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List of Publications by Year
in descending order

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63 papers	1,638 citations	331670 21 h-index	302126 39 g-index
67 all docs	67 docs citations	67 times ranked	1207 citing authors

#	Article	IF	Citations
1	Kinetic and magnetic resonance studies of active-site mutants of staphylococcal nuclease: factors contributing to catalysis. Biochemistry, 1987, 26, 1289-1300.	2.5	177
2	Stimulation of a Ouabain-Sensitive Rb+ uptake in human erthrocytes with an external electric field. Journal of Membrane Biology, 1983, 74, 191-201.	2.1	130
3	Reversible and irreversible modification of erythrocyte membrane permeability by electric field. Biochimica Et Biophysica Acta - Biomembranes, 1985, 812, 779-785.	2.6	130
4	Kinetic and magnetic resonance studies of effects of genetic substitution of a calcium-liganding amino acid in staphylococcal nuclease. Biochemistry, 1986, 25, 68-77.	2.5	128
5	Hydrogenâ^'Deuterium (H/D) Exchange Mapping of AÎ²1-40Amyloid Fibril Secondary Structure Using Nuclear Magnetic Resonance Spectroscopyâ€. Biochemistry, 2005, 44, 4434-4441.	2.5	124
6	Biologically Important Conformations of Aminoglycoside Antibiotics Bound to an Aminoglycoside 3â€˜-Phosphotransferase as Determined by Transferred Nuclear Overhauser Effect Spectroscopyâ€. Biochemistry, 1997, 36, 2353-2359.	2.5	53
7	Discovery of non-carbohydrate inhibitors of aminoglycoside-modifying enzymes. Bioorganic and Medicinal Chemistry, 2005, 13, 6252-6263.	3.0	51
8	Diverse interactions between the individual mutations in a double mutant at the active site of staphylococcal nuclease. Biochemistry, 1990, 29, 8632-8642.	2.5	47
9	Oxygenation Mechanism of Ribulose-Bisphosphate Carboxylase/Oxygenase. Structure and Origin of 2-Carboxytetritol 1,4-Bisphosphate, a Novel O2-Dependent Side Product Generated by a Site-Directed Mutant. Biochemistry, 1995, 34, 11296-11306.	2.5	40
10	A low-barrier hydrogen bond mediates antibiotic resistance in a noncanonical catalytic triad. Science Advances, 2018, 4, eaas8667.	10.3	40
11	Thermodynamics of Aminoglycoside Binding to Aminoglycoside-3â€˜-phosphotransferase IIIa Studied by Isothermal Titration Calorimetry. Biochemistry, 2004, 43, 14667-14675.	2.5	39
12	Arrangement of Substrates at the Active Site of an Aminoglycoside Antibiotic 3â€˜-Phosphotransferase As Determined by NMR. Journal of the American Chemical Society, 1996, 118, 1295-1301.	13.7	34
13	Orientation of Heparin-binding Sites in Native Vitronectin. Journal of Biological Chemistry, 1999, 274, 6432-6442.	3.4	33
14	The Solution Structure of the N-terminal Domain of Human Vitronectin. Journal of Biological Chemistry, 2004, 279, 29359-29366.	3.4	33
15	Enzymeâ^'Substrate Interactions with an Antibiotic Resistance Enzyme:â€‰ Aminoglycoside Nucleotidyltransferase(2â€˜â€‰â€˜)-Ia Characterized by Kinetic and Thermodynamic Methods. Biochemistry, 2005, 44, 11581-11591.	2.5	33
16	Solution Studies of Isepamicin and Conformational Comparisons between Isepamicin and Butirosin A When Bound to an Aminoglycoside 6â€˜-N-Acetyltransferase Determined by NMR Spectroscopy. Biochemistry, 1998, 37, 3638-3644.	2.5	30
17	Dissection of Aminoglycosideâ^'Enzyme Interactions:Â A Calorimetric and NMR Study of Neomycin B Binding to the Aminoglycoside Phosphotransferase(3â€˜)-IIIa. Journal of the American Chemical Society, 2006, 128, 15248-15254.	13.7	28
18	Cloning, Overexpression, and Purification of Aminoglycoside Antibiotic 3-Acetyltransferase-IIIb:Â Conformational Studies with Bound Substratesâ€. Biochemistry, 2002, 41, 10764-10770.	2.5	25

