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	Inhomogeneous phase separation kinetics in liquid binary mixtures: Sensitivity to initial local composition â€. Journal of the Indian Chemical Society, 2022, 99, 100346.	1.3	0
2	Tug-of-War between Internal and External Frictions and Viscosity Dependence of Rate in Biological Reactions. Physical Review Letters, 2022, 128, 108101.	2.9	14
3	Non-Markovian rate theory on a multidimensional reaction surface: Complex interplay between enhanced configuration space and memory. Journal of Chemical Physics, 2022, 156, 134101.	1.2	2
4	A Redox-Active 2-D Covalent Organic Framework as a Cathode in an Aqueous Mixed-Ion Electrolyte Zn-Ion Battery: Experimental and Theoretical Investigations. ACS Sustainable Chemistry and Engineering, 2022, 10, 6205-6216.	3.2	19
5	Correlation lengths in nanoconfined water and transport properties. Journal of Chemical Physics, 2022, 156, .	1.2	4
6	Anomalous dielectric response of nanoconfined water. Journal of Chemical Physics, 2021, 154, 044501.	1.2	25
7	An exact solution in the theory of fluorescence resonance energy transfer with vibrational relaxation. Journal of Chemical Physics, 2021, 154, 134104.	1.2	3
8	Excitation Energy Transfer Efficiency in Fluctuating Environments: Role of Quantum Coherence in the Presence of Memory Effects. Journal of Physical Chemistry A, 2021, 125, 4695-4704.	1.1	1
9	Unfolding of Dynamical Events in the Early Stage of Insulin Dimer Dissociation. Journal of Physical Chemistry B, 2021, 125, 7958-7966.	1.2	6
10	Rate of Insulin Dimer Dissociation: Interplay between Memory Effects and Higher Dimensionality. Journal of Physical Chemistry B, 2021, 125, 9678-9691.	1.2	14
11	Comment on â€œinvestigation of dielectric constants of water in a nano-confined poreâ€•by H. Zhu, F. Yang, Y. Zhu, A. Li, W. He, J. Huang and G. Li, RSC Adv., 2020, 10, 8628. RSC Advances, 2021, 11, 5179-5181.	1.7	2
12	Structural Stability of Insulin Oligomers and Protein Associationâ€“Dissociation Processes: Free Energy Landscape and Universal Role of Water. Journal of Physical Chemistry B, 2021, 125, 11793-11811.	1.2	11
13	Rigid Cations Induce Enhancement of Microheterogeneity and Exhibit Anomalous Ion Diffusion in Waterâ€“Ethanol Mixtures. Journal of Physical Chemistry B, 2021, 125, 12274-12291.	1.2	3
14	Stochastic formulation of multiwave pandemic: decomposition of growth into inherent susceptibility and external infectivity distributions. Journal of Chemical Sciences, 2021, 133, 118.	0.7	2
15	Water Layer at Hydrophobic Surface: Electrically Dead but Dynamically Alive?. Nano Letters, 2020, 20, 8959-8964.	4.5	29
16	Role of local order in anomalous ion diffusion: Interrogation through tetrahedral entropy of aqueous solvation shells. Journal of Chemical Physics, 2020, 153, 154505.	1.2	8
17	Fluctuation theory of immune response: A statistical mechanical approach to understand pathogen induced T-cell population dynamics. Journal of Chemical Physics, 2020, 153, 045107.	1.2	8
18	Quantum Coherence and Its Signatures in Extended Quantum Systems. Journal of Physical Chemistry B, 2020, 124, 4551-4563.	1.2	9

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19	How different are the dynamics of nanoconfined water?. Journal of Chemical Physics, 2020, 152, 224707.	1.2	15
20	Entropic Origin of the Attenuated Width of the Iceâ€“Water Interface. Journal of Physical Chemistry C, 2020, 124, 7334-7340.	1.5	13
21	Ion pair correlations due to interference between solvent polarizations induced in water. Journal of Chemical Physics, 2020, 152, 064501.	1.2	1
22	Rotation of small diatomics in waterâ€“ethanol mixture: Multiple breakdowns of hydrodynamic predictions. Journal of Chemical Physics, 2020, 153, 014504.	1.2	1
23	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
24	Microscopic origin of breakdown of Stokesâ€“Einstein relation in binary mixtures: Inherent structure analysis. Journal of Chemical Physics, 2020, 152, 164507.	1.2	10
