Antonio Rosato

List of Publications by Year in descending order

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141 papers

8,218 citations

50273 46 h-index 85 g-index

223 all docs 223 docs citations

times ranked

223

9042 citing authors

#	Article	IF	CITATIONS
1	Counting the Zinc-Proteins Encoded in the Human Genome. Journal of Proteome Research, 2006, 5, 196-201.	3.7	887
2	Zinc through the Three Domains of Life. Journal of Proteome Research, 2006, 5, 3173-3178.	3.7	544
3	Structural Biology in the Clouds: The WeNMR-EOSC Ecosystem. Frontiers in Molecular Biosciences, 2021, 8, 729513.	3.5	308
4	Solution Structure of Oxidized Horse Heart Cytochrome câ€,⊥. Biochemistry, 1997, 36, 9867-9877.	2. 5	290
5	Metalloproteomes: A Bioinformatic Approach. Accounts of Chemical Research, 2009, 42, 1471-1479.	15.6	281
6	Cytochrome c:  Occurrence and Functions. Chemical Reviews, 2006, 106, 90-115.	47.7	255
7	The Atx1-Ccc2 complex is a metal-mediated protein-protein interaction. Nature Chemical Biology, 2006, 2, 367-368.	8.0	204
8	Occurrence of Copper Proteins through the Three Domains of Life: A Bioinformatic Approach. Journal of Proteome Research, 2008, 7, 209-216.	3.7	184
9	Magnetic Susceptibility Tensor Anisotropies for a Lanthanide Ion Series in a Fixed Protein Matrix. Journal of the American Chemical Society, 2001, 123, 4181-4188.	13.7	183
10	WeNMR: Structural Biology on the Grid. Journal of Grid Computing, 2012, 10, 743-767.	3.9	170
11	MetalPDB in 2018: a database of metal sites in biological macromolecular structures. Nucleic Acids Research, 2018, 46, D459-D464.	14.5	165
12	MetalPDB: a database of metal sites in biological macromolecular structures. Nucleic Acids Research, 2012, 41, D312-D319.	14.5	157
13	From correlation to causation: analysis of metabolomics data using systems biology approaches. Metabolomics, 2018, 14, 37.	3.0	151
14	COordination of Standards in MetabOlomicS (COSMOS): facilitating integrated metabolomics data access. Metabolomics, 2015, 11, 1587-1597.	3.0	140
15	Solution Structure of the Apo and Copper(I)-Loaded Human Metallochaperone HAH1â€. Biochemistry, 2004, 43, 13046-13053.	2.5	123
16	A hint to search for metalloproteins in gene banks. Bioinformatics, 2004, 20, 1373-1380.	4.1	120
17	Partial Orientation of Oxidized and Reduced Cytochromeb5at High Magnetic Fields:Â Magnetic Susceptibility Anisotropy Contributions and Consequences for Protein Solution Structure Determination. Journal of the American Chemical Society, 1998, 120, 12903-12909.	13.7	110
18	The human iron-proteomeâ€. Metallomics, 2018, 10, 1223-1231.	2.4	106

