MercÃ¨ Capdevila

List of Publications by Year
in descending order

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121	3,940	109137	149479
papers	citations	35 h-index	56 g-index

125	125	125	3296
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Cryptococcus neoformans Copper Detoxification Machinery Is Critical for Fungal Virulence. Cell Host and Microbe, 2013, 13, 265-276.	5.1	167
2	State-of-the-art of metallothioneins at the beginning of the 21st century. Coordination Chemistry Reviews, 2012, 256, 46-62.	9.5	143
3	Metallothionein protein evolution: a miniassay. Journal of Biological Inorganic Chemistry, 2011, 16, 977-989.	1.1	140
4	Zn- and Cu-thioneins: a functional classification for metallothioneins?. Journal of Biological Inorganic Chemistry, 2011, 16, 991-1009.	1.1	132
5	Iron chemistry at the service of life. IUBMB Life, 2017, 69, 382-388.	1.5	121
6	The four members of theDrosophilametallothionein family exhibit distinct yet overlapping roles in heavy metal homeostasis and detoxification. Genes To Cells, 2006, 11, 647-658.	0.5	103
7	Binding of excess cadmium(II) to Cd7-metallothionein from recombinant mouse Zn7-metallothionein 1. UV-VIS absorption and circular dichroism studies and theoretical location approach by surface accessibility analysis. Journal of Inorganic Biochemistry, 1997, 68, 157-166.	1.5	100
8	Shaping mechanisms of metal specificity in a family of metazoan metallothioneins: evolutionary differentiation of mollusc metallothioneins. BMC Biology, 2011, 9, 4.	1.7	96
9	The Saccharomyces cerevisiae Crs5 Metallothionein metal-binding abilities and its role in the response to zinc overload. Molecular Microbiology, 2007, 63, 256-269.	1.2	89
10	A New Insight into Metallothionein (MT) Classification and Evolution. Journal of Biological Chemistry, 2001, 276, 32835-32843.	1.6	85
11	Recombinant synthesis of mouse Zn 3 - ? and Zn 4 - ? metallothionein 1 domains and characterization of their cadmium(II) binding capacity. Cellular and Molecular Life Sciences, 1997, 53, 681-688.	2.4	84
12	Histone H3 Glutathionylation in Proliferating Mammalian Cells Destabilizes Nucleosomal Structure. Antioxidants and Redox Signaling, 2013, 19, 1305-1320.	2.5	83
13	Novel C,N-chelate rhodium(iii) and iridium(iii) antitumor complexes incorporating a lipophilic steroidal conjugate and their interaction with DNA. Dalton Transactions, 2012, 41, 12847.	1.6	82
14	Plant metallothionein domains: functional insight into physiological metal binding andÂprotein folding. Biochimie, 2006, 88, 583-593.	1.3	78
15	Zn- and Cd-Metallothionein Recombinant Species from the Most Diverse Phyla May Contain Sulfide (S2â^') Ligands. Angewandte Chemie - International Edition, 2005, 44, 4618-4622.	7.2	75
16	Independent metal-binding features of recombinant metallothioneins convergently draw a step gradation between Zn- and Cu-thioneins. Metallomics, 2009, 1, 229.	1.0	69
17	Functional Differentiation in the Mammalian Metallothionein Gene Family. Journal of Biological Chemistry, 2004, 279, 24403-24413.	1.6	62
18	A new insight into the Ag+ and Cu+ binding sites in the metallothionein Î² domain. Journal of Inorganic Biochemistry, 1999, 73, 57-64.	1.5	57

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19	Metallothionein-III Prevents Glutamate and Nitric Oxide Neurotoxicity in Primary Cultures of Cerebellar Neurons. Journal of Neurochemistry, 2001, 75, 266-273.	2.1	56
20	Dipalladium and diplatinum bis(Âµ-alkanethiolato) complexes with a planar M2S2ring. Journal of the Chemical Society Dalton Transactions, 1992, , 2817-2826.	1.1	55
