

Crystal structure of a copper-transporting PIB-type AT

Nature

475, 59-64

DOI: [10.1038/nature10191](https://doi.org/10.1038/nature10191)

Citation Report

#	ARTICLE	IF	CITATIONS
8	Overview of the 13th International Conference on the Crystallization of Biological Macromolecules. <i>Crystal Growth and Design</i> , 2011, 11, 4723-4730.	1.4	3
9	Copper toxicity and the origin of bacterial resistance—new insights and applications. <i>Metallomics</i> , 2011, 3, 1109.	1.0	297
10	Bacterial Transition Metal P _{1B} -ATPases: Transport Mechanism and Roles in Virulence. <i>Biochemistry</i> , 2011, 50, 9940-9949.	1.2	101
11	Bacterial ATP-driven transporters of transition metals: physiological roles, mechanisms of action, and roles in bacterial virulence. <i>Metallomics</i> , 2011, 3, 1098.	1.0	101
12	A platform for copper pumps. <i>Nature</i> , 2011, 475, 41-42.	13.7	8
13	Elucidation of the ATP7B N-Domain Mg ²⁺ -ATP Coordination Site and Its Allosteric Regulation. <i>PLoS ONE</i> , 2011, 6, e26245.	1.1	2
14	Exon duplications in the ATP7A gene: Frequency and Transcriptional Behaviour. <i>Orphanet Journal of Rare Diseases</i> , 2011, 6, 73.	1.2	9
16	Maternofetal and neonatal copper requirements revealed by enterocyte-specific deletion of the Menkes disease protein. <i>American Journal of Physiology - Renal Physiology</i> , 2012, 303, G1236-G1244.	1.6	31
17	Altered intracellular localization and valosin-containing protein (p97 VCP) interaction underlie ATP7A-related distal motor neuropathy. <i>Human Molecular Genetics</i> , 2012, 21, 1794-1807.	1.4	48
18	Distinctive Features of Catalytic and Transport Mechanisms in Mammalian Sarco-endoplasmic Reticulum Ca ²⁺ ATPase (SERCA) and Cu ⁺ (ATP7A/B) ATPases. <i>Journal of Biological Chemistry</i> , 2012, 287, 32717-32727.	1.6	36
19	Toward a Molecular Understanding of Metal Transport by P _{1B} -Type ATPases. <i>Current Topics in Membranes</i> , 2012, 69, 113-136.	0.5	55
20	Structural models of the human copper P-type ATPases ATP7A and ATP7B. <i>Biological Chemistry</i> , 2012, 393, 205-216.	1.2	48
21	Cyanobacterial metallochaperone inhibits deleterious side reactions of copper. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 95-100.	3.3	91
22	Evolution of Copper Transporting ATPases in Eukaryotic Organisms. <i>Current Genomics</i> , 2012, 13, 124-133.	0.7	37
23	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. <i>Bioscience Reports</i> , 2012, 32, 443-453.	1.1	10
24	Flexible P-type ATPases interacting with the membrane. <i>Current Opinion in Structural Biology</i> , 2012, 22, 491-499.	2.6	23
26	CopAb, the second N-terminal soluble domain of <i>Bacillus subtilis</i> CopA, dominates the Cu(i)-binding properties of CopAab. <i>Dalton Transactions</i> , 2012, 41, 5939.	1.6	8
27	Mutation in the CPC motif-containing 6th transmembrane domain affects intracellular localization, trafficking and copper transport efficiency of ATP7A protein in mosaic mutant mice—an animal model of Menkes disease. <i>Metallomics</i> , 2012, 4, 197-204.	1.0	16

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28	Metal Transport across Biomembranes: Emerging Models for a Distinct Chemistry. <i>Journal of Biological Chemistry</i> , 2012, 287, 13510-13517.	1.6	94
29	Dynamic Multibody Protein Interactions Suggest Versatile Pathways for Copper Trafficking. <i>Journal of the American Chemical Society</i> , 2012, 134, 8934-8943.	6.6	27
30	Luminal Loop M672-P707 of the Menkes Protein (ATP7A) Transfers Copper to Peptidylglycine Monooxygenase. <i>Journal of the American Chemical Society</i> , 2012, 134, 10458-10468.	6.6	29
31	A tetrahedral coordination of Zinc during transmembrane transport by P-type Zn ²⁺ -ATPases. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2012, 1818, 1374-1377.	1.4	29
32	Membrane protein structure determination by electron crystallography. <i>Current Opinion in Structural Biology</i> , 2012, 22, 520-528.	2.6	16
33	Characterization of a Cobalt-Specific P _{1B} -ATPase. <i>Biochemistry</i> , 2012, 51, 7891-7900.	1.2	27
35	Dynamics and Stability of the Metal Binding Domains of the Menkes ATPase and Their Interaction with Metallochaperone HAH1. <i>Biochemistry</i> , 2012, 51, 8885-8906.	1.2	15
36	Identification of residues defining phospholipid flippase substrate specificity of type IV P-type ATPases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E290-8.	3.3	103
37	A structural model of the copper ATPase ATP7B to facilitate analysis of Wilson disease-causing mutations and studies of the transport mechanism. <i>Metallomics</i> , 2012, 4, 669.	1.0	56
38	Chelation therapy in Wilson's disease: from d-penicillamine to the design of selective bioinspired intracellular Cu(I) chelators. <i>Dalton Transactions</i> , 2012, 41, 6359.	1.6	121
39	Characterization of the P _{1B} -Type ATPases Present in <i>Thermus thermophilus</i> . <i>Journal of Bacteriology</i> , 2012, 194, 4107-4113.	1.0	19
40	Cu(I)- and proton-binding properties of the first N-terminal soluble domain of <i>Bacillus subtilis</i> CopA. <i>FEBS Journal</i> , 2012, 279, 285-298.	2.2	10
41	Biogenesis of cbb3-type cytochrome c oxidase in <i>Rhodobacter capsulatus</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 898-910.	0.5	85
42	Lead Nephrotoxicity. , 2013, , 1183-1191.		0
43	Lead-Induced Chronic Renal Failure. , 2013, , 1197-1197.		0
44	Lead Transporters. , 2013, , 1191-1196.		0
45	Effects of vanadate supply on plant growth, Cu accumulation, and antioxidant capacities in <i>Triticum aestivum</i> L.. <i>Environmental Geochemistry and Health</i> , 2013, 35, 585-592.	1.8	10
46	Single-Molecule Dynamics and Mechanisms of Metalloregulators and Metallochaperones. <i>Biochemistry</i> , 2013, 52, 7170-7183.	1.2	14