25	Mathematical modeling and cellular automata simulation of infectious disease dynamics: Applications to the understanding of herd immunity. Journal of Chemical Physics, 2020, 153, 114119.	1.2	11
26	Study of entropyâ€“diffusion relation in deterministic Hamiltonian systems through microscopic analysis. Journal of Chemical Physics, 2020, 153, 184701.	1.2	9
27	Dynamics of linear molecules in water: Translation-rotation coupling in jump motion driven diffusion. Journal of Chemical Physics, 2019, 151, 034301.	1.2	8
28	Facilitation of Nucleation of Polymorphic Solids due to the Presence of Multiple Metastable Phases: Effects of Nonclassical Surface Tension. Journal of Physical Chemistry C, 2019, 123, 21207-21212.	1.5	2
29	Destabilization of Insulin Hexamer in Waterâ€“Ethanol Binary Mixture. Journal of Physical Chemistry B, 2019, 123, 10365-10375.	1.2	10
30	Non-linearity in dipolar solvation dynamics in water-ethanol mixture: Composition dependence of free energy landscape. Journal of Chemical Physics, 2019, 151, 084502.	1.2	6
31	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
32	Unfolding Dynamics of Ubiquitin from Constant Force MD Simulation: Entropyâ€“Enthalpy Interplay Shapes the Free-Energy Landscape. Journal of Physical Chemistry B, 2019, 123, 1228-1236.	1.2	9
33	Ionsâ€™ motion in water. Journal of Chemical Physics, 2019, 150, 190901.	1.2	37
34	Effect of ethanol on insulin dimer dissociation. Journal of Chemical Physics, 2019, 150, 084902.	1.2	24
35	Three-stage phase separation kinetics in a model liquid binary mixture: A computational study. Journal of Chemical Physics, 2019, 150, 144501.	1.2	4
36	Delocalization and Quantum Entanglement in Physical Systems. Journal of Physical Chemistry Letters, 2019, 10, 2037-2043.	2.1	5

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37	Mechanism of Solvent Control of Protein Dynamics. Physical Review Letters, 2019, 122, 058101.	2.9	35
38	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
39	Anomalous viscoelastic response of water-dimethyl sulfoxide solution and a molecular explanation of non-monotonic composition dependence of viscosity. Journal of Chemical Physics, 2019, 151, 194505.	1.2	8
40	Understanding enhanced mechanical stability of DNA in the presence of intercalated anticancer drug: Implications for DNA associated processes. Journal of Chemical Physics, 2019, 151, 164902.	1.2	10
41	Altered polar character of nanoconfined liquid water. Physical Review Research, 2019, 1, .	1.3	15
42	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
43	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
44	Temperature effects on the hydrophobic force between two graphene-like surfaces in liquid water. Journal of Chemical Sciences, 2018, 130, 1.	0.7	4
45	Collective excitations and ultrafast dipolar solvation dynamics in water-ethanol binary mixture. Journal of Chemical Physics, 2018, 148, 114506.	1.2	8
46	Onsagerâ€™s Reciprocal Relations. Resonance, 2018, 23, 1073-1075.	0.2	1
47	Effects of metastable phases on surface tension, nucleation, and the disappearance of polymorphs. Journal of Chemical Physics, 2018, 149, 214704.	1.2	8
48	Lars Onsager (1903â€“1976). Resonance, 2018, 23, 1061-1071.	0.2	0
49	Crucial role of fragmented and isolated defects in persistent relaxation of deeply supercooled water. Journal of Chemical Physics, 2018, 149, 124504.	1.2	46
50	DNA Solvation Dynamics. Journal of Physical Chemistry B, 2018, 122, 11743-11761.	1.2	20
51	Dynamics of a binary mixture of non-spherical molecules: Test of hydrodynamic predictions. Journal of Chemical Physics, 2018, 149, 124508.	1.2	5
52	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
53	Polymorph selection during crystallization of a model colloidal fluid with a free energy landscape containing a metastable solid. Physical Review E, 2018, 98, .	0.8	10
