Rosario A MuÃ±oz-Clares

List of Publications by Year
in descending order

55 papers	1,000 citations	361045 20 h-index	476904 29 g-index
55 all docs	55 docs citations	55 times ranked	953 citing authors

#	Article	IF	Citations
1	The critical role of the aldehyde dehydrogenase PauC in spermine, spermidine, and diaminopropane toxicity in <i>Pseudomonas aeruginosa</i>: Its possible use as a drug target. FEBS Journal, 2022, 289, 2685-2705.	2.2	2
2	Multiple conformations in solution of the maize C4-phosphoenolpyruvate carboxylase isozyme. Heliyon, 2021, 7, e08464.	1.4	0
3	Structural and biochemical evidence of the glucose 6-phosphate-allosteric site of maize C4-phosphoenolpyruvate carboxylase: its importance in the overall enzyme kinetics. Biochemical Journal, 2020, 477, 2095-2114.	1.7	5
4	Aldehyde dehydrogenase diversity in bacteria of the Pseudomonas genus. Chemico-Biological Interactions, 2019, 304, 83-87.	1.7	26
5	The importance of assessing aldehyde substrate inhibition for the correct determination of kinetic parameters and mechanisms: the case of the ALDH enzymes. Chemico-Biological Interactions, 2019, 305, 86-97.	1.7	8
6	Bona fide choline monoxygenases evolved in Amaranthaceae plants from oxygenases of unknown function: Evidence from phylogenetics, homology modeling and docking studies. PLoS ONE, 2018, 13, e0204711.	1.1	5
7	Identification of the allosteric site for neutral amino acids in the maize C4 isozyme of phosphoenolpyruvate carboxylase: The critical role of Ser-100. Journal of Biological Chemistry, 2018, 293, 9945-9957.	1.6	11
8	Mechanisms of protection against irreversible oxidation of the catalytic cysteine of ALDH enzymes: Possible role of vicinal cysteines. Chemico-Biological Interactions, 2017, 276, 52-64.	1.7	11
9	Reversible, partial inactivation of plant betaine aldehyde dehydrogenase by betaine aldehyde: mechanism and possible physiological implications. Biochemical Journal, 2016, 473, 873-885.	1.7	8
10	Amino acid residues that affect the basicity of the catalytic glutamate of the hydrolytic aldehyde dehydrogenases. Chemico-Biological Interactions, 2015, 234, 45-58.	1.7	12
11	Residues that influence coenzyme preference in the aldehyde dehydrogenases. Chemico-Biological Interactions, 2015, 234, 59-74.	1.7	12
12	Exploring the evolutionary route of the acquisition of betaine aldehyde dehydrogenase activity by plant ALDH10 enzymes: implications for the synthesis of the osmoprotectant glycine betaine. BMC Plant Biology, 2014, 14, 149.	1.6	19
13	Potential monovalent cation-binding sites in aldehyde dehydrogenases. Chemico-Biological Interactions, 2013, 202, 41-50.	1.7	7
14	Structural determinants of substrate specificity in aldehyde dehydrogenases. Chemico-Biological Interactions, 2013, 202, 51-61.	1.7	43
15	Potassium and Ionic Strength Effects on the Conformational and Thermal Stability of Two Aldehyde Dehydrogenases Reveal Structural and Functional Roles of K+-Binding Sites. PLoS ONE, 2013, 8, e54899.	1.1	13
16	Amino Acid Residues Critical for the Specificity for Betaine Aldehyde of the Plant ALDH10 Isoenzyme Involved in the Synthesis of Glycine Betaine Â Â. Plant Physiology, 2012, 158, 1570-1582.	2.3	45
17	Novel NADPHâ€"cysteine covalent adduct found in the active site of an aldehyde dehydrogenase. Biochemical Journal, 2011, 439, 443-455.	1.7	19
18	The disulfiram metabolites S-methyl-N,N-diethyldithiocarbamoyl sulfoxide and S-methyl-N,N-diethylthiocarbamoyl sulfone irreversibly inactivate betaine aldehyde dehydrogenase from Pseudomonas aeruginosa, both in vitro and in situ, and arrest bacterial growth. Biochimie, 2011, 93, 286-295.	1.3	23