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19	Menkes disease. Cellular and Molecular Life Sciences, 2008, 65, 89-91.	5.4	94
20	Mitochondrial cytochromes c: a comparative analysis. Journal of Biological Inorganic Chemistry, 1999, 4, 824-837.	2.6	91
21	Predicting zinc binding at the proteome level. BMC Bioinformatics, 2007, 8, 39.	2.6	89
22	An NMR Study of the Interaction of the N-terminal Cytoplasmic Tail of the Wilson Disease Protein with Copper(I)-HAH1. Journal of Biological Chemistry, 2009, 284, 9354-9360.	3.4	88
23	Paramagnetically Induced Residual Dipolar Couplings for Solution Structure Determination of Lanthanide Binding Proteins. Journal of the American Chemical Society, 2002, 124, 5581-5587.	13.7	86
24	Copper(I)-mediated protein–protein interactions result from suboptimal interaction surfaces. Biochemical Journal, 2009, 422, 37-42.	3.7	85
25	The Solution Structure of Oxidized Escherichia coli Cytochrome b562,. Biochemistry, 1999, 38, 8657-8670.	2.5	82
26	CASD-NMR: critical assessment of automated structure determination by NMR. Nature Methods, 2009, 6, 625-626.	19.0	80
27	Molecular recognition in copper trafficking. Natural Product Reports, 2010, 27, 695.	10.3	78
28	A systematic investigation of multiheme c-type cytochromes in prokaryotes. Journal of Biological Inorganic Chemistry, 2010, 15, 559-571.	2.6	76
29	Blind Testing of Routine, Fully Automated Determination of Protein Structures from NMR Data. Structure, 2012, 20, 227-236.	3.3	75
30	Paramagnetic relaxation as a tool for solution structure determination: Clostridium pasteurianum ferredoxin as an example., 1997, 29, 348-358.		71
31	Non-heme iron through the three domains of life. Proteins: Structure, Function and Bioinformatics, 2007, 67, 317-324.	2.6	70
32	The Solution Structure Refinement of the Paramagnetic Reduced High-Potential Iron-Sulfur Protein I from Ectothiorhodospira Halophila by Using Stable Isotope Labeling and Nuclear Relaxation. FEBS Journal, 1996, 241, 440-452.	0.2	69
33	The solution structure of paramagnetic metalloproteins. Progress in Biophysics and Molecular Biology, 1996, 66, 43-80.	2.9	66
34	Solution Structure and Backbone Dynamics of the Cu(I) and Apo Forms of the Second Metal-Binding Domain of the Menkes Protein ATP7Aâ€. Biochemistry, 2004, 43, 3396-3403.	2.5	63
35	A NMR Study of the Interaction of a Three-domain Construct of ATP7A with Copper(I) and Copper(I)-HAH1. Journal of Biological Chemistry, 2005, 280, 38259-38263.	3.4	62
36	Backbone Dynamics of Human Cu,Zn Superoxide Dismutase and of Its Monomeric F50E/G51E/E133Q Mutant:  The Influence of Dimerization on Mobility and Function. Biochemistry, 2000, 39, 9108-9118.	2.5	61

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37	PhenoMeNal: processing and analysis of metabolomics data in the cloud. GigaScience, 2019, 8, .	6.4	60
38	Structural Genomics of Proteins Involved in Copper Homeostasis. Accounts of Chemical Research, 2003, 36, 215-221.	15.6	58
39	MetalPredator: a web server to predict iron–sulfur cluster binding proteomes. Bioinformatics, 2016, 32, 2850-2852.	4.1	58
40	An NMR study of the interaction between the human copper(I) chaperone and the second and fifth metal-binding domains of the Menkes protein. FEBS Journal, 2005, 272, 865-871.	4.7	57
41	The Functions of Sco Proteins from Genome-Based Analysis. Journal of Proteome Research, 2007, 6, 1568-1579.	3.7	56
42	Browsing gene banks for Fe2S2 ferredoxins and structural modeling of 88 plant-type sequences: An analysis of fold and function. Proteins: Structure, Function and Bioinformatics, 2002, 46, 110-127.	2.6	55
43	A Grid-enabled web portal for NMR structure refinement with AMBER. Bioinformatics, 2011, 27, 2384-2390.	4.1	55
44	RPF: a quality assessment tool for protein NMR structures. Nucleic Acids Research, 2012, 40, W542-W546.	14.5	55
45	To what extent do structural changes in catalytic metal sites affect enzyme function?. Journal of Inorganic Biochemistry, 2018, 179, 40-53.	3.5	55
46	The Different Intermolecular Interactions of the Soluble Copper-binding Domains of the Menkes Protein, ATP7A*. Journal of Biological Chemistry, 2007, 282, 23140-23146.	3.4	54
47	nmrML: A Community Supported Open Data Standard for the Description, Storage, and Exchange of NMR Data. Analytical Chemistry, 2018, 90, 649-656.	6.5	50
48	Genome-Based Analysis of Heme Biosynthesis and Uptake in Prokaryotic Systems. Journal of Proteome Research, 2008, 7, 4946-4954.	3.7	49
49	The Relationship between Environmental Dioxygen and Iron-Sulfur Proteins Explored at the Genome Level. PLoS ONE, 2017, 12, e0171279.	2.5	49
50	Solution Structure of the Oxidized Fe7S8Ferredoxin from the Thermophilic BacteriumBacillusschlegeliiby1H NMR Spectroscopyâ€,‡. Biochemistry, 1998, 37, 9812-9826.	2.5	48
51	Solution Structure and Characterization of the Heme Chaperone CcmE. Biochemistry, 2002, 41, 13587-13594.	2.5	47
52	PDBe-KB: collaboratively defining the biological context of structural data. Nucleic Acids Research, 2022, 50, D534-D542.	14.5	46
53	Solution Structure Calculations through Self-Orientation in a Magnetic Field of a Cerium(III) Substituted Calcium-Binding Protein. Journal of Magnetic Resonance, 2001, 148, 23-30.	2.1	44
54	Solution structure of oxidized microsomal rabbit cytochrome b5. FEBS Journal, 2000, 267, 755-766.	0.2	43

