Biman Bagchi

List of Publications by Year
in descending order

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401 papers	16,360 citations	20759 60 h-index	25716 108 g-index
408 all docs	408 docs citations	408 times ranked	8961 citing authors

#	Article	IF	Citations
1	Dielectric Relaxation and Solvation Dynamics of Water in Complex Chemical and Biological Systems. Chemical Reviews, 2000, 100, 2013-2046.	23.0	861
2	Water Dynamics in the Hydration Layer around Proteins and Micelles. Chemical Reviews, 2005, 105, 3197-3219.	23.0	750
3	Biological Water:Â Femtosecond Dynamics of Macromolecular Hydration. Journal of Physical Chemistry B, 2002, 106, 12376-12395.	1.2	468
4	Collapse of stiff conjugated polymers with chemical defects into ordered, cylindrical conformations. Nature, 2000, 405, 1030-1033.	13.7	433
5	Dielectric Relaxation of Biological Water. Journal of Physical Chemistry B, 1997, 101, 10954-10961.	1.2	430
6	Theory of the time development of the stokes shift in polar media. Chemical Physics, 1984, 86, 257-267.	0.9	370
7	Slow Dynamics of Constrained Water in Complex Geometries. Journal of Physical Chemistry A, 2000, 104, 10603-10613.	1.1	360
8	Hydrogen-Bond Dynamics near a Micellar Surface: Origin of the Universal Slow Relaxation at Complex Aqueous Interfaces. Physical Review Letters, 2002, 89, 115505.	2.9	345
9	Theory of electronic relaxation in solution in the absence of an activation barrier. Journal of Chemical Physics, 1983, 78, 7375-7385.	1.2	326
10	Nonspecifically bound proteins spin while diffusing along DNA. Nature Structural and Molecular Biology, 2009, 16, 1224-1229.	3.6	297
11	Dynamics of activationless reactions in solution. The Journal of Physical Chemistry, 1990, 94, 9-20.	2.9	220
12	Distance and Orientation Dependence of Excitation Transfer Rates in Conjugated Systems:Â Beyond the FÃ¶rster Theory. Journal of Physical Chemistry A, 2004, 108, 5752-5763.	1.1	217
13	The effect of frequency dependent friction on isomerization dynamics in solution. Journal of Chemical Physics, 1983, 78, 2735-2741.	1.2	205
14	Solvation dynamics in dipolar liquids. Chemical Society Reviews, 2010, 39, 1936.	18.7	197
15	On the Molecular Mechanism of Drug Intercalation into DNA: A Simulation Study of the Intercalation Pathway, Free Energy, and DNA Structural Changes. Journal of the American Chemical Society, 2008, 130, 9747-9755.	6.6	176
16	Collective Orientational Relaxation in Dense Dipolar Liquids. Advances in Chemical Physics, 2007, , 1-126.	0.3	165
17	Ultrafast solvation dynamics in water: Isotope effects and comparison with experimental results. Journal of Chemical Physics, 1995, 102, 1390-1397.	1.2	142
18	Structure and Dynamics of DNAâ^'Dendrimer Complexation:Â Role of Counterions, Water, and Base Pair Sequence. Nano Letters, 2006, 6, 2478-2485.	4.5	139

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19	Anomalous diffusion of small particles in dense liquids. Journal of Chemical Physics, 1997, 106, 1757-1763.	1.2	138
20	Secondary Structure Sensitivity of Hydrogen Bond Lifetime Dynamics in the Protein Hydration Layer. Journal of the American Chemical Society, 2005, 127, 16660-16667.	6.6	137
21	Distance and Orientation Dependence of Excitation Energy Transfer: From Molecular Systems to Metal Nanoparticles. Journal of Physical Chemistry B, 2009, 113, 1817-1832.	1.2	126
22	Anomalous Dielectric Relaxation of Aqueous Protein Solutions. Journal of Physical Chemistry A, 1998, 102, 8217-8221.	1.1	124
23	The dynamics of polar solvation: Inhomogeneous dielectric continuum models. Journal of Chemical Physics, 1988, 89, 3519-3534.	1.2	115