54	Enhancement of reaction rate in small-sized droplets: A combined analytical and simulation study. Journal of Chemical Physics, 2018, 148, 244704.	1.2	47

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55	Study of distance dependence of hydrophobic force between two graphene-like walls and a signature of pressure induced structure formation in the confined water. Journal of Chemical Physics, 2018, 149, 044502.	1.2	11
56	Infrared spectroscopic study of super-critical water across the Widom line. Chemical Physics Letters, 2018, 702, 96-101.	1.2	7
57	Non-equilibrium solvation dynamics in water-DMSO binary mixture: Composition dependence of non-linear relaxation. Journal of Chemical Physics, 2018, 149, 084501.	1.2	14
58	Rotational dynamics of polyatomic ions in aqueous solutions: From continuum model to mode-coupling theory, aided by computer simulations. Journal of Chemical Physics, 2018, 148, 224504.	1.2	7
59	Anomalous water dynamics at surfaces and interfaces: synergistic effects of confinement and surface interactions. Journal of Physics Condensed Matter, 2018, 30, 013001.	0.7	17
60	Role of quantum coherence in shaping the line shape of an exciton interacting with a spatially and temporally correlated bath. Journal of Chemical Physics, 2017, 146, 194902.	1.2	9
61	Decomposition of total solvation energy into core, side-chains and water contributions: Role of cross correlations and protein conformational fluctuations in dynamics of hydration layer. Chemical Physics Letters, 2017, 683, 29-37.	1.2	17
62	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
63	Collective excitations in liquid dimethyl sulfoxide (DMSO): FIR spectrum, low frequency vibrational density of states, and ultrafast dipolar solvation dynamics. Journal of Chemical Physics, 2017, 146, 024505.	1.2	9
64	Protein Hydration Dynamics: Much Ado about Nothing?. Journal of Physical Chemistry Letters, 2017, 8, 4878-4882.	2.1	47
65	Environment-Assisted Quantum Coherence in Photosynthetic Complex. Journal of Physical Chemistry Letters, 2017, 8, 5566-5572.	2.1	15
66	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
67	A mode-coupling theory analysis of the observed diffusion anomaly in aqueous polyatomic ions. Journal of Chemical Physics, 2017, 147, 124502.	1.2	8
68	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
69	Breakdown of universal Lindemann criterion in the melting of Lennard-Jones polydisperse solids. Journal of Chemical Sciences, 2017, 129, 833-840.	0.7	12
70	10.1063/1.4973641.1. , 2017, , .		0
71	10.1063/1.4981257.1. , 2017, , .		0
72	Anomalous dimensionality dependence of diffusion in a rugged energy landscape: How pathological is one dimension?. Journal of Chemical Physics, 2016, 144, 194106.	1.2	11

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73	Effects of dynamic disorder on exciton migration: Quantum diffusion, coherences, and energy transfer. Journal of Chemical Physics, 2016, 145, 164907.	1.2	19
74	Coupled jump rotational dynamics in aqueous nitrate solutions. Journal of Chemical Physics, 2016, 145, 234502.	1.2	26
75	Temperature Dependence of Static and Dynamic Heterogeneities in a Waterâ€“Ethanol Binary Mixture and a Study of Enhanced, Short-Lived Fluctuations at Low Concentrations. Journal of Physical Chemistry B, 2016, 120, 12568-12583.	1.2	19
76	Untangling complex dynamics of biological water at proteinâ€“water interface. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8355-8357.	3.3	20
77	Mode coupling theory analysis of electrolyte solutions: Time dependent diffusion, intermediate scattering function, and ion solvation dynamics. Journal of Chemical Physics, 2015, 142, 124502.	1.2	9
78	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
79	Use of polydispersity index as control parameter to study melting/freezing of Lennard-Jones system: Comparison among predictions of bifurcation theory with Lindemann criterion, inherent structure analysis and Hansen-Verlet rule. Journal of Chemical Sciences, 2015, 127, 1715-1728.	0.7	4
