David P Giedroc

List of Publications by Year in Descending Order

190 papers	8,613 citations	53 h-index	83 g-index
206 ext. papers	9,878 ext. citations	7 avg, IF	6.24 L-index

#	Paper	IF	Citations
190	Zn-regulated GTPase metalloprotein activator 1 modulates vertebrate zinc homeostasis.. *Cell*, **2022** ,	56.2	5
189	Protocol for using organic persulfides to measure the chemical reactivity of persulfide sensors. *STAR Protocols*, **2022**, 3, 101424	1.4	0
188	SifR is an Rrf2-family quinone sensor associated with catechol iron uptake in Streptococcus pneumoniae D39. *Journal of Biological Chemistry*, **2022**, 102046	5.4	0
187	Functional asymmetry and chemical reactivity of CsoR family persulfide sensors. *Nucleic Acids Research*, **2021**, 49, 12556-12576	20.1	3
186	COG0523 proteins: a functionally diverse family of transition metal-regulated G3E P-loop GTP hydrolases from bacteria to man. *Metallomics*, **2021**, 13,	4.5	10
185	Structural basis for persulfide-sensing specificity in a transcriptional regulator. *Nature Chemical Biology*, **2021**, 17, 65-70	11.7	9
184	Molecular Evolution of Transition Metal Bioavailability at the Host-Pathogen Interface. *Trends in Microbiology*, **2021**, 29, 441-457	12.4	14
183	Proteomics Profiling of -sulfurated Proteins in. *Bio-protocol*, **2021**, 11, e4000	0.9	0
182	Metal Ion Homeostasis **2021**, 929-953		
181	H, C, N backbone resonance assignments of the apo and holo forms of the ABC transporter solute binding protein PiuA from Streptococcus pneumoniae. *Biomolecular NMR Assignments*, **2020**, 14, 233-238	0.7	2
180	Clostridioides difficile Senses and Hijacks Host Heme for Incorporation into an Oxidative Stress Defense System. *Cell Host and Microbe*, **2020**, 28, 411-421.e6	23.4	23
179	Iron Acquisition by Bacterial Pathogens: Beyond Tris-Catecholate Complexes. *ChemBioChem*, **2020**, 21, 1955-1967	3.8	8
178	The Response of to Hydrogen Sulfide Reveals Two Independent Persulfide-Sensing Systems and a Connection to Biofilm Regulation. *MBio*, **2020**, 11,	7.8	13
177	Cell-free biosensors for rapid detection of water contaminants. *Nature Biotechnology*, **2020**, 38, 1451-1459	44.5	75
176	Multi-metal nutrient restriction and crosstalk in metallostasis systems in microbial pathogens. *Current Opinion in Microbiology*, **2020**, 55, 17-25	7.9	14
175	Hydrogen Sulfide Signaling and Enzymology **2020**, 430-473		2
174	Glucose-Induced Biofilm Accessory Protein A (GbaA) Is a Monothiol-Dependent Electrophile Sensor. *Biochemistry*, **2020**, 59, 2882-2895	3.2	4

173	HS and reactive sulfur signaling at the host-bacterial pathogen interface. *Journal of Biological Chemistry*, **2020**, 295, 13150-13168	5.4	14
172	The Pneumococcal Iron Uptake Protein A (PiuA) Specifically Recognizes Tetradentate Febis- and Mono-Catechol Complexes. *Journal of Molecular Biology*, **2020**, 432, 5390-5410	6.5	3
171	Structure of the Large Extracellular Loop of FtsX and Its Interaction with the Essential Peptidoglycan Hydrolase PcsB in Streptococcus pneumoniae. *MBio*, **2019**, 10,	7.8	20
170	Mechanistic Insights into the Metal-Dependent Activation of Zn-Dependent Metallochaperones. *Inorganic Chemistry*, **2019**, 58, 13661-13672	5.1	20
169	A Mn-sensing riboswitch activates expression of a Mn2+/Ca2+ ATPase transporter in Streptococcus. *Nucleic Acids Research*, **2019**, 47, 6885-6899	20.1	13
168	Multi-metal Restriction by Calprotectin Impacts De Novo Flavin Biosynthesis in Acinetobacter baumannii. *Cell Chemical Biology*, **2019**, 26, 745-755.e7	8.2	35
167	An Acinetobacter baumannii, Zinc-Regulated Peptidase Maintains Cell Wall Integrity during Immune-Mediated Nutrient Sequestration. *Cell Reports*, **2019**, 26, 2009-2018.e6	10.6	36
166	Hydrogen Sulfide Sensing through Reactive Sulfur Species (RSS) and Nitroxyl (HNO) in Enterococcus faecalis. *ACS Chemical Biology*, **2018**, 13, 1610-1620	4.9	19
