Carlos Gutierrez-Merino

List of Publications by Year
in descending order

92 papers	2,563 citations	186265 28 h-index	214800 47 g-index
93 all docs	93 docs citations	93 times ranked	2817 citing authors

#	Article	IF	Citations
1	Reactivity of hydrogen sulfide with peroxynitrite and other oxidants of biological interest. Free Radical Biology and Medicine, 2011, 50, 196-205.	2.9	199
2	Complex I and cytochrome c are molecular targets of flavonoids that inhibit hydrogen peroxide production by mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 1562-1572.	1.0	142
3	Hydrogen Sulfide Raises Cytosolic Calcium in Neurons Through Activation of L-Type Ca2+ Channels. Antioxidants and Redox Signaling, 2008, 10, 31-42.	5.4	118
4	Kaempferol blocks oxidative stress in cerebellar granule cells and reveals a key role for reactive oxygen species production at the plasma membrane in the commitment to apoptosis. Free Radical Biology and Medicine, 2004, 37, 48-61.	2.9	106
5	Role of Ecological Variables in the Seasonal Variation of Flavonoid Content of Cistus ladanifer Exudate. Journal of Chemical Ecology, 1997, 23, 579-603.	1.8	93
6	Fluorescence Measurements of Steady State Peroxynitrite Production Upon SIN-1 Decomposition: NADH Versus Dihydrodichlorofluorescein and Dihydrorhodamine 123. Journal of Fluorescence, 2004, 14, 17-23.	2.5	91
7	Kaempferol protects against rat striatal degeneration induced by 3â€nitropropionic acid. Journal of Neurochemistry, 2009, 111, 473-487.	3.9	77
8	Blood micromolar concentrations of kaempferol afford protection against ischemia/reperfusion-induced damage in rat brain. Brain Research, 2007, 1182, 123-137.	2.2	75
9	Decavanadate interactions with actin: Inhibition of G-actin polymerization and stabilization of decameric vanadate. Journal of Inorganic Biochemistry, 2006, 100, 1734-1743.	3.5	67
10	STIM1 deficiency is linked to Alzheimerâ€™s disease and triggers cell death in SH-SY5Y cells by upregulation of L-type voltage-operated Ca2+ entry. Journal of Molecular Medicine, 2018, 96, 1061-1079.	3.9	54
11	Vanadate Induces Necrotic Death in Neonatal Rat Cardiomyocytes Through Mitochondrial Membrane Depolarization. Chemical Research in Toxicology, 2008, 21, 607-618.	3.3	53
12	Modulation of sarcoplasmic reticulum Ca2+-ATPase by chronic and acute exposure to peroxynitrite. FEBS Journal, 2004, 271, 2647-2657.	0.2	52
13	Inhibition of Skeletal Muscle S1-Myosin ATPase by Peroxynitrite. Biochemistry, 2006, 45, 3794-3804.	2.5	49
14	Decavanadate Binding to a High Affinity Site near the Myosin Catalytic Centre Inhibits F-Actin-Stimulated Myosin ATPase Activityâ€. Biochemistry, 2004, 43, 5551-5561.	2.5	47
15	Mitochondria as a target for decavanadate toxicity in Sparus aurata heart. Aquatic Toxicology, 2007, 83, 1-9.	4.0	47
16	Alteration of cytosolic free calcium homeostasis by SIN-1: high sensitivity of L-type Ca2+ channels to extracellular oxidative/nitrosative stress in cerebellar granule cells. Journal of Neurochemistry, 2005, 92, 973-989.	3.9	46
17	Seasonal variation of exudate ofCistus ladanifer. Journal of Chemical Ecology, 1993, 19, 2577-2591.	1.8	45
18	Inhibition of oxidative stress produced by plasma membrane NADH oxidase delays low-potassium-induced apoptosis of cerebellar granule cells. Journal of Neurochemistry, 2002, 82, 705-715.	3.9	45