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47	Imaging and diffraction of protein crystallization using TEM. <i>Microscopy</i> (Oxford, England), 2013, 62, 363-368.	0.7	3
48	On Allosteric Modulation of P-Type Cu ⁺ -ATPases. <i>Journal of Molecular Biology</i> , 2013, 425, 2299-2308.	2.0	30
49	Molecular basis of active copper resistance mechanisms in Gram-negative bacteria. <i>Cell Biology and Toxicology</i> , 2013, 29, 397-405.	2.4	196
50	The mechanism of copper uptake by tyrosinase from <i>Bacillus megaterium</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2013, 18, 895-903.	1.1	34
51	Interaction of cisplatin and analogue Pt(en)Cl ₂ with the copper metallo-chaperone Atox1. <i>Metallomics</i> , 2013, 5, 946.	1.0	14
52	The copper supply pathway to a <i>Salmoneella</i> Cu,Zn-superoxide dismutase (SodCII) involves P ₁ type ATPase copper efflux and periplasmic CueP. <i>Molecular Microbiology</i> , 2013, 87, 466-477.	1.2	96
53	The sarcolipin-bound calcium pump stabilizes calcium sites exposed to the cytoplasm. <i>Nature</i> , 2013, 495, 265-269.	13.7	186
54	Mammalian P ₄ -ATPases and ABC transporters and their role in phospholipid transport. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2013, 1831, 555-574.	1.2	120
55	Examining Protein Crystallization Using Scanning Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2013, 19, 145-149.	0.2	4
56	A new structural paradigm in copper resistance in <i>Streptococcus pneumoniae</i> . <i>Nature Chemical Biology</i> , 2013, 9, 177-183.	3.9	85
57	An Expanding Range of Functions for the Copper Chaperone/Antioxidant Protein Atox1. <i>Antioxidants and Redox Signaling</i> , 2013, 19, 945-957.	2.5	65
58	Evolution of the Genetic Code by Incorporation of Amino Acids that Improved or Changed Protein Function. <i>Journal of Molecular Evolution</i> , 2013, 77, 134-158.	0.8	28
59	Studies on Antibacterial Mechanisms of Copper Complexes with 1,10-phenanthroline and Amino Acid on <i>Escherichia coli</i> . <i>Biological Trace Element Research</i> , 2013, 154, 150-155.	1.9	20
60	Laccases. , 2013, , 1066-1070.		4
61	Microscopy Hacks: development of various techniques to assist quantitative nanoanalysis and advanced electron microscopy. <i>Microscopy</i> (Oxford, England), 2013, 62, 217-241.	0.7	25
62	Small pH and Salt Variations Radically Alter the Thermal Stability of Metal-Binding Domains in the Copper Transporter, Wilson Disease Protein. <i>Journal of Physical Chemistry B</i> , 2013, 117, 13038-13050.	1.2	15
63	Iron, copper, zinc, and manganese transport and regulation in pathogenic Enterobacteria: correlations between strains, site of infection and the relative importance of the different metal transport systems for virulence. <i>Frontiers in Cellular and Infection Microbiology</i> , 2013, 3, 90.	1.8	306
64	Comparative Genomics Analysis of the Metallomes. <i>Metal Ions in Life Sciences</i> , 2013, 12, 529-580.	2.8	14

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65	The Mechanism of Cu ⁺ Transport ATPases. <i>Journal of Biological Chemistry</i> , 2013, 288, 69-78.	1.6	67
66	An Overview and Update of <i>ATP7A</i> Mutations Leading to Menkes Disease and Occipital Horn Syndrome. <i>Human Mutation</i> , 2013, 34, 417-429.	1.1	237
67	Phasing statistics for alpha helical membrane protein structures. <i>Protein Science</i> , 2013, 22, 1664-1668.	3.1	5
68	Coproporphyrin <i>III</i> excretion identifies the anaerobic coproporphyrinogen <i>III</i> oxidase <i>HemN</i> as a copper target in the <i>Cu⁺</i> ATPase mutant <i>copA</i> of <i>Rubrivivax gelatinosus</i> . <i>Molecular Microbiology</i> , 2013, 88, 338-351.	1.2	56
69	Two-gate mechanism for phospholipid selection and transport by type IV P-type ATPases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E358-67.	3.3	93
70	Ion Pathways in the Sarcoplasmic Reticulum Ca ²⁺ -ATPase. <i>Journal of Biological Chemistry</i> , 2013, 288, 10759-10765.	1.6	125
71	Structure of P-Type Adenosine Triphosphatases. , 2013, , 335-340.		1
72	Mechanisms of copper homeostasis in bacteria. <i>Frontiers in Cellular and Infection Microbiology</i> , 2013, 3, 73.	1.8	193
73	A High-Yield Co-Expression System for the Purification of an Intact Drs2p-Cdc50p Lipid Flippase Complex, Critically Dependent on and Stabilized by Phosphatidylinositol-4-Phosphate. <i>PLoS ONE</i> , 2014, 9, e112176.	1.1	23
74	Cellular function and pathological role of ATP13A2 and related P-type transport ATPases in Parkinson's disease and other neurological disorders. <i>Frontiers in Molecular Neuroscience</i> , 2014, 7, 48.	1.4	68
75	Distinct phenotype of a Wilson disease mutation reveals a novel trafficking determinant in the copper transporter ATP7B. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E1364-73.	3.3	40
76	Kinetics and Thermodynamics of Membrane Protein Folding. <i>Biomolecules</i> , 2014, 4, 354-373.	1.8	27
77	Evolution of a plant-specific copper chaperone family for chloroplast copper homeostasis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E5480-7.	3.3	57
78	ATP7A trafficking and mechanisms underlying the distal motor neuropathy induced by mutations in ATP7A. <i>Annals of the New York Academy of Sciences</i> , 2014, 1314, 49-54.	1.8	28
79	Identification of functionally important conserved transmembrane residues of bacterial <i>P_{IB}</i> -type ATPases. <i>Molecular Microbiology</i> , 2014, 91, 777-789.	1.2	11
80	Translocation of Platinum Anticancer Drugs by Human Copper ATPases ATP7A and ATP7B. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 1297-1301.	7.2	79
81	Critical roles of isoleucine-364 and adjacent residues in a hydrophobic gate control of phospholipid transport by the mammalian P4-ATPase ATP8A2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E1334-43.	3.3	103
82	Functional diversity of five homologous Cu ⁺ -ATPases present in <i>Sinorhizobium meliloti</i> . <i>Microbiology (United Kingdom)</i> , 2014, 160, 1237-1251.	0.7	21