#	Article	IF	Citations
19	Crystallographic evidence for active-site dynamics in the hydrolytic aldehyde dehydrogenases. Implications for the deacylation step of the catalyzed reaction. Chemico-Biological Interactions, 2011, 191, 137-146.	1.7	20
20	Kinetic and structural features of betaine aldehyde dehydrogenases: Mechanistic and regulatory implications. Archives of Biochemistry and Biophysics, 2010, 493, 71-81.	1.4	41
21	Reaction of the catalytic cysteine of betaine aldehyde dehydrogenase from Pseudomonas aeruginosa with arsenite-BAL and phenylarsine oxide. Chemico-Biological Interactions, 2009, 178, 64-69.	1.7	5
22	The Crystal Structure of A Ternary Complex of Betaine Aldehyde Dehydrogenase from Pseudomonas aeruginosa Provides New Insight into the Reaction Mechanism and Shows A Novel Binding Mode of the 2â€²-Phosphate of NADP+ and A Novel Cation Binding Site. Journal of Molecular Biology, 2009, 385, 542-557.	2.0	64
23	Complex, unusual conformational changes in kidney betaine aldehyde dehydrogenase suggested by chemical modification with disulfiram. Archives of Biochemistry and Biophysics, 2007, 468, 167-173.	1.4	9
24	Disulfiram irreversibly aggregates betaine aldehyde dehydrogenaseâ€"A potential target for antimicrobial agents against Pseudomonas aeruginosa. Biochemical and Biophysical Research Communications, 2006, 341, 408-415.	1.0	30
25	Betaine aldehyde dehydrogenase from Pseudomonas aeruginosa: cloning, over-expression in Escherichia coli, and regulation by choline and salt. Archives of Microbiology, 2006, 185, 14-22.	1.0	31
26	Fumonisin B1, a sphingoid toxin, is a potent inhibitor of the plasma membrane H+-ATPase. Planta, 2005, 221, 589-596.	1.6	29
27	Functional and structural analysis of catalase oxidized by singlet oxygen. Biochimie, 2005, 87, 205-214.	1.3	27
28	Site-directed mutagenesis and homology modeling indicate an important role of cysteine 439 in the stability of betaine aldehyde dehydrogenase from Pseudomonas aeruginosa. Biochimie, 2005, 87, 1056-1064.	1.3	15
29	Ligand-induced conformational changes of betaine aldehyde dehydrogenase from Pseudomonas aeruginosa and Amaranthus hypochondriacus L. leaves affecting the reactivity of the catalytic thiol. Chemico-Biological Interactions, 2003, 143-144, 129-137.	1.7	9
30	Monovalent cations requirements for the stability of betaine aldehyde dehydrogenase from Pseudomonas aeruginosa, porcine kidney and amaranth leaves. Chemico-Biological Interactions, 2003, 143-144, 139-148.	1.7	33
31	Inactivation of betaine aldehyde dehydrogenase from Pseudomonas aeruginosa and Amaranthus hypochondriacus L. leaves by disulfiram. Chemico-Biological Interactions, 2003, 143-144, 149-158.	1.7	20
32	Trehalose-Mediated Inhibition of the Plasma Membrane H + -ATPase from Kluyveromyces lactis : Dependence on Viscosity and Temperature. Journal of Bacteriology, 2002, 184, 4384-4391.	1.0	30
33	Modulation of the reactivity of the essential cysteine residue of betaine aldehyde dehydrogenase from Pseudomonas aeruginosa. Biochemical Journal, 2002, 361, 577.	1.7	8
34	Modulation of the reactivity of the essential cysteine residue of betaine aldehyde dehydrogenase from Pseudomonas aeruginosa. Biochemical Journal, 2002, 361, 577-585.	1.7	19
35	Thermal inactivation of the plasma membrane H+-ATPase from Kluyveromyces lactis. Protection by trehalose. BBA - Proteins and Proteomics, 2001, 1544, 64-73.	2.1	29
36	Kinetics of phosphoenolpyruvate carboxylase from Zea mays leaves at high concentration of substrates. BBA - Proteins and Proteomics, 2001, 1546, 242-252.	2.1	7

