Silvia Atrian

List of Publications by Year
in descending order

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Version: 2024-02-01

75 papers	3,100 citations	168829 31 h-index	182931 54 g-index
75 all docs	75 docs citations	75 times ranked	3240 citing authors

#	Article	IF	Citations
1	Metallomics reveals a persisting impact of cadmium on the evolution of metal-selective snail metallothioneins. Metallomics, 2020, 12, 702-720.	1.0	15
2	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
3	Copper redox chemistry of plant frataxins. Journal of Inorganic Biochemistry, 2018, 180, 135-140.	1.5	8
4	Identification of two frataxin isoforms in Zea mays : Structural and functional studies. Biochimie, 2017, 140, 34-47.	1.3	11
5	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
6	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
7	The Fungus Tremella mesenterica Encodes the Longest Metallothionein Currently Known: Gene, Protein and Metal Binding Characterization. PLoS ONE, 2016, 11, e0148651.	1.1	21
8	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
9	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
10	Chemically and Biologically Harmless versus Harmful Ferritin/Copperâ€“Metallothionein Couples. Chemistry - A European Journal, 2015, 21, 808-813.	1.7	4
11	Understanding the 7â€‹scp›C‹/scp›ys module amplification of ‹scp›‹i›C‹/i›‹/scp›‹i›. neoformans‹/i› 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
12	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
13	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
14	‹i›In vivo‹/i›â€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
15	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
16	On the molecular relationships between high-zinc tolerance and aconitase (Aco1) in Saccharomyces cerevisiae. Metallomics, 2014, 6, 634-645.	1.0	4
17	Understanding the interaction of an antitumoral platinum(II) 7-azaindolate complex with proteins and DNA. BioMetals, 2014, 27, 1159-1177.	1.8	8
18	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

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19	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
20	Metallothionein-protein interactions. Biomolecular Concepts, 2013, 4, 143-160.	1.0	54
21	Mammalian MT1 and MT2 metallothioneins differ in their metal binding abilities. Metallomics, 2013, 5, 1397.	1.0	46
22	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
23	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
24	Cryptococcus neoformans Copper Detoxification Machinery Is Critical for Fungal Virulence. Cell Host and Microbe, 2013, 13, 265-276.	5.1	167
25	Is MtnE, the fifth Drosophila metallothionein, functionally distinct from the other members of this polymorphic protein family?. Metallomics, 2012, 4, 342.	1.0	27
26	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
27	Differential ESI-MS behaviour of highly similar metallothioneins. Talanta, 2011, 83, 1057-1061.	2.9	16
28	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
29	Metallothionein protein evolution: a miniassay. Journal of Biological Inorganic Chemistry, 2011, 16, 977-989.	1.1	140
30	Zn- and Cu-thioneins: a functional classification for metallothioneins?. Journal of Biological Inorganic Chemistry, 2011, 16, 991-1009.	1.1	132
31	Comparative genomics analysis of metallothioneins in twelve Drosophila species. Journal of Inorganic Biochemistry, 2011, 105, 1050-1059.	1.5	15
32	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
33	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
34	Drosophila proteins interacting with metallothioneins: A metalâ€dependent recognition. Proteomics, 2009, 9, 2568-2577.	1.3	3
35	Caenorhabditisâ€elegans 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
36	Novel potentiometric sensors based on polysulfone immobilized metallothioneins as metal-ionophores. Talanta, 2009, 77, 1528-1533.	2.9	27

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37	Independent metal-binding features of recombinant metallothioneins convergently draw a step gradation between Zn- and Cu-thioneins. Metallomics, 2009, 1, 229.	1.0	69
38	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
39	An evolutionary and structureâ€based docking model for glucocerebrosidaseâ€“saposin C and glucocerebrosidaseâ€“substrate interactionsâ€”Relevance for Gaucher disease. Proteins: Structure, Function and Bioinformatics, 2008, 70, 882-891.	1.5	35
40	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
41	Biomimetic Chemistry on Tandem Protein/Lipid Damages under Reductive Radical Stress. Chimia, 2008, 62, 721-727.	0.3	9
42	A study of the Pb(II) binding to recombinant mouse Zn7-metallothionein 1 and its domains by ESI TOF MS. Talanta, 2007, 72, 480-488.	2.9	20
43	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
44	Disruption of iron homeostasis in Saccharomyces cerevisiae by high zinc levels: a genomeâ€wide study. Molecular Microbiology, 2007, 65, 521-537.	1.2	96
45	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
46	Plant metallothionein domains: functional insight into physiological metal binding andÂprotein folding. Biochimie, 2006, 88, 583-593.	1.3	78
47	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
48	Comparative metal binding and genomic analysis of the avian (chicken) and mammalian metallothionein. FEBS Journal, 2006, 273, 523-535.	2.2	30
49	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
50	Specificity and divergence in the neurobiologic effects of different metallothioneins after brain injury. Journal of Neuroscience Research, 2006, 83, 974-984.	1.3	45
51	Drosophila Alcohol Dehydrogenase: Acetateâ€“Enzyme Interactions and Novel Insights into the Effects of Electrostatics on Catalysis. Journal of Molecular Biology, 2005, 345, 579-598.	2.0	22
52	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
53	Functional Differentiation in the Mammalian Metallothionein Gene Family. Journal of Biological Chemistry, 2004, 279, 24403-24413.	1.6	62
54	Chemical foundation of the attenuation of methylmercury(II) cytotoxicity by metallothioneins. FEBS Journal, 2004, 271, 1323-1328.	0.2	14