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83	Thiosemicarbazone Cu(II) and Zn(II) complexes as potential anticancer agents: Syntheses, crystal structure, DNA cleavage, cytotoxicity and apoptosis induction activity. <i>Journal of Inorganic Biochemistry</i> , 2014, 136, 13-23.	1.5	76
85	Biochemical characterization of P-type copper ATPases. <i>Biochemical Journal</i> , 2014, 463, 167-176.	1.7	44
86	Annexin A4-conferred platinum resistance is mediated by the copper transporter ATP7A. <i>International Journal of Cancer</i> , 2014, 134, 1796-1809.	2.3	28
87	Tracking metal ions through a Cu/Ag efflux pump assigns the functional roles of the periplasmic proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 15373-15378.	3.3	86
88	Mechanism of ATPase-mediated Cu ⁺ Export and Delivery to Periplasmic Chaperones. <i>Journal of Biological Chemistry</i> , 2014, 289, 20492-20501.	1.6	73
89	Copper Transport and Trafficking at the Host-Bacterial Pathogen Interface. <i>Accounts of Chemical Research</i> , 2014, 47, 3605-3613.	7.6	106
90	Transmembrane Type-2-like Cu ²⁺ Site in the P _{1B-3} -type ATPase CopB: Implications for Metal Selectivity. <i>ACS Chemical Biology</i> , 2014, 9, 116-121.	1.6	12
91	Design of intrahepatocyte copper(I) chelators as drug candidates for Wilson's disease. <i>Annals of the New York Academy of Sciences</i> , 2014, 1315, 30-36.	1.8	19
92	Modifying factors and phenotypic diversity in Wilson's disease. <i>Annals of the New York Academy of Sciences</i> , 2014, 1315, 56-63.	1.8	62
93	Diversity of the metal-transporting P _{1B} -type ATPases. <i>Journal of Biological Inorganic Chemistry</i> , 2014, 19, 947-960.	1.1	98
94	Copper-transporting P-type ATPases use a unique ion-release pathway. <i>Nature Structural and Molecular Biology</i> , 2014, 21, 43-48.	3.6	98
95	Structure and mechanism of Zn ²⁺ -transporting P-type ATPases. <i>Nature</i> , 2014, 514, 518-522.	13.7	107
96	In silico investigation of the ATP7B gene: insights from functional prediction of non-synonymous substitution to protein structure. <i>BioMetals</i> , 2014, 27, 53-64.	1.8	21
98	Unresolved questions in human copper pump mechanisms. <i>Quarterly Reviews of Biophysics</i> , 2015, 48, 471-478.	2.4	14
99	Assessing the genetic diversity of Cu resistance in mine tailings through high-throughput recovery of full-length copA genes. <i>Scientific Reports</i> , 2015, 5, 13258.	1.6	27
100	HMA6 and HMA8 are two chloroplast Cu ⁺ -ATPases with different enzymatic properties. <i>Bioscience Reports</i> , 2015, 35, .	1.1	20
101	A sulfur-based transport pathway in Cu ⁺ ATPases. <i>EMBO Reports</i> , 2015, 16, 728-740.	2.0	41
103	Mottled Mice and Non-Mammalian Models of Menkes Disease. <i>Frontiers in Molecular Neuroscience</i> , 2015, 8, 72.	1.4	19

#	ARTICLE	IF	CITATIONS
104	Perspectives for the VITO beam line at ISOLDE, CERN. EPJ Web of Conferences, 2015, 93, 07004.	0.1	9
105	Currently Clinical Views on Genetics of Wilson's Disease. Chinese Medical Journal, 2015, 128, 1826-1830.	0.9	24
106	Metals Involvement in Alzheimer's Disease – A Patho-Genetic View. , 2015, , .		1
107	Direct interactions of adaptor protein complexes 1 and 2 with the copper transporter ATP7A mediate its anterograde and retrograde trafficking. Human Molecular Genetics, 2015, 24, 2411-2425.	1.4	33
108	Small amounts of functional ATP7A protein permit mild phenotype. Journal of Trace Elements in Medicine and Biology, 2015, 31, 173-177.	1.5	14
109	Enthalpy-entropy compensation at play in human copper ion transfer. Scientific Reports, 2015, 5, 10518.	1.6	18
110	Comparing the intrinsic dynamics of multiple protein structures using elastic network models. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 911-922.	1.1	68
111	Advances in the molecular understanding of biological zinc transport. Chemical Communications, 2015, 51, 4544-4563.	2.2	85
112	Modulation and Functional Role of the Orientations of the N- and P-Domains of Cu ⁺ -Transporting ATPase along the Ion Transport Cycle. Biochemistry, 2015, 54, 5095-5102.	1.2	4
113	Metal Response in Cupriavidus metallidurans. Springer Briefs in Molecular Science, 2015, , .	0.1	2
114	Structure and Function of Cu(I)- and Zn(II)-ATPases. Biochemistry, 2015, 54, 5673-5683.	1.2	43
115	A new metal binding domain involved in cadmium, cobalt and zinc transport. Nature Chemical Biology, 2015, 11, 678-684.	3.9	31
116	A lipid switch unlocks Parkinson's disease-associated ATP13A2. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9040-9045.	3.3	87
117	Electrostatic Occlusion and Quaternary Structural Ion Pairing Are Key Determinants of Cu(I)-Mediated Allostery in the Copper-Sensing Operon Repressor (CsoR). Biochemistry, 2015, 54, 2463-2472.	1.2	15
118	On the validation of crystallographic symmetry and the quality of structures. Protein Science, 2015, 24, 621-632.	3.1	9
119	Distinct functions of serial metal-binding domains in the <i>Escherichia coli</i> ... ₁ _B ATPase <i>CopA</i> . Molecular Microbiology, 2015, 97, 423-438.	1.2	28
120	CtpA, a putative Mycobacterium tuberculosis P-type ATPase, is stimulated by copper (I) in the mycobacterial plasma membrane. BioMetals, 2015, 28, 713-724.	1.8	16
121	Towards defining the substrate of orphan P5A-ATPases. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 524-535.	1.1	40