21	Metallothionein-protein interactions. Biomolecular Concepts, 2013, 4, 143-160.	1.0	54
22	Diverse Evolution of [{Ph2P(CH2)nPPh2}Pt(Î¼-S)2Pt{Ph2P(CH2)nPPh2}] (n = 2, 3) Metalloligands in CH2Cl2. Inorganic Chemistry, 2002, 41, 3218-3229.	1.9	50
23	Physiological relevance and contribution to metal balance of specific and non-specific Metallothionein isoforms in the garden snail, Cantareus aspersus. BioMetals, 2011, 24, 1079-1092.	1.8	50
24	Hinge Distortion in Platinum(II) Dimers with a Pt2S2Ring. Anab InitioMolecular Orbital Study. Inorganic Chemistry, 1996, 35, 490-497.	1.9	47
25	In vivoâ€folded metalâ€“metallothioneinÂ3 complexes reveal the Cuâ€“thionein rather than Znâ€“thionein character of this brainâ€specific mammalian metallothionein. FEBS Journal, 2014, 281, 1659-1678.	2.2	47
26	Mammalian MT1 and MT2 metallothioneins differ in their metal binding abilities. Metallomics, 2013, 5, 1397.	1.0	46
27	The CdII-binding abilities of recombinant Quercus suber metallothionein: bridging the gap between phytochelatins and metallothioneins. Journal of Biological Inorganic Chemistry, 2007, 12, 867-882.	1.1	44
28	The response of the different soybean metallothionein isoforms to cadmium intoxication. Journal of Inorganic Biochemistry, 2012, 117, 306-315.	1.5	44
29	Ferritin iron uptake and release in the presence of metals and metalloproteins: Chemical implications in the brain. Coordination Chemistry Reviews, 2013, 257, 2752-2764.	9.5	44
30	Monitoring of the metal displacement from the recombinant mouse liver metallothionein Zn7-complex by capillary zone electrophoresis with electrospray MS detection. Talanta, 2002, 57, 1011-1017.	2.9	43
31	Structural study of the zinc and cadmium complexes of a type 2 plant (Quercus suber) metallothionein: Insights by vibrational spectroscopy. Biopolymers, 2007, 86, 240-248.	1.2	40
32	Extending knowledge on the nucleophilicity of the {Pt2S2} core: Ph2PCH2CH2PPh2 as an alternative terminal ligand in [L2Pt(Î¼-S)2PtL2] metalloligandsâ€Šâ€. Journal of the Chemical Society Dalton Transactions, 1999, , 3103-3113.	1.1	37
33	Caenorhabditisâ€ƒelegans metallothionein isoform specificity â€“ metal binding abilities and the role of histidine in CeMT1 and CeMT2. FEBS Journal, 2009, 276, 7040-7056.	2.2	37
34	Hints for Metal-Preference Protein Sequence Determinants: Different Metal Binding Features of the Five Tetrahymena thermophila Metallothioneins. International Journal of Biological Sciences, 2015, 11, 456-471.	2.6	37
35	Synthesis and characterization of homo- and hetero-nuclear mixed thiolate phosphine complexes with NiII, PdII, and PtII. Crystal and molecular structure of bis[Âµ-(3-dimethylamino-1-propanethiolato)]-bis{[1,2-bis(diphenylphosphino)-ethane]nickel(II)} tetraphenylborate. Journal of the Chemical Society Dalton Transactions, 1990, , 143-149.	1.1	36
36	MTO: the second member of aDrosophiladual copper-thionein system. FEBS Letters, 2003, 533, 72-78.	1.3	35

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37	Metagenomics analysis reveals a new metallothionein family: Sequence and metal-binding features of new environmental cysteine-rich proteins. Journal of Inorganic Biochemistry, 2017, 167, 1-11.	1.5	35
38	Is Ag(I) an adequate probe for Cu(I) in structural copperâ€“metallothionein studies?. Journal of Biological Inorganic Chemistry, 2003, 8, 831-842.	1.1	34
39	Preparation and X-ray crystal structure of [Ni6{Î¼-S(CH2)3N(CH3)2}12], a cyclic hexameric homothiolate of nickel. Polyhedron, 1989, 8, 1253-1259.	1.0	33
