Carol A Fierke

List of Publications by Year
in descending order

173 papers	10,320 citations	26610 56 h-index	42364 92 g-index
178 all docs	178 docs citations	178 times ranked	8612 citing authors

#	Article	IF	Citations
1	Function and Mechanism of Zinc Metalloenzymes. Journal of Nutrition, 2000, 130, 1437S-1446S.	1.3	828
2	Carbonic Anhydrase:â€‰ Evolution of the Zinc Binding Site by Nature and by Design. Accounts of Chemical Research, 1996, 29, 331-339.	7.6	471
3	Balanced biosynthesis of major membrane components through regulated degradation of the committed enzyme of lipid A biosynthesis by the AAA protease FtsH (HflB) in Escherichia coli. Molecular Microbiology, 1999, 31, 833-844.	1.2	234
4	Measuring Picomolar Intracellular Exchangeable Zinc in PC-12 Cells Using a Ratiometric Fluorescence Biosensor. ACS Chemical Biology, 2006, 1, 103-111.	1.6	223
5	Hydrogen bond network in the metal binding site of carbonic anhydrase enhances zinc affinity and catalytic efficiency. Journal of the American Chemical Society, 1995, 117, 6831-6837.	6.6	182
6	Structural Studies of Human Histone Deacetylase 8 and Its Site-Specific Variants Complexed with Substrate and Inhibitors[,]. Biochemistry, 2008, 47, 13554-13563.	1.2	180
7	Zinc hydrolases: the mechanisms of zinc-dependent deacetylases. Archives of Biochemistry and Biophysics, 2005, 433, 71-84.	1.4	169
8	Antibacterial Agents That Target Lipid A Biosynthesis in Gram-negative Bacteria. Journal of Biological Chemistry, 2000, 275, 11002-11009.	1.6	167
9	Crystal structure of LpxC, a zinc-dependent deacetylase essential for endotoxin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8146-8150.	3.3	162
10	Ribonuclease P Protein Structure: Evolutionary Origins in the Translational Apparatus. Science, 1998, 280, 752-755.	6.0	159
11	Protein Component ofBacillus subtilisRNase P Specifically Enhances the Affinity for Precursor-tRNAAspÂâ€. Biochemistry, 1998, 37, 2393-2400.	1.2	158
12	A Kinetic Mechanism for Cleavage of Precursor tRNAAsp Catalyzed by the RNA Component of Bacillus subtilis Ribonuclease P. Biochemistry, 1994, 33, 10294-10304.	1.2	149
13	Catalytic Activity and Inhibition of Human Histone Deacetylase 8 Is Dependent on the Identity of the Active Site Metal Ionâ€. Biochemistry, 2006, 45, 6170-6178.	1.2	138
14	Contribution of Fluorine to Proteinâˆ'Ligand Affinity in the Binding of Fluoroaromatic Inhibitors to Carbonic Anhydrase II. Journal of the American Chemical Society, 2000, 122, 12125-12134.	6.6	136
15	Functional Characterization of Human Carbonic Anhydrase II Variants with Altered Zinc Binding Sites. Biochemistry, 1994, 33, 15233-15240.	1.2	134
16	UDP-3-O-(R-3-Hydroxymyristoyl)-N-acetylglucosamine Deacetylase ofEscherichiacoliIs a Zinc Metalloenzymeâ€. Biochemistry, 1999, 38, 1902-1911.	1.2	132
17	The Protein Component of Bacillus subtilis Ribonuclease P Increases Catalytic Efficiency by Enhancing Interactions with the 5â€˜ Leader Sequence of Pre-tRNAAsp. Biochemistry, 1998, 37, 9409-9416.	1.2	129
18	Colorimetric and Fluorimetric Assays to Quantitate Micromolar Concentrations of Transition Metals. Analytical Biochemistry, 2000, 284, 307-315.	1.1	129

#	Article	IF	Citations
19	Eukaryotic Ribonuclease P: A Plurality of Ribonucleoprotein Enzymes. Annual Review of Biochemistry, 2002, 71, 165-189.	5.0	127
20	Magnesium Ions Are Required byBacillus subtilisRibonuclease P RNA for both Binding and Cleaving Precursor tRNAAspâ€. Biochemistry, 1996, 35, 10493-10505.	1.2	121