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19	Clustering of plasma membrane-bound cytochrome b reductase within â€˜lipid raftâ€™ microdomains of the neuronal plasma membrane. Molecular and Cellular Neurosciences, 2009, 40, 14-26.	2.2	42
20	Quantitation of the fÃ¶rster energy transfer for two-dimensional systems. Biophysical Chemistry, 1981, 14, 259-266.	2.8	37
21	High affinity binding of amyloid Î² -peptide to calmodulin: Structural and functional implications. Biochemical and Biophysical Research Communications, 2017, 486, 992-997.	2.1	37
22	Potassium-Induced Apoptosis in Rat Cerebellar Granule Cells Involves Cell-Cycle Blockade at the G1/S Transition. Journal of Molecular Neuroscience, 2001, 15, 155-166.	2.3	35
23	Caveolin-rich lipid rafts of the plasma membrane of mature cerebellar granule neurons are microcompartments for calcium/reactive oxygen and nitrogen species cross-talk signaling. Cell Calcium, 2014, 56, 108-123.	2.4	34
24	Binding modes of decavanadate to myosin and inhibition of the actomyosin ATPase activity. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2007, 1774, 474-480.	2.3	32
25	Correlation between the potency of flavonoids for cytochrome <i>c</i> reduction and inhibition of cardiolipinâ€induced peroxidase activity. BioFactors, 2017, 43, 451-468.	5.4	32
26	Local Anesthetics Inhibit the Ca²⁺,Mg²⁺â€ATPase Activity of Rat Brain Synaptosomes. Journal of Neurochemistry, 1986, 47, 668-672.	3.9	31
27	Quantitation of the fÃ¶rster energy transfer for two-dimensional systems. Biophysical Chemistry, 1981, 14, 247-257.	2.8	28
28	Modulation of Calcium Fluxes Across Synaptosomal Plasma Membrane by Local Anesthetics. Journal of Neurochemistry, 1990, 55, 370-378.	3.9	28
29	Stimulation and clustering of cytochrome b5 reductase in caveolin-rich lipid microdomains is an early event in oxidative stress-mediated apoptosis of cerebellar granule neurons. Journal of Proteomics, 2012, 75, 2934-2949.	2.4	28
30	Location of functional centers in the microsomal cytochrome P450 system. Biochemistry, 1992, 31, 8473-8481.	2.5	27
31	The NADH oxidase activity of the plasma membrane of synaptosomes is a major source of superoxide anion and is inhibited by peroxynitrite. Journal of Neurochemistry, 2002, 82, 604-614.	3.9	27
32	Purified NADH-cytochrome b5 reductase is a novel superoxide anion source inhibited by apocynin: sensitivity to nitric oxide and peroxynitrite. Free Radical Biology and Medicine, 2014, 73, 174-189.	2.9	27
33	The decrease of NAD(P)H:quinone oxidoreductase 1 activity and increase of ROS production by NADPH oxidases are early biomarkers in doxorubicin cardiotoxicity. Biomarkers, 2014, 19, 142-153.	1.9	26
34	Synaptosomal plasma membrane Ca2+ pump activity inhibition by repetitive micromolar ONOOâˆ’ pulses. Free Radical Biology and Medicine, 2002, 32, 46-55.	2.9	25
35	Peroxynitrite induces F-actin depolymerization and blockade of myosin ATPase stimulation. Biochemical and Biophysical Research Communications, 2006, 342, 44-49.	2.1	25
36	L-type voltage-operated calcium channels, N-methyl-d-aspartate receptors and neuronal nitric-oxide synthase form a calcium/redox nano-transducer within lipid rafts. Biochemical and Biophysical Research Communications, 2012, 420, 257-262.	2.1	25