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122	Structure and mechanism of ATP-dependent phospholipid transporters. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2015, 1850, 461-475.	1.1	64
123	Copper trafficking in the CsoR regulon of <i>Streptomyces lividans</i> . <i>Metallomics</i> , 2015, 7, 145-155.	1.0	18
124	A thiosemicarbazone copper(II) complex as a potential anticancer agent. <i>Journal of Coordination Chemistry</i> , 2015, 68, 277-294.	0.8	12
126	NMR backbone resonance assignments of the N, P domains of CopA, a copper-transporting ATPase, in the apo and ligand bound states. <i>Biomolecular NMR Assignments</i> , 2015, 9, 129-133.	0.4	2
127	There is Diversity in Disorderâ€”â€œIn all Chaos there is a Cosmos, in all Disorder a Secret Orderâ€œ. <i>Frontiers in Molecular Biosciences</i> , 2016, 3, 4.	1.6	29
128	The Role of Copper Chaperone Atox1 in Coupling Redox Homeostasis to Intracellular Copper Distribution. <i>Antioxidants</i> , 2016, 5, 25.	2.2	89
129	Structural Insights into the Nucleotide-Binding Domains of the P1B-type ATPases HMA6 and HMA8 from <i>Arabidopsis thaliana</i> . <i>PLoS ONE</i> , 2016, 11, e0165666.	1.1	9
130	Uncovering the Transmembrane Metal Binding Site of the Novel Bacterial Major Facilitator Superfamily-Type Copper Importer CcoA. <i>MBio</i> , 2016, 7, e01981-15.	1.8	16
131	Bacterial cytosolic proteins with a high capacity for Cu(I) that protect against copper toxicity. <i>Scientific Reports</i> , 2016, 6, 39065.	1.6	52
132	Membrane Anchoring and Ion-Entry Dynamics in P-type ATPase Copper Transport. <i>Biophysical Journal</i> , 2016, 111, 2417-2429.	0.2	16
133	Initiating heavy-atom-based phasing by multi-dimensional molecular replacement. <i>Acta Crystallographica Section D: Structural Biology</i> , 2016, 72, 440-445.	1.1	3
134	Crystal Structure of the Vanadate-Inhibited Ca ²⁺ -ATPase. <i>Structure</i> , 2016, 24, 617-623.	1.6	42
135	The promiscuous phosphomonoesterase activity of <i>Archaeoglobus fulgidus</i> CopA, a thermophilic Cu ⁺ transport ATPase. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 1471-1478.	1.4	6
136	Bacterial Strategies to Maintain Zinc Metallostasis at the Host-Pathogen Interface. <i>Journal of Biological Chemistry</i> , 2016, 291, 20858-20868.	1.6	131
137	Membrane Protein Production in <i>Lactococcus lactis</i> for Functional Studies. <i>Methods in Molecular Biology</i> , 2016, 1432, 79-101.	0.4	2
138	Identification of Two Conserved Residues Involved in Copper Release from Chloroplast PIB-1-ATPases. <i>Journal of Biological Chemistry</i> , 2016, 291, 20136-20148.	1.6	7
140	A Copper Story: From Protein Folding and Metal Transport to Cancer. <i>Israel Journal of Chemistry</i> , 2016, 56, 671-681.	1.0	6
141	The copper rush of the nineties. <i>Metallomics</i> , 2016, 8, 824-830.	1.0	6