21	Metal Binding Specificity in Carbonic Anhydrase Is Influenced by Conserved Hydrophobic Core Residues. Biochemistry, 1999, 38, 9054-9062.	1.2	113
22	Mitochondrial ribonuclease P structure provides insight into the evolution of catalytic strategies for precursor-tRNA 5â€² processing. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16149-16154.	3.3	110
23	Reversal of the Hydrogen Bond to Zinc Ligand Histidine-119 Dramatically Diminishes Catalysis and Enhances Metal Equilibration Kinetics in Carbonic Anhydrase IIâ€. Biochemistry, 1996, 35, 3439-3446.	1.2	108
24	Inhibition of the Antibacterial Target UDP-(3-O-acyl)-N-acetylglucosamine Deacetylase (LpxC):Â Isoxazoline Zinc Amidase Inhibitors Bearing Diverse Metal Binding Groups. Journal of Medicinal Chemistry, 2002, 45, 4359-4370.	2.9	104
25	H-Ras Peptide and Protein Substrates Bind Protein Farnesyltransferase as an Ionized Thiolate. Biochemistry, 1998, 37, 15555-15562.	1.2	99
26	Histidine â†' Carboxamide Ligand Substitutions in the Zinc Binding Site of Carbonic Anhydrase II Alter Metal Coordination Geometry but Retain Catalytic Activityâ€. Biochemistry, 1997, 36, 15780-15791.	1.2	96
27	Real-Time Determination of Picomolar Free Cu(II) in Seawater Using a Fluorescence-Based Fiber Optic Biosensor. Analytical Chemistry, 2003, 75, 6807-6812.	3.2	95
28	ZntR-mediated transcription of zntA responds to nanomolar intracellular free zinc. Journal of Inorganic Biochemistry, 2012, 111, 173-181.	1.5	95
29	A Quick Route to Multiple Highly Potent SARSâ€CoVâ€2 Main Protease Inhibitors**. ChemMedChem, 2021, 16, 942-948.	1.6	92
30	Linked Folding and Anion Binding of theBacillus subtilisRibonuclease P Proteinâ€. Biochemistry, 2001, 40, 2777-2789.	1.2	87
31	The Affinity of Magnesium Binding Sites in theBacillus subtilisRNase PÂ·Pre-tRNA Complex Is Enhanced by the Protein Subunitâ€. Biochemistry, 2002, 41, 9545-9558.	1.2	87
32	Determination of Picomolar Concentrations of Metal Ions Using Fluorescence Anisotropy:Â Biosensing with a â€œReagentlessâ€•Enzyme Transducer. Analytical Chemistry, 1998, 70, 4717-4723.	3.2	86
33	Fluorescence microscopy of stimulated Zn(II) release from organotypic cultures of mammalian hippocampus using a carbonic anhydrase-based biosensor system. Journal of Neuroscience Methods, 2000, 96, 35-45.	1.3	85
34	Mechanistic Studies of Rat Protein Farnesyltransferase Indicate an Associative Transition State. Biochemistry, 2000, 39, 2593-2602.	1.2	85
35	Fluorescence-based biosensing of zinc using carbonic anhydrase. BioMetals, 2001, 14, 205-222.	1.8	81
36	Structural basis of inhibitor affinity to variants of human carbonic anhydrase II. Biochemistry, 1995, 34, 3981-3989.	1.2	77

#	Article	IF	Citations
37	Engineering the zinc binding site of human carbonic anhydrase II: Structure of the His-94.fwdarw.Cys apoenzyme in a new crystalline form. Biochemistry, 1993, 32, 1510-1518.	1.2	72
38	Activation and Inhibition of Histone Deacetylase 8 by Monovalent Cations. Journal of Biological Chemistry, 2010, 285, 6036-6043.	1.6	72
39	An Unbiased Approach To Identify Endogenous Substrates of â€œHistoneâ€•Deacetylase 8. ACS Chemical Biology, 2014, 9, 2210-2216.	1.6	72
40	Thermodynamics of Metal Ion Binding. 1. Metal Ion Binding by Wild-Type Carbonic Anhydraseâ€. Biochemistry, 2001, 40, 5338-5344.	1.2	71
41	Roles of protein subunits in RNA-protein complexes: Lessons from ribonuclease P. Biopolymers, 2004, 73, 79-89.	1.2	71