80	Local and Global Dynamics: general discussion. Faraday Discussions, 2015, 177, 381-403.	1.6	0
81	Composition dependent non-ideality in aqueous binary mixtures as a signature of avoided spinodal decomposition. Journal of Chemical Sciences, 2015, 127, 49-59.	0.7	12
82	Orientational order as the origin of the long-range hydrophobic effect. Journal of Chemical Physics, 2015, 142, 134505.	1.2	15
83	Spatio-temporal correlations in aqueous systems: computational studies of static and dynamic heterogeneity by 2D-IR spectroscopy. Faraday Discussions, 2015, 177, 313-328.	1.6	7
84	Ultrafast Chemical Dynamics in Time Domain Through Fluorescence Spectroscopy. Proceedings of the National Academy of Sciences India Section A - Physical Sciences, 2015, 85, 483-488.	0.8	0
85	Sensitivity of polarization fluctuations to the nature of protein-water interactions: Study of biological water in four different protein-water systems. Journal of Chemical Physics, 2014, 141, 22D531.	1.2	23
86	Correlation between thermodynamic anomalies and pathways of ice nucleation in supercooled water. Journal of Chemical Physics, 2014, 140, 164503.	1.2	15
87	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
88	Multidimensional free energy surface of unfolding of HP-36: Microscopic origin of ruggedness. Journal of Chemical Physics, 2014, 141, 135101.	1.2	13
89	Diffusion on a rugged energy landscape with spatial correlations. Journal of Chemical Physics, 2014, 141, 124105.	1.2	27
90	Anomalous power law decay in solvation dynamics of DNA: a mode coupling theory analysis of ion contribution. Molecular Physics, 2014, 112, 1418-1426.	0.8	13

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91	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
92	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
93	A Stochastic Chemical Dynamic Approach to Correlate Autoimmunity and Optimal Vitamin-D Range. PLoS ONE, 2014, 9, e100635.	1.1	17
94	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
95	Anisotropy induced crossover from weakly to strongly first order melting of two dimensional solids. Journal of Chemical Physics, 2013, 138, 184507.	1.2	9
96	Solid-liquid transition in polydisperse Lennard-Jones systems. Physical Review E, 2013, 88, 022104.	0.8	14
97	Frequency dependence of specific heat in supercooled liquid water and emergence of correlated dynamics. Journal of Chemical Physics, 2013, 138, 094503.	1.2	22
98	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
99	Photochemical funnel in stiff conjugated polymers: interplay between defect mediated polymer conformations, side chain interactions and resonance energy transfer. Annual Reports on the Progress of Chemistry Section C, 2013, 109, 36.	4.4	2
100	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
101	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
102	Solid-solid collapse transition in a two dimensional model molecular system. Journal of Chemical Physics, 2013, 139, 194702.	1.2	2
103	Layerwise decomposition of water dynamics in reverse micelles: A simulation study of two-dimensional infrared spectrum. Journal of Chemical Physics, 2013, 139, 144906.	1.2	23
104	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
105	The amphiphilic effect: the diverse but intimate world of aqueous binary mixtures. , 2013, , 243-260.		2
106	Water in and around micelles, reverse micelles, and microemulsions. , 2013, , 261-276.		2
107	Dynamics of water: molecular motions and hydrogen-bond-breaking kinetics. , 2013, , 27-60.		1
108	Hydration of proteins. , 2013, , 117-134.		2

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109	Kinetic Proofreading at Single Molecular Level: Aminoacylation of tRNAIle and the Role of Water as an Editor. PLoS ONE, 2013, 8, e66112.	1.1	4
110	Sensitivity of nucleation phenomena on range of interaction potential. Journal of Chemical Physics, 2012, 136, 084701.	1.2	3
111	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