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19	NMR Detected Hydrogenâ^'Deuterium Exchange Reveals Differential Dynamics of Antibiotic- and Nucleotide-Bound Aminoglycoside Phosphotransferase 3â€²-IIIa. Journal of the American Chemical Society, 2009, 131, 8587-8594.	13.7	23
20	Thermodynamics and Kinetics of Association of Antibiotics with the Aminoglycoside Acetyltransferase (3)-IIIb, a Resistance-Causing Enzyme. Biochemistry, 2010, 49, 4027-4035.	2.5	23
21	Ligand promiscuity through the eyes of the aminoglycoside N3 acetyltransferase IIa. Protein Science, 2013, 22, 916-928.	7.6	23
22	Identification of a Catalytic Aspartyl Residue ofd-Ribulose 5-Phosphate 3-Epimerase by Site-directed Mutagenesis. Journal of Biological Chemistry, 1999, 274, 2132-2136.	3.4	22
23	Detection of Specific Solvent Rearrangement Regions of an Enzyme:â€‰ NMR and ITC Studies with Aminoglycoside Phosphotransferase(3â€˜)-IIIa. Biochemistry, 2008, 47, 40-49.	2.5	21
24	Isolation of aminoglycoside nucleotidyltransferase(2â€²â€²)-Ia from inclusion bodies as active, monomeric enzyme. Protein Expression and Purification, 2004, 35, 373-380.	1.3	20
25	Lowâ€Barrier and Canonical Hydrogen Bonds Modulate Activity and Specificity of a Catalytic Triad. Angewandte Chemie - International Edition, 2019, 58, 16260-16266.	13.8	20
26	The complete 1H NMR assignments of aminoglycoside antibiotics and conformational studies of butirosin A through the use of 2D NMR spectroscopy. Carbohydrate Research, 1995, 271, 55-63.	2.3	19
27	Molecular Determinants of Affinity for Aminoglycoside Binding to the Aminoglycoside Nucleotidyltransferase(2â€˜Ââ€˜)-Iaâ€. Biochemistry, 2006, 45, 10243-10250.	2.5	19
28	Interactions of Coenzyme A with the Aminoglycoside Acetyltransferase (3)-IIIb and Thermodynamics of a Ternary System. Biochemistry, 2010, 49, 4036-4042.	2.5	19
29	Recognition in cell adhesion. A comparative study of the conformations of RGD-containing peptides by Monte Carlo and NMR methods. Journal of Molecular Recognition, 1989, 2, 179-186.	2.1	17
30	Studies of Enzymes That Cause Resistance to Aminoglycosides Antibiotics. Methods in Molecular Medicine, 2008, 142, 261-271.	0.8	15
31	Peptide Inhibition of ENaCâ€. Biochemistry, 1999, 38, 354-363.	2.5	14
32	ATP Binding Enables Broad Antibiotic Selectivity of Aminoglycoside Phosphotransferase(3â€²)-IIIa: An Elastic Network Analysis. Journal of Molecular Biology, 2011, 409, 450-465.	4.2	14
33	Affinity labelling with MgATP analogues reveals coexisting Na+ and K+ forms of the alpha-subunits of Na+/K+-ATPase. FEBS Journal, 1999, 261, 181-189.	0.2	13
34	NMR docking of the competitive inhibitor thymidine 3â€²,5â€²-diphosphate into the X-ray structure of staphylococcal nuclease. Proteins: Structure, Function and Bioinformatics, 1993, 17, 20-35.	2.6	12
35	Assignment of the Four Disulfides in the N-terminal Somatomedin B Domain of Native Vitronectin Isolated from Human Plasma. Journal of Biological Chemistry, 2004, 279, 35867-35878.	3.4	12
36	Coenzyme A Binding to the Aminoglycoside Acetyltransferase (3)-IIIb Increases Conformational Sampling of Antibiotic Binding Site. Biochemistry, 2011, 50, 10559-10565.	2.5	11