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37	Distances between functional sites of the Ca2+ + Mg2+-ATPase from sarcoplasmic reticulum using Co2+ as a spectroscopic ruler. FEBS Journal, 1990, 194, 663-670.	0.2	24
38	Modulation by phosphorylation of glycogen phosphorylase-sarcoplasmic reticulum interaction. FEBS Letters, 1991, 283, 273-276.	2.8	24
39	Quantification and removal of glycogen phosphorylase and other enzymes associated with sarcoplasmic reticulum membrane preparations. Biochimica Et Biophysica Acta - Biomembranes, 1994, 1194, 35-43.	2.6	24
40	Hydrogen sulfide is a reversible inhibitor of the NADH oxidase activity of synaptic plasma membranes. Biochemical and Biophysical Research Communications, 2009, 388, 718-722.	2.1	23
41	Interaction between Glycogen Phosphorylase and Sarcoplasmic Reticulum Membranes and Its Functional Implications. Journal of Biological Chemistry, 1995, 270, 11998-12004.	3.4	21
42	L-type calcium channels and cytochrome b5 reductase are components of protein complexes tightly associated with lipid rafts microdomains of the neuronal plasma membrane. Journal of Proteomics, 2010, 73, 1502-1510.	2.4	21
43	Sphingomyelin composition and physical asymmetries in native acetylcholine receptor-rich membranes. European Biophysics Journal, 2002, 31, 417-427.	2.2	20
44	Early Reactive A1 Astrocytes Induction by the Neurotoxin 3-Nitropropionic Acid in Rat Brain. International Journal of Molecular Sciences, 2020, 21, 3609.	4.1	20
45	Effects of local anesthetics on the passive permeability of sarcoplasmic reticulum vesicles to Ca2+ and Mg2+. Biochimica Et Biophysica Acta - Biomembranes, 1987, 902, 374-384.	2.6	19
46	Thermal unfolding of monomeric Ca(II),Mg(II)-ATPase from sarcoplasmic reticulum of rabbit skeletal muscle. FEBS Letters, 1994, 343, 155-159.	2.8	18
47	Early disruption of the actin cytoskeleton in cultured cerebellar granule neurons exposed to 3-morpholinosydnonimine-oxidative stress is linked to alterations of the cytosolic calcium concentration. Cell Calcium, 2011, 49, 174-183.	2.4	18
48	Reduction of ascorbate free radical by the plasma membrane of synaptic terminals from rat brain. Archives of Biochemistry and Biophysics, 2008, 469, 243-254.	3.0	16
49	Phospholipids and calmodulin modulate the inhibition of PMCA activity by tau. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 1028-1035.	4.1	16
50	Kaempferol prevents the activation of complement C3 protein and the generation of reactive A1 astrocytes that mediate rat brain degeneration induced by 3-nitropropionic acid. Food and Chemical Toxicology, 2022, 164, 113017.	3.6	16
51	Methylene blue activates the PMCA activity and cross-interacts with amyloid Î²-peptide, blocking AÎ²-mediated PMCA inhibition. Neuropharmacology, 2018, 139, 163-172.	4.1	15
52	Creatine Protects Against Cytosolic Calcium Dysregulation, Mitochondrial Depolarization and Increase of Reactive Oxygen Species Production in Rotenone-Induced Cell Death of Cerebellar Granule Neurons. Neurotoxicity Research, 2018, 34, 717-732.	2.7	15
53	Dependence of the fluorescence of fluorescein labelled (Ca2+, Mg2+)-ATPase upon the lipid to protein ratio in sarcoplasmic reticulum reconstituted systems. Biochemical and Biophysical Research Communications, 1985, 133, 176-182.	2.1	14
54	Kinetic characterization of the normal and procaine-perturbed reaction cycles of the sarcoplasmic reticulum calcium pump. FEBS Journal, 1991, 202, 559-567.	0.2	14