24	Ultrafast Solvation Dynamics of an Ion in the Î³-Cyclodextrin Cavity:Â The Role of Restricted Environment. The Journal of Physical Chemistry, 1996, 100, 13914-13919.	2.9	115
25	Solvation dynamics in liquid water. A novel interplay between librational and diffusive modes. Journal of Chemical Physics, 1993, 99, 9938-9943.	1.2	114
26	Identity, Energy, and Environment of Interfacial Water Molecules in a Micellar Solution. Journal of Physical Chemistry B, 2003, 107, 5194-5202.	1.2	99
27	Theoretical and Computational Analysis of Static and Dynamic Anomalies in Waterâ^'DMSO Binary Mixture at Low DMSO Concentrations. Journal of Physical Chemistry B, 2011, 115, 685-692.	1.2	99
28	Facilitation, complexity growth, mode coupling, and activated dynamics in supercooled liquids. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16077-16082.	3.3	94
29	Enhanced Pair Hydrophobicity in the Waterâ^'Dimethylsulfoxide (DMSO) Binary Mixture at Low DMSO Concentrations. Journal of Physical Chemistry B, 2010, 114, 12875-12882.	1.2	94
30	Frequency dependence of ionic conductivity of electrolyte solutions. Journal of Chemical Physics, 2000, 112, 1876-1886.	1.2	92
31	Sensitivity of Polar Solvation Dynamics to the Secondary Structures of Aqueous Proteins and the Role of Surface Exposure of the Probe. Journal of the American Chemical Society, 2005, 127, 4071-4075.	6.6	92
32	Multiple Time Scales in Solvation Dynamics of DNA in Aqueous Solution:Â The Role of Water, Counterions, and Cross-Correlations. Journal of Physical Chemistry B, 2006, 110, 26396-26402.	1.2	92
33	Resonance energy transfer from a fluorescent dye to a metal nanoparticle. Journal of Chemical Physics, 2006, 125, 181102.	1.2	89
34	Ionic Mobility and Ultrafast Solvation:â€‰ Control of a Slow Phenomenon by Fast Dynamics. Accounts of Chemical Research, 1998, 31, 181-187.	7.6	88
35	Anomalous Ion Diffusion in Dense Dipolar Liquids. Physical Review Letters, 1995, 75, 1098-1101.	2.9	87
36	Hydration Layer of a Cationic Micelle, C10TAB:â€‰ Structure, Rigidity, Slow Reorientation, Hydrogen Bond Lifetime, and Solvation Dynamics. Journal of Physical Chemistry B, 2005, 109, 12879-12890.	1.2	86

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37	Diffusion Constant of a Nonspecifically Bound Protein Undergoing Curvilinear Motion along DNA. Journal of Physical Chemistry B, 2008, 112, 6282-6284.	1.2	86
38	Entropy of Water in the Hydration Layer of Major and Minor Grooves of DNA. Journal of Physical Chemistry B, 2006, 110, 19611-19618.	1.2	85
39	Dynamics of bound and free water in an aqueous micellar solution: Analysis of the lifetime and vibrational frequencies of hydrogen bonds at a complex interface. Physical Review E, 2003, 67, 061502.	0.8	83
40	Microscopic expression for frequency and wave vector dependent dielectric constant of a dipolar liquid. Journal of Chemical Physics, 1989, 90, 1832-1840.	1.2	81
41	Molecular theory of nonpolar solvation dynamics. Journal of Chemical Physics, 1994, 100, 6658-6664.	1.2	81
42	Polar and Nonpolar Solvation Dynamics, Ion Diffusion, and Vibrational Relaxation: Role of Biphasic Solvent Response in Chemical Dynamics. Advances in Chemical Physics, 2007, , 207-433.	0.3	80
43	Slow Solvation Dynamics near an Aqueous Micellar Surface. Journal of Physical Chemistry B, 2001, 105, 12529-12533.	1.2	76
44	Microscopic expression for dielectric friction on a moving ion. Journal of Chemical Physics, 1991, 95, 467-478.	1.2	75
45	Ion conductance in electrolyte solutions. Journal of Chemical Physics, 1999, 110, 10024-10034.	1.2	75
46	A molecular theory of collective orientational relaxation in pure and binary dipolar liquids. Journal of Chemical Physics, 1989, 91, 1829-1842.	1.2	74
