | 5.0  | 3         |
| 4  | Storage and delivery of H <sub>2</sub> S by microporous and mesoporous materials. Microporous and Mesoporous Materials, 2021, 320, 111093.   | 4.4  | 8         |
| 5  | Improved therapeutic nitric oxide delivery by microporous Cu-bearing titanosilicate. Microporous and Mesoporous Materials, 2021, 322, 111154.  | 4.4  | 0         |
| 6  | Chitosan Biocomposites for the Adsorption and Release of H <sub>2</sub> S. Materials, 2021, 14, 6701.  | 2.9  | 6         |
| 7  | 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        |
| 8  | Tuning Cellular Biological Functions Through the Controlled Release of NO from a Porous Ti-MOF. Angewandte Chemie - International Edition, 2020, 59, 5135-5143.  | 13.8 | 62        |
| 9  | Tuning Cellular Biological Functions Through the Controlled Release of NO from a Porous Ti-MOF. Angewandte Chemie, 2020, 132, 5173-5181.   | 2.0  | 12        |
| 10 | Human Aquaporin-5 Facilitates Hydrogen Peroxide Permeation Affecting Adaption to Oxidative Stress and Cancer Cell Migration. Cancers, 2019, 11, 932.   | 3.7  | 69        |
| 11 | 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        |
| 12 | Measuring intracellular concentration of hydrogen peroxide with the use of genetically encoded H <sub>2</sub> O <sub>2</sub> biosensor HyPer. Redox Biology, 2019, 24, 101200.   | 9.0  | 64        |
| 13 | 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         |
| 14 | Using in vivo oxidation status of one- and two-component redox relays to determine H <sub>2</sub> O <sub>2</sub> levels linked to signaling and toxicity. BMC Biology, 2018, 16, 61.                                       | 3.8  | 20        |
| 15 | Vitamin B3 metal-organic frameworks as potential delivery vehicles for therapeutic nitric oxide. Acta Biomaterialia, 2017, 51, 66-74.  | 8.3  | 46        |
| 16 | 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       |
| 17 | Quantitative biology of hydrogen peroxide signaling. Redox Biology, 2017, 13, 1-7.   | 9.0  | 116       |
| 18 | Noncoding RNAs as Critical Players in Regulatory Accuracy, Redox Signaling, and Immune Cell Functions. , 2017, , 215-284.  |      | 0         |

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|----|---|-----|-----------|
| 19 | 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        |
| 20 | Synthetic cobalt clays for the storage and slow release of therapeutic nitric oxide. RSC Advances, 2016, 6, 41195-41203.  | 3.6 | 9         |
| 21 | 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        |
| 22 | The standard molar enthalpy of the base catalysed hydrolysis of methyl paraben revisited. Journal of Chemical Thermodynamics, 2016, 103, 176-180.   | 2.0 | 8         |
| 23 | Structure-based virtual screening toward the discovery of novel inhibitors of the DNA repair activity of the human apurinic/apyrimidinic endonuclease 1. Chemical Biology and Drug Design, 2016, 88, 915-925. | 3.2 | 9         |
| 24 | The Roles of Peroxiredoxin and Thioredoxin in Hydrogen Peroxide Sensing and in Signal Transduction. Molecules and Cells, 2016, 39, 65-71.   | 2.6 | 174       |
| 25 | Metabolism of Superoxide Radicals and Hydrogen Peroxide in Mitochondria. Oxidative Stress and Disease, 2015, , 3-28.  | 0.3 | 0         |
| 26 | N-Histidine-based organoclays for the storage and release of therapeutic nitric oxide. Journal of Materials Chemistry B, 2015, 3, 3556-3563.  | 5.8 | 13        |
| 27 | Estimation of kinetic parameters related to biochemical interactions between hydrogen peroxide and signal transduction proteins. Frontiers in Chemistry, 2014, 2, 82.   | 3.6 | 21        |
| 28 | 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         |
| 29 | Is Peroxiredoxin II's peroxidase activity strongly inhibited in human erythrocytes?. Free Radical Biology and Medicine, 2014, 75, S23-S24.  | 2.9 | 0         |