42	Structures of Metal-Substituted Human Histone Deacetylase 8 Provide Mechanistic Inferences on Biological Function,. Biochemistry, 2010, 49, 5048-5056.	1.2	71
43	Ribonuclease P: a ribonucleoprotein enzyme. Current Opinion in Chemical Biology, 2000, 4, 553-558.	2.8	70
44	Directed Evolution of a New Catalytic Site in 2-Keto-3-Deoxy-6-Phosphogluconate Aldolase from Escherichia coli. Structure, 2001, 9, 1-9.	1.6	70
45	HDAC8 substrates: Histones and beyond. Biopolymers, 2013, 99, 112-126.	1.2	70
46	Probing Determinants of the Metal Ion Selectivity in Carbonic Anhydrase Using Mutagenesisâ€. Biochemistry, 2004, 43, 3979-3986.	1.2	69
47	Engineering a cysteine ligand into the zinc binding site of human carbonic anhydrase II. Biochemistry, 1993, 32, 9896-9900.	1.2	68
48	Recognition of a Pre-tRNA Substrate by the Bacillus subtilis RNase P Holoenzyme. Biochemistry, 1998, 37, 15466-15473.	1.2	68
49	Structural Characterization of the Zinc Site in Protein Farnesyltransferase. Journal of the American Chemical Society, 2003, 125, 9962-9969.	6.6	67
50	Cu+- and Cu2+-sensitive PEBBLE fluorescent nanosensors using DsRed as the recognition element. Sensors and Actuators B: Chemical, 2006, 113, 760-767.	4.0	65
51	Influence of a curcumin derivative on hIAPP aggregation in the absence and presence of lipid membranes. Chemical Communications, 2016, 52, 942-945.	2.2	63
52	Expanded Dynamic Range of Free Zinc Ion Determination by Fluorescence Anisotropy. Analytical Chemistry, 1998, 70, 1749-1754.	3.2	62
53	Role of Metals in the Reaction Catalyzed by Protein Farnesyltransferase. Biochemistry, 2000, 39, 12398-12405.	1.2	62
54	UDP-3-O-((R)-3-hydroxymyristoyl)-N-acetylglucosamine Deacetylase Functions through a General Acid-Base Catalyst Pair Mechanism. Journal of Biological Chemistry, 2005, 280, 16969-16978.	1.6	62

#	Article	IF	Citations
55	DsRed as a highly sensitive, selective, and reversible fluorescence-based biosensor for both Cu+ and Cu2+ ions. Biosensors and Bioelectronics, 2006, 21, 1302-1308.	5.3	62
56	The Diversity of Ribonuclease P: Protein and RNA Catalysts with Analogous Biological Functions. Biomolecules, 2016, 6, 27.	1.8	62
57	General Baseâ€"General Acid Catalysis in Human Histone Deacetylase 8. Biochemistry, 2016, 55, 820-832.	1.2	61
58	Identification of Novel Peptide Substrates for Protein Farnesyltransferase Reveals Two Substrate Classes with Distinct Sequence Selectivities. Journal of Molecular Biology, 2010, 395, 176-190.	2.0	60
59	Ligand Concentration Regulates the Pathways of Coupled Protein Folding and Binding. Journal of the American Chemical Society, 2014, 136, 822-825.	6.6	60
60	Selection of Carbonic Anhydrase Variants Displayed on Phage. Journal of Biological Chemistry, 1997, 272, 20364-20372.	1.6	59
61	The 5â€˜ Leader of Precursor tRNAAspBound to theBacillus subtilisRNase P Holoenzyme Has an Extended Conformationâ€. Biochemistry, 2005, 44, 16130-16139.	1.2	59
62	Identification of a Novel Class of Farnesylation Targets by Structure-Based Modeling of Binding Specificity. PLoS Computational Biology, 2011, 7, e1002170.	1.5	58
63	Understanding protein palmitoylation: Biological significance and enzymology. Science China Chemistry, 2011, 54, 1888-1897.	4.2	57
64	Quantitative imaging of mitochondrial and cytosolic free zinc levels in an in vitro model of ischemia/reperfusion. Journal of Bioenergetics and Biomembranes, 2012, 44, 253-263.	1.0	57