40	DrosophilaMTN: a metazoan copper-thionein related to fungal forms. FEBS Letters, 2000, 467, 189-194.	1.3	33
41	Zinc(II) is required for the in vivo and in vitro folding of mouse copper metallothionein in two domains. Journal of Biological Inorganic Chemistry, 2001, 6, 405-417.	1.1	33
42	Replacement of terminal cysteine with histidine in the metallothionein Î± and Î² domains maintains its binding capacity. FEBS Journal, 1999, 259, 519-527.	0.2	32
43	Zinc and Cadmium Complexes of a Plant Metallothionein under Radical Stress: Desulfurisation Reactions Associated with the Formation of transâ€Lipids in Model Membranes. Chemistry - A European Journal, 2009, 15, 6015-6024.	1.7	32
44	The first stable copper(II) complex containing four sulfide ligands: synthesis and structural characterization of [Pt2(dppe)2(Î¼-S)2] and [Cu{Pt2(dppe)2(Î¼3-S)2}2]2+. Chemical Communications, 1998, , 597-598.	2.2	30
45	Comparative metal binding and genomic analysis of the avian (chicken) and mammalian metallothionein. FEBS Journal, 2006, 273, 523-535.	2.2	30
46	Comparative insight into the Zn(II)-, Cd(II)- and Cu(I)-binding features of the protozoan Tetrahymena pyriformis MT1 metallothionein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 693-704.	1.1	30
47	Cantareus aspersus metallothionein metal binding abilities: The unspecific CaCd/CuMT isoform provides hints about the metal preference determinants in metallothioneins. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 1694-1707.	1.1	30
48	Does Variation of the Inter-Domain Linker Sequence Modulate the Metal Binding Behaviour of Helix pomatia Cd-Metallothionein?. International Journal of Molecular Sciences, 2016, 17, 6.	1.8	30
49	Copper(II) N,N,O-Chelating Complexes as Potential Anticancer Agents. Inorganic Chemistry, 2021, 60, 2939-2952.	1.9	30
50	Mercury(II) binding to metallothioneins. Variables governing the formation and structural features of the mammalian Hg-MT species. FEBS Journal, 2004, 271, 4872-4880.	0.2	29
51	Ferritin and metallothionein: dangerous liaisons. Chemical Communications, 2011, 47, 12155.	2.2	28
52	Full characterization of the Cu-, Zn-, and Cd-binding properties of CnMT1 and CnMT2, two metallothioneins of the pathogenic fungus Cryptococcus neoformans acting as virulence factors. Metallomics, 2014, 6, 279-291.	1.0	28
53	Structural Adaptation of a Protein to Increased Metal Stress: NMR Structure of a Marine Snail Metallothionein with an Additional Domain. Angewandte Chemie - International Edition, 2017, 56, 4617-4622.	7.2	28
54	Novel potentiometric sensors based on polysulfone immobilized metallothioneins as metal-ionophores. Talanta, 2009, 77, 1528-1533.	2.9	27

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55	Is MtnE, the fifth Drosophila metallothionein, functionally distinct from the other members of this polymorphic protein family?. Metallomics, 2012, 4, 342.	1.0	27
56	Computational Analysis of Cysteine Substitutions Modelled on the ?- and ?-domains of Cd5,Zn2-Metallothionein 2. Journal of Molecular Modeling, 1996, 2, 417-426.	0.8	26
57	In vivo copper- and cadmium-binding ability of mammalian metallothionein Î² domain. Protein Engineering, Design and Selection, 1999, 12, 265-269.	1.0	25
58	Cognate and noncognate metal ion coordination in metal-specific metallothioneins: the Helix pomatia system as a model. Journal of Biological Inorganic Chemistry, 2014, 19, 923-935.	1.1	25