47	Molecular Origin of the Intrinsic Bending Force for Helical Morphology Observed in Chiral Amphiphilic Assemblies:Â Concentration and Size Dependence. Journal of the American Chemical Society, 1996, 118, 11208-11216.	6.6	74
48	Polarization relaxation, dielectric dispersion, and solvation dynamics in dense dipolar liquid. Journal of Chemical Physics, 1989, 90, 7338-7345.	1.2	73
49	Beyond the Classical Transport Laws of Electrochemistry:Â New Microscopic Approach to Ionic Conductance and Viscosity. Journal of Physical Chemistry B, 2000, 104, 9067-9080.	1.2	73
50	Comparison of the ultrafast to slow time scale dynamics of three liquid crystals in the isotropic phase. Journal of Chemical Physics, 2002, 116, 6339-6347.	1.2	73
51	Structural and Electronic Characterization of Chemical and Conformational Defects in Conjugated Polymers. Journal of Physical Chemistry B, 2001, 105, 6103-6107.	1.2	72
52	The role of translational diffusion in the polarization relaxation in dense polar liquids. Chemical Physics Letters, 1988, 151, 47-53.	1.2	70
53	Temperature dependence of water dynamics at an aqueous micellar surface: Atomistic molecular dynamics simulation studies of a complex system. Journal of Chemical Physics, 2002, 117, 2852-2859.	1.2	69
54	Ultrafast underdamped solvation: Agreement between computer simulation and various theories of solvation dynamics. Journal of Chemical Physics, 1993, 99, 1310-1319.	1.2	67

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55	Dimethyl sulfoxide induced structural transformations and non-monotonic concentration dependence of conformational fluctuation around active site of lysozyme. Journal of Chemical Physics, 2012, 136, 115103.	1.2	67
56	Ionic mobility in alcohols: From dielectric friction to the solventâ€“berg model. Journal of Chemical Physics, 1997, 106, 5587-5598.	1.2	66
57	Fluorescence resonance energy transfer (FRET) in chemistry and biology: Non-FÃ¶rster distance dependence of the FRET rate. Journal of Chemical Sciences, 2006, 118, 23-35.	0.7	66
58	Two-Dimensional Reaction Free Energy Surfaces of Catalytic Reaction:â€‰ Effects of Protein Conformational Dynamics on Enzyme Catalysis. Journal of Physical Chemistry B, 2008, 112, 454-466.	1.2	66
59	Structural Transformations, Composition Anomalies and a Dramatic Collapse of Linear Polymer Chains in Dilute Ethanolâ€“Water Mixtures. Journal of Physical Chemistry B, 2012, 116, 3713-3722.	1.2	66
60	Liquid crystal dynamics in the isotropic phase. Journal of Chemical Physics, 2002, 116, 360.	1.2	65
61	Influence of non-Debye relaxation and of molecular shape on the time dependence of the stokes shift in polar media. Chemical Physics Letters, 1988, 143, 270-276.	1.2	64
62	Ionic contribution to the viscosity of dilute electrolyte solutions: Towards a microscopic theory. Journal of Chemical Physics, 2000, 113, 3226-3232.	1.2	64
63	Molecular theory of solvation and solvation dynamics of a classical ion in a dipolar liquid. The Journal of Physical Chemistry, 1989, 93, 6996-7003.	2.9	63
64	Exploring DNA groove water dynamics through hydrogen bond lifetime and orientational relaxation. Journal of Chemical Physics, 2006, 125, 234903.	1.2	63
65	Mode Coupling Theory Approach to the Liquid-State Dynamics. Advances in Chemical Physics, 2007, , 67-221.	0.3	62
66	Diffusion of flexible, charged, nanoscopic molecules in solution: Size and pH dependence for PAMAM dendrimer. Journal of Chemical Physics, 2009, 131, 214901.	1.2	61