65	Site-Directed Mutagenesis of the Bacterial Metalloamidase UDP-(3-O-acyl)-N-acetylglucosamine Deacetylase (LpxC). Identification of the Zinc Binding Siteâ€. Biochemistry, 2001, 40, 514-523.	1.2	56
66	Photoaffinity Analogues of Farnesyl Pyrophosphate Transferable by Protein Farnesyl Transferase. Journal of the American Chemical Society, 2002, 124, 8206-8219.	6.6	56
67	Kinetic Studies of Protein Farnesyltransferase Mutants Establish Active Substrate Conformationâ€. Biochemistry, 2003, 42, 9741-9748.	1.2	55
68	The Bacillus subtilis RNase P holoenzyme contains two RNase P RNA and two RNase P protein subunits. Rna, 2001, 7, 233-241.	1.6	54
69	Fiber optic biosensor for Co(II) and Cu(II) based on fluorescence energy transfer with an enzyme transducer. Biosensors and Bioelectronics, 1996, 11, 557-564.	5.3	53
70	Mechanism of the Class I KDPG aldolase. Bioorganic and Medicinal Chemistry, 2006, 14, 3002-3010.	1.4	53
71	Mechanistic Inferences from the Binding of Ligands to LpxC, a Metal-Dependent Deacetylaseâ€,â€¡. Biochemistry, 2006, 45, 7940-7948.	1.2	53
72	Structural Influence of Hydrophobic Core Residues on Metal Binding and Specificity in Carbonic Anhydrase IIâ€,â€¡. Biochemistry, 2000, 39, 13687-13694.	1.2	50

#	Article	IF	Citations
73	Specific phosphorothioate substitutions probe the active site of Bacillus subtilis ribonuclease P. Rna, 2002, 8, 933-947.	1.6	50
74	Genetically encoded ratiometric biosensors to measure intracellular exchangeable zinc in Escherichia coli. Journal of Biomedical Optics, 2011, 16, 087011.	1.4	50
75	Self-Assembly of a Nine-Residue Amyloid-Forming Peptide Fragment of SARS Corona Virus E-Protein: Mechanism of Self Aggregation and Amyloid-Inhibition of hIAPP. Biochemistry, 2015, 54, 2249-2261.	1.2	50
76	Redesigning the zinc binding site of human carbonic anhydrase II: structure of a His2Asp-Zn2+ metal coordination polyhedron. Journal of the American Chemical Society, 1993, 115, 12581-12582.	6.6	47
77	Mutations in RABL3 alter KRAS prenylation and are associated with hereditary pancreatic cancer. Nature Genetics, 2019, 51, 1308-1314.	9.4	47
78	Peptide Specificity of Protein Prenyltransferases Is Determined Mainly by Reactivity Rather than Binding Affinityâ€. Biochemistry, 2005, 44, 15314-15324.	1.2	46
79	Carbonic anhydrase II-based metal ion sensing: Advances and new perspectives. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 393-403.	1.1	46
80	Conformational change in the <i>Bacillus subtilis</i> RNase P holoenzymeâ€"pre-tRNA complex enhances substrate affinity and limits cleavage rate. Rna, 2009, 15, 1565-1577.	1.6	45
81	Recent advances in protein prenyltransferases: substrate identification, regulation, and disease interventions. Current Opinion in Chemical Biology, 2012, 16, 544-552.	2.8	44
82	Selectivity and Sensitivity of Fluorescence Lifetime-Based Metal Ion Biosensing Using a Carbonic Anhydrase Transducer. Analytical Biochemistry, 1999, 267, 185-195.	1.1	43
83	Structural plasticity and Mg2+ binding properties of RNase P P4 from combined analysis of NMR residual dipolar couplings and motionally decoupled spin relaxation. Rna, 2006, 13, 251-266.	1.6	43
84	Thermodynamics of Metal Ion Binding. 2. Metal Ion Binding by Carbonic Anhydrase Variantsâ€. Biochemistry, 2001, 40, 5345-5351.	1.2	42
85	Excitation ratiometric fluorescent biosensor for zinc ion at picomolar levels. Journal of Biomedical Optics, 2002, 7, 555.	1.4	42
86	Structure-Based Identification of HDAC8 Non-histone Substrates. Structure, 2016, 24, 458-468.	1.6	42