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37	Encoding of Promiscuity in an Aminoglycoside Acetyltransferase. Journal of Medicinal Chemistry, 2018, 61, 10218-10227.	6.4	11
38	Deciphering interactions of the aminoglycoside phosphotransferase(3â€²)â€Ila with its ligands. Biopolymers, 2009, 91, 801-809.	2.4	10
39	Antibiotic Selection by the Promiscuous Aminoglycoside Acetyltransferase-(3)-IIIb Is Thermodynamically Achieved through the Control of Solvent Rearrangement. Biochemistry, 2011, 50, 9309-9317.	2.5	10
40	Aminoglycoside Antibiotics Bound to Aminoglycoside-Detoxifying Enzymes and RNA Adopt Similar Conformations. Cell Biochemistry and Biophysics, 2000, 33, 297-308.	1.8	9
41	Transient kinetics of aminoglycoside phosphotransferase(3â€²)â€Ila reveals a potential drug target in the antibiotic resistance mechanism. FEBS Letters, 2012, 586, 4223-4227.	2.8	9
42	The functional importance of Leu15 of human epidermal growth factor in receptor binding and activation. Protein Engineering, Design and Selection, 1996, 9, 781-788.	2.1	8
43	Protein Dynamics Are Influenced by the Order of Ligand Binding to an Antibiotic Resistance Enzyme. Biochemistry, 2014, 53, 30-38.	2.5	8
44	Aminoglycoside binding and catalysis specificity of aminoglycoside 2â€³-phosphotransferase IVa: A thermodynamic, structural and kinetic study. Biochimica Et Biophysica Acta - General Subjects, 2016, 1860, 802-813.	2.4	8
45	Thermodynamics of an aminoglycoside modifying enzyme with low substrate promiscuity: The aminoglycoside N3 acetyltransferaseâ€Via. Proteins: Structure, Function and Bioinformatics, 2017, 85, 1258-1265.	2.6	8
46	Effect of Protein Dynamics and Solvent in Ligand Recognition by Promiscuous Aminoglycoside-Modifying Enzymes. Advances in Carbohydrate Chemistry and Biochemistry, 2012, 67, 221-248.	0.9	7
47	Conformations of Antibiotics in Active Sites of Aminoglycoside-Detoxifying Enzymes. Cell Biochemistry and Biophysics, 2000, 33, 309-321.	1.8	6
48	Thermodynamic Characterization of a Thermostable Antibiotic Resistance Enzyme, the Aminoglycoside Nucleotidyltransferase (4â€²). Biochemistry, 2012, 51, 9147-9155.	2.5	6
49	Interaction of ATP analogs with yeast 3-phosphoglycerate kinase. Affinity labeling of the hinge region. FEBS Journal, 1993, 212, 719-726.	0.2	5
50	The Thermodynamics of Ligand Binding to the Aminoglycoside O-Nucleotidyltransferase(4â€²) and Variants Yields Clues about Thermophilic Properties. Biochemistry, 2019, 58, 1579-1586.	2.5	5
51	Inactivation of yeast phosphoglycerate kinase by Cr-ATP complexes and its implications on the conformation of the enzyme active site. Journal of Inorganic Biochemistry, 1992, 48, 203-215.	3.5	4
52	Utilization of partial reactions, side reactions, and chemical rescue to analyze site-directed mutants of ribulose 1,5-bisphosphate (RuBP) carboxylase/oxygenase (rubisco). Techniques in Protein Chemistry, 1995, 6, 357-364.	0.3	4
53	A New Metal-Binding Site for Yeast Phosphoglycerate Kinase as Determined by the Use of a Metal-ATP Analog. Biophysical Journal, 1997, 72, 928-935.	0.5	4
54	Solvent Reorganization Plays a Temperature-Dependent Role in Antibiotic Selection by a Thermostable Aminoglycoside Nucleotidyltransferase-4â€². Biochemistry, 2014, 53, 5544-5550.	2.5	4

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55	Thermophilic Enzyme or Mesophilic Enzyme with Enhanced Thermostability: Can We Draw a Line?. Journal of Physical Chemistry B, 2017, 121, 7086-7094.	2.6	3
56	Lowâ€Barrier and Canonical Hydrogen Bonds Modulate Activity and Specificity of a Catalytic Triad. Angewandte Chemie, 2019, 131, 16406-16412.	2.0	3
57	Study of Na,K-ATPase with ATP Analogs. Current Topics in Membranes and Transport, 1983, 19, 361-366.	0.6	2
58	Correction to Thermodynamics and Kinetics of Association of Antibiotics with the Aminoglycoside Acetyltransferase (3)-IIIb, a Resistance-Causing Enzyme. Biochemistry, 2013, 52, 7702-7702.	2.5	2
59	â€œCatch and Releaseâ€: a Variation of the Archetypal Nucleotidyl Transfer Reaction. ACS Catalysis, 2020, 10, 3548-3555.	11.2	2
60	Effects of Proton Linkage on Thermodynamic Properties of Enzymeâ€“ Antibiotic Complexes of the Aminoglycoside Nucleotidyltransferase (2â€³)-Ia. Journal of Thermodynamics & Catalysis, 2011, 02, .	0.2	2
61	Backbone resonance assignments of a promiscuous aminoglycoside antibiotic resistance enzyme; the aminoglycoside phosphotransferase(3â€²)-IIIa. Biomolecular NMR Assignments, 2010, 4, 9-12.	0.8	1
62	Dissection of Aminoglycosideâ^'Enzyme Interactions:â€‰ A Calorimetric and NMR Study of Noemycin B Binding to the Aminoglycoside Phosphotransferase(3â€˜)-IIIa [J. Am. Chem. Soc. 2006, 128, 15248â^'15254].. Journal of the American Chemical Society, 2007, 129, 11872-11872.	13.7	0
63	Impact of Titratable Groups in Studies with Isothermal Titration Calorimetry. Journal of Thermodynamics & Catalysis, 2014, 05, .	0.2	0