112	Free Energy Barriers for Escape of Water Molecules from Protein Hydration Layer. Journal of Physical Chemistry B, 2012, 116, 2958-2968.	1.2	40
113	Catalysis of tRNA Aminoacylation: Single Turnover to Steady-State Kinetics of tRNA Synthetases. Journal of Physical Chemistry B, 2012, 116, 11809-11817.	1.2	8
114	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
115	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
116	Hydration dynamics of protein molecules in aqueous solution: Unity among diversity#. Journal of Chemical Sciences, 2012, 124, 317-325.	0.7	24
117	From anomalies in neat liquid to structure, dynamics and function in the biological world. Chemical Physics Letters, 2012, 529, 1-9.	1.2	45
118	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
119	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
120	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
121	Gasâ€“liquid nucleation at large metastability: unusual features and a new formalism. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P03017.	0.9	7
122	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
123	Crossover dynamics at large metastability in gas-liquid nucleation. Physical Review E, 2011, 83, 031602.	0.8	7
124	Inherent structures of phase-separating binary mixtures: Nucleation, spinodal decomposition, and pattern formation. Physical Review E, 2011, 83, 031506.	0.8	13
125	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
126	Temperature dependent free energy surface of polymer folding from equilibrium and quench studies. Journal of Chemical Physics, 2010, 133, 214901.	1.2	4

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127	Interplay between multiple length and time scales in complex chemical systems. Journal of Chemical Sciences, 2010, 122, 459-470.	0.7	13
128	Subquadratic wavenumber dependence of the structural relaxation of supercooled liquid in the crossover regime. Journal of Chemical Physics, 2010, 132, 104503.	1.2	23
129	A kinetic Ising model study of dynamical correlations in confined fluids: Emergence of both fast and slow time scales. Journal of Chemical Physics, 2010, 133, 084509.	1.2	15
130	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
131	Polarization Caging in Diffusion-Controlled Electron Transfer Reactions in Solution. Journal of Physical Chemistry B, 2010, 114, 12284-12292.	1.2	3
132	Solvation dynamics in dipolar liquids. Chemical Society Reviews, 2010, 39, 1936.	18.7	197
133	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
134	Vibrational dynamics and boson peak in a supercooled polydisperse liquid. Physical Review E, 2010, 81, 031506.	0.8	3
135	Photophysics of conjugated polymers: interplay between FÃ¶rster energy migration and defect concentration in shaping a photochemical funnel in PPV. Physical Chemistry Chemical Physics, 2010, 12, 7427.	1.3	18
136	Line tension of a two dimensional gas-liquid interface. Journal of Chemical Physics, 2009, 131, 084705.	1.2	9
137	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
138	Nonspecifically bound proteins spin while diffusing along DNA. Nature Structural and Molecular Biology, 2009, 16, 1224-1229.	3.6	297
139	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
140	Dynamical Transition of Water in the Grooves of DNA Duplex at Low Temperature. Journal of Physical Chemistry B, 2009, 113, 4394-4399.	1.2	14
141	Intermittent Dynamics, Stochastic Resonance and Dynamical Heterogeneity in Supercooled Liquid Water. Journal of Physical Chemistry B, 2009, 113, 2221-2224.	1.2	28
142	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
143	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
144	Simulation Study of the Molecular Mechanism of Intercalation of the Anti-Cancer Drug Daunomycin into DNA. Springer Series in Chemical Physics, 2009, , 165-180.	0.2	0