87	Combinatorial Modulation of Protein Prenylation. ACS Chemical Biology, 2007, 2, 385-389.	1.6	41
88	Importance of RNAâ€protein interactions in bacterial ribonuclease P structure and catalysis. Biopolymers, 2007, 87, 329-338.	1.2	40
89	Effects of 5â€˜ Leader and 3â€˜ Trailer Structures on Pre-tRNA Processing by Nuclear RNase P. Biochemistry, 2000, 39, 9909-9916.	1.2	38
90	Positively Charged Side Chains in Protein Farnesyltransferase Enhance Catalysis by Stabilizing the Formation of the Diphosphate Leaving Groupâ€. Biochemistry, 2004, 43, 5256-5265.	1.2	38

#	Article	IF	Citations
91	Context-Dependent Substrate Recognition by Protein Farnesyltransferase. Biochemistry, 2009, 48, 1691-1701.	1.2	38
92	Active Site Metal Ion in UDP-3-O-((R)-3-Hydroxymyristoyl)-N-acetylglucosamine Deacetylase (LpxC) Switches between Fe(II) and Zn(II) Depending on Cellular Conditions*. Journal of Biological Chemistry, 2010, 285, 33788-33796.	1.6	37
93	Proteinâ€“Precursor tRNA Contact Leads to Sequence-Specific Recognition of 5â€² Leaders by Bacterial Ribonuclease P. Journal of Molecular Biology, 2010, 396, 195-208.	2.0	37
94	EXAFS studies of the zinc sites of UDP-(3-O-acyl)-N-acetylglucosamine deacetylase (LpxC). Journal of Inorganic Biochemistry, 2003, 94, 78-85.	1.5	36
95	On the function of the internal cavity of histone deacetylase protein 8: R37 is a crucial residue for catalysis. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 2129-2132.	1.0	36
96	RNase P enzymes. RNA Biology, 2013, 10, 909-914.	1.5	36
97	Dual-Mode HDAC Prodrug for Covalent Modification and Subsequent Inhibitor Release. Journal of Medicinal Chemistry, 2015, 58, 4812-4821.	2.9	36
98	A real-time fluorescence polarization activity assay to screen for inhibitors of bacterial ribonuclease P. Nucleic Acids Research, 2014, 42, e159-e159.	6.5	35
99	Fluorescence lifetime imaging of physiological free Cu(ii) levels in live cells with a Cu(ii)-selective carbonic anhydrase-based biosensor. Metallomics, 2014, 6, 1034.	1.0	35
100	Mechanistic Studies Reveal Similar Catalytic Strategies for Phosphodiester Bond Hydrolysis by Protein-only and RNA-dependent Ribonuclease P. Journal of Biological Chemistry, 2015, 290, 13454-13464.	1.6	35
101	Cloning, isolation and characterization of the Thermotoga maritima KDPG aldolase. Bioorganic and Medicinal Chemistry, 2002, 10, 545-550.	1.4	34
102	Dissecting allosteric effects of activatorâ€“coactivator complexes using a covalent small molecule ligand. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12061-12066.	3.3	34
103	Catalytic Mechanism and Molecular Recognition ofE.coliUDP-3-O-(R-3-Hydroxymyristoyl)-N-acetylglucosamine Deacetylase Probed by Mutagenesisâ€. Biochemistry, 2006, 45, 15240-15248.	1.2	33
104	Mutagenesis of the phosphateâ€binding pocket of KDPG aldolase enhances selectivity for hydrophobic substrates. Protein Science, 2007, 16, 2368-2377.	3.1	33
105	Probing the architecture of the B. subtilis RNase P holoenzyme active site by cross-linking and affinity cleavage. Rna, 2007, 13, 521-535.	1.6	32
106	Chapter 14 Determination of Zinc Using Carbonic Anhydrase-Based Fluorescence Biosensors. Methods in Enzymology, 2008, 450, 287-309.	0.4	32
107	Activation of<i>Escherichia coli</i>UDP-3-<i>O</i>-[(<i>R</i>)-3-hydroxymyristoyl]-<i>N</i>-acetylglucosamine Deacetylase by Fe²⁺Yields a More Efficient Enzyme with Altered Ligand Affinity. Biochemistry, 2010, 49, 2246-2255.	1.2	32