67	Atomistic Simulation Study of the Coupled Motion of Amino Acid Residues and Water Molecules around Protein HP-36: Fluctuations at and around the Active Sites. Journal of Physical Chemistry B, 2004, 108, 12608-12616.	1.2	60
68	Dipolar solvation dynamics. Faraday Discussions of the Chemical Society, 1988, 85, 199.	2.2	55
69	Pressure and temperature dependence of viscosity and diffusion coefficients of a glassy binary mixture. Journal of Chemical Physics, 2002, 116, 4577-4586.	1.2	55
70	5â€ƒâ€ƒWater solvation dynamics in the bulk and in the hydration layer of proteins and self-assemblies. Annual Reports on the Progress of Chemistry Section C, 2003, 99, 127-175.	4.4	55
71	Hydrogen Bond Breaking Mechanism and Water Reorientational Dynamics in the Hydration Layer of Lysozyme. Journal of Physical Chemistry B, 2008, 112, 9112-9117.	1.2	53
72	Solvation Dynamics in Slow, Viscous Liquids:Â Application to Amidesâ€. The Journal of Physical Chemistry, 1996, 100, 1238-1245.	2.9	52

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73	Limiting Ionic Conductance of Symmetrical, Rigid Ions in Aqueous Solutions:Â Temperature Dependence and Solvent Isotope Effects. Journal of the American Chemical Society, 1997, 119, 5946-5953.	6.6	52
74	Anisotropic diffusion of spheroids in liquids: Slow orientational relaxation of the oblates. Journal of Chemical Physics, 2002, 116, 1092-1096.	1.2	50
75	Contribution to the theory of freezing. Journal of Chemical Physics, 1983, 79, 5595-5604.	1.2	49
76	Prediction of the Senses of Helical Amphiphilic Assemblies from Effective Intermolecular Pair Potential:Â Studies on Chiral Monolayers and Bilayers. Journal of Physical Chemistry A, 1997, 101, 1343-1351.	1.1	49
77	Fluctuating micro-heterogeneity in waterâ€“tert-butyl alcohol mixtures and lambda-type divergence of the mean cluster size with phase transition-like multiple anomalies. Journal of Chemical Physics, 2014, 140, 194502.	1.2	49
78	Isomerization dynamics in solution. International Reviews in Physical Chemistry, 1987, 6, 1-33.	0.9	48
79	Solvation Dynamics in Monohydroxy Alcohols:â€‰ Agreement between Theory and Different Experiments. Journal of Physical Chemistry B, 1997, 101, 2968-2979.	1.2	48
80	Solvent Sensitivity of Protein Unfolding: Dynamical Study of Chicken Villin Headpiece Subdomain in Waterâ€“Ethanol Binary Mixture. Journal of Physical Chemistry B, 2013, 117, 15625-15638.	1.2	48
81	Relationship between microscopic and macroscopic orientational relaxation times in polar liquids. The Journal of Physical Chemistry, 1990, 94, 3152-3156.	2.9	47
82	Nonideality in the composition dependence of viscosity in binary mixtures. Journal of Chemical Physics, 2001, 114, 6220-6228.	1.2	47
83	Correlation between rate of folding, energy landscape, and topology in the folding of a model protein HP-36. Journal of Chemical Physics, 2003, 118, 4733-4747.	1.2	47
84	Enhanced Tetrahedral Ordering of Water Molecules in Minor Grooves of DNA: Relative Role of DNA Rigidity, Nanoconfinement, and Surface Specific Interactions. Journal of Physical Chemistry B, 2010, 114, 3633-3638.	1.2	47
85	Solvation dynamics of tryptophan in water-dimethyl sulfoxide binary mixture: In search of molecular origin of composition dependent multiple anomalies. Journal of Chemical Physics, 2013, 139, 034308.	1.2	47
86	Protein Hydration Dynamics: Much Ado about Nothing?. Journal of Physical Chemistry Letters, 2017, 8, 4878-4882.	2.1	47
87	Enhancement of reaction rate in small-sized droplets: A combined analytical and simulation study. Journal of Chemical Physics, 2018, 148, 244704.	1.2	47
88	Orientation-dependent potential of mean force for protein folding. Journal of Chemical Physics, 2005, 123, 014901.	1.2	46