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142	Bacterial Cu ⁺ -ATPases: models for molecular structure–function studies. <i>Metallomics</i> , 2016, 8, 906-914.	1.0	24
143	Copper(I) Thiolate Heteroadamantane Cage Structures with Relevance to Metalloproteins. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 3744-3755.	1.0	5
144	A heavy metal P-type ATPase OsHMA4 prevents copper accumulation in rice grain. <i>Nature Communications</i> , 2016, 7, 12138.	5.8	178
145	Effective Inhibition of Cellular ROS Production by MXCXXC-Type Peptides: Potential Therapeutic Applications in Copper Homeostasis Disorders. <i>Chemistry - A European Journal</i> , 2016, 22, 9077-9081.	1.7	4
146	pH-regulated metal–ligand switching in the HM loop of ATP7A: a new paradigm for metal transfer chemistry. <i>Metallomics</i> , 2016, 8, 729-733.	1.0	10
147	Characterizing the molecular phenotype of an Atp7a ^{T985I} conditional knock in mouse model for X-linked distal hereditary motor neuropathy (dHMNX). <i>Metallomics</i> , 2016, 8, 981-992.	1.0	9
148	Extended functional repertoire for human copper chaperones. <i>Biomolecular Concepts</i> , 2016, 7, 29-39.	1.0	33
149	Evaluation of employing poly-lysine tags versus poly-histidine tags for purification and characterization of recombinant copper-binding proteins. <i>Journal of Inorganic Biochemistry</i> , 2016, 162, 286-294.	1.5	13
150	Identification and characterization of the zosA gene involved in copper uptake in <i>Bacillus subtilis</i> 168. <i>Bioscience, Biotechnology and Biochemistry</i> , 2016, 80, 600-609.	0.6	4
151	Copper binding triggers compaction in N-terminal tail of human copper pump ATP7B. <i>Biochemical and Biophysical Research Communications</i> , 2016, 470, 663-669.	1.0	16
152	Nanobodies as Probes for Protein Dynamics in Vitro and in Cells. <i>Journal of Biological Chemistry</i> , 2016, 291, 3767-3775.	1.6	84
153	Regulation of Ca ²⁺ -ATPases, V-ATPases and F-ATPases. , 2016, , .		2
154	P-Type ATPases. <i>Methods in Molecular Biology</i> , 2016, , .	0.4	4
155	Crystallization of P-type ATPases by the High Lipid–Detergent (HiLiDe) Method. <i>Methods in Molecular Biology</i> , 2016, 1377, 413-420.	0.4	6
156	Novel core–shell structure microspheres based on lanthanide complexes for white-light emission and fluorescence sensing. <i>Dalton Transactions</i> , 2016, 45, 2666-2673.	1.6	48
157	The S2 Cu(<i>scp</i>) site in CupA from <i>Streptococcus pneumoniae</i> is required for cellular copper resistance. <i>Metallomics</i> , 2016, 8, 61-70.	1.0	18
158	Kinetic analysis of copper transfer from a chaperone to its target protein mediated by complex formation. <i>Chemical Communications</i> , 2017, 53, 1397-1400.	2.2	12
159	Copper ATPase CopA from <i>Escherichia coli</i> : Quantitative Correlation between ATPase Activity and Vectorial Copper Transport. <i>Journal of the American Chemical Society</i> , 2017, 139, 4266-4269.	6.6	14

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160	Mechanisms of charge transfer in human copper ATPases ATP7A and ATP7B. <i>IUBMB Life</i> , 2017, 69, 218-225.	1.5	26
161	The genetics of Wilson disease. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2017, 142, 19-34.	1.0	99
162	Molecular features of copper binding proteins involved in copper homeostasis. <i>IUBMB Life</i> , 2017, 69, 211-217.	1.5	70
163	Crystal structure of the potassium-importing KdpFABC membrane complex. <i>Nature</i> , 2017, 546, 681-685.	13.7	59
164	A comprehensive phylogenetic analysis of copper transporting P _{1B} ATPases from bacteria of the <i>Rhizobiales</i> order uncovers multiplicity, diversity and novel taxonomic subtypes. <i>MicrobiologyOpen</i> , 2017, 6, e00452.	1.2	10
165	Characterization of ATP7A missense mutants suggests a correlation between intracellular trafficking and severity of Menkes disease. <i>Scientific Reports</i> , 2017, 7, 757.	1.6	30
166	Preexisting domain motions underlie protonation-dependent structural transitions of the P-type Ca ²⁺ -ATPase. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 10153-10162.	1.3	11
167	Dynamics of the metal binding domains and regulation of the human copper transporters ATP7B and ATP7A. <i>IUBMB Life</i> , 2017, 69, 226-235.	1.5	32
168	Dipolar Relaxation Dynamics at the Active Site of an ATPase Regulated by Membrane Lateral Pressure. <i>Angewandte Chemie</i> , 2017, 129, 1289-1292.	1.6	3
169	Dipolar Relaxation Dynamics at the Active Site of an ATPase Regulated by Membrane Lateral Pressure. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1269-1272.	7.2	15
170	Metal Selectivity of a Cd-, Co-, and Zn-Transporting P _{1B} -type ATPase. <i>Biochemistry</i> , 2017, 56, 85-95.	1.2	20
171	Cadmium effects on DNA and protein metabolism in oyster (<i>Crassostrea gigas</i>) revealed by proteomic analyses. <i>Scientific Reports</i> , 2017, 7, 11716.	1.6	53
172	Copper Acquisition and Utilization in Fungi. <i>Annual Review of Microbiology</i> , 2017, 71, 597-623.	2.9	75
173	The metal chaperone Atox1 regulates the activity of the human copper transporter ATP7B by modulating domain dynamics. <i>Journal of Biological Chemistry</i> , 2017, 292, 18169-18177.	1.6	45
174	The six metal binding domains in human copper transporter, ATP7B: molecular biophysics and disease-causing mutations. <i>BioMetals</i> , 2017, 30, 823-840.	1.8	29
175	Orchestration of dynamic copper navigation – new and missing pieces. <i>Metallomics</i> , 2017, 9, 1204-1229.	1.0	50
176	Human copper transporter ATP7B (Wilson disease protein) forms stable dimers in vitro and in cells. <i>Journal of Biological Chemistry</i> , 2017, 292, 18760-18774.	1.6	34
177	Improved Model of Proton Pump Crystal Structure Obtained by Interactive Molecular Dynamics Flexible Fitting Expands the Mechanistic Model for Proton Translocation in P-Type ATPases. <i>Frontiers in Physiology</i> , 2017, 8, 202.	1.3	29