165	Tuning site-specific dynamics to drive allosteric activation in a pneumococcal zinc uptake regulator. *ELife*, **2018**, 7,	8.9	18
164	Metal-dependent allosteric activation and inhibition on the same molecular scaffold: the copper sensor CopY from. *Chemical Science*, **2018**, 9, 105-118	9.4	19
163	Thioredoxin Profiling of Multiple Thioredoxin-Like Proteins in. *Frontiers in Microbiology*, **2018**, 9, 2385	5.7	13
162	Functional Role of Solvent Entropy and Conformational Entropy of Metal Binding in a Dynamically Driven Allosteric System. *Journal of the American Chemical Society*, **2018**, 140, 9108-9119	16.4	17
161	Perturbation of manganese metabolism disrupts cell division in Streptococcus pneumoniae. *Molecular Microbiology*, **2017**, 104, 334-348	4.1	33
160	The zinc efflux activator SczA protects Streptococcus pneumoniae serotype 2 D39 from intracellular zinc toxicity. *Molecular Microbiology*, **2017**, 104, 636-651	4.1	19
159	Sulfide-responsive transcriptional repressor SqrR functions as a master regulator of sulfide-dependent photosynthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 2355-2360	11.5	50
158	Biological and Chemical Adaptation to Endogenous Hydrogen Peroxide Production in D39. *MSphere* , **2017**, 2,	5	32
157	A new player in bacterial sulfide-inducible transcriptional regulation. *Molecular Microbiology*, **2017**, 105, 347-352	4.1	13
156	Entropy redistribution controls allostery in a metalloregulatory protein. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 4424-4429	11.5	55

155	Metallochaperones and metalloregulation in bacteria. *Essays in Biochemistry*, **2017**, 61, 177-200	7.6	53
154	Hydrogen Sulfide and Reactive Sulfur Species Impact Proteome S-Sulfhydration and Global Virulence Regulation in Staphylococcus aureus. *ACS Infectious Diseases*, **2017**, 3, 744-755	5.5	45
153	Sulfide Homeostasis and Nitroxyl Intersect via Formation of Reactive Sulfur Species in. *MSphere*, **2017**, 2,	5	45
152	The S2 Cu(i) site in CupA from Streptococcus pneumoniae is required for cellular copper resistance. *Metallomics*, **2016**, 8, 61-70	4.5	15
151	Staphylococcus aureus sqr Encodes a Type II Sulfide:Quinone Oxidoreductase and Impacts Reactive Sulfur Speciation in Cells. *Biochemistry*, **2016**, 55, 6524-6534	3.2	28
150	Crystal structure of Clostridium difficile toxin A. *Nature Microbiology*, **2016**, 1, 15002	26.6	62
149	The Response of Acinetobacter baumannii to Zinc Starvation. *Cell Host and Microbe*, **2016**, 19, 826-36	23.4	79
148	1H, 13C, 15N resonance assignments of the extracellular loop 1 domain (ECL1) of Streptococcus pneumoniae D39 FtsX, an essential cell division protein. *Biomolecular NMR Assignments*, **2016**, 10, 89-92	0.7	2
147	Functional Determinants of Metal Ion Transport and Selectivity in Paralogous Cation Diffusion Facilitator Transporters CzcD and MntE in Streptococcus pneumoniae. *Journal of Bacteriology*, **2016** , 198, 1066-76	3.5	37
146	Bacterial Strategies to Maintain Zinc Metallostasis at the Host-Pathogen Interface. *Journal of Biological Chemistry*, **2016**, 291, 20858-20868	5.4	89
145	Staphylococcus aureus CstB Is a Novel Multidomain Persulfide Dioxygenase-Sulfurtransferase Involved in Hydrogen Sulfide Detoxification. *Biochemistry*, **2015**, 54, 4542-54	3.2	40
144	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, 2463-72	3.2	13
143	Conformational analysis and chemical reactivity of the multidomain sulfurtransferase, Staphylococcus aureus CstA. *Biochemistry*, **2015**, 54, 2385-98	3.2	22
142	Cysteine sulfur chemistry in transcriptional regulators at the host-bacterial pathogen interface. *Biochemistry*, **2015**, 54, 3235-49	3.2	17
141	SHAPE analysis of the RNA secondary structure of the Mouse Hepatitis Virus 5Suntranslated region and N-terminal nsp1 coding sequences. *Virology*, **2015**, 475, 15-27	3.6	22