89	Elucidating the Mechanism of Nucleation near the Gas-Liquid Spinodal. Physical Review Letters, 2007, 98, 206104.	2.9	46
90	Crucial role of fragmented and isolated defects in persistent relaxation of deeply supercooled water. Journal of Chemical Physics, 2018, 149, 124504.	1.2	46

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91	Exotic dielectric behavior of polar liquids. Journal of Chemical Physics, 1989, 91, 3056-3060.	1.2	45
92	Bridging the gap between the mode coupling and the random first order transition theories of structural relaxation in liquids. Physical Review E, 2005, 72, 031509.	0.8	45
93	From anomalies in neat liquid to structure, dynamics and function in the biological world. Chemical Physics Letters, 2012, 529, 1-9.	1.2	45
94	Dynamical control by water at a molecular level in protein dimer association and dissociation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2302-2308.	3.3	43
95	On the theory of barrierless electronic relaxation in solution. Journal of Chemical Physics, 1987, 87, 5393-5402.	1.2	42
96	Interplay Between Ultrafast Polar Solvation and Vibrational Dynamics in Electron Transfer Reactions: Role of High-Frequency Vibrational Modes. Advances in Chemical Physics, 2007, , 1-80.	0.3	42
97	Comparative Study of Protein Unfolding in Aqueous Urea and Dimethyl Sulfoxide Solutions: Surface Polarity, Solvent Specificity, and Sequence of Secondary Structure Melting. Journal of Physical Chemistry B, 2014, 118, 5691-5697.	1.2	42
98	Power law mass dependence of diffusion: A mode coupling theory analysis. Physical Review E, 2000, 61, 3850-3856.	0.8	41
99	Energy Landscape, Antiplasticization, and Polydispersity Induced Crossover of Heterogeneity in Supercooled Polydisperse Liquids. Physical Review Letters, 2008, 100, 167801.	2.9	40
100	Free Energy Barriers for Escape of Water Molecules from Protein Hydration Layer. Journal of Physical Chemistry B, 2012, 116, 2958-2968.	1.2	40
101	Hydrophobic hydration driven self-assembly of curcumin in water: Similarities to nucleation and growth under large metastability, and an analysis of water dynamics at heterogeneous surfaces. Journal of Chemical Physics, 2014, 141, 18C501.	1.2	40
102	Distinguishing dynamical features of water inside protein hydration layer: Distribution reveals what is hidden behind the average. Journal of Chemical Physics, 2017, 147, 024901.	1.2	40
103	Stability of a supercooled liquid to periodic density waves and dynamics of freezing. Physica A: Statistical Mechanics and Its Applications, 1987, 145, 273-289.	1.2	39
104	Computer simulation and mode coupling theory study of the effects of specific soluteâ€“solvent interactions on diffusion: Crossover from a sub-slip to a super-stick limit of diffusion. Journal of Chemical Physics, 1999, 110, 4477-4482.	1.2	39
105	What Gives an Insulin Hexamer Its Unique Shape and Stability? Role of Ten Confined Water Molecules. Journal of Physical Chemistry B, 2018, 122, 1631-1637.	1.2	39
106	Solvation of an ion and of a dipole in a dipolar liquid: How different are the dynamics?. Chemical Physics Letters, 1989, 155, 533-538.	1.2	38
107	Needlelike motion of prolate ellipsoids in the sea of spheres. Journal of Chemical Physics, 2001, 114, 7989-7992.	1.2	38
108	Native and Unfolded Cytochromecâ€”Comparison of Dynamics using 2D-IR Vibrational Echo Spectroscopy. Journal of Physical Chemistry B, 2008, 112, 10054-10063.	1.2	38

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109	Rotation driven translational diffusion of polyatomic ions in water: A novel mechanism for breakdown of Stokes-Einstein relation. Journal of Chemical Physics, 2017, 146, 164502.	1.2	38