| 30 | Cellular polarity in aging: role of redox regulation and nutrition. Genes and Nutrition, 2014, 9, 371.  | 2.5 | 17        |
| 31 | Hydrogen peroxide sensing, signaling and regulation of transcription factors. Redox Biology, 2014, 2, 535-562.  | 9.0 | 688       |
| 32 | Microporous titanosilicates Cu <sup>2+</sup> and Co <sup>2+</sup> -ETS-4 for storage and slow release of therapeutic nitric oxide. Journal of Materials Chemistry B, 2014, 2, 224-230.                        | 5.8 | 19        |
| 33 | 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        |
| 34 | Clay based materials for storage and therapeutic release of nitric oxide. Journal of Materials Chemistry B, 2013, 1, 3287.  | 5.8 | 22        |
| 35 | Activation of Nrf2 by H <sub>2</sub> O <sub>2</sub> . Methods in Enzymology, 2013, 528, 157-171.  | 1.0 | 50        |
| 36 | H <sub>2</sub> O <sub>2</sub> in the Induction of NF- $\kappa$ B-Dependent Selective Gene Expression. Methods in Enzymology, 2013, 528, 173-188.  | 1.0 | 11        |

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|----|---|-----|-----------|
| 37 | H2O2 Delivery to Cells. <i>Methods in Enzymology</i> , 2013, 526, 159-173.  | 1.0 | 35        |
| 38 | The Cellular Steady-State of H2O2. <i>Methods in Enzymology</i> , 2013, 527, 3-19.  | 1.0 | 26        |
| 39 | Sepiolite based materials for storage and slow release of nitric oxide. <i>New Journal of Chemistry</i> , 2013, 37, 4052.   | 2.8 | 23        |
| 40 | Is the Peroxiredoxin 2 / Thioredoxin / Thioredoxin Reductase System in Human Erythrocytes Evolutionarily Designed for Hydrogen Peroxide-Mediated Signaling?. <i>Free Radical Biology and Medicine</i> , 2013, 65, S161. | 2.9 | 0         |
| 41 | A quantitative study of the cell-type specific modulation of c-Rel by hydrogen peroxide and TNF- $\alpha$ . <i>Redox Biology</i> , 2013, 1, 347-352.  | 9.0 | 12        |
| 42 | Potential antitumour and pro-oxidative effects of (E)-methyl 2-(7-chloroquinolin-4-ylthio)-3-(4-hydroxyphenyl) acrylate (QNACR). <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2013, 28, 1300-1306.     | 5.2 | 3         |
| 43 | Theoretical analysis of the kinetic performance of laboratory- and full-scale composting systems. <i>Waste Management and Research</i> , 2012, 30, 700-707.   | 3.9 | 9         |
| 44 | Sphingolipid-Enriched Microdomains in the Plasma Membrane of <i>Saccharomyces Cerevisiae</i> : Ergosterol-Free «Lipid Rafts» in the Gel Phase. <i>Biophysical Journal</i> , 2012, 102, 27a.                             | 0.5 | 0         |
| 45 | The plasma membrane-enriched fraction proteome response during adaptation to hydrogen peroxide in <i>Saccharomyces cerevisiae</i> . <i>Free Radical Research</i> , 2012, 46, 1267-1279.                                 | 3.3 | 9         |
| 46 | Cytotoxic effects of N'-formyl-2-(5-nitrothiophen-2-yl) benzothiazole-6-carbohydrazide in human breast tumor cells by induction of oxidative stress. <i>Anticancer Research</i> , 2012, 32, 2721-6.                     | 1.1 | 11        |
| 47 | Biphasic modulation of fatty acid synthase by hydrogen peroxide in <i>Saccharomyces cerevisiae</i> . <i>Archives of Biochemistry and Biophysics</i> , 2011, 515, 107-111.   | 3.0 | 11        |
| 48 | Intracellular reactive oxygen species are essential for PI3K/Akt/mTOR-dependent IL-7-mediated viability of T-cell acute lymphoblastic leukemia cells. <i>Leukemia</i> , 2011, 25, 960-967.                              | 7.2 | 101       |
| 49 | Gel Domains in the Plasma Membrane of <i>Saccharomyces cerevisiae</i> . <i>Journal of Biological Chemistry</i> , 2011, 286, 5043-5054.  | 3.4 | 94        |
| 50 | Diagnosis and optimization of the composting process in full-scale mechanical-biological treatment plants. <i>Waste Management and Research</i> , 2011, 29, 565-573.  | 3.9 | 7         |