140	Resolution of Stepwise Cooperativities of Copper Binding by the Homotetrameric Copper-Sensitive Operon Repressor (CsoR): Impact on Structure and Stability. *Angewandte Chemie*, **2015**, 127, 12986-12990	3.6	
139	Resolution of Stepwise Cooperativities of Copper Binding by the Homotetrameric Copper-Sensitive Operon Repressor (CsoR): Impact on Structure and Stability. *Angewandte Chemie - International Edition*, **2015**, 54, 12795-9	16.4	10
138	Recent developments in copper and zinc homeostasis in bacterial pathogens. *Current Opinion in Chemical Biology*, **2014**, 19, 59-66	9.7	88

137	Copper transport and trafficking at the host-bacterial pathogen interface. *Accounts of Chemical Research*, **2014**, 47, 3605-13	24.3	71
136	Conversion of S-phenylsulfonylcysteine residues to mixed disulfides at pH 4.0: utility in protein thiol blocking and in protein-S-nitrosothiol detection. *Organic and Biomolecular Chemistry*, **2014**, 12, 7942-56	3.9	12
135	Backbone and sterospecific methyl side chain resonance assignments of the homodimeric zinc sensor AdcR (32 kDa) in the apo- and Zn(II)-bound states. *Biomolecular NMR Assignments*, **2014**, 8, 11-4	0.7	2
134	Insights into Protein Allostery in the CsoR/RcnR Family of Transcriptional Repressors. *Chemistry Letters*, **2014**, 43, 20-25	1.7	36
133	Cu(I)-mediated allosteric switching in a copper-sensing operon repressor (CsoR). *Journal of Biological Chemistry*, **2014**, 289, 19204-17	5.4	43
132	The CsoR-like sulfurtransferase repressor (CstR) is a persulfide sensor in Staphylococcus aureus. *Molecular Microbiology*, **2014**, 94, 1343-60	4.1	71
131	□H, □□C, □N resonance assignments of murine hepatitis virus nonstructural protein 3a. *Biomolecular NMR Assignments*, **2014**, 8, 15-7	0.7	1
130	Solution NMR refinement of a metal ion bound protein using metal ion inclusive restrained molecular dynamics methods. *Journal of Biomolecular NMR*, **2013**, 56, 125-37	3	19
129	□H, □□C, and □N resonance assignments of NmtR, a Ni(II)/Co(II) metalloregulatory protein of Mycobacterium tuberculosis. *Biomolecular NMR Assignments*, **2013**, 7, 145-8	0.7	2
128	Metal-Regulated Gene Expression **2013**, 35-49		
127	Physical characterization of the manganese-sensing pneumococcal surface antigen repressor from Streptococcus pneumoniae. *Biochemistry*, **2013**, 52, 7689-701	3.2	35
126	Selenite and tellurite form mixed seleno- and tellurotrisulfides with CstR from Staphylococcus aureus. *Metallomics*, **2013**, 5, 335-42	4.5	17
125	Allosteric inhibition of a zinc-sensing transcriptional repressor: insights into the arsenic repressor (ArsR) family. *Journal of Molecular Biology*, **2013**, 425, 1143-57	6.5	29
124	A new structural paradigm in copper resistance in Streptococcus pneumoniae. *Nature Chemical Biology*, **2013**, 9, 177-83	11.7	72
123	Backbone resonance assignments of the homotetrameric (48 kD) copper sensor CsoR from Geobacillus thermodenitrificans in the apo- and Cu(I)-bound states: insights into copper-mediated allostery. *Biomolecular NMR Assignments*, **2013**, 7, 279-83	0.7	10
122	Energetics of zinc-mediated interactions in the allosteric pathways of metal sensor proteins. *Journal of the American Chemical Society*, **2013**, 135, 30-3	16.4	18
121	Solution structure of mouse hepatitis virus (MHV) nsp3a and determinants of the interaction with MHV nucleocapsid (N) protein. *Journal of Virology*, **2013**, 87, 3502-15	6.6	26
120	Co-ordinate synthesis and protein localization in a bacterial organelle by the action of a penicillin-binding-protein. *Molecular Microbiology*, **2013**, 90, 1162-77	4.1	19

119	Manganese acquisition and homeostasis at the host-pathogen interface. *Frontiers in Cellular and Infection Microbiology*, **2013**, 3, 91	5.9	86
118	Solution structure of Mycobacterium tuberculosis NmtR in the apo state: insights into Ni(II)-mediated allostery. *Biochemistry*, **2012**, 51, 2619-29	3.2	37