110	Role of Water in the Enzymatic Catalysis: Study of ATP + AMP â†' 2ADP Conversion by Adenylate Kinase. Journal of Physical Chemistry A, 2011, 115, 3691-3697.	1.1	37
111	Anomalous Behavior of Linear Hydrocarbon Chains in Waterâ€"DMSO Binary Mixture at Low DMSO Concentration. Journal of Physical Chemistry B, 2011, 115, 7612-7620.	1.2	37
112	Dynamic coupling between the LID and NMP domain motions in the catalytic conversion of ATP and AMP to ADP by adenylate kinase. Journal of Chemical Physics, 2011, 134, 035101.	1.2	37
113	Relationship between entropy and diffusion: A statistical mechanical derivation of Rosenfeld expression for a rugged energy landscape. Journal of Chemical Physics, 2015, 143, 194110.	1.2	37
114	Insulin dimer dissociation in aqueous solution: A computational study of free energy landscape and evolving microscopic structure along the reaction pathway. Journal of Chemical Physics, 2018, 149, 114902.	1.2	37
115	Water in Carbon Nanotubes: Pronounced Anisotropy in Dielectric Dispersion and Its Microscopic Origin. Journal of Physical Chemistry Letters, 2019, 10, 6287-6292.	2.1	37
116	Ionsâ€™ motion in water. Journal of Chemical Physics, 2019, 150, 190901.	1.2	37
117	Molecular theory of ultrafast solvation in liquid acetonitrile. Journal of Chemical Physics, 1993, 99, 3139-3142.	1.2	36
118	Role of conformational dynamics in kinetics of an enzymatic cycle in a nonequilibrium steady state. Journal of Chemical Physics, 2009, 131, 065104.	1.2	36
119	Dielectric and orientational relaxation in a Brownian dipolar lattice. Journal of Chemical Physics, 1992, 97, 3610-3620.	1.2	35
120	Solvation Dynamics in Nonassociated Polar Solvents. Journal of Physical Chemistry A, 1999, 103, 2495-2500.	1.1	35
121	Decoupling Phenomena in Supercooled Liquids: Signatures in the Energy Landscape. Physical Review Letters, 2006, 96, 187801.	2.9	35
122	Origin of diverse time scales in the protein hydration layer solvation dynamics: A simulation study. Journal of Chemical Physics, 2017, 147, 154901.	1.2	35
123	Mechanism of Solvent Control of Protein Dynamics. Physical Review Letters, 2019, 122, 058101.	2.9	35
124	Activated barrier crossing dynamics in slow, viscous liquids. Journal of Chemical Physics, 1996, 105, 7543-7549.	1.2	34
125	Vibrational energy relaxation, nonpolar solvation dynamics and instantaneous normal modes: Role of binary interaction in the ultrafast response of a dense liquid. Journal of Chemical Physics, 1998, 108, 4963-4971.	1.2	34
126	Time-dependent survival probability in diffusion-controlled reactions in a polymer chain: Beyond the Wilemskiâ€"Fixman theory. Journal of Chemical Physics, 2002, 116, 7276-7282.	1.2	34

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127	Unique Features of Metformin: A Combined Experimental, Theoretical, and Simulation Study of Its Structure, Dynamics, and Interaction Energetics with DNA Grooves. Journal of Physical Chemistry B, 2018, 122, 2227-2242.	1.2	33
128	New results in the theory of barrierless electronic relaxation in solution. Chemical Physics Letters, 1987, 135, 558-564.	1.2	32
129	Time dependent solution of generalized Zusman model of outersphere electron transfer reactions: Applications to various experimental situations. Journal of Chemical Physics, 1994, 100, 8802-8816.	1.2	32
130	Bimodality of the viscoelastic response of a dense liquid and comparison with the frictional responses at short times. Journal of Chemical Physics, 1998, 109, 7885-7892.	1.2	32
131	Isomerization dynamics in viscous liquids: Microscopic investigation of the coupling and decoupling of the rate to and from solvent viscosity and dependence on the intermolecular potential. Journal of Chemical Physics, 1999, 110, 7365-7375.	1.2	32
