## Tigran V Chalikian

## List of Publications by Citations

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86 62 36 4,079 h-index g-index citations papers 4,278 91 5.1 5.7 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
86	Volumetric properties of proteins. <i>Annual Review of Biophysics and Biomolecular Structure</i> , <b>2003</b> , 32, 20	7-35	273
85	The hydration of globular proteins as derived from volume and compressibility measurements: cross correlating thermodynamic and structural data. <i>Journal of Molecular Biology</i> , <b>1996</b> , 260, 588-603	6.5	252
84	Hydration and partial compressibility of biological compounds. <i>Biophysical Chemistry</i> , <b>1994</b> , 51, 89-107; discussion 107-9	3.5	223
83	Characterization of pH-induced transitions of beta-lactoglobulin: ultrasonic, densimetric, and spectroscopic studies. <i>Journal of Molecular Biology</i> , <b>2001</b> , 314, 873-89	6.5	182
82	On volume changes accompanying conformational transitions of biopolymers. <i>Biopolymers</i> , <b>1996</b> , 39, 619-26	2.2	164
81	Partial molar volumes, expansibilities, and compressibilities of .alpha.,.omegaaminocarboxylic acids in aqueous solutions between 18 and 55.degree.C. <i>The Journal of Physical Chemistry</i> , <b>1993</b> , 97, 130	)17-13	o2&7
80	Compressibility of protein transitions. BBA - Proteins and Proteomics, 2002, 1595, 48-70		131
79	Volumetric characterizations of the native, molten globule and unfolded states of cytochrome c at acidic pH. <i>Journal of Molecular Biology</i> , <b>1995</b> , 250, 291-306	6.5	126
78	Structural Thermodynamics of Hydration. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 12566-12578	3.4	115
77	Thermodynamic analysis of biomolecules: a volumetric approach. <i>Current Opinion in Structural Biology</i> , <b>1998</b> , 8, 657-64	8.1	110
76	Influence of base composition, base sequence, and duplex structure on DNA hydration: apparent molar volumes and apparent molar adiabatic compressibilities of synthetic and natural DNA duplexes at 25 degrees C. <i>Biochemistry</i> , <b>1994</b> , 33, 2394-401	3.2	110
75	Influence of drug binding on DNA hydration: acoustic and densimetric characterizations of netropsin binding to the poly(dAdT).poly(dAdT) and poly(dA).poly(dT) duplexes and the poly(dT).poly(dA).poly(dT) triplex at 25 degrees C. <i>Biochemistry</i> , <b>1994</b> , 33, 8629-40	3.2	98
74	On the stability of double stranded nucleic acids. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 9254-9	16.4	77
73	The hydration of nucleic acid duplexes as assessed by a combination of volumetric and structural techniques. <i>Biopolymers</i> , <b>1999</b> , 50, 459-71	2.2	74
72	The native and the heat-induced denatured states of alpha-chymotrypsinogen A: thermodynamic and spectroscopic studies. <i>Journal of Molecular Biology</i> , <b>1997</b> , 274, 237-52	6.5	72
71	Partial molar volumes, expansibilities, and compressibilities of oligoglycines in aqueous solutions at 18 <b>B</b> 5°C. <i>Biopolymers</i> , <b>1994</b> , 34, 541-553	2.2	71
70	Volumetric characterization of sodium-induced G-quadruplex formation. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 4518-26	16.4	68

## (2000-2006)

69	Stability of DNA duplexes containing GG, CC, AA, and TT mismatches. <i>Biochemistry</i> , <b>2006</b> , 45, 10563-71	3.2	68
68	Association of the minor groove binding drug Hoechst 33258 with d(CGCGAATTCGCG)2: volumetric, calorimetric, and spectroscopic characterizations. <i>Biochemistry</i> , <b>2005</b> , 44, 9785-94	3.2	66
67	Volumetric properties of nucleic acids. <i>Biopolymers</i> , <b>1998</b> , 48, 264-80	2.2	65
66	Ultrasonic and Densimetric Characterizations of the Hydration Properties of Polar Groups in Monosaccharides. <i>Journal of Physical Chemistry B</i> , <b>1998</b> , 102, 6921-6926	3.4	62
65	Partial Molar Volumes and Adiabatic Compressibilities of a Series of Aliphatic Amino Acids and Oligoglycines in D2O. <i>Journal of the American Chemical Society</i> , <b>1999</b> , 121, 1156-1163	16.4	55
64	Thermodynamics of interactions of water-soluble porphyrins with RNA duplexes. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 1914-21	16.4	54
63	How large are the volume changes accompanying protein transitions and binding?. <i>Biophysical Chemistry</i> , <b>2003</b> , 104, 489-99	3.5	54
62	Energetics of nucleic acid stability: the effect of DeltaCP. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 16387-94	16.4	52
61	Role of Water in ProteinLigand Interactions: Volumetric Characterization of the Binding of 2ECMP and 3ECMP to Ribonuclease A. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 390-401	3.4	48
60	Interaction of the pore-forming protein equinatoxin II with model lipid membranes: A calorimetric and spectroscopic study. <i>Biochemistry</i> , <b>1999</b> , 38, 14999-5008	3.2	47
59	Origins of pressure-induced protein transitions. <i>Journal of Molecular Biology</i> , <b>2009</b> , 394, 834-42	6.5	45
58	Hydration changes accompanying helix-to-coil DNA transitions. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 4040-7	16.4	44
57	Partial molar characteristics of glycine and alanine in aqueous solutions at high pressures calculated from ultrasonic velocity data. <i>The Journal of Physical Chemistry</i> , <b>1994</b> , 98, 321-328		44
56	Volumetric measurements in binary solvents: theory to experiment. <i>Biophysical Chemistry</i> , <b>2011</b> , 156, 3-12	3.5	42
55	Partial molar volumes and adiabatic compressibilities of unfolded protein states. <i>Biophysical Chemistry</i> , <b>2008</b> , 134, 185-99	3.5	42
54	Urea interactions with protein groups: a volumetric study. <i>Biopolymers</i> , <b>2010</b> , 93, 866-79	2.2	41
53	Probing the transition state ensemble of a protein folding reaction by pressure-dependent NMR relaxation dispersion. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 5262-9	16.4	41
52	Volumetric and spectroscopic characterizations of the native and acid-induced denatured states of staphylococcal nuclease. <i>Journal of Molecular Biology</i> , <b>2000</b> , 299, 827-42	6.5	40