117	Metal site occupancy and allosteric switching in bacterial metal sensor proteins. *Archives of Biochemistry and Biophysics*, **2012**, 519, 210-22	4.1	55
116	Simulations of allosteric motions in the zinc sensor CzrA. *Journal of the American Chemical Society*, **2012**, 134, 3367-76	16.4	36
115	Functional transcriptional regulatory sequence (TRS) RNA binding and helix destabilizing determinants of murine hepatitis virus (MHV) nucleocapsid (N) protein. *Journal of Biological Chemistry*, **2012**, 287, 7063-73	5.4	36
114	Allosteric coupling between transition metal-binding sites in homooligomeric metal sensor proteins. *Methods in Molecular Biology*, **2012**, 796, 31-51	1.4	5
113	Illuminating allostery in metal sensing transcriptional regulators. *Methods in Molecular Biology*, **2012**, 875, 165-92	1.4	6
112	Zinc: DNA-Binding Proteins **2011**,		1
111	Crystal structure of the zinc-dependent MarR family transcriptional regulator AdcR in the Zn(II)-bound state. *Journal of the American Chemical Society*, **2011**, 133, 19614-7	16.4	49
110	The solution structure of coronaviral stem-loop 2 (SL2) reveals a canonical CUYG tetraloop fold. *FEBS Letters*, **2011**, 585, 1049-53	3.8	23
109	Metalloregulatory proteins: metal selectivity and allosteric switching. *Biophysical Chemistry*, **2011**, 156, 103-14	3.5	121
108	Interplay between manganese and zinc homeostasis in the human pathogen Streptococcus pneumoniae. *Metallomics*, **2011**, 3, 38-41	4.5	81
107	Mycobacterium tuberculosis NmtR harbors a nickel sensing site with parallels to Escherichia coli RcnR. *Biochemistry*, **2011**, 50, 7941-52	3.2	32
106	Ratiometric pulse-chase amidination mass spectrometry as a probe of biomolecular complex formation. *Analytical Chemistry*, **2011**, 83, 9092-9	7.8	18
105	A conserved RNA pseudoknot in a putative molecular switch domain of the 3Suntranslated region of coronaviruses is only marginally stable. *Rna*, **2011**, 17, 1747-59	5.8	26
104	Mouse hepatitis virus stem-loop 4 functions as a spacer element required to drive subgenomic RNA synthesis. *Journal of Virology*, **2011**, 85, 9199-209	6.6	26
103	Control of copper resistance and inorganic sulfur metabolism by paralogous regulators in Staphylococcus aureus. *Journal of Biological Chemistry*, **2011**, 286, 13522-31	5.4	75
102	Predicting loop-helix tertiary structural contacts in RNA pseudoknots. *Rna*, **2010**, 16, 538-52	5.8	32

101	A Q63E Rhodobacter sphaeroides AppA BLUF domain mutant is locked in a pseudo-light-excited signaling state. *Biochemistry*, **2010**, 49, 10682-90	3.2	12
100	The metalloregulatory zinc site in Streptococcus pneumoniae AdcR, a zinc-activated MarR family repressor. *Journal of Molecular Biology*, **2010**, 403, 197-216	6.5	71
99	Elucidation of the functional metal binding profile of a Cd(II)/Pb(II) sensor CmtR(Sc) from Streptomyces coelicolor. *Biochemistry*, **2010**, 49, 6617-26	3.2	15
98	The CRR1 nutritional copper sensor in Chlamydomonas contains two distinct metal-responsive domains. *Plant Cell*, **2010**, 22, 4098-113	11.6	68
97	Ribosomal Frameshifting in Decoding Plant Viral RNAs. *Nucleic Acids and Molecular Biology*, **2010**, 193-220		11
96	Mouse hepatitis virus stem-loop 2 adopts a uYNMG(U)a-like tetraloop structure that is highly functionally tolerant of base substitutions. *Journal of Virology*, **2009**, 83, 12084-93	6.6	31
95	Solution structure of a paradigm ArsR family zinc sensor in the DNA-bound state. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 18177-82	11.5	54
94	Structure of Thermotoga maritima TM0439: implications for the mechanism of bacterial GntR transcription regulators with Zn2+-binding FCD domains. *Acta Crystallographica Section D: Biological Crystallography*, **2009**, 65, 356-65		28