132	Non-monotonic dependence of electronic relaxation rate on solvent viscosity. Chemical Physics Letters, 1983, 99, 225-231.	1.2	31
133	Microscopic theory of ion solvation dynamics in liquid methanol. Journal of Chemical Physics, 1994, 101, 4150-4155.	1.2	31
134	Effects of Ultrafast Solvation on the Rate of Adiabatic Outer-Sphere Electron Transfer Reactions. The Journal of Physical Chemistry, 1994, 98, 9207-9215.	2.9	31
135	Breakdown of Onsagerâ€™s conjecture on distance dependent polarization relaxation in solvation dynamics. Journal of Chemical Physics, 1989, 91, 2594-2598.	1.2	30
136	FRET by FET and Dynamics of Polymer Folding. Journal of Physical Chemistry B, 2001, 105, 2475-2478.	1.2	30
137	Effects of vibrational energy relaxation and reverse reaction on electron transfer kinetics and fluorescence line shapes in solution. Journal of Chemical Physics, 2001, 115, 6058-6071.	1.2	30
138	Nonexponentiality of time dependent survival probability and the fractional viscosity dependence of the rate in diffusion controlled reactions in a polymer chain. Journal of Chemical Physics, 2001, 114, 9170-9178.	1.2	30
139	The Enskog theory for transport coefficients of simple fluids with continuous potentials. Journal of Chemical Physics, 2001, 114, 6276-6285.	1.2	30
140	Decoupling of tracer diffusion from viscosity in a supercooled liquid near the glass transition. Journal of Chemical Physics, 1997, 107, 5852-5862.	1.2	29
141	Molecular Origin of the Debyeâ€“Huckelâ€“Onsager Limiting Law of Ion Conductance and Its Extension to High Concentrations:Â Mode Coupling Theory Approach to Electrolyte Friction. Journal of the American Chemical Society, 1999, 121, 4082-4083.	6.6	29
142	String-like propagation of the 5-coordinated defect state in supercooled water: molecular origin of dynamic and thermodynamic anomalies. Physical Chemistry Chemical Physics, 2011, 13, 16220.	1.3	29
143	Water Layer at Hydrophobic Surface: Electrically Dead but Dynamically Alive?. Nano Letters, 2020, 20, 8959-8964.	4.5	29
144	Effect of Orientational Motion of Mobile Chromophores on the Dynamics of FÃ¶rster Energy Transfer in Polymers. Journal of Physical Chemistry B, 2001, 105, 9370-9374.	1.2	28

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145	Anomalous dielectric relaxation of water molecules at the surface of an aqueous micelle. Journal of Chemical Physics, 2004, 120, 1912-1920.	1.2	28
146	Intermittent Dynamics, Stochastic Resonance and Dynamical Heterogeneity in Supercooled Liquid Water. Journal of Physical Chemistry B, 2009, 113, 2221-2224.	1.2	28
147	Anisotropic Local Stress and Particle Hopping in a Deeply Supercooled Liquid. Physical Review Letters, 2002, 89, 025504.	2.9	27
148	Rate of excitation energy transfer between fluorescent dyes and nanoparticles. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 190, 335-341.	2.0	27
149	Self-Organization of n-Alkane Chains in Water: Length Dependent Crossover from Helix and Toroid to Molten Globule. Journal of Physical Chemistry B, 2009, 113, 8446-8448.	1.2	27
150	Non-monotonic, distance-dependent relaxation of water in reverse micelles: Propagation of surface induced frustration along hydrogen bond networks. Journal of Chemical Physics, 2012, 137, 014515.	1.2	27
151	Nucleation of a Stable Solid from Melt in the Presence of Multiple Metastable Intermediate Phases: Wetting, Ostwaldâ€™s Step Rule, and Vanishing Polymorphs. Journal of Physical Chemistry B, 2013, 117, 13154-13163.	1.2	27