#	Article	IF	Citations
37	Complexes of NADH with betaine aldehyde dehydrogenase from leaves of the plant Amaranthus hypochondriacus L.. Chemico-Biological Interactions, 2001, 130-132, 71-80.	1.7	5
38	Steady-state kinetic mechanism of the NADP+- and NAD+-dependent reactions catalysed by betaine aldehyde dehydrogenase from Pseudomonas aeruginosa. Biochemical Journal, 2000, 352, 675.	1.7	17
39	Steady-state kinetic mechanism of the NADP+- and NAD+-dependent reactions catalysed by betaine aldehyde dehydrogenase from Pseudomonas aeruginosa. Biochemical Journal, 2000, 352, 675-683.	1.7	39
40	Physiological Implications of the Kinetics of Maize Leaf Phosphoenolpyruvate Carboxylase. Plant Physiology, 2000, 123, 149-160.	2.3	34
41	Inactivation of betaine aldehyde dehydrogenase from amaranth leaves by pyridoxal 5â€²-phosphate. Plant Science, 1999, 143, 9-17.	1.7	3
42	Response of Phosphoenolpyruvate Carboxylase from Maize Leaves to Moderate Water Deficit. Journal of Plant Physiology, 1999, 155, 631-638.	1.6	5
43	Re-examination of the roles of PEP and Mg2+ in the reaction catalysed by the phosphorylated and non-phosphorylated forms of phosphoenolpyruvate carboxylase from leaves of ZeaÂmays. Biochemical Journal, 1998, 332, 633-642.	1.7	27
44	Betaine-Aldehyde Dehydrogenase from Amaranth Leaves Efficiently Catalyzes the NAD-Dependent Oxidation of Dimethylsulfoniopropionaldehyde to Dimethylsulfoniopropionate. Archives of Biochemistry and Biophysics, 1997, 337, 81-88.	1.4	36
45	Desensitization to glucose 6-phosphate of phosphoenolpyruvate carboxylase from maize leaves by pyridoxal 5â€²-phosphate. BBA - Proteins and Proteomics, 1997, 1337, 207-216.	2.1	8
46	Substrate inhibition by betaine aldehyde of betaine aldehyde dehydrogenase from leaves of Amaranthus hypochondriacus L.. BBA - Proteins and Proteomics, 1997, 1341, 49-57.	2.1	12
47	Effects of Glycerol on the Kinetic Properties of Betaine Aldehyde Dehydrogenase. Advances in Experimental Medicine and Biology, 1996, 414, 261-268.	0.8	4
48	Phosphoenolpyruvate Carboxylase and Malic Enzyme in Leaves of two Populations of Maize Differing in Grain Yield. Journal of Plant Physiology, 1994, 143, 15-20.	1.6	5
49	Purification and Properties of Betaine Aldehyde Dehydrogenase Extracted from Detached Leaves of Amaranthus hypochondriacus L. Subjected to Water Deficit. Journal of Plant Physiology, 1994, 143, 145-152.	1.6	56
50	Hysteretic Properties of Maize Leaf Phosphoenolpyruvate Carboxylase in Crude Desalted Extracts. Effects of Metabolites and Light. Journal of Plant Physiology, 1990, 136, 451-457.	1.6	3
51	Kinetic evidence of the existence of a regulatory phosphoenolpyruvate binding site in maize leaf phosphoenolpyruvate carboxylase. Archives of Biochemistry and Biophysics, 1990, 276, 180-190.	1.4	29
52	Further Studies of the Short-term Regulation of Maize Leaf Phosphoenolpyruvate Carboxylase by Light. Journal of Plant Physiology, 1987, 129, 191-199.	1.6	3
53	Short-term Regulation of Maize Leaf Phosphoenolpyruvate Carboxylase by Light. Journal of Plant Physiology, 1987, 128, 361-369.	1.6	11
54	Tryptophan metabolism and its interaction with gluconeogenesis in mammals: Studies with the guinea pig, mongolian gerbil, and sheep. Archives of Biochemistry and Biophysics, 1981, 209, 713-717.	1.4	7

#	Article	IF	Citations
55	A new method for the assay of tryptophan 2,3-dioxygenase. FEBS Letters, 1980, 117, 265-268.	1.3	1