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55	A plant type 2 metallothionein (MT) from cork tissue responds to oxidative stress. Journal of Experimental Botany, 2004, 55, 2483-2493.	2.4	165
56	Megalin mediates renal uptake of heavy metal metallothionein complexes. American Journal of Physiology - Renal Physiology, 2004, 287, F393-F403.	1.3	118
57	The catalytic mechanism ofDrosophilaalcohol dehydrogenase: Evidence for a proton relay modulated by the coupled ionization of the active site Lysine/Tyrosine pair and a NAD+ribose OH switch. Proteins: Structure, Function and Bioinformatics, 2003, 51, 289-298.	1.5	31
58	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
59	Investigation of metal binding by recombinant and native metallothioneins by capillary zone electrophoresis (CZE) coupled with inductively coupled plasma mass spectrometry (ICP-MS) via a self-aspirating total consumption micronebulizer. Journal of Analytical Atomic Spectrometry, 2001, 16, 567-574.	1.6	51
60	Structure-function relationships in Drosophila melanogaster alcohol dehydrogenase allozymes ADHS, ADHF and ADHUF, and distantly related forms. FEBS Journal, 2000, 267, 3613-3622.	0.2	7
61	Engineering a mouse metallothionein on the cell surface of Ralstonia eutropha CH34 for immobilization of heavy metals in soil. Nature Biotechnology, 2000, 18, 661-665.	9.4	262
62	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
63	The Drosophila virilis Alcohol Dehydrogenase Catalytic Residues Are Conserved. Journal of Molecular Evolution, 1999, 48, 262-263.	0.8	0
64	Shaping of Drosophila Alcohol Dehydrogenase Through Evolution: Relationship with Enzyme Functionality. Journal of Molecular Evolution, 1998, 47, 211-221.	0.8	23
65	Bioaccumulation of heavy metals with protein fusions of metallothionein to bacteriol OMPs. Biochimie, 1998, 80, 855-861.	1.3	53
66	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
67	Involvement of the C-terminal Tail in the Activity of Drosophila Alcohol Dehydrogenase. Evaluation of Truncated Proteins Constructed by Site-Directed Mutagenesis. FEBS Journal, 1995, 233, 498-505.	0.2	17
68	Structure of the Drosophila melanogaster Glutathione-Dependent Formaldehyde Dehydrogenase/Octanol Dehydrogenase Gene (Class III Alcohol Dehydrogenase). Evolutionary Pathway of the Alcohol Dehydrogenase Genes. FEBS Journal, 1994, 225, 985-993.	0.2	22
69	Drosophila lebanonensisADH: analysis of recombinant wild-type enzyme and site-directed mutants. FEBS Letters, 1994, 341, 171-176.	1.3	12
70	Effect of site-directed mutagenesis on conserved positions of Drosophila alcohol dehydrogenase. FEBS Letters, 1993, 319, 90-94.	1.3	46
71	Identification of reactive tyrosine residues in cysteine-reactive dehydrogenases Differences between liver sorbitol, liver alcohol and Drosophila alcohol dehydrogenases. FEBS Letters, 1992, 304, 46-50.	1.3	8
72	Protein engineering ofDrosophilaalcohol dehydrogenase The hydroxyl group of Tyr152is involved in the active site of the enzyme. FEBS Letters, 1992, 308, 235-239.	1.3	49

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73	Preliminary X-ray crystallographic studies on alcohol dehydrogenase from Drosophila. Journal of Molecular Biology, 1992, 227, 356-358.	2.0	9
74	Short-chain dehydrogenases. Proteolysis and chemical modification of prokaryotic 3alpha/20beta-hydroxysteroid, insect alcohol and human 15-hydroxyprostaglandin dehydrogenases. FEBS Journal, 1992, 209, 233-239.	0.2	34
75	Synthesis of Drosophila melanogaster alcohol dehydrogenase in yeast. Gene, 1990, 93, 205-212.	1.0	7