152	Stability of fluctuating and transient aggregates of amphiphilic solutes in aqueous binary mixtures: Studies of dimethylsulfoxide, ethanol, and tert-butyl alcohol. Journal of Chemical Physics, 2013, 139, 164301.	1.2	27
153	Diffusion on a rugged energy landscape with spatial correlations. Journal of Chemical Physics, 2014, 141, 124105.	1.2	27
154	Effect of excitation on non-Markovian vibrational energy relaxation. The Journal of Physical Chemistry, 1982, 86, 2197-2205.	2.9	26
155	Microscopic study of inertial and viscoelastic effects in dipolar solvation dynamics. Journal of Chemical Physics, 1993, 99, 553-562.	1.2	26
156	Solvation dynamics, energy distribution and trapping of a light solute ion. Chemical Physics, 1994, 183, 207-216.	0.9	26
157	Self-Consistent Microscopic Treatment of the Effects of Self-Motion of the Probe on Ionic and Dipolar Solvation Dynamics. The Journal of Physical Chemistry, 1996, 100, 4261-4268.	2.9	26
158	Contact pair dynamics during folding of two small proteins: Chicken villin head piece and the Alzheimer protein Î²-amyloid. Journal of Chemical Physics, 2004, 120, 1602-1612.	1.2	26
159	Universal Power Law in the Orientational Relaxation in Thermotropic Liquid Crystals. Physical Review Letters, 2005, 95, 197801.	2.9	26
160	Coupled jump rotational dynamics in aqueous nitrate solutions. Journal of Chemical Physics, 2016, 145, 234502.	1.2	26
161	Isomerization dynamics in solution in the absence of an activation barrier: Evaluation of the potential parameters. Chemical Physics Letters, 1985, 115, 209-211.	1.2	25
162	Molecular Theory for the Effects of Specific Soluteâ”Solvent Interaction on the Diffusion of a Solute Particle in a Molecular Liquid. Journal of Physical Chemistry B, 1998, 102, 3252-3256.	1.2	25

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163	Microscopic derivation of the Hubbardâ€“Onsagerâ€“Zwanzig expression of limiting ionic conductivity. Journal of Chemical Physics, 1998, 109, 3989-3993.	1.2	25
164	Coupling between hydration layer dynamics and unfolding kinetics of HP-36. Journal of Chemical Physics, 2006, 125, 084912.	1.2	25
165	Anomalous dielectric response of nanoconfined water. Journal of Chemical Physics, 2021, 154, 044501.	1.2	25
166	Statistical Mechanics for Chemistry and Materials Science. , 0, , .		25
167	Dynamics of polar solvation: Route to single exponential relaxation via translational diffusion. Proceedings of the Indian Academy of Sciences - Section A, 1988, 100, 353-357.	0.2	25
168	Bimodality of cluster-size distribution and condensation in a finite Lennard-Jones system. Physical Review B, 1981, 24, 2893-2902.	1.1	24
169	Analysis of differing experimental results in barrierless reactions in solution. Chemical Physics Letters, 1989, 162, 227-232.	1.2	24
170	Foldability and the funnel of HP-36 protein sequence: Use of hydropathy scale in protein folding. Journal of Chemical Physics, 2002, 116, 8579.	1.2	24
171	Hydration dynamics of protein molecules in aqueous solution: Unity among diversity#. Journal of Chemical Sciences, 2012, 124, 317-325.	0.7	24
172	Chemical Unfolding of Chicken Villin Headpiece in Aqueous Dimethyl Sulfoxide Solution: Cosolvent Concentration Dependence, Pathway, and Microscopic Mechanism. Journal of Physical Chemistry B, 2013, 117, 4488-4502.	1.2	24
173	Effect of ethanol on insulin dimer dissociation. Journal of Chemical Physics, 2019, 150, 084902.	1.2	24
174	Thermodynamic picture of vitrification of water through complex specific heat and entropy: A journey through â€œno manâ€™s landâ€. Journal of Chemical Physics, 2019, 150, 054502.	1.2	24
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