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55	The DisVis and PowerFit Web Servers: Explorative and Integrative Modeling of Biomolecular Complexes. Journal of Molecular Biology, 2017, 429, 399-407.	4.2	43
56	Exploiting Bacterial Operons To Illuminate Human Iron–Sulfur Proteins. Journal of Proteome Research, 2016, 15, 1308-1322.	3.7	42
57	Upgrading and Validation of the AMBER Force Field for Histidine and Cysteine Zinc(II)-Binding Residues in Sites with Four Protein Ligands. Journal of Chemical Information and Modeling, 2019, 59, 3803-3816.	5.4	42
58	Bioinorganic chemistry in the postgenomic era. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3601-3604.	7.1	39
59	Evolution of mitochondrial-type cytochrome c domains and of the protein machinery for their assembly. Journal of Inorganic Biochemistry, 2007, 101, 1798-1811.	3.5	39
60	Structural and Dynamical Properties of a Partially Unfolded Fe4S4Protein: Role of the Cofactor in Protein Foldingâ€. Biochemistry, 1999, 38, 4669-4680.	2.5	38
61	Solution Structure and Intermolecular Interactions of the Third Metal-binding Domain of ATP7A, the Menkes Disease Protein. Journal of Biological Chemistry, 2006, 281, 29141-29147.	3.4	38
62	Insights into telomeric G-quadruplex DNA recognition by HMGB1 protein. Nucleic Acids Research, 2019, 47, 9950-9966.	14.5	38
63	An Atomic-level Investigation of the Disease-causing A629P Mutant of the Menkes Protein, ATP7A. Journal of Molecular Biology, 2005, 352, 409-417.	4.2	37
64	Solution Structures of the Actuator Domain of ATP7A and ATP7B, the Menkes and Wilson Disease Proteins. Biochemistry, 2009, 48, 7849-7855.	2.5	36
65	MaxOcc: a web portal for maximum occurrence analysis. Journal of Biomolecular NMR, 2012, 53, 271-280.	2.8	36
66	Bioinformatic Comparison of Structures and Homology-Models of Matrix Metalloproteinases. Journal of Proteome Research, 2004, 3, 21-31.	3.7	35
67	Comparative Analysis of the ADAM and ADAMTS Families. Journal of Proteome Research, 2005, 4, 881-888.	3.7	32
68	Quality assessment of protein NMR structures. Current Opinion in Structural Biology, 2013, 23, 715-724.	5.7	31
69	Solution structure of reduced Clostridium pasteurianum rubredoxin. Journal of Biological Inorganic Chemistry, 1998, 3, 401.	2.6	30
70	From Genes to Metalloproteins: A Bioinformatic Approach. European Journal of Inorganic Chemistry, 2007, 2546-2555.	2.0	29
71	A Simple Protocol for the Comparative Analysis of the Structure and Occurrence of Biochemical Pathways Across Superkingdoms. Journal of Chemical Information and Modeling, 2011, 51, 730-738.	5.4	28
72	Zinc proteome interaction network as a model to identify nutrient-affected pathways in human pathologies. Genes and Nutrition, 2014, 9, 436.	2.5	28