#	ARTICLE	IF	CITATIONS
178	Protein Biochemistry and Expression Regulation of Cadmium/Zinc Pumping ATPases in the Hyperaccumulator Plants <i>Arabidopsis halleri</i> and <i>Noccaea caerulea</i> . <i>Frontiers in Plant Science</i> , 2017, 8, 835.	1.7	35
179	Folding of copper proteins: role of the metal?. <i>Quarterly Reviews of Biophysics</i> , 2018, 51, e4.	2.4	23
180	Cu ⁺ -specific CopB transporter: Revising P _{1B} -type ATPase classification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 2108-2113.	3.3	31
181	Trace metal metabolism in plants. <i>Journal of Experimental Botany</i> , 2018, 69, 909-954.	2.4	282
182	A glimpse into the regulation of the Wilson disease protein, ATP7B, sheds light on the complexity of mammalian apical trafficking pathways. <i>Metallomics</i> , 2018, 10, 378-387.	1.0	18
183	The Structure of Metal Binding Domain 1 of the Copper Transporter ATP7B Reveals Mechanism of a Singular Wilson Disease Mutation. <i>Scientific Reports</i> , 2018, 8, 581.	1.6	15
184	Dynamic changes in copper homeostasis and post-transcriptional regulation of <i>Atp7a</i> during myogenic differentiation. <i>Metallomics</i> , 2018, 10, 309-322.	1.0	22
185	Interaction between the AAA ATPase p97/VCP and a concealed UBX domain in the copper transporter ATP7A is associated with motor neuron degeneration. <i>Journal of Biological Chemistry</i> , 2018, 293, 7606-7617.	1.6	9
186	Probing the activity of a recombinant Zn ²⁺ -transporting P _{1B} -type ATPase. <i>Biopolymers</i> , 2018, 109, e23087.	1.2	2
187	Cu in biology: Unleashed by O ₂ and now irreplaceable. <i>Inorganica Chimica Acta</i> , 2018, 481, 4-24.	1.2	11
188	Metal-dependent allosteric activation and inhibition on the same molecular scaffold: the copper sensor CopY from <i>Streptococcus pneumoniae</i> . <i>Chemical Science</i> , 2018, 9, 105-118.	3.7	27
189	The N-terminal domains of <i>Bacillus subtilis</i> CopA do not form a stable complex in the absence of their inter-domain linker. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2018, 1866, 275-282.	1.1	5
191	Copper signalling: causes and consequences. <i>Cell Communication and Signaling</i> , 2018, 16, 71.	2.7	128
192	Heavy Metal Pumps in Plants: Structure, Function and Origin. <i>Advances in Botanical Research</i> , 2018, , 57-89.	0.5	11
193	DR1440 is a potential iron efflux protein involved in maintenance of iron homeostasis and resistance of <i>Deinococcus radiodurans</i> to oxidative stress. <i>PLoS ONE</i> , 2018, 13, e0202287.	1.1	12
194	Structure of the human plasma membrane Ca ²⁺ -ATPase 1 in complex with its obligatory subunit neuroplastin. <i>Nature Communications</i> , 2018, 9, 3623.	5.8	71
195	A Luminal Loop of Wilson Disease Protein Binds Copper and Is Required for Protein Activity. <i>Biophysical Journal</i> , 2018, 115, 1007-1018.	0.2	3
196	Widespread Distribution and Functional Specificity of the Copper Importer CcoA: Distinct Cu Uptake Routes for Bacterial Cytochrome <i>c</i> Oxidases. <i>MBio</i> , 2018, 9, .	1.8	25

#	ARTICLE	IF	CITATIONS
197	Reactive oxygen species impair the excitation-contraction coupling of papillary muscles after acute exposure to a high copper concentration. <i>Toxicology in Vitro</i> , 2018, 51, 106-113.	1.1	17
198	Copper and Bacteria. <i>Springer Briefs in Molecular Science</i> , 2018, , .	0.1	34
199	Copper Homeostasis in Gram-Positive Bacteria. <i>Springer Briefs in Molecular Science</i> , 2018, , 21-48.	0.1	1
200	Advances in Membrane Proteins. , 2018, , .		0
201	Interactions of a Bacterial Cu(I)-ATPase with a Complex Lipid Environment. <i>Biochemistry</i> , 2018, 57, 4063-4073.	1.2	6
202	P-type ATPases use a domain-association mechanism to couple ATP hydrolysis to conformational change. <i>Biophysics Reports</i> , 2019, 5, 167-175.	0.2	9
203	Defining the Clinical, Molecular and Ultrastructural Characteristics in Occipital Horn Syndrome: Two New Cases and Review of the Literature. <i>Genes</i> , 2019, 10, 528.	1.0	23
204	Integration of Flow Injection Capillary Liquid Electrode Discharge Optical Emission Spectrometry and Microplasma-Induced Vapor Generation: A System for Detection of Ultratrace Hg and Cd in a Single Drop of Human Whole Blood. <i>Analytical Chemistry</i> , 2019, 91, 2701-2709.	3.2	34
205	Catalytic M Center of Copper Monooxygenases Probed by Rational Design. Effects of Selenomethionine and Histidine Substitution on Structure and Reactivity. <i>Biochemistry</i> , 2019, 58, 4436-4446.	1.2	6
206	Long-Term Correction of Copper Metabolism in Wilson's Disease Mice with AAV8 Vector Delivering Truncated ATP7B. <i>Human Gene Therapy</i> , 2019, 30, 1494-1504.	1.4	15
207	Cytosolic Copper Binding by a Bacterial Storage Protein and Interplay with Copper Efflux. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4144.	1.8	8
208	Activity and Trafficking of Copper-Transporting ATPases in Tumor Development and Defense against Platinum-Based Drugs. <i>Cells</i> , 2019, 8, 1080.	1.8	58
209	Homology modeling and <i>in vivo</i> functional characterization of the zinc permeation pathway in a heavy metal P-type ATPase. <i>Journal of Experimental Botany</i> , 2019, 70, 329-341.	2.4	25
210	The Role of the CopA Copper Efflux System in <i>Acinetobacter baumannii</i> Virulence. <i>International Journal of Molecular Sciences</i> , 2019, 20, 575.	1.8	35
211	The Genetics of Wilson Disease. , 2019, , 105-114.		0
212	Structural Basis of Sarco/Endoplasmic Reticulum Ca ²⁺ -ATPase 2b Regulation via Transmembrane Helix Interplay. <i>Cell Reports</i> , 2019, 27, 1221-1230.e3.	2.9	34
213	Rational Design of a Histidine-Methionine Site Modeling the M-Center of Copper Monooxygenases in a Small Metallochaperone Scaffold. <i>Biochemistry</i> , 2019, 58, 3097-3108.	1.2	8
214	Emerging Diversity in Lipid-Protein Interactions. <i>Chemical Reviews</i> , 2019, 119, 5775-5848.	23.0	299