59	Sunflower metallothionein family characterisation. Study of the Zn(II)- and Cd(II)-binding abilities of the HaMT1 and HaMT2 isoforms. Journal of Inorganic Biochemistry, 2015, 148, 35-48.	1.5	25
60	The metal binding abilities of Megathura crenulata metallothionein (McMT) in the frame of Gastropoda MTs. Journal of Inorganic Biochemistry, 2012, 108, 84-90.	1.5	24
61	New steroidal 7-azaindole platinum(II) antitumor complexes. Journal of Inorganic Biochemistry, 2013, 128, 48-56.	1.5	24
62	Displacement of ligands in [PtBr2(en)](en = ethylenediamine) by Î²- and Î³-mercaptoamines. Journal of the Chemical Society Dalton Transactions, 1992, , 173-181.	1.1	23
63	First Evidence of Fast Sï£¿Hâ‹…â‹…â‹…S Proton Transfer in a Transition Metal Complex. Angewandte Chemie - International Edition, 2002, 41, 2776-2778.	7.2	23
64	The metal-binding features of the recombinant mussel Mytilus edulis MT-10-IV metallothionein. Journal of Biological Inorganic Chemistry, 2008, 13, 801-812.	1.1	22
65	The Fungus Tremella mesenterica Encodes the Longest Metallothionein Currently Known: Gene, Protein and Metal Binding Characterization. PLoS ONE, 2016, 11, e0148651.	1.1	21
66	Metal binding functions of metallothioneins in the slugArion vulgarisdiffer from metal-specific isoforms of terrestrial snails. Metallomics, 2018, 10, 1638-1654.	1.0	19
67	Palladium(II) complexes with Pd2S2 rings. Synthesis and theoretical characterization of [Pd2(dppe)2(Î¼-S)2] and X-ray characterization of [Pd3(dppe)3(Î¼3-S)2]Cl2. Inorganic Chemistry Communication, 1998, 1, 466-468.	1.8	18
68	Influence of chloride ligands on the structure of Znâ€“ and Cdâ€“metallothionein species. Archives of Biochemistry and Biophysics, 2005, 435, 331-335.	1.4	18
69	Raman study of in vivo synthesized Zn(II)â€metallothionein complexes: Structural insight into metal clusters and protein folding. Biopolymers, 2008, 89, 1114-1124.	1.2	18
70	Analysis of Metal-Binding Features of the Wild Type and Two Domain-Truncated Mutant Variants of Littorina littorea Metallothionein Reveals Its Cd-Specific Character. International Journal of Molecular Sciences, 2017, 18, 1452.	1.8	18
71	Structural investigation of homonuclear Pt2 and heteronuclear PdPt complexes containing a metalâ€“metal bond bridged by hydrido and sulfido ligands. Acta Crystallographica Section B: Structural Science, 1996, 52, 270-276.	1.8	17
72	Evidence of Native Metalâ€“S^{2â˜}â€“Metallothionein Complexes Confirmed by the Analysis of Cup1 Divalentâ€Metalâ€Ion Binding Properties. Chemistry - A European Journal, 2010, 16, 12363-12372.	1.7	17

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73	The sea urchin metallothionein system: Comparative evaluation of the SpMTA and SpMTB metalâ€binding preferences. FEBS Open Bio, 2013, 3, 89-100.	1.0	17
74	Rhenium and technetium tricarbonyl, {M(CO)3}+ (MÂ=ÂTc, Re), binding to mammalian metallothioneins: new insights into chemical and radiopharmaceutical implications. Journal of Biological Inorganic Chemistry, 2015, 20, 465-474.	1.1	17
75	Comparative Raman study of four plant metallothionein isoforms: Insights into their Zn(II) clusters and protein conformations. Journal of Inorganic Biochemistry, 2016, 156, 55-63.	1.5	17
76	Differential ESI-MS behaviour of highly similar metallothioneins. Talanta, 2011, 83, 1057-1061.	2.9	16
77	The Solution Structure and Dynamics of Cd-Metallothionein from Helix pomatia Reveal Optimization for Binding Cd over Zn. Biochemistry, 2019, 58, 4570-4581.	1.2	16
78	Comparative genomics analysis of metallothioneins in twelve Drosophila species. Journal of Inorganic Biochemistry, 2011, 105, 1050-1059.	1.5	15