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73	MetalS3, a database-mining tool for the identification of structurally similar metal sites. Journal of Biological Inorganic Chemistry, 2014, 19, 937-945.	2.6	28
74	1H and 13C NMR Studies of an Oxidized HiPIP. Inorganic Chemistry, 1997, 36, 4798-4803.	4.0	27
75	The annotation of full zinc proteomes. Journal of Biological Inorganic Chemistry, 2010, 15, 1071-1078.	2.6	27
76	The second round of Critical Assessment of Automated Structure Determination of Proteins by NMR: CASD-NMR-2013. Journal of Biomolecular NMR, 2015, 62, 413-424.	2.8	27
77	Upgraded AMBER Force Field for Zinc-Binding Residues and Ligands for Predicting Structural Properties and Binding Affinities in Zinc-Proteins. ACS Omega, 2020, 5, 15301-15310.	3.5	27
78	Solution Structure of Reduced Microsomal Rat Cytochrome b5. FEBS Journal, 1997, 249, 270-279.	0.2	25
79	1H NMR studies of the Fe7S8 ferredoxin from Bacillus schlegelii: a further attempt to understand Fe3S4 clusters. Journal of Biological Inorganic Chemistry, 1996, 1, 523-528.	2.6	24
80	A structural model for the adduct between cytochrome c and cytochrome c oxidase. Journal of Biological Inorganic Chemistry, 2005, 10, 613-624.	2.6	24
81	Interaction of the two soluble metal-binding domains of yeast Ccc2 with copper(I)–Atx1. Biochemical and Biophysical Research Communications, 2007, 364, 645-649.	2.1	24
82	Mechanistic and Structural Basis for Inhibition of Copper Trafficking by Platinum Anticancer Drugs. Journal of the American Chemical Society, 2019, 141, 12109-12120.	13.7	24
83	The Unfolding of Oxidized c-Type Cytochromes: The Instructive Case of Bacillus pasteurii. Journal of Molecular Biology, 2002, 321, 693-701.	4.2	23
84	NMR Solution Structure, Backbone Mobility, and Homology Modeling ofc-Type Cytochromes from Gram-Positive Bacteria. ChemBioChem, 2002, 3, 299-310.	2.6	23
85	The Binding Mode of ATP Revealed by the Solution Structure of the N-domain of Human ATP7A. Journal of Biological Chemistry, 2010, 285, 2537-2544.	3.4	23
86	A complete relaxation matrix refinement of the solution structure of a paramagnetic metalloprotein: Reduced HiPIP I fromEctothiorhodospira halophila., 1996, 24, 158-164.		22
87	Solution Structure of a Monoheme FerrocytochromecfromShewanella putrefaciensand Structural Analysis of Sequence-Similar Proteins: Functional Implicationsâ€. Biochemistry, 2002, 41, 5112-5119.	2.5	22
88	Investigation of the Iron(II) Release Mechanism of Human H-Ferritin as a Function of pH. Journal of Chemical Information and Modeling, 2017, 57, 2112-2118.	5.4	22
89	Can the axial ligand strength be monitored through spectroscopic measurements?. Journal of Biological Inorganic Chemistry, 1996, 1, 364-367.	2.6	21
90	The war of tools: how can NMR spectroscopists detect errors in their structures?. Journal of Biomolecular NMR, 2008, 40, 251-261.	2.8	21