93	Hydrogen peroxide sensing in Bacillus subtilis: it is all about the (metallo)regulator. *Molecular Microbiology*, **2009**, 73, 1-4	4.1	19
92	Unnatural amino acid substitution as a probe of the allosteric coupling pathway in a mycobacterial Cu(I) sensor. *Journal of the American Chemical Society*, **2009**, 131, 18044-5	16.4	50
91	Energetics of allosteric negative coupling in the zinc sensor S. aureus CzrA. *Journal of the American Chemical Society*, **2009**, 131, 17860-70	16.4	30
90	Spectroscopic studies of the AppA BLUF domain from Rhodobacter sphaeroides: addressing movement of tryptophan 104 in the signaling state. *Biochemistry*, **2009**, 48, 9969-79	3.2	40
89	Frameshifting RNA pseudoknots: structure and mechanism. *Virus Research*, **2009**, 139, 193-208	6.4	221
88	Coronavirus N protein N-terminal domain (NTD) specifically binds the transcriptional regulatory sequence (TRS) and melts TRS-cTRS RNA duplexes. *Journal of Molecular Biology*, **2009**, 394, 544-57	6.5	99
87	Coordination chemistry of bacterial metal transport and sensing. *Chemical Reviews*, **2009**, 109, 4644-81	68.1	450
86	Molecular insights into the metal selectivity of the copper(I)-sensing repressor CsoR from Bacillus subtilis. *Biochemistry*, **2009**, 48, 3325-34	3.2	90
85	Structural lability in stem-loop 1 drives a 5SUTR-3SUTR interaction in coronavirus replication. *Journal of Molecular Biology*, **2008**, 377, 790-803	6.5	69
84	Simulating RNA folding kinetics on approximated energy landscapes. *Journal of Molecular Biology*, **2008**, 381, 1055-67	6.5	48

83	A Cu(I)-sensing ArsR family metal sensor protein with a relaxed metal selectivity profile. *Biochemistry*, **2008**, 47, 10564-75	3.2	41
82	Copper sensing function of Drosophila metal-responsive transcription factor-1 is mediated by a tetranuclear Cu(I) cluster. *Nucleic Acids Research*, **2008**, 36, 3128-38	20.1	37
81	Multiple metal binding domains enhance the Zn(II) selectivity of the divalent metal ion transporter AztA. *Biochemistry*, **2007**, 46, 11057-68	3.2	18
80	CsoR is a novel Mycobacterium tuberculosis copper-sensing transcriptional regulator **2007**, 3, 60-8		250
79	Resonance assignments of the metal sensor CzrA in the apo-, Zn2- and DNA-bound (42 kDa) states. *Biomolecular NMR Assignments*, **2007**, 1, 99-101	0.7	13
78	A U-turn motif-containing stem-loop in the coronavirus 5Suntranslated region plays a functional role in replication. *Rna*, **2007**, 13, 763-80	5.8	56
77	Metal sensor proteins: natureS metalloregulated allosteric switches. *Dalton Transactions*, **2007**, 3107-20	4.3	165
76	Putative cis-acting stem-loops in the 5Suntranslated region of the severe acute respiratory syndrome coronavirus can substitute for their mouse hepatitis virus counterparts. *Journal of Virology*, **2006**, 80, 10600-14	6.6	37
75	The global structures of a wild-type and poorly functional plant luteoviral mRNA pseudoknot are essentially identical. *Rna*, **2006**, 12, 1959-69	5.8	29
74	Structural insights into homo- and heterotropic allosteric coupling in the zinc sensor S. aureus CzrA from covalently fused dimers. *Journal of the American Chemical Society*, **2006**, 128, 1937-47	16.4	17
73	Pairwise coupling analysis of helical junction hydrogen bonding interactions in luteoviral RNA pseudoknots. *Biochemistry*, **2006**, 45, 11162-71	3.2	10
72	Individual metal ligands play distinct functional roles in the zinc sensor Staphylococcus aureus CzrA. *Journal of Molecular Biology*, **2006**, 356, 1124-36	6.5	53
71	Kinetics of metal binding by the toxic metal-sensing transcriptional repressor Staphylococcus aureus pI258 CadC. *Journal of Inorganic Biochemistry*, **2006**, 100, 1024-34	4.2	18
70	Dissecting non-canonical interactions in frameshift-stimulating mRNA pseudoknots. *Journal of Biomolecular NMR*, **2006**, 35, 209-23	3	14
