Jose M Arguello

List of Publications by Year
in descending order

81 papers	4,271 citations	101543 36 h-index	114465 63 g-index
86 all docs	86 docs citations	86 times ranked	3026 citing authors

#	Article	IF	Citations
1	The structure and function of heavy metal transport P1B-ATPases. BioMetals, 2007, 20, 233-248.	4.1	303
2	Identification of Ion-Selectivity Determinants in Heavy-Metal Transport P 1B -type ATPases. Journal of Membrane Biology, 2003, 195, 93-108.	2.1	255
3	Mechanism of Cu⁺-transporting ATPases: Soluble Cu⁺chaperones directly transfer Cu⁺to transmembrane transport sites. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5992-5997.	7.1	210
4	Arabidopsis HMA2, a Divalent Heavy Metal-Transporting PIB-Type ATPase, Is Involved in Cytoplasmic Zn2+ Homeostasis. Plant Physiology, 2004, 136, 3712-3723.	4.8	206
5	Mechanisms of copper homeostasis in bacteria. Frontiers in Cellular and Infection Microbiology, 2013, 3, 73.	3.9	193
6	Distinct functional roles of homologous Cu⁺ efflux ATPases in <i>Pseudomonas aeruginosa</i>. Molecular Microbiology, 2010, 78, 1246-1258.	2.5	139
7	Characterization of a Thermophilic P-type Ag+/Cu+-ATPase from the ExtremophileArchaeoglobus fulgidus. Journal of Biological Chemistry, 2002, 277, 7201-7208.	3.4	106
8	The transport mechanism of bacterial Cu+-ATPases: distinct efflux rates adapted to different function. BioMetals, 2011, 24, 467-475.	4.1	106
9	Archaeoglobus fulgidus CopB Is a Thermophilic Cu2+-ATPase. Journal of Biological Chemistry, 2003, 278, 40534-40541.	3.4	102
10	Ouabain Interactions with the H5-H6 Hairpin of the Na,K-ATPase Reveal a Possible Inhibition Mechanism via the Cation Binding Domain. Journal of Biological Chemistry, 1996, 271, 14176-14182.	3.4	101
11	Bacterial Transition Metal P_{1B}-ATPases: Transport Mechanism and Roles in Virulence. Biochemistry, 2011, 50, 9940-9949.	2.5	101
12	Copper homeostasis networks in the bacterium Pseudomonas aeruginosa. Journal of Biological Chemistry, 2017, 292, 15691-15704.	3.4	100
13	Functional Roles of Metal Binding Domains of the Archaeoglobus fulgidus Cu+-ATPase CopA. Biochemistry, 2003, 42, 11040-11047.	2.5	97
14	Metal Transport across Biomembranes: Emerging Models for a Distinct Chemistry. Journal of Biological Chemistry, 2012, 287, 13510-13517.	3.4	94
15	Structure of the Two Transmembrane Cu+ Transport Sites of the Cu+-ATPases*. Journal of Biological Chemistry, 2008, 283, 29753-29759.	3.4	90
16	Asp804 and Asp808 in the Transmembrane Domain of the Na,K-ATPase Î± Subunit Are Cation Coordinating Residues. Journal of Biological Chemistry, 1996, 271, 29682-29687.	3.4	86
17	A Novel P1B-type Mn2+-transporting ATPase Is Required for Secreted Protein Metallation in Mycobacteria. Journal of Biological Chemistry, 2013, 288, 11334-11347.	3.4	86
18	Structure of the ATP Binding Domain from the Archaeoglobus fulgidus Cu+-ATPase. Journal of Biological Chemistry, 2006, 281, 11161-11166.	3.4	84