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91	Protein structure prediction assisted with sparse NMR data in CASP13. Proteins: Structure, Function and Bioinformatics, 2019, 87, 1315-1332.	2.6	21
92	SPINE bioinformatics and data-management aspects of high-throughput structural biology. Acta Crystallographica Section D: Biological Crystallography, 2006, 62, 1184-1195.	2.5	19
93	The future of metabolomics in ELIXIR. F1000Research, 2017, 6, 1649.	1.6	19
94	Structure and Dynamics of ReducedBacillus pasteuriiCytochromec: Oxidation State Dependent Properties and Implications for Electron Transfer Processesâ€. Biochemistry, 2003, 42, 739-745.	2.5	18
95	The eNMR platform for structural biology. Journal of Structural and Functional Genomics, 2010, 11, 1-8.	1.2	18
96	From NOESY Cross Peaks to Structural Constraints in a Paramagnetic Metalloprotein. Magnetic Resonance in Chemistry, 1996, 34, 948-950.	1.9	16
97	MetalS ² : A Tool for the Structural Alignment of Minimal Functional Sites in Metal-Binding Proteins and Nucleic Acids. Journal of Chemical Information and Modeling, 2013, 53, 3064-3075.	5.4	16
98	Monitoring Interactions Inside Cells by Advanced Spectroscopies: Overview of Copper Transporters and Cisplatin. Current Medicinal Chemistry, 2018, 25, 462-477.	2.4	15
99	NMR Spectra of Iron-Sulfur Proteins. Advances in Inorganic Chemistry, 1999, 47, 251-282.	1.0	14
100	A further investigation of the cytochrome b 5–cytochrome c complex. Journal of Biological Inorganic Chemistry, 2003, 8, 777-786.	2.6	14
101	An Italian contribution to structural genomics: Understanding metalloproteins. Coordination Chemistry Reviews, 2006, 250, 1419-1450.	18.8	14
102	SedNMR: a web tool for optimizing sedimentation of macromolecular solutes for SSNMR. Journal of Biomolecular NMR, 2013, 57, 319-326.	2.8	13
103	Hidden relationships between metalloproteins unveiled by structural comparison of their metal sites. Scientific Reports, 2015, 5, 9486.	3.3	13
104	An atomistic view of the YiiP structural changes upon zinc(II) binding. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 1560-1567.	2.4	13
105	Protein stability and mutations in the axial methionine loop of a minimal cytochrome c. Journal of Biological Inorganic Chemistry, 2004, 9, 600-608.	2.6	12
106	Minimal Functional Sites in Metalloproteins and Their Usage in Structural Bioinformatics. International Journal of Molecular Sciences, 2016, 17, 671.	4.1	12
107	Application of Molecular Dynamics to the Investigation of Metalloproteins Involved in Metal Homeostasis. European Journal of Inorganic Chemistry, 2018, 2018, 4661-4677.	2.0	12
108	Solution structure of paramagnetic metalloproteins. Pure and Applied Chemistry, 1999, 71, 1717-1725.	1.9	11