#	ARTICLE	IF	CITATIONS
215	A <i>Pseudomonas aeruginosa</i> type VI secretion system regulated by CueR facilitates copper acquisition. <i>PLoS Pathogens</i> , 2019, 15, e1008198.	2.1	78
216	Computing the Pathogenicity of Wilson's Disease ATP7B Mutations: Implications for Disease Prevalence. <i>Journal of Chemical Information and Modeling</i> , 2019, 59, 5230-5243.	2.5	10
217	The Cu chaperone CopZ is required for Cu homeostasis in <i>Rhodobacter capsulatus</i> and influences cytochrome cbb 3 oxidase assembly. <i>Molecular Microbiology</i> , 2019, 111, 764-783.	1.2	22
218	Chelating principles in Menkes and Wilson diseases. <i>Journal of Inorganic Biochemistry</i> , 2019, 190, 98-112.	1.5	45
219	Molecular Architecture of the Copper-Transporting ATPase ATP7B. , 2019, , 33-43.		6
220	Copper Disposition in Bacteria. , 2019, , 101-113.		4
221	Protein Adsorption on Solid Supported Membranes: Monitoring the Transport Activity of P-Type ATPases. <i>Molecules</i> , 2020, 25, 4167.	1.7	6
222	ATP7A Clinical Genetics Resource – A comprehensive clinically annotated database and resource for genetic variants in ATP7A gene. <i>Computational and Structural Biotechnology Journal</i> , 2020, 18, 2347-2356.	1.9	3
223	Chronic methylmercury exposure causes spinal cord impairment: Proteomic modulation and oxidative stress. <i>Food and Chemical Toxicology</i> , 2020, 146, 111772.	1.8	9
224	Structural Role of the First Four Transmembrane Helices in ZntA, a P _{1B} -Type ATPase from <i>Escherichia coli</i> . <i>Biochemistry</i> , 2020, 59, 4488-4498.	1.2	2
225	Cu Homeostasis in Bacteria: The Ins and Outs. <i>Membranes</i> , 2020, 10, 242.	1.4	60
226	Early-onset Wilson disease caused by <i>ATP7B</i> exon skipping associated with intronic variant. <i>Journal of Physical Education and Sports Management</i> , 2020, 6, a005306.	0.5	4
227	Combined cadmium-zinc interactions alter manganese, lead, copper uptake by <i>Melissa officinalis</i> . <i>Scientific Reports</i> , 2020, 10, 1675.	1.6	32
228	Copper metabolism as a unique vulnerability in cancer. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2021, 1868, 118893.	1.9	191
229	Membrane Transport Copper Pumps. , 2021, , 1021-1027.		0
230	Metal Ion Homeostasis. , 2021, , 929-953.		1
231	Cation Transporters of <i>Candida albicans</i> – New Targets to Fight Candidiasis?. <i>Biomolecules</i> , 2021, 11, 584.	1.8	7
232	Stabilization of supramolecular membrane protein–lipid bilayer assemblies through immobilization in a crystalline exoskeleton. <i>Nature Communications</i> , 2021, 12, 2202.	5.8	35

#	ARTICLE	IF	CITATIONS
233	Whole-Exome Sequencing, Proteome Landscape, and Immune Cell Migration Patterns in a Clinical Context of Menkes Disease. <i>Genes</i> , 2021, 12, 744.	1.0	2
234	Copper Toxicity Associated With an ATP7A-Related Complex Phenotype. <i>Pediatric Neurology</i> , 2021, 119, 40-44.	1.0	4
235	Computational Investigation of the pH Dependence of Stability of Melanosome Proteins: Implication for Melanosome formation and Disease. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8273.	1.8	2
236	CopA Protects <i>Actinobacillus pleuropneumoniae</i> against Copper Toxicity. <i>Veterinary Microbiology</i> , 2021, 258, 109122.	0.8	2
237	At sixes and sevens: cryptic domain in the metal binding chain of the human copper transporter ATP7A. <i>Biophysical Journal</i> , 2021, 120, 4600-4607.	0.2	3
238	The molecular and cellular basis of copper dysregulation and its relationship with human pathologies. <i>FASEB Journal</i> , 2021, 35, e21810.	0.2	50
240	Tracking Membrane Protein Dynamics in Real Time. <i>Journal of Membrane Biology</i> , 2021, 254, 51-64.	1.0	12
241	Cyclohexyl- β -maltoside as a highly efficient tool for membrane protein studies. <i>Current Research in Structural Biology</i> , 2021, 3, 85-94.	1.1	3
243	Overexpression of Membrane Proteins in <i>Saccharomyces cerevisiae</i> for Structural and Functional Studies: A Focus on the Rabbit Ca ²⁺ -ATPase Serca1a and on the Yeast Lipid α -Flippase-Complex Drs2p/Cdc50p. , 2014, , 133-171.		6
244	Determination of the ATP Affinity of the Sarcoplasmic Reticulum Ca ²⁺ -ATPase by Competitive Inhibition of [³ - ³² P]TNP-8N3-ATP Photolabeling. <i>Methods in Molecular Biology</i> , 2016, 1377, 233-259.	0.4	1
245	Assay of Copper Transfer and Binding to P1B-ATPases. <i>Methods in Molecular Biology</i> , 2016, 1377, 267-277.	0.4	5
246	How to Compare, Analyze, and Morph Between Crystal Structures of Different Conformations: The P-Type ATPase Example. <i>Methods in Molecular Biology</i> , 2016, 1377, 523-539.	0.4	6
247	Regulation of Ca ²⁺ Transport ATPases by Amino- and Carboxy-Terminal Extensions: Mechanisms and (Patho)Physiological Implications. , 2016, , 243-279.		1
248	Biogenesis of Cytochrome c Complexes: From Insertion of Redox Cofactors to Assembly of Different Subunits. <i>Advances in Photosynthesis and Respiration</i> , 2016, , 527-554.	1.0	6
249	Copper in Prokaryotes. 2-Oxoglutarate-Dependent Oxygenases, 2014, , 461-499.	0.8	2
250	Copper in Eukaryotes. 2-Oxoglutarate-Dependent Oxygenases, 2014, , 524-555.	0.8	3
251	Transmembrane Cu(i) P-type ATPase pumps are electrogenic uniporters. <i>Dalton Transactions</i> , 2020, 49, 16082-16094.	1.6	9
252	Copper resistance and its regulation in the sulfate-reducing bacterium <i>Desulfosporosinus</i> sp. OT. <i>Microbiology (United Kingdom)</i> , 2016, 162, 684-693.	0.7	6

