Xavier Carpena

List of Publications by Year
in descending order

45 papers	1,691 citations	257450 24 h-index	276875 41 g-index
47 all docs	47 docs citations	47 times ranked	1946 citing authors

#	Article	IF	Citations
1	Serial macromolecular crystallography at ALBA Synchrotron Light Source. Journal of Synchrotron Radiation, 2022, 29, 896-907.	2.4	1
2	Molecular mechanism of light-driven sodium pumping. Nature Communications, 2020, 11, 2137.	12.8	67
3	Pseudomonas aeruginosa Lipoxygenase LoxA Contributes to Lung Infection by Altering the Host Immune Lipid Signaling. Frontiers in Microbiology, 2019, 10, 1826.	3.5	25
4	L amino acid transporter structure and molecular bases for the asymmetry of substrate interaction. Nature Communications, 2019, 10, 1807.	12.8	57
5	Structural and functional basis of phospholipid oxygenase activity of bacterial lipoxygenase from Pseudomonas aeruginosa. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 1681-1692.	2.4	46
6	Interaction with the Redox Cofactor MYW and Functional Role of a Mobile Arginine in Eukaryotic Catalase-Peroxidase. Biochemistry, 2016, 55, 3528-3541.	2.5	8
7	Eukaryotic Catalase-Peroxidase: The Role of the Trp-Tyr-Met Adduct in Protein Stability, Substrate Accessibility, and Catalysis of Hydrogen Peroxide Dismutation. Biochemistry, 2015, 54, 5425-5438.	2.5	3
8	Chapter 7. Catalase-peroxidase (KatG) Structure and Function. 2-Oxoglutarate-Dependent Oxygenases, 2015, , 133-155.	0.8	1
9	Binding of the Antitubercular Pro-Drug Isoniazid in the Heme Access Channel of Catalase-Peroxidase (KatG). A Combined Structural and Metadynamics Investigation. Journal of Physical Chemistry B, 2014, 118, 2924-2931.	2.6	27
10	An Ionizable Active-Site Tryptophan Imparts Catalase Activity to a Peroxidase Core. Journal of the American Chemical Society, 2014, 136, 7249-7252.	13.7	28
11	Structure and interaction with phospholipids of a prokaryotic lipoxygenase from <i>Pseudomonas aeruginosa</i>. FASEB Journal, 2013, 27, 4811-4821.	0.5	78
12	Structural Asymmetry and Disulfide Bridges among Subunits Modulate the Activity of Human Malonyl-CoA Decarboxylase*. Journal of Biological Chemistry, 2013, 288, 11907-11919.	3.4	10
13	High Conformational Stability of Secreted Eukaryotic Catalase-peroxidases. Journal of Biological Chemistry, 2012, 287, 32254-32262.	3.4	21
14	Thirty years of heme catalases structural biology. Archives of Biochemistry and Biophysics, 2012, 525, 102-110.	3.0	90
15	Influence of main channel structure on H2O2 access to the heme cavity of catalase KatE of Escherichia coli. Archives of Biochemistry and Biophysics, 2012, 526, 54-59.	3.0	12
16	Structure of glycerol-3-phosphate dehydrogenase (GPD1) from<i>Saccharomyces cerevisiae</i>at 2.45â€…Ã… resolution. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 1279-1283.	0.7	8
17	Modulation of Heme Orientation and Binding by a Single Residue in Catalase HPII of <i>Escherichia coli</i>. Biochemistry, 2011, 50, 2101-2110.	2.5	14
18	Oxygen Binding to Catalase-Peroxidase. Journal of Physical Chemistry Letters, 2011, 2, 196-200.	4.6	18