| 51 | Glyceraldehyde-3-phosphate dehydrogenase is largely unresponsive to low regulatory levels of hydrogen peroxide in <i>Saccharomyces cerevisiae</i> . <i>BMC Biochemistry</i> , 2010, 11, 49.                             | 4.4 | 18        |
| 52 | Composting kinetics in full-scale mechanical-biological treatment plants. <i>Waste Management</i> , 2010, 30, 1908-1921.  | 7.4 | 44        |
| 53 | Modulation of plasma membrane lipid profile and microdomains by H2O2 in <i>Saccharomyces cerevisiae</i> . <i>Free Radical Biology and Medicine</i> , 2009, 46, 289-298.   | 2.9 | 49        |
| 54 | Redox Regulation of NF- $\kappa$ B: From Basic to Clinical Research. <i>Antioxidants and Redox Signaling</i> , 2009, 11, 2055-2056.   | 5.4 | 21        |

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|----|---|------|-----------|
| 55 | Modulation of NF- $\kappa$ B-Dependent Gene Expression by H <sub>2</sub> O <sub>2</sub> : A Major Role for a Simple Chemical Process in a Complex Biological Response. <i>Antioxidants and Redox Signaling</i> , 2009, 11, 2043-2053. | 5.4  | 26        |
| 56 | Role of Hydrogen Peroxide in NF- $\kappa$ B Activation: From Inducer to Modulator. <i>Antioxidants and Redox Signaling</i> , 2009, 11, 2223-2243.   | 5.4  | 208       |
| 57 | H <sub>2</sub> O <sub>2</sub> induces rapid biophysical and permeability changes in the plasma membrane of <i>Saccharomyces cerevisiae</i> . <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2008, 1778, 1141-1147.             | 2.6  | 68        |
| 58 | A Quantitative Study of NF- $\kappa$ B Activation by H <sub>2</sub> O <sub>2</sub> : Relevance in Inflammation and Synergy with TNF- $\alpha$ . <i>Journal of Immunology</i> , 2007, 178, 3893-3902.                                  | 0.8  | 114       |
| 59 | On the Biologic Role of the Reaction of NO with Oxidized Cytochrome <i>c</i> Oxidase. <i>Antioxidants and Redox Signaling</i> , 2007, 9, 1569-1580.   | 5.4  | 56        |
| 60 | Down-regulation of fatty acid synthase increases the resistance of <i>Saccharomyces cerevisiae</i> cells to H <sub>2</sub> O <sub>2</sub> . <i>Free Radical Biology and Medicine</i> , 2007, 43, 1458-1465.                           | 2.9  | 28        |
| 61 | The mechanism of cytochrome C oxidase inhibition by nitric oxide. <i>Frontiers in Bioscience - Landmark</i> , 2007, 12, 975.  | 3.0  | 18        |
| 62 | Tools for kinetic modeling of biochemical networks. <i>Nature Biotechnology</i> , 2006, 24, 667-672.  | 17.5 | 180       |
| 63 | Redox interactions of nitric oxide with dopamine and its derivatives. <i>Toxicology</i> , 2005, 208, 207-212.   | 4.2  | 49        |
| 64 | Decrease of H <sub>2</sub> O <sub>2</sub> Plasma Membrane Permeability during Adaptation to H <sub>2</sub> O <sub>2</sub> in <i>Saccharomyces cerevisiae</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 6501-6506.         | 3.4  | 139       |
| 65 | On the mechanism and biology of cytochrome oxidase inhibition by nitric oxide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 16774-16779.                                       | 7.1  | 169       |
| 66 | Decreased cellular permeability to H <sub>2</sub> O <sub>2</sub> protects <i>Saccharomyces cerevisiae</i> cells in stationary phase against oxidative stress. <i>FEBS Letters</i> , 2004, 578, 152-156.                               | 2.8  | 101       |
| 67 | Lysosomal enzymes promote mitochondrial oxidant production, cytochrome c release and apoptosis. <i>FEBS Journal</i> , 2003, 270, 3778-3786.   | 0.2  | 249       |
| 68 | Diagnosis of enzyme inhibition based on the degree of inhibition. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2003, 1624, 11-20.  | 2.4  | 13        |