69	Stem-loop 1 in the 5SUTR of the SARS coronavirus can substitute for its counterpart in mouse hepatitis virus. *Advances in Experimental Medicine and Biology*, **2006**, 581, 105-8	3.6	8
68	A previously unrecognized UNR stem-loop structure in the coronavirus 5Suntranslated region plays a functional role in replication. *Advances in Experimental Medicine and Biology*, **2006**, 581, 25-30	3.6	4
67	Structural and functional characterization of Mycobacterium tuberculosis CmtR, a PbII/CdII-sensing SmtB/ArsR metalloregulatory repressor. *Biochemistry*, **2005**, 44, 8976-88	3.2	53
66	A zinc(II)/lead(II)/cadmium(II)-inducible operon from the Cyanobacterium anabaena is regulated by AztR, an alpha3N ArsR/SmtB metalloregulator. *Biochemistry*, **2005**, 44, 8673-83	3.2	53

65	Structural determinants of metal selectivity in prokaryotic metal-responsive transcriptional regulators. *BioMetals*, **2005**, 18, 413-28	3.4	115
64	A loop 2 cytidine-stem 1 minor groove interaction as a positive determinant for pseudoknot-stimulated -1 ribosomal frameshifting. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 12694-9	11.5	78
63	A novel cysteine cluster in human metal-responsive transcription factor 1 is required for heavy metal-induced transcriptional activation in vivo. *Journal of Biological Chemistry*, **2004**, 279, 4515-22	5.4	44
62	Dual functions of single-stranded DNA-binding protein in helicase loading at the bacteriophage T4 DNA replication fork. *Journal of Biological Chemistry*, **2004**, 279, 19035-45	5.4	35
61	A novel cyanobacterial SmtB/ArsR family repressor regulates the expression of a CPx-ATPase and a metallothionein in response to both Cu(I)/Ag(I) and Zn(II)/Cd(II). *Journal of Biological Chemistry*, **2004**, 279, 17810-8	5.4	43
60	Ratiometric pulsed alkylation mass spectrometry as a probe of thiolate reactivity in different metalloderivatives of Staphylococcus aureus pI258 CadC. *Biochemistry*, **2004**, 43, 3824-34	3.2	31
59	Metal Specificity of Metallosensors **2004**, 1-16		1
58	The SmtB/ArsR family of metalloregulatory transcriptional repressors: Structural insights into prokaryotic metal resistance. *FEMS Microbiology Reviews*, **2003**, 27, 131-43	15.1	293
57	Detection of scalar couplings involving 2Shydroxyl protons across hydrogen bonds in a frameshifting mRNA pseudoknot. *Journal of the American Chemical Society*, **2003**, 125, 4676-7	16.4	37
56	A metal-ligand-mediated intersubunit allosteric switch in related SmtB/ArsR zinc sensor proteins. *Journal of Molecular Biology*, **2003**, 333, 683-95	6.5	107
55	Structural elements of metal selectivity in metal sensor proteins. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 3713-8	11.5	105
54	Characterization of a metalloregulatory bismuth(III) site in Staphylococcus aureus pI258 CadC repressor. *Journal of Biological Inorganic Chemistry*, **2002**, 7, 551-9	3.7	29
53	A nickel-cobalt-sensing ArsR-SmtB family repressor. Contributions of cytosol and effector binding sites to metal selectivity. *Journal of Biological Chemistry*, **2002**, 277, 38441-8	5.4	124
52	Structural characterization of distinct alpha3N and alpha5 metal sites in the cyanobacterial zinc sensor SmtB. *Biochemistry*, **2002**, 41, 9765-75	3.2	53
51	Allosteric negative regulation of smt O/P binding of the zinc sensor, SmtB, by metal ions: a coupled equilibrium analysis. *Biochemistry*, **2002**, 41, 9776-86	3.2	54
50	Thermodynamic analysis of conserved loop-stem interactions in P1-P2 frameshifting RNA pseudoknots from plant Luteoviridae. *Biochemistry*, **2002**, 41, 10665-74	3.2	33
49	Elucidation of primary (alpha(3)N) and vestigial (alpha(5)) heavy metal-binding sites in Staphylococcus aureus pI258 CadC: evolutionary implications for metal ion selectivity of ArsR/SmtB metal sensor proteins. *Journal of Molecular Biology*, **2002**, 319, 685-701	6.5	96