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109	A High-Resolution NMR Study of Long-Lived Water Molecules in Both Oxidation States of a Minimal Cytochrome c. Biochemistry, 2003, 42, 3457-3463.	2.5	11
110	Role of the N-Terminal Tail of Metal-Transporting P1B-type ATPases from Genome-Wide Analysis and Molecular Dynamics Simulations. Journal of Chemical Information and Modeling, 2009, 49, 76-83.	5.4	11
111	The future of metabolomics in ELIXIR. F1000Research, 2017, 6, 1649.	1.6	11
112	Hydrogen Exchange in a Bacterial Cytochrome c:  A Fingerprint of the Cytochrome c Fold. Biochemistry, 2003, 42, 10923-10930.	2.5	10
113	A protocol for the refinement of NMR structures using simultaneously pseudocontact shift restraints from multiple lanthanide ions. Journal of Biomolecular NMR, 2016, 66, 175-185.	2.8	10
114	Insights into the Dynamics of the Human Zinc Transporter ZnT8 by MD Simulations. Journal of Chemical Information and Modeling, 2021, 61, 901-912.	5.4	10
115	The Da Vinci European BioBank: A Metabolomics-Driven Infrastructure. Journal of Personalized Medicine, 2015, 5, 107-119.	2.5	9
116	Metabolomics in systems medicine: an overview of methods and applications. Current Opinion in Systems Biology, 2019, 15, 91-99.	2.6	9
117	Principles and patterns in the interaction between mono-heme cytochrome c and its partners in electron transfer processes. Metallomics, 2011, 3, 354.	2.4	8
118	Learning to Identify Physiological and Adventitious Metal-Binding Sites in the Three-Dimensional Structures of Proteins by Following the Hints of a Deep Neural Network. Journal of Chemical Information and Modeling, 2022, 62, 2951-2960.	5.4	6
119	The zinc proteome of SARS-CoV-2. Metallomics, 2022, 14, .	2.4	6
120	Structural Bioinformatics and Deep Learning of Metalloproteins: Recent Advances and Applications. International Journal of Molecular Sciences, 2022, 23, 7684.	4.1	6
121	Decreased amount of vimentin N-terminal truncated proteolytic products in parkin-mutant skin fibroblasts. Biochemical and Biophysical Research Communications, 2020, 521, 693-698.	2.1	5
122	Molecular dynamics simulations of metalloproteins: A folding study of rubredoxin from Pyrococcus furiosus . AIMS Biophysics, 2018, 5, 77-96.	0.6	5
123	Evaluation of paramagnetic relaxation rates in a J-coupled two-spin system. Chemical Physics Letters, 1996, 250, 495-504.	2.6	4
124	The use of propionate \hat{l}_{\pm} -proton contact shifts as structural constraints. Inorganica Chimica Acta, 2000, 297, 199-205.	2.4	4
125	Cytochrome c folding / unfolding: a unifying picture. Journal of Porphyrins and Phthalocyanines, 2004, 08, 238-245.	0.8	4
126	Automated protein structure determination by NMR. Journal of Biomolecular NMR, 2015, 62, 411-412.	2.8	4

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127	Analysis of the structural quality of the CASD-NMR 2013 entries. Journal of Biomolecular NMR, 2015, 62, 527-540.	2.8	4
128	Automated Determination of Nuclear Magnetic Resonance Chemical Shift Perturbations in Ligand Screening Experiments: The PICASSO Web Server. Journal of Chemical Information and Modeling, 2021, , .	5.4	4
129	Oxidation of Human Copper Chaperone Atox1 and Disulfide Bond Cleavage by Cisplatin and Glutathione. International Journal of Molecular Sciences, 2019, 20, 4390.	4.1	3
130	A protocol to automatically calculate homo-oligomeric protein structures through the integration of evolutionary constraints and NMR ambiguous contacts. Computational and Structural Biotechnology Journal, 2020, 18, 114-124.	4.1	3
131	EGI federated platforms supporting accelerated computing., 2017,,.		3
132	Solution Structures Of Proteins Containing Paramagnetic Metal Ions., 1997,, 1-19.		3
133	West-Life: A Virtual Research Environment for structural biology. Journal of Structural Biology: X, 2019, 1, 100006.	1.3	2
134	A complete relaxation matrix refinement of the solution structure of a paramagnetic metalloprotein: Reduced HiPIP I from Ectothiorhodospira halophila. Proteins: Structure, Function and Bioinformatics, 1996, 24, 158-164.	2.6	2
135	Three-dimensional solution structures of two DNA dodecamers through full relaxation matrix analysis., 1999, 37, 564-572.		1
136	What Can be Learned about the Structure and Dynamics of Biomolecules from NMR. , 2012, , 33-50.		1
137	Systematic classification of metalloproteins based on three-dimensional structural similarity of their metal sites. Protocol Exchange, 0, , .	0.3	1
138	Structural Genomics of Proteins Involved in Copper Homeostasis. ChemInform, 2003, 34, no.	0.0	0
139	A Genomic Frontier in Bioinorganic Chemistry. Chemistry Letters, 2004, 33, 946-951.	1.3	0
140	Copper Homeostasis in Humans and Bacteria. , 2017, , .		0
141	The use of the Electron-Nucleus Hyperfine Interaction for Solution Structure Determination. , 2000, , 1-17.		O