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19	Cation and Cardiac Glycoside Binding Sites of the Na,K-ATPase. Annals of the New York Academy of Sciences, 1997, 834, 194-206.	3.8	75
20	Mechanism of ATPase-mediated Cu+ Export and Delivery to Periplasmic Chaperones. Journal of Biological Chemistry, 2014, 289, 20492-20501.	3.4	73
21	<scp>PfeT</scp>, a <scp>P</scp>_{1B4}â€type <scp>ATP</scp>ase, effluxes ferrous iron and protects <scp><i>B</i></scp><i>acillus subtilis</i> against iron intoxication. Molecular Microbiology, 2015, 98, 787-803.	2.5	72
22	Substitutions of Serine 775 in the Î± Subunit of the Na,K-ATPase Selectively Disrupt K+ High Affinity Activation without Affecting Na+ Interaction. Journal of Biological Chemistry, 1995, 270, 22764-22771.	3.4	67
23	Identification of the Transmembrane Metal Binding Site in Cu+-transporting PIB-type ATPases. Journal of Biological Chemistry, 2004, 279, 54802-54807.	3.4	67
24	The Mechanism of Cu+ Transport ATPases. Journal of Biological Chemistry, 2013, 288, 69-78.	3.4	67
25	Evolution and diversity of periplasmic proteins involved in copper homeostasis in gamma proteobacteria. BMC Microbiology, 2012, 12, 249.	3.3	60
26	A Novel Regulatory Metal Binding Domain Is Present in the C Terminus of Arabidopsis Zn2+-ATPase HMA2*. Journal of Biological Chemistry, 2006, 281, 33881-33891.	3.4	58
27	Evolution of a plant-specific copper chaperone family for chloroplast copper homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5480-7.	7.1	57
28	Structure of the Actuator Domain from theArchaeoglobus fulgidusCu+-ATPaseâ€,â€¡. Biochemistry, 2006, 45, 9949-9955.	2.5	56
29	Toward a Molecular Understanding of Metal Transport by P1B-Type ATPases. Current Topics in Membranes, 2012, 69, 113-136.	0.9	55
30	Novel Zn2+ Coordination by the Regulatory N-Terminus Metal Binding Domain of Arabidopsis thaliana Zn2+-ATPase HMA2. Biochemistry, 2007, 46, 7754-7764.	2.5	52
31	Chaperone-mediated Cu+ Delivery to Cu+ Transport ATPases. Journal of Biological Chemistry, 2009, 284, 20804-20811.	3.4	52
32	Differential roles for the <scp><scp>Co²⁺</scp></scp>/<scp><scp>Ni²⁺</scp></scp> transporting <scp>ATP</scp>ases, <scp>CtpD</scp> and <scp>CtpJ</scp>, in <i><scp>M</scp>ycobacterium tuberculosis</i> virulence. Molecular Microbiology, 2014, 91, 185-197.	2.5	52
33	Role in metal homeostasis of CtpD, a Co²⁺ transporting P_{1B4}â€ATPase of <i>Mycobacterium smegmatis</i>. Molecular Microbiology, 2012, 84, 1139-1149.	2.5	50
34	The <i><scp>L</scp>isteria monocytogenes</i> Furâ€regulated virulence protein FrvA is an Fe(II) efflux P_{1B4}â€type ATPase. Molecular Microbiology, 2016, 100, 1066-1079.	2.5	48
35	Evidence That Ser775 in the Î± Subunit of the Na,K-ATPase Is a Residue in the Cation Binding Pocket. Journal of Biological Chemistry, 1997, 272, 24987-24993.	3.4	47
36	A Novel Zinc Binding System, ZevAB, Is Critical for Survival of Nontypeable Haemophilus influenzae in a Murine Lung Infection Model. Infection and Immunity, 2011, 79, 3366-3376.	2.2	44