108	NMR and XAS reveal an inner-sphere metal binding site in the P4 helix of the metallo-ribozyme ribonuclease P. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2479-2484.	3.3	31

#	Article	IF	Citations
109	Nuclear Protein-Only Ribonuclease P2 Structure and Biochemical Characterization Provide Insight into the Conserved Properties of tRNA 5â€² End Processing Enzymes. Journal of Molecular Biology, 2016, 428, 26-40.	2.0	31
110	Metal-dependent Deacetylases: Cancer and Epigenetic Regulators. ACS Chemical Biology, 2016, 11, 706-716.	1.6	31
111	HDAC8 substrate selectivity is determined by long- and short-range interactions leading to enhanced reactivity for full-length histone substrates compared with peptides. Journal of Biological Chemistry, 2017, 292, 21568-21577.	1.6	30
112	Unexpected specificity within dynamic transcriptional proteinâ€"protein complexes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27346-27353.	3.3	30
113	A bacterial selection for the directed evolution of pyruvate aldolases. Bioorganic and Medicinal Chemistry, 2004, 12, 4067-4074.	1.4	29
114	Measurement of the Î±-Secondary Kinetic Isotope Effect for the Reaction Catalyzed by Mammalian Protein Farnesyltransferase. Journal of the American Chemical Society, 2006, 128, 15086-15087.	6.6	29
115	Pre-tRNA turnover catalyzed by the yeast nuclear RNase P holoenzyme is limited by product release. Rna, 2009, 15, 224-234.	1.6	28
116	A Divalent Cation Stabilizes the Active Conformation of the B. subtilis RNase PÂ·Pre-tRNA Complex: A Role for an Inner-Sphere Metal Ion in RNase P. Journal of Molecular Biology, 2010, 400, 38-51.	2.0	28
117	High-Level Expression of Rat Farnesyl:Protein Transferase inEscherichia colias a Translationally Coupled Heterodimer. Protein Expression and Purification, 1998, 14, 395-402.	0.6	27
118	A continuous fluorescent assay for protein prenyltransferases measuring diphosphate release. Analytical Biochemistry, 2005, 345, 302-311.	1.1	26
119	Upstream Polybasic Region in Peptides Enhances Dual Specificity for Prenylation by Both Farnesyltransferase and Geranylgeranyltransferase Type Iâ€. Biochemistry, 2005, 44, 15325-15333.	1.2	26
120	Synthesis and screening of a CaaL peptide library versus FTase reveals a surprising number of substrates. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 767-770.	1.0	26
121	Differential substrate recognition by isozymes of plant protein-only Ribonuclease P. Rna, 2016, 22, 782-792.	1.6	26
122	Pentatricopeptide repeats of protein-only RNase P use a distinct mode to recognize conserved bases and structural elements of pre-tRNA. Nucleic Acids Research, 2020, 48, 11815-11826.	6.5	26
123	Ionic interactions between PRNA and P protein in Bacillus subtilis RNase P characterized using a magnetocapture-based assay. Rna, 2004, 10, 1595-1608.	1.6	25
124	Interplay of Isoprenoid and Peptide Substrate Specificity in Protein Farnesyltransferaseâ€. Biochemistry, 2005, 44, 11214-11223.	1.2	25
125	HDAC8 Substrates Identified by Genetically Encoded Active Site Photocrosslinking. Journal of the American Chemical Society, 2017, 139, 16222-16227.	6.6	25
126	Structural Interaction of Apolipoprotein A-I Mimetic Peptide with Amyloid-Î² Generates Toxic Hetero-oligomers. Journal of Molecular Biology, 2020, 432, 1020-1034.	2.0	25

#	Article	IF	Citations
127	The Tumor-suppressive Small GTPase DiRas1 Binds the Noncanonical Guanine Nucleotide Exchange Factor SmgGDS and Antagonizes SmgGDS Interactions with Oncogenic Small GTPases. Journal of Biological Chemistry, 2016, 291, 6534-6545.	1.6	24
