

Engin H Serpersu

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Kinetic and magnetic resonance studies of active-site mutants of staphylococcal nuclease: factors contributing to catalysis. <i>Biochemistry</i> , 1987, 26, 1289-1300.	1.2	177
2	Stimulation of a Ouabain-Sensitive Rb ⁺ uptake in human erythrocytes with an external electric field. <i>Journal of Membrane Biology</i> , 1983, 74, 191-201.	1.0	130
3	Reversible and irreversible modification of erythrocyte membrane permeability by electric field. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1985, 812, 779-785.	1.4	130
4	Kinetic and magnetic resonance studies of effects of genetic substitution of a calcium-liganding amino acid in staphylococcal nuclease. <i>Biochemistry</i> , 1986, 25, 68-77.	1.2	128
5	Hydrogen-Deuterium (H/D) Exchange Mapping of A β 1-40 Amyloid Fibril Secondary Structure Using Nuclear Magnetic Resonance Spectroscopy. <i>Biochemistry</i> , 2005, 44, 4434-4441.	1.2	124
6	Biologically Important Conformations of Aminoglycoside Antibiotics Bound to an Aminoglycoside 3-Phosphotransferase as Determined by Transferred Nuclear Overhauser Effect Spectroscopy. <i>Biochemistry</i> , 1997, 36, 2353-2359.	1.2	53
7	Discovery of non-carbohydrate inhibitors of aminoglycoside-modifying enzymes. <i>Bioorganic and Medicinal Chemistry</i> , 2005, 13, 6252-6263.	1.4	51
8	Diverse interactions between the individual mutations in a double mutant at the active site of staphylococcal nuclease. <i>Biochemistry</i> , 1990, 29, 8632-8642.	1.2	47
9	Oxygenation Mechanism of Ribulose-Bisphosphate Carboxylase/Oxygenase. Structure and Origin of 2-Carboxytetritol 1,4-Bisphosphate, a Novel O ₂ -Dependent Side Product Generated by a Site-Directed Mutant. <i>Biochemistry</i> , 1995, 34, 11296-11306.	1.2	40
10	A low-barrier hydrogen bond mediates antibiotic resistance in a noncanonical catalytic triad. <i>Science Advances</i> , 2018, 4, eaas8667.	4.7	40
11	Thermodynamics of Aminoglycoside Binding to Aminoglycoside-3-phosphotransferase IIIa Studied by Isothermal Titration Calorimetry. <i>Biochemistry</i> , 2004, 43, 14667-14675.	1.2	39
12	Arrangement of Substrates at the Active Site of an Aminoglycoside Antibiotic 3-Phosphotransferase As Determined by NMR. <i>Journal of the American Chemical Society</i> , 1996, 118, 1295-1301.	6.6	34
13	Orientation of Heparin-binding Sites in Native Vitronectin. <i>Journal of Biological Chemistry</i> , 1999, 274, 6432-6442.	1.6	33
14	The Solution Structure of the N-terminal Domain of Human Vitronectin. <i>Journal of Biological Chemistry</i> , 2004, 279, 29359-29366.	1.6	33
15	Enzyme-Substrate Interactions with an Antibiotic Resistance Enzyme: Aminoglycoside Nucleotidyltransferase(2-aminoglycosyl)-Ia Characterized by Kinetic and Thermodynamic Methods. <i>Biochemistry</i> , 2005, 44, 11581-11591.	1.2	33
16	Solution Studies of Isepamicin and Conformational Comparisons between Isepamicin and Butirosin A When Bound to an Aminoglycoside 6-N-Acetyltransferase Determined by NMR Spectroscopy. <i>Biochemistry</i> , 1998, 37, 3638-3644.	1.2	30
17	Dissection of Aminoglycoside-Enzyme Interactions: A Calorimetric and NMR Study of Neomycin B Binding to the Aminoglycoside Phosphotransferase(3)-IIIa. <i>Journal of the American Chemical Society</i> , 2006, 128, 15248-15254.	6.6	28
18	Cloning, Overexpression, and Purification of Aminoglycoside Antibiotic 3-Acetyltransferase-IIIb: Conformational Studies with Bound Substrates. <i>Biochemistry</i> , 2002, 41, 10764-10770.	1.2	25

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19	NMR Detected Hydrogen-Deuterium Exchange Reveals Differential Dynamics of Antibiotic- and Nucleotide-Bound Aminoglycoside Phosphotransferase 3-IIIa. <i>Journal of the American Chemical Society</i> , 2009, 131, 8587-8594.	6.6	23