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37	Sinorhizobium meliloti Nia is a P1B-5-ATPase expressed in the nodule during plant symbiosis and is involved in Ni and Fe transport. Metallomics, 2013, 5, 1614.	2.4	39
38	Fine-tuning of Substrate Affinity Leads to Alternative Roles of Mycobacterium tuberculosis Fe2+-ATPases. Journal of Biological Chemistry, 2016, 291, 11529-11539.	3.4	36
39	Substitution of Glutamic 779 with Alanine in the Na,K-ATPase Î± Subunit Removes Voltage Dependence of Ion Transport. Journal of Biological Chemistry, 1996, 271, 24610-24616.	3.4	35
40	A Novel Antimycobacterial Compound Acts as an Intracellular Iron Chelator. Antimicrobial Agents and Chemotherapy, 2015, 59, 2256-2264.	3.2	33
41	Characterization and Structure of a Zn2+ and [2Fe-2S]-containing Copper Chaperone from Archaeoglobus fulgidus. Journal of Biological Chemistry, 2007, 282, 25950-25959.	3.4	32
42	Periplasmic response upon disruption of transmembrane Cu transport in Pseudomonas aeruginosa. Metallomics, 2013, 5, 144.	2.4	31
43	Reversible Unfolding of a Thermophilic Membrane Protein in Phospholipid/Detergent Mixed Micelles. Journal of Molecular Biology, 2010, 397, 550-559.	4.2	29
44	A tetrahedral coordination of Zinc during transmembrane transport by P-type Zn2+-ATPases. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 1374-1377.	2.6	29
45	Heavy Metal Transport CPxâ€ATPases from the Thermophile <i>Archaeoglobus fulgidus</i>. Annals of the New York Academy of Sciences, 2003, 986, 212-218.	3.8	27
46	The interplay of the metallosensor CueR with two distinct CopZ chaperones defines copper homeostasis in Pseudomonas aeruginosa. Journal of Biological Chemistry, 2019, 294, 4934-4945.	3.4	27
47	Activation of Archaeoglobus fulgidus Cu+-ATPase CopA by cysteine. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 495-501.	2.6	25
48	Bacterial Cu⁺-ATPases: models for molecular structureâ€“function studies. Metallomics, 2016, 8, 906-914.	2.4	24
49	<i>Medicago truncatula</i> Ferroportin2 mediates iron import into nodule symbiosomes. New Phytologist, 2020, 228, 194-209.	7.3	23
50	Functional role of cysteine residues in the (Na,K)-ATPase Î± subunit. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1464, 177-187.	2.6	22
51	Identifying metalloproteins through X-ray fluorescence mapping and mass spectrometry. Metallomics, 2012, 4, 921.	2.4	22
52	Effect of post-rigor fish storage on ice on physicochemical properties of actomyosin. Journal of the Science of Food and Agriculture, 1982, 33, 1129-1134.	3.5	21
53	Functional diversity of five homologous Cu+-ATPases present in Sinorhizobium meliloti. Microbiology (United Kingdom), 2014, 160, 1237-1251.	1.8	21
54	Functional Role of Oxygen-Containing Residues in the Fifth Transmembrane Segment of the Na,K-ATPase Î± Subunit. Archives of Biochemistry and Biophysics, 1999, 364, 254-263.	3.0	18