128	Lysine Î²311 of Protein Geranylgeranyltransferase Type I Partially Replaces Magnesium. Journal of Biological Chemistry, 2004, 279, 30546-30553.	1.6	23
129	Discovering RNA-Protein Interactome by Using Chemical Context Profiling of the RNA-Protein Interface. Cell Reports, 2013, 3, 1703-1713.	2.9	23
130	Conservation of coactivator engagement mechanism enables small-molecule allosteric modulators. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8960-8965.	3.3	23
131	Characterization and crystal structure of Escherichia coli KDPGal aldolase. Bioorganic and Medicinal Chemistry, 2008, 16, 710-720.	1.4	22
132	Improving upon Nature: Active Site Remodeling Produces Highly Efficient Aldolase Activity toward Hydrophobic Electrophilic Substrates. Biochemistry, 2012, 51, 1658-1668.	1.2	22
133	Evaluation of protein farnesyltransferase substrate specificity using synthetic peptide libraries. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 5548-5551.	1.0	21
134	Directed evolution of a pyruvate aldolase to recognize a long chain acyl substrate. Bioorganic and Medicinal Chemistry, 2011, 19, 6447-6453.	1.4	21
135	Interplay between substrate recognition, 5â€² end tRNA processing and methylation activity of human mitochondrial RNase P. Rna, 2019, 25, 1646-1660.	1.6	21
136	Residue Ionization in LpxC Directly Observed by ⁶⁷Zn NMR Spectroscopy. Journal of the American Chemical Society, 2008, 130, 12671-12679.	6.6	20
137	An enzyme-coupled assay measuring acetate production for profiling histone deacetylase specificity. Analytical Biochemistry, 2014, 456, 61-69.	1.1	19
138	Binding and cleavage of unstructured RNA by nuclear RNase P. Rna, 2011, 17, 1429-1440.	1.6	17
139	Molecular recognition of pre-tRNA by <i>Arabidopsis</i> protein-only Ribonuclease P. Rna, 2017, 23, 1860-1873.	1.6	16
140	Transient-state Kinetic Analysis of Transcriptional ActivatorÂ·DNA Complexes Interacting with a Key Coactivator. Journal of Biological Chemistry, 2011, 286, 16238-16245.	1.6	15
141	Expansion of Protein Farnesyltransferase Specificity Using â€œTunableâ€• Active Site Interactions. Journal of Biological Chemistry, 2012, 287, 38090-38100.	1.6	15
142	Insights into the Mechanistic Dichotomy of the Protein Farnesyltransferase Peptide Substrates CVIM and CVLS. Journal of the American Chemical Society, 2012, 134, 820-823.	6.6	15
143	Kinetics and thermodynamics of metalâ€binding to histone deacetylase 8. Protein Science, 2015, 24, 354-365.	3.1	15
144	Farnesyl Diphosphate Analogues with Aryl Moieties Are Efficient Alternate Substrates for Protein Farnesyltransferase. Biochemistry, 2012, 51, 8307-8319.	1.2	14

#	Article	IF	Citations
145	Inner-Sphere Coordination of Divalent Metal Ion with Nucleobase in Catalytic RNA. Journal of the American Chemical Society, 2017, 139, 17457-17463.	6.6	14
146	Getting a handle on protein prenylation. Nature Chemical Biology, 2009, 5, 197-198.	3.9	13
147	The chaperone SmgGDS-607 has a dual role, both activating and inhibiting farnesylation of small GTPases. Journal of Biological Chemistry, 2019, 294, 11793-11804.	1.6	13
148	The RNR motif of <i>B. subtilis</i> RNase P protein interacts with both PRNA and pre-tRNA to stabilize an active conformer. Rna, 2011, 17, 1225-1235.	1.6	12
149	Fibroblasts From Long-Lived Rodent Species Exclude Cadmium. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2015, 70, 10-19.	1.7	12