20	Thermodynamics and Kinetics of Association of Antibiotics with the Aminoglycoside Acetyltransferase (3)-IIIb, a Resistance-Causing Enzyme. <i>Biochemistry</i> , 2010, 49, 4027-4035.	1.2	23
21	Ligand promiscuity through the eyes of the aminoglycoside 3 acetyltransferase IIa. <i>Protein Science</i> , 2013, 22, 916-928.	3.1	23
22	Identification of a Catalytic Aspartyl Residue of d-Ribulose 5-Phosphate 3-Epimerase by Site-directed Mutagenesis. <i>Journal of Biological Chemistry</i> , 1999, 274, 2132-2136.	1.6	22
23	Detection of Specific Solvent Rearrangement Regions of an Enzyme: NMR and ITC Studies with Aminoglycoside Phosphotransferase(3)-IIIa. <i>Biochemistry</i> , 2008, 47, 40-49.	1.2	21
24	Isolation of aminoglycoside nucleotidyltransferase(2)-Ia from inclusion bodies as active, monomeric enzyme. <i>Protein Expression and Purification</i> , 2004, 35, 373-380.	0.6	20
25	Low-Barrier and Canonical Hydrogen Bonds Modulate Activity and Specificity of a Catalytic Triad. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16260-16266.	7.2	20
26	The complete 1H NMR assignments of aminoglycoside antibiotics and conformational studies of butirosin A through the use of 2D NMR spectroscopy. <i>Carbohydrate Research</i> , 1995, 271, 55-63.	1.1	19
27	Molecular Determinants of Affinity for Aminoglycoside Binding to the Aminoglycoside Nucleotidyltransferase(2)-Ia. <i>Biochemistry</i> , 2006, 45, 10243-10250.	1.2	19
28	Interactions of Coenzyme A with the Aminoglycoside Acetyltransferase (3)-IIIb and Thermodynamics of a Ternary System. <i>Biochemistry</i> , 2010, 49, 4036-4042.	1.2	19
29	Recognition in cell adhesion. A comparative study of the conformations of RGD-containing peptides by Monte Carlo and NMR methods. <i>Journal of Molecular Recognition</i> , 1989, 2, 179-186.	1.1	17
30	Studies of Enzymes That Cause Resistance to Aminoglycosides Antibiotics. <i>Methods in Molecular Medicine</i> , 2008, 142, 261-271.	0.8	15
31	Peptide Inhibition of ENaC. <i>Biochemistry</i> , 1999, 38, 354-363.	1.2	14
32	ATP Binding Enables Broad Antibiotic Selectivity of Aminoglycoside Phosphotransferase(3)-IIIa: An Elastic Network Analysis. <i>Journal of Molecular Biology</i> , 2011, 409, 450-465.	2.0	14
33	Affinity labelling with MgATP analogues reveals coexisting Na+ and K+ forms of the alpha-subunits of Na+/K+-ATPase. <i>FEBS Journal</i> , 1999, 261, 181-189.	0.2	13
34	NMR docking of the competitive inhibitor thymidine 5-diphosphate into the X-ray structure of staphylococcal nuclease. <i>Proteins: Structure, Function and Bioinformatics</i> , 1993, 17, 20-35.	1.5	12
35	Assignment of the Four Disulfides in the N-terminal Somatomedin B Domain of Native Vitronectin Isolated from Human Plasma. <i>Journal of Biological Chemistry</i> , 2004, 279, 35867-35878.	1.6	12
36	Coenzyme A Binding to the Aminoglycoside Acetyltransferase (3)-IIIb Increases Conformational Sampling of Antibiotic Binding Site. <i>Biochemistry</i> , 2011, 50, 10559-10565.	1.2	11

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37	Encoding of Promiscuity in an Aminoglycoside Acetyltransferase. <i>Journal of Medicinal Chemistry</i> , 2018, 61, 10218-10227.	2.9	11
38	Deciphering interactions of the aminoglycoside phosphotransferase(3â€²)â€”IIIa with its ligands. <i>Biopolymers</i> , 2009, 91, 801-809.	1.2	10
39	Antibiotic Selection by the Promiscuous Aminoglycoside Acetyltransferase-(3)-IIIb Is Thermodynamically Achieved through the Control of Solvent Rearrangement. <i>Biochemistry</i> , 2011, 50, 9309-9317.	1.2	10