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55	Structure and interactions of the Câ€terminal metal binding domain of <i>Archaeoglobus fulgidus</i> CopA. Proteins: Structure, Function and Bioinformatics, 2010, 78, 2450-2458.	2.6	18
56	The Two-Component System CopRS Maintains Subfemtomolar Levels of Free Copper in the Periplasm of Pseudomonas aeruginosa Using a Phosphatase-Based Mechanism. MSphere, 2020, 5, .	2.9	18
57	Alanine Scanning Mutagenesis of Oxygen-Containing Amino Acids in the Transmembrane Region of the Na,K-ATPase. Archives of Biochemistry and Biophysics, 1999, 367, 341-347.	3.0	17
58	The Role of Na,k-Atpase Î± Subunit Serine 775 and Glutamate 779 in Determining the Extracellular K+And Membrane Potentialâ€"Dependent Properties of the Na,k -Pump. Journal of General Physiology, 2000, 116, 47-60.	1.9	17
59	Thermal stability of CopA, a polytopic membrane protein from the hyperthermophile Archaeoglobus fulgidus. Archives of Biochemistry and Biophysics, 2008, 471, 198-206.	3.0	17
60	N-Acetylimidazole inactivates renal sodium-potassium ATPase by disrupting ATP binding to the catalytic site. Biochemistry, 1990, 29, 5775-5782.	2.5	13
61	Electrogenic Sodiumâ€"Sodium Exchange Carried Out by Na,k -Atpase Containing the Amino Acid Substitution Glu779ala. Journal of General Physiology, 2000, 116, 61-74.	1.9	13
62	An important role for periplasmic storage in <i>Pseudomonas aeruginosa</i> copper homeostasis revealed by a combined experimental and computational modeling study. Molecular Microbiology, 2018, 110, 357-369.	2.5	13
63	Fast, Simple, Student Generated Augmented Reality Approach for Protein Visualization in the Classroom and Home Study. Journal of Chemical Education, 2020, 97, 2327-2331.	2.3	13
64	Nicotianamine Synthase 2 Is Required for Symbiotic Nitrogen Fixation in Medicago truncatula Nodules. Frontiers in Plant Science, 2019, 10, 1780.	3.6	13
65	Cu+-ATPases Brake System. Structure, 2008, 16, 833-834.	3.3	12
66	Nucleic Acid Content and Residue Determination in Tissues of Chicks Born From 2,4-Dichlorophenoxyaetic Butyl Ester Treated Eggs. Drug and Chemical Toxicology, 1987, 10, 339-355.	2.3	11
67	Ca2+ Homeostasis alterations induced by 2,4-dichlorophenoxyacetic butyl ester and 2,4-dichlorophenoxyacetic acid on avian skeletal muscle. Biochemical Pharmacology, 1990, 40, 2441-2448.	4.4	11
68	Reactivity of Cysteines in the Transmembrane Region of the Na,K-ATPase Î± Subunit Probed with Hg 2+. Journal of Membrane Biology, 2000, 177, 187-197.	2.1	11
69	Conformations of the apo-, substrate-bound and phosphate-bound ATP-binding domain of the Cu(II) ATPase CopB illustrate coupling of domain movement to the catalytic cycle. Bioscience Reports, 2012, 32, 443-453.	2.4	10
70	Unique underlying principles shaping copper homeostasis networks. Journal of Biological Inorganic Chemistry, 0, , .	2.6	10
71	Catalytic Phosphorylation of Na,K-ATPase Drives the Outward Movement of Its Cation-Binding H5â€"H6 Hairpinâ€. Biochemistry, 2002, 41, 8195-8202.	2.5	9
72	Copper Handling in the Salmonella Cell Envelope and Its Impact on Virulence. Trends in Microbiology, 2021, 29, 384-387.	7.7	8

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73	Biochemical alterations in skeletal muscle induced by 2,4-dichlorophenoxyacetic butyl ester during chick embryonic development. Biochemical Pharmacology, 1990, 40, 2433-2440.	4.4	7
74	Changes to Na,K-ATPase ?-Subunit E779 Separate the Structural Basis for VMand Ion Dependence of Na,K-Pump Current. Annals of the New York Academy of Sciences, 1997, 834, 339-342.	3.8	5
75	Assay of Copper Transfer and Binding to P1B-ATPases. Methods in Molecular Biology, 2016, 1377, 267-277.	0.9	5
76	The Na,Kâ€ATPase S5â€H5 Helix. Annals of the New York Academy of Sciences, 2003, 986, 224-225.	3.8	4
77	The Stabilization of Cation Binding and its Relation to Na+/K+-ATPase Structure and Function. , 1994, , 321-331.		2
78	The Mechanism of Bacterial Cu+-ATPases. Distinct Efflux Rates Adapted to Different Function. Biophysical Journal, 2011, 100, 465a.	0.5	0
79	Mechanistic steps of metal uploading into Cu + â€transporting ATPases. FASEB Journal, 2009, 23, 867.3.	0.5	0
80	Mechanisms of Cu+ transfer from soluble Cu+ chaperones to transmembrane transport ATPases. FASEB Journal, 2013, 27, 1017.1.	0.5	0
81	The cytoplasmic Cu + â€chaperones of Pseudomonas aeruginosa. FASEB Journal, 2018, 32, 803.4.	0.5	0