79	Monitoring lactoferrin iron levels by fluorescence resonance energy transfer: a combined chemical and computational study. Journal of Biological Inorganic Chemistry, 2014, 19, 439-447.	1.1	15
80	Metallomics reveals a persisting impact of cadmium on the evolution of metal-selective snail metallothioneins. Metallomics, 2020, 12, 702-720.	1.0	15
81	Metal Dealing at the Origin of the Chordata Phylum: The Metallothionein System and Metal Overload Response in Amphioxus. PLoS ONE, 2012, 7, e43299.	1.1	15
82	Chemical foundation of the attenuation of methylmercury(II) cytotoxicity by metallothioneins. FEBS Journal, 2004, 271, 1323-1328.	0.2	14
83	Non-enzymatic modifications in metallothioneins connected to lipid membrane damages: Structural and biomimetic studies under reductive radical stress. Journal of Proteomics, 2013, 92, 204-215.	1.2	14
84	Biomphalaria glabrata Metallothionein: Lacking Metal Specificity of the Protein and Missing Gene Upregulation Suggest Metal Sequestration by Exchange Instead of through Selective Binding. International Journal of Molecular Sciences, 2017, 18, 1457.	1.8	14
85	Mouse metallothionein-1 and metallothionein-2 are not biologically interchangeable in an animal model of multiple sclerosis, EAE. Metallomics, 2019, 11, 327-337.	1.0	14
86	Pb(<scp>II</scp>) binding to the brain specific mammalian metallothionein isoform MT3 and its isolated Î±MT3 and Î²MT3 domains. Metallomics, 2019, 11, 349-361.	1.0	14
87	Synthesis and X-ray crystal structure of [Pt2(Î¼-H)(Î¼-S)(dppe)2]+, a diplatinum cation with hydrido and sulphido ligands bridging a Ptî—¸Pt bond. Polyhedron, 1992, 11, 3091-3093.	1.0	12
88	His-containing plant metallothioneins: comparative study of divalent metal-ion binding by plant MT3 and MT4 isoforms. Journal of Biological Inorganic Chemistry, 2014, 19, 1149-1164.	1.1	12
89	Modularity in Protein Evolution: Modular Organization and De Novo Domain Evolution in Mollusk Metallothioneins. Molecular Biology and Evolution, 2021, 38, 424-436.	3.5	12
90	Identification of two frataxin isoforms in Zea mays : Structural and functional studies. Biochimie, 2017, 140, 34-47.	1.3	11

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91	Studying the reactivity of â€œoldâ€•Cu(II) complexes for â€œnovelâ€•anticancer purposes. Journal of Inorganic Biochemistry, 2019, 195, 51-60.	1.5	11
92	Electrochemical and theoretical study of the redox properties of transition metal complexes with {Pt2S2} cores. Dalton Transactions, 2004, , 706-712.	1.6	10
93	Studying the interactions of a platinum(ii) 9-aminoacridine complex with proteins and oligonucleotides by ESI-TOF MS. Dalton Transactions, 2012, 41, 300-306.	1.6	10
94	Structural Lesions of Proteins Connected to Lipid Membrane Damages Caused by Radical Stress: Assessment by Biomimetic Systems and Raman Spectroscopy. Biomolecules, 2019, 9, 794.	1.8	10
95	The Zn- and Cd-Clusters of Recombinant Mammalian MT1 and MT4 Metallothionein Domains Include Sulfide Ligands. Experimental Biology and Medicine, 2006, 231, 1522-1527.	1.1	9
96	Biomimetic Chemistry on Tandem Protein/Lipid Damages under Reductive Radical Stress. Chimia, 2008, 62, 721-727.	0.3	9
97	The first isoform-selective protein biosensor: a metallothionein potentiometric electrode. Chemical Communications, 2010, 46, 2040.	2.2	9
98	Understanding the interaction of an antitumoral platinum(II) 7-azaindolate complex with proteins and DNA. BioMetals, 2014, 27, 1159-1177.	1.8	8