#	Article	IF	Citations
19	Molecular basis of substrate-induced permeation by an amino acid antiporter. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3935-3940.	7.1	139
20	Isonicotinic Acid Hydrazide Conversion to Isonicotinyl-NAD by Catalase-peroxidases. Journal of Biological Chemistry, 2010, 285, 26662-26673.	3.4	55
21	The dynamic role of distal side residues in heme hydroperoxidase catalysis. Interplay between X-ray crystallography and ab initio MD simulations. Archives of Biochemistry and Biophysics, 2010, 500, 37-44.	3.0	16
22	Essential Role of Proximal Histidine-Asparagine Interaction in Mammalian Peroxidases. Journal of Biological Chemistry, 2009, 284, 25929-25937.	3.4	68
23	Electronic State of the Molecular Oxygen Released by Catalase. Journal of Physical Chemistry A, 2008, 112, 12842-12848.	2.5	14
24	RhaU of <i>Rhizobium leguminosarum</i> Is a Rhamnose Mutarotase. Journal of Bacteriology, 2008, 190, 2903-2910.	2.2	20
25	Versatility of the Electronic Structure of Compound I in Catalase-Peroxidases. Journal of the American Chemical Society, 2007, 129, 13436-13446.	13.7	47
26	The Structures and Electronic Configuration of Compound I Intermediates ofHelicobacterpyloriandPenicillium vitaleCatalases Determined by X-ray Crystallography and QM/MM Density Functional Theory Calculations. Journal of the American Chemical Society, 2007, 129, 4193-4205.	13.7	58
27	Roles for Arg426 and Trp111 in the Modulation of NADH Oxidase Activity of the Catalase-peroxidase KatG fromBurkholderia pseudomalleiInferred from pH-Induced Structural Changesâ€,â€¡. Biochemistry, 2006, 45, 5171-5179.	2.5	39
28	Two alternative substrate paths for compound I formation and reduction in catalase-peroxidase KatG from Burkholderia pseudomallei. Proteins: Structure, Function and Bioinformatics, 2006, 66, 219-228.	2.6	22
29	A first principles study of the binding of formic acid in catalase complementing high resolution X-ray structures. Chemical Physics, 2006, 323, 129-137.	1.9	11
30	A molecular switch and electronic circuit modulate catalase activity in catalaseâ€peroxidases. EMBO Reports, 2005, 6, 1156-1162.	4.5	45
31	Characterization of a Large Subunit Catalase Truncated by Proteolytic Cleavageâ€,â€¡. Biochemistry, 2005, 44, 5597-5605.	2.5	17
32	Structural Characterization of the Ser324Thr Variant of the Catalase-peroxidase (KatG) from Burkholderia pseudomallei. Journal of Molecular Biology, 2005, 345, 21-28.	4.2	34
33	Crystal Structure of a Putative Type I Restrictionâ€"Modification S Subunit from Mycoplasma genitalium. Journal of Molecular Biology, 2005, 351, 749-762.	4.2	44
34	Catalase-peroxidases (KatG) Exhibit NADH Oxidase Activity. Journal of Biological Chemistry, 2004, 279, 43098-43106.	3.4	68
35	Structure of the C-terminal domain of the catalaseâ€"peroxidase KatG fromEscherichia coli. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1824-1832.	2.5	15
36	Structure ofHelicobacter pyloriCatalase, with and without Formic Acid Bound, at 1.6 Ã… Resolutionâ€. Biochemistry, 2004, 43, 3089-3103.	2.5	65

#	Article	IF	Citations
37	Structure of the Clade 1 catalase, CatF of Pseudomonas syringae, at 1.8 Ã… resolution. Proteins: Structure, Function and Bioinformatics, 2003, 50, 423-436.	2.6	45
38	Catalase-peroxidase KatG of Burkholderia pseudomallei at 1.7Ã… resolution. Journal of Molecular Biology, 2003, 327, 475-489.	4.2	126
39	An Electrical Potential in the Access Channel of Catalases Enhances Catalysis. Journal of Biological Chemistry, 2003, 278, 31290-31296.	3.4	56
40	Characterization of the Catalase-Peroxidase KatG from Burkholderia pseudomallei by Mass Spectrometry. Journal of Biological Chemistry, 2003, 278, 35687-35692.	3.4	43
41	Crystallization and preliminary X-ray analysis of the hydroperoxidase I C-terminal domain fromEscherichia coli. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 853-855.	2.5	5
42	Crystallization and preliminary X-ray analysis of the catalaseâ€“peroxidase KatG fromBurkholderia pseudomallei. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 2184-2186.	2.5	7
43	Crystallization and preliminary X-ray analysis of clade I catalases fromPseudomonas syringaeandListeria seeligeri. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 1184-1186.	2.5	6
44	Substrate flow in catalases deduced from the crystal structures of active site variants of HPII fromEscherichia coli. Proteins: Structure, Function and Bioinformatics, 2001, 44, 270-281.	2.6	50
45	Structural and biochemical features distinguish the foot-and-mouth disease virus leader proteinase from other papain-like enzymes 1 1Edited by R. Huber. Journal of Molecular Biology, 2000, 302, 1227-1240.	4.2	62