40	Aminoglycoside Antibiotics Bound to Aminoglycoside-Detoxifying Enzymes and RNA Adopt Similar Conformations. <i>Cell Biochemistry and Biophysics</i> , 2000, 33, 297-308.	0.9	9
41	Transient kinetics of aminoglycoside phosphotransferase(3â€²)â€”IIIa reveals a potential drug target in the antibiotic resistance mechanism. <i>FEBS Letters</i> , 2012, 586, 4223-4227.	1.3	9
42	The functional importance of Leu15 of human epidermal growth factor in receptor binding and activation. <i>Protein Engineering, Design and Selection</i> , 1996, 9, 781-788.	1.0	8
43	Protein Dynamics Are Influenced by the Order of Ligand Binding to an Antibiotic Resistance Enzyme. <i>Biochemistry</i> , 2014, 53, 30-38.	1.2	8
44	Aminoglycoside binding and catalysis specificity of aminoglycoside 2â€³-phosphotransferase IVa: A thermodynamic, structural and kinetic study. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2016, 1860, 802-813.	1.1	8
45	Thermodynamics of an aminoglycoside modifying enzyme with low substrate promiscuity: The aminoglycoside <i>N</i> 3 acetyltransferaseâ€”VIa. <i>Proteins: Structure, Function and Bioinformatics</i> , 2017, 85, 1258-1265.	1.5	8
46	Effect of Protein Dynamics and Solvent in Ligand Recognition by Promiscuous Aminoglycoside-Modifying Enzymes. <i>Advances in Carbohydrate Chemistry and Biochemistry</i> , 2012, 67, 221-248.	0.4	7
47	Conformations of Antibiotics in Active Sites of Aminoglycoside-Detoxifying Enzymes. <i>Cell Biochemistry and Biophysics</i> , 2000, 33, 309-321.	0.9	6
48	Thermodynamic Characterization of a Thermostable Antibiotic Resistance Enzyme, the Aminoglycoside Nucleotidyltransferase (4â€²). <i>Biochemistry</i> , 2012, 51, 9147-9155.	1.2	6
49	Interaction of ATP analogs with yeast 3-phosphoglycerate kinase. Affinity labeling of the hinge region. <i>FEBS Journal</i> , 1993, 212, 719-726.	0.2	5
50	The Thermodynamics of Ligand Binding to the Aminoglycoside <i>O</i> -Nucleotidyltransferase(4â€²) and Variants Yields Clues about Thermophilic Properties. <i>Biochemistry</i> , 2019, 58, 1579-1586.	1.2	5
51	Inactivation of yeast phosphoglycerate kinase by Cr-ATP complexes and its implications on the conformation of the enzyme active site. <i>Journal of Inorganic Biochemistry</i> , 1992, 48, 203-215.	1.5	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). <i>Techniques in Protein Chemistry</i> , 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. <i>Biophysical Journal</i> , 1997, 72, 928-935.	0.2	4
54	Solvent Reorganization Plays a Temperature-Dependent Role in Antibiotic Selection by a Thermostable Aminoglycoside Nucleotidyltransferase-4â€². <i>Biochemistry</i> , 2014, 53, 5544-5550.	1.2	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.	1.2	3
56	Low-Barrier and Canonical Hydrogen Bonds Modulate Activity and Specificity of a Catalytic Triad. Angewandte Chemie, 2019, 131, 16406-16412.	1.6	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.	1.2	2
59	“Catch and Release” a Variation of the Archetypal Nucleotidyl Transfer Reaction. ACS Catalysis, 2020, 10, 3548-3555.	5.5	2
60	Effects of Proton Linkage on Thermodynamic Properties of Enzyme-Antibiotic Complexes of the Aminoglycoside Nucleotidyltransferase (2 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(3 ²)-IIIa. Biomolecular NMR Assignments, 2010, 4, 9-12.	0.4	1
62	Dissection of Aminoglycoside-Enzyme Interactions: A Calorimetric and NMR Study of Noemycin B Binding to the Aminoglycoside Phosphotransferase(3 ²)-IIIa [J. Am. Chem. Soc. 2006, 128, 15248-15254]. Journal of the American Chemical Society, 2007, 129, 11872-11872.	6.6	0
63	Impact of Titratable Groups in Studies with Isothermal Titration Calorimetry. Journal of Thermodynamics & Catalysis, 2014, 05, .	0.2	0