150	Analogs of farnesyl diphosphate alter CaaX substrate specificity and reactions rates of protein farnesyltransferase. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1333-1336.	1.0	12
151	Conversion of Tyr361Î² to Leu in Mammalian Protein Farnesyltransferase Impairs Product Release but Not Substrate Recognitionâ€. Biochemistry, 2000, 39, 13651-13659.	1.2	11
152	Active Site Metal Identity Alters Histone Deacetylase 8 Substrate Selectivity: A Potential Novel Regulatory Mechanism. Biochemistry, 2017, 56, 5663-5670.	1.2	11
153	Exploration of GGTase-I substrate requirements. Part 2: Synthesis and biochemical analysis of novel saturated geranylgeranyl diphosphate analogs. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 3503-3507.	1.0	10
154	SmgGDS-607 Regulation of RhoA GTPase Prenylation Is Nucleotide-Dependent. Biochemistry, 2018, 57, 4289-4298.	1.2	10
155	Disease-associated mutations in mitochondrial precursor tRNAs affect binding, m1R9 methylation, and tRNA processing by mtRNase P. Rna, 2021, 27, 420-432.	1.6	9
156	Phosphorylation of Histone Deacetylase 8: Structural and Mechanistic Analysis of the Phosphomimetic S39E Mutant. Biochemistry, 2019, 58, 4480-4493.	1.2	8
157	Structure-based prediction of HDAC6 substrates validated by enzymatic assay reveals determinants of promiscuity and detects new potential substrates. Scientific Reports, 2022, 12, 1788.	1.6	7
158	Global Identification of Protein Prenyltransferase Substrates. The Enzymes, 2011, 29, 207-234.	0.7	6
159	Long Wavelength Fluorescence Ratiometric Zinc Biosensor. Journal of Fluorescence, 2013, 23, 375-379.	1.3	6
160	Synthesis of Non-natural, Frame-Shifted Isoprenoid Diphosphate Analogues. Organic Letters, 2016, 18, 6038-6041.	2.4	4
161	Measuring and Imaging Metal Ions With Fluorescence-Based Biosensors. Methods in Enzymology, 2017, 589, 281-299.	0.4	4
162	Insights into Enzymic Catalysis from Studies on Dihydrofolate Reductases. Pteridines, 1989, 1, 37-43.	0.5	3

#	Article	IF	Citations
163	Ion mobility-mass spectrometry reveals evidence of specific complex formation between human histone deacetylase 8 and poly-r(C)-binding protein 1. International Journal of Mass Spectrometry, 2017, 420, 9-15.	0.7	2
164	Combining Active Carbonic Anhydrase with Nanogels: Enzyme Protection and Zinc Sensing. International Journal of Nanomedicine, 2021, Volume 16, 6645-6660.	3.3	2
165	Determination of metal ions by fluorescence anisotropy exhibits a broad dynamic range. , 1998, , .		1
166	Exploration of GGTase-I substrate requirements. Part 1: Synthesis and biochemical evaluation of novel aryl-modified geranylgeranyl diphosphate analogs. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 3499-3502.	1.0	1
167	Fluorescence-Based Real-Time Activity Assays to Identify RNase P Inhibitors. Methods in Molecular Biology, 2017, 1520, 201-225.	0.4	1
168	Investigating the functional basis for specificity in protein farnesyltransferase. FASEB Journal, 2007, 21, A1015.	0.2	1
169	Measurement of kinetic isotope effects to probe the reaction mechanism catalyzed by mammalian protein farnesyltransferase. FASEB Journal, 2007, 21, A275.	0.2	1
170	Kinetic Mechanism of Bacterial RNase P. , 2010, , 93-111.		1
171	Fluorescent Metal Ion Biosensing: A Tool for Measuring Zn(II) at The Molecular Level. FASEB Journal, 2007, 21, A999.	0.2	0
172	Catalytic metal ion switching in zincâ€dependent deacetylases. FASEB Journal, 2008, 22, 611.14.	0.2	0
173	Investigating the catalytic mechanism of the yeast palmitoyltransferase Akr1p. FASEB Journal, 2010, 24, 904.3.	0.2	0