48	Solution structure of a luteoviral P1-P2 frameshifting mRNA pseudoknot. *Journal of Molecular Biology*, **2002**, 322, 621-33	6.5	73

47	Conformational heterogeneity in the C-terminal zinc fingers of human MTF-1: an NMR and zinc-binding study. *Journal of Biological Chemistry*, **2001**, 276, 42322-32	5.4	29
46	Metal response element (MRE)-binding transcription factor-1 (MTF-1): structure, function, and regulation. *Antioxidants and Redox Signaling*, **2001**, 3, 577-96	8.4	129
45	Spectroscopic properties of the metalloregulatory Cd(II) and Pb(II) sites of S. aureus pI258 CadC. *Biochemistry*, **2001**, 40, 4426-36	3.2	83
44	Ratiometric pulsed alkylation/mass spectrometry of the cysteine pairs in individual zinc fingers of MRE-binding transcription factor-1 (MTF-1) as a probe of zinc chelate stability. *Biochemistry*, **2001**, 40, 15164-75	3.2	51
43	Spectroscopic characterization of Co(II)-, Ni(II)-, and Cd(II)-substituted wild-type and non-native retroviral-type zinc finger peptides. *Journal of Biological Inorganic Chemistry*, **2000**, 5, 93-101	3.7	59
42	Contribution of the intercalated adenosine at the helical junction to the stability of the gag-pro frameshifting pseudoknot from mouse mammary tumor virus. *Rna*, **2000**, 6, 409-21	5.8	36
41	Mutations in the N-terminal cooperativity domain of gene 32 protein alter properties of the T4 DNA replication and recombination systems. *Journal of Biological Chemistry*, **2000**, 275, 31496-504	5.4	10
40	Energetics of a strongly pH dependent RNA tertiary structure in a frameshifting pseudoknot. *Journal of Molecular Biology*, **2000**, 296, 659-71	6.5	77
39	Structure, stability and function of RNA pseudoknots involved in stimulating ribosomal frameshifting. *Journal of Molecular Biology*, **2000**, 298, 167-85	6.5	189
38	The zinc metalloregulatory protein Synechococcus PCC7942 SmtB binds a single zinc ion per monomer with high affinity in a tetrahedral coordination geometry. *Biochemistry*, **2000**, 39, 11818-29	3.2	109
37	Thermodynamics of stabilization of RNA pseudoknots by cobalt(III) hexaammine. *Biopolymers*, **1999** , 50, 443-58	2.2	16
36	MRE-Binding transcription factor-1: weak zinc-binding finger domains 5 and 6 modulate the structure, affinity, and specificity of the metal-response element complex. *Biochemistry*, **1999**, 38, 12915-25	3.2	96
35	Equilibrium unfolding pathway of an H-type RNA pseudoknot which promotes programmed -1 ribosomal frameshifting. *Journal of Molecular Biology*, **1999**, 289, 1283-99	6.5	32
34	Solution structure and backbone dynamics of Mason-Pfizer monkey virus (MPMV) nucleocapsid protein. *Protein Science*, **1998**, 7, 2265-80	6.3	29
33	Structural and functional heterogeneity among the zinc fingers of human MRE-binding transcription factor-1. *Biochemistry*, **1998**, 37, 11152-61	3.2	71
32	Equilibrium unfolding (folding) pathway of a model H-type pseudoknotted RNA: the role of magnesium ions in stability. *Biochemistry*, **1998**, 37, 16116-29	3.2	42
31	Mutational analysis of domain II beta of bacteriophage Mu transposase: domains II alpha and II beta belong to different catalytic complementation groups. *Journal of Molecular Biology*, **1998**, 275, 221-32	6.5	22
30	Non-nearest neighbor effects on the thermodynamics of unfolding of a model mRNA pseudoknot. *Journal of Molecular Biology*, **1998**, 279, 545-64	6.5	46

29	The RNA molecule CsrB binds to the global regulatory protein CsrA and antagonizes its activity in Escherichia coli. *Journal of Biological Chemistry*, **1997**, 272, 17502-10	5.4	326
28	Zinc site redesign in T4 gene 32 protein: structure and stability of cobalt(II) complexes formed by wild-type and metal ligand substitution mutants. *Biochemistry*, **1997**, 36, 730-42	3.2	34
27	Base-pairings within the RNA pseudoknot associated with the simian retrovirus-1 gag-pro frameshift site. *Journal of Molecular Biology*, **1997**, 270, 464-70	6.5	43