99	Varying iron release from transferrin and lactoferrin proteins. A laboratory experiment. Biochemistry and Molecular Biology Education, 2017, 45, 521-527.	0.5	8
100	Copper redox chemistry of plant frataxins. Journal of Inorganic Biochemistry, 2018, 180, 135-140.	1.5	8
101	Metal binding properties of three Cys2X2 (X = His, Asp) metallothionein-related peptides. Inorganica Chimica Acta, 1998, 278, 10-14.	1.2	7
102	The Zn- or Cu-Thionein Character of a Metallothionein Determines Its Metal Load When Synthesized in Physiological (Metal-Unsupplemented) Conditions. Bioinorganic Chemistry and Applications, 2010, 2010, 1-6.	1.8	7
103	Squaramide-Based Pt(II) Complexes as Potential Oxygen-Regulated Light-Triggered Photocages. Inorganic Chemistry, 2018, 57, 15517-15525.	1.9	7
104	Two Unconventional Metallothioneins in the Apple Snail Pomacea bridgesii Have Lost Their Metal Specificity during Adaptation to Freshwater Habitats. International Journal of Molecular Sciences, 2021, 22, 95.	1.8	7
105	Monitoring of the metal displacement from the recombinant mouse liver metallothionein Zn(7)-complex by capillary zone electrophoresis with electrospray MS detection. Talanta, 2002, 57, 1011-7.	2.9	7
106	Tunicates Illuminate the Enigmatic Evolution of Chordate Metallothioneins by Gene Gains and Losses, Independent Modular Expansions, and Functional Convergences. Molecular Biology and Evolution, 2021, 38, 4435-4448.	3.5	6
107	Metal-Specificity Divergence between Metallothioneins of Nerita peloronta (Neritimorpha,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 Journal of Molecular Sciences, 2021, 22, 13114.	1.8	6
108	Modular Evolution and Population Variability of Oikopleura dioica Metallothioneins. Frontiers in Cell and Developmental Biology, 2021, 9, 702688.	1.8	5

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109	The Role of Histidine in a Copperâ€Specific Metallothionein. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2013, 639, 1356-1360.	0.6	4
110	Chemically and Biologically Harmless versus Harmful Ferritin/Copperâ€“Metallothionein Couples. Chemistry - A European Journal, 2015, 21, 808-813.	1.7	4
111	Understanding the 7â€<scp>C</scp>ys module amplification of <scp>C</scp>. neoformans metallothioneins: how high capacity <scp>C</scp>uâ€binding polypeptides are built to neutralize host nutritional immunity. Molecular Microbiology, 2015, 98, 977-992.	1.2	4
112	Metallothioneins and Mercury. , 2013, , 1386-1390.		4
113	Preface. Special Issue featuring articles from the Eleventh International Symposium on Applied Bioinorganic Chemistry. Journal of Inorganic Biochemistry, 2012, 117, 204.	1.5	1
114	Functionalized azobenzene platinum(II) complexes as putative anticancer compounds. Journal of Biological Inorganic Chemistry, 2021, 26, 435-453.	1.1	1
115	Recombinant synthesis and metal-binding abilities of mouse metallothionein 1 and its Î±- and Î²-domains. , 1999, , 55-61.		1
116	Metallothioneins and Copper. , 2013, , 1379-1383.		1
117	Synthesis and In Vitro Studies of Photoactivatable Semisquaraine-type Pt(II) Complexes. Inorganic Chemistry, 2022, 61, 7729-7745.	1.9	1
118	Toxicology (Pb, Hg, Cd, As, Al, Cr, and Others). , 2013, , 51-63.		0
119	Strukturanpassung eines Proteins an Metallbelastung: NMRâ€Struktur eines marinen Schneckenâ€Metallothioneins mit einer zusÃtzlichen DomÃne. Angewandte Chemie, 2017, 129, 4688-4693.	1.6	0
120	Goodbye to Silvia Atrian. Metallomics, 2019, 11, 238-239.	1.0	0
121	Metallothioneins and Lead. , 2013, , 1383-1386.		0