51	Nucleic acid hydration: a volumetric perspective. <i>Physics of Life Reviews</i> , <b>2007</b> , 4, 91-115	2.1	38
50	Parsing partial molar volumes of small molecules: a molecular dynamics study. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 4856-62	3.4	36
49	Volumetric characterization of the hydration properties of heterocyclic bases and nucleosides. <i>Biophysical Chemistry</i> , <b>2001</b> , 92, 209-27	3.5	35
48	Effects of Salt on the Stability of a G-Quadruplex from the Human c-MYC Promoter. <i>Biochemistry</i> , <b>2015</b> , 54, 3420-30	3.2	33
47	Hydrophobic hydration in cyclodextrin complexation. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 12222-	43.4	33
46	The thermodynamics of protein-protein recognition as characterized by a combination of volumetric and calorimetric techniques: the binding of turkey ovomucoid third domain to alpha-chymotrypsin. <i>Journal of Molecular Biology</i> , <b>2003</b> , 326, 1271-88	6.5	33
45	On the molecular origins of volumetric data. <i>Journal of Physical Chemistry B</i> , <b>2008</b> , 112, 911-7	3.4	32
44	Hydration changes accompanying nucleic acid intercalation reactions:volumetric characterizations. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 7219-29	16.4	30
43	Volumetric characterization of tri-N-acetylglucosamine binding to lysozyme. <i>Biochemistry</i> , <b>2012</b> , 51, 57	8 <del>4</del> ,- <b>9</b> 0	27
42	Size dependence of cavity volume: a molecular dynamics study. <i>Biophysical Chemistry</i> , <b>2012</b> , 161, 46-9	3.5	25
41	Hydrophobic tendencies of polar groups as a major force in molecular recognition. <i>Biopolymers</i> , <b>2003</b> , 70, 492-6	2.2	25
40	Hydration of diglycyl tripeptides with non-polar side chains: a volumetric study. <i>Biophysical Chemistry</i> , <b>1998</b> , 75, 57-71	3.5	24
39	Probing hydration of monovalent cations condensed around polymeric nucleic acids. <i>Journal of Molecular Biology</i> , <b>2004</b> , 341, 551-63	6.5	24
38	Volumetric properties of solvation in binary solvents. <i>Journal of Physical Chemistry B</i> , <b>2009</b> , 113, 2443-5	<b>0</b> 3.4	23
37	Volume and compressibility changes accompanying thermally-induced native-to-unfolded and molten globule-to-unfolded transitions of cytochrome c: a high pressure study. <i>Biochemistry</i> , <b>2003</b> , 42, 8671-8	3.2	21
36	Probing the Ionic Atmosphere and Hydration of the c-MYC i-Motif. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 2229-2238	16.4	20
35	Interactions of glycine betaine with proteins: insights from volume and compressibility measurements. <i>Biochemistry</i> , <b>2013</b> , 52, 672-80	3.2	20
34	Effect of cosolvent on protein stability: a theoretical investigation. <i>Journal of Chemical Physics</i> , <b>2014</b> , 141, 22D504	3.9	18