26	Structure of the autoregulatory pseudoknot within the gene 32 messenger RNA of bacteriophages T2 and T6: a model for a possible family of structurally related RNA pseudoknots. *Biochemistry*, **1996**, 35, 4187-98	3.2	56
25	The N-terminal B-domain of T4 gene 32 protein modulates the lifetime of cooperatively bound Gp32-ss nucleic acid complexes. *Biochemistry*, **1996**, 35, 14395-404	3.2	6
24	Thermodynamics of folding of the RNA pseudoknot of the T4 gene 32 autoregulatory messenger RNA. *Biochemistry*, **1996**, 35, 4176-86	3.2	35
23	Characterization of a cooperativity domain mutant Lys3 --> Ala (K3A) T4 gene 32 protein. *Journal of Biological Chemistry*, **1996**, 271, 27623-9	5.4	13
22	Interaction of retroviral nucleocapsid proteins with transfer RNAPhe: a lead ribozyme and 1H NMR study. *Nucleic Acids Research*, **1996**, 24, 3568-75	20.1	14
21	X-ray and Visible Absorption Spectroscopy of Wild-Type and Mutant T4 Gene 32 Proteins: His64, not His81, Is the Non-Thiolate Zinc Ligand. *Journal of the American Chemical Society*, **1995**, 117, 9437-9440	16.4	15
20	Recombinant HIV-1 nucleocapsid protein accelerates HIV-1 reverse transcriptase catalyzed DNA strand transfer reactions and modulates RNase H activity. *Biochemistry*, **1994**, 33, 13817-23	3.2	167
19	Effects of substitution of proposed Zn(II) ligand His81 or His64 in phage T4 gene 32 protein: spectroscopic evidence for a novel zinc coordination complex. *Biochemistry*, **1994**, 33, 8139-48	3.2	8
18	Energetics of arginine-4 substitution mutants in the N-terminal cooperativity domain of T4 gene 32 protein. *Biochemistry*, **1993**, 32, 11235-46	3.2	22
17	Retroviral nucleocapsid proteins possess potent nucleic acid strand renaturation activity. *Protein Science*, **1993**, 2, 231-43	6.3	77
16	Zn(II) coordination domain mutants of T4 gene 32 protein. *Biochemistry*, **1992**, 31, 765-74	3.2	29
15	Site-specific 1,N6-ethenoadenylated single-stranded oligonucleotides as structural probes for the T4 gene 32 protein-ssDNA complex. *Biochemistry*, **1991**, 30, 8230-42	3.2	18
14	NMR spectroscopy of 113Cd(II)-substituted gene 32 protein. *Biochemistry*, **1989**, 28, 2410-8	3.2	34
13	1H NMR studies of T4 gene 32 protein: effects of zinc removal and reconstitution. *Biochemistry*, **1989**, 28, 8828-32	3.2	20
12	Thermal denaturation of T4 gene 32 protein: effects of zinc removal and substitution. *Biochemistry*, **1988**, 27, 5240-5	3.2	30

11	Calcium effects on calmodulin lysine reactivities. *Archives of Biochemistry and Biophysics*, **1987**, 252, 136-44	4.1	27
10	The function of zinc in gene 32 protein from T4. *Biochemistry*, **1987**, 26, 5251-9	3.2	54
9	Gene 32 protein, the single-stranded DNA binding protein from bacteriophage T4, is a zinc metalloprotein. *Proceedings of the National Academy of Sciences of the United States of America*, **1986**, 83, 8452-6	11.5	137
8	Zinc metalloproteins involved in replication and transcription. *Journal of Inorganic Biochemistry*, **1986**, 28, 155-69	4.2	20
7	Structural and functional differences between the two intrinsic zinc ions of Escherichia coli RNA polymerase. *Biochemistry*, **1986**, 25, 4969-78	3.2	38
6	Functional properties of covalent beta-endorphin peptide/calmodulin complexes. Chlorpromazine binding and phosphodiesterase activation. *Biochemistry*, **1985**, 24, 1203-11	3.2	32
5	Mechanism-based inhibitors of dopamine beta-hydroxylase: inhibition by 2-bromo-3-(p-hydroxyphenyl)-1-propene. *Biochemistry*, **1984**, 23, 3590-8	3.2	21
4	Identification of beta-endorphin residues 14-25 as a region involved in the inhibition of calmodulin-stimulated phosphodiesterase activity. *Biochemistry*, **1983**, 22, 5584-91	3.2	37
3	des-(1-13) human beta-endorphin interacts with calmodulin. *Peptides*, **1983**, 4, 191-4	3.8	12
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