#	ARTICLE	IF	CITATIONS
253	A 37-year-old Menkes disease patient's Residual <i>ATP7A</i> activity and early copper administration as key factors in beneficial treatment. <i>Clinical Genetics</i> , 2017, 92, 548-553.	1.0	6
254	Tetrahydrocarbazoles are a novel class of potent P-type ATPase inhibitors with antifungal activity. <i>PLoS ONE</i> , 2018, 13, e0188620.	1.1	20
255	Genetics and epigenetic factors of Wilson disease. <i>Annals of Translational Medicine</i> , 2019, 7, S58-S58.	0.7	33
256	Silver Nanoparticle Conjugation with Thiopyridine Exhibited Potent Antibacterial Activity Against <i>Escherichia coli</i> and Further Enhanced by Copper Capping. <i>Jundishapur Journal of Microbiology</i> , 2019, In Press, .	0.2	3
257	Heavy metal transporters: Functional mechanisms, regulation, and application in phytoremediation. <i>Science of the Total Environment</i> , 2022, 809, 151099.	3.9	72
258	Ins and Outs: Recent Advancements in Membrane Protein-Mediated Prokaryotic Ferrous Iron Transport. <i>Biochemistry</i> , 2021, 60, 3277-3291.	1.2	17
259	Moving some metal. <i>PSI Structural Genomics Knowledgebase</i> , 0, , .	0.0	0
260	Membrane Transport Structure of P-Type Adenosine Triphosphatases. , 2013, , 1014-1020.		0
262	Metal Response in <i>Cupriavidus metallidurans</i> : Insights into the Structure-Function Relationship of Proteins. <i>Springer Briefs in Molecular Science</i> , 2015, , 1-70.	0.1	0
263	Overproduction of PIB-Type ATPases. <i>Methods in Molecular Biology</i> , 2016, 1377, 29-36.	0.4	0
264	Membrane Asymmetry and Phospholipid Translocases in Eukaryotic Cells. , 2018, , 47-76.		0
266	Functional characterization of <i>Legionella pneumophila</i> Cu ⁺ transport ATPase. The activation by Cu ⁺ and ATP. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2022, 1864, 183822.	1.4	4
267	Rapid Screening and Estimation of Binding Constants for Interactions of Fe ³⁺ with Two Metalloproteins, Apotransferrin and Transferrin, Using Affinity Mode of Capillary Electrophoresis. <i>Journal of Spectroscopy</i> , 2021, 2021, 1-10.	0.6	3
268	The Zinc and Iron Binuclear Transport Center of ZupT, a ZIP Transporter from <i>Escherichia coli</i> . <i>Biochemistry</i> , 2021, 60, 3738-3752.	1.2	11
269	Cryo-EM reveals mechanistic insights into lipid-facilitated polyamine export by human ATP13A2. <i>Molecular Cell</i> , 2021, 81, 4799-4809.e5.	4.5	22
272	Structure of the Wilson disease copper transporter ATP7B. <i>Science Advances</i> , 2022, 8, eabl5508.	4.7	26
274	Structure and ion-release mechanism of PIB-4-type ATPases. <i>ELife</i> , 2021, 10, .	2.8	8
276	Unique underlying principles shaping copper homeostasis networks. <i>Journal of Biological Inorganic Chemistry</i> , 0, , .	1.1	10

#	ARTICLE	IF	CITATIONS
277	Transcriptional analysis of heavy metal P1B-ATPases (HMAs) elucidates competitive interaction in metal transport between cadmium and mineral elements in rice plants. <i>Environmental Science and Pollution Research</i> , 2023, 30, 287-297.	2.7	7
278	Structural basis of ion uptake in copper-transporting P1B-type ATPases. <i>Nature Communications</i> , 2022, 13, .	5.8	6
279	Copper binding leads to increased dynamics in the regulatory N-terminal domain of full-length human copper transporter ATP7B. <i>PLoS Computational Biology</i> , 2022, 18, e1010074.	1.5	3
280	Mutations in <i>troABCD</i> against Copper Overload in a <i>copA</i> Mutant of <i>Streptococcus suis</i> . <i>Applied and Environmental Microbiology</i> , 2023, 89, .	1.4	2
281	Sequence-based Functional Metagenomics Reveals Novel Natural Diversity of Functioning CopA in Environmental Microbiomes. <i>Genomics, Proteomics and Bioinformatics</i> , 2022, , .	3.0	7
282	The role of CopA in <i>Streptococcus pyogenes</i> copper homeostasis and virulence. <i>Journal of Inorganic Biochemistry</i> , 2023, 240, 112122.	1.5	2
283	Purification and characterization of eukaryotic ATP-dependent transporters homologously expressed in <i>Pichia pastoris</i> for structural studies by cryo-electron microscopy. <i>Protein Expression and Purification</i> , 2023, 204, 106230.	0.6	0
284	A novel nomogram based on routine clinical indicators for screening for Wilson's disease. <i>Liver Research</i> , 2023, 7, 82-89.	0.5	0
285	Structures of the human Wilson disease copper transporter ATP7B. <i>Cell Reports</i> , 2023, 42, 112417.	2.9	6
286	Curcumin-loaded graphene oxide quantum dots enhance otoprotective effects via blocking cuproptosis. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 11, .	2.0	1