| 69 | Voltage-dependent Anion Channels Control the Release of the Superoxide Anion from Mitochondria to Cytosol. <i>Journal of Biological Chemistry</i> , 2003, 278, 5557-5563.   | 3.4  | 611       |
| 70 | Mitochondrial superoxide anion production and release into intermembrane space. <i>Methods in Enzymology</i> , 2002, 349, 271-280.  | 1.0  | 26        |
| 71 | Mitochondrial damage by nitric oxide is potentiated by dopamine in PC12 cells. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1556, 233-238.  | 1.0  | 34        |
| 72 | Relative contributions of heart mitochondria glutathione peroxidase and catalase to H <sub>2</sub> O <sub>2</sub> detoxification in in vivo conditions. <i>Free Radical Biology and Medicine</i> , 2002, 33, 1260-1267.               | 2.9  | 136       |

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|----|--|------|-----------|
| 73 | Determination of the $\hat{\pm}$ -Tocopherol Inhibition Rate Constant for Peroxidation in Low-Density Lipoprotein. <i>Chemical Research in Toxicology</i> , 2002, 15, 870-876.   | 3.3  | 20        |
| 74 | Apoptosis induced by exposure to a low steady-state concentration of H <sub>2</sub> O <sub>2</sub> is a consequence of lysosomal rupture. <i>Biochemical Journal</i> , 2001, 356, 549-555.   | 3.7  | 246       |
| 75 | Apoptosis induced by exposure to a low steady-state concentration of H <sub>2</sub> O <sub>2</sub> is a consequence of lysosomal rupture. <i>Biochemical Journal</i> , 2001, 356, 549.   | 3.7  | 170       |
| 76 | Cellular titration of apoptosis with steady state concentrations of H <sub>2</sub> O <sub>2</sub> : submicromolar levels of H <sub>2</sub> O <sub>2</sub> induce apoptosis through fenton chemistry independent of the cellular thiol state. <i>Free Radical Biology and Medicine</i> , 2001, 30, 1008-1018. | 2.9  | 217       |
| 77 | Estimation of H <sub>2</sub> O <sub>2</sub> gradients across biomembranes. <i>FEBS Letters</i> , 2000, 475, 121-126.   | 2.8  | 438       |
| 78 | Analysis of the pathways of nitric oxide utilization in mitochondria. <i>Free Radical Research</i> , 2000, 33, 747-756.  | 3.3  | 60        |
| 79 | On the antioxidant activity of melatonin. <i>Free Radical Biology and Medicine</i> , 1999, 26, 117-128.  | 2.9  | 110       |
| 80 | Reaction of Ubiquinols with Nitric Oxide. , 1999, , 143-163.   |      | 1         |
| 81 | Determination of propagation and termination rate constants by using an extension to the rotating-sector method: Application to PLPC and DLPC bilayers. <i>International Journal of Chemical Kinetics</i> , 1998, 30, 753-767.   | 1.6  | 12        |
| 82 | The efficiency of antioxidants delivered by liposomal transfer. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1997, 1328, 1-12.  | 2.6  | 18        |
| 83 | Role of Glutathione Peroxidase and Phospholipid Hydroperoxide Glutathione Peroxidase in the Reduction of Lysophospholipid Hydroperoxides. <i>Free Radical Biology and Medicine</i> , 1997, 22, 871-883.  | 2.9  | 51        |
| 84 | Antioxidant Activity of Vitamin E Determined in a Phospholipid Membrane by Product Studies: Avoiding Chain Transfer Reactions by Vitamin E Radicals. <i>Journal of the American Chemical Society</i> , 1997, 119, 5764-5765.   | 13.7 | 35        |
| 85 | Lipid peroxidation in mitochondrial inner membranes. I. An integrative kinetic model. <i>Free Radical Biology and Medicine</i> , 1996, 21, 917-943.  | 2.9  | 128       |
| 86 | PHGPx and phospholipase A <sub>2</sub> /GPx: Comparative importance on the reduction of hydroperoxides in rat liver mitochondria. <i>Free Radical Biology and Medicine</i> , 1995, 19, 669-677.  | 2.9  | 63        |
| 87 | Kinetic Modelling of in Vitro Lipid Peroxidation Experiments - 'Low Level' Validation of a Model of in Vivo Lipid Peroxidation. <i>Free Radical Research</i> , 1995, 23, 151-172.  | 3.3  | 14        |