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55	Fluorescence energy transfer as a tool to locate functional sites in membrane proteins. Biochemical Society Transactions, 1994, 22, 784-788.	3.4	14
56	Binding of Amyloid Î²(1â€“42)-Calmodulin Complexes to Plasma Membrane Lipid Rafts in Cerebellar Granule Neurons Alters Resting Cytosolic Calcium Homeostasis. International Journal of Molecular Sciences, 2021, 22, 1984.	4.1	14
57	Peroxynitrite-mediated oxidative modifications of myosin and implications on structure and function. Free Radical Research, 2010, 44, 1317-1327.	3.3	13
58	Modulation of CYP2C9 activity and hydrogen peroxide production by cytochrome b5. Scientific Reports, 2020, 10, 15571.	3.3	13
59	The Relevance of Amyloid Î²-Calmodulin Complexation in Neurons and Brain Degeneration in Alzheimerâ€™s Disease. International Journal of Molecular Sciences, 2021, 22, 4976.	4.1	13
60	Topography of human cytochrome b5/cytochrome b5 reductase interacting domain and redox alterations upon complex formation. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 78-87.	1.0	13
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73	Differential scanning calorimetry study of glycogen phosphorylaseb-detergent interactions. Journal of Bioenergetics and Biomembranes, 1992, 24, 625-634.	2.3	6
74	Biological Effects of Decavanadate: Muscle Contraction, In Vivo Oxidative Stress, and Mitochondrial Toxicity. ACS Symposium Series, 2007, , 249-263.	0.5	6
75	Peroxidase-like activity of cytochrome b 5 is triggered upon hemichrome formation in alkaline pH. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 373-378.	2.3	6
76	Structural Features of Cytochrome b5â€"Cytochrome b5 Reductase Complex Formation and Implications for the Intramolecular Dynamics of Cytochrome b5 Reductase. International Journal of Molecular Sciences, 2022, 23, 118.	4.1	6
77	Hemin and hemeprotein bleaching during linoleic acid oxidation by lipoxygenases. Lipids and Lipid Metabolism, 1991, 1082, 310-318.	2.6	5
78	A Comparative Kinetic Analysis of the Flavin-Photosensitized Oxidation and Reduction of Plastocyanin and Cytochrome c6from Different Organisms. Photochemistry and Photobiology, 1996, 63, 86-91.	2.5	5
79	Human erythrocytes exposure to juglone leads to an increase of superoxide anion production associated with cytochrome b5 reductase uncoupling. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148134.	1.0	5
80	The critical role of lipid rafts nanodomains in the cross-talk between calcium and reactive oxygen and nitrogen species in cerebellar granule neurons apoptosis by extracellular potassium deprivation. AIMS Molecular Science, 2016, 3, 12-29.	0.5	5
81	Plausible Stoichiometry of the Interacting Nucleotide-Binding Sites in the Ca2+-ATPase from Sarcoplasmic Reticulum Membranes. Archives of Biochemistry and Biophysics, 1999, 368, 298-302.	3.0	4
82	Cytosolic Calcium Homeostasis in Neurons â€" Control Systems, Modulation by Reactive Oxygen and Nitrogen Species, and Space and Time Fluctuations. , 2014, , .		4
83	Ligand accessibility to heme cytochrome b5 coordinating sphere and enzymatic activity enhancement upon tyrosine ionization. Journal of Biological Inorganic Chemistry, 2019, 24, 317-330.	2.6	4
84	Design and Experimental Evaluation of a Peptide Antagonist against Amyloid Î²(1â€"42) Interactions with Calmodulin and Calbindin-D28k. International Journal of Molecular Sciences, 2022, 23, 2289.	4.1	4
85	Structural Changes of the Sarcoplasmic Reticulum Ca(II)-ATPase Nucleotide Binding Domain by pH and La(III). Archives of Biochemistry and Biophysics, 1997, 348, 152-156.	3.0	3
86	pH and ligand binding modulate the strength of proteinâ€"protein interactions in the Ca2+-ATPase from sarcoplasmic reticulum membranes. Biochimica Et Biophysica Acta - Biomembranes, 1999, 1420, 203-213.	2.6	3
87	Unfolding and trypsin inactivation studies reveal a conformation drift of glucose-6-phosphate dehydrogenase upon binding of NADP. BBA - Proteins and Proteomics, 1992, 1122, 99-106.	2.1	2
88	Differential scanning calorimetry study of the thermal unfolding of sarcoplasmic reticulum Ca2+, Mg2+-ATPase from rabbit skeletal muscle. Biochemical Society Transactions, 1994, 22, 384S-384S.	3.4	2
89	Comparative fluorescence properties of lipoxygenases. Comparative Biochemistry and Physiology Part B: Comparative Biochemistry, 1988, 89, 531-537.	0.2	1
90	Hypothalamic Hypophyseal Inhibitory Factor (HHIF) Increases Intrasynaptosomal Free Calcium Concentration. Hypertension, 1997, 29, 1337-1343.	2.7	1

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91	Fluorescnece anisotropy of fluorescein phosphatidylethanolthiocarbamide in lipid bilayers and in Ca2+-ATPase/lipid reconstituted systems. Bioelectrochemistry, 1995, 38, 117-121.	1.0	0
92	Special Issue â€œMolecular and Cellular Mechanisms of Action of Markers of Tissue Degenerationâ€• International Journal of Molecular Sciences, 2022, 23, 6358.	4.1	0