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33	Binding of bovine pancreatic trypsin inhibitor to trypsinogen: spectroscopic and volumetric studies. <i>Biochemistry</i> , <b>2004</b> , 43, 1315-22	3.2	18
32	Volumetric and spectroscopic characterizations of glucose-hexokinase association. <i>FEBS Letters</i> , <b>2003</b> , 554, 351-6	3.8	18
31	Compressibility changes accompanying conformational transitions of apomyoglobin. <i>Biopolymers</i> , <b>2005</b> , 79, 218-29	2.2	18
30	Differential Hydration of #Aminocarboxylic Acids in D2O and H2O. <i>Journal of the American Chemical Society</i> , <b>2000</b> , 122, 7860-7868	16.4	18
29	Polyelectrolyte effects in G-quadruplexes. <i>Biophysical Chemistry</i> , <b>2013</b> , 184, 95-100	3.5	17
28	Volumetric properties of nucleic acids. <i>Biopolymers</i> , <b>1998</b> , 48, 264-280	2.2	17
27	Ionic Effects on VEGF G-Quadruplex Stability. Journal of Physical Chemistry B, 2016, 120, 4963-71	3.4	16
26	Volumetric effects of ionization of amino and carboxyl termini of alpha,omega-aminocarboxylic acids. <i>Biophysical Chemistry</i> , <b>2003</b> , 104, 21-36	3.5	16
25	Effect of Urea on G-Quadruplex Stability. <i>Journal of Physical Chemistry B</i> , <b>2017</b> , 121, 6511-6519	3.4	15
24	Interactions of urea with native and unfolded proteins: a volumetric study. <i>Journal of Physical Chemistry B</i> , <b>2014</b> , 118, 13554-63	3.4	15
23	Folding thermodynamics of the hybrid-1 type intramolecular human telomeric G-quadruplex. <i>Biopolymers</i> , <b>2014</b> , 101, 216-27	2.2	15
22	Effects of buffer ionization in protein transition volumes. <i>Biophysical Chemistry</i> , <b>2010</b> , 148, 144-7	3.5	15
21	Volumetric characterization of homopolymeric amino acids. <i>Biopolymers</i> , <b>2003</b> , 70, 563-74	2.2	15
20	On empirical decomposition of volumetric data. <i>Biophysical Chemistry</i> , <b>2019</b> , 246, 8-15	3.5	15
19	Volumetric characterization of interactions of glycine betaine with protein groups. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 11481-9	3.4	14
18	Salt-induced oligomerization of partially folded intermediates of equinatoxin II. <i>Biochemistry</i> , <b>2004</b> , 43, 9536-45	3.2	14
17	Ultrasonic and densimetric characterization of the association of cyclic AMP with the cAMP-binding domain of the exchange protein EPAC1. <i>Journal of Physical Chemistry B</i> , <b>2013</b> , 117, 10779-84	3.4	13
16	Excluded volume contribution to cosolvent-mediated modulation of macromolecular folding and binding reactions. <i>Biophysical Chemistry</i> , <b>2016</b> , 209, 1-8	3.5	12

15	Gamma-cyclodextrin forms a highly compressible complex with 1-adamantanecarboxylic acid. Journal of Physical Chemistry B, <b>2008</b> , 112, 9546-9	3.4	12
14	Duplex-tetraplex equilibria in guanine- and cytosine-rich DNA. <i>Biophysical Chemistry</i> , <b>2020</b> , 267, 106473	3.5	12
13	Thermodynamic linkage analysis of pH-induced folding and unfolding transitions of i-motifs. <i>Biophysical Chemistry</i> , <b>2016</b> , 216, 19-22	3.5	12
12	Acid- and base-induced conformational transitions of equinatoxin II. <i>Biophysical Chemistry</i> , <b>2001</b> , 90, 10	3 <del>3</del> 25	10
11	Conformational Preferences of DNA Strands from the Promoter Region of the c-MYC Oncogene. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 751-762	3.4	7
10	On urea and temperature dependences of m-values. <i>Journal of Chemical Physics</i> , <b>2019</b> , 150, 215103	3.9	6
9	Volumetric Interplay between the Conformational States Adopted by Guanine-Rich DNA from the c-MYC Promoter. <i>Journal of Physical Chemistry B</i> , <b>2021</b> , 125, 7406-7416	3.4	5
8	Volumetric Properties of Four-Stranded DNA Structures. <i>Biology</i> , <b>2021</b> , 10,	4.9	5
7	Volumetrically Derived Thermodynamic Profile of Interactions of Urea with a Native Protein. <i>Biochemistry</i> , <b>2016</b> , 55, 6475-6483	3.2	4
6	Binding of l-Argininamide to a DNA Aptamer: A Volumetric Study. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 7647-7653	3.4	4
5	Driving Forces in Pressure-Induced Protein Transitions. Sub-Cellular Biochemistry, 2015, 72, 41-58	5.5	3
4	Effect of urea on protein-ligand association. <i>Biophysical Chemistry</i> , <b>2017</b> , 231, 15-19	3.5	3
3	Does the release of hydration water come with a Gibbs energy contribution?. <i>Journal of Chemical Thermodynamics</i> , <b>2021</b> , 158, 106409	2.9	3
2	CHAPTER 21:Partial Molar Volumes of Proteins in Solution <b>2014</b> , 542-574		1

1 Nucleic Acids: Hydration1