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145	Vibrational phase relaxation of Oâ€“H stretch in bulk water: Role of large amplitude angular jumps and negative cross-correlations among the forces on the Oâ€“H bond. Chemical Physics, 2008, 343, 76-82.	0.9	6
146	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
147	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
148	Diffusion Constant of a Nonspecifically Bound Protein Undergoing Curvilinear Motion along DNA. Journal of Physical Chemistry B, 2008, 112, 6282-6284.	1.2	86
149	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
150	Excitation Energy Transfer between Non-Spherical Metal Nanoparticles:â€‰ Effects of Shape and Orientation on Distance Dependence of Transfer Rate. Journal of Physical Chemistry C, 2008, 112, 6299-6306.	1.5	15
151	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
152	Gas-liquid nucleation in a two dimensional system. Journal of Chemical Physics, 2008, 129, 234704.	1.2	19
153	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
154	Energy Landscape, Antiplasticization, and Polydispersity Induced Crossover of Heterogeneity in Supercooled Polydisperse Liquids. Physical Review Letters, 2008, 100, 167801.	2.9	40
155	Suppression of the rate of growth of dynamic heterogeneities and its relation to the local structure in a supercooled polydisperse liquid. Physical Review E, 2008, 78, 051501.	0.8	14
156	Chakrabarty, Santra, and Bagchi Reply:. Physical Review Letters, 2008, 101, .	2.9	8
157	Energy landscape view of nonideality in binary mixtures. Journal of Chemical Physics, 2007, 126, 074501.	1.2	9
158	Comparative study of temperature dependent orientational relaxation in a model thermotropic liquid crystal and in a model supercooled liquid. Journal of Chemical Physics, 2007, 126, 204906.	1.2	11
159	Glassy orientational dynamics of rodlike molecules near the isotropic-nematic transition. Physical Review E, 2007, 76, 011712.	0.8	9
160	Orientational relaxation in a discotic liquid crystal. Physical Review E, 2007, 75, 061703.	0.8	4
161	Mode Coupling Theory Approach to the Liquid-State Dynamics. Advances in Chemical Physics, 2007, , 67-221.	0.3	62
162	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

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163	Elucidating the Mechanism of Nucleation near the Gas-Liquid Spinodal. Physical Review Letters, 2007, 98, 206104.	2.9	46
164	Glassiness of Thermotropic Liquid Crystals across the Isotropicâ˜'Nematic Transition. Journal of Physical Chemistry B, 2007, 111, 11646-11657.	1.2	15
165	Collective Orientational Relaxation in Dense Dipolar Liquids. Advances in Chemical Physics, 2007, , 1-126.	0.3	165
166	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
167	Rate of excitation energy transfer between fluorescent dyes and nanoparticles. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 190, 335-341.	2.0	27
168	On the origin of the anomalous ultraslow solvation dynamics in heterogeneous environments. Journal of Chemical Sciences, 2007, 119, 113-121.	0.7	11
169	Orientational dynamics and energy landscape features of thermotropic liquid crystals: An analogy with supercooled liquids. Journal of Chemical Sciences, 2007, 119, 343-350.	0.7	4
170	Multiple short time power laws in the orientational relaxation of nematic liquid crystals. Journal of Chemical Physics, 2006, 125, 184901.	1.2	6
171	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
172	Exploration of the Secondary Structure Specific Differential Solvation Dynamics between the Native and Molten Globule States of the Protein HP-36. Journal of Physical Chemistry B, 2006, 110, 20629-20634.	1.2	18
173	Anomalous Orientation-Dependent Effective Pair Interaction among Histidine and Other Amino Acid Residues in Metalloproteins:Â Breakdown of the Hydropathy Scale Indexâ€. Biochemistry, 2006, 45, 5129-5139.	1.2	14
174	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
175	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
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